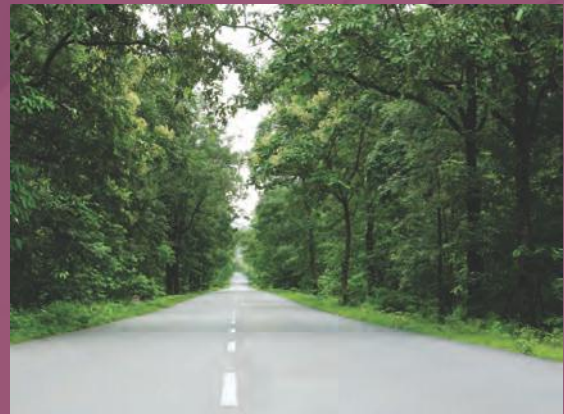# Telangana
Socio Economic
Outlook 2023

Government of Telangana

Telangana Socio Economic Outlook 2023

PLANNING DEPARTMENT

Preface

The Government of Telangana publishes the Socio Economic Outlook (SEO) annually and tables it in the State Legislature during the budget session. It presents the socio-economic performance of the State across various sectors and recognises the specific gaps and challenges to initiate appropriate action. It also presents the information on Government policies and flagship programmes, and analyses their performance. SEO 2023 highlights the major achievements of the State in relevant sections. Along with ensuring accountability and transparency, it also gives the Government an opportunity to reflect holistically on the existing and future pathways towards achieving 'Bangaru Telangana'.

SEO 2023 has been prepared based on the data from the State and Central Government departments, and has been supplemented by data from credible and autonomous sources, such as the Reserve Bank of India, NITI Aayog, Periodic Labour Force Survey, National Achievement Survey, etc. Through the 'box items' a consistent effort has been made to either present a case study of a successful reform/innovation that has been implemented in the State or elsewhere.

All this would not have been possible without the meticulous support of various line departments of the Government in providing the necessary information on time. The effort led by the dedicated team from the Directorate of Economics and Statistics (DES), Telangana State Development Planning Society (TSDPS) and Planning Department including Kakatiya Governance Fellows (KGF) and Centre for Effective Governance of Indian States (CEGIS) in the preparation of SEO 2023 is deeply appreciated.

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CHAPTER
1

OVERVIEW

Introduction

Telangana state was formed on the 2nd of June, 2014. It is a land-locked state located in the southern Indian peninsula on the Deccan Plateau, with Hyderabad as its capital. The region lies between 15°50'10" N and 19°55'4" N latitudes and 77°14'8" E and 81°19'16" E longitudes. It is bordered by Maharashtra on the North and North-West, Chhattisgarh on the East and North-East, Karnataka on the West, and Andhra Pradesh on the South and South-East.

Telangana is ranked 12th in the country in terms of population (350.04 Lakh as per the 2011 Census) and ranked 11th in terms of area (1,12,077 Sq. Km). The region is majorly drained by the Godavari and Krishna rivers with 79% and 69% catchment areas respectively. The official languages of the state are Telugu and Urdu. The state re-organised 10 districts into 33 districts, 459 mandals into 612 mandals, and 8,368 Gram Panchayats into 12,769 Gram Panchayats.

Economy

In Telangana, the seeds for a strong foundation for the economy were sown at the time of state formation. Since then, the Government has been maintaining a balanced approach to development by implementing supply-side, as well as demand-side policies. On the supply side, initiatives such as TS-iPASS, T-PRIDE, TS-IDEA, TS-GlobalLinker, etc., have acted as growth multipliers by improving productivity and output. On the demand side, a wide range of welfare schemes, such as Dalit Bandhu, Rythu Bandhu, Kalyana Lakshmi, Shadi Mubarak, Aasara Pensions, sheep distribution, etc. have increased the purchasing power of the households, thereby improving the living standards of all the sections of the society.

Owing to the initiatives taken by the Government, the state's economy has grown steadily since its formation. Between 2014-15 and 2022-23, the state's contribution to India's nominal GDP increased from 4.1% to 4.9%. As per the Provisional Advance Estimates for 2022-23, Telangana's Gross State Domestic Product (GSDP) at current prices is Rs. 13.27 lakh crore – a growth of 15.6% over the 2021-22 value, as against the country's GDP growth rate of 15.4%. Even in terms of the Per Capita Income (PCI), which is a measure of the economic benefit accrued by an individual in any economy, Telangana outperformed India (Telangana's PCI at current prices stands at Rs. 3.17 lakh, which is Rs. 1.46 lakh higher than the national PCI (Rs.1.71 lakh)).

The Government has also ensured inclusivity in growth. As per the NFHS 2019-21 report, the state ranks 1st among all states (along with Tamil Nadu and Kerala) in terms of equitable income distribution, with a Gini coefficient of 0.10.

Agriculture

Since the formation of the State, the Government has prioritised the growth of the Agriculture sector through various initiatives such as the Rythu Bandhu scheme (investment support), the construction of new major and medium irrigation projects, 24x7 free power to Agriculture, Mission Kakatiya, promotion of livestock and fisheries, sheep distribution scheme, etc. These initiatives have led to an increase in the share of Agriculture and Allied sectors in the total current-price GSVA of the state – from 16.3% in 2014-15 to 18.2% in 2022-23.

Assured irrigation is the main input for the crops as it protects the farmers in poor monsoons and leads to an increase in the production and productivity of the crops. During the period 2014-15 to 2022-23, the Government has incurred an amount of Rs 1.61 lakh crore on irrigation projects in the State. Due to this considerable investment by the Government, the Gross Irrigated Area (GIA) has significantly increased by 117% (from 62.48 lakh acres in 2014-15 to 135 lakh acres in 2021-22).

This impressive growth in irrigated area has resulted in an increase in paddy production by 342% between 2015-16 and 2021-22 (from 45.71 lakh MTs to 202 lakh MTs) and the State has emerged as the second largest supplier of Paddy to the Food Corporation of India (FCI). The Telangana Civil Supplies Corporation Limited has purchased huge quantities of paddy in the last 7 years ensuring the Minimum Support Price, benefitting lakhs of farmers.

The Government is also actively supporting a transition to demand-driven and commercial agriculture which will provide a sustainable increase

in incomes to farmers In this regard, the State has emerged as one of the high-potential states for Oil Palm cultivation and stands sixth in the country in terms of the area under oil-palm cultivation (68,440 acres), second in the production of Fresh fruit Bunch, and 1st in the Oil Extraction Rate (OER) in India (19.32% share).

To support Oil Palm cultivation in the State, the Government is providing assistance for taking up oil palm cultivation with 50% assistance on mechanisation tools. It is also planning to take up 20 lakh acres under Oil Palm in a mission mode as part of crop diversification. A total of 11 companies are now operating in the state and they have established 30 nurseries with a capacity to raise 2.67 crore Oil Palm seedlings.

Another notable outcome which would help farmers boost their incomes is the famous Tandur red gram bagging a Geographical Indication (GI) tag. It is the 16th product from Telangana to get a GI tag and this process was facilitated by Prof. Jayashankar Telangana State Agriculture University (PJTSAU).

Industry

Business-friendly policies and the proactive measures taken by the government to facilitate business have created a conducive environment that has spurred industrial growth in the state. In the year 2022-23, the industrial sector's contribution to the Gross State Value Added (GSVA) at current prices is estimated at 19.0%. The sector registered a nominal GVA growth of 10.5% over the previous year.

The state has made continuous efforts for the growth of the industrial sector through its innovative policies, which have resulted in increased investments and employment opportunities. TS-iPASS, the government's flagship initiative, attracted Rs 20,237 crore of investment in 2022-23 (up to Jan 2023) through 2,518 new industries and created employment for 72,908 people.

Innovation and technology are the prime drivers of industrial growth in Telangana. Currently, the state has 78 incubators, accelerators, and co-working spaces with a specific focus on Lifesciences, FinTech, Agri Tech, Digital, etc. The innovation policy of the state and the incentives provided to the start-ups has made the state a fertile ground for many emerging startups and some of them have gone on to gain national prominence.

A startup named "Darwin Box'' is the first startup from Telangana that joined the unicorn club and another startup, "Skyroot Aerospace'', incubated at T-Hub has gained the distinguished status of developing India's first private rocket called "Prarambh". T-Hub has bagged the "Best Incubator in India'' award at the National Startup Awards 2022 of the DPIIT, Ministry of Commerce and Industry, for its efforts to support the growth of the startup ecosystem in Telangana.

The second phase of T-Hub (T-Hub 2.0) was started on 28th June, 2022. It is one of the world's largest innovation campuses with a capacity to house 4,000 start-ups and other key elements of the innovation ecosystem. T-Hub Phase 2 has further improved the startup ecosystem of the state.

Services

The Services sector in Telangana experienced a 17.5% growth in the GVA at current prices in 2022-23. While the Services sector was the worst hit during the pandemic in 2020-21, the nominal GSVA of the sector in 2022-23 was 41.1% higher than its pre-pandemic GVA (2019-20). This reflects a strong resurgence in the demand for services produced in Telangana. Based on the Provisional Advance Estimates of GSVA for Telangana, in 2022-23, the sector accounted for 62.8% of the state's GSVA at current prices.

The 'Real Estate, Ownership of Dwelling and Professional Services' is the most dominant sub-sector of the services sector in the state, which contributed to more than one-third of the GSVA at current prices. According to JLL-City-Momentum Index-2020, which identifies the world's most dynamic cities from a real estate perspective, Hyderabad is the world's most dynamic city by occupying the first position in the city momentum index. As per the report, the city is one of the world's best-performing cities for prime offices and its rental growth is phenomenal.

A thriving technology sector is driving this momentum, with the city's reputation receiving a

further boost with the opening of a large campus by Amazon, in addition to the presence of tech giants such as Apple, Microsoft, Google, and Facebook. This enabling environment has led to a remarkable growth in IT exports from the state. Between 2014-15 and 2021-22, IT exports from the state experienced a Compounded Annual Growth Rate (CAGR) of 15.67%. The total employment in the IT sector increased from nearly 3.7 lakh to 7.7 lakh during this period.

Public Finance

Strong public finances are critical to ensure effective delivery of welfare schemes and public services. The COVID-19 pandemic forced the Government to increase expenditures and realign existing expenditure priorities in order to save lives. The economic slowdown had the twin effect of a decrease in revenue receipts and an increase in revenue expenditure.

While the state could not receive the anticipated tax revenue in 2020-21, due to prudent fiscal management by the Government, the state received nearly equal tax revenues in 2020-21 (Rs. 66,650 crore) as it did in 2019-20 (Rs. 67,597 crore). During the 2018-21 period, the state's own revenue accounted for 73.1% of the revenue receipts, higher than the average of India GS (General States), at 56.5%. This indicates the state's financial self-sufficiency in comparison to other states.

In per capita terms, leaving out Goa which is an outlier, Telangana's average per capita revenue receipts (Rs. 27,305) for 2018-21 are the highest among India GS. The overall average for India GS for 2018-21 is Rs. 23,788. The state's Tax-to-GSDP ratio is the second highest among India GS, reflecting that Telangana manages its economic resources markedly better than the other states in the country.

On the expenditure side too, the State's capital outlay of Rs. 25,954 crore in 2021-22 (as per revised estimates) was 63% higher than the 2020-21 value (Rs. 15,922 crore), thus providing the necessary support to the recovering economy. Telangana also had the highest share of Development Expenditure (spending on social services (Education, Health, Welfare, Housing etc.) and economic services [Agriculture, Forestry, Industry, Transport etc.]) in

its Total Expenditure (78.1%) among India GS in the 2018-21 period (India GS average share of Development Expenditure is 68.4% during the same period).

In per capita terms, leaving out Goa which is an outlier, Telangana stood first in terms of the Development Expenditure incurred during the 2018-21 period. Telangana spent Rs. 26,897 per capita followed by Karnataka (Rs. 24,040), whereas India GS average was Rs. 20,233. In the same period, Telangana's committed expenditure (salaries and wages, pensions, interest payments) as a percentage of revenue receipts was 48.6% in 2018-21, lower than the India GS average (55.1%). These indicators clearly indicate that the state has managed to perform well despite the challenging environment.

Maternal and Child Care

Initiatives of the Government such as Arogya Lakshmi, KCR Kit, KCR Nutrition Kit and Amma Vodi have resulted in visible improvement in maternal and child care linked indicators of the state. Institutional births increased from 91.5% to 97% between NFHS 4 and NFHS 5, and births in Government hospitals increased from 30.5% in 2015-16 to 61% in 2022. Infant Mortality Rate (IMR) in Telangana has fallen by 40%, from 35 in 2014 to 21 in 2020. The Maternal Mortality Ratio (MMR) has decreased by 46.9%, from 81 in 2014-16 to 43 in 2018-20, which is the third lowest MMR among the 18 Non-Special Category states of the country. The State has emerged as an achiever in SDG Goal 3 (Good Health and Wellbeing) which aims at reducing the global MMR to less than 70 per 1,00,000 live births by 2030.

Under the KCR Kit scheme, mothers are being provided with the financial assistance of Rs.12,000 (Rs.13,000 for a girl child) to compensate for the loss of wages by the women during the pregnancy and postnatal period. This cash incentive is released in four installments linked to key milestones between antenatal check-ups and vaccination. In addition, a kit is also being provided to keep newborn babies warm and hygienic.

In order to tackle anaemia and improve haemoglobin levels in pregnant women, the Government launched the flagship programme "KCR Nutrition Kits" on December 21, 2022, in high-anaemia-prevalent

districts such as Adilabad, Bhadradri Kothagudem, Jayashankar Bhupalpally, Jogulamba Gadwal, Kamareddy, Komaram Bheem Asifabad, Mulugu, Nagar Kurnool, and Vikarabad. Each kit contains one kg of nutritional mix powder, one kg of dates, three bottles of iron syrup, 500 grams of ghee, and a cup.

The Arogya lakshmi scheme is another initiative of the Government in collaboration with the Government of India which provides nutritious and healthy meals to all pregnant and lactating mothers registered in all the Anganwadi Centres. In 2022-23 the scheme benefited over 19.08 lakh pregnant and lactating women, & children in the age group of 7 months to 6 years (covered under Balamrutham and Supplementary Nutrition Programme). NITI Aayog, in its recent report, "Take Home Ration: Good Practices across States and UTs," in 2022 highlighted the Arogya Lakshmi Scheme's nutritional enrichment, transparent and quality-assured procurement and supply chain of commodities, robust monitoring, etc. as good practices.

Amma Vodi is an exclusive ambulance service launched by the State Government in 2018 to reduce the out-of-pocket expenses for families, and to make way for an improvement in the number of safe deliveries and immunisation. 300 vehicles are operating across 33 districts under the scheme through the 102 Helpline. During 2022-23, about 2.75 lakh beneficiaries availed services under this scheme till 22 December 2022.

Health

The Government has taken a series of steps to strengthen health infrastructure and to make healthcare services and medical education more accessible. For the academic year 2023-24, the Government has approved 9 new Government Medical Colleges at Asifabad, Jayashankar Bhupalpally, Jangaon, Kamareddy, Karimnagar, Khammam, Rajanna Siricilla, Vikarabad, and Nirmal with a cumulative capacity of 900 MBBS seats and 3,897 sanctioned posts. This will facilitate access to medical education in rural areas of the state.

With the objective of providing low-cost pathological diagnostic and imaging services to the people, the Government launched the 'Telangana Diagnostic Scheme' in 2018, as a hub-and-spoke model, with an apex laboratory acting as the hub, and the Urban Primary Health Centres (UPHCs), Community Health Centres (CHCs), Area Hospitals (AHs), etc. serving as the spokes. Currently, in 20 district-level diagnostic hubs, there are 57 test parameters available, with an average sample load of 5,000 at the central lab and 1,000-2,000 at district hubs. The same model has been adopted to provide quality dialysis services free of cost in a decentralised manner in all districts. Every year, approximately 6 lakh dialysis sessions are conducted across the 104 dialysis centres benefitting an average of 8,500 patients per year.

The Government launched the biggest community eye-screen programme, Kantivelugu, in 2018 to conduct eye screening & vision tests for all citizens of the state, to provide spectacles free of cost, to provide medicines for common eye ailments, and to educate people on the prevention of serious disabling eye diseases. The Second Phase of Kanti Velugu started on January 18, 2023, to build an avoidable-blindness-free Telangana.

The state also leads in the supply chain management of various drugs including vaccines, sutures, and surgical items. The Telangana State Medical Services & Infrastructure Development Corporation (TSMSIDC) is implementing the Drugs and Vaccines Distribution System (DVDMS), a web-based drugs supply chain management application covering various Regional/District Drug warehouses, District Hospitals, Community Health Centres, Primary Health Centres, and Sub Centres. In this regard, Telangana has been ranked 3rd in the country, closely following Rajasthan and Bihar.

Persistent efforts by the Government to improve the health system in the state have been reflected in the state's year-on-year performance on the NITI Aayog Health Index. In terms of overall performance, Telangana moved from 11th rank amongst the 19 larger states in 2015-16 to 3rd rank in 2019-20. The index assessed the performance of the state along 24 indicators in the domains of Health Outcomes, Governance and Information, and Key Inputs and Processes.

Education

The Government has been determined to improve and provide equitable access to quality education.

In order to equip children with critical thinking and problem-solving skills for achieving better life outcomes, and to strengthen the capacity of teachers, the State launched 'Tholi Mettu/First Step' in 2022-23. The initiative is a Foundational Literacy and Numeracy (FLN) programme for Grades 1-5 in all the schools, to practise basic Language and Math skills in a mission mode and to achieve the minimum competency at par with the Grade level. The programme has been envisaged with an aim to achieve universal FLN by 2024.

Access to quality education is also dependent on the availability of teachers in schools. Ensuring teacher access has been a focus area of the Government. According to UDISE 2021-22, at the primary level, the state ranks third among the Non-Special category states with a Pupil Teacher Ratio (PTR) of 20:1. For Upper Primary and Secondary levels, Telangana is the best performer among the Non-Special category states with a PTR of 13:1 and 9:1 respectively.

On the educational infrastructure front, the Government launched the "Mana Ooru-Mana Badi/Mana Basti-Mana Badi" scheme, which focuses on upgradation of infrastructure facilities across 12 components in government schools in the state. The scheme was launched in January 2022 in 3 phases for a period of three years. A budget approval of Rs.7,289.54 crore was provided for the scheme. 26,065 government and local body schools and 19.84 lakh students are covered under this programme. In the initial phase, a budget of Rs. 3,497.62 crore has been allotted for 9,123 schools covering 14.72 lakh students.

Around 62.29 lakh children were enrolled in all types of schools in the state during the academic year 2021-22. Out of these, 50.23% were enrolled in private schools and 49.77% were enrolled in Government schools. On account of the initiatives taken by the Government to improve the quality of education in Government schools, the total enrolment in all Government Schools increased from 43.47% in 2020-21 to 49.77% in 2021-22. To further improve the enrolment in Government schools, English as a language of instruction has been launched in Grades 1 to 8 from the academic year 2022-23 and would be subsequently scaled to one higher Grade every year to cover all Grades up to Grade 10 by 2024-25.

Water Supply and Sanitation

Gram Panchayats play an essential role in ensuring last-mile access to drinking water as part of the state's flagship Mission Bhagiratha scheme. GPs are required to certify that there are no leftover households to provide tap water connections to They are also required to report any problems related to the drinking water supply to the concerned Mission Bhagiratha officer and coordinate to ensure the timely resolution of issues

The efforts of the Government under the scheme have led to recognition from the Ministry of Jal Shakti, Government of India, which declared Telangana as the first large state in the country to achieve 100% coverage of functional household tap connections in all rural habitations through sustainable surface sources. All the 57.01 lakh rural households having functional tap connections in the state are being supplied 100 Litres Per Capita Per Day (LPCD) of water.

To accelerate the efforts to achieve universal sanitation coverage and to put the focus on sanitation, the Prime Minister of India launched the Swachh Bharat Mission on 2nd October 2014. Since the launch of the programme, the state government has been actively involved in achieving 100% coverage of rural sanitation in the State by taking up the construction of Individual Household Latrines (IHHLs) under SBM(G), and school toilets & Anganwadi toilets under MGNREGS. Owing to the efforts of the government, the state has been declared as ODF by constructing over 31.56 lakh toilets in the last five years, out of which, 19.27 lakh toilets were constructed under SBM(G) as of 31st December 2022.

Welfare

The Government is dedicated to enhance the welfare the socially and economically underprivileged, including women, children, senior citizens, people with special needs, and members of Scheduled Castes (SCs), Scheduled Tribes (STs), Backward Classes (BCs), and Minority Communities. The purpose of the welfare schemes is to ensure that these reflect the needs of the relevant communities.

As part of its efforts to improve the socio-economic condition of SCs by providing support for setting up of long-term income generation activities, the Government launched the Telangana Dalit Bandhu scheme. Under this scheme, each beneficiary of the household is provided with a grant of Rs. 10 lakh. In the year 2021-22, Rs. 4,150 crore was distributed to the districts to cover approximately 38,323 SC–identified households. For the year 2022-23, a provision of Rs. 17,700 crore has been made with a target of 1,500 beneficiaries per Assembly Constituency. Further, Dalit Rakshana Nidhi has been established to ensure that a Dalit Bandhu beneficiary family that faces an unfortunate event does not suffer financially. In times of need, money can be spent from this fund so that the beneficiaries' families can be protected.

'Aasara' Pension scheme has been launched in November 2014 as a social safety net to safeguard several sections of society, including the elderly and infirm, disabled individuals, widows, people with HIV/AIDS, Filaria patients (Grade-II and III), incapacitated weavers, toddy tappers, poor Beedi workers, single women, and dialysis patients. About Rs.7,565 crore was disbursed to 44.43 lakh pensioners in 2022-23 (up to January 2023)

With the objective of curbing child marriages to a significant extent and relieving the financial burden related to marriages, the Government launched the 'Kalyana Lakshmi/Shaadi Mubarak' scheme as part of which a one-time grant of Rs.1,00,116 is provided to unmarried girls (above 18 years of age) from SC, ST, BC and Minority families (with a combined income of both parents not exceeding Rs.2,00,000 per annum) at the time of their marriage. From mid-2019, the Government has also been providing financial assistance of Rs.1,25,145 to unmarried disabled girls irrespective of their caste and religion. Up to January 2023, a total of 2.4 lakh SC, 1.5 lakh ST, 5.9 lakh BC, 2.4 lakh Minority families benefited from the scheme and an amount of Rs. 10,558.79 crore had been disbursed.

To provide financial relief and social security to the family members/ dependents in case of loss of farmer's life due to any reason, the government initiated a flagship group life insurance scheme-Rythu Bima in the year 2018. In the event of the death of the enrolled farmer due to any cause including natural death, the insured amount of Rs 5.00 lakh is deposited into the account of the designated nominee within (10) days. Since 2018-19 the government has settled claims to an extent of Rs.4,771 crore to 95,416 bereaved families.

On similar lines, to cover Handloom, Powerloom, and ancillary workers, Nethanna Bhima (Group Life Insurance) Scheme was launched by the Government on par with Rythu Bima on August 7,2022.The scheme is being implemented since 14.08.2022 under LIC of India Insurance Scheme. 38,951 enrolments have been made online under the scheme and 36,002 of them have been found to be eligible.

The government is also focused on undoing the historic injustices inflicted on the SC, ST, and BC within the state, making minorities feel empowered by protecting their rights and entitlements; these concerns are being addressed by extending reservations to these communities. On 30 September 2022, the government increased the reservation of STs in Educational Institutions and State Government Services from 6% to 10%. Currently, ST, SC, BC, Minority (BC-E), and Economically Weaker Section (EWS) have 10%, 15%, 25%, 4%, and 10% reservations respectively.

Self Help Groups (SHG) play an important role in furthering financial inclusion as well as women empowerment and in this regard, the Government has been actively promoting and providing assistance to SHGs by facilitating bank linkages. In rural areas, the amount disbursed to SHGs has tripled from Rs.3,738.67 crore in 2014-15 to Rs.12,684.59 crore by 2022-23 (until January 2023). In urban areas, an amount of Rs. 1,458.97 crore was provided to 18,680 SHGs this year (until January 2023).

The government has taken up the 2-BHK housing programme for providing decent living and providing affordable and quality housing to the poor. Under the "2-BHK Housing Scheme", the Government constructed 1.36 lakh houses with an amount of Rs. 11,635.14 crore up to December 2022. Further, the Government has decided to take up 4 lakh houses with a unit cost of Rs.3.00 lakh per each house with 100% subsidy to plot owners belonging to Economically Weaker Sections (EWS).

The Government introduced the Sheep Rearing and Development Scheme to develop the economic standards of Yadava and Kuruma communities and to provide them a sustainable livelihood. A total of 82.64 lakh sheep have been distributed to 3.93 lakh beneficiaries during 2017-2022 and the Government has incurred Rs.3,751.15 crore as a 75% subsidy. The Government has also enhanced the unit cost from Rs.1,25,000 to Rs.1,75,000 due to the increase in sheep's price and transportation costs.

Environment

The Government launched its flagship programme "Telangana Ku Haritha Haram (Green Garland for Telangana)" (TKHH) in 2015-16. Under this programme, extensive plantation activities are being taken up inside and outside of the notified forest areas to increase forest density and to assist natural regeneration through intensive water harvesting structures. As of 2022-23, 14,965 nurseries have been established and 270.65 crore saplings have been planted with an impressive 117.68% achievement rate as against the target of 230 crore plantations with an incurred expenditure of Rs.10,417 crore.

To create more lung spaces for the citizens, the Government has proposed to develop 109 Urban Forest Parks, of which 77 have been completed and 60 made available for the general public. Out of 109 Urban Forest Parkes, 59 are in the Hyderabad Metropolitan Development Authority (HMDA) jurisdiction. A green corridor has also been developed through intensive plantation of 71.15 lakh seedlings along 158 km of Outer Ring Road and interchanges of 457.23 acres.

Due to these initiatives, Hyderabad has been recognized as the "Tree City of the World- 2021" by the Arbor Day Foundation and the Food and Agriculture Organisation (FAO) of the United Nations for the second consecutive year. In addition to this, Hyderabad has also been honoured with the "World Green City Award 2022" at the International Association of Horticulture Producers (AIPH) 2022, organised in Jeju, South Korea. The city has also been awarded in the category 'Living Green for Economic Recovery and Inclusive Growth'.

Governance

To ease governance, reduce human effort, and bring together multiple government offices and services in a single location, the Government has proposed to construct 29 Integrated District Offices Complexes (IDOCs). This is expected to improve the functioning of the Government and make it more efficient and accessible to citizens. Out of the proposed 29 IDOCs, 17 have been successfully constructed and inaugurated so far.

The Government recognizes the role of public officials and considers them to be the backbone for providing efficient governance. The Telangana State Public Service Commission (TSPSC) has issued 135 Direct Recruitment notifications for around 55,144 vacancies in the past 8 years. During 2022, the Commission has notified the filling up of 17,134 posts through Direct Recruitment (up to January 1st, 2023).

The Government has been at the forefront of leveraging technology to improve access to services for citizens and to ensure that services are delivered in a timely and efficient manner. Through e-Governance initiatives such as MeeSeva, T-App Folio, Dharani Land Records Management Portal, and Telangana State Building Permission Approval and Self-Certification System (TS-bPASS), process flows have been streamlined, which has led to their wide adoption by the citizens. The state had the highest cumulative number of e-transactions per 1,000 population among all states in India between 2015 and 2022. It has been ranked second among the non-special category states in the country in terms of the annual number of e-transactions per 1,000 population in 2022.

Overall, the various initiatives and schemes of the Government reaching all sections of the society have resulted in the strong performance of the economy and improvements in developmental indicators across the board. The efforts of the Government have been recognized by national and international organisations of repute, enabling an optimistic outlook for the state, and these will collectively lead to fulfillment of the aspirations of the citizens.

MACROECONOMIC TRENDS

Key Highlights

This chapter discusses the trends in macroeconomic indicators of Telangana for the year 2022-23[1]. Broad themes include economic growth, per-capita income, and unemployment.

- In 2022-23, Telangana's Gross State Domestic Product (GSDP) at current prices is Rs. 13.27 lakh crore. Telangana's GSDP at current prices increased by 15.6% in 2022-23.

- In 2022-23, the Per Capita Income (PCI) at current prices in Telangana is Rs.3.17 lakh, which is Rs. 1.46 lakh higher than the national per capita income in 2022-23 (Rs.1.71 lakh).

- Based on the Compound Annual Growth Rate (CAGR) of PCI at current prices for Telangana and India for 2014-15 to 2022-23, the average citizen in Telangana can expect his/her income to double in roughly 5 to 6 years, whereas the average citizen in the country as a whole would have to wait for about 8 to 9 years for their income to double.

- The Agriculture and Allied sectors in Telangana achieved a year-on-year growth in Gross Value Added (GVA) (current prices) of 11.9% between 2021-22 and 2022-23. This is a 2.2 percentage points increase in the growth rate over the 2021-22 growth rate. Since the sector employs 45.8% of the population of the state, its economic success is crucial to improving the living standards in Telangana.

- The Industrial sector in Telangana achieved a growth of 10.5% in 2022-23.

- The Services sector – the primary contributor to the state's economic growth – witnessed a remarkable growth of 17.5% in its GVA at current prices in 2022-23.

- The unemployment rate in the state has been on a declining trajectory. There was an 8.2 percentage point decline in the Urban unemployment rate as per current weekly status (Four quarters moving average) between the October-December 2020 quarter and the July-September 2022 quarter.

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1. All GSDP and GSVA figures of Telangana reported for 2022-23 represent the Provisional Advance Estimates(PAE) and are subject to change. All GDP and GVA figures of India reported for 2022-23 represent the First Advance Estimates (FAE) and are subject to change. Wherever inter state comparisons are carried out, figures reflect Provisional Estimates (PE) released in August, 2021, on account of non-availability of state-wise Advance Estimate data.

2.1 Introduction

With increased globalisation, economies of the world are more integrated than ever before, and are consequently more sensitive to the challenges posed by the external environment. While COVID-19 derailed the economies in 2020-21 severely, 2021-22 was a year of rapid recovery for many economies around the world. The year 2022-23, however, has been marked by a relative slowdown in growth due to disturbances in the global supply chain. Decrease in consumer demand, increase in global inflation from 6.4% in 2021 to 9.1% in 2022 , the Russia-Ukraine war, and lockdowns in some parts of the world have led to a contraction in growth. The World Economic Outlook[2] published by the International Monetary Fund (IMF) in January 2023 predicts that the global economy is likely to grow by only 2.9% in the year 2023 - a 0.5 percentage points decline from their previous year estimate for 2022.

2.2 Gross State Domestic Product [3]

The Gross State Domestic Product (GSDP) measures the monetary value of all final goods and services produced in an economy during any given year. The GSDP is one of the most important economic indicators, as it provides information about the general economic health of the economy in terms of its size and growth.

In Telangana, the seeds for a strong foundation to the economy were sown at the time of state formation. Since then, the Government has maintained a balanced approach to development by implementing supply-side, as well as demand-side policies. On the supply side, policies such as TS-iPASS, T-PRIDE, TS-IDEA, TS-GlobalLinker, etc., have acted as growth multipliers by improving productivity and output. On the demand side, a wide range of welfare schemes, such as Dalith Bandhu, Rythu Bandhu, Kalyana Laxmi, Shadi Mubarak, Aasara Pensions, sheep

distribution etc., have increased the purchasing power of the households, thereby improving the living standards of all the sections of the society.

The Government has also ensured inclusivity in growth, and as per the NFHS 2019-21 report[4], the state ranks 1st among all states (along with Tamil Nadu and Kerala) in terms of equitable income distribution, with a Gini coefficient[5] of 0.10.

On account of the progressive policies of the Government, despite external shocks, the state displayed resilience by achieving a tremendous recovery in 2021-22, followed by remarkable growth in the year 2022-23.

2.2.1 GSDP at Current Prices

Based on the Provisional Advance Estimates (PAE), in 2022-23, Telangana's nominal GSDP was valued at Rs. 13.27 lakh crore, after achieving a noteworthy growth rate of 15.6% over the previous year.

Figure 2.1 depicts Telangana's growth journey from the year of state formation. Telangana's nominal growth rate exceeded that of India's by 1.0 percentage point in 2014-15. The gap increased to 4.6 percentage points by 2019-20, declining thereafter as the pandemic hit the entire country in 2020-21, and as the pan-Indian economy recovered from the pandemic in 2021-22 (The V-shaped recovery is evident from Figure 2.1, both in the case of Telangana and India). In 2022-23, Telangana's nominal GSDP was 15.6% higher in comparison with the previous year, and India's nominal GDP had increased by 15.4%. The lower growth rate in this year can be attributed to two major factors – one, global factors such as higher inflation, supply bottlenecks, lower demand, etc. made the economic environment non-conducive to growth, especially for the manufacturing sector, and second, the base effect, on account of which a high growth over and above the already enormous 2021-22 GSDP/GDP values could not have been expected.

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2.   As per the International Monetary Fund (https://www.imf.org/external/datamapper/PCPIEPCH@WEO/WEOWORLD)

3.   Gross State Domestic Product measures the size of the state's economy. It is a commonly used indicator for the performance of the state's economy. Generally a rapidly increasing GSDP is a sign of a healthy economy. GSDP is the value of all the final goods (e.g. cars, food, furniture) and services (e.g. services provided by barbers, taxi drivers, waiters) produced within the state during the year. Importantly, there are two measures of GSDP: nominal GSDP (GSDP at current prices) and real GSDP (GSDP at constant prices). While nominal GSDP is calculated by using the prices of the current year, real GSDP is calculated by using the prices of some other year designated as the 'base year' (in the context of this chapter, the base year is 2011-12). Therefore, changes in nominal GSDP between years reflect the change in both prices as well as quantity of final goods (e.g. number of cars) and services (e.g. number of haircuts) produced. In contrast, changes in real GSDP reflects only changes in the quantity of goods and services produced, since the same prices are used for all years.

4.   National Family Health Survey, NFHS- 5, 2091-21, pg no 43.

5.   The Gini index, or Gini coefficient, measures income distribution across a population. The coefficient ranges from 0 (or 0%) to 1 (or 100%), with 0 representing perfect equality and 1 representing perfect inequality.

Figure 2.1
Growth Rate of Gross Domestic Product at Current Prices for Telangana and India (2014-15 to 2022-23)
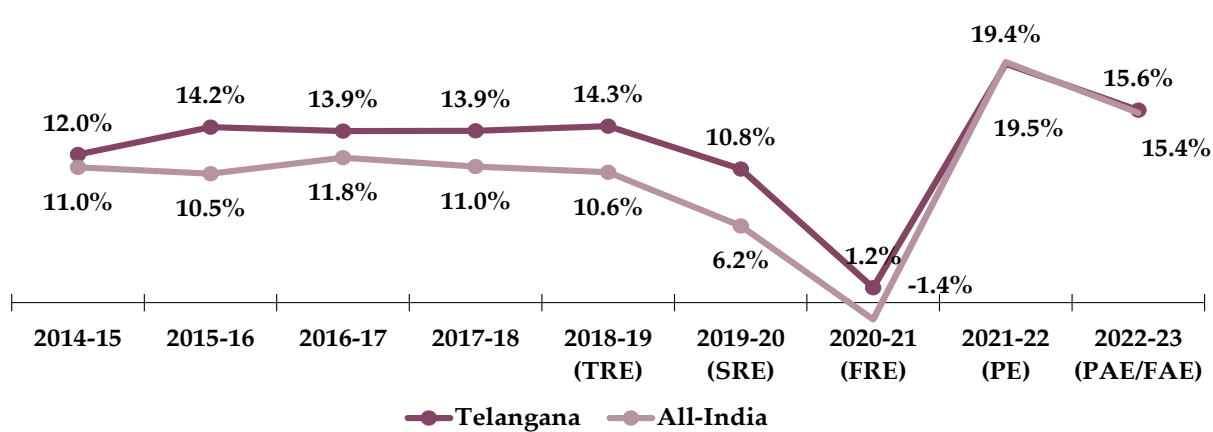

Year	2014- 15	2015- 16	2016- 17	2017- 18	2018- 19 (TRE)	2019- 20 (SRE)	2020- 21 (FRE)	2021- 22 (PE)	2022- 23 (PAE/FAE)
Telangana's GSDP at current prices (in Rs. lakh crore)	5.06	5.78	6.58	7.50	8.57	9.50	9.62	11.48	13.27
India's GDP at current prices (in Rs. lakh crore)	124.68	137.72	153.92	170.90	189.00	200.75	198.01	236.65	273.08

Source: Ministry of Statistics and Programme Implementation, Government of India.

In the year 2021-22, the state ranked third in terms of the growth rate of nominal GSDP (Provisional Estimates) among the thirteen General states[6] for which data was released by the Ministry of Statistics & Programme Implementation (MoSPI)[7] (see Figure 2.2).

Figure 2.2 GSDP (PE) Growth Rate at Current Prices for General States (2021-22)
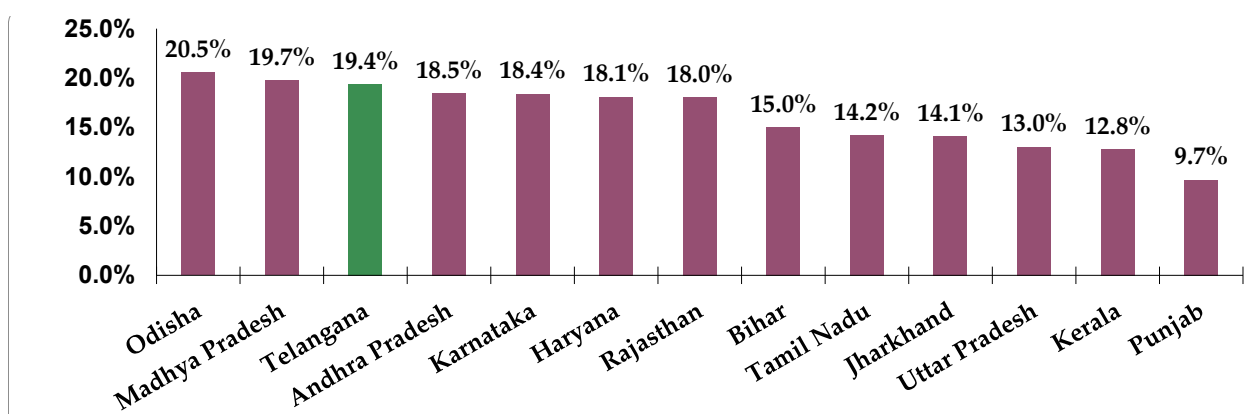
Source: Ministry of Statistics and Programme Implementation (MoSPI), Government of India

The strong and consistent growth experienced by Telangana's economy translated into an increase in

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6. General states include 18 Indian states of Andhra Pradesh, Bihar, Chhattisgarh, Goa, Gujarat, Haryana, Jharkhand, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Odisha, Punjab, Rajasthan, Tamil Nadu, Telangana, Uttar Pradesh and West Bengal. These 18 states account for approximately 92% of India's population.

7. Chhattisgarh, Goa, Gujarat, Maharashtra, and West Bengal are the 5 General states for which data for the year 2021-22 was not released by MoSPI. The same applies to all other indicators where MoSPI data for the year 2021-22 has been used.

Telangana's contribution to the country's GDP over time (see Figure 2.3). In the year of state formation,Telangana contributed roughly 4.1% to the national GDP. In 2021-22, the state became the 7th largest contributor to the national nominal GDP amongst the thirteen general states with data availability. Between 2014-15 and 2022-23, the state's contribution to India's nominal GDP increased from 4.1% to 4.9%.

Figure 2.3
Contribution of Telangana's GSDP to India's GDP at Current Prices (2014-15 to 2022-23)
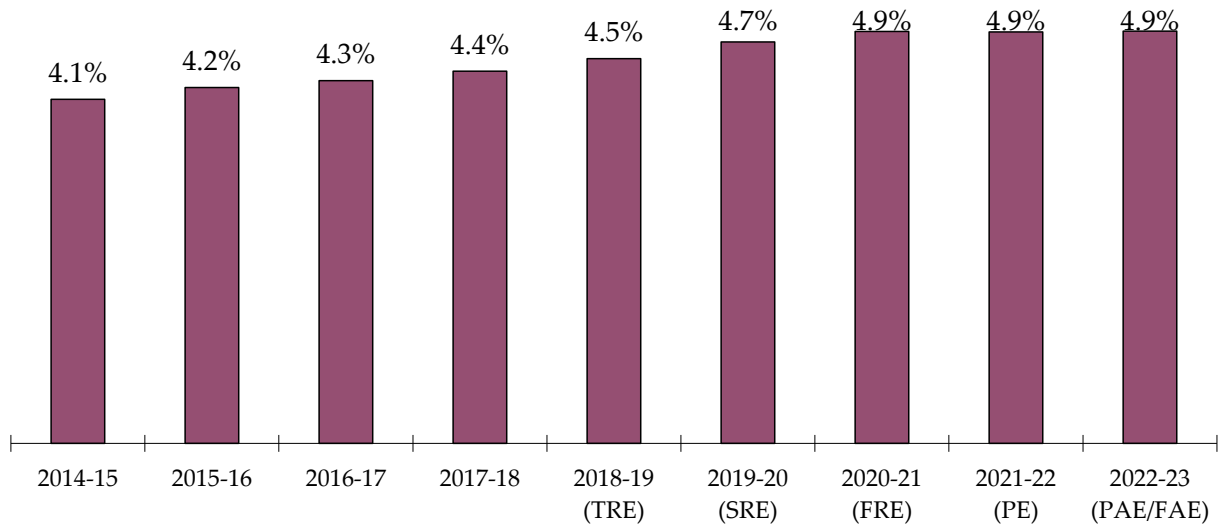
Source: Ministry of Statistics and Programme Implementation, Government of India

2.2.2 GSDP at Constant (2011-12) Prices

Based on the Provisional Advance Estimates (PAE), in 2022-23, Telangana's GSDP at constant (2011-12) prices increased by 7.4% over the previous year. The state's performance was better than that of India's, which experienced an increase of 7.0% in the real GDP in 2022-23.

Figure 2.4 depicts Telangana's growth journey from the year of state formation. While the state started out with a lower growth rate of real GSDP than the national average in the year of state formation, its growth rate exceeded that of India's by 3.6 percentage points the very next year. The state's real growth rate has been higher than the national growth rate in every year since 2015-16. In 2022-23, the gap between Telangana's GSDP growth rate and India's GDP growth rate was 0.4 percentage points.

Figure 2.4
Growth Rate of Gross Domestic Product at Constant (2011-12) Prices for Telangana and India (2014-15 to 2022-23)
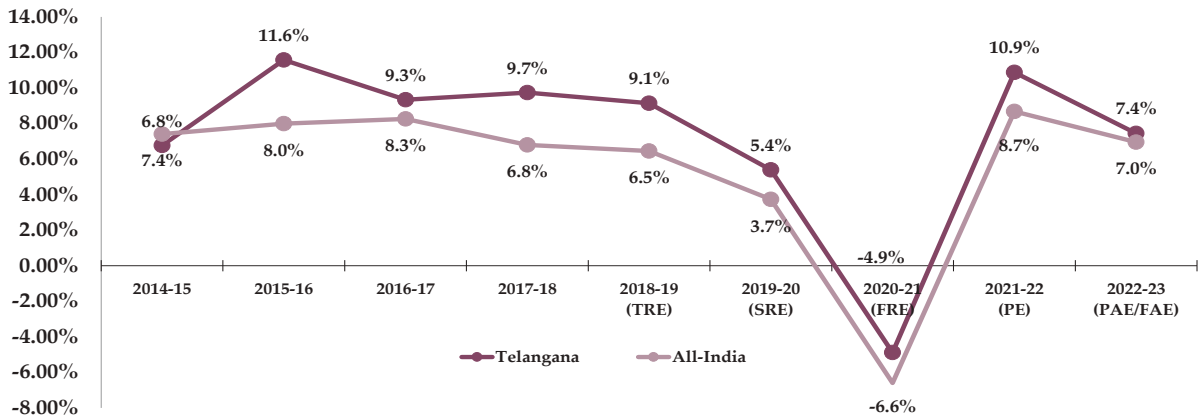
Year	2014-15	2015-16	2016-17	2017-18	2018-19 (TRE)	2019-20 (SRE)	2020-21 (FRE)	2021-22 (PE)	2022- 23 (PAE/FAE)
Telangana's GSDP at constant prices (in Rs. lakh crore)	4.16	4.65	5.08	5.57	6.08	6.41	6.10	6.76	7.27
India's GDP at constant prices (in Rs. lakh crore)	105.28	113.69	123.08	131.45	139.93	145.16	135.58	147.36	157.60

Source: Ministry of Statistics and Programme Implementation, Government of India.

In the year 2021-22, the state ranked fourth in terms of the growth rate of GSDP (Provisional Estimates) at constant (2011-12) prices, among the thirteen General Categostates for which data was released by the Ministry of Statistics & Programme Implementation (MoSPI) (see Figure 2.5).

Figure 2.5 GSDP (PE) Growth Rate at Constant (2011-12) Prices for General States (2021-22)
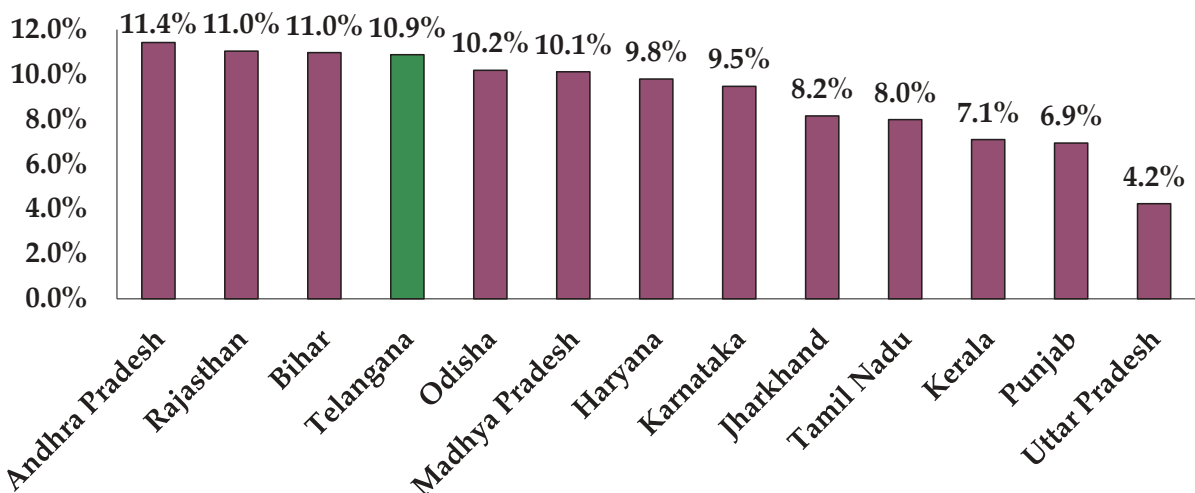
Source: Ministry of Statistics and Programme Implementation (MoSPI), Government of India

2.3 Per-Capita Income [8]

While the Gross State Domestic Product reflects the total size of an economy, a better measure of economic growth accrued by an individual is the per-capita income (PCI). In the year 2021-22, Telangana's nominal PCI (Rs.2,75,443 as per Provisional Estimates) was the 2nd highest among the thirteen general states for which data had been released by MoSPI.

In the year 2022-23, Telangana's nominal PCI had increased to Rs. 3.17 lakh. Telangana's per capita income has consistently been higher than the average national per capita income since the year of state formation, and the gap has widened with each successive year (see Figure 2.6). In 2014-15, the per capita income of Telangana was 1.43 times the national per-capita income (Telangana's PCI was Rs. 37,457 higher than the national PCI). As of 2022-23, the multiplier had increased to 1.86 (Telangana's PCI was Rs. 1,46,495 higher than the national PCI).

Figure 2.6 Per-Capita Income at Current Prices for Telangana and India (2014-15 to 2022-23)

Multiplier

1.43	1.49	1.53	1.56	1.67	1.75	1.82	1.84	1.86

Source: Ministry of Statistics and Programme Implementation, Government of India,

A comparison of the growth rates of per capita incomes for Telangana and India is presented in Figure 2.7. In the year (2021-22), the growth rate of nominal PCI in Telangana was 0.9 percentage points higher than the national nominal PCI growth rate, and the gap in their growth rates widened to 1.4 percentage points in the year 2022-23.

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8. Per Capita Income (PCI) measures the amount of money that would be available per person if the total value of all goods and services produced in the economy were to be divided equally among all citizens. An important point to note is that capital goods (e.g. machines) depreciate in value with time. To adjust for this, depreciation is first subtracted from the GSDP before calculating the PCI.

Figure 2.7 Growth Rate of Per Capita Income at Current Prices for Telangana and India (2014-15 to 2022-23)

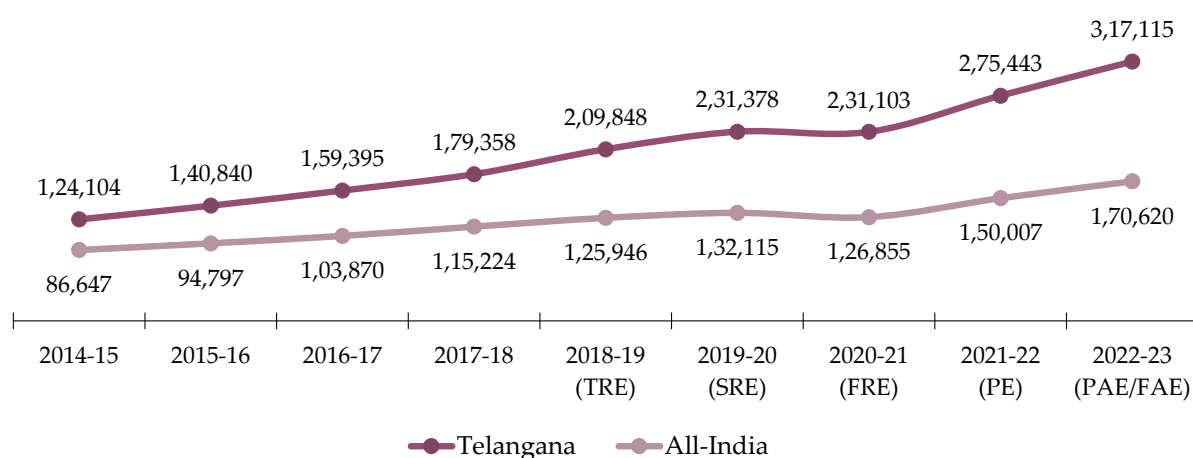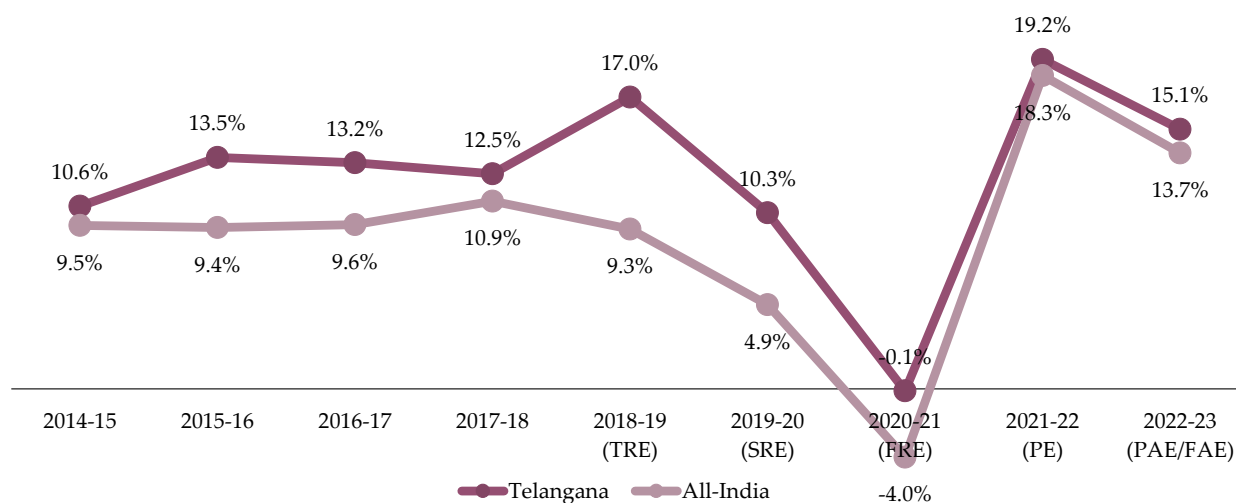Source: Ministry of Statistics and Programme Implementation, Government of India,

Based on the Compound Annual Growth Rate (CAGR) of PCI (at current prices) for Telangana vs. India from 2014-15 to 2022-23, the average citizen in Telangana can expect their income to double in roughly 5 to 6 years, whereas the average citizen in the country as a whole would have to wait for about 8 to 9 years for their income to double.

2.4 Sectoral Analysis

2.4.1 Sectoral Contribution [9]

The GSDP of any state is measured in terms of the economic contributions made by three key sectors - Agriculture & Allied Sectors, Industries (including mining and quarrying) and Services. Since state formation, the Services sector has been the highest contributor to Telangana's Gross State Value Added (GSVA), followed by the Industries, and Agriculture and Allied sectors respectively. Based on the Provisional Advance Estimates of GSVA for Telangana, in 2022-23, the services sector accounted for 62.8% of Telangana's GSVA at current prices[10], followed by the industrial sector including mining and quarrying (19.0%) and the agriculture and allied sector (18.2%).

The trend in the share of each sector towards the state's GSVA is shown in Figure 2.8. Figure 2.9 shows the share of GVA coming from the three sectors for India.

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9. Traditionally, the three sectors discussed are the primary, secondary and tertiary sectors, where the primary sector comprises the 'Agriculture and Allied Sectors', and 'Mining & Quarrying', the secondary sector comprises 'Construction', 'Manufacturing', and 'Electricity, Gas, Water Supply & other Utility Services', and the services sector comprises 'Trade, Repair, Hotels and Restaurants', 'Transport, Storage, Communication & Services related to Broadcasting', 'Financial Services', 'Real Estate, Ownership of Dwelling, & Professional Services', 'Public Administration', and 'Other Services'.

10. In this chapter, we divide the economy into the agriculture and allied sectors (primary sector minus the mining and quarrying subsector), the industrial sector (secondary sector plus the mining and quarrying subsector), and the services sector (tertiary sector). The Gross Value Added (GVA) of any unit (sector, sub-sector, firm, etc) measures the contribution of that unit to the overall output of a country or state. It is calculated by subtracting the value of all intermediate goods and services from the total value of units output. This is done to remove any 'double counting'. For instance, assume that a firm buys oranges and sells orange juice. The value of the oranges should be subtracted while calculating the firm's gross value added, as this is already included in the final value of the orange juice.

Figure 2.8 Sectoral Composition of GSVA at Current Prices for Telangana (2014-15 to 2022-23)

Year	Agriculture & Allied Sectors	Industries	Services
2014-15	16.3%	22.4%	61.3%
2015-16	14.3%	23.6%	62.2%
2016-17	14.8%	21.5%	63.6%
2017-18	14.9%	22.2%	62.9%
2018-19	14.7%	23.5%	61.8%
2019-20	18.0%	20.8%	61.2%
2020-21	20.1%	19.7%	60.1%
2021-22	18.7%	19.7%	61.5%
2022-23	18.2%	19.0%	62.8%
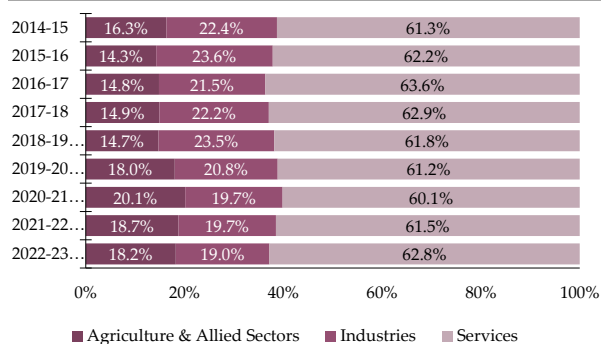
Source: MoSPI, GoI.

Figure 2.9 Sectoral Composition of GVA at Current Prices for India (2014-15 to 2022-23)
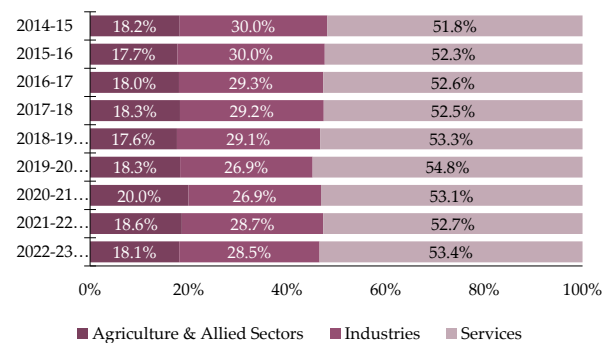
Year	Agriculture & Allied Sectors	Industries	Services
2014-15	18.2%	30.0%	51.8%
2015-16	17.7%	30.0%	52.3%
2016-17	18.0%	29.3%	52.6%
2017-18	18.3%	29.2%	52.5%
2018-19	17.6%	29.1%	53.3%
2019-20	18.3%	26.9%	54.8%
2020-21	20.0%	26.9%	53.1%
2021-22	18.6%	28.7%	52.7%
2022-23	18.1%	28.5%	53.4%

Source: Ministry of Statistics and Programme Implementation, Government of India

The share of the Agriculture and Allied sectors in the total GSVA of the state increased from 16.3% in 2014-15 to 18.2% in 2022-23, while its share in the national GVA remained largely constant (around 18% in both years). The increase in the contribution of this sector to Telangana's economy was driven by the significant increase in its nominal growth rate – from negative 0.7% in 2014-15 to 11.9% in 2022-23 (see Figure 2.10).

As reflected in Figures 2.8 and 2.9, the Industrial sector contributes less to Telangana's economy than it does to India's economy. However, the Industrial sector in the state is very vibrant. As the Government of Telangana State recognizes that industrial development is crucial to job creation and increasing productivity in other sectors, it has taken up several measures to ensure sustained growth of the industrial sector. This includes business reforms like TS-iPASS, schemes for entrepreneurship like T-IDEA and T-PRIDE, and multiple initiatives for the MSME sector including Industrial Health Clinics, TS-Globalinker, and partnerships with private companies like SAP and Sapio Analytics. The investments made by the Government towards strengthening of the industrial sector have started reaping results. Telangana ranks second among the major states in the India Innovation Index 2021 released by National Institution for Transforming India (NITI Aayog). In addition to these T-Hub Foundation was awarded the best incubator in the ecosystem enablers category in the National Startup Awards 2022 declared by StartupIndia, Ministry of Commerce and Industry, Government of India. These benefits will continue to accrue for many years to come. Details of these schemes are discussed in the chapter on Industries.

The Services sector accounted for 62.8% of the state's value added in 2022-23, and is therefore, one of the most important sectors in Telangana's economy. Its share in the state's nominal GSVA (62.8%) is larger than the share of this sector in India's nominal GVA (53.4%).

2.4.2 Sectoral Growth Rates

Figures 2.10 and 2.11 reflect the sector-wise growth rates at current prices from 2014-15 to 2022-23 for Telangana and India respectively.

Figure 2.10 Sector-wise Growth Rate of GVA at Current Prices for Telangana (2014-15 to 2022-23)
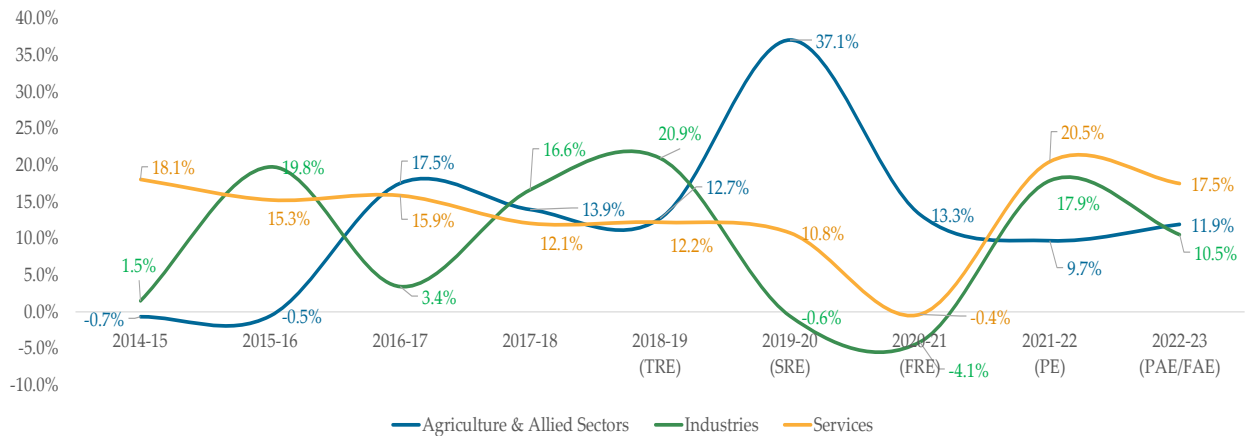
Source: Ministry of Statistics and Programme Implementation, Government of India.

Figure 2.11 Sector-wise Growth Rate of GVA at Current Prices for India (2014-15 to 2022-23)
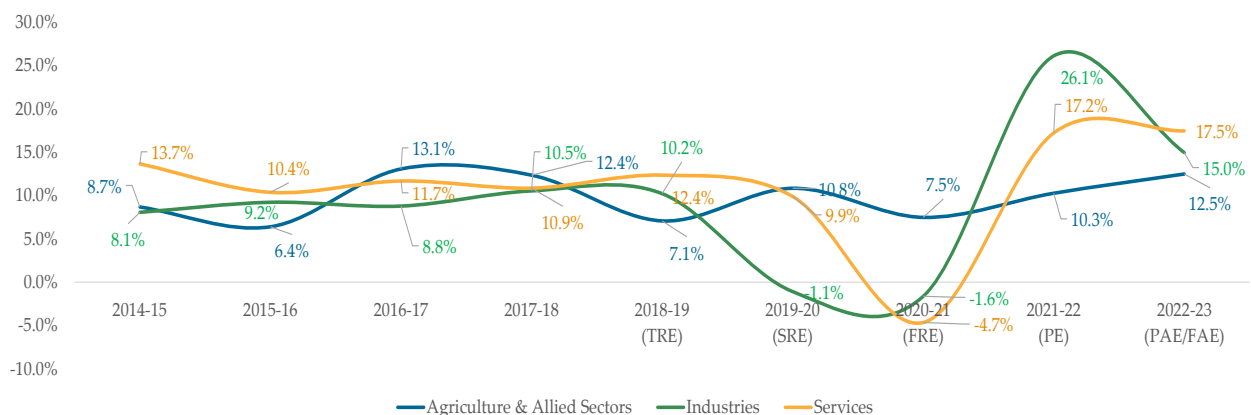
Source: Ministry of Statistics and Programme Implementation, Government of India

The sharp recovery achieved by the Industries and Services sectors in India in 2021-22 after being hit severely by the pandemic in 2020-21, continued in the year 2022-23 as well. The Services sector recorded a higher growth rate in 2022-23 as compared with the previous year. The Industries sector recorded a growth rate of 15.0% in 2022-23. However, this growth was 11.1 percentage points less than the previous year's growth, partially on account of the disturbances in the global supply chain. The Agriculture & Allied sectors grew by 12.5% in India in 2022-23 that is a 2.2 percentage points higher than the growth rate in 2021-22 (10.3%) (see Figure 2.11).

In Telangana, the robust growth achieved by the Agriculture and Allied sectors during the pandemic and after continued in 2022-23 as well. The sector grew by 11.9% in 2022-23 in comparison with 9.7% in 2021-22 – an improvement of 2.2 percentage points between the two years (see Figure 2.10).

Telangana's Agriculture and Allied sector has, in fact, on an average, been on an upward growth path for the past eight years, with its current price growth rate increasing by 12.6 percentage points from 2014-15 to 2022-23. This has been achieved through a multitude of factors including new irrigation schemes such as the Kaleshwaram Lift Irrigation Project and Mission Kakatiya, and innovative agricultural support policies like the Rythu Bandhu Scheme, insurance policies (Rythu Bima), and 24*7 free power supply to the agriculture and allied sector.

Policies like the Rythu Bandhu Scheme have not only benefited the primary sector, but have also had spillover effects on the secondary and tertiary sectors. Direct Benefit Transfers (DBTs) into the accounts of the farmers under Rythu Bandhu, for instance, have led to increased liquidity in the hands of the farming households. This in turn has been utilised by the farmers for buying goods produced by the industrial sector, and for availing services, thus creating knock-on effects for non-farming sectors as well.

The Industrial sector in Telangana, which experienced a robust recovery from the pandemic in 2021-22, grew at 10.5% in 2022-23 (see Figure 2.10). The growth rate of the Industrial sector in Telangana, as in the case of India, was lower in 2022-23 than in 2021-22. This decrease can be attributed to a host of factors such as the unstable world economic scenario and disturbance in global supply chains due to the Russia-Ukraine war, China's zero COVID policy, & high inflation and interest rates. However, Telangana experienced a much smaller decline in the growth rate of the sector in 2022-23 (7.4%) than the decline experienced at the national level (11.2%).

The Services sector in Telangana experienced a 17.5% growth in the GVA at current prices in 2022-23 (see Figure 2.10). While the Services sector was the worst hit during the pandemic in 2020-21, the nominal GSVA of the sector in 2022-23 was 41.1% higher than its pre-pandemic GVA (2019-20). This reflects a strong resurgence in the demand for services produced in Telangana (see Figure 2.10).

2.4.3 Sectoral Contribution to Growth Rates of Gross Value Added

Figures 2.12 and 2.13 reflect the contribution of the three sectors towards the current-price GVA growth in Telangana and India between 2014-15 to 2022-23. In Telangana, except the year 2020-21, the growth of GSVA has been driven mainly by service sector growth. The agriculture and allied sector, supported by the Government's policies like Rythu Bandhu and Rythu Bima schemes, has seen a resurgence as an important contributor to economic growth in Telangana since 2016-17. For India too, the Services sector has been the key driver of economic growth in all years except 2020-21.

Figure 2.12 Contribution of Sectors to GSVA Growth at Current Prices for Telangana (2014-15 to 2022-23)
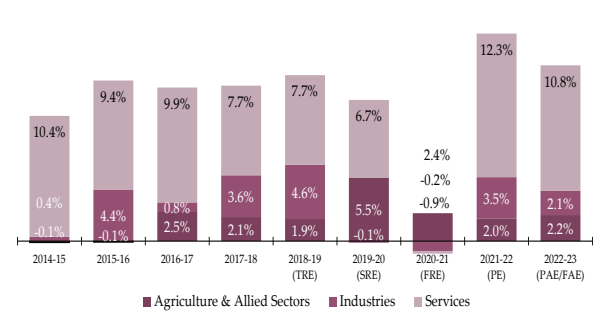
Source: MoSPI, GoI.

Figure 2.13 Contribution of Sectors to GVA Growth at Current Prices for India (2014-15 to 2022-23)
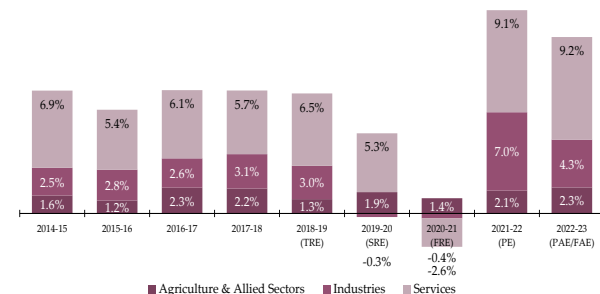
Source: Ministry of Statistics and Programme Implementation, Government of India

2.5 District level indicators

2.5.1 Gross District Domestic Product (GDDP)

The district-level contribution to the state's GSDP is an important metric used to understand the relative economic sizes of the different districts within the state. As Figure 2.14 shows, all districts do not contribute equally towards Telangana's GSDP. Additionally, there were large differences in the extent to which the COVID-19 pandemic affected different districts. However, despite the economic devastation caused by the pandemic, 15 out of the 33 districts recorded a positive nominal growth in their GDDP in 2020-21, and 16 districts recorded a growth rate higher than the national nominal GDP growth rate in that year (-1.4%).

Figure 2.14 Gross District Domestic Product at Current Prices for Telangana's Districts (Rs. Crore) (2020-21 FRE)
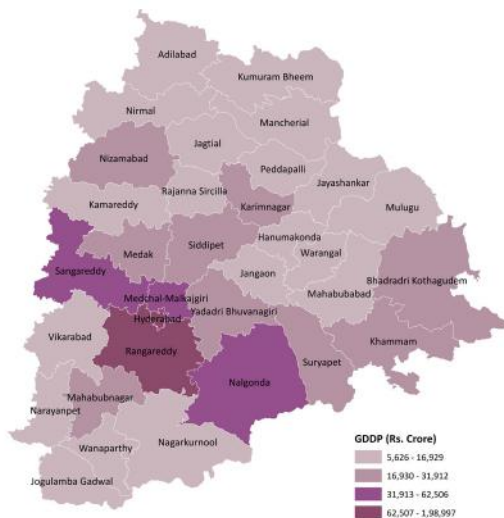
Source: Directorate of Economics and Statistics, Government of Telangana

2.5.2 Per Capita Income

Figure 2.15 reflects the per-capita incomes of all 33 districts in Telangana in the year 2020-21. Even though there was variation between the Per Capita Incomes (PCI) of the 33 districts, all districts in the state had a higher per-capita income than the country's PCI in 2020-21 (Rs. 1,26,855). The PCI of Rangareddy (Rs. 6,69,102), the district with the highest per-capita income in the state in 2020-21, was more than 5 times the national per-capita income in that year. The PCI of Hanumakonda (Rs. 1,30,821), the district with the lowest per-capita income in the state in 2020-21, was Rs 3,966 more than the national per-capita income in that year.

Even in the midst of the pandemic (in 2020-21), 22 districts (close to 70% of all districts) had a nominal PCI growth rate higher than the national nominal PCI growth rate in that year (-3.98%).

Figure 2.15 Per-Capita Income at Current Prices for Telangana's Districts (2020-21)
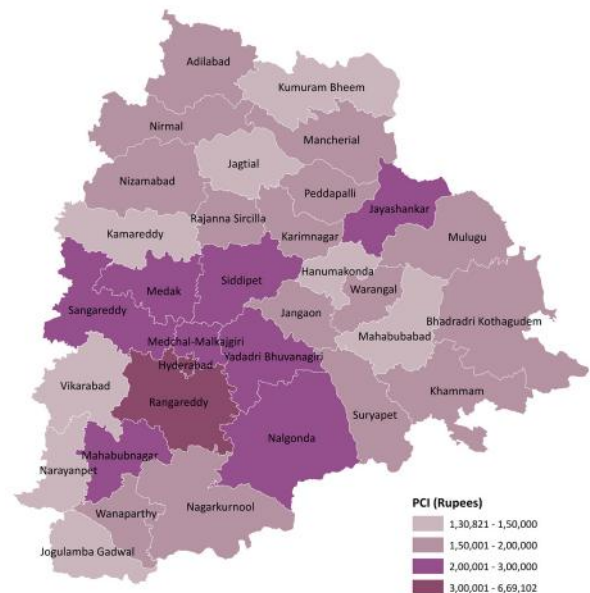
Source: Directorate of Economics and Statistics, Government of Telangana

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11. The figures reported here reflect LFPR as per usual status for the working age population between 15 and 59 years of age. Same specifications hold for WPR and UR.

2.6 Employment

A key manifestation of macroeconomic growth in the life of the citizens is a steady rise in the employment opportunities, reflecting the needs of a strong economy. This is measured using three key indicators - the Labour Force Participation Rate (LFPR), the Worker Population Ratio (WPR) and the Unemployment Rate (UR). Telangana's performance on all of these indicators has been considerably good.

2.6.1 Labour Force Participation Rate (LFPR)

LFPR measures the percentage of the adult, working-age population (between 15 and 59 years of age) which is either employed or looking for employment. A high LFPR is an indicator of confidence in the economy. According to the Periodic Labour Force Survey (PLFS), in 2020-21, Telangana had an LFPR[11] of 65.4%, as opposed to 58.4% at the national level (see Figure 2.16). For Telangana, both rural and urban LFPR are higher than their national counterparts. The rural LFPR is approximately 11.8 percentage points higher in Telangana than in India, while the urban LFPR in the state is approximately 2.0 percentage points higher than in India.

Additionally, both genders in Telangana had an LFPR value either higher or almost at par with their national level counterparts. The female LFPR for Telangana, at 50.0% (see figure 2.17), was considerably higher than that at the national level (35.2%), and the male LFPR in Telangana (80.4%) was almost at par with that at the national level (81.2%).

Figure 2.16 Labour Force Participation Rate in Telangana and India by Rural-Urban (2020-21)
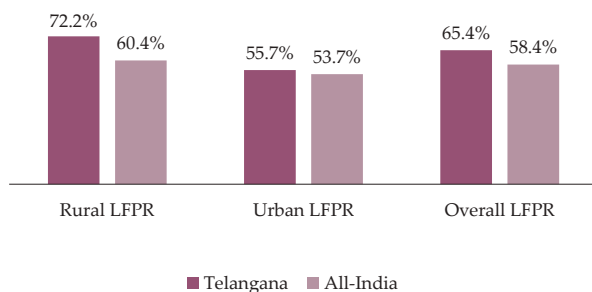
Source: Periodic labour Force Survey, 2020-21

Figure 2.17 Labour Force Participation Rate in Telangana and India by Gender (2020-21)
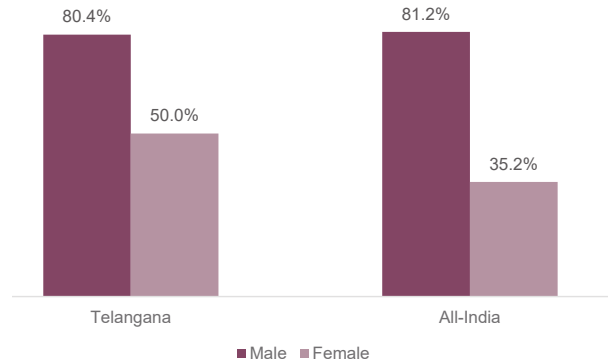
Source: Periodic labour Force Survey, 2020-21

2.6.2 Worker Population Ratio (WPR)

The WPR measures the percentage of employed persons in the population. A high and growing WPR implies that the economy is producing jobs that match the skills and needs of the population. Telangana's Worker Population Ratio (WPR) for the 15-59 age category stood at 62% in 2020-21 – an increase of 2.3 percentage points from its value in 2019-20. As in the case of LFPR, Telangana's WPR was also higher than the national WPR (55.7%) in 2020-21. The rural WPR (shown in Figure 2.18) was 11.4 percentage points higher than the national rural WPR, and the urban WPR was 1.3 percentage points higher than the national level.

Telangana had a female WPR of 47.7% – 13.8 percentage points higher than national female WPR (33.9%) (see Figure 2.19). The male LFPR in Telangana was marginally lower than the national average for males.

Figure 2.18 Worker Population Ratio in Telangana and India by Rural-Urban (2020-21)

Rural WPR: Telangana 69.6%, India 58.2%
Urban WPR: Telangana 51.2%, India 49.9%
Overall WPR: Telangana 62.0%, India 55.7%
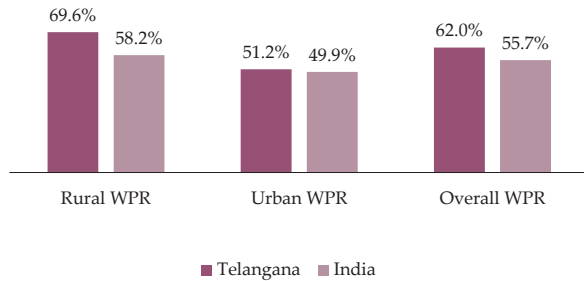
■ Telangana ■ India

Source: Periodic Labour Force Survey, 2020-21

Figure 2.19 Worker Population Ratio in Telangana and India by Gender (2020-21)

Male: Telangana 76.0%, India 77.2%
Female: Telangana 47.7%, India 33.9%

■ Telangana ■ India
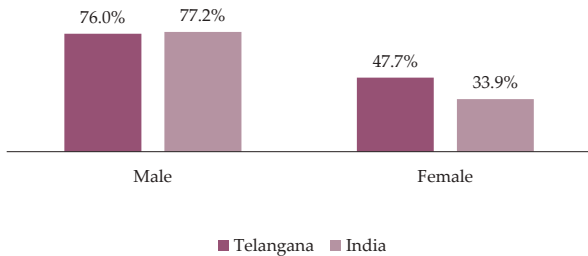
Source: Periodic Labour Force Survey, 2020-21

2.6.3 Unemployment Rate (UR)

Data from PLFS reflects that between 2019-20 and 2020-21, the unemployment rate in Telangana declined from 7.5% to 5.1% among the working age population (15-59 years) (see Figure 2.20). Compared to 2019-20, unemployment rates have fallen in both rural and urban areas, and for men as well as women as shown in Figures 2.20 and 2.21.

Figure 2.20 Unemployment Rate in Telangana by Rural-Urban (2019-20 and 2020-21)

Rural: 2019-20 5.7%, 2020-21 3.6%
Urban: 2019-20 10.7%, 2020-21 8.0%
Overall: 2019-20 7.5%, 2020-21 5.1%
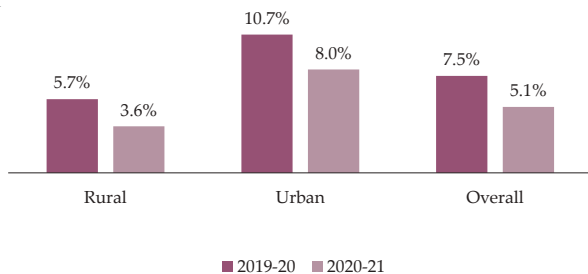
■ 2019-20 ■ 2020-21

Source: Periodic Labour Force Surveys, 2019-20 and 2020-21

Figure 2.21 Unemployment Rate in Telangana by Gender (2019-20 and 2020-21)
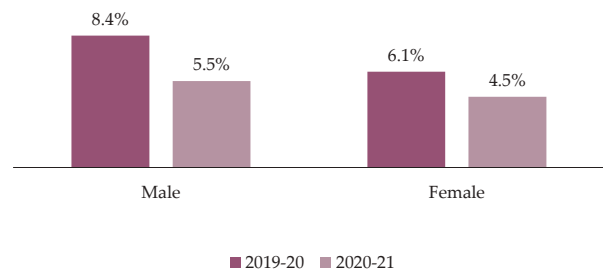
Male: 2019-20 8.4%, 2020-21 5.5%
Female: 2019-20 6.1%, 2020-21 4.5%

■ 2019-20 ■ 2020-21

Source: Periodic Labour Force Surveys, 2019-20 and 2020-21

The unemployment rate in the state has been on a declining trajectory, showing that the economy did not just weather the shocks of the pandemic without any long-term damages, but is also geared for tremendous future growth. More recent data reflects that there was an 8.2 percentage point decline in the Urban unemployment rate according to current weekly status (Four quarters moving average) between the October-December 2020 quarter and the July-September 2022 quarter (see Figure 2.22).

Figure 2.22 Urban Unemployment rate according to current weekly status in Telangana (Quarterly Moving Average)

Oct-Dec 2020: 15.9
Jan-Mar 2021: 15.5
April-June 2021: 12.4
July-Sept 2021: 10.9
Oct-Dec 2021: 10.2
Jan-Mar 2022: 9.2
April-June 2022: 8.0
July-Sept 2022: 7.7
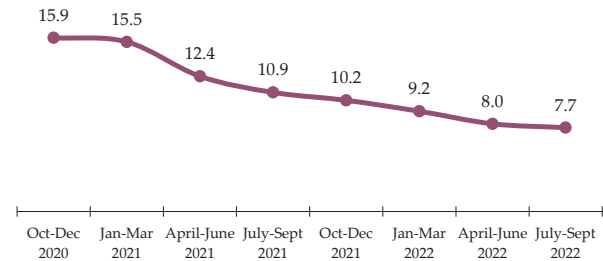
Source: Quarterly Periodic labour Force Survey

In the absence of PLFS data beyond July-September 2022, the Centre for Monitoring Indian Economy (CMIE) data has been used to gauge the recent trends in unemployment in the state. CMIE's database suggests that the unemployment rate in Telangana fell from 9.9% in April 2022 to 4.1% in December 2022.

Figure 2.23 Unemployment rate in Telangana From April 2022 to December 2022

Source: Unemployment Rate Monthly time series, CMIE

2.6.4 Employment in the Major Sectors of the Economy

Of all sectors, agriculture is the largest employer, providing livelihood to 45.8% of all working adults. This is followed by the services sector, which employs a third of all workers in the state. The share of industries in total employment of the state is lower than the share of national employment, reflecting the state's leap-frogging from an agrarian to a services-led economy.

Figure 2.24 Sector-wise Employment in Telangana and India (2020-21)
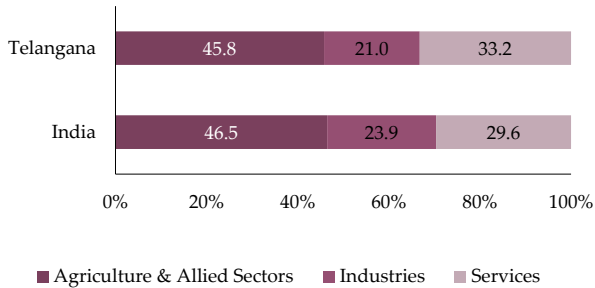
Source: Periodic Labour Force Survey, 2020-21

2.6.5 Terms of Employment

The terms of employment available to the workers in the state have improved over time (see Figure 2.25). In 2020-21, 50.9% workers were eligible for paid leave against 45.2% in 2019-20, and 46.9% workers enjoyed social security benefits like pensions and access to health care, against 40.8% in 2019-20. There has been a 5.7 percentage point increase in access to paid leaves among regular wage/salaried employees, and a 6.1 percentage point increase in individuals receiving Social Security Benefits. The

Government's continued support for the industrial sector, improving Ease of Doing Business, offering subsidies to new entrepreneurs through T-IDEA and T-PRIDE, and encouraging the IT/ITES sector, has helped create high-quality jobs in the state. Declining unemployment rates, alongside substantial improvements in job quality, are indicative of the conduciveness of the labour market of the state to future economic growth.

Figure 2.25 Terms of Employment of Regular and Salaried Jobs in Non-Agricultural Sector in Telangana (2019-20 to 2020-21)
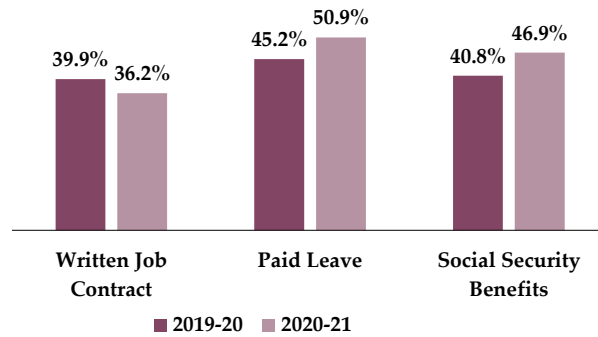
Source: Periodic Labour Force Surveys, 2019-20 and 2020-21

2.7 Way Forward

With a vision to achieve Bangaru Telangana(Golden State), the initiatives taken by the Government are now evolving into best practices in economic development. The youngest state of the country has achieved major milestones in development within no time, by following its own kind – "The Telangana Model". The seeds of the Government's social overhead capital investment in power and irrigation projects during the initial years of state formation now bear fruits in terms of high agricultural productivity and vibrant economic activity. Economic vibrancy is further augmented through the implementation of industry-friendly policies, thereby taking the state to the top in the country in terms of the ease of doing business.

By adopting an integrated development approach rather than banking on piecemeal reforms, the state has been able to achieve growth that is distributed

equitably, and has helped to improve the standard of living of the citizens[12] . Right from its inception, the Government of Telangana has introduced welfare schemes that aim at bringing people out of the poverty trap by providing them with avenues for increasing their productivity, rather than endless benefits with no addition to human capacity. Dalit Bandhu, Rythu Bandhu, Sheep Distribution, Kalyana Laxmi, KCR Kit, etc. are stellar examples of the same. These efforts have resulted in enormous improvements in the standards of living, as reflected in the state's Per Capita Income as well. As next steps, the Government is taking initiatives for investments in the human capital. With Mana Uru Mana Badi, the construction of Super Specialty Hospitals, and the establishment of new medical colleges, the Government aims at new breakthroughs in education and health, which, in the long run, would lead to ripple effects and higher economic growth across all major sectors of the economy.

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12 As per Multidimensional Poverty Index (MPI) by Niti Ayog 2021,Telangana showed exceptional improvement on various indicators between 2015-16 and 2019-21. 88% more people have access to drinking water between 2015-16 to 2019-21. Improved cooking fuel is used by 75% more people in this period. 61% more people have bank accounts in the same period, Sanitation has improved by 52%, Housing has improved by 23%. Niti Ayog uses Indicators : Cooking Fuel, Sanitation, Drinking Water, Electricity, Housing, Assets, Bank Account from NFHS 2015-16 and NFHS 2019-21 surveys to determine standard of living.

PUBLIC FINANCE

Key Highlights

The following key highlights are based on the averages of various indicators between 2018-19 and 2020-21.

- Telangana's State own tax revenues (SOTR) as a proportion of Gross State Domestic Product (GSDP) is 7.21% which is the second highest among 18 General States in the country (India GS).

- Telangana's SOTR accounted for 65.4 % of its Revenue Receipts on average, higher than the average of India GS (48%).

- In per capita terms, leaving out Goa which is an outlier, Telangana's average per capita Revenue (Rs. 27,305) is the highest among India GS. The average for India GS is Rs. 23,788.

- Telangana recorded the highest SOTR growth rate amongst the India GS, at an Average Annual Growth Rate (AAGR) of 4.78% which is more than three times that of the India GS average (1.5%).

- The share of Development Expenditure in Total Expenditure for Telangana is 78.1%, which is the highest among India GS. The average for India GS stands at 68.4%.

- In per capita terms, leaving out Goa which is an outlier, Telangana's average per capita Development Expenditure (Rs. 26,897) is the highest among India GS. The average for India GS is Rs. 20,233.

- Total outstanding liabilities to GSDP ratio of Telangana is 24.7%, which is lower than India GS average (29.7%).

- Telangana's SOTR average monthly receipts rose in 2022–2023 (April to Dec) to Rs. 8,804 crore when compared to the same period of the previous year which is Rs. 7,226 crore.

- Telangana's Capital Outlay recorded a robust growth of 63% in 2021-22 as per revised estimates (Rs.25,954 crore) over 2020-21 (Rs. 15,922 crore), providing the necessary support to the recovering economy.

3.1 Introduction

Management of fiscal resources by the government (Public Finance) plays the most important role in the development and growth of the nation. The key components of public finance are revenue collection, budget preparation, public expenditure and debt management.

Public financial management requires appropriate planning, resource allocation, and managing adverse situations through formulating policies to ensure sustainable growth. In this chapter, the fiscal profile of the State is examined in comparison to other states by analysing indicators pertaining to revenue, expenditure and deficit/debt along with the relevant context wherever necessary. Initiatives taken by the Government have also been highlighted.

The COVID-19 pandemic necessitated the Government to increase expenditures and realign existing expenditure priorities in order to save lives. The economic slowdown had the twin effect of a decrease in revenue receipts and an increase in revenue expenditure. Since 2014, the State registered the lowest revenue growth rate during 2020-21.

According to the Constitution, cess and surcharge do not form part of the divisible pool. Taking advantage of this, the Centre has been levying cesses and surcharges in an increasingly aggressive manner, compromising the State's interest. In 1980-81, the Centre received 2.3% of gross tax revenue as cesses and surcharges; however, by 2020-21, this percentage had increased to 20.1%, further constraining the efforts of the State in mitigating the impact of COVID-19 (See annexure for detailed table on cess and surcharge on different tax revenues).

With the assumption that there will be no further change in the current structure, The Fifteenth Finance Commission (FFC) estimated that cesses and surcharges would amount to an average of 18.4% of gross tax revenue between 2021-22 and 2025-26. As a result, States are being deprived of their due share in tax devolution as recommended by successive Finance Commissions. Tax devolution to States as a percentage of gross tax revenue of the Centre came down to 29.6% in 2022-23 as compared to 41.0% recommended by the FFC.

The FFC in its 2020-21 report recommended special grants for Telangana, Karnataka and Mizoram (amounting to Rs. 6,764 crore) to ensure that no state receives less tax devolution than devolution in 2019-20. However, the Centre did not accept this recommendation. Also, FFC in its 2021-26 report recommended Sector specific grants of Rs. 3,024 crore (Rs. 624 crore for the health sector, Rs. 255 crore for maintenance of PMGSY roads, Rs. 46 crore for improving the quality of statistics, Rs. 245 crore for judiciary, Rs. 189 crore for higher education, and Rs. 1,665 crore for undertaking agricultural reforms) for Telangana.

In addition, State specific grants of Rs. 2,362 crore (Rs. 2,350 crore for operation and maintenance of Mission Bhagiratha and Rs. 12 crore for revamping the infrastructure of the Administrative Staff College of India) were recommended for Telangana between 2021-26 . These recommendations were also not accepted by the Centre. This is in contrast to the norm wherein The Finance Commission's recommendations, while not legally binding, are generally considered as awards by the Centre.

Further aggravating the situation, just when the economy has started to recover, the Centre has imposed cuts in market borrowings. Telangana budgeted to borrow 53,970 crore during 2021-22. However, the Centre has decided to treat off-budget borrowings where principal and/or interest are to be serviced out of the State budget as borrowings made by the State itself from 2021-22, resulting in a reduction of borrowing limit of the State.

Though the FFC did not make any recommendation to this effect, it has only recommended that the government should observe strict discipline by resisting further additions to the existing off-budget borrowings. It is important to note that most of the State's extra budgetary spending has been on large infrastructure projects which drive growth of the economy.

Similar scenario is observed in grants from the Centre. As per section 94 (2) of Andhra Pradesh Reorganisation Act, the Centre is supposed to give

grants for backward districts to the State. However, the State is yet to receive grants amounting to Rs 1350 crore for the years 2019-20, 2021-22 and 2022-23.

3.2 Telangana Budget 2022-23 Summary

The fiscal policy for the year 2022-23 is intended to sustain the revival of the economy and put the economy on a higher growth trajectory. The government adopted a pragmatic approach by gradually expanding its spending. Telangana has budgeted Rs. 2,56,859 crore for the year 2022-23 which is 22.3% higher than 2021-22 revised estimates (RE). After securing the welfare of the most disadvantaged, the focus of government spending switched to beneficial capital expenditure. The capital expenditure has been budgeted at a higher level (Rs 29,728 crore) as in 2021-22 (Rs 25,955) despite making large allocations for welfare schemes.

After successfully managing to mitigate the impact of COVID-19, the State was left with a revenue deficit [1] of Rs. 22,298 crore in 2020-21. In 2021-22, the economy started to recover and the State's revenues have managed to bounce back. Expecting that the growth momentum will pick up further and to meet the increased expenditure requirements, revenue receipts have been budgeted at Rs.1,93,029 crore for 2022-23 which is 23.6% higher than 2021-22 RE (Rs.1,56,127 crore) (see Table 3.1).

Additionally, the Government expects an increase in tax revenues by plugging leakages and expanding the tax base to fully exploit the tax potential available under various heads without imposing any burden on the common man. Non-tax revenue is also expected to increase with the proposed monetization of lands and focus on revenue from mines and minerals. With these planned initiatives, the Government intends to continue the path of fiscal consolidation and expects revenue surplus in both 2021-22 (Rs. 4,395 crore) and 2022-23 (Rs 3,755 crore).

Table 3.1 : Telangana Budget at a Glance 2022-23 (Rs. in Crore)

	Items	Accounts 2020-21	RE 2021-22	BE 2022-23	% change from RE 2021-22 to BE 2022-23
1	Revenue Receipts	1,00,914	1,56,127	1,93,029	23.6%
2	Capital Receipts	58,316	53,750	63,832	18.8%
3	**Total Receipts**	**1,59,231**	**2,09,877**	**2,56,862**	**22.4%**
4	Revenue Expenditure	1,23,212	1,51,732	1,89,275	24.7%
5	Capital Expenditure	15,922	25,955	29,728	14.5%
6	Loans and Advances	10,868	23,256	26,253	12.9%
7	Capital Disbursements	7,545	9,039	11,602	28.3%
8	**Total Expenditure**	**1,57,547**	**2,09,983**	**2,56,859**	**22.3%**
9	**Revenue Surplus**	**-22,298**	**4,395**	**3,755**	**-14.6%**
10	**Fiscal Deficit**	**49,038**	**44,766**	**52,167**	**16.5%**

Source: Telangana Budget at a Glance 2022-23

3.3 Comparative Fiscal Profile of Telangana

Telangana's fiscal performance is strong and favourably contrasts with that of the rest of India, despite being the youngest state in India. Importantly, this makes it possible for the government to launch comprehensive welfare programmes that benefit all eligible households.

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1 Revenue deficit - revenue expenditure exceeding revenue receipts

In this section, financial data from 2018-19 to 2020-21 is examined and compared with equivalent figures from other general states in India, represented by India GS[2]. This nomenclature and approach of taking a three year average[3] of the most recent years for which audited accounts are available is in line with the methodology adopted by the FFC to compute financial indicators of states as the basis for its recommendations.

3.3.1 Revenue

3.3.1.1 Composition

Revenue receipts and capital receipts are the two categories of the government's resources. Revenue receipts are accrued through tax and non-tax sources, transfers and grants from the Centre. Capital receipts comprises borrowings, debt repayment receipts, receipts from sale of assets etc. The State budgeted revenue receipts of Rs. 1,93,029 crore (75.1% of total receipts) and capital receipts of Rs. 63,832 crore (24.9% of total receipts) in 2022-23.

During 2018-21, the State's financial self-sufficiency in comparison to other states is reflected by the fact that the State's own revenue[4] accounts for 73.1% of revenue receipts, which is much higher than the India GS average of 56.5%. The State's own tax revenue (SOTR) accounted for 65.4% of revenue receipts, this is higher than the average of India GS, which is 48.0% (Figure 3.1).

Figure 3.1: Comparison of Revenue components: Telangana vs India GS average (2018-21 average)

Source: RBI State Finances: A Study of Budgets

Per capita revenue receipts for a state is calculated by dividing the State's revenue receipts by its population. In per capita terms, leaving out Goa which is an outlier, Telangana's average per capita revenue receipts (Rs. 27,305) for 2018-21 is the highest among India GS. The overall average for India GS for 2018-21 is Rs. 23,788 (Figure 3.2).

Figure 3.2: Average per capita Revenue Receipts (2018-21 average) in Rupees

Per Capita Revenue 2018-21 (in Rupees)
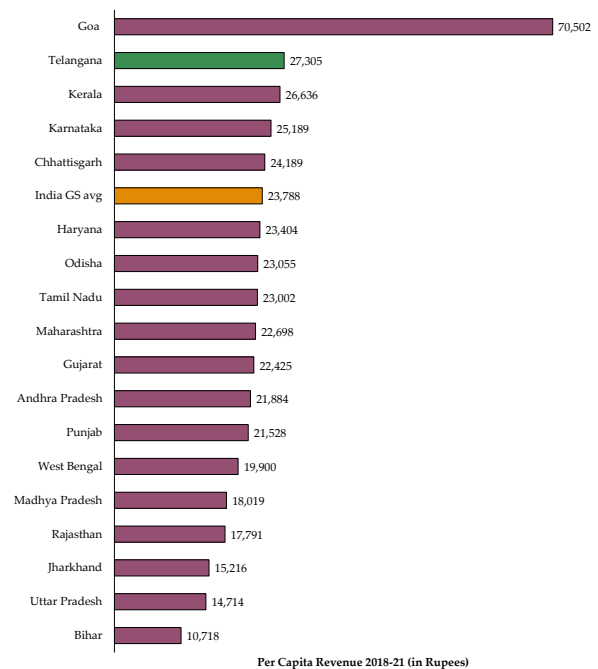
Source: RBI State Finances: A Study of Budgets, Population Projections for India and States 2011-2036, Ministry of Health and Family Welfare 2011- 36

Within SOTR, state goods and services tax (SGST) (34.5%) and sales tax (33.3%) are the largest components. Sales tax (VAT) and excise revenue for 2018-21 are significantly higher than the India GS average (Figure 3.3).

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2   General States include 18 Indian states of Andhra Pradesh, Bihar, Chhattisgarh, Goa, Gujarat, Haryana, Jharkhand, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Odisha, Punjab, Rajasthan, Tamil Nadu, Telangana, Uttar Pradesh and West Bengal.

3   3 year average of 2018-19, 2019-20 and 2020-21

4.   State's Own Revenue = State's Own Tax + Non Tax Revenue

Figure 3.3: Composition of State's Own Tax Revenue: Telangana vs India GS average (2018-21 average)
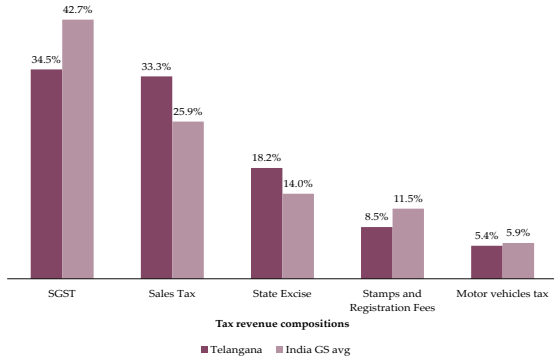
Source: RBI State Finances: A Study of Budgets

3.3.1.2 Tax Growth

Telangana's average annual growth rate (AAGR) in stamps & registration fees, excise, and SGST revenue streams exceeded India GS average growth rate in the period 2018-21. It is worth noting that the State had the highest SOTR growth rate among the India GS between 2018-21, with an AAGR of 4.78%, more than three times that of the India GS average of 1.5% (Figure 3.4)

Figure 3.4: Average annual growth rate of tax revenue: Telangana vs India GS average (2018-21 average)
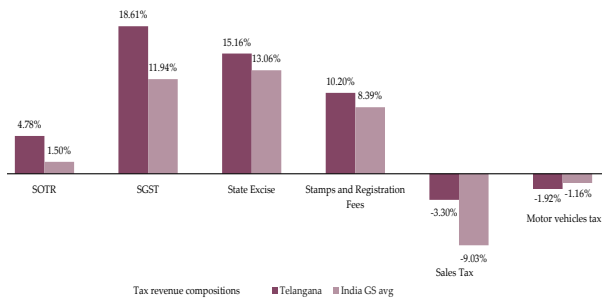
Source: RBI State Finances: A Study of Budgets

The Tax-to-GSDP ratio is the proportion of a state's tax revenue to its Gross State Domestic Product (GSDP). This ratio is used to assess how well a state's government manages its economic resources. Telangana with its SOTR to GSDP ratio of 7.21% is the second highest among India GS, whereas India GS average is 6.07% .Telangana's Tax to GSDP ratio for stamps and registration, state excise, and the motor vehicle tax is greater than India's GS average (Figure 3.5).

Figure 3.5: Tax to GSDP ratio: Telangana vs India GS average (2018-21 average)
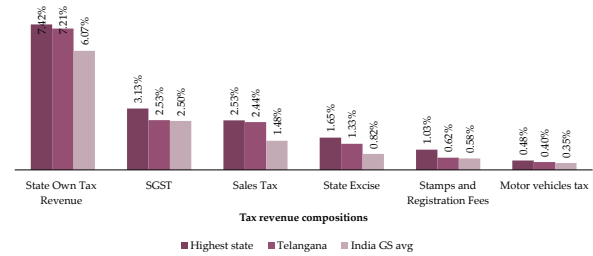
Source: RBI State Finances: A Study of Budgets

3.3.1.3 Impact of COVID-19 on Revenue in 2020-21

Total revenue receipts budgeted for 2020-21 was Rs. 1,43,152 crore, out of which the State's own tax revenue was Rs. 85,300 crore which was 26% more than the previous year and the State own non-tax revenue was Rs. 30,600 crore.

The pandemic has led to a decrease in government revenue from taxes and other sources, which has put pressure on the State's public finances. The State could not receive the anticipated tax revenue, but was able to achieve nearly equal tax revenues in 2020-21 compared to 2019-20 due to prudent fiscal management. The State received Rs. 66,650 crore in tax revenue in 2020-21, compared to Rs. 67,597 crore in 2019-20 (Figure 3.6). The State saw an increase in tax revenue collection in 2021-22 and 2022-23 (Figure 3.7), indicating a recovery from the loss caused by COVID-19.

Figure 3.6: Comparison of Telangana tax revenue between 2019-20 and 2020-21 (Rs in Crore)
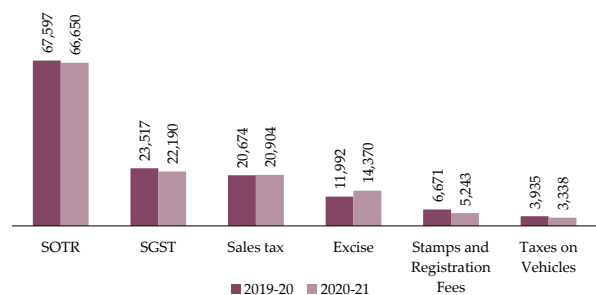
Source: RBI State Finances: A Study of Budgets

Figure 3.7: Quarterly comparisons of State's Own Tax Revenue compositions (Rs. in Crore)
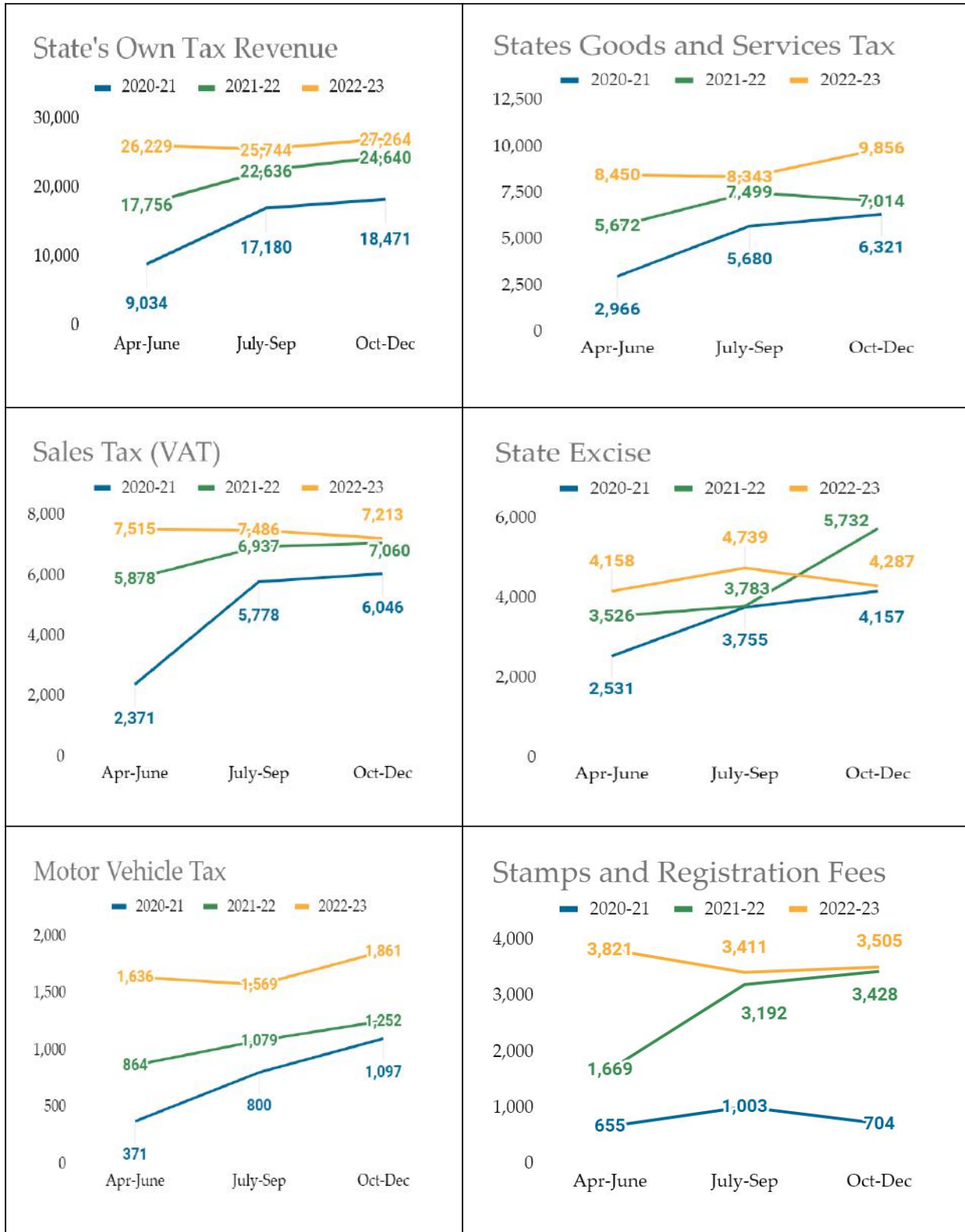
Source: Finance Department, Government of Telangana

3.3.1.4 Quarterly Revenue Comparison for Telangana (2020-21 to 2022-23)

Beginning in March 2020, the State saw a decrease in revenue in key taxes due to COVID-19. Following a decline in revenues in 2020-21, revenue recovery was observed in all of the major individual taxes that comprise SOTR - sales tax (VAT), states goods and services tax (SGST), stamps and registration fees, motor vehicle tax and excise in both 2021-22 and 2022-23.

- SOTR revenue increased by 48% in the first quarter of 2022-23 compared to the same period the previous year.

- SOTR revenue increased by 14% in the second quarter of 2022-23 and 11% in the third quarter of 2022-23 compared to the same period the previous year.

- SOTR average monthly receipts rose in 2022–2023 (April to Dec) to Rs. 8,804 crore when compared to the same period of the previous year which is Rs. 7,226 crore.

3.3.2 Expenditure

The budgeted total expenditure of Telangana for the FY 2022-23 is Rs. 2,56,859 crores, which includes both revenue and capital expenditure. Revenue expenditure is defined as spending that does not result in the creation of assets and is primarily recurring in nature. This includes salaries, wages, pensions, grants, and operational expenses, as well as spending on key schemes like Rythu Bandhu, Aasara Pensions, and other schemes. The budgeted revenue expenditure for FY 2022-23 is expected to be Rs. 1,89,275 crores, accounting for 74% of total expenditure.

On the other hand, capital expenditure is usually one-time and spread out over a long period of time, either resulting in the creation of assets (capital outlay) or the reduction of liabilities (loan repayments). The estimated capital expenditure of the State for FY 2022-23 is Rs. 67,584 crore (26%

of total expenditure), of which capital outlay is Rs. 29,728 crore (44%).

State's capital outlay recorded a robust growth of 63% in 2021-22 as per revised estimates (Rs. 25,954 crore) over 2020-21 (Rs. 15,922 crore), providing the necessary support to the recovering economy. The State has budgeted for a 15% increase in capital outlay in 2022-23 over 2021-22 RE.

3.3.2.1 Development and Non-Development Expenditure

Total expenditure can also be divided into development expenditure and non-development expenditure. Development expenditure includes spending on Social services (Education, Health, Welfare, Housing, and so on) as well as Economic services (Agriculture, Forestry, Industry, Transport, etc.). Non-development expenditure includes spending on General services (Fiscal Services, Administrative Services, etc.).

Telangana has the highest share of development expenditure in total expenditure (78.1%) among India GS in the 2018-21 period (Figure 3.9). India GS average share of development expenditure is 68.4% during the same period (Figure 3.8).

Figure 3.8: Expenditure Composition for Telangana vs India GS average (2018-21 average)
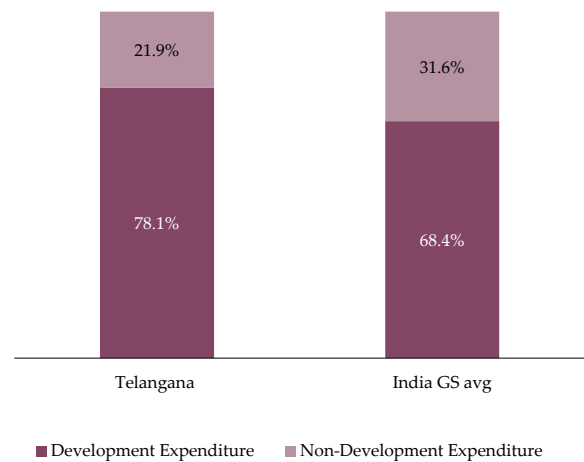
Source: RBI State Finances: A Study of Budgets

During 2018-21, the State's economic services expenditure as a share of development expenditure was 46.3%, which was close to India's GS share of 44.6%. During 2018-21, the State's social service expenditure as a share of development expenditure was 53.7%, which was close to India's GS average share of 55.4%.

Figure: 3.9 Development Expenditure as a percentage of Total Expenditure (2018-21 average)

State	%
Telangana	78.1%
Odisha	75.6%
Chhattisgarh	75.4%
Karnataka	75.4%
Madhya Pradesh	73.6%
Jharkhand	72.4%
Goa	71.0%
Andhra Pradesh	71.0%
Gujarat	70.7%
Rajasthan	70.5%
Bihar	70.3%
India GS avg	68.4%
Haryana	67.6%
West Bengal	65.7%
Maharashtra	64.4%
Tamil Nadu	63.5%
Uttar Pradesh	62.1%
Kerala	51.8%
Punjab	51.2%
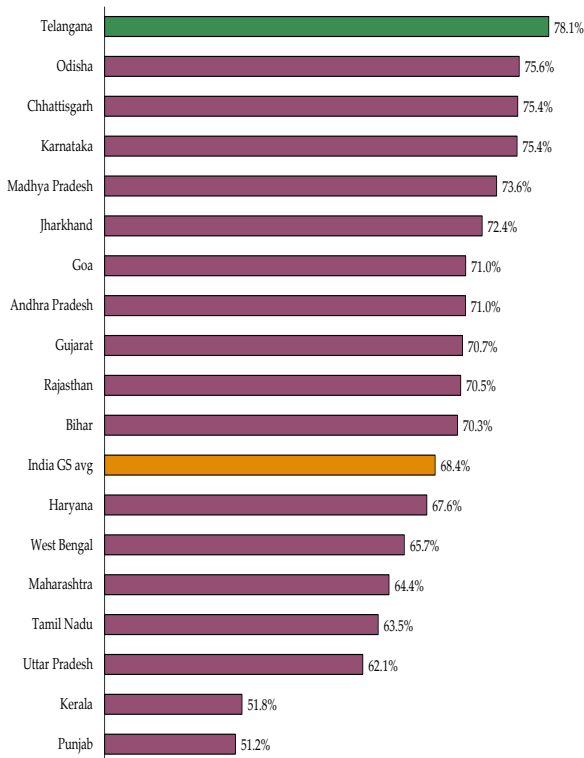
Source: RBI State Finances: A Study of Budgets

3.3.2.2 Per Capita Development Expenditure

Per capita development expenditure for a state is calculated by dividing the State's development expenditure by its population. In per capita terms, leaving out Goa which is an outlier, Telangana stood first in development expenditure incurred during the 2018-21 period. Telangana spent Rs. 26,897 per capita followed by Karnataka (Rs. 24,040), whereas India GS average was Rs. 20,233 (Figure 3.10).

Figure 3.10: Comparison of Per Capita Development Expenditure (2018-21 average) in Rupees

State	Rupees
Goa	59,770
Telangana	26,897
Karnataka	24,040
Haryana	22,883
Andhra Pradesh	21,249
Chhattisgarh	20,507
Tamil Nadu	20,351
India GS avg	20,233
Odisha	19,480
Kerala	18,168
Gujarat	17,511
Rajasthan	17,384
Maharashtra	17,192
West Bengal	16,395
Madhya Pradesh	16,276
Punjab	15,009
Jharkhand	12,578
Uttar Pradesh	9,890
Bihar	8,619
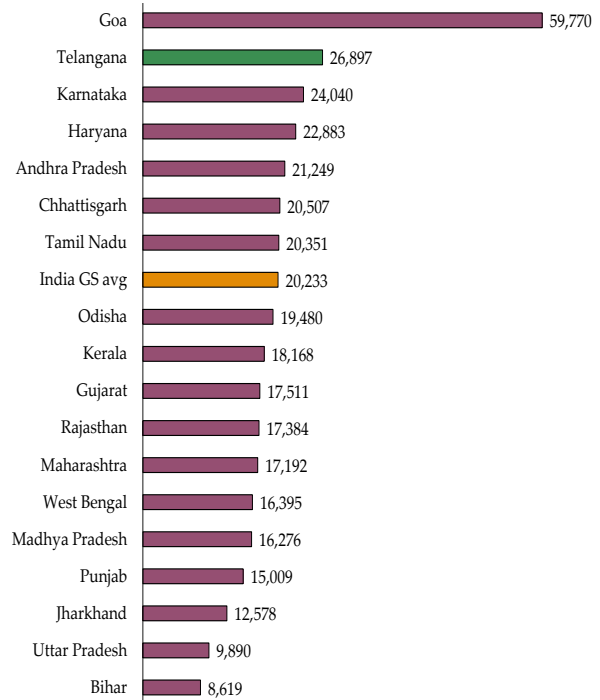
Source: RBI State Finances: A Study of Budgets

3.3.2.3 Revenue Expenditure and Capital Outlay

The government's priority is to increase public spending in order to sustain recovery and promote growth. During 2018-21, the State's average revenue expenditure was 85.4% of the total expenditure (sum of revenue expenditure and capital outlay), whereas India GS average was 87% of total expenditure.

The State's share of capital outlay in total expenditure was 14.6%, higher than the average share of 13% for India GS (Figure 3.11) and has steadily increased since the State's formation. This reflects the State's emphasis on infrastructure development and asset creation for the State's economic growth.

Figure 3.11: Revenue Expenditure and Capital Outlay share in Total Expenditure (2018-21 average)
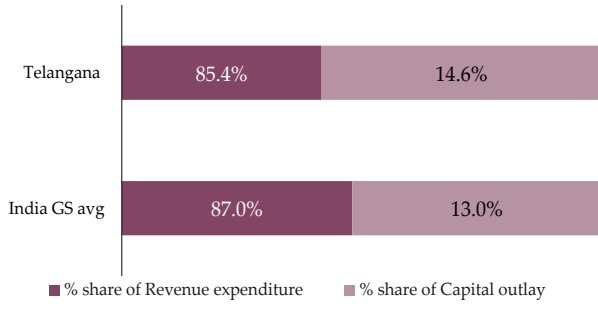
Source: RBI State Finances: A Study of Budgets

3.3.2.4 Committed Expenditure

Committed expenditure includes expenditure on salaries and wages, pensions, and interest payments. Increased allocation to committed expenditures reduces fiscal space for other development expenditures. Telangana's committed expenditure as a percentage of revenue receipts was 48.6% in 2018-21, lower than the India GS average (55.1%) for the same period. Figure 3.12 depicts a comparison with other general states.

Figure 3.12: Comparison of Committed Expenditure as percentage of Revenue Receipts (2018-21 average)
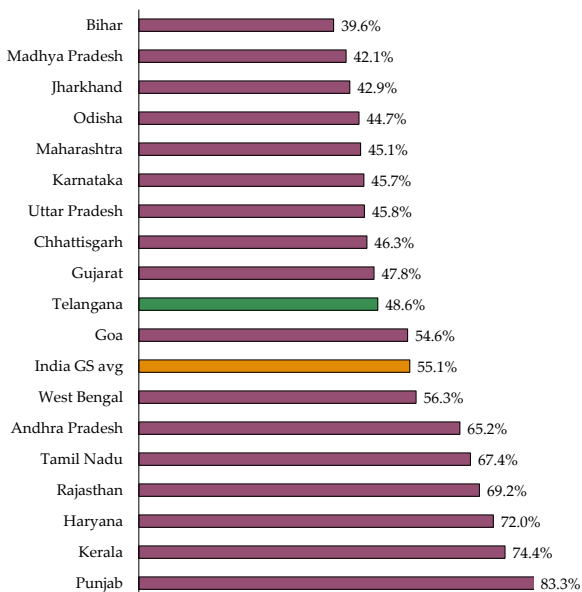
Source: RBI State Finances: A Study of Budgets

3.3.3 Deficits and Debt

Deficit refers to an excess of expenditure over income. It denotes the amount of government borrowing required. The Government of Telangana has set a target of 4% of GSDP as fiscal deficit (overall expenditure exceeding overall receipts, excluding debt repayment and receipt) for 2022-23 as per FRBM Fiscal Policy Statement 2022-23.

A revenue surplus (revenue receipts exceeding revenue expenditure) of Rs. 3,755 crore and a fiscal deficit of Rs. 52,167 crore have been projected for 2022-23.

3.3.3.1 Decomposition of Gross Fiscal Deficit

Similar to India GS, Telangana's capital outlay accounted for a major share at 56.5% of the average fiscal deficit during 2018-21. Capital outlay accounted for 65.9% of the fiscal deficit in India GS (Figure 3.13). In terms of revenue deficit, India GS had an average revenue deficit of 33.3% during 2018-21, accounting for the fiscal deficit, while Telangana had a revenue deficit of 16.4% during the same period.

The remaining component of the fiscal deficit (27.1%) was accounted for net lending (net of state government loans and advances). The loans and advances have primarily been used for capital expenditures in water supply and sanitation, major and medium irrigation and sanitation, road transportation, housing, animal husbandry, public health and Power Projects.

Figure 3.13: Gross Fiscal Deficit decomposition: Telangana vs India GS average (2018-21 average)
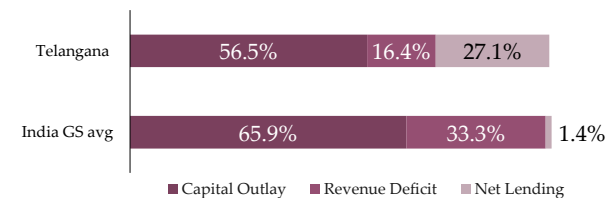
Source: RBI State Finances: A Study of Budgets

3.3.3.2 Financing the Fiscal Deficit

The fiscal deficit is funded through market borrowings, central government loans, public accounts, and other sources. During 2018-21, market borrowings were the major source of financing fiscal deficit (85.6%) of Telangana whereas the same for India GS stands at 68.9% (Figure 3.14).

Figure 3.14: Fiscal Deficit financing composition: Telangana vs India GS average (2018-21 average)
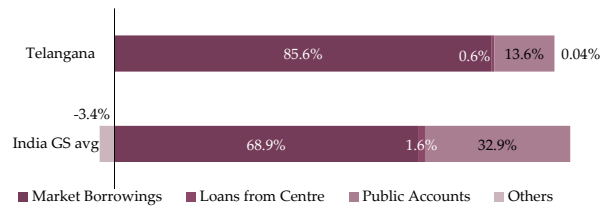
Source: RBI State Finances: A Study of Budgets

Note: 1. Others include Special Securities issued to the National Small Savings Fund (NSSF), Reserve Funds, Deposits and Advances, Suspense and Miscellaneous, Remittances, and Overall Surplus (-)/ Deficit (+). 2 Due to rounding off, the figures may not add up to exactly 100%.

3.3.3.3 Debt Sustainability

It is critical for debt to be sustainable, so that interest payments do not consume a large portion of revenue. Debt sustainability is measured using two key parameters: total outstanding liabilities to GSDP and interest payments to revenue receipts.

During 2018-21, the average outstanding liabilities to GSDP ratio of the State was 24.7% whereas for India GS it was 29.7%. In the same period, the interest payments to revenue receipts ratio of the State stood at 14.4%, slightly less than the India GS average (14.5%) (Figure 3.15). Therefore, Telangana has done well compared to other states in terms of debt sustainability.

Figure 3.15: Outstanding Liabilities to GSDP ratio and Interest payments to revenue receipts ratio: Telangana vs India GS (2018-21 average).
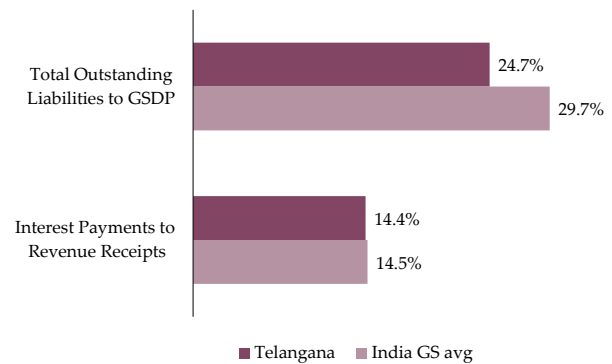
Source: RBI State Finances: A Study of Budgets

3.4 Way Forward

Telangana's fiscal health has improved after a decline in 2020-21, and the economy has recovered, resulting in higher revenue collections in 2021-22 and 2022-23. Due to the cut imposed on market borrowing and the shortfall in grants from the Centre, there is severe strain on the state finances. Given the looming threat of global recession disrupting economic growth, additional resource mobilisation might be a challenge. However, there is room for optimism as the State is on the way to meet its budgetary own tax revenue target for 2022-23, which enables the Government to meet its developmental commitments.

Annexure 1:

Cess and Surcharge levied on different taxes from 2011-12 to 2021-22 RE (Rs. in Crore)

Sl N	Cess and Surcharges levied on	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22 RE
1	Corporation Tax	24,287	41,036	53,780	61,292	30,458	34,285	38,292	83,527	40,337	32,063	85,481
2	Taxes on Income	4,855	7,826	10,103	20,252	10,010	24,554	15,141	62,276	23,856	23,913	80,096
3	Customs (Import)	9,728	7,639	9,199	11,185	11,830	7,742	4,443	12,006	15,324	25,005	39,340
4	Union Excise Duties	51,024	60,880	63,869	70,511	1,20,388	1,44,223	1,39,009	1,59,895	1,75,189	3,26,036	3,62,625
5	Service Tax	2,642	4,025	4,319	4,721	5,264	20,259	7,077	410	102	36	0
I	**Grand Total (Cesses and Surcharges) (sum of 1 to 5)**	**92,536**	**1,21,406**	**1,41,271**	**1,67,960**	**1,77,951**	**2,31,064**	**2,03,962**	**3,18,113**	**2,54,807**	**4,07,054**	**5,67,542**
II	Gross Tax Revenue	8,89,176	10,36,235	11,38,734	12,44,885	14,55,648	17,15,822	19,19,009	20,80,465	20,10,059	20,27,104	25,16,059
	Cesses and Surcharges (I) as % to GTR (II)	**10.4%**	**11.7%**	**12.4%**	**13.5%**	**12.2%**	**13.5%**	**10.6%**	**15.3%**	**12.7%**	**20.1%**	**22.6%**

Source: Union Government Budget documents

AGRICULTURE AND ALLIED ACTIVITIES

Key Highlights

- The farm sector plays a key role in strengthening the national economy, improving inclusive growth, ensuring sustainable development, and dealing with climate change. Poverty reduction can take place with investment in agriculture, with a focus on improved agricultural practice. These practices include improving the efficacy of farmland by halting and reversing deteriorating soil health; encouraging crop diversification; promoting the usage of certified seeds; practising sustainable water management with rainwater harvesting and preservation of rainwater; developing local agricultural marketing and using technology.

- Agriculture, Forestry, Livestock and Fisheries sectors' Gross Value Added (Current Prices) to the state economy has seen a CAGR[1] of 14.05% from Rs.76,123 crores in 2014-15 to Rs.2,17,877 crores in 2022-23 (PAE) and during the same period the sector CAGR at all India level is 9.97%.

- A significant portion of this growth was driven by the livestock sub-sector, currently livestock accounts for 47.69% of the overall sector GSVA at Current Prices, followed by crops at 45.20%, fishing and aquaculture at 3.05%, forestry and logging sector stood at 4.06% in 2022-23 (PAE).

- The paddy production in the State has increased by 342% between 2015-16 and 2021-22 (from 45.71 lakh MTs to 202 lakh MTs) in the State and the State has emerged as the Second largest contributor to the central procurement. Similarly, Cotton production has been increased by 33% from 18.85 lakh MTs in 2015-16 to 25.08 lakh MTs in 2021-22.

- As per 20th livestock census-2019, Telangana ranks first place in the sheep population. The sheep population has seen an increase of 48.51% between 2012 to 2019 (12.8 million in 2012 to 19.1 million in 2019). Telangana stands at 3rd in egg production, 5th in meat production and 13th position in milk production during 2021-22.

- As part of agriculture investment support, under the Rythu Bandhu scheme, cumulatively, the government disbursed Rs. 65,192 crores (from Vanakalam 2018-Vanakalam 2022) to 65 lakh beneficiaries (in Vanakalam 2022). Of these, 53% belong to the BC category, around 13% each belong to SC and ST categories, and 'Others' constitute around 21% of the beneficiaries.

- Under the Rythu Bima scheme, from 2018-19 onwards, the Government has settled claims to an extent of Rs. 4,771 Crores and transferred the amount to the 95,416 bereaved families[2] .

- The efforts of the Government to improve irrigation facilities by commissioning new projects and improving old irrigation infrastructure have been successful and begun to pay off. The gross irrigated area of all crops increased by 117% between 2014-15 (from 62.48 lakh acres) and 2021-22 (to 135 lakh acres).

- The Government has provided a safety net by procuring total production of major crops like Paddy and actively supporting a transition to demand driven and commercial agriculture which will provide a sustainable increase in income to the farmers through initiatives like crop diversification and the oil palm mission etc.

- The State is one of the potential states for Oil Palm cultivation and stands 6th in area with 68,440 acres (till 2021-22), 2nd in production of Fresh fruit Bunch and 1st in oil Extraction (OER) with 19.32% in India.

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1. Compound Annual Growth Rate   2 As on 20.01.2023

4.1. Agriculture and allied activities -Macro Trends

Agriculture is a vital sector in the economies of developing countries and a key issue in sustainable development. The cluster of issues around 'sustainable agriculture, food security, and nutrition' has emerged as an important focus area. Due to the spread of harmful chemical agriculture, there is also a need for a transition to ecologically sound farming in many areas, otherwise, it can lead to a crisis. Lack of proper systems related to access to credit, and insurance systems can lead to many economic crises, as well. Considering all these issues, the Government of Telangana focuses on several flagship programs that are aimed at not only improving farmers' income but also the overall well-being of the farming community in the State.

As more than 60% of the rural population of Telangana is employed in agriculture and its allied activities, investing in the agriculture sector can address not only the hunger and malnutrition of these populations but also other challenges, including poverty, water, and energy use, climate change and unsustainable production and consumption. It is clear that, in Telangana, the agriculture sector is a major contributor to the GSDP as the Gross State value added (GSVA) of the agriculture and allied sector has seen a growth of 186% from its formation.

Budget allocation for agriculture increased markedly from Rs.6,611 crore in 2016-17 to Rs.27,228 crore in 2022-23[3]. In the current year 2022-23 budget, the Government has allocated 14.4% of its total revenue expenditure towards agriculture and allied activities.

There is a sustained growth of primary sector contribution to the state economy over the years. The contribution of the crops sector to the State's GSVA at Current Prices has increased by 136% from Rs.41,706 crores in 2014-15 to Rs.98,478 crores in 2022-23(PAE). There is a marked improvement in GSVA at Current Prices between 2018-19 and 2019-20 (an increase of 63.11% from Rs. 48,366 crores to Rs. 78,894 crores), which in part attributed to increase in investment on agriculture through schemes such as Rythu Bandhu. Fig 4.1 below denotes sector wise percentage shares in the state economy and trends between 2014-15 to 2022-23(PAE) at Current Prices.

3. Telangana Budget Analysis 2022-23, PRS Legislative Research

Fig 4.1: Sectoral Contribution to the State's GSVA from 2014-15 to 2022-23 (PAE) (at Current Prices)
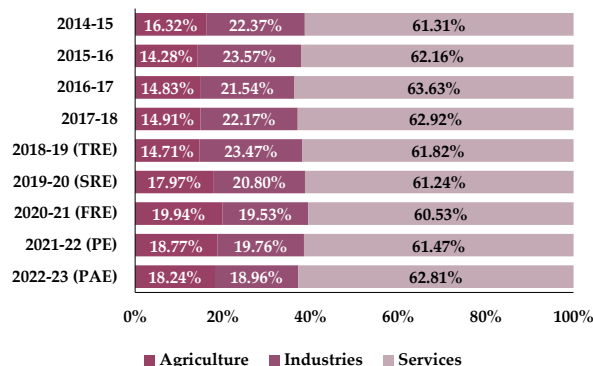
Source: Directorate of Economics and Statistics, Government of Telangana

Fig 4.2: Agriculture and Allied Activities Contribution to GSVA Between 2014-15 and 2022-23 (PAE) at Current Prices
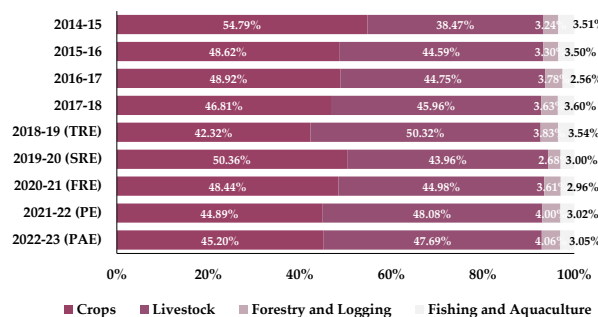
Source: Directorate of Economics and Statistics, Government of Telangana

Between 2014-15 to 2022-23(PAE), GSVA (at current prices) of Agriculture, forestry, livestock and fisheries have seen a CAGR of 14.05% in the State. The livestock sector is a major driver of this growth with a CAGR of 17.15% and its contribution to the GSVA of Agriculture & Allied activities has considerably improved from 38.47% to 47.69% in the above period. The growth in part is attributed to the renewed efforts of the government in this sector, which include new schemes such as the Sheep distribution scheme. Table 4.1 below shows a comparison between the percent growth rate of Telangana and India over the years in current prices.

Table 4.1: Growth Rate of Agriculture sector GSVA at Current Prices: Telangana Vs India (2015-16 to 2022-23(PAE))

	2015-16	2016-17	2017-18	2018-19 (TRE)	2019-20 (SRE)	2020-21 (FRE)	2021-22 (PE)	2022-23
Telangana	-0.5	17.5	13.9	12.7	37.1	13.3	9.7	11.9
India	6.4	13.1	12.4	7.1	10.8	7.5	10.3	12.5

Source: MOSPI, GoI, Directorate of Economics and Statistics, Government of Telangana

Table 4.2 below depicts the sub-sector's contribution to the agriculture growth between 2015-16 and 2022-23(PAE), in which the crop sector has seen a growth of 5.7% in 2022-23(PAE) from -6.4%(2015-16).

Table 4.2: Sub Sectoral Growth Rate Contribution to Overall Sector Growth (at Current Prices) Between 2015-16 and 2022-23 (PAE)

Sub sector of Agriculture and Allied Acti vities	2015-16	2016-17	2017-18	2018-19 (TRE)	2019-20 (SRE)	2020-21 (FRE)	2021-22 (PE)	2022-23 (PAE)
Crops	-6.4%	8.9%	4.4%	0.9%	26.7%	4.5%	0.8%	5.7%
Livestock	5.9%	8.0%	7.6%	10.8%	9.9%	7.0%	7.8%	5.3%
Forestry and Logging	0.0%	1.1%	0.4%	0.7%	-0.2%	1.4%	0.8%	0.5%
Fishing and Aquaculture	0.0%	-0.5%	1.6%	0.4%	0.6%	0.4%	0.4%	0.4%
Agriculture and Allied Activities Growth rate (in %)	-0.5%	17.5%	13.9%	12.7%	37.1%	13.3%	9.7%	11.9%

Source: Directorate of Economics and Statistics, Government of Telangana

Fig 4.3 below depicts the trends in the CAGR of GSVA (Current Prices) of Agriculture between 2014-15 and 2021-22 across non special category states for which data is available. Among them, Telangana Stands at 3rd rank with a CAGR of 11.14% next to Madhya Pradesh(15.59%) and Karnataka(12.06%).

Fig 4.3: CAGR of Agriculture sector GSVA (Current Prices): Telangana vs. other States (2014-15 to 2021-22[4])

Madhya Pradesh	15.59%
Karnataka	12.06%
Telangana	11.14%
Rajasthan	10.38%
Andhra Pradesh	10.15%
Bihar	10.06%
Uttar Pradesh	9.21%
Jharkhand	7.35%
Tamil Nadu	6.60%
Odisha	6.37%
Haryana	6.25%
Punjab	5.62%
Kerala	2.15%

CAGR

Source: RBI Handbook of statistics on Indian Economy 2021-22

4.2. Land Use Pattern

Telangana State is the 11th largest State in the country with a geographical area of over 276.95 lakh acres (112.08 lakh hectares). Of this, 52.88 percent of the area is under Net Sown Area, around 24.70 percent is under Forest Cover, 7.46 percent is under land put to Non-agriculture use, 5.26 percent area is under Fallow lands, 5.42 percent is under Barren and uncultivable land and the balance area is under permanent pastures and other grazing lands.

4.2.1 Land holding pattern

The total number of operational holdings in the State is 59.48 lakhs covering an area of 59.72 lakh hectares[5] . Marginal and Small farmers hold about 88.3% of the landholdings (less than 4.94 acres) accounting for 61.7% (36.83 lakh hectares) of the area operated. Semi-medium, Medium and Large farmers hold 9.5%, 2.1%, 0.2% of the land holdings account for 24.6%, 11.5%, 2.3% of the area operated respectively. According to the Agriculture Census, 2015-16, the average land holding size in the State

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4.	Analysis was done among Non-Special Category States for which data is available

5.	Agriculture Census 2015-16

is 1.00 hectare, which is below the all India average of 1.08 hectares.

Category wise percentage of land holdings (as per 10th Landholding census) is given below.

Fig 4.4: Land Holding Pattern in the State

Size Group (in Acres)	No. of Holdings (000)	% of Holdings	Area Operated ('000 Hects)	Area Operated (000' Acres)	% of Area Operated
Marginal (Below 2.47)	3,840	64.60	1,706	4,216	28.60
Small (2.48-4.94)	1,409	23.70	1,977	4,885	33.10
Semi-medium (4.95-9.88)	564	9.50	1,467	3,625	24.60
Medium (9.89-24.77)	126	2.10	688	1,700	11.50
Large (24.78 and above)	9	0.20	135	334	2.30
Total	**5,948**	**100**	**5,972**	**14,757**	**100.0**

Social Group	No. of Holdings (000)	% of Holdings	Area Operated ('000 Hects)	Area Operated (000' Acres)	% of Area Operated
Scheduled Caste	700	11.80	532	1,315	8.90
Scheduled Tribes	712	12.00	741	1,830	12.40
Institutional	1	0.00	5	13	0.10
Others	4,535	76.20	4,694	11,599	78.60
Total	**5,948**	**100**	**5,972**	**14,757**	**100**

Source: Agriculture Census 2015-16, MoAFW, GoI

The Scheduled Castes (SC) population own 11.8% of landholdings, covering 8.9% of the total area. The Scheduled Tribes(ST) population own 12.0% of agricultural landholdings, covering 12.4% of the total area. 76.2% of the landholdings belong to the 'Others' category, and cover 78.60% of the area operated.

4.2.2 Rainfall

Since the State is situated in a semi-arid region, the distribution of rainfall is a key determinant of agricultural production. Telangana received 1180.8 millimetres (mm) of rainfall in 2021-22(from June to May), which is 30% in excess of the normal rainfall of 906.1mm. Normally around 85% of the annual rainfall is received during the south-west monsoon period i.e, from June to September, during this period of 2021-22, the State has received 1009.6 mm rainfall, which is 40% excess of normal rainfall of 721.2 mm of that period.

6. During 2021-22, State normal rainfall during South-West monsoon (Jun-Sep) is 721.2 mm, during North-East monsoon (Oct-Dec) is 124.9, during the winter period (Jan to Feb) is 11.4 mm and during Hot Weather period (Mar-May) is 48.6mm.

Fig 4.5(a): Annual Rainfall (Actual in mm) Between 2014-15 to 2021-22[6]
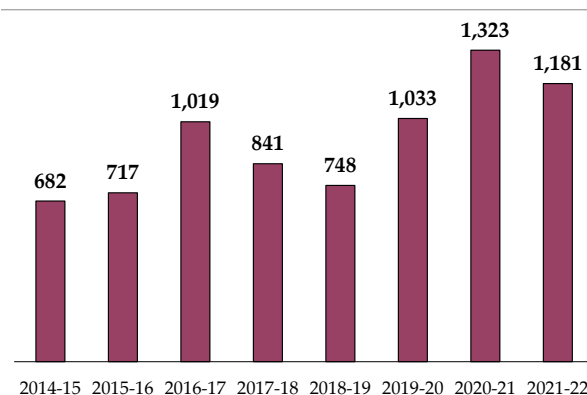
Source: Directorate of Economics and Statistics, Government of Telangana

The State received normal rainfall in the years of 2017-18, 2018-19 and 2019-20 whereas excess rainfall has been received in the years 2020-21 and 2021-22. The excess rainfall received in the last two years has contributed for improvement in the groundwater recharge in the State. Paddy production was also increased by 119% from 100.03 lakh MTs in 2018-19 to 218.51 lakh MTs in 2020-21. The rainfall received in the year 2021-22 is slightly (10.71%) lesser than the year 2020-21. This has clearly reflected the decrease of paddy production by 7.47% i.e. from 218.51 lakh MTs in 2020-21 to 202.18 lakh MTs in the year 2021-22. With the receipt of good rainfall in the years from 2018-19 to 2021-22, the overall sown area has been increased and agricultural productivity has been improved in the State.

Fig 4.5(b): Month wise % deviation of rainfall received in the year 2021-22 (June,2021 to May,2022)
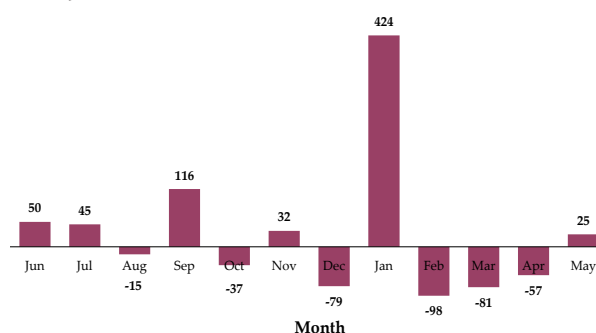
Source: Directorate of Economics and Statistics, Government of Telangana

4.3. Agriculture and Allied Activities: Trends in Output

4.3.1 Sown Area

The area brought under cultivation after the formation of the State has been tremendously increased. Gross Sown Area (GSA) has been increased from 131 lakh acres in 2014-15 to 198 lakh acres in 2021-22 (an increase of 51%). This increase in area is mainly due to the planned investments in new irrigation projects, revitalisation of existing irrigation systems and systematic procurement mechanisms implemented by the Government. Paddy cultivation in both seasons has made the State the rice bowl of India in a very short span. Paddy, Cotton, Maize, Red Gram and Soybean are the major crops grown in the State. The area under these five major crops constitutes 85% of the total area in the State during 2021-22. Further, of these five major crops, paddy(50%) and Cotton(24%) constitute about 74% of the area. In 2014-15, the area cultivated under Paddy was about 35 lakh acres and increased by 180% to 98 lakh acres in 2021-22. Similarly, the area under the Cotton crop also increased by 12% from 42 lakh acres to 47 lakh acres in 2021-22.

Fig 4.6(a): % of Gross Sown Area under top 5 major crops in Vanakalam in the years from 2014-15 to 2021-22
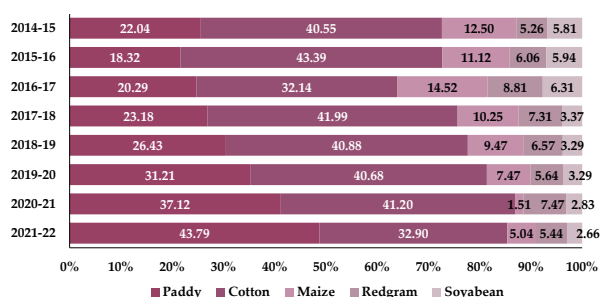
Source: Directorate of Economics and Statistics, Government of Telangana

After formation of the State, the area under Paddy crop has been increased significantly i.e from 22.04% of the total gross area sown in 2014-15 'Vanakalam' to 43.79% in 2021-22 'Vanakalam' and there was a significant decline in the coverage of Maize from 12.5% of total GSA to 5.04% and Cotton from 40.55%

of the gross area sown in 2014-15 to 32.90% of the gross area sown in 2021-22. The area under Red gram and Soybean crops did not vary significantly in this time span. Fig 4.6(a) above depicts the trends in % area covered under the top 5 major crops out of the gross sown area in Vanakalam from the year 2014-15 to 2021-22.

Fig 4.6(b):% of Gross Sown Area Under Top 5 Major Crops in Yasangi from the year 2014-15 to 2021-22
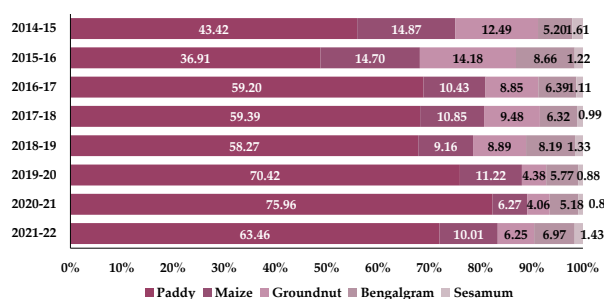
Source: Directorate of Economics and Statistics, Government of Telangana

Fig 4.6(b) above shows the year-on-year percentage gross sown area of top 5 crops in the Yasangi season. While the perecentage sown area for the top-ranking crop-paddy-increased from 43.42% in Yasangi 2014-15 to 63.46% in Yasangi 2021-22, the percentage sown area of Maize, Groundnut and Sesamum crops have been declined between the years 2018-19 and 2020-21. The sown area of the groundnut, as a % of GSA, was drastically decreased i.e from 12.5% in the year 2014-15 to 6.3% in 2021-22. The percentage sown area of these top 5 crops in Yasangi has increased significantly from 77.6% in 2014-15 to 88.1% in 2021-22.

District level data also shows the increase in Gross Sown Area (GSA) between 2018-19 and 2021-22, all districts except Warangal district have recorded a positive growth in the increase of GSA. The overall growth in GSA across Telangana stood at 39% in the above period. Fig 4.7 below depicts the district wise percentage increase in GSA between 2018-19 and 2021-22. The percentage of gross sown area in Warangal district has decreased by 2.1% in the above period due to a decrease in the area under Cotton crop.

Fig 4.7: The % Increase in Gross Sown Area Across the Districts in the State Between 2018-19 and 2021-22
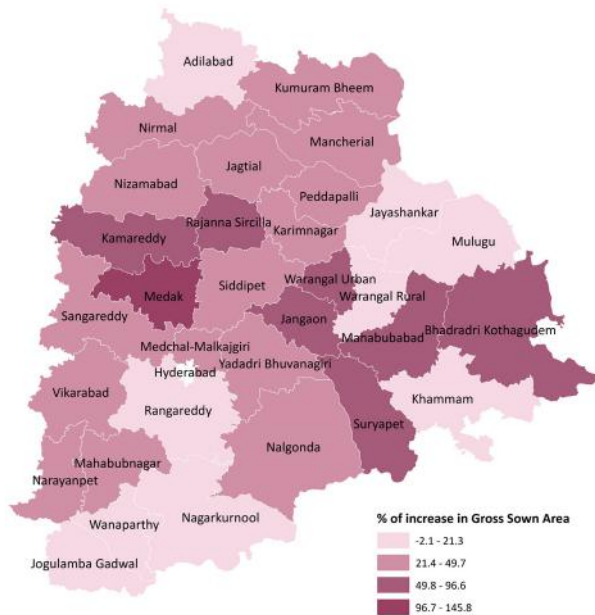
Source: Directorate of Economics and Statistics, Government of Telangana

4.3.2 Cropping Intensity

The ratio of gross cropped area to net cropped area, is an indicator useful for assessing efficiency of the agriculture sector. Cropping intensity refers to the raising of a number of crops from the same field during one agricultural year. Thus, higher cropping intensity means that a higher proportion of the net sown area is cropped more than once during one agricultural year.

Fig 4.8 below depicts the cropping intensity index across the districts, with an overall index of 143, the state has an opportunity in improving cropping intensity by utilising technology and improved agricultural practices.

Fig 4.8: District Level Cropping Intensity Index for 2020-21
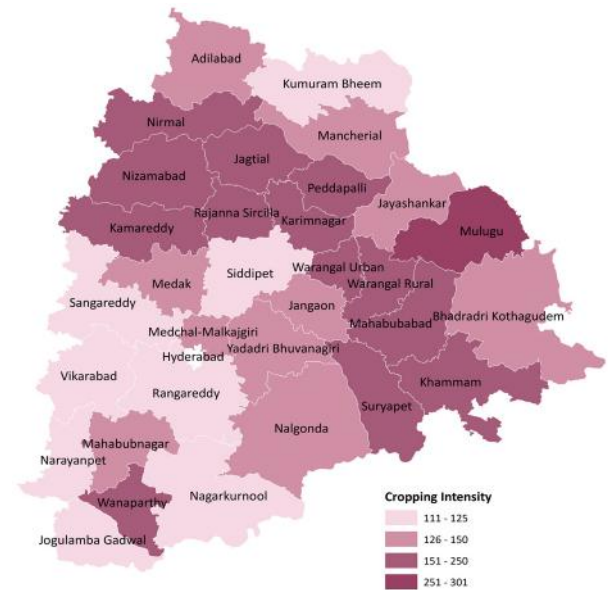
Source: Directorate of Economics and Statistics, Government of Telangana

4.3.3. Production of major crops

The increase in crop area led to an increase in agriculture production in the State which increased by 52% from 232 lakh MTs in 2014-15 to 326 lakh MTs in 2021-22. Three major crops grown in the State namely Paddy, Cotton and Maize constitute nearly 80% of the total produce(2021). As per the agriculture statistics 2020, Ministry of Agriculture and Farmers Welfare, GOI, Telangana stands at 3rd position in production of Cotton in the country (with an output of 5.80 Millions bales). Fig 4.9(a) below provides trends in agriculture production over the years.

Fig 4.9 (a): Trends in Total Agriculture Production in the State (in Lakh MTs)
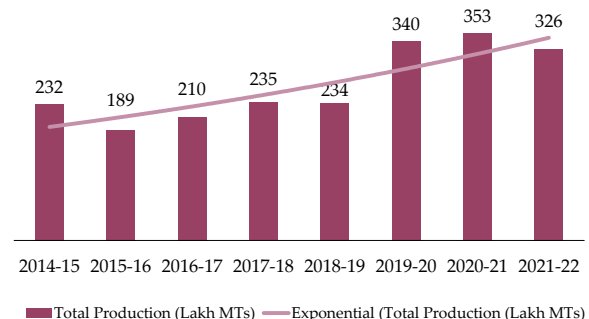
Source: Directorate of Economics and Statistics, Government of Telangana

Box 4.1
Paddy and Cotton

- The effectiveness of the State's agricultural policies and incentives can be directly seen in the growth of Paddy and Cotton. According to the estimates for 2020-21, Telangana produces around 16% of India's Cotton and around 8% of the total rice produced in India.

- Area: In 2015-16, total area under Paddy and Cotton was 25 and 43 lakh acres respectively. By 2021-22, the area stood at 97 and 46 lakh acres respectively. Area under Paddy increased by 279% and Cotton increased by 6% in the State.

- Production: In 2015-16, Paddy Production was around 45 lakh tonnes and Cotton Production

was 18 lakh tonnes. By 2021-22 Paddy Production increased by 342% to 202.18 lakh tonnes and Cotton production increased by 33% to 25.08 lakh tonnes.

- Procurement: The State emerged as the Second largest procurer after Punjab by procuring 77.46 lakh MTs in 2018-19, 111.26 lakh MTs (14.33%) 2019-20, 141.09 lakh MTs (15.75%) in 2020-21 and 119.05 lakh MTs(13.75%) of Paddy to Food Corporation of India (FCI).

- Comparison with India: Between 2015-16 to 2020-21, rice production saw a CAGR of 18% highest across the country (2nd highest is Manipur state with a CAGR of 12% and all India at 3%) and the production of cotton saw CAGR of 8.8%, 2nd highest in the country after Rajasthan (16%). In the same above period all India production has a CAGR of 0.25%.

Fig 4.9.1: Area Under Paddy and Cotton (in Lakh Acres) between 2015-16 and 2021-22

Year	Paddy	Cotton
2015-16	25.85	43.81
2016-17	45.17	34.82
2017-18	48.49	46.88
2018-19	47.74	45.46
2019-20	79.47	52.55
2020-21	104.23	58.28
2021-22	97.98	46.68
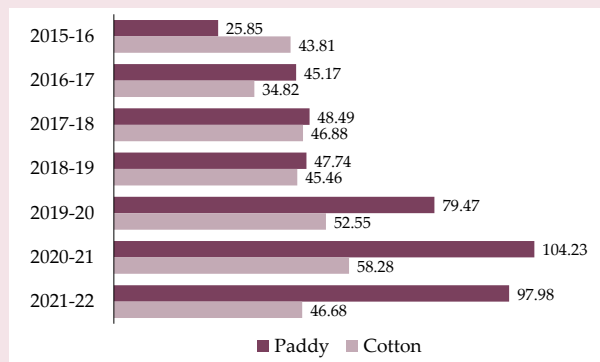
Fig 4.9.2: Production of Paddy and Cotton (in Lakh MT) between 2015-16 and 2021-22

Year	Paddy	Cotton
2015-16	45.71	18.85
2016-17	98.99	18.73
2017-18	93.95	27.82
2018-19	100.03	21.53
2019-20	178.27	37.63
2020-21	218.51	30.42
2021-22	202.18	25.08
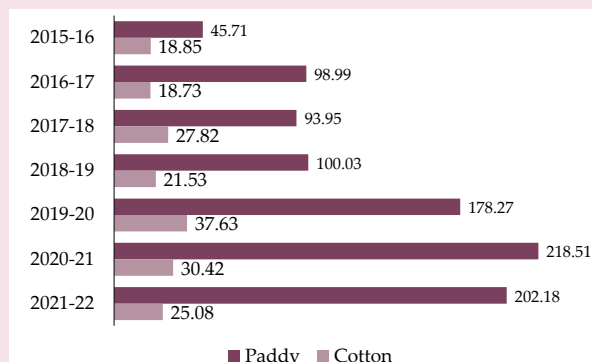
Source: Directorate of Economics and Statistics, Government of Telangana and DES, Ministry of Agriculture & Farmers Welfare.

Box 4.2
GI Tag to Protein's Powerhouse - Tandur Red Gram

- Tandur Redgram is the 16th product to bag a geographical indication (GI) tag.

- The Tandur Redgram is a local variety of pigeon pea that is primarily grown in the rain-fed tract of Tandur and nearby places in the State.

- This variety of dal contains 22-24% of protein, which is three times more than the other varieties.

- The specific quality traits of Tandur redgram have been attributed to the fertile, deep black soil containing huge deposits of attapulgite clay mineral soils along with huge limestone deposits in this region.

- It has a good taste, better cooking quality and long storable nature.

Fig 4.9(b): Production of major crops Between 2014-15 and 2021-22 (in Lakh MT)
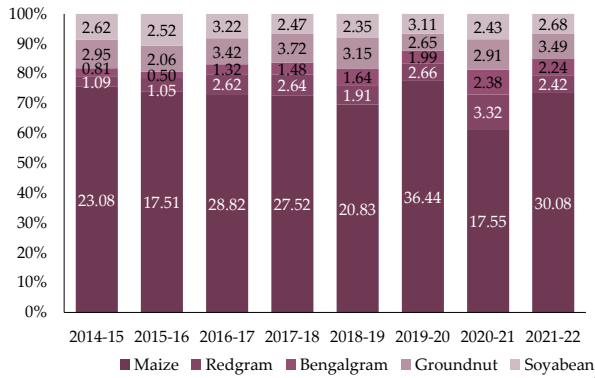
Source: Directorate of Economics and Statistics, Government of Telangana

Telangana stands at 10th place in production of Foodgrains at the national level. However, with a 14.6% growth rate in production of Foodgrains between 2019-20 and 2020-21, Telangana stood at 4th position at the national level (4.4%). Production of Groundnut has increased by 18% over the production of 2014-15 and production of Soyabean did not vary much from the produce of 2014-15 and stood at 5th position at national level. Year wise production of top 5 crops (except Paddy and Cotton) is depicted in the above chart.

4.3.4 Yield of major crops over the years

The consistent efforts of the Government in increasing the quality of agriculture inputs like quality seeds, irrigation facilities & inculcation of new techniques led to increase in yield of various crops. The chart given below indicates the trends in the yields of major crops between 2015-16 and 2021-22.

Fig 4.10: Year-Wise Yields of Major Crops Between 2014-15 and 2021-22
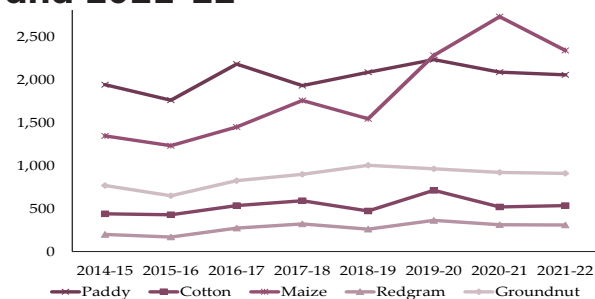
Source: Directorate of Economics and Statistics, Government of Telangana

Telangana stands at 1st place at all India level in the yield of Maize crop. The average yield of Maize crop in the State is 112% (2020-21) and 78% (2019-20) more than the average yield in the country. Telangana stands at 6th place (2020-21) in average yield of rice at all India level, this average yield is 18% (2020-21) and 36%(2019-20) more than the all India average. In case of Groundnut crop average yield, the State stands at 4th place and the average yield in the State is 34% (2020-21) and 16% (2019-20) higher than the average yield at all India level.

4.3.5 Consumption of Fertilisers

Consumption of fertilisers and pesticides is determined by multiple factors such as area of land under cultivation, type of crop raised, cropping pattern and cropping intensity, soil type and its condition, agro-climatic conditions, the ability of farmers to purchase, irrigation, and others. The Government has set up an integrated Fertiliser Monitoring System(IFMS) which helps the farmers in tracking and ensuring the timely distribution of fertilisers. Consumption of major fertilisers have been increased from 28 lakh MT in 2018-19 to 37 lakh MT in 2021-22 in the State. There is an increase of 11.70 lakh tonnes (46% increase) supply of fertilisers during the period from 2014-15 to 2021-22 in the State. Fig 4.11 depicts the trends in fertiliser consumption over the years from 2018-19 to 2021-22 in the State.

Fig 4.11: Fertiliser Consumption from the year 2018-19 to 2021-22 (in lakh tons) in the State
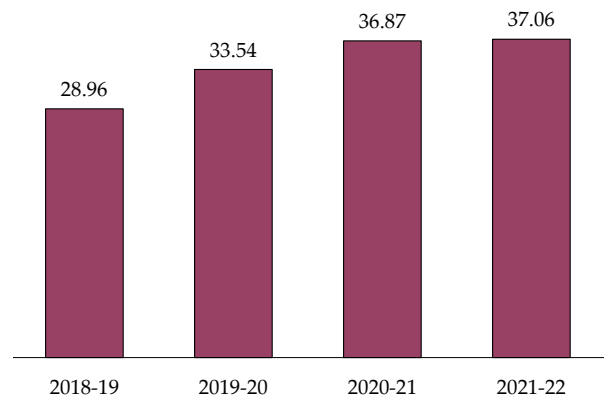
Source: Department of Agriculture, Government of Telangana

Box 4.3

Efforts of the Government in Strengthening Agriculture Statistics

To improve the accuracy of the area and yield estimations, the Government has modernised the data collection process and introduced supportive supervisory practices to ensure error-free final data.

This includes 3 major aspects:

(1) **Activity Logger:** A mobile application through which frontline personnel in the agriculture department can report the activities they performed and quantify their effort for each activity on a daily basis. The data generated by this will be used to monitor and measure the performance of 2,600 AEOs working across the State and quickly identify misalignment in resource allocation and make necessary adjustments.

(2) **Remote Sensing based Estimation:** To complement the Crop booking exercise conducted by AEOs, the Government has initiated a pilot Remote Sensing(RS) based Area estimation project for Yasangi 2021-22. The government has estimated crop sown area for 7 major crops viz. Paddy, Maize, Groundnut, Jowar, Green gram, Black gram, and Bengal gram in coordination with Satsure, a well established RS based agency. The pilot is one of its kind in the country where the department received area estimates at the village level. The same pilot extended to Vaanakalam 2022 where acreage estimates were done through remote sensing for 10 crops i.e. Paddy, Cotton, Maize, Groundnut, Jowar, Soyabean, Chilli, Turmeric Green gram and Redgram.

(3) **Survey CTO Application:** The MPSOs have entrusted with the job of verifying area enumeration done by the agriculture department by using a mobile-based data collection platform that allows for complex skip patterns, geo-tracing and tagging of crops, and ensures collection of authentic data during agricultural area enumeration surveys. Use of this application for data collection will provide another level of check with sophisticated real time data gathering to ensure that the data recorded is accurate. The state has taken up surveyCTO in identifying correction factors in the area enumeration work across the state from Vanakalam, 2021 onwards.

Box 4.4

CCE Kits

Crop Cutting Experiments (CCEs): CCEs are conducted to obtain the estimates of average yield (productivity) and production of all principal crops at district and state level. The Yield estimates arrived are used for planning at State and Central level, to make certain policy decisions, Market arrivals, to make necessary arrangements for procurement of crop produce etc. To enhance accuracy, transparency and easy flow of data from field level, an App was developed in collaboration with NIC to capture CCE data and developed a web portal to get real time yield estimates. New features include:

• Near real-time availability of data such as photo and GPS available for conducting further checks

• 100 % supervision of CCEs by Divisional, District , State level officers & Officials from NSSO

• To improve the qualitative assessment and timely submission of yield and production estimates to the Government, all the field functionaries are provided with the latest CCE kits containing smart electronic table top weighing machine(EWM) with bluetooth facility, Compass, tarpaulin sheet, measuring tape, weighment bag, Driage bags, etc

• This enables the field functionaries uniformity in weighment, instant communication of the data and calculation of the crop production and GSDP.

4.3.6 Horticulture

The Horticulture sector has been a driving force in the overall growth of the Agriculture & Allied sector in the State. Currently, 54.82 lakh Metric tonnes of horticulture products are being produced from an extent of 12.94 lakh acres, which is 6.52% of the total area under cultivation (12.94 lakh acres out of 198.37 lakh acres) in the State. During the period from 2015-16 to 2021-22, area under horticulture crops has been increased by 240% (from 3.80 lakh acres in 2015-16 to 12.94 lakh acres in 2021-22) and the production has been increased substantially from 29.32 lakh MTs in 2015-16 to 54.82 lakhMTs in 2021-22, showing an increase of 86.97%.

The Horticulture crop sector contributes 31% to Agriculture GVA in terms of value of the produce (Rs. 26,673 crores value of horticulture produce out of the total value of Rs. 85,959 crores of Agriculture & Allied activities during 2020-21) in the State. Mango, Sweet orange, Acid Lime, Guava, Pomegranate, Tomato, Brinjal, Oilpalm, Cashewnut, Chillies and Turmeric are the major horticulture crops cultivated in the State.

Fig 4.12: Production of Major Horticulture Crops in 2015-16 and 2021-22 (in lakh MTs)
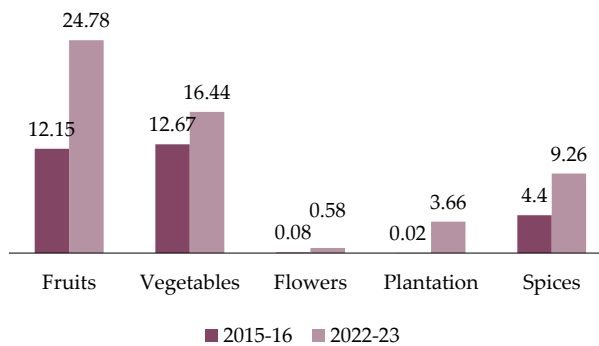
Source: Horticulture Department, Government of Telangana

4.3.6.1 Major Achievements after formation of the State

After formation of the Telangana State, the Government has given importance to the Horticulture Sector and launched various development programmes such as Area Expansion programme (NMEO-Oil palm), Mission for Integrated Development of Horticulture (MIDH), National Bamboo Mission (NBM), Establishment of Poly Houses / Greenhouses, Micro irrigation, Promotion of Horticulture Activities and other programmes.

An additional area of 42,963 acres has been brought under perennial horticulture crops. Poly houses were established in 112.45 acres under MIDH programme, an extent of 7,858 Ha has been brought under Mulching, 12,266 units (Vermi beds and vermicompost units) were given on subsidy to farmers to encourage Organic farming, 733 number of farm ponds were sanctioned under assistance for life saving irrigation to horticulture crops, 6,656 number of horticulture equipments/implements were distributed to the farmers under Horticulture mechanisation programme, Extended assistance for establishment of 44 cold storage units, 10 Ripening chambers, 3 refer vans, one Integrated Pack house, 427 Pack houses, 149 Turmeric boiling units, 85 Turmeric polishing machines with an aim to reduce post harvest losses in the State.

4.3.7 Livestock sector in Telangana

The Livestock sector is another important sector after Agriculture in rural and semi-urban areas in the State. About 25.82 lakh families are engaged either in rearing livestock or related activities for their livelihood. This sector has emerged as one of the most potential and income generating to the people both in rural and semi urban areas. Between 2012 to 2019 the livestock population in the State has increased from 26.7 million to 32.6 million with 22% growth. With increase in livestock population, the production and availability of nutritious food, supplemental income to the farmers has also increased. Among the major states in India, Telangana is the second to West Bengal in the growth of livestock population. Fig 4.13 The change in livestock population between the year 2012 and 2019 (between 19th and 20th livestock census). For the year 2022-23(PAE), value of livestock production is estimated at Rs 1,03,895 crores at current prices, expecting to contribute 48% to the GVA of the Agriculture and Allied sector.

Fig 4.13 % Change in Livestock Population among States Between 2012 and 2019
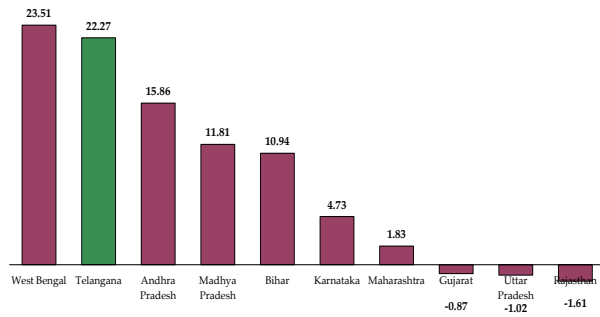
Source: 20th Livestock Census, GoI

Among livestock, Telangana ranks first place in sheep population at 19.1 million. The sheep population has seen an increase of 48.51% between 2012 to 2019. Telangana stands 3rd in egg production with an output of 1,667 crore eggs, 5th in meat production of 10.04 lakh tonnes and 13th position in milk production of 58.07 lakh tonnes during 2021-22. Milk and meat covers almost 75 % of GVA in the livestock sector.

Fig 4.14: Production of Meat, Milk and Eggs in the State between the years 2014-15 and 2021-22
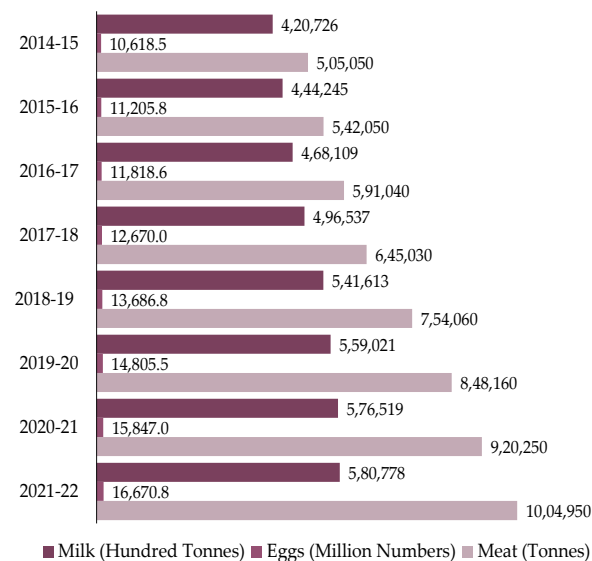
Source: Animal Husbandry Department

The growth in this livestock sector may be attributed to the various schemes implemented by the government. Since the formation of the State, the government introduced new innovative schemes with an objective to develop this sector. Fig 4.14 shows the trends in the production of Meat, Milk and Eggs between 2014-15 to 2021-22.

Fig 4.15 Breakup of Livestock GVO in Telangana (2020-21 FRE) (in crores)
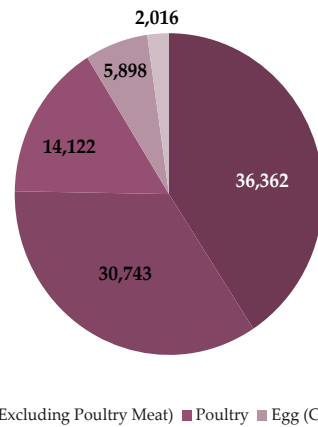
Source: Animal Husbandry Department

The Gross Value of Added by the livestock is steadily increasing over the years since formation of the State. The GVA of this sector has been increased from Rs.29,282 crore in 2014-15 to Rs 1,03,895 crore by 2022-23 (PAE) at Current prices, the trends are depicted in Fig 4.16.

Fig 4.16: Trends in GVA of Livestock Sector in the State between the years from 2014-15 to 2022-23 (in crores)
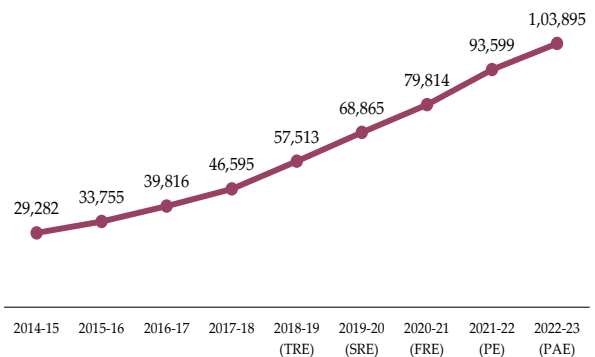
Source: Directorate of Economics and Statistics, Government of Telangana

4.3.7.1 Mobile Veterinary clinics

The Government as part of its vision and objective to provide improved veterinary services to the livestock at the doorstep of the farmers, has launched 100 mobile veterinary clinics with latest available facilities and with a toll free number 1962 to provide on-call animal health service facilities.

4.4. Government Initiatives

Telangana has been rapidly moving out of the past shadows of farmer suicides, extreme indebtedness and lack of irrigation facilities, and aims to become a model for farmer friendly have implemented various new initiatives under agriculture sector. Among these two initiatives, Rythu Bandhu and Rythu Bima have won accolades at the United Nations. Some of the States and even the central government has preferred to implement these schemes in their respective States and in the country. The GSVA of primary sector has been consistently increasing since the formation of the State, the new initiatives of the government such as the Rythu Bandhu scheme, construction of new (major and medium) irrigation projects and streamlining of the existing ones, 24x7 free power to Agriculture, Mission Kakatiya, promotion of livestock and fisheries, sheep distribution scheme, etc., are resulting in realisation of the Green, White and Blue revolutions in the State.

The philosophy of the Government has been that, 'Everything can wait but not agriculture' and farmers need timely access to inputs such as funds (in terms of support for investment) and access to credit facilities. Further, streamlining of available farm inputs (such as seeds, fertilisers etc.) and providing timely extension services are critical for good yield returns. To deal with the increased production over the years in the State, the Government has implemented various post-harvest management practices through additional storage facilities and market linkages. Most recently, to deal with the problem of plenty, the government has initiated certain structural reforms such as promoting crop diversification through oil palm cultivation and technology enabled approach

for improving the animal husbandry services in the State.

Access to finance is critical for the growth of the agriculture sector. With ever increasing demand for agriculture and its allied products, it is necessary to create a risk free environment for farmers to get easy and quick access to funds. To reduce the financial difficulties of the farmers, the government is providing support in two ways, One is through the Rythu Bandhu scheme, which provides financial support to all farmers and second, increased lending facilities through banks.

4.4.1 Rythu Bandhu (Investment Support)

Recognizing the importance of the financial support to the farmers for meeting the basic input costs in cultivation, the Government launched the Rythu Bandhu Scheme in 2018. The scheme provides financial support of Rs. 10,000/- per acre per year to the landowning farmers in the State. This assistance is comparatively higher than the amounts disbursed in other States. In Andhra Pradesh it is Rs 7,500 per farmer family per year, in Jharkhand it is Rs.5,000 per marginal and small farmer per acre per year, and in West Bengal, Rs.10,000 per year for one acre or more of cultivable land. Moreover, the Government has extended the scheme to all land-owning farmers irrespective of the landholding size. In a brief note prepared by the Indian Council for Research on International Economic Relations (ICRIER) has mentioned the concept and recommended this direct investment support initiated by the Government of Telangana and also stated that the Rythu Bandhu scheme is a better scheme compared to other alternatives schemes as it is simple to implement, more transparent and inclusive[7] .

Key Highlights

- In Vanakalam 2022, around 65 lakh farmers received investment support under the Rythu Bandhu scheme, of which 73.63% are marginal farmers (<2.47 acre) and 17.70% are small farmers (2.48 - 4.94 acre). Large farmers

7. Gulati, A., Chatterjee, T., & Hussain, S. (2018). Supporting Indian farmers: Price support or direct income/investment support.

(>24.78 acres) account for only 0.1% of the total beneficiaries. In Vanakalam 2022-23, 148 lakh acres was covered under this scheme and an amount of Rs. 7,435 crores was disbursed. So far cumulatively, an amount of Rs. 65,192 crores have been disbursed to the beneficiaries during the last 9 seasons (from 2018-19 to 2022-23) in the State.

Out of the total 65 lakh beneficiaries in Vanakalam 2022, 53% beneficiaries belong to BC category, 13% each belong to SC and ST categories and 'Others' category constitute around 21%.

In this year 2022-23, 54%[8] of the budget on the total Agriculture and Allied activities sector have been earmarked for the Rythu Bandhu Scheme.

Fig 4.17(a): Landholding category wise beneficiaries under Rythu Bandhu in Vanakalam 2022-23

Marginal (<2.47 acre)
47,86,111
(73.6%)

Small (2.48 – 4.94 acre)
11,50,339
(17.7%)

Semi-Medium (4.95 – 9.88 acre)
4,73,387
(7.3%)

Medium (9.89 – 24.78 acre)
84,588
(1.3%)

Large (24.78 & above acre)
5,861
(0.1%)
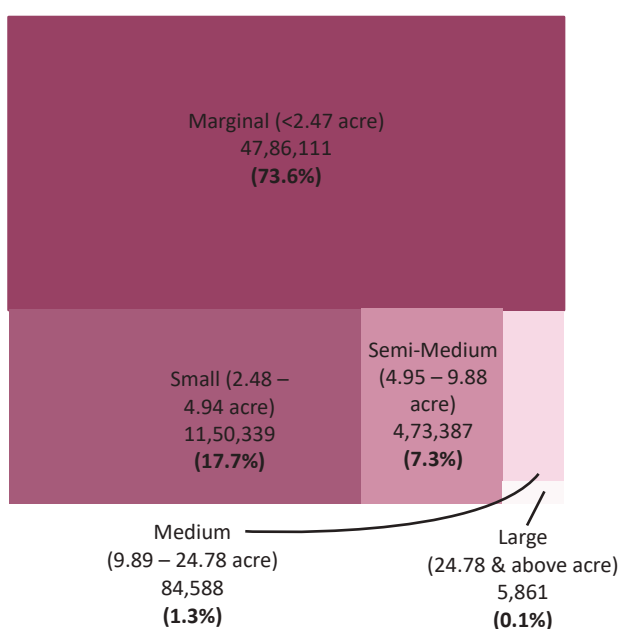
Source: Department of Agriculture, Government of Telangana

Fig:4.17(b) Social Category wise beneficiaries (in Lakhs) under Rythu Bandhu Scheme in Vanakalam 2022

ST
8.23
(12.67%)

SC
8.54
(13.14%)

Others
13.41
(20.64%)

BC
34.81
(53.55%)
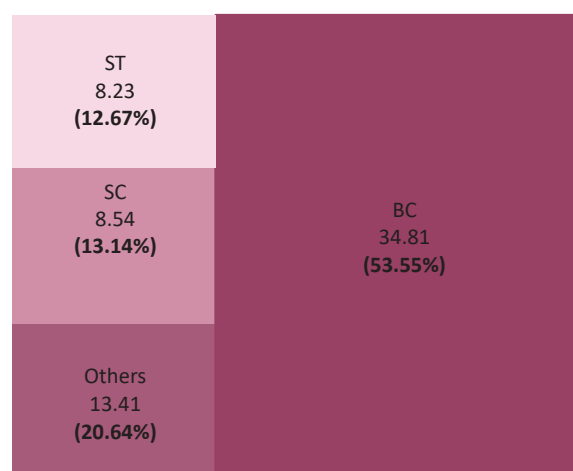
Source: Department of Agriculture, Government of Telangana

Fig 4.17(c): Status of Rythu Bandhu Scheme from Vanakalam 2018-19 to Vanakalam 2022-23

Season	No. of Beneficiaries (in Lakhs)
Vanakalam 2018	50.2
Yasangi 2018-19	49.1
Vanakalam 2019	51.6
Yasangi 2019-20	42.4
Vanakalam 2020	58.0
Yasangi 2020-21	59.3
Vanakalam 2021	60.8
Yasangi 2021-22	63.0
Vanakalam 2022	65.0

No. of Beneficiaries (in Lakhs)

Season	Amount Disbursed (in Crs.)
Vanakalam 2018	5,238
Yasangi 2018-19	5,249
Vanakalam 2019	6,126
Yasangi 2019-20	4,406
Vanakalam 2020	7,289
Yasangi 2020-21	7,367
Vanakalam 2021	7,360
Yasangi 2021-22	7,413
Vanakalam 2022	7,435

Amount Disbursed (in Crs.)

Source: Department of Agriculture

8. Telangana Budget Analysis 2022-23, PRS Legislative Research

Box 4.5

5 years of Quick-Fix Economic Model- Rythu Bandu

Fig 4.17.1: Disbursement of agriculture investment amount under Rythu Bandhu scheme in the State from Vanakalam 2018-2022 (in Crores)

Fig 4.17.2: Landholding category wise beneficiaries under Rythu Bandhu scheme in the State from Vanakalam 2020-2022 (in Lakhs)
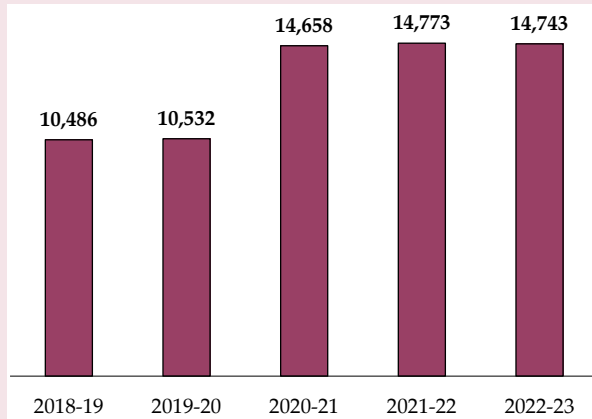
- In order to relieve farmers from debt burden and protect from falling into the debt trap, the Government launched 'Agriculture Investment Support Scheme - RythuBandhu' for farmers in the State on 10th May 2018.

- This scheme aims at providing investment support to Agriculture and Horticulture crops by way of a grant Rs. 4,000/- per acre per farmer each season for purchase of inputs like Seeds, Fertilisers, Pesticides, Labour and other investments like crop insurance to the farmers for growing crops during the crop season. The assistance is revised to Rs. 5,000 per acre per season from the year 2019-20.

- Taking a cue, the Central government and other State governments have also launched similar schemes in their respective States and in the country. For instance, PM-KISAN by the Government of India, Krushak Assistance for Livelihood and Income Augmentation (KALIA) by the Government of Odisha and Mukhya Mantri

Krishi Ashirwad Yojana by the Government of Jharkhand.

- **Amount Disbursed:** In 2018-19, an amount of Rs.10,486 crore was disbursed under this scheme. By 2022-23, the total amount disbursed increased to 14,743 crores. The total amount disbursed has been increased by 40.60% from the year 2018-19 to 2022-23. In the 5 years since launch of the scheme, 65,192 crores have been disbursed to beneficiaries..

- **Beneficiaries per Land Category:** Since inception of the scheme, a total of 1,211 lakh acres have been covered. The coverage of Marginal farmers (Farmers with less than 2.47 acres) has been increased substantially with a CAGR 8.53% from Vanakalam 2020-21 to Vanakalam 2022-23. Thus, the government is successful in achieving the objective of helping maximum number of small and marginal farmers in the State

Source: Department of Agriculture, Government of Telangana

4.4.2 Agriculture Credit

Credit for investment in agriculture is one of the most important inputs for promoting sustainable agriculture. The government lays emphasis on timely and adequate credit support to the farmers, particularly on small and marginal farmers to enable them to adopt latest technology and improve crop production and income from cultivation.

As per the Annual Credit Plan prepared by the State Level Bankers Committee of the State, the total annual credit plan target for the agricultural sector during the year 2022-23 is Rs. 1,03,238 crore. Of this, an amount of Rs. 67,864 crore was allocated for the crop loans and Rs. 19,726 crore for term loans of agriculture and other allied activities.

Due to the importance given by the government, the scheduled commercial banks have increased the credit facilities to agriculture by 112% between the years 2015 to 2022 (from Rs. 41,300 Crore in 2015 to Rs. 87,591 Crore in 2022).

4.4.2.1 Crop loan waiver

To reduce the debt burden, the government has waived off the outstanding loans of the farmers in the State between 2014-15 to 2018-19. The Government has waived off the outstanding crop loans to a tune of Rs. 16,144 Crores benefitting 35.32 lakh farmers in four annual instalments in the State.

As per the Guidelines issued by the Government on the Crop Loan Waiver Scheme, it covers short term production loans and crop loans taken against gold disbursed to the farmers in the State by scheduled Commercial Banks, Cooperative Credit Institutions (including Urban Cooperative Banks) and Regional Rural Banks collectively called as the "lending institutions". The amount eligible for waiver of such loans is up to Rs 1.00 lakh per family. All crop loans sanctioned or renewed on or after 01.04.2014 and outstanding crop loans as on 11.12.2018 are eligible under the scheme. The farmers who have outstanding crop loans up to Rs. 25,000 have been waived off in the first phase with an amount of Rs 408 Crores and such amount was credited into the 2.96 lakh farmer loan accounts respectively. During the year 2021-22 in the second phase, the outstanding amount of the farmers up to Rs 50,000 was waived off through RBI e-Kuber payment system with an amount of Rs 799 Crores and such amount was credited into the 2.46 lakh farmer loan accounts respectively and the Government is planning to waive off remaining outstanding loan up to Rs. 1,00,000 to 33.84 lakh farmers with the target amount of Rs. 20,348 Crores.

4.4.3 Risk Mitigation-Rythu Bima

To provide financial relief and social security to the family members/ dependents, in case of loss of farmer's life due to any reason, the government initiated a flagship group life insurance scheme-Rythu Bima from 2018 onwards. In the event of the death of the enrolled farmer due to any cause including natural death, the insured amount of Rs 5.00 Lakhs will be deposited into the account of the designated nominee within (10) days. The farmers in the age group of 18 to 59 are eligible to enrol under the scheme. The entire premium will be borne by the State without imposing any burden on the farmer and irrespective of their land holding size. This scheme is being implemented completely online for enrolment, claim settlement and disbursement. The uniqueness of the scheme is that the nominee is not required to approach any office for the settlement of the claim amount. In the event of loss of life of any farmer the concerned village level outreach officer will collect information from the revenue department and submit to the LIC on behalf of the nominee of the farmer. The claimed amount will be transferred to the nominee's account.

From the year 2018-19 to 2022-23, the Government has settled claims to an extent of Rs. 4,771 crores and transferred the amount to the 95,416 bereaved families.

Fig 4.18(a): Claims Settled Under Rythu Bima Between 2018-19 and 2021-22

| 2018-19 | 2019-20 | 2020-21 | 2021-22 |
| 17,666 | 19,020 | 29,070 | 23,093 |
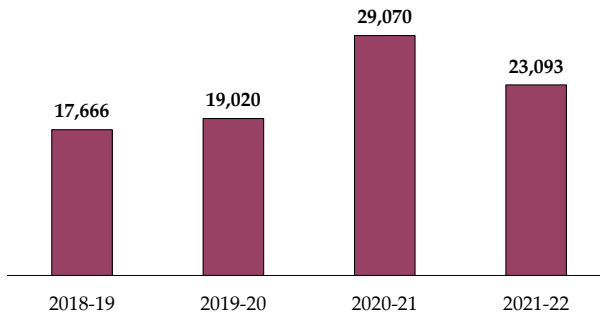
Fig 4.18(b): Amount Disbursed (in Cr) Under Rythu Bima Between 2018-19 and 2021-22

| 2018-19 | 2019-20 | 2020-21 | 2021-22 |
| 883 | 951 | 1,454 | 1,155 |
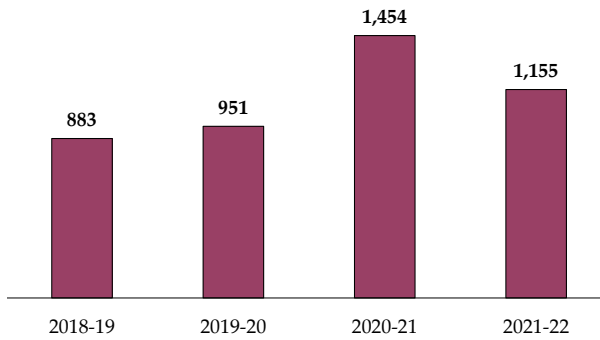
Source: Department of Agriculture, Government of Telangana

4.4.4 Inputs-Irrigation, Free Power , Seeds and Fertilisers

Timely and adequate availability of inputs is vital for enhancing crop productivity. The government maintains strict vigil and tracks the supply of seeds, fertilisers and pesticides to the farmers in the State. To improve irrigation facilities, the government has implemented multiple initiatives including supply of 24x7 free power for agriculture. Telangana is the only State in the country which provides uninterrupted power supply for agriculture to all the farmers at no cost.

4.4.4.1 Seeds & Fertilisers

Telangana is endowed with excellent climatic conditions which are suitable for seed production of various crops. With the available congenial climatic conditions, best quality seeds are being produced in the State. The farmers in the State have become experts in seed production of different crops. The Government is formulating agriculture plans from time to time to enhance the self-esteem of the farmers. Seeds and Fertilisers are being supplied to the farmers at subsidised rates at village level itself in advance through the co-operative societies. Many multinational companies have set up processing units and warehouses to store the seeds produced in the State. During the current year 2022-23, the government has planned to distribute 1.66 lakh quintals of green manure seed to the farmers with a subsidy amount of Rs. 71.46 crores in the State. Given the importance of fertilisers in improving productivity, the government is taking all steps to supply them on time. Between 2014-15 to 2021-22 fertiliser supplies have been increased by 46% from 25.36 lakh tonnes to 37.06 lakh tonnes.

In addition to seed distribution, the State is also involved in seed production of quality seeds and seed certification. The Telangana State Seeds Development Corporation (TSSDC) is the Nodal agency for seed related activities in the State. During the current year 2022-23, the State has achieved a target production of 5.25 lakh quintals of seed of different crops in the State. The seeds produced in the State are also being supplied to the other States of Andhra Pradesh, Tamil Nadu, Uttar Pradesh, Maharashtra, Rajasthan, Karnataka and Chattisgarh. With these initiatives, the Government is ensuring food security for the people in the State and supplying its produce to several other States in the country. Telangana is tagged as "Seed Bowl of India" in the country.

Fig 4.19(a): Seed Production Between 2014-15 and 2022-23 (in Quintals)

| 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2019-20 | 2020-21 | 2021-22 | 2022-23 |
| 3,18,600 | 3,13,956 | 3,94,938 | 3,47,124 | 4,44,833 | 5,75,017 | 4,65,284 | 1,56,413 | 5,25,000 |
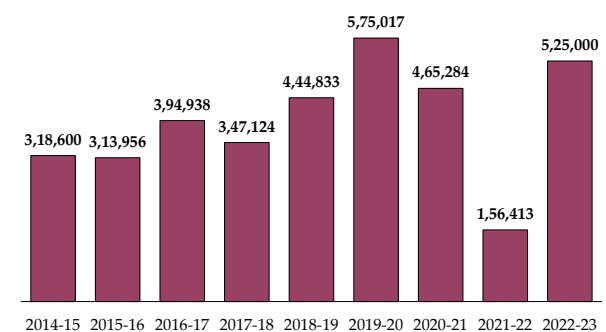
Source: Telangana State Seed Development Corporation, Government of Telangana

Table 4.3: Crop wise Seed Production Between 2018-19 and 2022-23 (in Quintals)

Crop Name	2018-19	2019-20	2020-21	2021-22	2022-23
Paddy	3,36,424	4,40,549	3,68,490	90,482	3,61,672
Bengal gram	53,257	78,014	80,029	50,612	30,000
Groundnut	18,351	32,553	9,927	4,212	30,000
Soybean	21,000	14,166	75	1,672	14,434
Redgram	4,886	1,708	4,029	2,350	9,885
Others	10,915	8,026	2,734	7,085	79,009
Total	4,44,833	5,75,016	4,65,284	1,56,413	5,25,000

Source: Telangana State Seeds Development Corporation, Government of Telangana

4.4.4.2 Free power for agriculture

Since 1st January 2018, the Government is providing 24 hours free and quality power supply to the agricultural consumers in the State. Out of the total power supply in the State, about 40% is towards agriculture. After the formation of the State, 6.6 lakh new agriculture connections have been released in the State, taking the total number of agricultural connections to 26.22 lakh. Since 2014-15, the government has incurred an amount of Rs. 49,314 crore towards subsidies given for the supply of free power to the farmers in the State. The present power consumption has increased to 3,500 MW as against 1,500 MW before the formation of the State. At all India level, Telangana consumes the highest percentage (41.25%) of electricity for agriculture purposes (24077 GWh out of total energy sold of 58,365 GWh [9]) in 2018-19.

4.4.4.3 Improving Irrigation Facilities

Assured irrigation is the main input for the crops, it will protect the farmers in poor monsoons and thereby increase the production and productivity of the crops. This will in turn lead to an increase in income to the farmers. The surface irrigation particularly helps in water usage efficiency and helps maintain groundwater levels. Since the formation of the State during the period from 2014-15 to 2022-23, the government has incurred an amount of Rs 1,60,979

crores on irrigation projects in the State. Due to these continuous efforts of the government, the gross irrigated area (GIA) has significantly increased by 117% (from 62.48 lakh acres in 2014-15 to 135 lakh acres in 2021-22) and an additional new irrigation potential of 74.32 lakh acres has been created. The details of the area under irrigation from the period 2014-15 to 2021-22 is shown in Fig 4.20.

Fig 4.20: Trends in Gross Area Irrigated (by all sources) in the State between the period from 2014-15 to 2021-22 (in lakh acres)
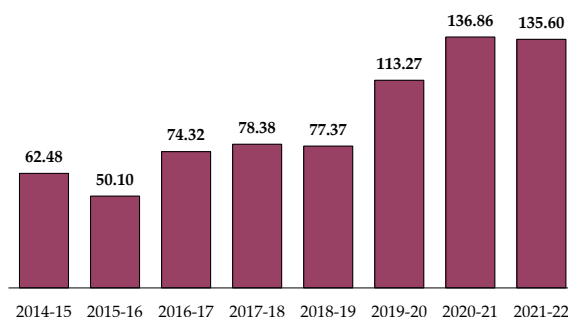
Source: Directorate of Economics and Statistics, Government of Telangana

Measures to improve Irrigation

The Government has made enormous strides in development and strengthening of the irrigation facilities in the State. The increase has been driven by the constant efforts of the Government to create new and augment water resources on a priority

9. Agriculture Statistics at a Glance, 2021, MoAFW, GoI

basis. The Government adopted a multi-pronged approach to scale up maximum irrigation coverage in the State. The details are given in Table 4.4.

Table 4.4: Achievements and status of irrigation schemes after formation of the State

Description of Initiative	Before Formation of Telangana	Achievement after Formation of Telangana State
Construction of Projects	Small LI Schemes not functioning effectively.	Major Projects commissioned-Kaleshwaram project (18.25 Lakh acres), Sita Rama Lift Irrigation Scheme (3.87 Lakh acres), J. Chokka Rao Devadula Lift Irrigation Scheme (5.58 Lakh acres), Rajeev Bhima Lift Irrigation Scheme (2.03 Lakh acres), Mahatma Gandhi Kalwakurthy lift irrigation scheme (4.24 Lakh acres), Jawahar Nettampadu Lift Irrigation Scheme (2.00 Lakh acres). Palamuru Rangareddy Lift Irrigation Scheme (PRLIS) (12.30 Lakh acres), Devadula Lift Irrigation Scheme (DLIS) (3.61 Lakh acres) are in progress.
Restoration of MI Tanks	Repairs were taken up as and when breaches occured.	27,472 Tanks restored with an expenditure of Rs.5,349 Cr, stabilizing an ayacut of 15.05 Lakh acres. 8.93 TMC of storage capacity is restored.
Construction of Check dams	Very few.	1,200 Checkdams sanctioned for Rs. 3,850.00 Crs. In Phase-I, 638 checkdams are in progress and remaining 562 to be taken up under phase-II.
IP Utilization	Due to unassured water supply, IP utilisation was very low about 20 lakh acres against 57.86 lakh acres created.	Due to construction of various projects, lifts, Restoration of MI tanks, Check dams, the IP utilised has increased to 97.57 Lakh acres during 2021-22 and our state became a major Paddy production state and second largest in Paddy Procurement by FCI.
Improvement in Ground water	-	Ground water has increased 4.14 mt in the last 6 years.
Fisheries	No specific interest shown	The state is ranked 3rd in inland fishery resources and 8th in Fish production.

Source: Irrigation & CAD Department, Government of Telangana

Micro Irrigation

Micro Irrigation is encouraged by providing new drip irrigation or sprinkler systems to the farmers for more efficient and easy use of available water. Effective utilisation of every drop of water through micro irrigation is imperative for improving the crop productivity and production. So far (up to November, 2022) cumulatively an extent of 20.35 lakh acres has been covered under micro irrigation. The important components of micro irrigation systems are; Online Drip Irrigation for higher spacing crops, Inline Drip Irrigation for lower spacing crops, Mini & Micro Sprinklers Portable and Semi Permanent & Rain Guns sprinklers.

4.4.4.4 Farm Mechanisation

Farm mechanisation in agriculture helps in increasing the crop productivity, production, reducing the cost of cultivation and enables the farmers to complete the farming operations on time. In order to bring more land under cultivation and to improve productivity per unit area, it is necessary to introduce mechanised implements like powered tractors, power tillers and renewable energy. The Government is contemplating to distribute various farm machinery and implements on subsidy basis to the farmers depending on the types

of crops grown, soil conditions, local situations and requirements in the State. The State aims to double the farm mechanisation in next 3 to 4 years to tackle the problem of shortage of farm labour. Further, under this scheme various other farm implements such as animal drawn implements, tractor drawn implements, high cost machinery, mini tractors, post-harvest equipment, plant protection equipment are also being supplied to the farmers on subsidy basis. Since formation of the State, an amount of Rs. 963 crore has been spent on farm mechanisation (providing farm implements such as tractors, harvesters and tarpaulins, etc) covering 6.66 lakh farmers. So far, the government has provided 19,607 tractors on subsidy basis to the farmers in the State.

4.4.5 Agriculture Extension through Rythu Vedika

The Government has taken an initiative to bring farmers under one platform and help them to attain higher returns by constructing Rythu Vedika (RV) in every Agriculture Extension Officer Cluster consisting of 1-3 villages. So far a total of 2,601 such RV's have been constructed in the State. Each RV has been constructed with a cost of Rs. 22 lakhs, of which Rs. 12 lakhs from the Agriculture Department and Rs. 10 lakhs from MGNREGA funds. These RVs were created to facilitate the farmers in sharing information on crops, markets etc., to grow remunerative crops. Further, Telangana Rythu Bhandu Samithi (TRBS) committees have been formed at village, Mandal, District and State level with a total membership of 1,60,990 persons who act as a bridge between farmers and Agriculture & Allied Departments. Further, the Government initiated construction of multi-purpose cement 'Kallams' (drying platforms) across the State for farmers to dry their agricultural produce.

4.4.6 Structural Reforms

As pointed out by the Committee on Doubling Farmers Income chaired by Dr. Ashok Dalwai, one of the weakest links in the agriculture value chain is getting access to markets as well as to receive information on which crops to be grown. With the increase in production, there are chances of supply demand shocks which in turn result in less remuneration

for the farmers, towards this the government has initiated multiple strategies in terms of pushing for crop diversification (through support for Oil Palm and other horticulture crops) and has given importance to allied sectors to diversify and gain more income by the farmers.

4.4.6.1 Crop Diversification

Crop diversification is one of the best strategies recommended by the researchers for maximising the farm income by the farmers. This will make farmer's income more resilient to fluctuating prices and help them to gain higher farm income. The Government has emphasised on the importance of crop diversification, in order to avoid glut in production and recommended crops like Groundnut, Sun flower, Sesamum, Bengal gram, Black gram, Green gram, Jowar, Castor, Mustard, Safflower and Oil Palm. In 2021-22, there was a significant greater crop diversification (as measured by a crop diversification index[10]) in the districts of Nirmal, Vikarabad and Rangareddy (the three most diversified districts), compared to Peddapalli, Karimnagar and Suryapet (the three least diversified).

Fig 4.21: District Level Crop Diversification Index for 2021-22
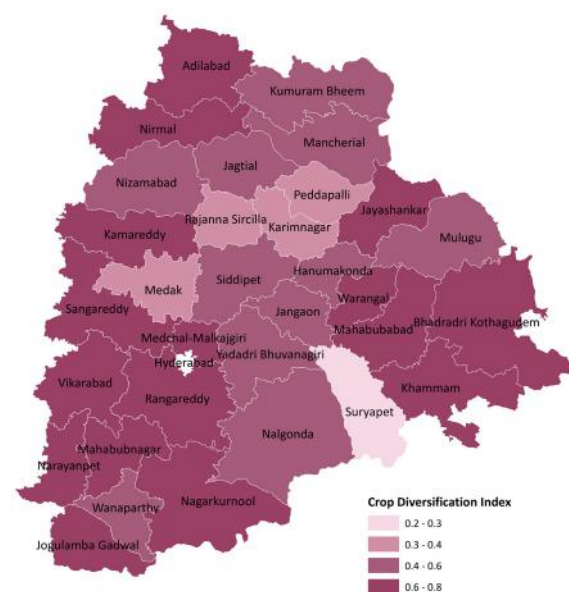
Source: Directorate of Economics and Statistics, Government of Telangana

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10. The Index of Crop Diversification (CDI) value ranges between 0 and 1 and higher the value, greater the diversification. Gibbs and Martin's Method for Demarcating Crop Diversification has been used to compute Index of Crop Diversification. Index of Crop Diversification = 1 - [$\sum x2 / (\sum x)2$] where X is the percentage of total cropped area under an individual crop.

Fig 4.21(a): % change in the diversification index between 2020-21 and 2021-22
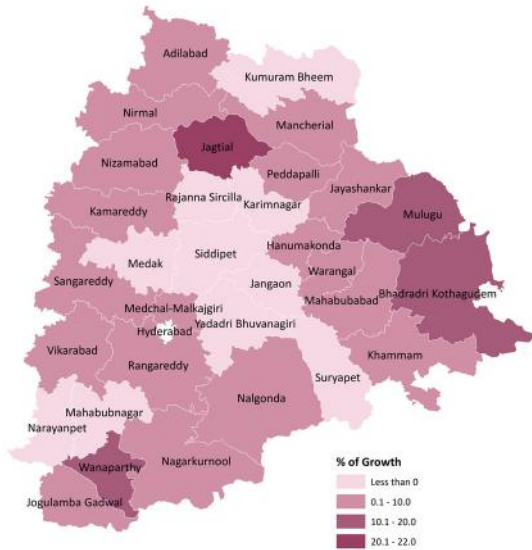
Source: Directorate of Economics and Statistics, Government of Telangana

On the whole the crop diversification index has been increased by 2.28% in the State between the years 2020-21 and 2021-22. This increase in the index is even more than 10% in a few districts namely Bhadradri Kothagudem, Jagtial, Mulugu and Wanaparthy districts. Mandal level index has also been prepared across the districts in the State. Fig 4.22 projects the mandal level crop diversification Index for the year 2021-22.

Fig 4.22: Mandal Level Crop Diversification Index for 2021-22
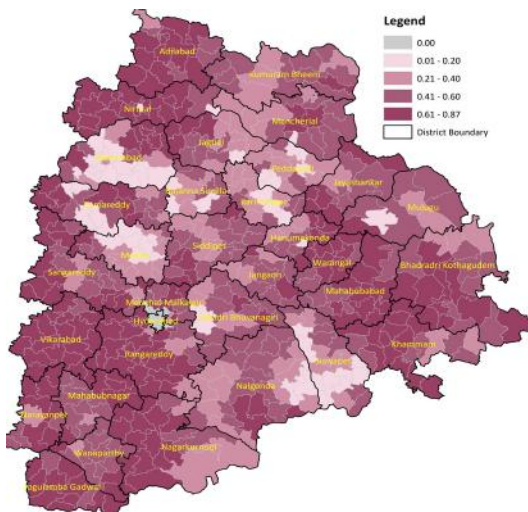
Source: Directorate of Economics and Statistics, Government of Telangana

11 Provisional

4.4.6.2 Oil palm cultivation

Oil palm is one of the major oils traded in the global oil markets and it is the major source of vegetable oil in the world. So the Oil palm cultivation assumes significance for augmenting the indigenous availability of edible oils.

The consumption of edible oil in India is at 25 Million MTs per annum with a per capita consumption of 19 kg/ person, whereas the production is only 12.30 million MTs. The deficit is being met through imports from Indonesia and Malaysia spending huge foreign exchange. At present, Oilpalm cultivation has been taken up in 3.70 lakh Ha to produce 2.90 Lakh MTs in the country and to attain self-sufficiency under oil palm in the country, an additional area of 28 lakh Ha has to be brought under cultivation of this crop.

To narrow down the gap between the demand and supply of Vegetable Edible Oils and to reduce dependency on imports, the Government has proposed to promote Oil palm cultivation in a big way in the State.

Fig 4.23 : Oil Palm Production in Telangana between 2014-15 and 2020-21(P)[11]
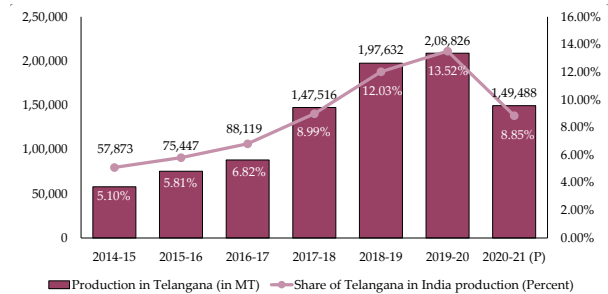
Source: Agriculture Statistics at a Glance, MoAFW, GoI.

Oil palm Area expansion in the State:

At present, Oil palm is in an area of 68,440 acres(till 2021-22), of which, an extent of 27,376 acres was added after formation of the State with a production of 2.6 lakh MTs of fresh fruit bunches (FFB). Around 52,666 MT of crude Palm Oil is being produced in the State against the requirement of 3.66 Lakh MTs. At present there are two processing units functioning in the State, one at Ashwaraopet and another at Apparaopet village in Dammapet mandal of Bhadradri Kothagudem District with a capacity of 30 tonnes per hour at each location. The details of the area covered under Oil Palm crop in the years from 2014-15 to 2022-23 is given in Fig 4.23(a).

Box 4.6

Telangana's Oil Palm Scheme

Fig 4.23 (a): Oil Palm Area in the State between 2014-15 and 2022-23 (in hectares)
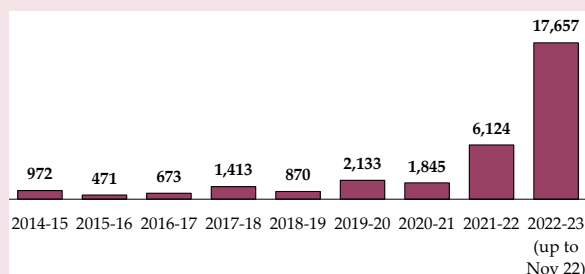
Source: Department of Horticulture, Government of Telangana.

Telangana State is one of the most potential states for Oil Palm cultivation and stands 6th in area with 68,440 acres, 2nd in production of Fresh fruit Bunches and 1st in Oil Extraction (OER) with 19.32% share in India. Considering the potentiality for Oil Palm cultivation in the State, the Government is providing assistance for taking up Oilpalm cultivation with 50% assistance on mechanisation tools and also planning to take up 20 lakh acres under Oil Palm in a mission mode as part of crop diversification. A total of 11 companies are now operating in the state and they have established 30 nurseries with a capacity to raise 2.67 crore Oil Palm seedlings.

In the State, Oilpalm Cultivation and processing is regulated by the Telangana Oil Palm (Regulation of Production and Processing) Act 1993 (Act No.3 of 1993). As per this act, the allotted companies shall pay the FFB price as fixed by the Government to the farmers on a monthly basis.

The Government has issued orders allotting Factory Zones for taking up oil palm expansion in newly identified locations in the State. So far an extent of 9.49 lakh acres potential area has been notified for this crop cultivation in the State.

4.4.6.3 Organic Farming

With an aim to promote sustainable agriculture, the government initiated the promotion of organic agriculture. There are two important areas where organic systems have higher yields compared to conventional cultivation. One is climate based cultivation and small holder systems[12] . With around 88% of farmers in the smallholder category, the state has high potential for performing organic cultivation and to become a model for others. Organic farming has an advantage in terms of producing rich quality food, enhancing the natural resource base, environment, increasing income (coming from the premium price on the produce, even in the face of a slight dip in the yields) and contributing to the wellbeing of the farmers.

4.4.6.4 Enhancing farmers income through Animal Husbandry

On doubling the farmer's Income, the Government of India has recommended to increase farmers income, it is necessary for the farmers to diversify from farm income to non-farm income, stressed on improving the livestock productivity and production. Animal Husbandry activities augment the farm income and provide additional employment to the farmers. The State government has given importance to this sector and implementing various schemes to support the farmers under this sector activities.

Sheep Rearing and Development Programme (SRDP)

The Government has launched Sheep Rearing and Development Programme (SRDP) with an aim to strengthen the rural economy and to ensure sustainable livelihood to the families of the shepherd community in the State. Under this scheme a sheep consisting of 21 animals(20+1) with an amount of Rs 1.25 lakhs are being supplied with a subsidy component of 75% of the unit cost. An amount of Rs 5,001 crores has been spent in the first phase of implementation, a total of 82.64 lakh sheep have been distributed to the 3,93,552 members of Primary Sheep Breeder Cooperative Societies in the State.

12. Volume VI, "Strategies For Sustainability in Agriculture",Report of the Committee on Doubling Farmers Income.

The sheep population has increased from 1.28 crore to 1.91 crore and meat production has increased from 5.42 lakh Metric Tonnes to 10.04 lakh Metric Tonnes between 2015-16 and 2021-22 in the State. As per 20th Livestock census, the State stood first position with a contribution of 25.72% to the total sheep population in the country.

With the increase in price of sheep in the open market and transportation charges, the Government has enhanced the unit cost from Rs. 1,25,000 to Rs. 1,75,000 during the second phase of implementation of the scheme (2022-23 and 2023-24) and aims to cover 3.50 lakh beneficiaries with a financial outlay of 6,085 crores in the State.

Fig 4.24: % Contribution of Non Special Category States to the Sheep Population in the Country (2019-20)
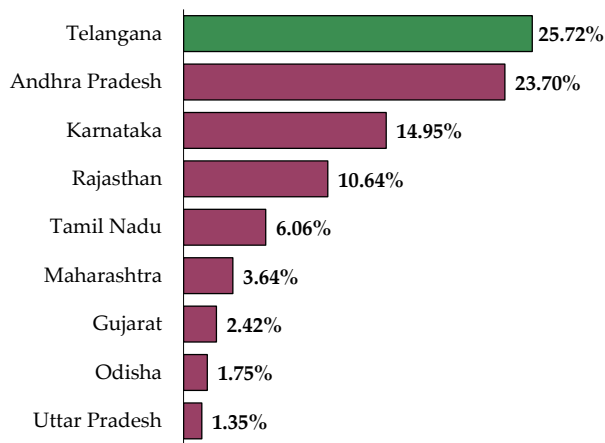
Source: 20th Livestock Census

Dairy sector

Dairy sector is an important way for farmers to increase their earnings and access to more nutritious food for their families. To encourage the farmers to take up dairying, the government has introduced a scheme to provide Rs.4/- per litre of milk collected as an incentive to the members of the Cooperative dairies by directly crediting the amount to their respective bank accounts every month 29.39 lakh beneficiaries have been enrolled in the scheme and an amount of Rs. 361 crore is spent on the scheme. The milk production has increased by 38% (from 42 lakh tons in 2014-15 to 58 lakh tons in 2021-22). The milk procurement has gone up to 5.60 lakh litres from 1.17 lakh litres per day.

Fodder Production and Development

The State has 141.31 Lakh livestock units, availability of quality feed and fodder are the prerequisite for improving production and productivity of the livestock. In order to improve the accessibility of fodder, the Government has stressed upon supply of fodder seed to the needy farmers on 75% subsidy. Accordingly 1,025 MTs of fodder seed with an amount Rs. 8.00 Crore has been supplied to the needy farmers so far. During the current year 2022-23, about 51,250 acres is expected to be sown under fodder crops to produce about 15.00 lakh MTs of green fodder. The government has planned to supply the required fodder seed to the farmers during the year 2022-23.

Poultry

With an annual output of 1,667 crore eggs in 2021-22, the State stood at 3rd in egg production with a contribution of 12.98% in the country. To incentivise this sector, the Government has been providing free power up to 200/unit to poultry farms since 2015.

Fig 4.25: %Contribution of Non Special Category States to National Egg Production in 2021-22
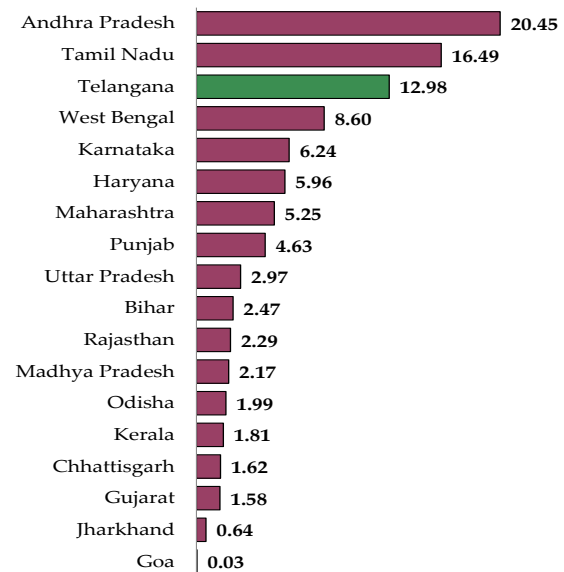
Source: RBI Handbook of statistics on Indian Economy 2021-22

Aquaculture

Fisheries is one of the fast growing sectors generating high income and employment in the State. This sector

plays an important role in the overall socio-economic development of the fishermen families by providing good income and nutritional food to the population. Recognizing the potential of the fisheries sector, the government has taken up various initiatives such as enhancing seed production by strengthening government seed hatcheries, stocking of advanced fingerlings in the water bodies and promotion of new technologies. Telangana is the only State where all suitable water bodies are stocked with adequate numbers of quality fish seed by providing 100% grant. To provide employment opportunities to women groups, 150 numbers of customised vehicles, designed for dual usage of raw fish sales and Ready-to-Eat fish food are being provided in GHMC limits and in the districts with an outlay of Rs 15.00 crores. For the welfare of the fisheries community, the Government has taken up "Integrated Fisheries Development Scheme" to provide assistance to fishers with an outlay of Rs 1,000 crores in 2017-18, with the funds of National Cooperative Development Corporation (NCDC). The incentives and the support by the Government, the Fish and Prawns production has been increased in the State. Fish and Prawns production has increased from 2.68 lakh tonnes (2.6 lakh tonnes of Fish and 0.08 lakh tonnes of Prawns) in 2014-15 to 3.90 lakh tonnes (3.76 lakh tonnes of Fish and 0.14 lakh tonnes of Prawns) in 2021-22. The value of the production also increased from Rs. 2,637 crore to Rs. 5,860 crore in the above period.

4.4.7 Market Linkages

While increased productivity is an essential component of a vibrant agricultural sector, improved marketing connectivity, post harvest handling and processing is also essential to ensure high quality products reach the market. Effective post harvest management allows not only the minimisation of losses but also increases the value of marketed agriculture products. The details of the initiative taken by the government in this regard are given below.

4.4.7.1 Procurement

Well-organised, efficient, and timely procurement of paddy by the government from the farmers

has reduced their dependence on middle-men for selling of their produce. This has further enthused the farmers in the direction of increased cultivation. Below table provides the details of paddy and cotton procurement done in 2019-20 and 2020-21.

Table 4.5: Procurement of Paddy (2019-20 to 2021-22) and Cotton (2019-20 and 2020-21)

Crop	Year	Quantity Purchased (LMTs)	No.of Farmers Benefited (lakhs)	Purchase Value (Crores)
Paddy	2019-20	111.26	19.74	20,384
	2020-21	141.07	21.63	26,609
	2021-22	120.61	22.43	23,605
Total		372.94		70,598
Cotton	2019-20	21.62	9.15	11,749
	2020-21	17.89	5.49	10,167
Total		39.51		21,916

Source: Department of Civil Supplies and Cotton Corporation of India

The Civil Supplies Department, through its Corporation Limited has purchased huge quantities of paddy in the last 7 years (see below) ensuring the Minimum Support Price to all the farmers. The transparent and farmer-friendly procurement system has benefitted lakhs of farmers in the past few years.

Fig 4.26 depicts % of procurement made by the State agencies over the years. During the years of uncertainty, the procurement made by the government has helped the farmers to get remunerative prices in the State.

Fig 4.26: Paddy Procured by the Government Between 2015-16 and 2021-22 (in lakh MT)
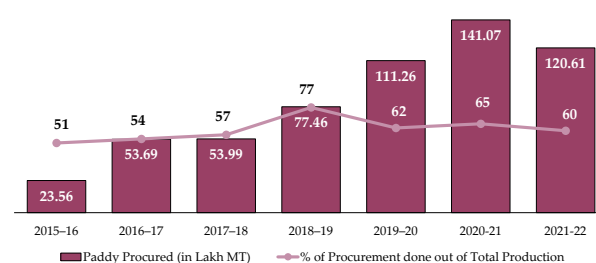
Source: Department Of Civil Supplies and Directorate of Economics and Statistics, Government of Telangana

The same mechanism of procurement is also being followed in case of rice procurement by the Food Corporation of India (FCI). Fig 4.27 below depicts the trends in rice procured by FCI among major contributors. The share of the State has increased over the years. Despite the recent vagaries from the central government, the State has contributed around 14% in the year 2021-22.

Fig 4.27: %Contribution of Top 5 States in Paddy Procurement by the Food Corporation of India from 2015-16 to 2021-22
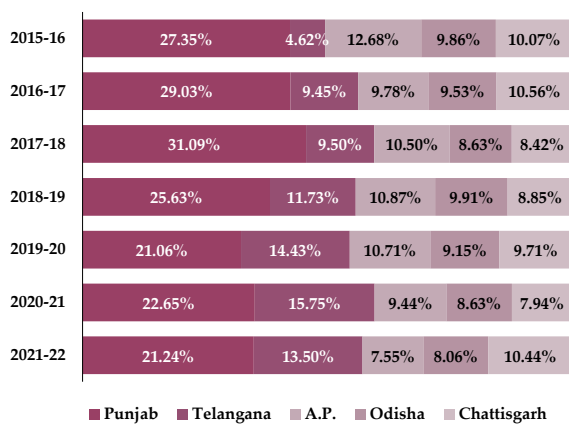
Source: Food Corporation of India

Coming to the procurement of cotton, Fig 4.28 provides the details of cotton procured by the Cotton Corporation of India in 2020-21. It is important to note that almost 40% of total procurement belongs to the Telangana State out of the total procurement made by the CCI in the country.

Fig 4.28: Details of Procurement of Cotton by the Cotton Corporation of India in 2020-21 (in 000 bales of 170 Kg each)
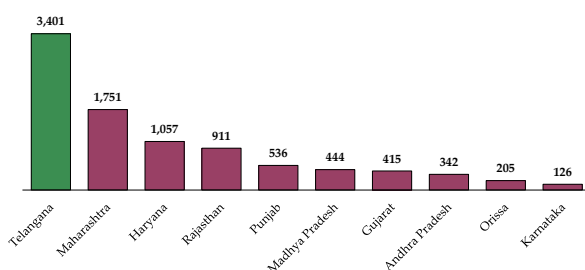
Source: Agricultural Statistics at Glance, MoAFW, GoI

13. https://cm.telangana.gov.in/2020/03/integrated-grain-and-rice-policy-in-telangana/

4.4.7.2 Milling and warehouse capacity in the state

Since the formation of the State, the government has been consciously working towards building agricultural infrastructure capacity in the State. There are 2,200 Rice Mills all over the State with a capacity of one crore tonnes of rice per year[13]. In the past, these mills could not get paddy to the extent of installed capacity in the State. Due to the progressive agriculture focused policies of the Government, the situation has changed and presently there is an abundant supply of paddy. However, in the face of increase in paddy production there is a need to build more new Rice Mills in the State. The government is planning to provide more facilities and create a conducive environment for rice millers in the State.

Fig 4.29 : Year-wise Storage Capacity of Foodgrains in the State between 2017 to 2021 (in lakh MTs)
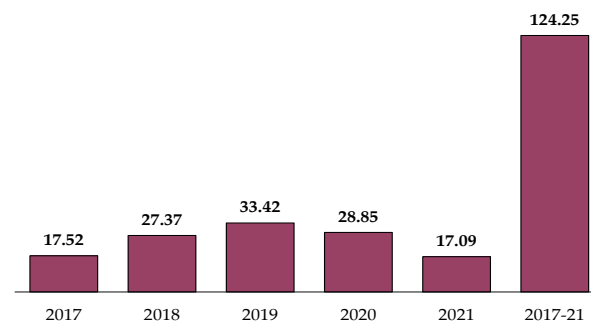
Source: RBI Handbook of statistics on Indian Economy 2021-22

Further, Telangana State Warehousing Corporation was set up by the Government to increase the warehousing facilities in the State. After formation of the State, the Agricultural Marketing Department with the assistance of NABARD has constructed 457 Godowns at 347 locations with a storage capacity of 17.35 LMTs with an amount of Rs.1,024 crores in the State, resulting in increase of total godowns to 1,167 and storage capacity to 24.73 lakh MTs in the State.

4.4.7.3 Agriculture exports

Agricultural exports are expected to play a pivotal role in doubling the farmers income and linking agriculture production to the export market is a critical step, in achieving this, the government has been striving for all possible linkages to the export markets. Among the exports, cereals, spices, meat and cotton are the top commodities in the State.

Fig 4.30: Agriculture and Allied Exports in 2021-22-Telangana (in Crore)
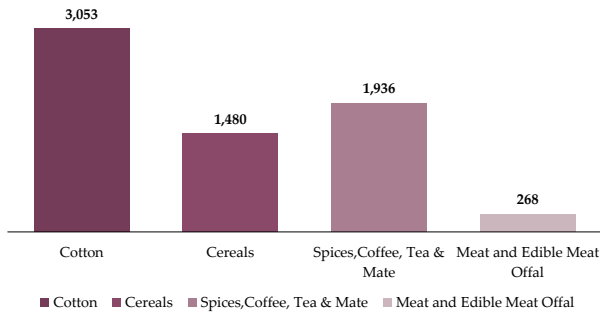
Source: State Export Commissioner, Commerce & Export Promotion Department, Government of Telangana

4.4.7.4 Food Processing

Food processing sector helps in providing alternate employment and a local market to the farmers. It also helps in transferring market oriented best practices, technology and other inputs to the farmers. Considering the rich agriculture raw material base, the State has come up with Telangana State Food Processing policy with an objective to set up food processing units, in view of the rising food production in the State. Telangana accounts for substantial agricultural produce ranging from rice, maize, lemon, grapes, mango and soybean. In particular, the State accounted for the highest production of turmeric and sweet orange. Under the new policy, Rice mill industries, pulses, oilseeds, fruits, flowers, vegetables, meat, chicken, fish, milk, and dairy products food processing units would be set up.

Since 2017, the food processing sector had a fixed capital investment of Rs 2,376 crores from 2,140 enterprises creating additional employment for 29,841 personnel. The food processing policy provides attractive financial incentives including rebates on inputs such as power and water for units coming up in these zones. Further, it provides plug and play infrastructure and special support for farmer producer groups, self-help groups and vulnerable sections of the society.

In order to explore the possibility of potential trade & investments in several key focus sectors, involving agro-based food processing, the Government has signed an MoU with the Thai Government. Further, the government is working with GoI in "Formalisation of Micro Food Processing Enterprises" with an outlay of Rs.10,000 Crore is being implemented over a period of five years from 2020-21 to 2024-25.

4.4.7.5 e-NATIONAL AGRICULTURE MARKET e-NAM):

e-NAM was launched with a vision to promote uniformity in agriculture marketing by integrating

markets at States across the country through a common online platform thus streamlining marketing/transaction procedure and promoting efficient functioning of the markets.

Around 175 commodities such as Food grains, Oil seeds, Fruits and Vegetables are traded on e-NAM. Currently, e-NAM is being implemented in 57 Agricultural Market Committees (AMC) across the State. The AMC, Nizamabad and Kesamudram have been awarded with the Prime Minister's Excellence award for successful implementation of e-NAM. The State is the first in the country to implement Weighing Integration and Payments under e-NAM. A brief account of achievements under e-NAM are provided in Table 4.6.

Table 4.6: Achievements Under e- NAM (as of 31st Oct. 2022)

Quantity Traded (Lakh MTs)	48.82
Volume (Crores)	16,469
Number of traders registered	5,788
Number of commission agents registered	4,727
Number of farmers registered	18,23,649

Source: Agriculture Marketing Department

4.5. Way Forward

Since the formation of the State, the GSVA by the agriculture and allied activities had increased by 186% (from 2014-15 to 2022-23 (PAE)) and the State was the top contributor to the total FDI inflows in the Agriculture service sector of the country with a share of 26.32% (between October 2019 to September 2021)[14] . These achievements are attributed to a slew of measures taken by the Government to boost the sector's growth, increase farmers' incomes, and improve farmers' welfare. Further, the Government is deploying Artificial Intelligence and other technologies through pilots such as AI4AI-Artificial Intelligence for Agricultural Innovation through the Saagu-Baagu program and Area Estimation through Remote Sensing. These initiatives aim at improving productivity, efficiency and sustainability in the agriculture sector and help to bring global competitiveness to the sector in a way that is profitable and sustainable for farmers. Thus, with prudence and fine initiatives, the State persists in being the Rice Bowl of India and is continuing to make headway towards Bangaru Telangana.

INDUSTRIES

Key Highlights

- In the year 2022-23, the industries sector's contribution to the state's Gross Value Added (GSVA) was 18.96%, whereas it provided employment to 21% of the working population. There was a 10.51% increase in the Nominal GVA of the industrial sector from 2021-22 to 2022-23.

- Between 2014-15 and 2022-23, 2 out of 4 sub-sectors of the state's industrial sector have recorded a higher Compound Annual Growth Rate(CAGR) than the CAGR at the national level. The Manufacturing sector's CAGR in Telangana was roughly 1.4 times that at the national level and the Electricity and Utilities sector's CAGR was approximately 1.1 times the national CAGR.

- Between 2014-15 and 2021-22, the CAGR of the state's industrial sector (10.12%) is second highest among the South Indian states, whereas the CAGR of the state's Manufacturing sub-sector (12.21%) was the highest.

- According to the Periodic Labour Force Survey 2020-21, 'Manufacturing' sub- sector employing 10.95% and 'Construction' sub-sector employing 8.82% of the total working population are the two major sub-sectors that have led to maximum employment creation in the state.

- In 2022-23 (upto January 2023), TS-iPASS has approved 2518 units bringing in new investments worth Rs. 20,237 crore.

- Government of Telangana signed an MoU with the Thailand government for mutual cooperation in SMEs and startups and this is the first time in history that an MoU has been signed between the Thai Ministry of Commerce and a State government of India.

- During 2021-22, merchandise goods worth Rs. 81,971 crore were exported by the state. Pharmaceutical goods and Organic Chemicals constituted 57.31% of the total goods exported. The USA was the largest importer of goods from Telangana, importing over 28.13% of all exports by value.

- Telangana was included in the Top Achievers category in the latest edition (2020) of Ease of Doing Business rankings which were recently announced in 2022 and since 2016 it has been consistently ranked among the top 3 states in India.

- In the Export Preparedness Index 2021, Telangana has scored 100 in the Business environment indicator.

- T-Hub has competed against 55 incubators at the national level and has bagged the "Best Incubator in India '' award at the National Startup Awards 2022 of the DPIIT, Ministry of Commerce and Industry, for its efforts to support the growth of the startup ecosystem in Telangana.

- "Skyroot Aerospace'', a startup incubated in T-Hub has gained the distinguished status of developing India's first private rocket called "Prarambh".

5.1 Role of Industry and its Contribution to the State Economy

Industrialization has played a crucial role in bringing about economic development and in raising the productivity of the economy across nations worldwide. Industrialization opens numerous avenues for employing surplus labour, thereby lifting economic stagnation. Industrialization also leads to technological advancement and results in the overall progress of society and therefore it must be focused upon to achieve developmental goals.

The Government of Telangana through its Industrial Policy Framework has envisaged achieving inclusive growth whereby all the sections of the state are equally benefited. Since its formation in the year 2014, the state has made continuous efforts for the growth of the industrial sector, which has resulted in increased investments and employment opportunities.

Industrial sector GVA of Telangana at current prices (PAE) for 2022-23 stood at Rs. 2,26,492 crore which also includes 'Mining and Quarrying'. This accounts for 18.96% of Telangana's Gross State Value Added (GSVA).

In 2022-23, the GVA of the Industrial sector in Telangana grew by 10.51%, compared to 2021-22. For the same period, the national industrial sector GVA grew by 14.96% in nominal terms.

During the period 2014-15 to 2021-22, among the South Indian States, the CAGR of Telangana is highest in the Manufacturing sub-sector and is second highest in the Industries sector as a whole.

Figure 5.1 Statewise nominal CAGR growth within the Industries sector, Manufacturing sub-sector, and Construction sub-sector for the South Indian States (2014-15 to 2021-22)

■ CAGR (2014-15 to 2021-22) Construction ■ CAGR (2014-15 to 2021-22) Manufacturing
■ CAGR (2014-15 to 2021-22) Industries sector
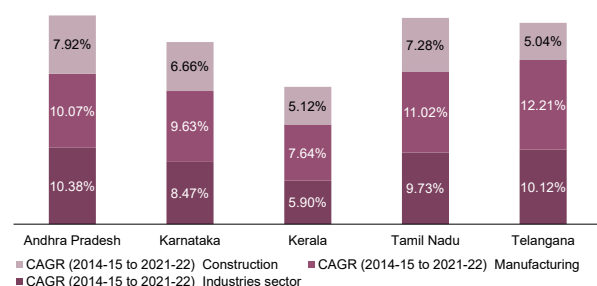
Source: RBI Handbook of Statistics on Indian States, 2021-22

5.1.1. Sub-sectoral Analysis

5.1.1.1. Sub-sectoral Contribution

Major chunk of the GVA contribution of the industrial sector comes from the 'Manufacturing' sub-sector which accounts for 58.98% of the nominal GVA of the industrial sector. The rest of it comes from the 'Construction', 'Mining and Quarrying', and 'Electricity and other Utilities' sub-sectors (see Figure 5.2).

Figure 5.2 Contribution of Industry Sub-sectors to GSVA at current prices (PAE) (Rs. 2,26,492 crore) in Telangana (2022-23)
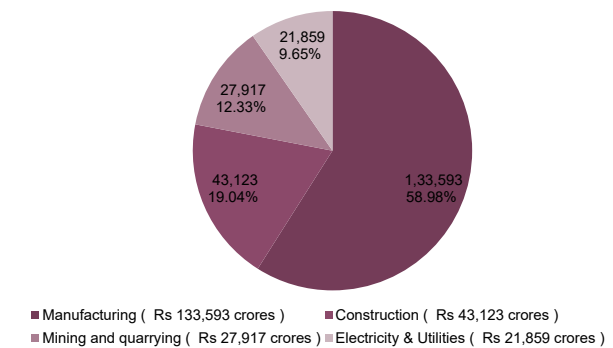
■ Manufacturing (Rs 133,593 crores) ■ Construction (Rs 43,123 crores)
■ Mining and quarrying (Rs 27,917 crores) ■ Electricity & Utilities (Rs 21,859 crores)

Source: Ministry of Statistics and Programme Implementation, Government of India, 2022

5.1.1.2. Sub-sectoral Growth

Two out of four key sub-sectors (Electricity and other Utilities and Manufacturing) within Industries achieved a higher Compound Annual Growth Rate (CAGR) than their national counterparts between 2014-15 and 2022-23 (see Figure 5.3). The nominal GSVA of Electricity and other utilities witnessed a 14.61% Compound Annual Growth Rate (CAGR) between 2014-15 and 2022-23, roughly 1.1 times the national CAGR for the sub-sector. This is followed by the Manufacturing sector, with a CAGR of 11.85%, approximately 1.4 times the national CAGR for the sub-sector. This mirrors the successful implementation of the government-formulated policies and the state was successful in carrying out the reforms of the Business Reform Action plan,2020 of the Department for Promotion of Industry

and Internal Trade. This is testified by the state's performance in Ease of Doing Business rankings where Telangana ranked in the top three states' since its inception in 2016. This was aided by the state's vision of creating business-friendly infrastructure like industrial parks, Special Economic Zones, logistics facilities, and other amenities that has propelled the state to become an attractive investment destination to competent investors. For instance,TS-iPASS, since its introduction in 2014 has cumulatively granted approvals to 22,110 units which have brought in investments worth Rs. 2,53,575 crore and created employment for 17,26,178 individuals.

Figure 5.3 Sub-sector-wise nominal CAGR growth within Industries for Telangana and India (2014-15 to 2022-23)
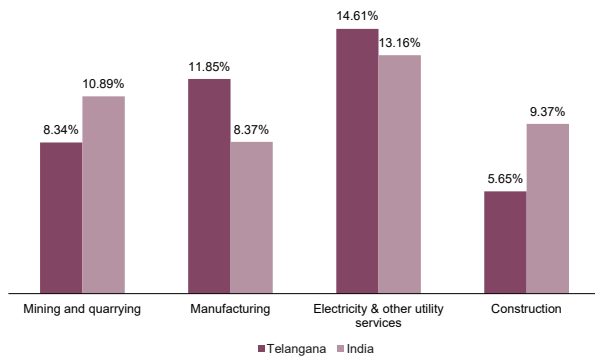
Source: Ministry of Statistics and Programme Implementation, Government of India, 2022

5.1.1.3. Employment Contribution

The Periodic Labour Force Survey 2020-21, reports that 21% of the working population in the state are employed by the industries sector. That is approximately 29,90,043 working persons in the state are engaged in the industry sector[1] . Within the sector, Construction and Manufacturing are sub-sectors that provide the largest share of employment to the workforce in the state, employing 8.82% and 10.95% of the state's working persons, respectively. The other two sub-sectors together employ 1.23% of the state's workforce. As shown in Figure 5.4,

Construction and Manufacturing account for 41.99% and 52.15% of the industrial workforce, whereas the other two sub-sectors together account for 5.86%.

Figure 5.4 Number of people working in different sub-sectors in the Industry Sector in Telangana (2020-21)[2]
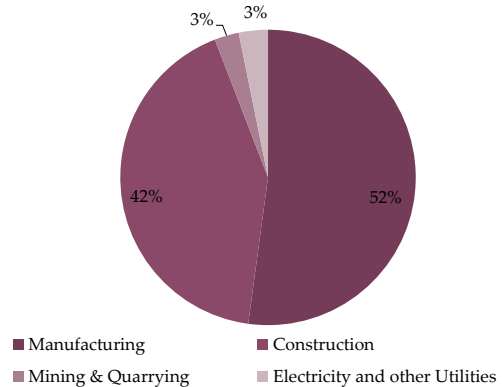
Source: Ministry of Statistics and Programme Implementation, GoI; Periodic Labour Force Survey, 2020-21

5.2. Major Initiatives of the State to Promote Industrial Development

5.2.1. Telangana State-Industrial Project Approval and Self-Certification System (TS-iPASS)

TS-iPASS was enacted in 2014 which provides clearances to all projects within 30 days and as per Invest India portal, it is recognized as one of the shortest periods across the country. The introduction of TS-iPASS has eased the administrative burden of setting up industries in the state to a great extent. This system is crucial to implementing the 'Right to Clearance' guaranteed to industrialists by the state. This guarantee is unique to Telangana and has been instrumental in Telangana's consistently high ranking in Ease of Doing Business (EoDB), compiled by the Department of Promotion of Industry and Internal Trade (DPIIT), since 2016. Figure 5.5 shows the number of approvals given, under TS-iPASS, since 2014-15.

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1   All absolute figures on employment in industries are estimated figures calculated based on PLFS data, and may vary slightly from the actual figures.

2.   All figures are estimated from PLFS 2020-21, and might differ slightly from actual figures.

Figure 5.5 Number of Approvals given under TS-iPASS (2015 to January 2023)
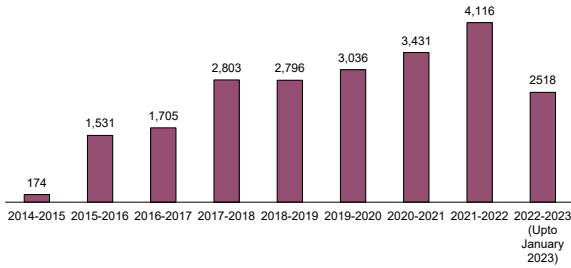
Source: TS-iPASS, 2023

A total of 22,110 proposals were approved between 2014-15 and 2022-23 (upto January 2023) with an investment of Rs.2,53,575 crore. These investments have provided employment to 17.26 lakh people in the state.

Compared to 2015-16, the first full financial year when the TS-iPASS was in force, the number of approvals made through TS-iPASS has increased considerably by 2022-23 (upto January 2023), with a CAGR of 7.4%. Though the number of approvals given in 2022-23 (upto Jan 2023) is only 2518, investments made so far are Rs 20,237 crore, higher than the investments of Rs. 18,916 crore made in 2021-22. Of all the units approved since 2014-15, 96% are MSME units, while 4% are large or mega enterprises. (Figure 5.6)

Figure 5.6 Percentage of Total Approvals under TS-iPASS by Industry size for Manufacturing Sector (2015-January 2023) Share by Size of industries (%)
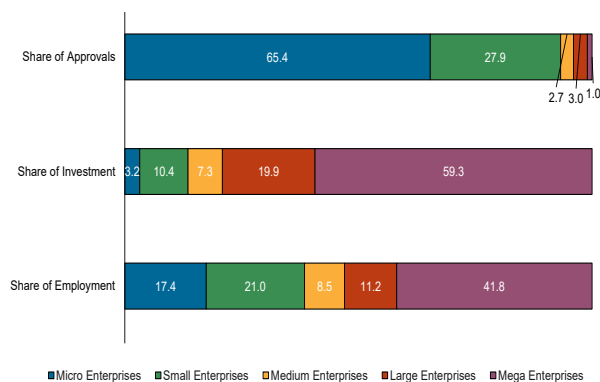
Source: TS-iPASS, 2023

5.2.1.1. District-wise Performance

Between 2015 and January 2023:

- Medchal-Malkajgiri (21.20%), Sangareddy (8.01%), and Rangareddy (7.54%) were the top three districts in terms of approvals received for setting up of business units (see Figure 5.7A).

- Rangareddy (32.15%), Nalgonda (11.17%), and Bhadradri Kothagudem (9.05%) districts received the highest investments in the state (see Figure 5.7B).

- Rangareddy (56.66%), Warangal (11.12%), and Sangareddy (8.04%) are the top three districts with the highest employment generation through the investments received under TS-iPASS across the state (see Figure 5.7C).

Figure 5.7A Number of units approved through TS-iPASS across Telangana's districts (2015-January 2023)
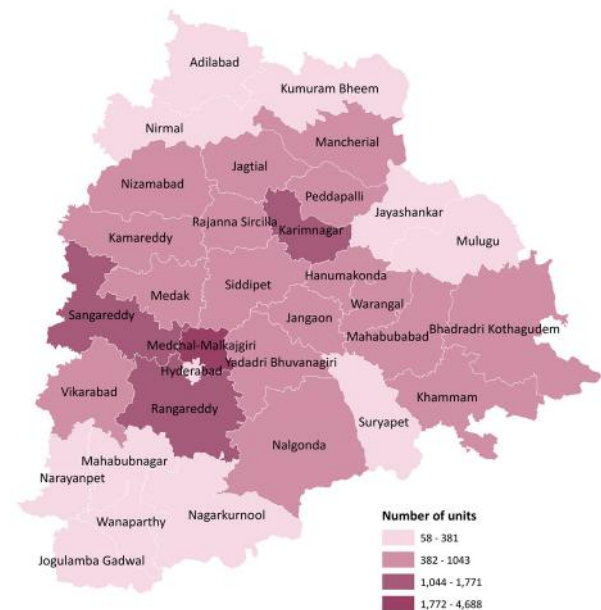
Source: TS-iPASS, 2023

Figure 5.7B Investments(in crore) by firms approved through TS-iPASS across Telangana's districts (2015-January 2023)

Investments (Crore)
- 52.6 - 5000.0
- 5,000.1 - 15,000.0
- 15,000.1 - 30,000.0
- 30,000.1 - 81,533.3
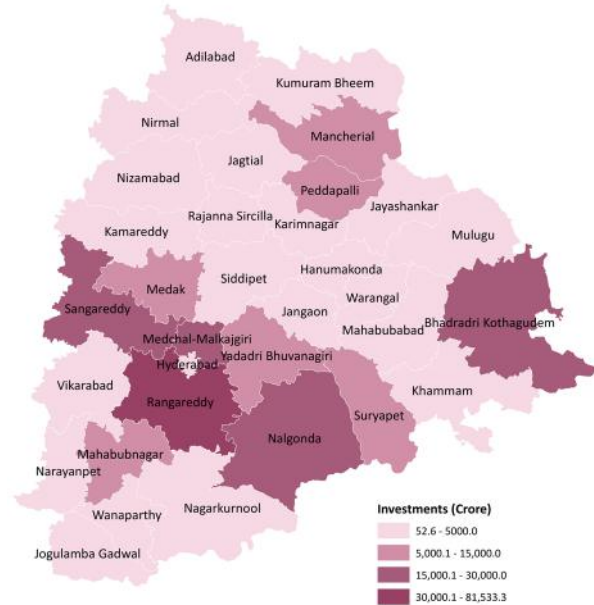
Source: TS-iPASS,2023

Figure 5.7C Employment generated by firms approved through TS-iPASS across Telangana's districts (2015-January 2023)

Employment (No.s)
- 623 - 15,,000
- 15,001 - 30,000
- 30,001 - 2,00,000
- 2,00,001 - 9,78,130
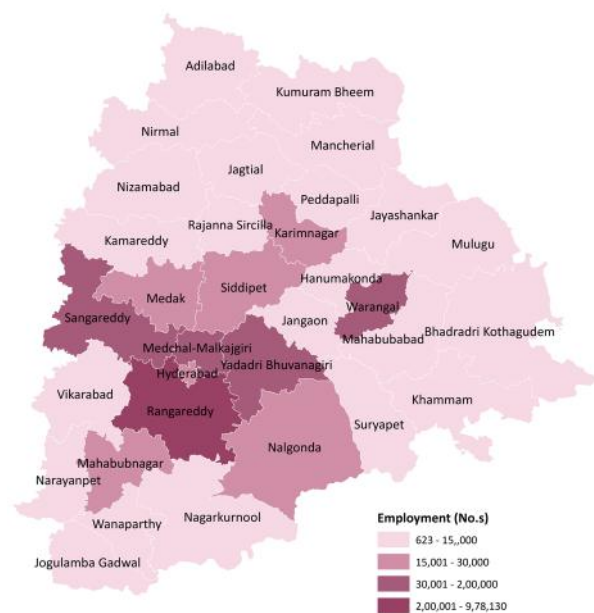
Source: TS-iPASS, 2023

5.2.1.2. Sector-wise Performance of the industries approved through TS-iPASS

The sectoral distribution of the units approved under TS-iPASS is shown in Figure 5.8A to Figure 5.8C

- There has been a steady rise in the number of approvals given to Food Processing and Agro industries between 2015-16 and 2022-23, achieving a CAGR of 8.3% in this period. This reflects the progress of Telangana's Food Policy instituted by the state (see Figure 5.8A).

- Cement and Cement products have attracted an increasing share of total investment, going from below 0.4% of total investment in 2015-16 to 10.3% of all investments in 2022-23(up to January 2023). Similarly, Plastic and Rubber products have attracted an investment of 17.8% in 2022-23(up to January 2023) a significant increase from 1.8% in 2015-16.

- Between 2016-17 and 2020-21, the IT sector remained the dominant sector producing new employment, contributing upwards of 50% of all new employment generated by firms approved through TS-iPASS. However, the bulk of new employment (36.9%) in 2021-22 and (15.1%) in 2022-23 (up to Jan 2023) came from the Pharmaceutical sector. This reflects the success of the Government in attracting new investment and employment through the development of Medical Devices Park, Sultanpur in Sangareddy district, and the Pharma City in Hyderabad.

Figure 5.8A Sector-Wise Number of Units approved by TS-iPASS (2015-January 2023)

	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Engineering	219	376	632	639	576	565	682	488
Food Processing	233	235	401	469	466	651	1,032	639
Agro Based Including Cold Storages	182	152	290	291	449	573	467	87
Cement, Cement & Concrete Products, Fly Ash Bricks	95	139	236	269	284	490	298	182
Granite And Stone Crushing	136	165	257	198	236	235	232	172
Others	666	638	987	930	1,025	917	1,405	950
Total	**1,531**	**1,705**	**2,803**	**2,796**	**3,036**	**3,431**	**4,116**	**2,518**

Source: TS-iPASS, 2023

Figure 5.8B Sector-Wise Investment (in Rs. crore) attracted through TS-iPASS (2015-January 2023)

	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Industrial Parks And It Buildings	2,480	5,078	6,980	19,458	24,483	1,152	2,022	2,128
Pharmaceuticals And Chemicals	3,084	886	2,179	2,164	2,139	4,694	7,134	1,780
Solar And Other Renewable Energy	3,334	1,513	11,675	389	384	3,039	164	2,051
Plastic And Rubber	518	428	724	756	775	957	2,598	3,600
Fertilzers Organic And Inorganic,Pesticides,Insecticides, And Other Related	3,190	60	58	60	5,288	72	24	26
Others	16,373	26,271	36,662	11,681	7,452	6,180	6,974	10,652
Total	28,979	34,236	58,278	34,508	40,521	16,094	18,916	20,237

* The Investment from Thermal Power Sector from 2015-16 to 2022-23(upto 9th Jan 2023) is Rs.61,374.41 crore which is included in 'OTHERS' in Fig. 5.8B

Source: TS-iPASS, 2023

Figure 5.8C Sector-Wise Employment Generated through TS-iPASS (2015-January 2023)

	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Real Estate,Industrial Parks And It Buildings	22,150	42,216	1,81,520	3,31,795	2,46,982	98,958	214	6,436
Textiles	631	1,786	2,051	1,89,594	3,634	3,963	2,418	1,217
Pharmaceuticals And Chemicals	18,881	7,864	13,105	13,008	9,794	14,215	37,403	11,019
Food Processing	12,947	5,381	9,660	12,548	8,735	10,376	11,435	7,567
Engineering	4,618	5,547	12,452	11,315	12,108	8,148	12,106	8,528
Others	35,169	35,872	56,175	41,673	34,354	27,516	37,902	38,141
Total	94,396	98,666	2,74,963	5,99,933	3,15,607	1,63,176	1,01,478	72,908

Source: TS-iPASS, 2023

5.2.2. Incentives for Industrial Development

T-IDEA (Telangana State Industrial Development and Entrepreneur Advancement) and T-PRIDE (Telangana State Program for Rapid Incubation Dalit Entrepreneurs incentive scheme) are important components of the state's industrial policy. While T-IDEA is aimed at using subsidies to promote industrial development in Telangana, T-PRIDE is the state's flagship programme to encourage entrepreneurship among historically marginalized groups like the SC and ST community, women, and specially-abled persons.

5.2.2.1. Telangana State Industrial Development and Entrepreneur Advancement (T-IDEA)

Under T-IDEA, the state offers incentives to entrepreneurs for setting up industries by reimbursing stamp duty, power cost, offering interest and investment subsidies, capital assistance, and other support with Quality Control and Patent Registration. Cumulatively, since the formulation of T-IDEA in 2014-15, the Government has sanctioned 24,470 claims amounting to Rs. 3457.91 crore under this scheme up to January 2023. For 2022-23 (up to Nov 2022) 2,127 claims were sanctioned for an amount of Rs.395.45 crore.

Figure 5.9 Total Number of Claims and Amount (in Rs. crore) sanctioned under T-IDEA (2014-15 to 2022-23(upto January 2023))
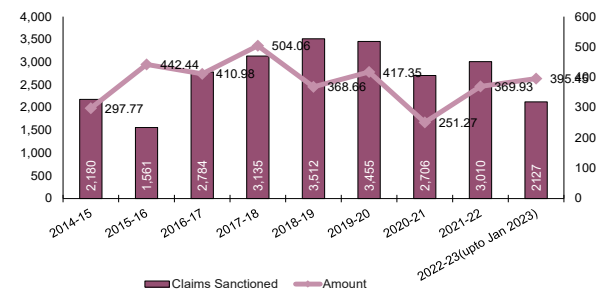
Source: T-IDEA, 2023

5.2.2.2 Telangana State Program for Rapid Incubation Dalit Entrepreneurs (T-PRIDE)

T-PRIDE is targeted specifically towards making the industrial sector more equitable by increasing the representation of entrepreneurs from the Scheduled Castes, Scheduled Tribes, Women and Specially-abled Persons (SAP). Similar to T-IDEA, the scheme offers various incentives, subsidies, and reimbursements such as preferential allotment of industrial plots in industrial parks, providing direct funding and margin money, arranging subcontracts with large industries, additional investment subsidies, and other subsidies, creating a pool of civil contractors, etc.

Cumulatively, since the introduction of T-PRIDE in 2014-15, the Government has sanctioned 61,258 claims amounting to Rs.2,759.3 crore under this scheme up to January 2023. In 2022-23 (up to January 2023) the total number of claims sanctioned was 7,596 for an amount of Rs.354.64 crore.

Figure 5.10 shows the total amount released under T-PRIDE. Between 2015-16 and 2022-23, the disbursements increased by almost 283%.

Figure 5.10 Year-wise Amounts released under T-PRIDE in Rs. crore (2014-15 to 2021-22)

■SC ■ST ■Specially-abled Persons
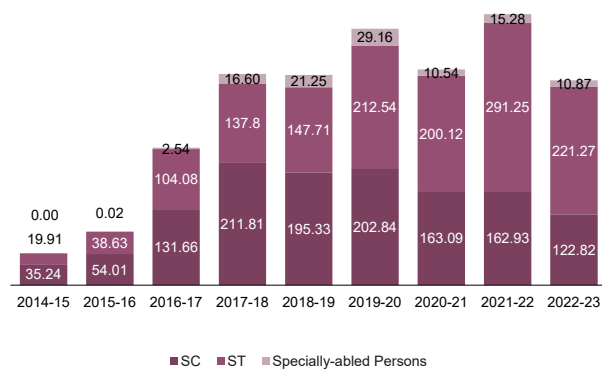
Source: T-PRIDE, 2023

5.2.3. Telangana State Industrial Infrastructure Corporation (TSIIC)

TSIIC is the nodal agency for developing industrial parks in Telangana. It has been allotted over 1.5 lakh acres of government land for this purpose. Between 2014 and 2022, the corporation has identified and acquired 28,500 acres of the said land, generating over 3.14 lakh jobs and investing Rs. 7.57 lakh crore. Some of the flagship projects of the TSIIC are Hyderabad Pharma city, the industrial park at Zaheerabad, Kakatiya Mega Textile park, Electronics manufacturing clusters, Fibreglass composite cluster, industrial parks at Chandanvelly and Dandumalkapur, Sultanpur's Medical Devices Park, Women's park at Sultanpur, Mega food park at Buggapadu, apparel weaving park at Sircilla. A total of 59 industrial parks have already been developed, while 70 are underway.

5.2.4. Micro, Small and Medium Enterprises (MSMEs)

According to the Invest India portal maintained by the Government of India, Micro, Small and Medium enterprises (MSMEs) account for 95% of all industrial units and employ over 100 million people across the country, second to the agricultural sector. The growth of the MSME sector is crucial to widening the industrial base of the state, enhancing livelihood opportunities, and fostering entrepreneurship and productivity in upstream and downstream sectors. As per TS-iPASS, nearly 19,139 MSME units started operations between 2015 and January 2023, generating employment for 3.53 lakh people.

Data available on the UDYAM portal of the Ministry of Micro, Small, and Medium Enterprises reflects that the MSMEs are majorly concentrated in Hyderabad, Rangareddy, Medchal-Malkajgiri, Nalgonda, Nizamabad, and Karimnagar districts, with Hyderabad accounting for the highest share of MSMEs among all the districts (Figure 5.11). The majority of new units registered on the UDYAM portal are micro-units (95 %), with less than Rs. 1 crore in investment and less than Rs. 5 crore in turnover. To tap the growth potential and employment generation potential of the MSME sector, the Government has launched several initiatives, as mentioned in the following sections, for achieving targeted growth of this sector.

Figure 5.11 District-wise Number of MSMEs, Telangana (According to Registrations on UDYAM Portal as of 9th January 2023)
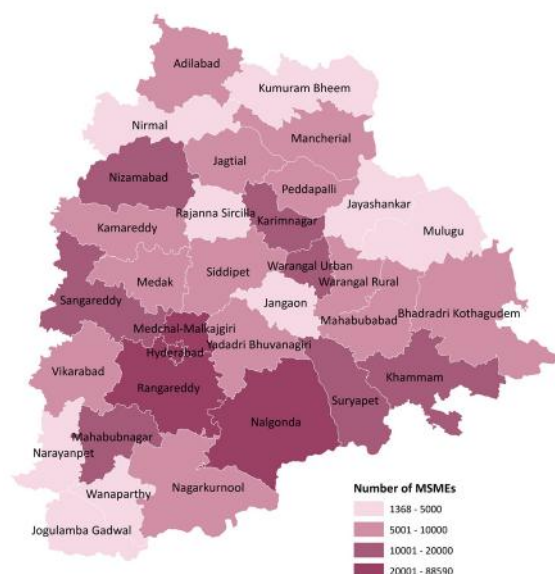
Source: UDYAM, Ministry of Micro, Small and Medium enterprises, 2023

5.2.4.1. Industrial Health Clinics

Telangana Industrial Health Clinic Limited (TIHCL) is a Non-Banking Financial Company set up by the Government of Telangana in 2017 for the revival and rehabilitation of sick MSEs, and it is one of its kind in the entire country. The TIHCL focuses on providing ex-post diagnostics to non-willful defaulters, extending financial support to pay off the 'critical amount' necessary to prevent assets from turning into NPAs, and providing special assistance to female-led firms and businesses in Telangana. TIHCL's key engagements included consulting, advising, lending, and providing bridge and margin financing to sanctioned initiatives. From 2017 to 2022, TIHCL had resolved 442 inquiries of which 52 were provided with funding amounting to Rs. 500.28 lakhs. TIHCL has started a new initiative of Doorstep engagement with the stressed Micro and Small entrepreneurs at the industrial clusters. The aim of this initiative is to provide adequate help by being more involved and it intends to resolve both financial and non-financial issues faced by businesses at the ground level.

5.2.4.2. Collaborations to support MSMEs

Department of Industries and Commerce collaborated with multiple entities to support MSMEs in the state. In the year 2022, the Government of Telangana signed an MoU with the Thailand government to kick start the cooperation in startups through T-Hub and in SMEs through"Thaitrade.com" of Thailand and TS GlobalLinker of Telangana state. The aim of the MoU is to promote trade and investment between both economies in key focus sectors, mainly agro-based food processing and wood-based industry. The Government of Telangana also inked MoUs with the National Stock Exchange(NSE), and the Small Industries Development Bank of India(SIDBI) to aid the growth of the MSMEs in the state. As part of the MoU, NSE will create awareness and guide the corporates for fundraising on the NSE Emerge platform and help them in the listing process. SIDBI as part of their agreement will set up a project management unit(PMU) to work with the government. An MoU was signed with Just Dial in March 2022 to increase the ease of doing online business for MSMEs in Telangana. Just Dial will provide registered MSMEs of the State with free listing facilities and other services under the MoU for a period of 3 years.

5.2.4.3. TS Globallinker

In 2019, the Government launched TS Globallinker - a digital networking platform that helps MSMEs contact global buyers and sellers, and get appraised about opportunities in the sector. Currently, 3.5 lakh SMEs globally, with over 7,000 SMEs from Telangana have registered on the platform. An online mall, 'Made in Telangana', was launched on 8th Nov 2021, and it supports the entrepreneurs in the state by providing them with commission-free services and increased outreach. The platform curates the finest products and crafts of the state, including pearls, apparel, home decor, consulting, appliances, services, and more.

5.2.4.4. Telangana State Trade Promotion Corporation Limited (TSTPC Ltd.)

TSTPC was incorporated in 2014 to promote the trade and industry of the state. Some of its broad objectives include undertaking promotional activities like participating in national and international trade exhibitions and seminars, establishing logistics and promotional infrastructure, and manufacturing all kinds of paper products. TSTPC has developed a Container Freight Station at Mamidipally, Shamshabad, and is the implementing agency for the development of a Multi Modal Logistics Park at Parkibanda village near Toopran, Manoharabad Mandal, Medak District. To promote trade, TSTPC, with the help of organizations like the Federation of Indian Exports Organisation(FIEO), and the Federation of Telangana Chambers of Commerce and Industry (FTCCI), is conducting Export Awareness Programmes for exporters, manufacturers, and entrepreneurs in the districts. TSTPC has set up Telangana State Pavilion in the Indus Food Expo (January 8-10, 2023) to help MSMEs and Startups in the Food Processing Sectors to showcase their products. TSTPC is the State Nodal

Agency for the Raising and Accelerating of MSME Performance(RAMP) scheme of the Government of India.

5.2.4.5. Prime Minister's Employment Generation Programme (PMEGP)

Funded by the Central Government and administered by the Telangana State Khadi Village Industries Board (TSKVIB), this scheme provides margin money to khadi enterprises in rural Telangana. It is a credit-linked subsidy program for newly established micro-enterprises. The TSKVIB disbursed Rs.2137.13 lakh under this scheme in 2022-23 (till December 2022), providing support to 422 units. Rangareddy, Khammam, and Nizamabad accounted for over 36.7% of all units that received margin money under this scheme.

5.2.4.6. Women Entrepreneurs Hub (We-Hub)

We-Hub is a state-led incubator established in 2017 to help foster women entrepreneurship in Telangana. It provides incubation facilities, access to the Government, and a global network of collaborators to new women entrepreneurs in the state. It plays an especially important role in promoting entrepreneurial skills in Tier-2 and Tier-3 cities, and running programs that increase the interest of young women in pursuing Science, Technology, Engineering, and Mathematics education.

From its inception in 2017 to till date (upto Jan 2023), We-Hub has incubated over 2,194 startups, supported 1,495 startups, raised Rs. 66.3 crores in funding, created 2,823 jobs, and engaged over 5,235 women entrepreneurs.

5.2.4.7. Technology-Hub (T-Hub) and Technology-Hub 2.0 (T-Hub 2.0)

Innovation and technology are deemed to be the prime drivers of industrial growth in Telangana. Currently, the state has 78 incubators, accelerators, and coworking spaces with a specific focus on various sectors such as Lifesciences, FinTech, Agri Tech, Digital, etc. The Innovation policy of the state and the incentives provided to the start-ups have made the state a fertile ground for many emerging startups and some of them have gone on to gain national prominence. A startup called "Darwin Box" is the first startup from Telangana that joined the unicorn club and another startup called "Skyroot Aerospace", incubated at T-Hub has gained the distinguished status of developing India's first private rocket called "Prarambh".

The Government has established T-Hub in 2015 to enable and empower the innovation ecosystem in the state, and to create an impact for startups, corporations, and other stakeholders. Its flagship innovation program, Lab32, completed its eighth cohort by empowering over 240 startups from across the state. T-Hub has also taken the lead in working with TSIIC and other ecosystem partners to provide incentives to start-ups in Telangana under the Telangana Innovation Policy. Since its inception, T-Hub has impacted over 2500 startups, conducted over 1000 events and raised over Rs 1,860 crore funding by the cohort Start-ups, and created over 12,000 jobs. T-Hub got selected under the Startup India Seed Fund scheme by Department for Promotion of Industry and Internal Trade(DPIIT), GOI to disburse Rs 5 crore among eligible startups. T-Hub has bagged the "Best Incubator in India '' award at the National Startup Awards 2022 of the DPIIT, Ministry of Commerce and Industry, for its efforts to support the growth of the startup ecosystem in Telangana.

The second phase of T-Hub (T-Hub 2.0) was started on 28th June 2022 and it is one of the world's largest innovation campuses with a capacity to house 4,000 start-ups and other key elements of the innovation ecosystem. T-Hub Phase 2 has further improved the startup ecosystem of the state. Startups like Zenoti, MyGate, WhistleDrive, Outplay, DrinkPrime, and AdOnMo have secured more than Rs.2,269 crore in funding by mid of May 2022.

5.3. Sectoral Insights

5.3.1. Handlooms, Textiles, and Handicrafts

5.3.1.1. Handlooms and Powerlooms

Handlooms are the largest cottage industry in the state. The Government has launched several flagship programs to help the handloom weavers of the state. Among them, the prominent schemes include:

- **Nethannaku Cheyutha** - The Government introduced "The Telangana Handloom Weavers Thrift Fund Saving and Security Scheme (THWTFSSS) also called "Nethannaku Cheyutha" in 2017. The scheme intends to provide social security to the weavers. As part of this scheme weaver contributes 8% of his wage into the savings account and the state contributes double the amount. The scheme was extended for a period of 3 years from July 2020 to June 2023, with a total Budget allocation of Rs.90.00 crores i.e. Rs.30.00 crores per year.

- The scheme has been implemented successfully and 34,927 RD1 accounts (beneficiary's share) and 33,560 RD2 accounts (Government share) have been opened. An amount of Rs. 56.71 crore has been released to the beneficiary's accounts towards the state Government share.

- **Nethanna Bima -** The Government of Telangana has launched Nethanna Bima (Group Life Insurance) Scheme on par with Rythu Bima in Telangana on 07.08.2022 and the scheme is implemented from 14.08.2022 to cover Handloom and Power loom weavers and ancillary workers under LIC of India Insurance Scheme. 38,951 enrolments have been made online under the Scheme and 36,002 of them are found to be eligible.

- **Chenetha Mitra** (Input Subsidy Linked wage compensation Scheme) - The Government introduced an input subsidy scheme that provided 40% subsidy for yarn, dyes, and

chemicals. The main objective of the scheme is to provide better wages to weaver artisans without compromising on manufacturing margin and to be competitive in the market.

- **Credit Support:** The District Co-operative Central Banks support the Primary handloom weavers with Cash Credit to help with the day-to-day running of their looms. Since the Formation of the state an amount of Rs.13,324.28 Lakhs covering 928 weavers cooperative Societies. In 2022-23, Rs.1,845.50 lakh was distributed as loans to 88 Weavers Societies.

- **Pavala Vaddi Scheme:** The Scheme is being implemented with a view to reduce the burden of interest on Handloom Weavers Cooperative Societies, APEX Society, Individual Weavers covered under Artisan Credit Cards, and Handloom weaver Groups (HWGS). The Government disbursed over Rs. 213.71 lakh under this scheme in 2022-23 to cover interest payments of weaver loans. Under the scheme an amount of Rs. 1199.87 lakh has been sanctioned and released for the Societies from 2014-15 to 2022-2023.

- **Thrift Fund Scheme to Powerloom Weavers:**

The State Government in order to inculcate the habit of savings among Powerloom Weavers in the State has taken a policy decision to implement the Thrift Fund Scheme to Powerloom Weavers on par with Handloom Weavers. For the year 2022-23 (up to Nov '2022), the number of beneficiaries registered is 11,815 and an amount of Rs 2.72 crore is released into the RD2 accounts.

5.3.1.2. Textiles

Industrial and textile parks feature prominently in the state's policies to encourage new investment in textile manufacturing in the state. In 2017, the Government established the Kakatiya Mega Textile Park in Warangal, the highest cotton-growing district in the state spread over 1,190 acres. The investment potential is Rs.11,586 crore and the employment potential is 1,13,000 persons. As many

as 22 entrepreneurs from India and abroad have made agreements with the Government to set up their units with an estimated investment of Rs. 3,400 crore and employment potential of around 23,800 jobs.

In addition to these initiatives, the state has set up a new Apparel Park and Weaving park in Rajanna Sircilla District with an extent of 59.26 acres and 88.74 acres respectively in the year 2017-18. The primary objective of the parks is to generate employment on a large scale and to provide alternate livelihood opportunities to women currently involved in beedi rolling work.

5.3.1.3. HANDICRAFTS

Telangana is home to several artisans that produce exquisite toys, furniture, silver filigree, brass bangles, etc. For example, the Adilabad district is known for its Nirmal Furniture, which received Geographical Indication Rights in 2009. Similarly, Adilabad's Ushegaon village is known for Dokra metal artifacts, made by employing the lost-wax method. Pembarthi village in Jangaon district produces Pembarthi metal crafts. The craftsmen decorate individual items like perfume bottles and betel-nut cases, and even vases and mementos. Hyderabad is home to artists that make the Cheriyal paintings that depict narratives and stories across long scrolls.

Telangana State Handicrafts Development Corporation (TSHDC) bears the primary responsibility of marketing the state's handicrafts and providing welfare support to the artisans in the state. It has owned the 'Golkonda' trademark since 2015 and is tasked with publicizing the state's handicrafts under this trademark. It also owns ten emporia in India, two of which are located outside Telangana. In 2022-23, the sales crossed Rs.3,520 lakh by October 2022.

5.3.2. Leather industry

The Telangana State Leather Industries Promotion Corporation Ltd (TSLIPC Ltd) is manufacturing and supplying footwear to various Government Departments. TSLIPC has signed an agreement (MoU) with Central Leather Research Institute (CLRI),

Chennai for the development of 6 Mini Leather Parks in 164 acres in 6 Districts Mahabubnagar, Nalgonda, Mancherial, Nagarkurnool, Karimnagar, and Khammam.

5.3.3. Life Sciences and Pharmaceuticals

Pharmaceuticals comprise the largest commodity export of the state, averaging over 30% of the total merchandise exports since 2015-16 (Rs. 21,562 crores in 2020-21). Nearly one-third of India's Pharmaceutical production is done in Telangana and it contributes to one-fifth of the country's exports.

5.3.3.1.Hyderabad Pharma City

Hyderabad Pharma City is proposed to be the world's first and largest integrated pharmaceutical cluster spread across 14,029.36 acres with a potential investment of Rs. 64,000 crores and employment potential of 4.20 lakhs. The project is of National Significance and the Department for Promotion of Industry and Internal Trade (DPIIT) has accorded NIMZ status and Environmental clearance obtained from the Ministry of Environment, Forests and Climate Change (MoEF&CC), GOI.

5.3.3.2. Medical Devices Park

The Government of Telangana has identified medical devices as a strategic area for growth. Hyderabad offers locational advantages to the industry, as the city is home to several SMEs that specialise in precision engineering and the manufacturing of plastics. In addition, the park provides an uninterrupted power supply, effluent treatment plants, rapid testing centers, facilities for testing medical devices, and warehouses. The Government established Medical Devices Park in an extent of 250 acres at Sultanpur Village, Patancheru Mandal, Sangareddy District and it is deemed to be the largest one in the country. So far allotments were made to 50 companies for setting up their manufacturing facility with a proposed investment of about Rs.839 crore and employment potential of 5465.

5.3.4. Food Processing

Telangana State Food Processing Society is an autonomous agency created in May 2014 and 39,748 units are registered with a Fixed Capital of Rs.2,676 crores. Food Processing has been recognized as one of the 14 thrust sectors of the state in the industrial policy framework of 2014. The food processing industry in Telangana processes 25% of the output from the agriculture and allied sectors and adds 12.5% in value to marketed agricultural products.

As per Food Processing and Preservation Policy 2021, the Government proposed to establish 21 'Special Food Processing Zones' which would create 7,150 acres of new industrial area. As of 30th Nov 2022, 1,031 provisional allotment orders have been issued for 3,038 acres. Further, several mega projects with total fixed capital investment of more than Rs 4,200 Crores and direct employment of more than 10,000 personnel are under various stages of implementation. Core sectors represented by these investments are primarily Animal feed, Fisheries, Dairy, Consumer Products, Edible Oils, and Beverages. 70% of these investments are focused on high-value tertiary processing.

Also, Telangana State Oil Palm Mission envisages to bring 20 lakh acres under oil palm cultivation in a period of three years from 2022-23 to 2024-25 and this will require more than 100 oil mills across the state with approx. fixed capital investment of more than 16,000 crores.

5.3.5. Mining

Telangana has varied geology, endowed with a rich and wide variety of minerals suitable for specific mineral industries. The Government has leased 88,821 hectares of land for mining and quarrying activities. The state has over 2025 mineral industries with Granite cutting & Polishing, Stone Crushing, Brick Kilns, and Napaslab Units having the maximum share of units. In 2022-23 (up to November 2022) the state earned a total revenue of Rs. 6569.82 crores from mineral production in the state. Mineral

revenue collections worth Rs. 32,184.26 crores have been achieved between 2014-15 to 2022-23(up to Nov 2022. (see Figure 5.12).

Figure 5.12 Year-wise Revenue generated from Mineral Resources for Telangana (2014-15 to 2022-23 (up to Nov'22))
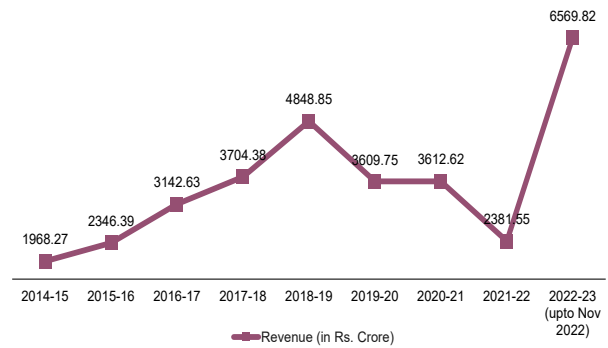
Source: Department of Mines and Geology, Government of Telangana, 2023

The Telangana State Mineral Development Corporation (TSMDC) is responsible for developing mineral resources through exploration and mining activities. TSMDC was declared a National Exploration Agency (NEA) by the Ministry of Mines in 2016 and has taken up the exploration of minerals within and outside the state.

5.3.5.1. Sand Mining

As per the Sand Mining Policy, 2014, sand from certain streams is entrusted to TSMDC for extraction and supply. TSMDC is also supplying sand to prestigious State Government programmes like Double Bedroom Houses, Irrigation projects, Mission Bhagiratha works, and other Government works.

During the year 2022-23 (up to November 2022), sand mining contributed revenue worth Rs. 494.31 crores to the state exchequer. Dependent Sand Mining is also contributing more than Rs.802.11 Cr per annum (2021-22) towards the Telangana State exchequer. The Revenue earned from the sand sales from 2014-15 to 2022-23 (up to November 2022) is Rs. 5,288.30 crore. It directly and indirectly employed

over 5290 people. Close to a third of the revenue generated goes to the District Mineral Foundation, used exclusively to benefit the local population, and provide funds for improving the quality of infrastructure, schools, health facilities, and toilets.

In order to monitor and curb illegal sand mining in the state, the TSMDC has set up an integrated call center to inform the buyers of sand prices and prevent illegal transportation of sand. Additionally, monitoring tools like CCTV cameras and weighting bridges have been installed. The initiatives have resulted in the stoppage of indiscriminate and illegal sand mining in the state. The state government is implementing a unique concept 'Sand Taxi Service' where district administration is supplying sand locally at the doorstep of the customers through online booking. The Ministry of Mines, Government of India in its 'Sand Mining Framework' has stated that Telangana is following the best practices across the process chain of sand mining like Demand Supply Assessment, Rules and Regulations, Clearances and Approvals, Business Model, and Operations & Monitoring. GOI has further suggested the other states to visit Telangana to study the monitoring mechanism of the state in greater detail. Sand Sales Management and Monitoring system received a Silver award from SKOCH 2022 for State Owned Enterprise for EBS-ERP Implementation.

5.3.5.2. Coal

Telangana has the largest deposits of coal among all South Indian states. It has coal reserves of 11,849.54 million tonnes in the Godavari Valley of Telangana. Mancherial, Peddapalli, Jayashankar, Komaram Bheem Asifabad, Khammam and Bhadradri Kothagudem districts account for these reserves. In 2022-23 mineral revenue collection from coal is Rs. 5,09,523 lakh.

M/s Singareni Collieries Company Ltd (SCCL), a State Public Sector Undertaking, is the primary coal mining corporation in Telangana. It is the second-largest coal producer in India. As per their Annual Accounts 2021-22, the revenue from the sale of Coal is nearly Rs. 20,500 crores.

In April 2022, the Singareni Thermal Power Plant (STPP) of SSCL was awarded by the Mission Energy Foundation for the second time in a row for 100% utilization of the fly ash. In May 2022, SCCL bagged the performance excellence award given by the Indian Institute of Industrial Engineering (IIIE) for the year 2021-22, for adopting new technologies in coal mining for higher production and taking up welfare measures for employees.

5.3.5.3. Limestone

Limestone mining is contributing about Rs. 18.97 crores per annum (up to November 2022) to the State & Central exchequer. The dependent Cement plant is contributing more than Rs. 400 Cr per annum towards State & Central exchequer. Mining of Limestone has engaged about 250 employees directly. The Cement plant has engaged about 2500 employees directly and about 10,000 families indirectly.

Box 5.1

Aerospace sector in Telangana:

As per United Nations' International Standard Industrial Classification (ISIC), the Aerospace Industry refers to the manufacture of aircraft and spacecraft. This broad class comprises the manufacturing of both non-space items (passenger and military aeroplanes, helicopters, gliders, balloons, etc.) and space items (including spacecraft, spacecraft launch vehicles, satellites, planetary probes, orbital stations, and shuttles). This also includes the manufacturing of their parts and accessories, used in civil or military applications.

Pursuing the immense potential industry provides, the Indian Aerospace & Defence (A & D) industry is making rapid progress and is evolving as a global player. Increased defence spending and commercial aviation are resulting in upward demand for aircraft and their supply chain. Air Passenger Traffic in India is projected to reach 520 Million by 2037. The Indian Civil Aviation MRO market, at present, stands at around $900 mn and is anticipated to grow to $4.33 bn by 2025 increasing at a CAGR of about 14-15%. The Indian drone industry will have a total turnover of up to $1.8 bn by 2026. All these figures imply that the Indian Aerospace and Aviation industry is on a high growth path. Hence arises the need to develop a robust ecosystem and supportive government policies.

The Government of Telangana recognised the Aerospace and Aviation sector as one of the focus areas. Manufacturing of Aero Structures, manufacturing of Aero engines, MRO, the establishment of Engineering, R&D, and Training institutions, Space sector, Drones and UAVs, and A&D materials are some of the investment opportunities that the state offers in the Aerospace sector.

The state has a strong and thriving Aerospace ecosystem. The state has over 1000 MSMEs engaged in Precision Engineering and 25 large companies which cater to the Aerospace and Defence ecosystem. And with the presence of prominent research and training institutions, highly skilled and industry-ready workforce are available in the state. In addition to this, the state skilling agency Telangana Academy of Skill and Knowledge (TASK) provides training support to new industries. Also, the Government has partnered with global institutions like Embry Riddle Aeronautical University (US), Cranfield University (UK), and Aerocampus Aquitaine (France) with an aim to make the acquisition of Aerospace related skills affordable. The state-run incubator T-Hub has partnered with leading US Original Equipment Manufacturers (OEMs) such as Boeing, Collins Aerospace, Prat and Whitney, etc. to promote and accelerate the startups in the Aerospace domain. T-works, a prototyping center of the government, is expected to host and support a large number of hardware startups in the Aerospace and Defence sector. Research and Innovation Circle of Hyderabad (RICH) which works to bring research ideas from top research institutions into the market has Aerospace and Defence as one of its focus areas. All these initiatives contribute to skilling and lead to the formation of highly skilled human capital in the state.

The state has dedicated industrial parks for the Aerospace and Defence sector. They are Adibatla Aerospace SEZ, Nadergul Aerospace Park, GMR Aerospace SEZ, Hardware park 1 and Hardware park 2 (predominantly occupied by A&D firms), E-City (Avionics and Defence electronics firms), and TSIIC composite park at Ibrahimpatanam. A new Aerospace and Defence park is being developed to meet the increasing demand from the industry. The land acquisition process is in process at Eliminedu for the proposed Aerospace park. Land allocation in various Aerospace parks in the state is online, transparent, and swift which makes the process

hassle-free. All the aforementioned factors make the state an ideal and preferred destination for the establishment of Aerospace and Aviation related industries.

Some of the global Original Equipment Manufacturers (OEMs) like SAFRAN, GE, Boeing, and Lockheed Martin formed their joint ventures with Tata and have established their production facilities in Hyderabad. French Aviation MNC SAFRAN has expressed its interest to establish a Maintenance, Repair, and Overhaul (MRO) facility for Aircraft engines in Hyderabad. It is said to be the first engine MRO established by a global OEM in India.

Progressive policies of the government are not only bringing in investments and employment

opportunities to the state but have received recognition at national and international levels. Telangana received the Best State award for the 'State with a most dedicated outlook towards Aerospace sector' for the year 2022. Telangana has received this award from the Ministry of Civil Aviation for the third time in a row (2018, 2020, 2022). Hyderabad was ranked No.1 in fDI Aerospace cities of the Future for being the top global aerospace city in cost-effectiveness.

Provision of the attractive incentives and superior infrastructural facilities has led to unprecedented growth in the sector. The government with its vision and progressive policies is making efforts to tap into the full potential of the sector and place Hyderabad at the forefront of the Aerospace sector of the country.

5.3.6. Exports Sector

Exports of goods and services are a crucial source of revenue, employment, and investment for Telangana. In 2021-22, Telangana sold Rs. 2,65,510 crore worth of goods and services to the international markets, accounting for the state's nominal GSDP. A majority of these originated in the services sector accounting for 69.13% of all exports by value, whereas Merchandise exports accounted for 30.87%. Merchandise exports accounted for 7.10% of the GSDP of Telangana.

In the Export Preparedness Index, 2021 compiled by NITI Aayog and released on March 25, 2022, Telangana was ranked Fifth among all landlocked states. The report suggests that Telangana has the 7th best Business ecosystem (Business Environment, infrastructure, transport connectivity) among all states, and is the 9th best in Export performance. The state is in 12th position in Export promotion Policy and institutional framework and Export EcoSystem (Export infrastructure, Trade support, R & D Infrastructure). Telangana is one of 16 states

that provide a trade guide, and one of 19 states that provide an online information portal for exporters.

Telangana has shown the best performance with 100 score in the Business environment indicator leaving Uttar Pradesh and Rajasthan behind. This is primarily due to the innovation index performance and lower power cost. Moreover, Hyderabad is emerging as a hotspot in the data center space. IT, ITeS, pharmaceuticals, and cloud solution companies' presence in the state are acting as demand drivers for significant ticket investments. Export Preparedness Index further stated that the state's performance is a positive outlier and its efforts at improving the business environment are commendable.

5.3.6.1 Merchandise Export

During 2021-22 Telangana exported merchandise goods worth Rs. 81,971 crore. Pharmaceutical goods and Organic Chemicals constituted around 65% of the total merchandise exports. Figure 5.13. shows the percentage of exports attributed to major commodities.

Figure 5.13 Share of Different Commodities in State's Exports (2021-22)

Share in state's exports (%)

Commodity	Share (%)
Pharmaceuticals	33.9
Organic Chemicals	23.41
Electrical Machinery	5.47
Nuclear Machines	4.72
Cotton	3.72
Coffee & Tea	2.36
Salt and Minerals	2.19
Pearls, precious and semiprecious stones	2.07
Cereals	1.81
Aerospace Structures	1.7
Others	18.65
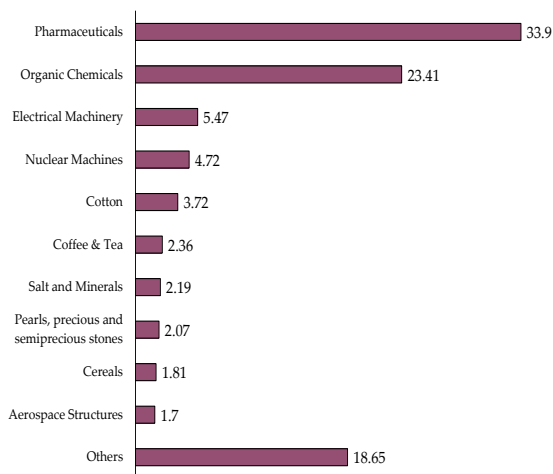
Source: Commerce & Export Promotion Department, Government of Telangana, 2022

Figure 5.14 shows the share of Top 5 commodities in the state's total exports since 2015-16. Pharmaceuticals and Organic chemicals constitute either more than or close to 60% of total exports in any given year.

Figure 5.14 Top 5 commodities exported from Telangana (2015-16 to 2021-22)

Year	Pharmaceuticals	Organic Chemicals	Electrical Machinery	Mechanical Applicances	Salts and Minerals
2015-16	36.2	33.2	4.1	3.8	2.0
2016-17	32.6	34.4	3.4	3.5	2.4
2017-18	27.3	31.1	4.0	4.3	3.7
2018-19	29.1	30.0	4.1	4.9	3.5
2019-20	32.0	30.5	4.5	5.3	3.2
2020-21	33.4	31.1	4.7	5.4	2.8
2021-22	33.9	23.4	5.5	4.7	2.2
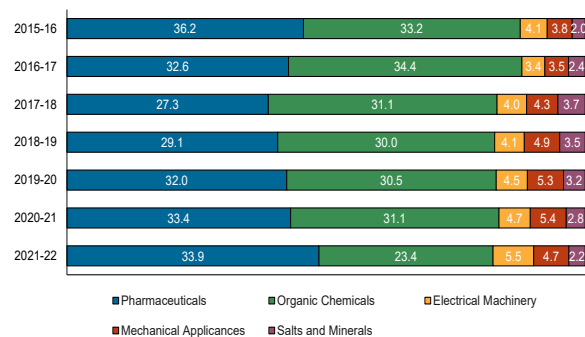
Source: Commerce & Export Promotion Department, Government of Telangana 2022

There is a global demand for the goods produced by Telangana. According to the 2021 Export Preparedness Index compiled by the NITI Aayog, Telangana's exports command high value across 170 different countries. Hence, Telangana has the fourth highest international market penetration among all states in India. Figure 5.15 shows the major importers of Telangana's products. Among them, a large section of Telangana's export merchandise is directed toward the USA (28.13%), China (7.30%), and Bangladesh (3.64%).

Figure 5.15 Top 10 countries to which Telangana exported goods (2021-22)

Share in state's exports (%)

Country	Share (%)
United States of America	28.13
China	7.3
Bangladesh	3.64
Russian Federation	2.66
United Kingdom	2.05
Singapore	1.97
Brazil	1.95
Germany	1.89
Japan	1.86
Türkiye	1.82
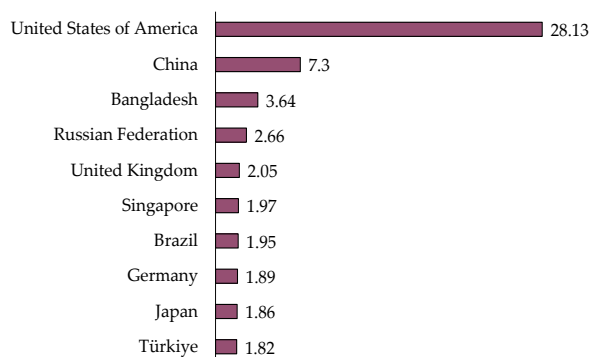
Source: Commerce & Export Promotion Department, Government of Telangana 2022

The exported goods are produced across Telangana, though, between April 2021 to March 2022, roughly 5 districts (Medchal-Malkajgiri, Hyderabad, Sangareddy, Rangareddy and Medak) accounted for over 85% of all exports from the state (Figure 5.16). Other major contributors include Nalgonda (2.45%), Khammam (2.25%), and Yadadri Bhuvanagiri (1.98%). With the launch of policies like One-District-One-Product, the Government has directed its focus on expanding the export potential of all 33 districts of Telangana.

Figure 5.16 Top 5 Districts in Merchandise Exports from Telangana (2021-2022)

District	Share (%)
MEDCHAL MALKAJGIRI	25.43
HYDERABAD	19.89
SANGAREDDY	19.53
RANGA REDDY	16.57
MEDAK	3.6
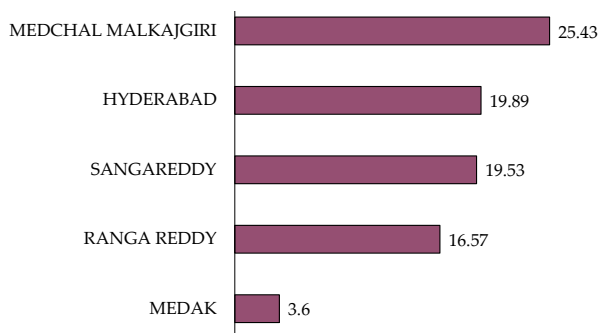
Source: Commerce & Export Promotion Department, Government of Telangana, 2022

5.4 Way Forward

Telangana was included in the Top Achievers category in the latest edition of Ease of Doing Business ranking for the year 2020. This was possible only because of the simple rules and efficient governance systems in place. The state was also successful in attracting big-ticket investments and in creating jobs because of its business-friendly policies and the incentives provided to the industry sector. Telangana through its flagship initiative of TS-iPASS attracted Rs 20,237 Crore of investment in 2022-23 (up to Jan 2023) through 2,518 new industries and created employment for 72,908 people.

The state has also made impressive strides in improving its exports from the state. According to Niti Aayog, Telangana is one of the top 5 states which have contributed to 75% of the overall exports made from the country. The Government is also making efforts towards making the state an attractive destination for foreign funds and investments. The state is furthering the idea of "Invest Telangana" through investment seminars and delegations. The Government through its continued focus on developing the industrial infrastructure (industrial parks), building a vibrant research and development ecosystem (RICH) and skill development (TASK) is inching closer toward its aim of making the state a leader in industrial production and a manufacturing and export hub.

SERVICES

Key Highlights

- The services sector remains the dominant sector in Telangana's economy, with a share of 62.81% in the Gross State Value Added (GSVA) at current (2022-23) prices.

- The Compounded Annual Growth Rate (CAGR) of Gross Value Added (GVA) at current (2022-23) prices by the services sector in Telangana (12.81%) between 2014-15 and 2022-23 is 2.36 percentage points higher than the All-India average (10.45%).

- The 'Real Estate, Ownership of Dwelling and Professional Services' is the most dominant sub-sector of the services sector in the state, which contributed more than one-third (33.20%) of the GVA at current (2022-23) prices. It is also the largest sub-sector (20.85%) of the state's total GVA.

- The 'Trade, Repair, Hotels and Restaurants' sub-sector experienced the maximum Compound Annual Growth Rate (CAGR) between 2014-15 and 2022-23 (at current prices), at 16.13%, followed by 'Other Services' at 14.24% then 'Real Estate, Ownership of Dwelling and Professional Services' at 12.53%.

- Between 2014-15 and 2021-22, IT exports from Telangana experienced a Compounded Annual Growth Rate of 15.67%. The total employment in the IT sector increased from nearly 3.7 lakhs to 7.7 lakhs during this period. To further accelerate such growth, the Government has introduced its second ICT Policy (2021-26).

- According to PLFS 2020-21, more than one-third (33.21%) of total workers in Telangana are employed in the services sector. At the all-India level, this is 29.64%. Within the services sector in the state, more than one-third of total workers (39.75%) are employed in the 'Trade, Hotels and Restaurants' sub-sector, whereas 21.04% of the workers are employed in the 'Transport, Storage and Communication' sub-sector, together accounting for 60.79% of the employment in the services sector.

- The services sector's contribution to employment is higher in Telangana's urban areas than in rural areas. According to the Periodic Labour Force Survey 2020-21, 63.22% of the urban workers in the state were working in the service sector, whereas it was 18.28% in the rural areas

- Tourism Department, Government of Telangana won National Tourism Awards in four categories. The categories are Best State (Telangana State Tourism Development Corporation), Best Tourism Friendly Golf Course (Hyderabad Golf Association), Best Tourist Friendly Railway Station (Secunderabad Railway Station), and Best Medical Tourism Facility (Apollo Hospitals). The awards were presented by the Government of India at World Tourism Day celebrations held in New Delhi in September 2022.

- In January 2023, the National startup awards 2022 was announced by Startup India & DPIIT, Government of India in which the Government of Telangana Startup incubator - **T-Hub,** won the **Best Incubator in India** prize in the incubator space where incubators across 17 sectors have participated.

6.1. Introduction

The growth of the Services Sector in India is a unique example of leap-frogging traditional models of economic growth. It is the largest sector of the global economy in terms of value-added, accounting for 53.40% of the global GDP in 2021-22.

In Telangana, the services sector was the highest contributor (62.81%) to the state's economy, in the year 2022-23. In the last five years (2017-18 to 2022-23), the growth of the services sector is at 75.33% owing to the successful investments in knowledge, infrastructure, data, and technology-related policies in the state.

Telangana ranked 2nd in the **overall ranking category** of the NITI Aayog India Innovation Index 2022 which was measured on key parameters like Human capital, Investment, knowledge workers, Business environment, Safety, Legal environment, Knowledge output, and Knowledge diffusion in the state. In addition, as per the PLFS 2020-21 report the sector provided employment to more than one-third of the total workforce. The services sector has been a vital source of output, growth, and jobs in the state.

6.2. Sectoral Insights

6.2.1. Sectoral Contribution

In the year 2022-23, the services sector accounted for 62.81% (Rs. 7,50,408 crore) of Telangana's Gross State Value Added at current prices, making it the most dominant sector in the state's economy (see Figure 6.1).

Figure 6.1. Contribution of economic sectors to the GSVA at current prices of Telangana (2022-23)

Total GSVA (at current Prices)=Rs 11,94,777 crore

- Agriculture & Allied
- Industries (Including Mining and Quarrying)
- Services
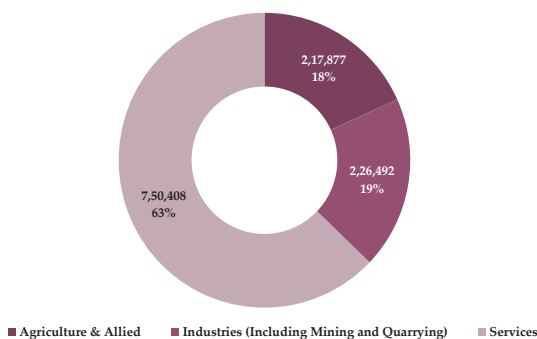
Source: Ministry of Statistics and Programme Implementation, Government of India.

6.2.2. Sectoral Growth Rate

The gross value added by the services sector at current prices in Telangana grew from Rs. 2,86,011 crore in 2014-15 to Rs. 7,50,408 crore in 2022-23 – an increase of 162.37% over a span of 8 years (see Figure 6.2). In the same duration, the gross value added by the services sector in India grew from Rs. 59,62,478 crore to Rs. 1,32,06,468 crore – an increase of 121.49 %. Thus, between 2014-15 and 2022-23, Telangana's service sector grew by 40.88 percentage points more than the country's.

Figure 6.2. GVA by services sector at current prices (2014-15 to 2022-23) in Telangana vs. India
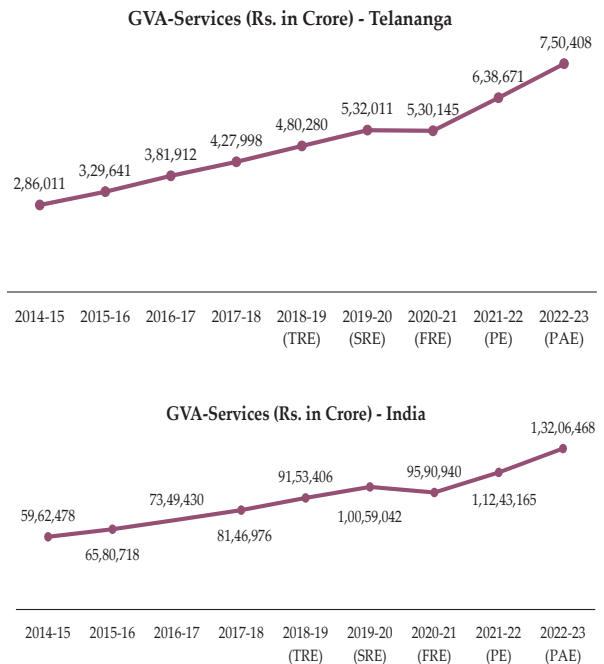
GVA-Services (Rs. in Crore) - Telananga

GVA-Services (Rs. in Crore) - India

Source: Ministry of Statistics and Programme Implementation, Government of India.

Telangana services sector GVA at current prices experienced a Year on Year (YoY) growth rate of 20.47% and 17.50% in the year 2021-22 and 2022-23 whereas the national level YoY growth rate was 17.23% and 17.46% in the same years. During this span, the growth rate of the services sector in Telangana was higher than that of India for every year (see Figure 6.3)

Figure 6.3. Year-on-Year Growth Rate of GVA at current prices by the services sector (2015-16 to 2022-23): Telangana vs. India
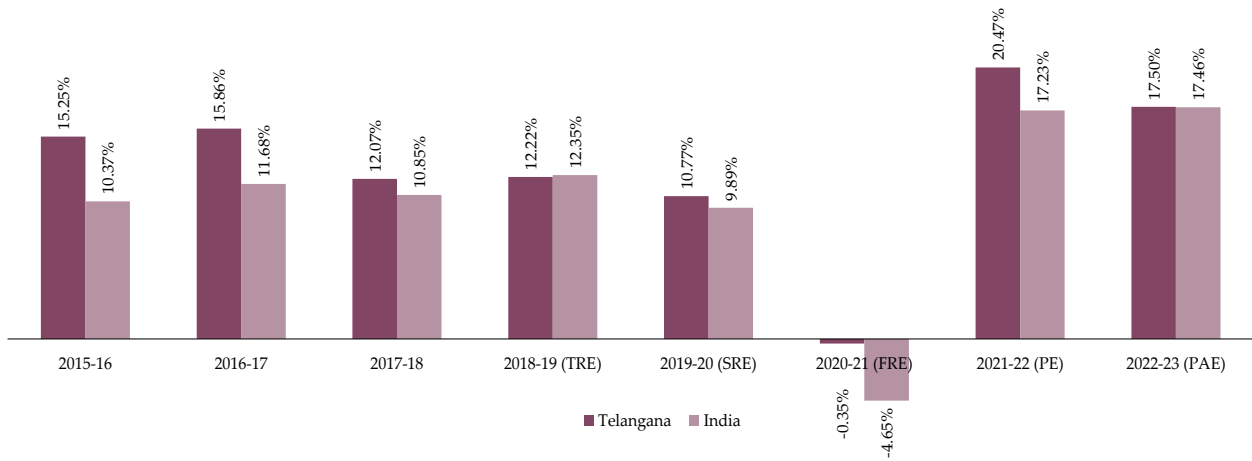
	2015-16	2016-17	2017-18	2018-19 (TRE)	2019-20 (SRE)	2020-21 (FRE)	2021-22 (PE)	2022-23 (PAE)
Telangana	15.25%	15.86%	12.07%	12.22%	10.77%	-0.35%	20.47%	17.50%
India	10.37%	11.68%	10.85%	12.35%	9.89%	-4.65%	17.23%	17.46%

■ Telangana ■ India

Source: Ministry of Statistics and Programme Implementation, Government of India.

Between 2014-15 and 2021-22, Telangana service sector GVA at current prices experienced the second highest Compounded Annual Growth Rate (CAGR) of 12.16% among all Non-Special Category States and Southern States over the span of 7 years (see Figure 6.4).

Figure 6.4. Services Sector Performance of GVA at current prices (2014-15 to 2021-22): Non-Special Category States

Services - CAGR (2014-15 to 2021-22)

State	CAGR
Karnataka	12.83%
Telangana	12.16%
Andhra Pradesh	11.70%
Madhya Pradesh	11.39%
West Bengal*	11.29%
Rajasthan	10.52%
Haryana	10.36%
Bihar	10.25%
Tamil Nadu	10.02%
Gujarat*	9.34%
Delhi	9.12%
Jharkhand	9.02%
Kerala	8.99%
Maharashtra*	8.73%
Uttar Pradesh	8.17%
Odisha	8.01%
Goa*	8.00%
Punjab	6.43%
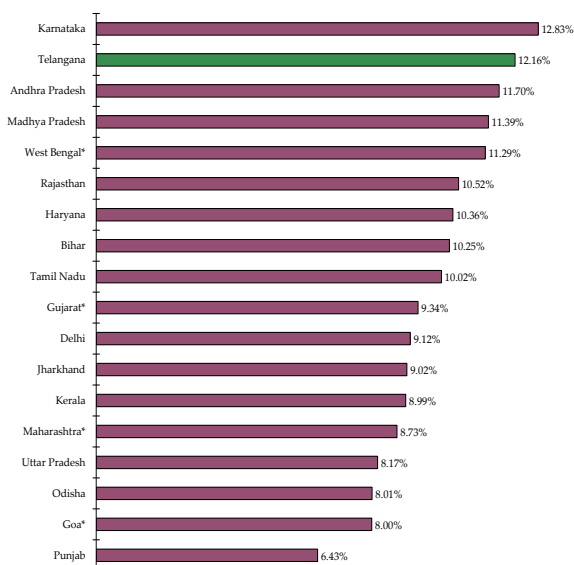
Source: RBI handbook of Statistics on Indian States, 2021-22, * Indicates data not available for 2021-22, ** Indicates data not available for 2021-22 and 2020-21

6.3. Employment Trends in the Services Sector

According to PLFS 2020-21, more than one-third (33.21%) of all workers in Telangana are employed in the services sector. At the all-India level, this is 29.64%.

In urban areas, the share of service sector workers in Telangana (63.22%) has been higher than in India (60.52%) since 2017-18. On the other hand, in rural areas, Telangana's share (18.28 %) is lower than the national average (18.59%) (see Figure 6.5). Complementing employment in the services sector is the key skilling initiative taken by the state through ITIs', TASK, and other educational institutions in the state.

Figure 6.5. Share of services sector workers in the total workers: Telangana vs India (2017-18 to 2020-21)

Rural

	2017-18	2018-19	2019-20	2020-21
Telangana	15.52	16.1	15.66	18.28
India	19.87	20.71	18.42	18.59

■ Telangana ■ India

Urban
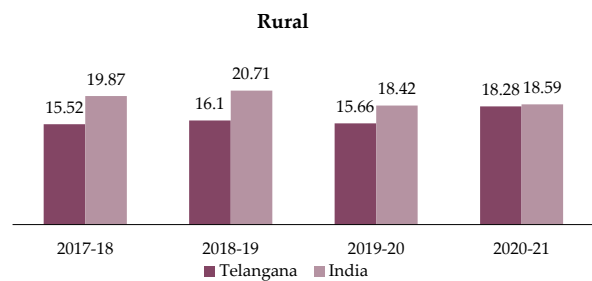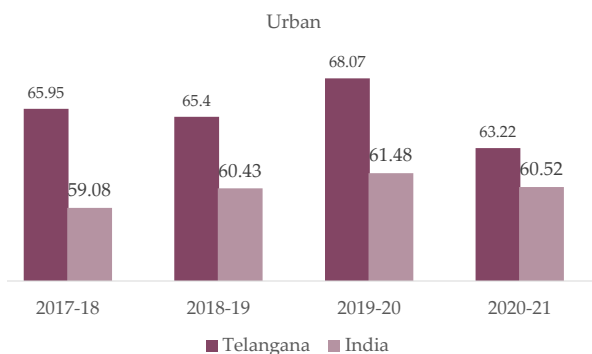
Source: Periodic Labour Force Survey, 2017-18 to 2020-21

Out of 33.21% share of the service sector, the share of Male workers in Telangana (60.69%) is higher than all-India (59.22%) whereas the share of Female workers in Telangana (39.31%) is lower than all-India (40.78%).In addition, Male workers are 21.38% higher than Female workers in Telangana (see Figure 6.6).

Figure 6.6. Gender wise Employment in Services sector in Telangana & India : Male Vs Female (2020-21)
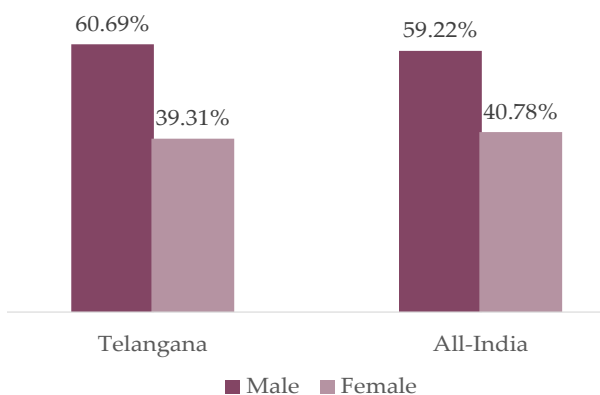
Source: Periodic Labour Force Survey, 2020-21

Within the services sector, more than one-third of all workers 39.75% are employed in the 'Trade, Hotels and Restaurants' sub-sector, whereas 21.04% of the workers are employed in the 'Transport, Storage and Communication' sub-sector, together accounting for 60.79% of the employment in the services sector. In rural areas, the former employs a greater percentage of the persons (31.67%) in comparison to the latter

(24.95%), together employing 56.62% of all service sector workers. The trend is similar in urban areas too, where the former sector employs 33.63% of all workers, while the latter employs 22.56% of all workers, together accounting for 56.62 % of the service sector employment in urban areas (see Figure 6.7).

Figure 6.7. Sub-sector-wise employment in Telangana: Rural Vs Urban Areas[1] (2020-21)
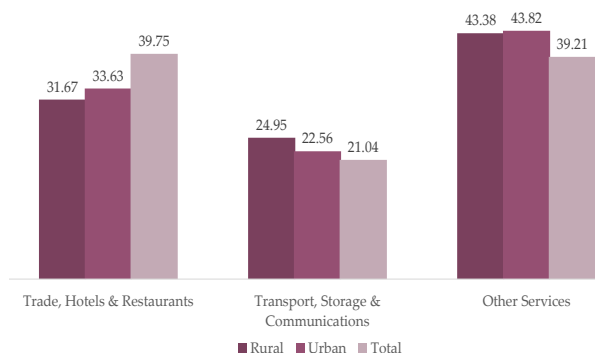
Source: Periodic Labour Force Survey, 2020-21

6.4. Sub-sectoral Insights

What constitutes the services sector?

1) Trade, repair, hotels, and restaurants
    a) Trade & repair services
    b) Hotels & restaurants
2) Transport, storage, communication & services related to broadcasting
    a) Railways
    b) Road transport
    c) Water transport
    d) Air transport
    e) Services incidental to transport
    f) Storage
    g) Communication & services related to broadcasting
3) Financial services
4) Real estate, ownership of dwelling & professional services
5) Public administration
6) Other services

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1. Other Services include (i) Financial and insurance activities, (ii) Real estate activities, (iii) Professional, scientific and technical activities, (iv) Administrative and support service activities, (v) Public administration and defence; compulsory social security, Section (vi) Education, (vii) Human health and social work activities, (viii) Arts, entertainment and recreation, (ix) Other service activities (x) Activities of households as employers; undifferentiated goods and services producing activities of households for own use, (xi) Activities of extraterritorial organizations and bodies

6.4.1. Contribution of sub-sectors

The 'Real Estate, Ownership of Dwelling, and Other Professional Services' sub-sector was the largest contributor to the service sector GVA at current prices, with a share of 33.20% in 2022-23, followed by the 'Trade, Repair, Hotels, and Restaurants', with a share of 28.34% (see Figure 6.8).

Between 2014-15 and 2022-23, there was a net increase of 26% in the share of the 'Trade, Repair Hotels and Restaurants'. Approvals and clearances were made easy, for setting up industries in the state, through single window systems like Telangana State Industrial Project Approval and Self-Certification System (TS-iPASS) and Telangana State Building Permission Approval and Self Certification System (TS-bPASS). Initiatives such as these, have contributed to the overall growth of the IT/ITeS industries and thereby the growth of the services sector in the state.

Figure 6.8. Sub-sector wise shares in the services Sector GSVA (at current prices in Telangana (2014-15 to 2022-23)
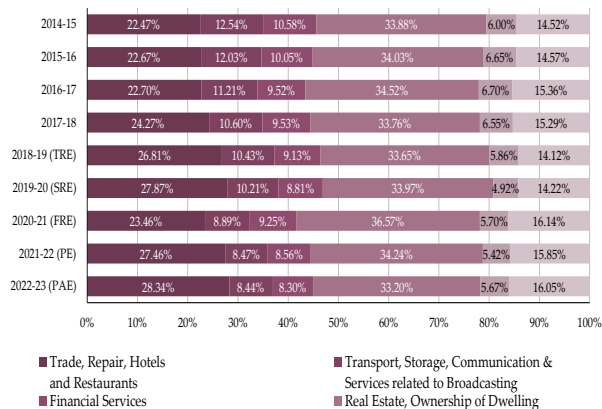
Source: Ministry of Statistics and Programme Implementation, Government of India.

6.4.2. Growth of sub-sectors

The 'Trade, Repair, Hotels and Restaurants' sub-sector experienced the maximum Compound Annual Growth Rate (CAGR) between 2014-15 and 2022-23 (at current prices), at 16.13%, followed by 'Other Services' at 14.24% then 'Real Estate, Ownership of Dwelling and Professional Services' at 12.53%(see Figure 6.9).

Figure 6.9. Compound Annual Growth Rate (CAGR) of sub-sectors under services between 2014-15 and 2022-23 at current prices in Telangana
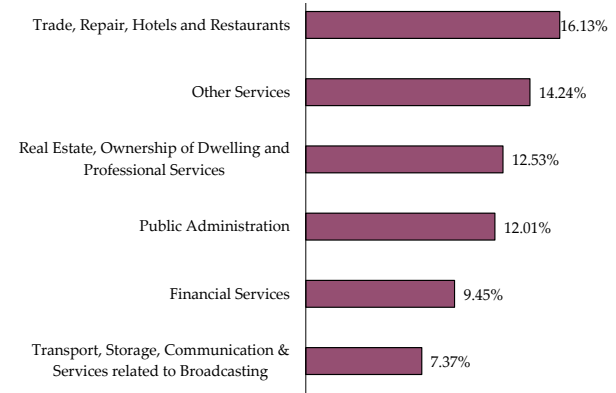
Source: Ministry of Statistics and Programme Implementation, Government of India.

The sub-sectors 'Public Administration' and 'Financial Services' experienced a CAGR of 12.01% and 9.45% between 2014-15 and 2022-23 (at current prices) respectively.

Between 2014-15 and 2022-23, the GVA of all sub-sectors - 'Trade, Hotels, Transport, Communication and Services related to broadcasting', 'Financial, Public Administration', 'Defence and other services' at current prices in the state experienced a Compounded Annual Growth Rate (CAGR) of 13.51%, 11.85%, and 13.62% which are higher than the all-India CAGR value of 9.60%, 10.35%, and 11.72%. This indicates Telangana's growth rate in each sub-sector of the service sector is also higher than all-India over the years (see Figure 6.10).

Figure 6.10. Sub-sectoral Contribution to the growth in GVA by the Services sector: Telangana Vs India (at current prices)
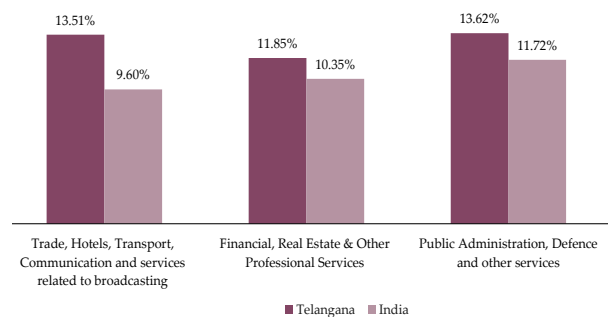
Source: Ministry of Statistics and Programme Implementation, Government of India.

Between 2014-15 and 2021-22, Telangana 'Trade, Repair, Hotels and Restaurants' sub-sector experienced the highest Compound Annual Growth Rate (CAGR) of 15.42% whereas 'Real estate, ownership of dwelling & professional services' experienced the second highest CAGR of 12.33% indicates the state's better performance in these sectors compared to other southern states (see Figure 6.11).

Figure 6.11. Sub-sectoral Contribution to the growth in GVA by the Services sector: Telangana Vs Southern states (at current prices)
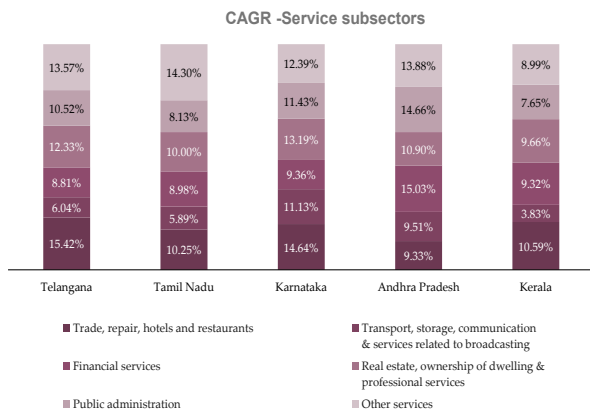
Source: Ministry of Statistics and Programme Implementation, Government of India.

6.4.3. Sub-sectoral Contribution to the Sectoral Growth Rate

The biggest drivers of the YoY services sector growth at current prices in the state were the 'Financial, Real Estate, and other Professional Services' sub-sector in 2015-16 and 2016-17, and the 'Trade, Repair, Hotels & Restaurants, Transport, Storage, Communication, and Services related to Broadcasting' sub-sector in 2017-18 and 2018-19 as well as 2022-23 (see Figure 6.12).

During 2022-23, the state's sub-sector 'Financial, Real Estate, and other Professional Services' (5.96%) and 'Public Administration and Other Services' (4.26%) experienced a high growth rate in GVA compared to India's figures in the same period.

Figure 6.12. Sub-sectoral Contribution to the growth in GVA by the Services sector: Telangana (at current prices)
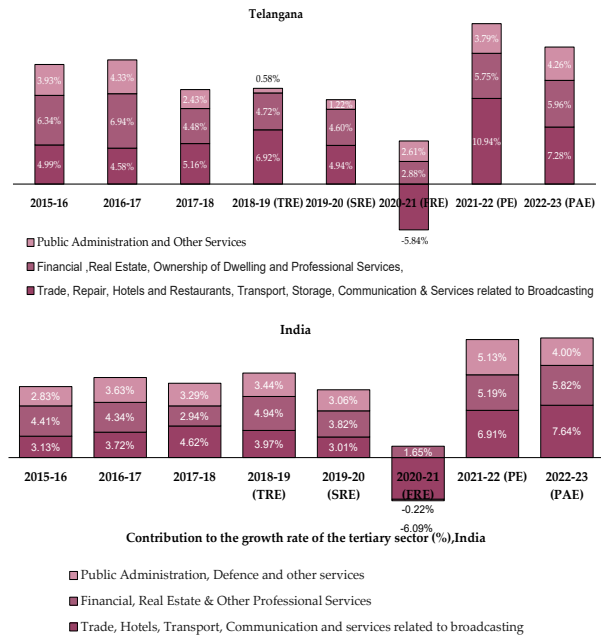
Source: Ministry of Statistics and Programme Implementation, Government of India.

6.4.4. Trade, Repair, Hotels, and Restaurants

This sub-sector is further split into 2 component sub-sectors: Trade and Repair Services – which accounted for 96.03% of this sub-sector in 2022-23, and Hotels and Restaurants – which accounted for 3.97% of this sub-sector in 2022-23. The share of trade and repair services to the GVA by the services sector (at current prices) in 2022-23 is 27.21%, whereas for 'hotels and restaurants' it is 1.12%.

The gross value added by the 'Trade and Repair Services' at current prices in Telangana grew from Rs. 56,974 crore in 2014-15 to Rs. 2,04,187 crore in 2022-23 – an increase of 258.39% over a span of 8 years. On the other hand, during this span, the gross value added by the 'Hotels and Restaurants Sub-sector at current prices in Telangana grew from Rs.7,295 crore in 2014-15 to Rs. 8,447 crore in 2022-23 – an increase of 15.79% (see Figure 6.13).

The GVA at current prices by the 'Trade and Repair' sub-sector experienced a rise of 21.50% between 2021-22 to 2022-23 from Rs.1,68,055 crore to Rs.2,04,187 crore. During this period, the GVA at current prices by the 'Hotels and Restaurants' grew by 15% between 2021-22 to 2022-23 from Rs.7,345 crore to Rs.8,447 crore.

Figure 6.13. GVA (contribution and growth rate) of Trade, Repair, Hotels and Restaurants (2014-15 to 2022-23):

A. Telangana GVA (Rs. crore)
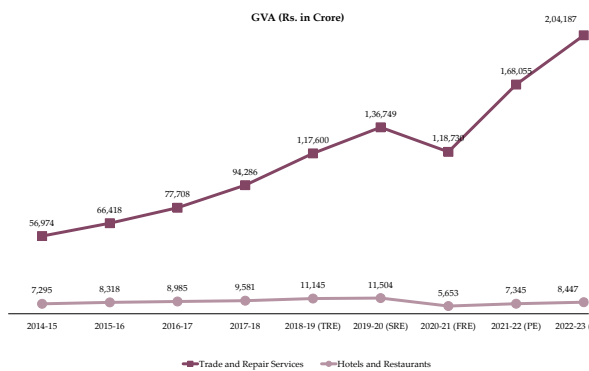
B. Year-on-year Growth Rate
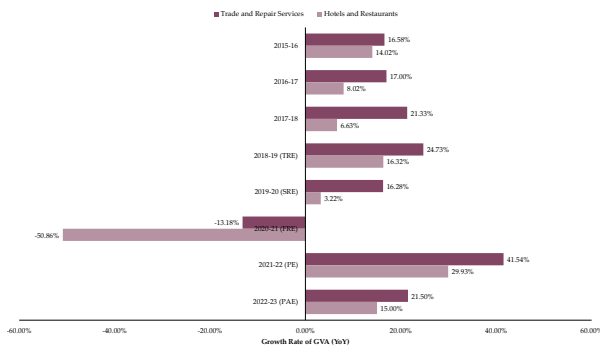
Source: Ministry of Statistics and Programme Implementation, Government of India.

6.4.5. Transportation, Storage, Broadcasting, and Communication

- This sub-sector is further split into 7 component sub-sectors, whose contributions to this sector at current prices in the year 2022-23 were as follows:

- Railways, Road Transport and Air Transport accounted for 6.40%, 57.24% and 2.52% of this sub-sector respectively

- Services incidental to transport accounted for 8.28% of this sub-sector

- Storage – which accounted for 1.29% of this sub-sector

- Communication and services related to broadcasting is the second largest contributor to the sub-sector which accounted for 24.27% of this sector.

The gross value added by the transport sub-sector at current prices in Telangana grew from Rs. 35,866 crore in 2014-15 to Rs. 63,341 crore in 2022-23 – an increase of 76.60% over a span of 8 years

Air, Railways and Road transport are the contact-intensive components of this sub-sector. Between 2021-22 and 2022-23, the air transport sub-sector experienced an increase of Rs. 522 crore in GVA, an increase of 48.65%. During this period, the absolute increase in the GVA of railways was Rs. 589 crore, an increase of 17.00% and road transport experienced an increase of Rs. 5,268 crore in the GVA, an increase of 17.00% (see Figure 6.14).

Figure 6.14. GVA (contribution and growth rate) of Transportation Sector (2015-16 to 2022-23): Telangana

A. GVA(Rs.crore)
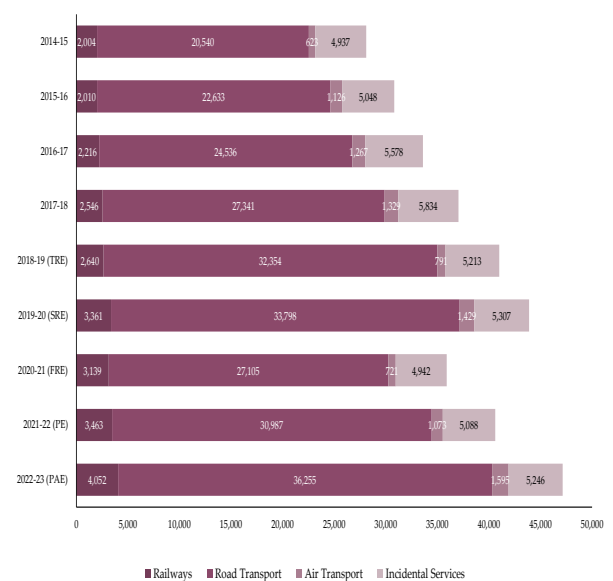
B.GVA growth (%)
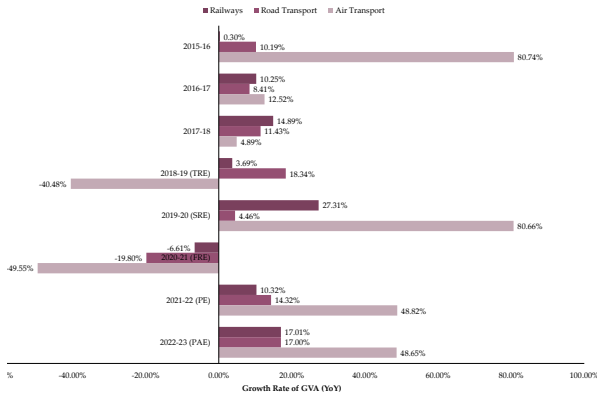
Source: Ministry of Statistics and Programme Implementation, Government of India.

6.4.6. Financial Services

The gross value added (at current prices) by the financial services sector in Telangana grew from Rs.30,261 crore in 2014-15 to Rs. 62,311 crore in 2022-23 - an increase of 106% over a span of 8 years (see figure 6.15).

Figure 6.15 GVA by 'Financial Services' at current prices in Telangana(2014-15 to 2022-23)
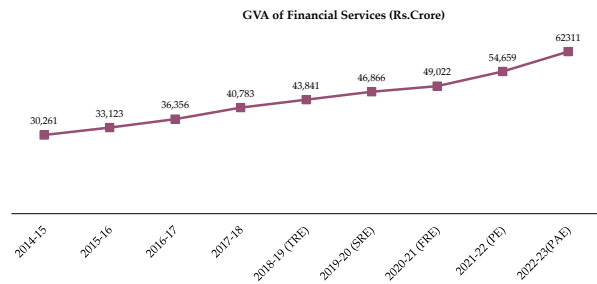
Source: Ministry of Statistics and Programme Implementation, Government of India.

6.4.6.1. Banking and Insurance

Banking and Insurance form a major part of the financial services along with professional advisory, insurance, wealth management, mutual funds, stock markets, treasuries and debt instruments, tax and audit consultancy, capital restructuring, and portfolio management.

There is a strong, bi-directional relationship between banking and insurance, and economic growth. 17.02

bank branches are available per 1 Lakh population in Telangana, as of 2021-22. Out of the total 5,958 bank branches across the state, 3,083 are public sector banks, 1,507 are private sector banks, 418 are co-operative banks, 920 are regional rural banks, and 18 are small finance banks.

Nearly 30.51% of the total bank branches in the state are in rural areas, 45.85% are urban and 23.63% are in semi-urban areas (see figure 6.16).

Figure 6.16. Region-Wise distribution of bank branches in Telangana (As of 30.09.2022)

Total number of Bank Branches=5958
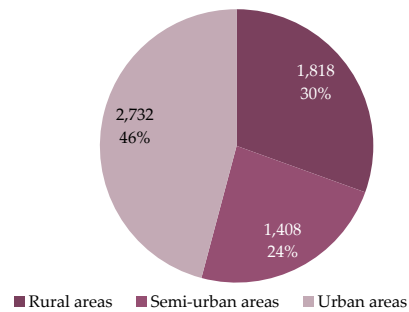
Source: State Level Bankers Committee, Telangana

Contribution of banking and insurance to the economy: In 2020-21, Telangana had the 7th-highest share of Banking and Insurance in GSVA (at current prices) at 4.47% whereas in 2021-22 it's GSVA (at current prices) is at 4.99% among the non-Special Category States [2] (see Figure 6.17).

Figure 6.17. Share of Banking and Insurance in GSVA at current prices: Non-Special Category States

States	Share in GSVA	
	2020-21	2021-22
Maharashtra	23.49%	NA
Tamil Nadu	8.65%	9.53%
Gujarat	7.75%	NA
Karnataka	6.35%	7.16%
Uttar Pradesh	5.43%	6.14%
West Bengal	5.42%	NA
Telangana	**4.47%**	**4.99%**
Andhra Pradesh	3.81%	4.63%
Rajasthan	3.54%	3.95%

2. Non-Special Category States with no data available for 2021-22 are Chhattisgarh, Goa, Gujarat, Maharashtra, and West Bengal. However, in 2020-21, the share of Banking and Insurance in the GSVA (at current prices) in Telangana was higher the 2 states i.e. Chhattisgarh, Goa,

States	Share in GSVA	
	2020-21	2021-22
Madhya Pradesh	3.04%	3.55%
Haryana	2.97%	3.22%
Bihar	2.39%	2.64%
Punjab	2.26%	2.44%
Odisha	1.67%	1.84%
Chhattisgarh	1.05%	NA
Jharkhand	0.84%	0.87%
Goa	0.32%	NA

Source: RBI Handbook of Statistics on Indian States 2021-22

Growth Rate of Banking and Insurance:

The Compound Annual Growth Rate (CAGR) of GVA by the banking and insurance sector (at current prices) in Telangana between 2014-15 and 2021-22 was 8.81%.

Between 2020-21 and 2021-22, the GVA by banking and insurance (at current prices) grew from Rs 49,02,161 to Rs 54,65,910 an increase of 11.50%. In this sub-sector, Telangana had the tenth-highest CAGR of GVA by banking and insurance at current prices) between 2014-15 and 2021-22 among 13 Non-Special category states with data availability (see Figure 6.18)[3] .

Figure 6.18. Compound Annual Growth rate of GVA (at current prices) by Banking and Insurance (CAGR between 2014-15 and 2021-22): Non-Special Category States

Source: RBI Handbook of Statistics on Indian States 2021-22

6.4.7. Real Estate, Ownership of Dwelling and Professional Services

The gross value added by the real estate, ownership of dwelling and professional services sector at current prices in Telangana grew from Rs. 96,912 crores in 2014-15 to Rs. 2,49,105 crores in 2022-23 – an increase of 157.04% over a span of 8 years (see Figure 6.19). The sub-sector grew 2.57 times between 2014-15 and 2022-23 at a CAGR of 12.53% (at current prices)

According to JLL-City-Momentum Index-2020, which identifies the world's most dynamic cities from a real estate perspective, Hyderabad is the world's most dynamic city by occupying the first position in the city momentum index. As per the report, Hyderabad is one of the world's best-performing cities for prime office rental growth.

Figure 6.19. GVA by the Real Estate and Professional Services at current prices in Telangana (2014-15 to 2022-23)
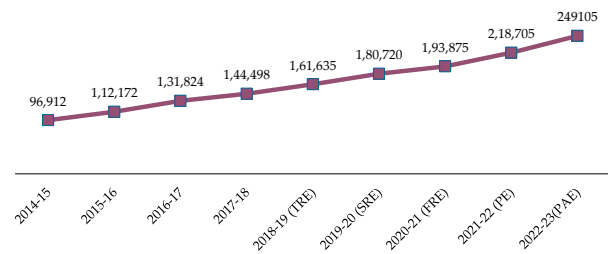
Source: Ministry of Statistics and Programme Implementation, Government of India.

6.4.7.1. Information Technology and IT Enabled Services

Information Technology (IT) is one of the fastest-growing sectors in Telangana. In particular, Hyderabad city has played a crucial role in putting the Indian IT sector on the global map.

During 2021-22, Telangana added 1,49,506 new jobs taking the total IT/ ITeS employment to 7,78,121, a YoY increase of 23.89%. Between 2014-15 to 2021-22, IT/ITeS-based employment in Telangana registered a Compound Annual Growth Rate of 11.13% over 7 years.

3. The data for Chhattisgarh, Goa, Gujarat, Maharashtra, and West Bengal was not available for 2021-22.

During 2014-15, the IT exports from Telangana were worth Rs. 66,276 crores which almost tripled to Rs. 1,83,569 crore by 2021-22. The Compound Annual Growth Rate in IT exports during this period was 15.67%. The IT exports have a growth rate of 26.14% between 2020-21 and 2021-22 and 12.98% between 2019-20 and 2020-21 (see Figure 6.20).

Figure 6.20. Exports and Employment in IT/ITeS in Telangana (2014-15 to 2021-22)
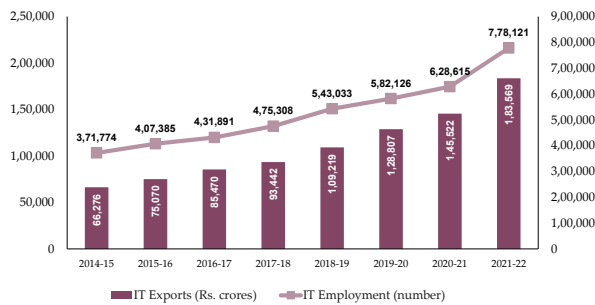
Sources: DGCI&S, GoI Kolkata, and IT, E&C Dept GoTS and compiled by State (Export Commissioner)Commerce & Export Promotion, Dept GoTS, Hyd.

6.4.7.2. Initiatives to promote IT/ITeS

6.4.7.2.1.ICT policies

The Government of Telangana has released its first ICT Policy in April 2016 and its second ICT Policy in November 2021. Through ICT Policies Government of Telangana provides various sets of Incentives to the IT/ITES Industry like Incentives on Industrial Power Category Tariff, reimbursement of Stamp Duty, Transfer Duty, and Registration Fee, Patent Filing Costs, Recruitment Assistance, Quality Certification, Subsidy on Lease Rentals, Exhibition Rental Refund etc which led to the overall growth of 157.04% in gross value added of the real estate, ownership of dwelling and professional services sector at current prices in Telangana over a span of 8 years.

6.4.7.2.2. Distributed Growth-GRID Policy and Special IT-SEZ

The Government of Telangana recognizes the need to distribute growth across Hyderabad in order to spread the gains from growth to the semi-urban areas around Hyderabad as well.

Through the Growth in Dispersion (GRID) policy, the Government provides special incentives to the companies that expand or set up their units beyond the western part of Hyderabad. IT parks in Uppal, Pocharam, Kompally, Kollapur, and Shamshabad are under development and two electronic manufacturing clusters are under development at Maheshwaram and Raviryal.

The Government has also focused on expanding IT in Tier-II towns including Warangal, Karimnagar, Khammam, Nizamabad, Mahabubnagar, Siddipet, and Nalgonda. The IT Tower (Phase-I) in Warangal is operational and Phase-II is ready for operations. The IT Tower at Karimnagar is operational. The IT Tower in Khammam is operational and Phase II is under construction. This shows that our Government is keen on developing IT and creating employment opportunities for the rural youth of Telangana.

As of July 2022, Telangana had 35 operational SEZs, 57 notified SEZs and 64 formally approved SEZs.

6.4.7.2.3. Electronic Service Delivery (ESD)

Electronic Service Delivery is the platform consisting of eSeva and MeeSeva for the delivery of government services to citizens and businesses with a key focus on improving efficiency, transparency and accountability. Under this platform, The Government of Telangana launched the e-Office project in December 2015 aiming to have a paperless office, with increased transparency, efficiency, and accountability of the government organization. As of October 2022, it is being successfully implemented in 40 Departments, Over 113 Head of the Department & 33 Districts.

The Government of Telangana is one of the first States in India to adopt digital technologies for e-Governance. The State has been ranked number one among the other States in terms of the number of e-Transactions and second among other states in terms of e-Transactions per 1000 population as per the Electronic Transaction Aggregation and Analysis Layer (eTaal), Ministry of Electronics and Information Technology, Government of India. The rankings are based on the e-Transactions recorded from June 2nd, 2014 to 26th May 2022.

6.4.7.2.4. Emerging Technologies

A first-of-its-kind dedicated vertical established in 2018 under the department of industries and commerce, to nurture the ecosystem of emerging technologies in the State and enable their potential socio-economic impact. The Emerging Technologies wing focuses on an expanding portfolio of emerging technologies that include Artificial Intelligence, Blockchain, Drones & Robotics, Additive Manufacturing, Internet of Things and Space Tech supported by different institutions like Telangana AI Mission, National Centre for Additive Manufacturing (NCAM), Cyber Security Centre of Excellence, CoE on E-waste Management.

Emerging Technologies wing started **AI for All** training program for one lakh high school students in basic artificial intelligence courses, a pilot initiative that was undertaken in 2022. In addition Government of Telangana is engaged with GIZ(German Corporation for International Cooperation GmbH)and has initiated the acceleration for the adoption of AI in the state which aims to strive more open, inclusive and sustainable approach to AI.

6.4.7.3. Initiatives to promote Real Estate Services

6.4.7.3.1. Dharani

Dharani web portal is a service sector innovation launched on 29th October 2020 for agricultural land transactions in the state that offers a one-stop solution for agricultural land transactions. The portal offers 100% advance slot bookings and instantaneous mutation and registration and brings registrations to the doorsteps of the citizens. The stamp duty fee is calculated by the system without human intervention, which ensures that there is no discretion to any official. 23,20,233 transactions were completed through the portal till 27th January 2023.

6.4.7.3.2. TS-bPASS

To ease the administrative burdens in developing new buildings, the Government introduced the Telangana State Building Permission Approval and Self Certification System (TS-bPASS) in November 2020, a single-window system that expedites the approval of building designs.Since the inception, 1,65,073 applications were received of which 1,17,893 were approved whereas from 1st April 2022 to 17th January 2023, 66,537 applications were received of which 44,312 were approved.

6.4.7.4. Initiatives to promote Skill and Innovation

6.4.7.4.1. Telangana Academy for Skill and Knowledge (TASK)

The Telangana Academy for Skill and Knowledge (TASK) envisages enhancing skilling synergy among the institutions of the Government, industry and academia which was set up in 2014. The services offered by TASK belong to three major categories-skill development, entrepreneurship, and capacity building for government machinery.

Between April 2021 to October 2022, under the skill development program, 718 colleges (Engineering/Degree/MCA/MBA/Polytechnic) and close to 40,000 students registered with TASK. Since its inception, over 7,09,530 students have registered and around 14,683 faculty were skilled through TASK.In addition, for entrepreneurship and capacity building, it has collaborated with different partners like Google Cloud, Oracle, Internshala, and Smartbridge in 2021-22.

6.4.7.4.2. Telangana State Innovation Cell

The Telangana State Innovation Cell (TSIC) was set up in 2017 under the State Innovation Policy with the vision— to promote a culture of innovation across Telangana and become a go-to destination of the State Ecosystem. TSIC works in the areas of innovation in schools, social innovation, innovation diffusion, startup support, and grassroots innovation.

To build a culture of innovation over 60,000 School Students from Social Welfare, Tribal Welfare, Engineering Colleges, Government Degree Colleges, Polytechnic, and ITI Colleges have been trained

in Design Thinking & Innovation.Since 2019 over 500 rural innovators from 33 districts of Telangana have been scouted for their innovative ideas/ solutions through the Intinta innovator Campaign.In November 2022, to foster innovation in Government and Administration, various State Government Departments have been facilitated to interact and learn about emerging solutions of over 100 startups as a part of the Government Startup Connect initiative.

6.4.7.4.3. Technology Hub (T-Hub)

T-Hub is an innovation intermediary and business incubator based in Hyderabad set up to promote entrepreneurship in Telangana, with the first phase launched in 2015. Since its inception, T-Hub has contributed to innovation, entrepreneurship and ecosystem development that has been recognised at the national level over 55 other participating incubators. T-Hub has impacted over 2500 startups, conducted over 1000 events and created 12000+ jobs. T-Hub Phase 2 was launched in June 2022 and has further improved the state's startup ecosystem. Due to its innovation, it has emerged as the winner in the category for its efforts to support the growth of the startup ecosystem in Telangana and won the 'Best Incubator in India' award at the National Startup Awards 2022 on National Startup Day. In addition, the Government of Telangana has launched Y-Hub to encourage and support children and youth towards entrepreneurship.

6.4.7.4.4. Women Entrepreneurs Hub (WE-Hub)

WE Hub is a first-of-its-kind State-led platform launched in March 2018 with the primary goal to promote and foster women's entrepreneurship through incubation, access to government, and building a collaborative ecosystem. WE-Hub has conducted various programs, primarily focused on three segments (students, rural/tribal women entrepreneurs, and high potential urban women entrepreneurs) of the beneficiaries. Since its inception, WE-Hub has incubated 2194 startups and small/ medium entrepreneurs and engaged 5,235 women entrepreneurs, and created 2823 direct and indirect employment.

6.4.7.4.5. T-Works

T-Works is India's largest prototyping center started in 2017 with a vision to create and celebrate a culture of hobbyists, makers, and innovators in India. T-Works provides services such as IP facilitation, Product Design, Rapid Prototyping, and Component Sourcing. It is India's first prototyping center established by a state government.

Since its Inception, T-Works has facilitated over 250 startups and 15 MSMEs to build prototypes and products through various programs and support services. In addition, T-Work's innovative machine-on-cloud platform 'Proto.tworks' has shipped over 700 products and prototypes. It also conducted 16 Mentoring Sessions on the Solution Seeker Platform.

Box 6.1
Boom of Gig Economy

As per the oxford dictionary, A gig economy is a free market system in which temporary positions are common and organizations hire independent workers for short-term commitments. The term "gig" is a word for a job that lasts a specified period of time. Examples of gig workers include freelancers, independent contractors, project-based workers, and temporary or part-time hires. Gig apps and digital technology are often used to connect customers and gig workers.

The key drivers of the Gig Sector are flexibility to work from anywhere, changing work approaches, business models, the emergence of a Start-up culture, rising demand of contractual employees, etc. While there is a wide variety of advantages

that the gig economy produces, there are also some downsides impacting the labour and the growth of the sub-sectors prompting the gig economy. Impacting the labour and the growth of the sub-sectors promoting the gig economy. For example- the gig economy may perpetuate the problems with such as the gender pay gap, biased algorithms affecting communities, gender stereotypes, digital divide, wage disparities, and no fixed tenure-led growth etc.

A report on India's Booming Gig and Platform Economy released by Niti Aayog in June 2022 estimates that in 2020- 21, 77 lakhs (7.7 million) workers were engaged in the gig economy and the gig workforce is expected to expand to 2.35 crore (23.5 million) workers by 2029-30. At present, about 47% of the gig work is in medium-skilled jobs, about 22% in high skilled, and about 31% in low-skilled jobs.

In July 2022, Taskmo, an on-demand task fulfilment platform, recently revealed the first edition of the Taskmo Gig Index(TGI), a tool to measure the demand and supply of gig work across India. According to the Index, quick commerce, health tech, fintech, and e-commerce are the top sectors in the Indian gig space. City-specific data indicates that the demand for gig work across tier-1 cities saw an overall 33% growth month-on-month. While cities such as Hyderabad(45%), Mumbai(45.45%), Delhi(32%), Bengaluru(25%), and Chennai(23.4%) saw maximum growth for gig workers.

India is a developing country, endowed with a demographic dividend but as many economists say, it yields benefits only when we provide opportunities to the people. Therefore Gig & platform sectors may provide that opportunity. In addition, it may also increase the labour force participation rate (all ages) which is around 41.6% in India and 48.4 % in Telangana as per the PLFS report 2020-21. As a way forward with the boom in the Gig Economy, the State can continue working towards addressing some of the challenges stated above to provide a platform and opportunities for the growth of the sector.

6.4.8. Tourism

Telangana's history and topography have endowed the state with a variety of tourist destinations, from waterfalls and hills to temples and forts. The region has a rich cultural heritage and possesses all the qualities required to emerge as a potent tourist destination in India.

6.4.8.1. Tourist Footfall

The state witnessed an increase in domestic tourists from 3,20,00,620 in 2021-22 to 6,07,48,425 in 2022-23, an increase of 89.84%. During this period, foreign tourists increased from 5,917 to 68,401 an increase of 1056.01%.

In addition, after lifting travel restrictions due to COVID-19, there is a steep increase of 2,87,47,805 in domestic tourist arrivals between 2021-22 to 2022-23. In this span, the number of foreign tourists also increased by 62,484 (see Figure 6.21)

Figure 6.21. Total Tourist Arrivals in Telangana (2014-15 to 2022-23)

Source: Department of Tourism, Government of Telangana

6.4.8.2.Awards

The Government of Telangana won the National Tourism Awards in four categories. The categories are Best State (Comprehensive Development of Tourism), Best Golf Course (Hyderabad Gold Club), Best Railway Station (Secunderabad Railway Station) and Best Medical Tourism Facility (Apollo Hospitals). The awards were presented by the Government of India at World Tourism Day celebrations held in New Delhi in September 2022.

In November 2022, UNECO's Asia-Pacific Awards for Cultural Heritage Conservation 2022 Awards was declared in which **step-wells of the Golconda fort** won the **award of distinction** where conservation works of the Qutb Shahi dynasty construction were undertaken and completed and **Domakonda fort** in Kamareddy won the **award of merit.** A total of 13 projects from 6 countries – Afghanistan, China, India, Iran, Nepal and Thailand – have been acknowledged for the award.

6.4.8.3. Government Initiatives to promote tourism

The Government is promoting tourism in the state through supporting festivals and pilgrimages, building safe and hygienic hospitality infrastructure, and creating livelihood opportunities through reach-out activities in India and abroad.

6.4.8.3.1. Tourism Circuits

Tourism circuits help highlight the inter-relationships and common tourism opportunities among the cities and villages that are part of the same destination. The major tourism circuits in the state are:-

- Tribal Circuit: Mulugu - Laknavaram - Medaram - Tadvai - Damaravai - Mallur - Bogatha Waterfalls.

- Heritage Circuit: Qutub Shahi Heritage Park - Paigah tombs - Hayath Bakshi Mosque - Raymond's tomb

- Eco-Tourism Circuit: Somasila Reservoir - Singotam Reservoir - Akka Mahadevi Caves - Srisailam - Mannanur - Malleelatheertham - Uma Maheshwaram Temple.

6.4.8.3.2. Festivals, Pilgrimages and Heritage Walks

The biennial Medaram Jathara, or Sammakka Saralamma Jathara, honoring the twin goddesses of Sammakka and Saralamma, is the biggest tribal festival in Asia, attracting nearly 1 crore devotees. During every jathara, the Government makes elaborate arrangements for providing logistics, drinking water, sanitation, and emergency healthcare facilities.

Bathukamma is a colourful floral festival of Telangana that is celebrated by women with exotic flowers of the region. The Government distributes Bathukamma Sarees to all adult women enrolled under the Food Security Scheme during the festival season every year since 2017.

6.4.8.3.3. TS-iPASS for tourism

To facilitate the speedy approvals and clearances for tourism-related services, the Government has developed an application in the Telangana State Industrial Project Approval and Self-Certification System (TS-iPASS) portal for the registration of hotels, resorts, service apartments, lodges, wayside amenities, convention centers, and travel agencies as well as performance licenses for tourism events.

6.5. Way Forward

The service sector has the highest employment generation among all sectors. Recognizing the central role of technology in service-sector growth, the Government is trying to supplement the existing potential through institutional support to the firms, especially start-ups, via initiatives such as T-Hub, Y-Hub, WE-Hub, TSIC, and T-works. The Government is also actively promoting the use of Artificial Intelligence (AI), Blockchain technology, and drone technologies. These programs were conducted through TASK with industry and corporate partnerships including IBM, ExcelR, Microsoft, Smartbridge, NASSCOM Future Skills, and others which will gear up the workforce to adapt to technological changes.

In addition, the Government is also keen on integrating the innovations in the service sector with other sectors like agriculture, which are dominant in rural areas, and to benefit from the innovations in IT/ITeS currently focused in urban areas. Most prominently, the Government has shown initiative to increase the rural penetration of the IT sector through initiatives like the Dharani portal and the use of technology to prevent leakages in the Public Distribution System. To foster greater cross-sectoral integration, the Government is providing enabling infrastructures such as T-Fiber and a high-quality road network. Taken together, these initiatives would help foster economic growth, enhance productivity across sectors, and generate robust employment.

INFRASTRUCTURE

Key Highlights

- Telangana has a total road network of 1,09,260 km of which 51% are Black top roads (53,445 km), 30% are Unmetalled roads (31,209 km), 10% are Cement concrete roads (10,794 km), and 9% are Metalled roads (8,828 km), excluding National highways.

- The total vehicle strength in the state is 1.51 crore. Of this, Motorcycles and cars together account for around 85%. Nearly, 5% are Tractors and trailers, and the remaining 10% are other vehicles.

- The Installed capacity of power in Telangana is 18,069 MW. Of this, Thermal energy constitutes more than half of the share (10,481 MW). Around 41% is sourced from renewable energy (7,439 MW), and Nuclear energy accounts for about 1% (149 MW).

- The total Contracted capacity of power in Telangana is 17,667 MW. Of this, around 50% is generated by the state sector (8,786 MW), 36.1% of electricity is from the private sector (6,385 MW), and 14.1% of electricity is from the central sector (2,496 MW).

- The total electrical connections in the state are 174.03 lakh. Of these, 125.56 lakh (72.15%) are domestic, 26.96 lakh (15.49%) are agricultural, and 21.51 lakh (12.36%) are industrial and other connections.

- Telangana has 4.08 crore telephone subscribers, of which 98% are wireless subscribers. Among the 2.37 crore urban subscribers, 96% use wireless telephones. In rural areas, there are 1.70 crore (99.8%) wireless subscribers and nearly 50,000 wireline subscribers.

- Telangana has the 2nd lowest transmission loss among South Indian states and the 4th lowest transmission loss in the country. The Electricity transmission and distribution loss of the state in 2019-20 was 15.28% compared to the all-India value of 20.46%.

- Through Mission Bhagiratha, access to treated surface water is ensured for

  - 23,975 rural habitations (outside Outer Ring Road), 649 rural habitations that are merged with Urban Local Bodies (ULBs), and 121 ULBs

  - 23,517 schools, 27,257 Anganwadi Centers and other government institutions

7.1 Introduction

Infrastructure refers to the basic physical systems of a region or nation, such as transportation, water, sanitation, energy, and communication, that are required for the overall growth of the region. Infrastructure is the foundation on which the structure of any economy is built. Since its formation, the Government of Telangana has been making consistent efforts to promote essential infrastructural development. For instance, Telangana achieved 100% saturation in household electrification by 2018. In addition, Telangana is the only state in the country that has been supplying 24-hour free power to farmers since 2018

The progress made on the five key components of infrastructure - Transportation, Energy, Communication, Water supply, and Sanitation – has been detailed in this chapter. The other aspects of infrastructure such as public services, industries, health, and education were detailed in chapters 4,5,8 and 10.

7.2 Transportation

The three modes of transport - Roads, Railways, and Airways – play a key role in the movement of goods and people in the state. Along with being a key infrastructural requirement, transportation is also a significant contributor to the state's total economic product.

7.2.1 Road transportation network

The Road Transportation network in Telangana consists of the following:

1. National Highways (NHs)
2. Roads managed by the Roads and Buildings Department (R&B)
3. Rural roads managed by the Panchayat Raj Engineering Department (PRED)
4. Roads managed by the Greater Hyderabad Municipal Corporation (GHMC).

The total road length in Telangana is 1,09,260 km. Of which, 61.80% are rural roads, 25.39% are state highways and district roads (R&B). 8.25% are GHMC roads, and 4.56% are National Highways (see table 7.1)

Table 7.1 Road Transportation network in Telangana (2021-22)

Sl. No.	Type of Road	Length (km)
1	PRED Roads (Rural Roads)	67,527
2	Roads and Buildings Roads	27,737
3	GHMC Roads	9,013
4	National Highways	4,983
5	Total Road Network (1+2+3+4)	1,09,260

Source : (1) Roads & Buildings Department, (2) Panchayat Raj Engineering Department, (3) GHMC

The total road network in the state other than NHs is 1,04,277 km of which, 51% are Black top roads (53,445 km), 30% are Unmetalled roads (31,209 km), 10% are Cement concrete roads (10,794 km), and 9% are Metalled roads (8,828 km), excluding National highways. (see figure 7.1)

Figure 7.1. Road Network (Length in Km) in Telangana by Construction material (2021-22)
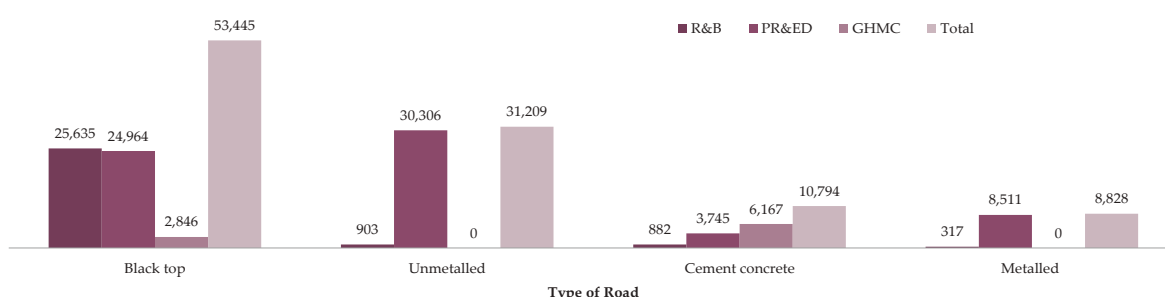
Source: (1) Roads & Buildings Department, (2) Panchayat Raj Engineering Department, (3) GHMC

Among the districts in Telangana, Rangareddy has the longest road network with a length of 7,714 Km. Nalgonda with a total road network of 7,529 km is the district with the second-longest road network.

The Greater Hyderabad Municipal Corporation (GHMC)[1] has a total road network of 9,013 km. Of which, 6,167 km (68.42%) are cement concrete roads and 2,846 km (31.58%) are blacktop roads.

The share of all-weather roads[2] in the total road transportation network (excluding National highways), is 70%, with a total length of 73,063 km. All GHMC roads, around 97% of state highways and district roads (R&B roads), and nearly 55% of the rural roads are all-weather roads (see table 7.2)

Table 7.2. Percentage of all-weather roads in Telangana (2021-22)

Type of Road	All-weather roads (km)	Total length (km)	Percentage of all-weather roads
PRED Roads	37,220	67,527	55.12%
R&B Roads	26,834	27,737	96.74%
GHMC Roads	9,013	9,013	100%
Total	73,067	1,04,274	70.07%

Source : (1) Roads & Buildings Department, (2) Panchayat Raj Engineering Department, (3) GHMC

Road Density

As of 2021-22, Telangana has a total road density[3] of 97.49 km for 100 sq km. Among the districts, Hyderabad has the highest with a road density of 1332.7 km per 100 sq km. Medchal Malkajgiri and Rangareddy are the districts with the second and third highest road densities at 386 km per 100 square km and 157.6 per 100 square km respectively (see figure 7.2)

Figure 7.2. District-wise Road Density (2021-22)
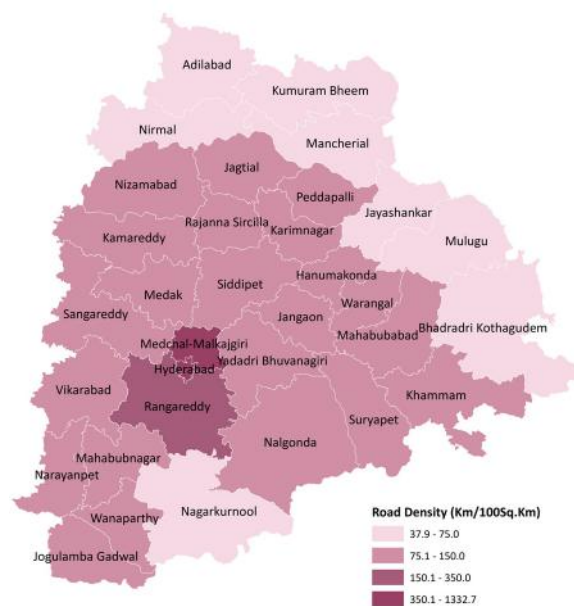
Source : (1) Roads & Buildings Department, (2) Panchayat Raj Engineering Department, (3) GHMC

7.2.2 Vehicle strength in the state

As of November 2022, the total number of registered vehicles in Telangana is 1,51,13,129. Nearly, 73% of the total vehicles in Telangana are motorcycles. Motor cars and motor cabs together account for 13.6% of the total vehicle strength and the remaining 13% are other vehicles (see table 7.3)

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1. GHMC Roads are spread across Hyderabad, Sangareddy, Rangareddy and Medchal Malkajgiri districts

2. All-weather roads are the roads that are trafficable in every weather condition such as Cement-concrete roads, Black-top roads, and Metalled roads. All roads, barring unmetalled roads, are classified as all-weather roads.

3. Road density is the length of road per 100 sq. km of land area

Table 7.3. Vehicles registered in the state as of 14th November 2022

Sl. No	Type	Number
1	Motor Cycles	1,11,62,221
2	Motor Cars	19,45,307
3	Tractor and trailers	6,82,932
4	Goods Carriage Vehicles	5,95,659
5	Auto-Rickshaws	4,48,250
6	Motor cabs	1,14,564
7	Others	86,508
8	Maxi Cabs	30,899
9	Educational Institution vehicles	28,672
10	Stage Carriage vehicles	9,400
11	Contract Carriage vehicles	5,432
12	Private service vehicles	3,051
13	e-Rickshaw/e-Cart	234
	Total	**1,51,13,129**

Source: Transport Department, Government of Telangana

7.2.2.1 Anywhere - Anytime Online service

The Government of Telangana launched a Mobile-Governance program called Anywhere-Anytime to improve transparency in service delivery. This program enables citizens to access the Regional Transport Authorities (RTA) services through the T-App folio mobile app. Anywhere-Anytime is equipped with a deep learning-based comparison and liveness detection to assess the veracity of smartphone-received photos. A machine learning-based entrance resolution is added to this to check the applicant's demographic characteristics. Due to these features, citizens now can avail of RTA services without visiting a center.

7.2.3 Telangana State Road Transport Corporation (TSRTC)

The Telangana State Road Transport Corporation (TSRTC) provides timely, affordable, and efficient bus services to the public. It operates 9,097 buses, including 6,479 owned and 2,618 hired buses. TSRTC has 3,500 routes connecting intra-state and inter-state destinations

Nearly 68% of the TSRTC buses serve rural areas and around 32% of the buses serve the urban population. TSRTC has an employee strength of 44,648 in various cadres. There are 99 bus depots across 21 divisions.

Nearly 45 lakh passengers travel in TSRTC buses every day with an occupancy ratio of 67.72% The average daily earning of TSRTC (up to October 2022) was Rs. 13.18 crore. To augment commercial revenues, TSRTC also introduced parcel and cargo services that move consignments of Government departments, private establishments, and individuals. The corporation earned a revenue of Rs. 161.81 crore by delivering 1.00 crore parcels up to November 2022.

7.2.4 Urban Transport Infrastructure in Hyderabad

Road Development

Hyderabad city accounts for nearly 29% of the total urban population of the state, and the population is growing at a rapid pace. With the growing population, there has been significant growth in the use of four-wheelers, leading to traffic congestion and frequent traffic jams. The growing human and vehicle population requires the government to devise a focused strategy for easy mobility across the city through the development of advanced infrastructure facilities.

The Government of Telangana introduced the Strategic Road Development Programme (SRDP) to improve traffic and transport infrastructure, minimise travel time, and increase average journey speed in Hyderabad city. The construction of 33 transit infrastructures including flyovers, underpasses, and

overbridges has been completed under SRDP till November 2022 at a cost of Rs.2,909.6 crore, and 15 projects costing Rs. 3,854.26 crore are in progress.

The Government also introduced the Comprehensive Road Maintenance Programme(CRMP) to ensure the upkeep and maintenance of nearly 812 km of main roads (3 lanes and above width) in the high-traffic areas of GHMC. As of 2022, around 88% of the total roads maintained by CRMP have been re-carpeted, with around 28% of the roads re-carpeted in 2021-22 itself.

The Government also decided to identify and develop the 'Missing Link Corridors' and 'Slip Roads' that would address the growing traffic congestion. They are intended to provide the missing connections in the effective distribution of traffic over the road network in Hyderabad.

Hyderabad city is surrounded by the proposed Regional Ring Road (RRR), which has an average radial distance of 50–60 km. In 2016, two road segments linking Sangareddy and Choutuppal were formally authorised by the Indian government as new national highways.

Hyderabad Metro rail

Hyderabad has a well-functioning elevated metro rail corridor supplementing city roads.. The Hyderabad Metro Rail (HMR) is a sustainable mode of transportation spanning over 69 km, with its three corridors criss-crossing Hyderabad city. The HMR was designed to address the increasing traffic congestion and pollution levels in Hyderabad city and has now become a prime mode of transport for the people. It offers a convenient, affordable, and timely alternative to road transportation to local travellers, and is the world's largest Public-Private Partnership (PPP) project in the Metro rail sector.

Given that Hyderabad is a major hub for medical tourism, and also receives a huge footfall of domestic and international travellers, the Government initiated the construction of the Hyderabad Airport Express Metro (Phase-II) – a 31-km long metro rail corridor, which is currently under progress. Once

complete, it will connect the Information Technology (IT) Hub at Mindspace junction in Madhapur with the Rajiv Gandhi International Airport located in Shamshabad. It will cater to the growing needs of the city population, reducing their travel time to the airport by more than one hour.

Air Traffic patterns in Hyderabad Airport

The Rajiv Gandhi International Airport (RGIA), Hyderabad is the main airport in Telangana state. The route connectivity of the airport increased in 2021-22 in comparison with the previous year. As of October 2022, the airport is connected to 65 domestic destinations and 17 international destinations. Additionally, it contains a specified pharma zone and an integrated freight facility with a handling capacity of 1,50,000 MT annually.

RGIA received passenger traffic of 116.30 lakh between April 2022 and October 2022 – an increase of 106.9% (56.2 Lakh) over the same period last year. International passenger traffic in particular increased phenomenally – from 5.6 lakh in the April-October, 2021 period to 18.7 lakh in the April-October, 2022 period – an increase of 233% (see figure 7.3).

The overall number of Air Traffic Movement (ATM) increased by 56.4% during this period – from 58,676 to 91,767. Cargo traffic at the airport increased from 80,200 MT to 83,892 MT between the two periods. (see figure 7.4)

Figure 7.3. Passenger Traffic in Hyderabad Airport (In million) (2021-22)
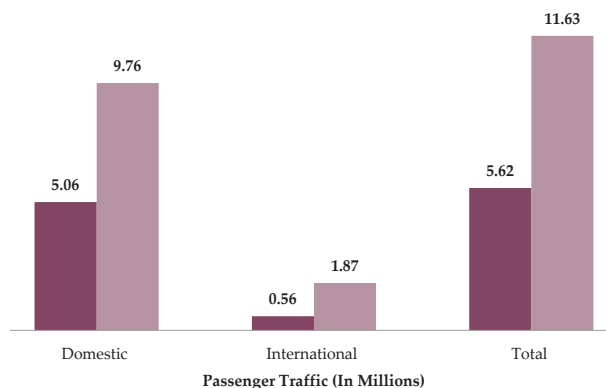
Source: Rajiv Gandhi International Airport Authority, Hyderabad

Figure 7.4. Cargo and Air Traffic Movement in Hyderabad Airport (2021-22)

April 2021 - October 2021   April 2022 - October 2022

Cargo (MT)
- Domestic: 36,826 / 40,831
- International: 43,375 / 43,061
- Total: 80,200 / 83,892

Air Traffic Movement (Number)
- Domestic: 52,776 / 78,829
- International: 5,900 / 12,938
- Total: 58,676 / 91,767
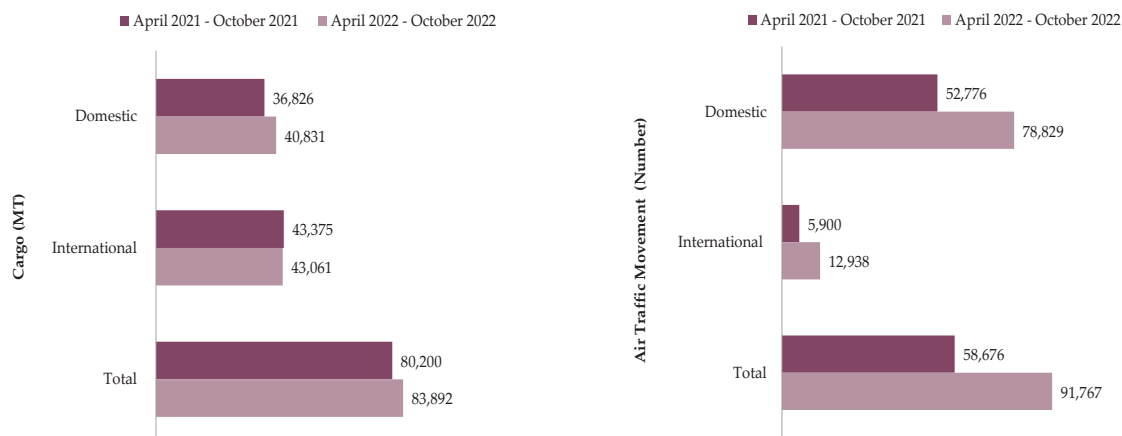
Source: Rajiv Gandhi International Airport Authority, Hyderabad

Awards and Recognition

- Rajiv Gandhi International Airport (RGIA) clinched the prestigious "National Energy Leader" and "Excellent Energy Efficient Unit" awards at the 23rd National Award Ceremony for 'Excellence in Energy Management' organized by the Confederation of Indian Industry (CII) – Godrej Green Business Centre (GBC) during the 21st edition of 'Energy Efficiency Summit

- Over the last three years, RGIA operations led to a substantial energy saving of around 5.41 MU (~ 4426 tonnes of carbon emissions reduction) owing to its sustainable initiatives towards energy efficiency measures. This also led to a significant decrease in the GHG (GreenHouse Gas) emissions at the HYD airport. It is worth noting that Hyderabad International Airport is also a Carbon Neutral Airport having Level 3 + 'Neutrality' accreditation from Airports Council International (ACI) under its Airport Carbon Accreditation (ACA) program.

- Rajiv Gandhi International Airport (RGIA) has been adjudged as having the 'Best Airport Staff in India and South Asia' in Skytrax World Airport Awards 2022. The airport has also progressed in its overall ranking, moving from 64th position in 2021 to 63rd position in the 2022 World's Top 100 Airport league.

7.2.5 Logistics

Logistics is a vital component of physical infrastructure for the overall growth of a region. It facilitates favorable ecosystems for the transportation of goods and services from one region to the other. A well-established logistical infrastructure could bring in investments thereby contributing to the state's growth.

Being a landlocked state, Telangana has been laying special focus on logistical infrastructure development to become a major destination for international investors. The Government of Telangana, in 2014, recognized Logistics as one of the 14 thrust sectors under the Industrial Policy Framework[4] , in which investments are accorded a higher priority over other sectors.

The Mangalpally logistics park in Ibrahimpatnam, Rangareddy district which is spread over 22 acres was the first integrated logistics park in India to

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4. Read more about the Industrial policy framework for the state of Telangana Telangana here: https://www.meity.gov.in/writereaddata/files/INDUSTRIAL%20POLICY%20Framework%202014.pdf

be developed in Public-Private-Partnership (PPP) mode. The Government is also developing a first-of-its-kind logistics park with warehousing, parking, and retail facilities at Batasingaram in Hyderabad across 40 acres at an investment of Rs 50 crore.

Owing to the Government's focus on improving this sector, the Logistics Ease Across Different States (LEADS) Report 2022[5] released by the Government of India classified Telangana as an "Achiever" for its exemplary logistics ecosystems with exceptional infrastructure and transparent regulatory processes.

7.3 Buildings

Besides serving several functional and societal needs, buildings also serve as symbols of the state's identity and growth. The Government of Telangana has been focusing on the construction of prominent buildings since its formation. Major public building works include the new Secretariat, the Police Command Control centre, Kumram Bheemu Adivasi Bhavan, and the Sevalal Banjara building among others.

The new Secretariat building, the tallest structure in the country, has been named after Dr. B.R. Ambedkar.

Further, the Kumuram Bheemu Adivasi Bhavan and the Sevalal Banjara building were constructed for the purpose of upliftment of tribal communities. These buildings act as a platform to discuss issues and seek solutions in an effective manner. Additionally, the Government of Telangana established Komaram Bheem's memorial at Jodeghat and also built the Sammakka-Saralamma museum in Medaram to showcase the culture and traditions of Telangana's indigenous tribes.

Telangana has recently completed the construction of the Police Command Control Centre (CCC). The CCC serves as the Hyderabad police's third eye by giving it access to a majority of the locations throughout the state and thus helps in emergency management as well.

7.4 Energy

Energy is critical to the economic development of any region, given its utility in every sector of the economy. The Government of Telangana, since its formation, has been promoting energy infrastructure. The major sources of power in Telangana include thermal power, hydel power, and renewable energy sources. The Government constantly endeavors to provide 24x7 uninterrupted power supply to all domestic, agricultural, and industrial consumers.

7.4.1 Access to Power and Patterns of Supply

Telangana used to have a peak demand deficit of 2,700 MW and a load relief of 4–8 hours to households and other categories at the time of its formation in June 2014. Additionally, the state's industries had to experience two weekly power holidays. Crop failures and subsequent farmer suicides were caused by the agricultural sector's irregular 4-6 hour electricity supply. Furthermore, since the electricity supply to the agriculture sector was limited to night hours, they often suffered from accidents and snake bites.

With the persistent and systematic interventions from the Government, the power sector in the state experienced an overhaul in the eight years. All consumers in all sectors (domestic, agriculture, and industries) now receive a 24x7 reliable quality power supply. Interestingly, Telangana is the only state to supply 24x7 free power to 26.96 lakh agricultural consumers. The government allocated Rs. 49,314 crore as a subsidy towards free power supply to the agriculture sector between 2014-15 and 2021-22.

7.4.2 Installed capacity of Power

As of 2021-22, the Installed capacity of power[6] in Telangana is 18,069 MW. Of this, Thermal energy constitutes more than half of the share (10,481 MW). Nearly, 41% of this is sourced from renewable energy (7,439 MW), and Nuclear energy accounts for about 1%   (149 MW)

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5. The LEADS Report is an indigenous data-driven index to assess logistics infrastructure, services, and human resources across all 36 States and UTs. All the states and UTs are categorized as Achievers(90%-100%), Fast-movers(80%-90%), and Aspirers(<80%) based on the logistical infrastructure improvement.

6. Installed Capacity means the summation of the guaranteed rated capacity of the generating units at the rated head, or the capacity as decided in consultation with the Central Electricity Authority from time to time considering the uprating, de-rating etc.

Figure 7.5. Installed capacity of power of Telangana (MW) (2014-15 to 2021-22)
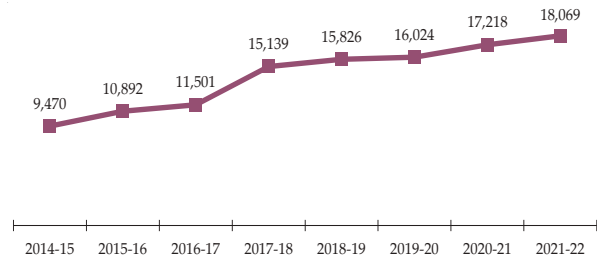
Source: Central Electricity Authority, Ministry of Power, Government of India

Between 2014-15 and 2021-22, it experienced an increase of 91% with a Compound annual growth rate (CAGR) of 9.67%. The CAGR of Telangana was nearly double the national average (5.66%). (See figure 7.6)

Between 2020-21 and 2021-22, Telangana stands fifth among the 18 non-special category states and first among south Indian states in terms of the growth rate in installed capacity. The installed capacity of power in the state grew by 4.94% during this period, higher than the national average growth rate of 4.54%. (see figure 7.6)

Figure 7.6. Installed capacity of power: Growth rate and CAGR in Non-special category states
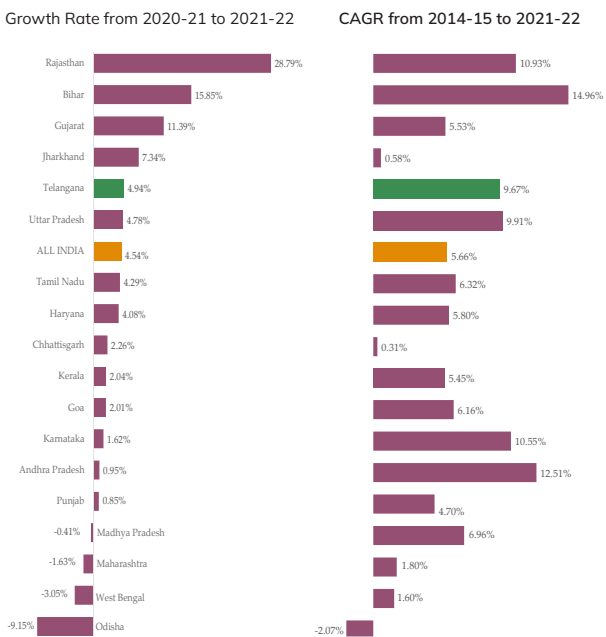
Source: Central Electricity Authority, Ministry of Power, Government of India

To meet the growing energy demand in the state, the Government of Telangana has undertaken the capacity addition program through the establishment of three thermal power projects such as Kothagudem TPS stage-VII, Bhadradri TPS, and Yadadri TPS with the capacity of 800 MW, 1080 MW, and 4000 MW respectively.

7.4.3 Per Capita Availability of Power

Telangana experienced an increase in the per capita availability of power by 1.7 times between 2014-15 and 2021-22. The state has the fifth-highest per capita availability of power in the country amongst the 18 non-special category states, at 2,005 kWh as of 2021-22 . This is nearly 1.8 times the all-India value of 1,115.3 kWh.

In 2014-15, the per capita availability of power in Telangana was 1,152 kWh whereas the national average was 852 kWh. The per capita availability of power in the state increased by nearly 1.74 times by 2021-22 to 2,005 kWh, whereas the per capita availability of power in the country only increased to 1.31 times its 2014-15 value (see Figure 7.7)

Figure 7.7. CAGR in the Per Capita Availability Power in the Non-Special Category States (2014-15 to 2021-22)
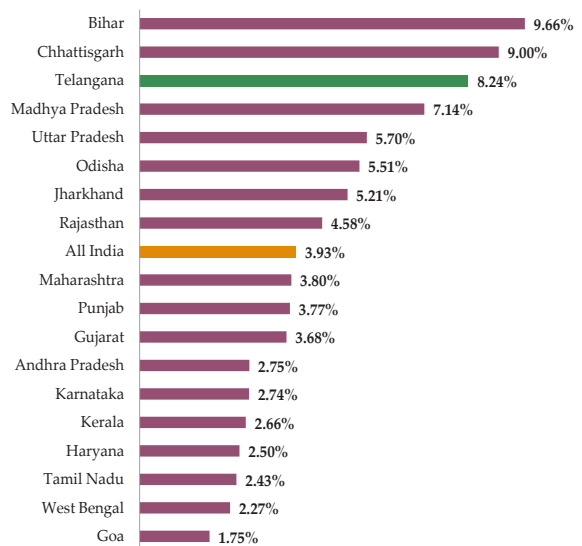
Source : (1)Energy Department, Government of Telangana, (2) Central electricity authority of India

Telangana has the highest growth in the per capita availability of power from 2014-15 to 2021-22 among the south Indian states and third highest among the non-special category states with the CAGR of 8.24% against the all-India value at 3.93% (see Figure 7.8)

Figure 7.8. Year-on-year Per Capita Availability of Power (kWh) : Telangana vs. India-(2014-15 to 2021-22)
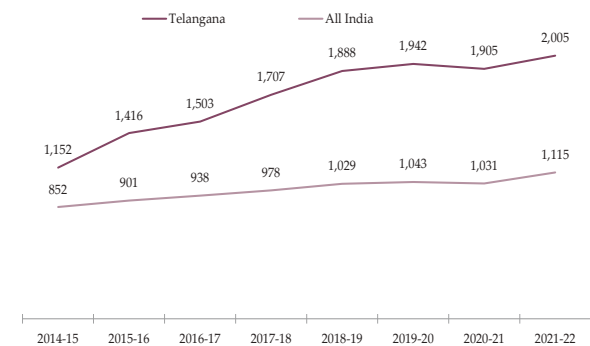
Source: Central Electricity Authority, Ministry of Power, Government of India

7.4.4 Energy Sources

The total contracted capacity of Telangana more than doubled during the period from 2014-15 to 2021-22 – from 7,872 MW to 17,667 MW (see figure 7.9)

Figure 7.9. Year-on-year contracted capacity of power (2014-15 to 2021-22)
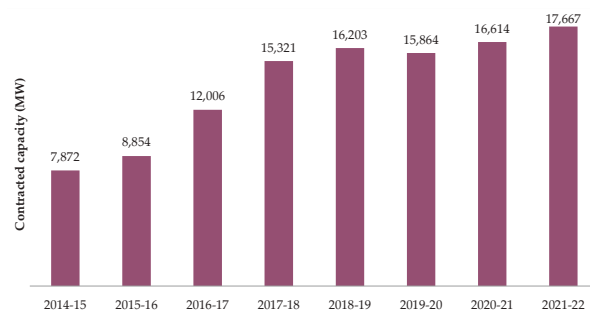
Source: Energy Department, Government of Telangana

Around half of the total contracted capacity in 2021-22 is from the state sector (8,786 MW) whereas the central sector contributed 14.1% (2,496 MW). More than one-third (36.1%) of the total contracted capacity in the state is held by the private sector (6,385 MW) (see Figure 7.10).

Figure 7.10. Contracted Capacity in Telangana by sector as of September 2022

Total Contracted Capacity = 17,667 MW
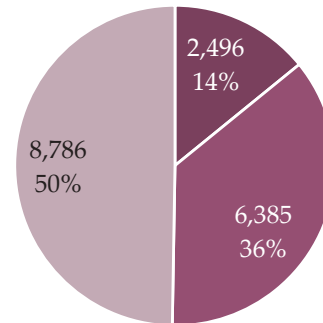
■ Central sector   ■ Private sector   ■ State sector

Source: Energy Department, Government of Telangana

7.4.5 Energy Transmission and Distribution

'Electricity Transmission' in the state is managed by the Transmission Corporation of Telangana Limited (TRANSCO). On the other hand, the energy distribution is taken care of by the Telangana State Southern Power Distribution Company Limited (TSSPDCL) and the Telangana State Northern Power Distribution Company Limited (TSNPDCL).

As of 2019-20, Telangana has the 2nd lowest transmission loss among south Indian states and the 4th lowest transmission loss among the 28 states in the country. According to the Central Electricity Authority, the electricity transmission and distribution loss of the state in 2019-20 was 15.28% compared to the all-India value of 20.46%. The only states with lower transmission losses than Telangana are Goa (10.92%), Himachal Pradesh (14.31%), and Kerala (14.75%).

7.4.6 Electricity Consumption Patterns

The total electricity consumption in Telangana was 39,519 Million Units (MU) in 2014-15. By 2021-22, this increased to 61,267 MU (an increase of 21,748 Million units during the period) (see figure 7.11)

Figure 7.11. Electricity Consumption (in MU) in Telangana (2014-15 to 2021-22)
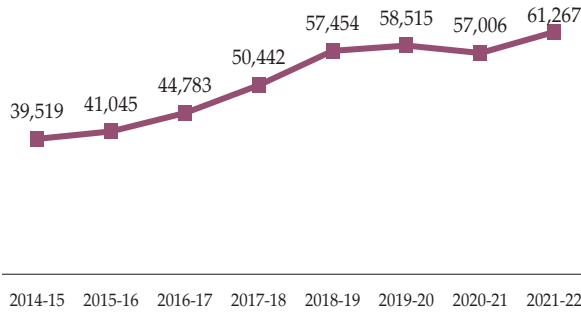
Source: Energy department, Government of Telangana

The year-on-year trend in the per capita consumption of electricity in Telangana is similar to the trend in the per capita availability of power. Both parameters increased consistently between 2014-15 to 2019-20 and then decreased slightly (0.78%) in 2020-21 during the pandemic. Between 2019-20 and 2020-21. The per capita consumption of electricity in Telangana in 2014-15 was 1,356 kWh. By 2021-22, it grew by 1.57 times to 2,126 kWh. Between 2020-21 and 2021-22, it grew by 0.94 times (see figure 7.12)

Figure 7.12. Per capita consumption of electricity (in Kwh) in Telangana (2014-15 to 2021-22)

Source: Energy Department, The Government of Telangana

Domestic, agricultural, and industrial and other consumers constitute the consumer base of electrical connections in Telangana. As of 2021-22, there are 174.03 lakh electrical connections in the state of which 125.56 lakh (72.15%) are domestic, 26.96 lakh (15.49%) are agricultural, and 21.51 lakh (12.36%) are industrial connections.

Hyderabad, with 21.89 lakh connections has the highest consumer base in the state, whereas

Mancherial has only 1.59 lakh connections, the lowest among all districts.

The maximum share of domestic consumers is in Medchal where 86.29% of the total 15.83 lakh connections are held by domestic consumers. Hyderabad, with 17.72 lakh domestic connections, is the district with the maximum number of domestic connections in the state.

The percentage of agricultural connections is the highest in Yadadri Bhuvanagiri where 31.34% of the total 3.29 lakh connections are held by agricultural consumers. Wanaparthy, with 2.19 lakh agricultural connections, is the district with the maximum number of agricultural connections in the state.

Hyderabad district has the highest number as well as the percentage of industrial and other connections in the state. 19.03 % of the total 21.89 lakh connections in Hyderabad are Industrial and other consumers, accounting for 4.17 lakh connections.

Figure 7.13. Distribution of electrical connections across the state (2021-22)
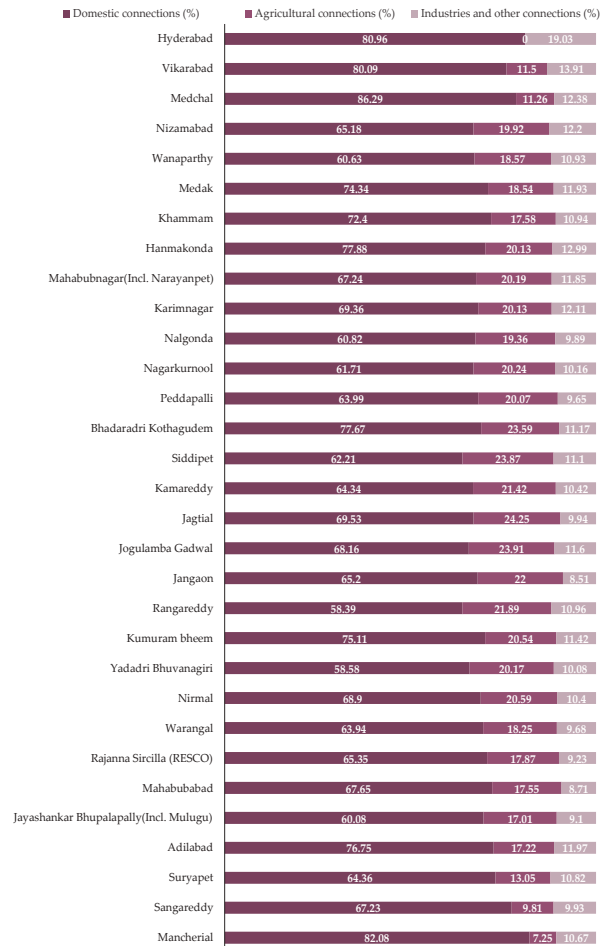
Source: Energy Department, The Government of Telangana

7.4.7 Renewable Energy

The United Nations Environment Programme (UNEP) finds that around 80% of global energy and about 66% of electrical generation are from fossil fuels, contributing approximately 60% of the Greenhouse Gas (GHG) emissions responsible for climate change.[7]

In 2021-22, Telangana produced 7,439.12 MW of renewable energy, making up 41.17% of the total installed capacity of electricity in the state. In comparison, the installed capacity of renewable energy in the state in 2020-21 was 3,806 MW (22.10% of the total installed capacity). Thus, between 2020-21 and 2021-22, the installed capacity of renewable energy in Telangana grew by 1.95 times.

The total installed capacity of renewable energy in the country in 2021-22 was 1,56,607 MW (see Table 7.4). Thus, Telangana accounted for 4.8% of the total installed capacity of renewable energy in the country.

While the share of renewable energy sources in the total installed capacity was lower for Telangana than the other Southern states, it was higher than India's value of 39.2%.

Table 7.4. Share of Renewable Energy (RE) in the total Installed Capacity (2021-22)

State	Installed Capacity of RE (MW)	Total Installed Capacity (MW)	Share of RE
Karnataka	19,536.19	30,577.59	63.89%
Tamil Nadu	18,326.81	35,138.98	52.16%
Andhra Pradesh	10,885.16	25,726.89	42.31%
Telangana	7,439.12	18,069.04	41.17%
Kerala	2,527.2	5,955.86	42.43%
All India	1,56,607	3,99,497	39.2%

Source: (1) Central Electricity Authority (2) Ministry of New and Renewable Energy, Government of India

Telangana State Solar Power Policy

Telangana has vast solar potential with average solar insolation of nearly 5.5 kWh/m2 for more than 300 sunshine days. The Telangana state solar power policy was introduced in 2015 with the objective of harnessing the vast solar power potential of the state. This policy provided various incentives to prospective solar power developers. The success of the policy is evident from a rise in the installed capacity of solar power from 74 MW in 2014-15 to 4,432 MW in 2021-22, an increase of around 59 times. The state successfully implemented a distributed generation model for adding solar capacity. This model helped the Government to save Rs.533 crore at Extra High Tension (EHT)-level in the transmission network. As the generation is close to the demand, the Government saved about 122 MU energy and an amount of Rs. 49 crores in the public exchequer.

Telangana Electric Vehicle Policy (2020-2030)

The Government recognizes that Electric Vehicles (EVs) are a promising alternative to ICE (Internal Combustion Engine) vehicles. The Telangana Electric Vehicle & Energy Storage Policy 2020-2030[8] (TEVP 2020-2030) builds upon the extant FAME-II scheme[9]. The policy envisions making Telangana a hub for Electric Vehicles & Energy Storage Systems (EV&ESS) by attracting private investment, and promoting Research & Development (R&D) and manufacturing. The broader objective of the policy also includes a substantial reduction in the total cost of personal and commercial transportation.

TEVP 2020-30 has devised a strategy with robust incentive structures on both the supply and demand sides. On the supply side, EV & ESS sectors would be incentivized through the subsidies and incentives available under the Electronics Policy 2016. Moreover, the Government would extend tailor-made benefits

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7. Source: 1) The role of Fossil fuels in a sustainable energy system, United Nations Chronicle 2) International Energy Agency
8. For more details, please see: https://tsredco.telangana.gov.in/Updates_2020/Telangana_EVES_policy_2020_30.pdf
9. Faster Adoption of Hybrid and Electric Vehicles (FAME)- II scheme is being implemented since April 2019 by Department of Heavy Industries, Government of India. The scheme suggested states to offer fiscal and non-fiscal incentives to improve the use case for adoption of Electric Vehicles.

to mega [10] and strategic projects on a case-to-case basis. It has identified Electronics Manufacturing Clusters (EMC) and Industrial Parks are identified to promote EV & ESS manufacturing companies.

On the demand side, the policy prescribes an attractive incentive structure for electric two-wheelers, three-seater auto-rickshaws, electric 4-wheelers, buses, and tractors. Recognizing the availability and accessibility of EV-charging infrastructure as a prerequisite for the penetration of EVs, the policy ensures support for charging infrastructure.

The Government would constitute a steering committee of senior officials for the time-bound demand creation of EVs, the development of a charging network in Hyderabad followed by other urban areas, and the periodic review of the policy.

7.5 Communication

Communication is an important catalyst for economic development as it connects every part of the state with other parts of the country, as well as the world. Communication infrastructure is the backbone of the communications system upon which several digital, broadcasting, print, and telecommunication services are operated. This includes a range of modes of communication such as the internet, telephones, television, cable televisions, radio, newspapers, and other periodicals.

7.5.1 Digital Infrastructure

Digital infrastructure refers to the physical assets required to operate technologies such as digital communication, computing, and data storage. A sustainable and inclusive digital infrastructure system is essential for the overall growth and development of the state.

Digital Telangana

Since its formation, Telangana has been promoting digital infrastructure development. The Government of Telangana, in line with Digital India, has launched Digital Telangana with the objective of facilitating the provisioning of digital infrastructure to every citizen of the state.

Digital Telangana stands on two pivots - one on the supply side and the other on the demand side. On the supply side, the Government aims to ensure the universal availability of digital facilities by laying Optic Fiber Cable (OFC) to each household, providing 4G services in the entire state and Wi-Fi access in major cities and towns, and, installing a one-stop kiosk in each Panchayat under the e-Panchayat scheme. On the demand side, a household-level digital literacy program, school computer literacy program, expansion of Mee-Seva services, and identifying technological solutions for citizen services at government offices were implemented.

T-Fiber Grid

The T-Fiber Grid project aims to connect all households, public institutions, and private enterprises across the rural areas of the state through OFC, and provide them with high-speed internet connectivity. It involves laying a carrier-grade telecom OFC network from the state headquarters (SHQ), as cascades, to the district headquarters (DHQ), Mandal headquarters (MHQ), and the Gram Panchayats (GP). The network would be capable of delivering 4-100 Mbps to households and on-demand 20-100 Mbps to institutions and enterprises. T-Fiber will leverage the existing trenches and ducts created under Mission Bhagiratha.

7.5.2 Telephone services

As of November 2022, Telangana has around 4.08 crore telephone subscribers, of which 98% are wireless subscribers. Of the total 2.28 crore urban subscribers, 96% use wireless telephones In rural areas, there are 1.70 crore (99.8%) wireless subscribers and nearly 50,000 wireline subscribers. (see Figure 7.14).

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10. TEVP 2020-2030 considers an investment of more than Rs.200 crores in plant and machinery or providing employment to more than 1000 persons as a 'mega project'.

Figure 7.14. Total Telephone Subscriptions (in Lakhs) in Telangana (2022)

Legend: ■ Wireless ■ Wireline ■ Total

Category	Wireless	Wireline	Total
Total	39.87	0.98	40.85
Rural	17.03	0.05	17.08
Urban	22.85	0.93	23.78
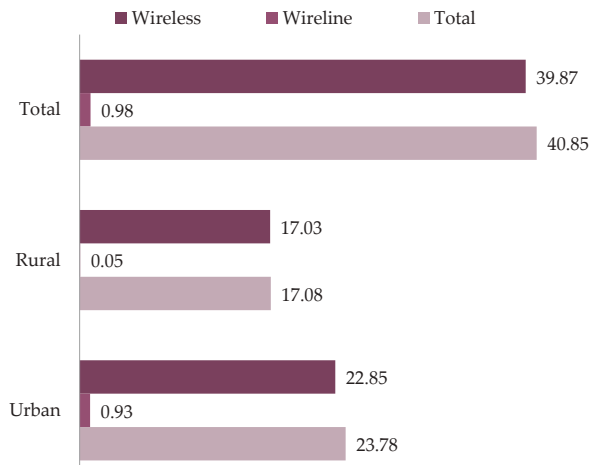
Source: The Indian Telecom Services Performance Indicator April-June 2022, Telecom Regulatory Authority of India

As of November 2022, Telangana, has the second-highest Mobile teledensity at 105 among the southern states and the 9th highest teledensity among all states in the country. The All-India teledensity stands at 83.

Figure 7.15. Mobile Teledensity across the Indian States (2022)

State	Teledensity
Sikkim	139
Goa	132
Himachal Pradesh	131
Kerala	120
Punjab	113
Uttarakhand	111
Mizoram	111
Haryana	110
Telangana	105
Tamil Nadu	102
Maharashtra	99
Karnataka	97
Gujarat	94
Arunachal Pradesh	84
All India	83
Andhra Pradesh	82
West Bengal	80
Rajasthan	78
Odisha	74
Tripura	74
Meghalaya	73
Manipur	72
Nagaland	70
Uttar Pradesh	69
Assam	68
Chhattisgarh	67
Madhya Pradesh	66
Jharkhand	58
Bihar	53

Source: Department of Telecommunications, Government of India

7.5.3 Posts

Posts are a convenient mode of communication that touch the lives of people in many ways. Postal services deliver mail to the remotest corners of the state, accept deposits, and provide life insurance coverage. The Telangana Postal Circle under India posts has 36 Head Post Offices, 789 sub-post offices, 5,388 branch post offices, and 27,031 letterboxes as of 31st August 2021. Each circle also offers Savings schemes, Passport services, Aadhar services, and Philately services.

7.5.4 Radio Stations

There are 15 All India Radio (AIR) stations in Telangana- 12 FM, 2 MW, and 1 SW. There are 11 operational private FM Radio stations in Telangana, 8 based in Hyderabad, and 3 in Warangal.

7.5.5 Periodicals and Newspapers

Telangana has a total of 1,350 registered periodicals including daily newspapers, weekly and monthly magazines, and other periodicals. These also include newspapers with multiple editions across the country. Over 60% of the total registered publications are in Telugu, while Urdu and English hold a share of 18.4% and 13.6% respectively.

7.6 Water supply and sanitation

Water supply

The Government focuses on ensuring timely access to water for agriculture, potable water for households, and adequate water supply to the industrial sector. Augmenting water resources has been a policy priority of the state right from its formation. Multiple initiatives such as the construction of the Kaleshwaram dam and the Mallanna Sagar reservoir for the provisioning of water to the agriculture sector, and Mission Bhagiratha, for provisioning of drinking water to the people, have been taken up by GoTS to ensure uninterrupted access to uncontaminated water for one and all.

7.6.1 Mission Bhagiratha

Mission Bhagiratha is the flagship program of the Government of Telangana to provide safe, adequate, sustainable, and treated drinking water to the entire state (except Hyderabad urban agglomeration where a separate water supply system is already functional).

Through its 26 segments, Mission Bhagiratha supplies surface-treated water to all rural habitations through functional tap connections. On the other hand, the Urban Local Bodies (ULBs) receive bulk water supply. The project provides treated drinking water at the rate of 100 Liters Per Capita Per Day (LPCD) in rural areas, 135 LPCD in municipalities, and 150 LPCD in municipal corporations. 10% of the total water is earmarked to meet industrial needs.

Mission Bhagiratha covers all 23,975 rural habitations (outside Outer Ring Road), 649 rural habitations that are merged with ULBs, and 121 ULBs. It targets nearly 272.36 lakh population of which 75.52% is rural and the rest is urban. Moreover, 23,517 schools and 27,257 Anganwadi Centers along with other government institutions are provided functional tap connections under this project.

A total expenditure of around Rs. 38,298.49 crore was incurred on drinking water schemes under Mission Bhagiratha up to November 2022.

According to the Ministry of Jalshakthi, GoI, Telangana achieved 100% coverage of Functional Household Tap Connections (FHTC) in all rural habitaions along with Goa, Gujarat and Haryana.

Sanitation

Sanitation services are as important as water supply, given their implications on health, environment and safety. The Government of Telangana considers sanitation as a priority area and has started programs such as Palle Pragathi and Pattana Pragathi to promote cleanliness. The Government also implements Swachh Telangana in line with the Swachh Bharat Mission.

7.6.2 Swachh Telangana

United Nations Sustainable Development Goal 6 (SDG6) aims to achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations.

In line with SDG 6, the Government of India launched the Swachh Bharat Mission - Gramin in 2014 with the objective of bringing about an improvement in cleanliness, hygiene, and sanitation in rural areas. In line with this Mission, Telangana launched Swachh Telangana Mission in June 2015. In 2014-15, the sanitation coverage in Telangana was only 27.32%. Within the 5 years thereafter, the State constructed over 30 lakh toilets, out of which more than 19 lakh toilets were constructed under Swachh Bharat Mission-Gramin (SBM-G). Resultantly, Telangana was declared Open Defecation Free (ODF) in 2019.

SBM-G in the state now focuses on sustaining the outcomes achieved through the mission and climbing the sanitation ladder by managing solid and liquid wastes in line with Palle Pragathi, the state's flagship program for the overall progress and prosperity of rural areas. The Government of Telangana has developed a robust and inclusive ODF Plus strategy involving District Administrations and Panchayat Raj Institutions under SBM Phase II.

Figure 7.16. Performance of Telangana under Swachh Bharat- Gramin
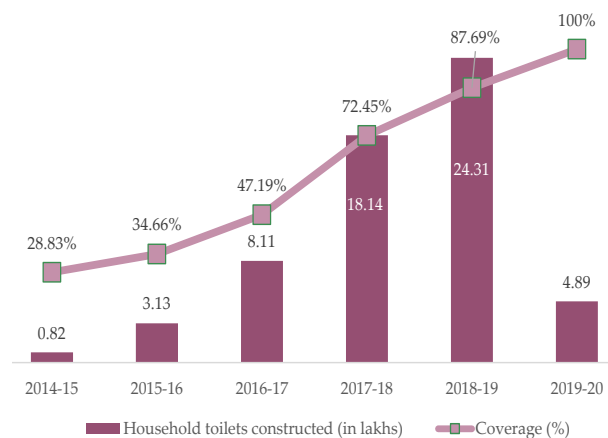
Source: Swachh Bharat- Gramin Dashboard, Government of India

ODF Plus Strategy

ODF Sustainability (ODF-S), Solid and Liquid Waste Management (SLWM) and Visible Cleanliness (VC) are the key components of ODF Plus. The Government of Telangana recognizes the vital role of Information, Education, and Communications (IEC) interventions for ODF-S and SLWM to create a felt need for these activities among rural communities.

7.7 Way Forward

The Government of Telangana has been promoting infrastructure development in all critical sectors including Transportation, Energy, Communications, Water supply, and Sanitation. The Government also aims for the further improvement of infrastructure capabilities in the state. Pursuing this endeavor, policy initiatives such as the Strategic Road Development Plan, Crucial Road Maintenance Project, Renewable Energy Plan 2030, Telangana Electric Vehicle Policy (2020-2030), and the ODF Plus Strategy under SBM-G ensure a sustainable and inclusive physical infrastructure system in the state.

HEALTH

Key Highlights

- The Government sanctioned 9 new Government Medical Colleges with a cumulative intake capacity of 900 MBBS students at Asifabad, Jayashankar Bhupalpally, Jangaon, Kamareddy, Karimnagar, Khammam, Rajanna Siricilla, Vikarabad and Nirmal.

- The Government relaunched the Kanti Velugu programme on 18 January 2023, in the Khammam district with an aim to build "Avoidable Blindness-free Telangana."

- The TSMSIDC is ranked third in the Country in the Drugs and Vaccine Distribution System (DVDS) portal.

- Telangana was the only State among the 19 larger States in the country to have demonstrated a strong overall performance on NITI Aayog's Annual Health Index 2019-20, ranking third.

- Telangana has received the best performance award in malaria elimination and progressed from Category II to Category I from 2015 to 2021.

- Under Ayushman Bharat - Pradhan Mantri Jan Arogya Yojana (AB PM-JAY) - Aarogyasri an additional 646 treatments were made available and applicable through the government hospitals in the State.

- Telangana has implemented a number of upgrading programmes for AYUSH dispensaries and hospitals, making it the only State with pharmacies in all three AYUSH systems (Ayurveda, Unani, and Homeopathy).

- Government has launched Rs. 5/- per meal programme for attendants of patients in 18 major hospitals in Hyderabad / Greater Hyderabad Municipal Corporation (GHMC).

- Telangana has the highest coverage of the precautionary(booster) dose vaccination in the 18+ age group among larger States.

8.1 Introduction

One of the most important indicators of human development in a community is improvement in health outcomes. Acknowledging the need for a focused and dynamic policy health sector in the State, the Government of Telangana has formulated various initiatives and schemes to address key health issues in the community like the Telangana Kanti Velugu to address avoidable blindness in the State, Dialysis scheme for chronic kidney patients etc. A special focus has also been given to develop health infrastructure in the State. An amount of Rs.10,954 Crore has been allocated for the 2022-23 budget for Medical and Public Health out of which, Rs. 822 crores allocated for National Health Mission in order to enhance the delivery of healthcare services, including upgradation of existing or construction of new infrastructure.

The State Government's persistent efforts to improve the health system in the State has been reflected in the State's year on year performance on the NITI Aayog Health Index. In terms of overall performance, Telangana moved from 11th rank amongst the 19 larger States in 2015-16 to 3rd rank in 2019-20. The index assessed the performance of the State along 24 indicators in the domains of Health Outcomes, Governance and Information and Key Inputs and Processes. Indeed, Telangana's Health sector has served as a role model for other Indian States on how to deal with public health exigencies.

8.2 Health Infrastructure

Robust Health Infrastructure is necessary to ensure improved standards of care and well-being for all patients. It includes a capable and qualified workforce, up-to-date data and information systems, and agencies that can assess and respond to public health needs. The Government has been making significant investments towards strengthening the health infrastructure in the State since 2014-15.

8.2.1 Physical Health Infrastructure in Telangana

Health infrastructure plays an important and integral role in the development of any society, particularly so in the case of public health systems. These infrastructures are the formal and enduring structures that support public health and enable experts to respond and prepare for emergency health concerns like disease outbreaks and natural catastrophes. Deadly disease outbreaks can only be handled by a robust public health system as was evidenced in the case of COVID -19 response management.

The Government runs a network of primary, secondary, and tertiary healthcare facilities in order to provide universal health coverage and guarantee the best service delivery to patients throughout the State. The patients in the State are catered to through 4 Civil Dispensaries, 2 Eye Hospitals, 4 Maternity Hospitals, 1 Child Hospital, 1 ENT Hospital, 1 Fever Hospital, 2 Chest Disease Hospitals, 33 District Hospitals, 44 Sub District Hospitals, 31 General & Speciality Hospitals, 17 Medical colleges, 119 Community Health Centres, 20 Area Hospitals, 636 Rural Primary Health Centres, 232 Urban Primary Health Centres, 4,745 Health Sub Centres, 2,250 Health and Wellness Centres, and 342 Basti Dawakhanas.

8.2.2 Major Health Institutions and Destinations in Telangana

At the time of State formation, there was only one multi-disciplinary super speciality hospital (NIMS) in the State. The Government has made large expenditures in the establishment of new medical facilities in order to increase the State's capacity to serve patients from both within and outside the State and to position Telangana as the "go-to healthcare destination." While some of these institutions are slated to begin operating within the next few years, others have already started operating. They were all built with modern amenities that are on par with some of the top health institutions in the world. The following section details information about these institutions.

8.2.2.1 All India Institute of Medical Sciences (AIIMS), Telangana

The Pradhan Mantri Swasthya Suraksha Yojana (PMSSY), which was introduced in 2003, aims to

improve facilities for high-quality medical education in the nation as well as address regional disparities in the accessibility of affordable and reliable tertiary healthcare services.

One of the premier medical facilities built under Phase VII of PMSSY is AIIMS, Bibinagar in the Yadadri Bhuvanagiri district. The institute started operating in 2019 and has since been offering patients outpatient, inpatient, telemedicine, surgical, intensive care unit (ICU), and investigative treatments. Additionally, AIIMS is a premier institute for health education in the State, with its first batch of 50 students from the MBBS course due to pass out in the year 2024.

8.2.2.2 Telangana Institute of Medical Sciences & Research (TIMS)

Telangana Institute of Medical Sciences & Research (TIMS), Gachibowli, Hyderabad is a State-of-the-art multi-speciality hospital, with a total bed strength of 1,261 beds, including 137 Intensive Care Units (ICU)/ventilator beds, and 843 oxygen beds.

In 2021, the Government of Telangana announced plans to establish four more TIMS hospitals for areas under GHMC and the peripheral regions, which would match the medical infrastructure standards set by corporate hospitals and the All India Institute of Medical Sciences (AIIMS), New Delhi. The four super-speciality hospitals for the urban population in GHMC, dubbed as Telangana Institute of Medical Sciences (TIMS) will come up at Gachibowli, Sanath Nagar, Alwal, and Dilsukhnagar.

8.2.2.3 Nizam's Institute of Medical Sciences (NIMS)

Nizam's Institute of Medical Sciences has been established with the primary objectives of creating a center of excellence for providing medical care, educational and research facilities of high quality, and to start Post Graduate and Paramedical Courses. There are 34 departments under the institute including Super Specialties and Broad Specialties. The Government intends to increase the bed capacity from 1,489 to 3,489 and to expand the infrastructure with additional facilities, specialities, and departments.

8.2.2.4 Mehdi Nawaj Jung (MNJ) Institute of Oncology

MNJ Institute of Oncology is the sole referral hospital in Telangana offering free comprehensive cancer care to poor patients from the State. It is a 450-bedded apex cancer hospital and teaching hospital with new patient registrations of around 10,000 per year. About 2,500 major & minor surgeries are performed every year at the hospital. Every day, 400 patients receive radiotherapy, and 350 receive chemotherapy. More than 1.5 lakh cancer-related diagnostic tests are done at the hospital each year. Further, at any given point in time, there are 500 to 550 in-patients at the institute. The Institute also acts as a major medical tourism center providing cancer care to patients from the neighboring States of Andhra Pradesh, Maharashtra, Madhya Pradesh, Karnataka, and Orissa.

8.2.2.5 Warangal City -The Health City of Telangana

In 2021, the Government laid the foundation stone and sanctioned Rs 1,100 crore for the construction of a super specialty hospital in Warangal as part of its plan to develop Warangal into a health city and a medical tourism destination. The 24-storeyed hospital will be constructed across a 15-acre area and will have 2,000 beds including 800 beds for super speciality services. The hospital will have 36 super speciality divisions, around 500 doctors, more than 1,000 nurses, paramedics and other staff. The hospital will also have facilities for organ transplants, chemotherapy and radiation therapy, and a helipad for emergency airlifting of patients using helicopters, and would be fully equipped with specialized medical units, a Medical and a Dental College.

8.2.2.6 Telangana Vaidya Vidhana Parishad (TVVP)

The Telangana Vaidya Vidhana Parishad (TVVP) was set up in 2014-15 to manage the secondary level hospitals (comprising select District Hospitals, Area Hospitals, Community Health Centres, Maternal

and Child Health Hospitals, Urban Community Health Centres, and Civil Dispensaries) in the State. There are 179 TVVP hospitals at present, with a bed strength of 10,470. These hospitals mostly provide maternity & child health services, besides general medicine, general surgery, ophthalmology, pediatrics, orthopedics, dermatology, ENT, etc. Being the intermediary between PHCs and tertiary care hospitals (mostly Teaching Hospitals), the majority share of the patient burden in the State is handled by the Telangana Vaidya Vidhana Parishad Hospitals.

Since the formation of the State, 13 Intensive Care Units and 71 Dialysis Centres have been established in District/Area Hospitals under TVVP. Further, 33 blood banks and 17 Blood Storage Centres are currently functioning under TVVP. Since the State's formation, the Government has created 6,377 posts in TVVP hospitals. Between 2014-15 and 2020-21, the number of beds in hospitals under TVVP has gone up by 10,470.

The performance of the hospitals covered by TVVP in the last 2 years is given in Table 8.1. In 2020-21, the institutions had more than exceeded their targets in most of the categories by significant quantities. In 2021-22 too, the institutions are well on their way to achieving their targets.

Table 8.1: Performance of TVVP hospitals

Name of the Development Indicator	2020-21			2021 - 22		
	Target	Achievement	Percentage Achievement	Target	Achievement	Percentage Achievement
Out Patients	1,30,40,950	77,46,963	59	1,31,41,750	1,01,02,632	77
In Patients	11,46,600	8,18,985	71	11,44,440	10,13,560	89
Major Surgeries	62,280	78,101	125	64,620	91,105	141
Sterilisations	60,520	35,964	59	62,720	49,932	80
Deliveries	97,920	1,39,346	142	1,05,120	1,52,197	145
X-Rays	2,59,200	2,17,131	84	2,46,600	3,07,430	125
U.S.G	1,00,290	1,72,136	172	99,570	2,54,615	256
E.C.G	75,810	1,04,033	137	71,500	1,35,729	190
Lab tests	44,34,120	52,00,299	117	44,86,320	70,70,392	158
BOR	80	40	50	80	72	90

Source: Department of Health, Medical and Family Welfare, Government of Telangana

8.2.2.7 Medical Institutions under the Directorate of Medical Education, Telangana

17 Teaching Hospitals and 15 Speciality Hospitals are currently functioning under the Directorate of Medical Education, Telangana. The 17 teaching hospitals at their respective Government Medical Colleges have a bed strength of 13,975 beds. These teaching hospitals offer out-patient and in-patient treatments, laboratory investigations, forensic medicine (Autopsy) services, organ transplantation, cath lab services, new CT and MRI scans, and other infrastructure.

Cadaver donor transplants and live donor transplants are the two types of organ transplants being done in the State. The Government is planning a State-of-the-art transplant unit in Gandhi Hospital as transplant surgeries are expensive in the private sector.

Furthermore, the government intends to establish fertility centers in three teaching hospitals, namely Gandhi Hospital, Modern Government Maternity Hospital, Petlaburz, and MGM Hospital, Warangal.

8.2.2.8 Emergency Health Transportation Services (Emergency (108), MCH (102), Fixed Day Health Services (104) and Free Hearse Services

The Government of Telangana provides the following free transportation services for health-related needs to different categories of beneficiaries:

- 108 Service: 24-hour free transportation, 365 days a year through 424 ambulances to aid patients during emergencies. During 2022-23 (Till December) emergency services were provided to 4,19,599 beneficiaries.

- 102 Service: Free transportation to pregnant women for ANC check-ups and delivery through the 300 Amma Vodi vehicles. About 2,75,357 lakh beneficiaries availed the service.

- 104 Service: Once-a-month fixed day service at rural habitations located beyond 3 km from a PHC or CHC according to a predetermined calendar, to provide pregnancy monitoring, treatment for infants and children, and for patients suffering from chronic ailments. This is done through the 198 mobile vehicles equipped with medical and laboratory equipment to perform basic diagnostic tests, as well as a cold chain unit to store vaccines and blood samples. During 2021-22 (Till November) Services were provided to 17,05,313 beneficiaries.

- Free Hearse Service: The 33 vehicles operated under this service transport dead bodies from hospitals to the choice of location of the deceased family.

8.2.3 Status of Medical Education

Qualified and trained health professionals are imperative to ensure quality health care. Recognising this important linkage, the Government of Telangana has turned its focus toward increasing State capacity to train more health professionals. Pursuing this objective, the State established 12 new medical colleges since the State formation. Since the State's formation, 2065 MBBS seats, 693 postgraduate seats and 76 super speciality seats have been added in the State. Most recently, classes have commenced in 8 Colleges i.e. Sangareddy, Mahabubabad, Mancherial, Jagtial, Wanaparthy, Bhadradri Kothagudem, Nagarkurnool and Ramagundam.

Table 8.2: Number of Seats in Government Medical Colleges

Year	MBBS Seats	Post-Graduate Seats	Super Speciality Seats
2014	850	515	76
2022 (till November)	2,915	1,208	152

Source: Department of Health, Medical and Family Welfare, Government of Telangana

8.2.3.1 New Medical Colleges

For the academic year 2023-24, the Government has approved 9 new Government Medical Colleges at Asifabad, Jayashankar Bhupalpally, Jangaon, Kamareddy, Karimnagar, Khammam, Rajanna Siricilla, Vikarabad and Nirmal with a cumulative capacity of 900 MBBS seats and sanctioned 3,897 posts.

8.2.3.2 Dental Colleges

In addition to the medical colleges, the Government operates a Government Dental College and Hospital in Hyderabad with an annual intake of 100 graduates and 27 postgraduate students.

8.2.3.3 Nursing Colleges and Schools

To maintain the quality of medical services in the State, the Government runs 6 nursing colleges with 380 graduate and 30 post-graduate seats. Additionally, 6 nursing schools with an intake capacity of 287 General Nursing and Midwifery (GNM) students are operational in Telangana.

To extend the quality of medical services, the Government has sanctioned 14 new Government

Nursing Colleges with an additional intake capacity of 730 students, and recently inaugurated a new Government Nursing College at Rajanna Siricilla. The government has also recruited 1,108 staff nurses in Teaching Hospitals through the Telangana State Public Service Commission.

8.2.4 The Telangana State Medical Services & Infrastructure Development Corporation (TSMSIDC)

The Telangana State Medical Services & Infrastructure Development Corporation is an enterprise of the Government. The corporation is entrusted with the responsibility of procurement and supply of drugs, medicines, surgical consumables, clothing, tentage & stores, diagnostic reagents, medical equipment, and furniture for all Government Hospitals in the State. It also undertakes civil works such as the construction of hospitals, medical colleges and other establishments functioning under the control of the Health Medical & Family Welfare Department.

8.2.4.1 Drug Procurement

Drugs Supply Chain Management is the core responsibility of the TSMSIDC and the corporation is consistently working towards improving efficiencies. TSMSIDC is implementing Drugs and Vaccines Distribution System (DVDS), a web-based supply chain management application which deals with the purchase, inventory management, and distribution of various drugs including vaccines, sutures, and surgical items to various Regional/District drug warehouses (DWH) of States, District Hospitals (DH), Community Health Centre (CHC), Primary Health Centre (PHC) and Sub centres. Telangana has ranked 3rd in the country with an average score of 58.81 as of December 2022, closely following Rajasthan (77.55) and Bihar (64.25).

8.2.4.2 Civil Works

The TSMSIDC is entrusted with civil works such as construction of medical colleges, hospitals and allied buildings. During 2022-23 the TSMSIDC recorded a turnover of Rs.989.06 (till 3rd quarter)

8.3 Key Initiatives of the Government

8.3.1 Basti Dawakhanas

'Basti Dawakhanas' are an innovative initiative of the Government of Telangana to bring healthcare services close to the urban poor. 342 Basti Dawakhanas have been established by the State in urban areas so far, with one Basti Dawakhana serving 5,000 to 10,000 persons.These centers provide 53 different kinds of free health services including outpatient consultation, medicines, basic lab diagnosis, antenatal/postnatal care, and screening for non-communicable diseases. Specialist consultation is also provided at Basti Dawakhanas through Telemedicine. Basti Dawakhanas reduce travel and waiting time for patients, reduce out-of-pocket-expenditure for patients by serving as an efficient platform for convergence with other NHM programmes, and reduce the burden on secondary and tertiary health care facilities.

8.3.2. Palle Dawakhanas

To ensure that people residing in rural areas have access to the same quality healthcare services as their urban counterparts, including round-the-clock access to doctors, the Government has started the process of converting sub-centres to "Palle Dawakhanas". The Palle Dawakhanas will deliver comprehensive primary healthcare services to the local population, will stock medicines for common ailments, and have a fully-equipped laboratory to conduct basic diagnostic tests. Specialist consultations would be available through telemedicine facilities.

8.3.3 Telangana Diagnostics Scheme

Even though the costs associated with getting diagnostic tests done for medical examinations are very high, most government hospitals do not have facilities for inexpensive diagnostic testing. To bridge this gap, the Government of Telangana launched the 'Telangana Diagnostic Scheme' in 2018, as a hub-and-spoke model, to provide low-cost pathological diagnostic services and imaging services to the

people, with an apex laboratory acting as the hub, and the Urban Primary Health Centres (UPHCs), Community Health Centres (CHCs), Area Hospitals (AHs), etc. serving as the spokes. This model was developed in Hyderabad district, and was subsequently expanded to the entire State. Currently, in 20 district-level diagnostic hubs the total test parameters available are 57 with average sample load of 5,000 at central lab and 1,000-2,000 at district hubs are operational in the State. The district hubs conduct 60+ types of tests with high-end diagnostic equipment, including auto-analyzers, digital X-rays, ultrasound scan machines, mammograms etc. Imaging services are provided through 8 mini-hubs. Going forward, 13 new district hubs are proposed to be established in the coming months, and imaging services are proposed to be established at 19 district hubs. Further, it is planned that in the future, RT-PCR labs will be co-located with these diagnostic hubs in all districts. Figure 8.1 provides details of the annual number of beneficiaries of the scheme since 2018.

Figure 8.1: Telangana Diagnostics Scheme beneficiaries and total tests over the years
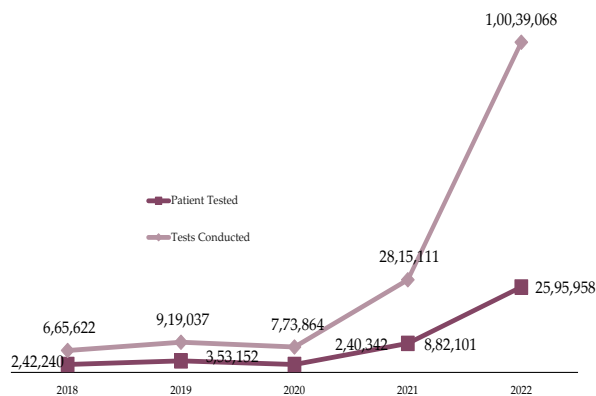
Source: Department of Health, Medical and Family Welfare, Government of Telangana

8.3.4 Telangana Dialysis Scheme

Telangana is one of the few States in the country to provide quality dialysis services free of cost to its citizens through non-reusable equipment. 104 dialysis centers have been established at district and sub-district hospitals in a hub and spoke model under Public-Private Partnership, with the aim of providing dialysis services in a decentralized manner in all districts in the State. Every year, approximately 6 lakh dialysis sessions are conducted across these centers benefitting an average of 8,500 patients per year.

8.3.5 Aarogyasri Scheme (now Ayushman Bharat - Pradhan Mantri Jan Arogya Yojana (AB PM-JAY) - Aarogyasri)

The Aarogyasri Health Care Trust in Telangana is implementing the Arogyasri Scheme (AS), a distinctive State Government-sponsored health insurance programme. The goal of this programme is to assist the Below Poverty Line (BPL) households in the State by lowering catastrophic medical expenditure through equitable and cashless access to high-quality healthcare. The programme offers financial protection for recipients up to Rs. 5 lakh per household each year and an extra Rs. 10 lakh for expensive operations.

The Telangana government integrated this programme with the Government of India's Ayushman Bharat - Pradhan Mantri Jan Arogya Yojana (AB PM-JAY) in May 2021. All existing Aarogyasri beneficiaries and benefits were brought under the converged scheme. Additionally, Government hospitals in the State are providing access to the 646 treatments that are covered under PMJAY. The Civil Supplies Department's Food Security Card database maintained by the Civil Supplies Department will be based on eligibility criteria for the converged "ABPMJAY-Aarogyasri" scheme from December 2022. 7 private hospitals were empanelled to ABPMJAY- Aarogyasri in 2022. The number of beneficiaries under the scheme is 1,61,922 in 2022 and the total expenditure incurred from 2014-15 to 2022-23 (till December) is 4,925.90 crore (see Figure 8.2).

Figure 8.2: Expenditure and Beneficiaries for Aarogyasri Scheme (2014-15 to 2022-23)
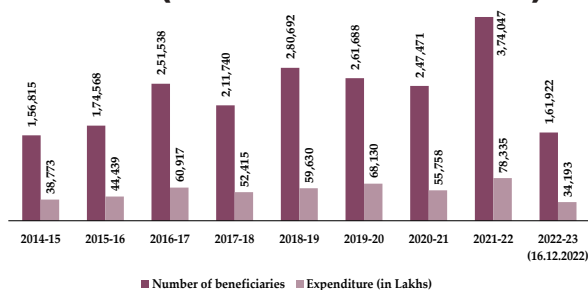
Source: Department of Health, Medical and Family Welfare, Government of Telangana

8.3.6 Rs. 5/- Meal Programme

The Government has launched a Rs 5/- per meal programme for attendants of patients, jointly with Hare Rama Hare Krishna Mission, which will provide three-time meals every day to the attendants of patients for Rs 5 per meal in 18 major hospitals in Hyderabad / Greater Hyderabad Municipal Corporation (GHMC).

8.3.7 AYUSH (Ayurveda, Yoga & Naturopathy, Unani, Siddha and Homeopathy)

The Telangana Government along with the National AYUSH Mission (NAM) has supported AYUSH medical systems since its inception. Telangana has implemented a number of programmes to upgrade AYUSH dispensaries and hospitals, making it the only State with pharmacies in all three AYUSH systems (Ayurveda, Unani, and Homoeopathy). AYUSH Wellness Centers are currently operating in the districts of Warangal and Hyderabad, and AYUSH wings are being expanded in other district hospitals.

The Government has taken up proposals for upgrading 421 AYUSH dispensaries into Health and Wellness Centers in order to give its AYUSH projects more momentum. The Kayakalpa programme for cleanliness, hygiene, and infection control is one of the State's major AYUSH programmes, and it is promoted throughout all faculties. Additionally, the Ayurveda and Yoga Mother and Child Programme are being used to promote regular births in an effort to reduce morbidity and death in relation to mother and child health. Additionally, the government is establishing mobile medical facilities in the districts of Mahabubnagar and Karimnagar. Under E-Aushadhi, (3) pharmacies are functioning in Ayurveda, Unani medicine, and Homeopathy.

Table 8.3. Institutions functioning under AYUSH

Sl. No.	Item	Ayurveda	Unani	Homeopathy	Naturopathy & Yoga	Total
1	Hospitals	4	3	3	1	11
2	Colleges	2	1	1	1	5
3	Common Beds	313	190	110	184	797
4	Intake (UG) in Colleges	126	94	125	60	405
5	Intake (PG) in Colleges	48	45	38	0	131
6	Research Department	1	1	1	2	5
7	Pharmacies	1	1	1	0	3
8	Herbarium	1	1	0	0	2
9	AYUSH Health & Wellness Centres	211	119	91	0	421
10	NRHM Dispensaries	199	62	105	28	394

Source: Department of AYUSH - 2022-23

8.3.8 Employee And Journalist Health Scheme

The "Employees and Journalist Health Scheme" has been put into place by the government to give cashless treatment to all State Government employees, pensioners, journalists, and their dependents. The Government has issued 15,959 Health Cards to Journalists and 47,723 Health Cards are issued to their dependents and an amount of Rs. 1,447.66 crore expenditure has been incurred from 2014-15 to 2022-23 for 3.57 lakh beneficiaries for various treatments undergone by Journalists and their families. Further, financial assistance of Rs.6.88 lakh is given to those journalists who died due to COVID-19.

The Government has also introduced and implemented the Social Security Scheme for working journalists in the State with coverage of Rs 5.00 lakh Accidental Insurance. 20,000 journalists are covered under this scheme for the year 2022-23.

Box 8.1
Kanti Velugu: World's largest community program

Telangana is known for its unique kind of welfare schemes in the nation. The State is setting standards in the development process. The schemes implemented by Telangana have proved to be good examples of a welfare State that aspires to progress toward sustainable and inclusive development. Each scheme is not just a random innovative idea, but one formulated with deep understanding on the ground and with the objective of building a progressive Telangana. One of the many flagship schemes implemented by the government is "Kanti Velugu."

Kanti Velugu is the biggest eye screening programme launched in 2018 to address a large percentage of avoidable vision impairment among the population of the State, with an aim to build "Avoidable Blindness-free Telangana." A major public health problem in India is avoidable blindness. The results of the National Blindness and Visual Impairment Survey India 2015–19 suggest that cataracts are the leading cause of blindness and visual impairment among the population aged 50 or over, accounting for blindness in 2 out of 3 persons and vision impairment in 7 out of 10 persons. Simple spectacles or cataract surgery can cure most avoidable vision problems. People, especially the elderly and women, tend to ignore or postpone eye problems until it is too late, which is also an issue. Moreover, accessing medical and optometric care is challenging for those living in rural and tribal areas.

Having understood these issues, the government is aiming under this programme to deliver comprehensive, hassle-free services directly to the public, including free eye screening and vision checks for all State residents, free eyewear, and medications for common eye conditions, to raise public awareness about the need to prevent serious, disabling eye diseases. The programme lasted six and a half months and ended on January 31, 2019.

Achievements of the First Phase of Kanti Velugu

1. More than 1.54 crore people were tested, of whom 55% are female and 45% are male.

2. Of the persons tested, 16.6% were SCs, and 11.02% were STs.

3. 25 lakh people received reading glasses, and another 20 lakh received prescription glasses.

The programme served its purpose by reaching out to the State's most vulnerable citizens and helping them overcome preventable blindness. Considering the success of the first phase in 2018, the government relaunched the programme on January 18, 2023, in the Khammam district. This time, it is proposed to complete the programme in 100 working days by deploying 1500 teams in Gram Panchayats and urban local bodies ward-wise.

8.4 Non-communicable and Communicable Diseases

8.4.1 Status of diseases

Telangana Health Dossier 2021, National Health Systems Resource Centre(NHSRC) indicates that the proportion of communicable, maternal, neonatal, and nutritional diseases [CMNND] contribute to 24.87% of the total disease burden. Neonatal preterm birth, diarrheal diseases, and dietary iron deficiency are the leading causes of death due to CMNND in the State. Non Communicable Diseases(NCDs) contribute to 62.68% of Disability-adjusted life years (DALYs); whereas, injuries contribute to 12.45% of DALYs in the State. About 61.6% of the total disease burden is from premature deaths and 38.4% is from disability or morbidity. Among the non-communicable diseases, cardiovascular disease, neonatal disorders, diarrhea, and lower respiratory infections account for a majority of fatalities. Among communicable diseases, AIDS, tuberculosis (TB), mosquito-borne diseases (malaria, dengue and chikungunya). The Government is committed to reducing the disease burden in the State.

The Government has been implementing both Central schemes and flagship State schemes to reduce the burden of communicable and non-communicable diseases in the State.

8.4.2 Key programmes to reduce Communicable Diseases

8.4.2.1. National Tuberculosis(TB) Elimination Programme

With the goal of making Telangana TB-free by 2025, the National Tuberculosis Elimination Programme (NTEP) is being undertaken in all 33 districts. The programme offers high-quality services for diagnosis and treatment. For the course of their treatment, DBT (Direct Benefit Transfer) gives notified TB and MDR-TB patients Rs 500 each month as part of the Nikshay Poshana Yojana. 550 DMCs (Designated Microscopy Centers) are currently available throughout the State to diagnose tuberculosis. Additionally, the State has

90 TrueNat sites and 30 CBNAAT facilities for fast TB detection.

8.4.2.2 National Vector Borne Disease Control Programme

National Vector Borne Disease Control Programme (NVBDCP) is being implemented in all 33 districts with the objective of monitoring vector-borne diseases such as Malaria, Dengue, Chikungunya, SES/JE and Micro-filaria. Malaria cases reduced from 5,222 in 2014 to 532 in 2022. Telangana has received the best performance award in malaria elimination and progressed from Category II to Category I from 2015 to 2021.

8.4.2.3 HIV/AIDS and Telangana State AIDS Control Society (TSACS)

In order to provide treatment services to the 1.55 lakh persons affected with AIDS in the State, and to prevent further spread of the disease, the Government, through the Telangana State AIDS Control Society (TSACS), has established 1,172 Integrated Counseling and Testing Centres, and 99 treatment centers in the State, which provide Antiretroviral Therapy (ART), other related treatments, and counseling services. Further, 50 Suraksha Clinics have been established to provide information and create awareness about Sexually Transmitted Infections (STI)/ Reproductive Tract Infections (RTI) in order to support prevention efforts.

8.4.2.4 National Leprosy Elimination Programme

The Government is implementing Active Case Detection and Regular Surveillance (ACD&RS) and Leprosy Post Exposure Prophylaxis(LPEP) to detect cases and conducting various IEC and IPC activities to create awareness among the public living in both rural and urban areas through various modes for the early case detection of leprosy and provide complete treatment in order to prevent the occurrence of Grade II Disability (G2D) in affected persons.

8.4.3 Key programmes to reduce Non Communicable Diseases

8.4.3.1 National Programme for Prevention and Control of Cancer, Diabetes, Cardiovascular Diseases and Stroke (NPCDCS)

NPCDCS works towards early diagnosis and treatment of hypertension, diabetes, and oral, cervical, and breast cancers. Data from the NFHS-5 survey (2019-20) shows that the prevalence of diabetes and hypertension has been increasing in the State. To ensure early diagnosis of diseases, the Government of Telangana has been running a State-wide screening programme for the adult population in 33 district NCD clinics and 101 CHC NCD clinics.

A total of 2.5 crore were screened in the State from 2017 to 2022. 1.4 crore individuals were screened for hypertension and diabetes. 17 lakh hypertensives and 8 lakh diabetics are diagnosed and put on treatment.

8.4.3.2 National Tobacco Control Programme

The National Tobacco Control Programme (NTCP) is being implemented in all 33 districts with the objective of monitoring of tobacco control laws and setting-up and strengthening of cessation facilities including provisioning of pharmacological treatment facilities at the district level. District Level Coordination Committees (DLCC) have been formed in each district for its implementation. Enforcement Squads have been identified at the district level to conduct raids in coordination with the Police department. Since 2014 till date, a total of 90,000 challans have been issued.

8.4.3.3 National Mental Health Program

Government launched the National Mental Health Program (NMHP) in 24 districts in 2017, keeping in view the heavy burden of mental illness in the community and inadequacy of mental health services and infrastructure in the State.

The National Mental Health Survey of India found that 1 in every 20 people suffer from depression and the productive age groups are affected the most. A large number of adults (53%) coming to general OPD are diagnosed as mentally ill. However, these patients are usually missed as inadequate details are recorded. The point prevalence of mental disorders above18 years is 10.6% and lifetime prevalence is 13.7% as per the survey.

At present, 26 districts in the State are implementing the program. 25,547 patients are diagnosed for mental health disorders and are put on treatment (April- November 2022). The Telemedicine service has been initiated in 19 districts.

8.4.3.3.1 School Mental Health Program

To help students overcome exam related stress, the local PHC Medical Officers conduct school based awareness and counseling camps. In these camps, teams from District Hospital (Psychiatrist/ Psychologist) participate as resource persons and provide treatment, one-to-one counseling.

8.4.3.4 National Programme for Palliative Care

Patients with end stage diseases like cancer, organ failure, paralysis, cardio-vascular diseases, etc. need proper end-of-life care. In view of this, the State has rolled out a comprehensive palliative health care programme under the National Programme for Palliative Care (NPPC). The programme has a three pronged strategy, viz., (i) in-patient care, (ii) home-based care, and (iii) out-patient care. 33 palliative health care centers have been established for in-patient care, palliative home care is planned to be taken up in 110 Sub Centres-Health and Wellness Centres (SC-HWCs), and 32 mobile home care service units are being established for out-patient care.

8.4.3.4.1 Geriatric Care

With increasing life expectancy, the population of elderly in the State has been growing. Withdrawn from the decision-making role in their families, the

elderly feel left out and alone. They often also suffer from depression due to loneliness. A two-pronged strategy has been adopted by the State to treat the elderly and address their problems – weekly special elderly clinics are organized every Tuesday at the sub-centre and the PHC levels, and counseling is provided to the elderly on lifestyle modifications.

8.4.3.5 National Programme for Control of Blindness & Visual Impairment

National Programme For Control of Blindness & Visual Impairment (NPCB&VI) is being implemented to provide high quality of eye care to the affected population, free school children screening and distribution of free spectacles and reduce the backlog of blindness and develop institutional capacity for Eye care services. 69,109 school children screening was conducted and 1,67,445 cataract operations were done from April to November 2022.

8.5 COVID-19

The State Government has effectively tackled three waves of the COVID-19 pandemic. Telangana was the first State to conduct a fever survey during the pandemic and was emulated by many other States. The fever survey has been instrumental in controlling the pandemic both during the 2nd and the 3rd wave. The Government has also conducted COVID outpatient services in all government health facilities.

8.5.1 COVID-19 related initiative- Fever Surveys

The Government had implemented a fever survey to detect symptomatic COVID-19 cases. The primary goal of this fever survey is to identify symptomatic cases at the community level by house- to-house survey and in the OPD at health facility level in order to reduce virus spread and ensure that people receive treatment by distributing COVID medication Kits. COVID kits contain medications such as azithromycin, paracetamol, levocetirizine, ranitidine, a multivitamin,

and vitamins C and D. In house to house survey each team consists of an ASHA, an ANM, and a supervisor.

From 21st January 2022 to 24-12-2022 (2nd phase of the fever survey), 27,212 teams visited house-to-house, 10,20,695 symptomatic cases were identified and 9,75,793 medical kits were distributed.

8.5.2 Covid vaccination

The Government adopted a mission mode approach towards achieving maximum vaccination coverage in the State. Based on the data available from the Department of Health, Medical and Family Welfare, the key achievements of the State in the area of COVID vaccination are mentioned below:

- Telangana became the first larger State in the country to achieve 100% coverage of first dose vaccination against COVID-19 in December 2021 for the age group of 18+ years.

- Telangana has the highest coverage of the precautionary(booster) dose vaccination in the 18+ age group among larger States.

- Sangareddy district has achieved 100%, followed by Jaya shanker Bhupalapally(98%) of the precautionary dose of COVID-19 vaccine among the age group of 18+ years.

- All districts have achieved 100% second dose vaccination for 18+ years except Hyderabad and Kumaram bheem Asifabad.

- The districts of Sangareddy, Hanumakonda, Nalgonda, Mahabubnagar, Khammam, Narayanpet, Suryapet, Bhadradri Kothagudem, Adilabad, Wanaparthy, Jangaon and Nagarkurnool have achieved 100% of the second dose of COVID-19 vaccine among the age group of 15-18 years.

Figure 8.3: District Wise precautionary dose of vaccination coverage for 18+ years category
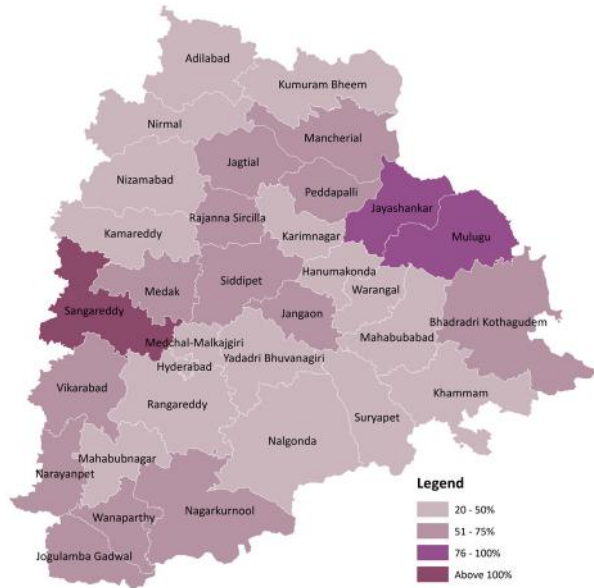
Source: Department of Health, Medical and Family Welfare, Government of Telangana

Figure 8.5: District Wise second dose of vaccination coverage for 15-18 category

Source: Department of Health, Medical and Family Welfare, Government of Telangana

8.6 Way Forward

"Ensuring healthy lives and promoting well-being for all at all ages" is one of the crucial Sustainable Development Goals which is of intrinsic importance. It can allow society to contribute more significantly and effectively to economic development. Telangana's strength lies in its strong public healthcare system. Investments in the State's health infrastructure have increased significantly during the past two years, both in terms of size and quality. The Government will continue to work toward delivering high-quality healthcare to all individuals with a specific focus on availability, accessibility, and affordability

Figure 8.4 : District Wise second dose of vaccination coverage for 18+ years category

Source: Department of Health, Medical and Family Welfare, Government of Telangana

MATERNAL & CHILD CARE

Key Highlights

- Over the last decade, the Maternal Mortality Ratio (MMR) in Telangana has decreased by 61%, from 110 in 2010-12 to 43 in 2018-20.

- Telangana has the third lowest MMR among the 18 Non-Special Category States of the country.

- Infant Mortality Rate (IMR) in Telangana has fallen by 40%, from 35 in 2014 to 21 in 2020

- Institutional births improved from 91.5% to 97% between NFHS 4 and NFHS 5, and births in Government hospitals improved from 30.5% in 2015-16 to 61% in 2022.

- The KCR Kit and Amma Odi programmes have helped increase institutional deliveries and reduce the maternal mortality ratio in the State.

- The Government launched the flagship programme "KCR Nutrition Kits" on December 21, 2022, in high anaemia prevalent districts to reduce anaemia in pregnant women.

- The Government has supplied health and nutrition kits to adolescent girls to improve their health and nutrition status.

- Telangana has been adjudged as the best-performing State in Midwifery by the Ministry of Health and Family Welfare in 2022.

- Telangana ranked second among the best-performing States in High-Risk Pregnancy Identification awards in the National Maternal Health workshop, organised by the Maternal Health division of the Ministry of Health and Family Welfare in 2022.

- The State ranked third in the country both in terms of overall performance as well as incremental performance according to NITI Ayog's report 'Healthy States-Progressive India-Health Index 2019-20.

- NITI Aayog, in its report, "Take Home Ration: Good Practices across States and UTs," in 2022 highlighted the Arogya Lakshmi Scheme's nutritional enrichment, transparent and quality-assured procurement and supply chain of commodities, comprehensive monitoring, etc. as best practices.

9.1. Introduction

Along with commendable economic growth, Telangana is also a front-runner in the health sector. NITI Ayog in its report 'Healthy States-Progressive India-Health Index 2019-20', ranked Telangana third in the country both in terms of overall performance as well as incremental performance. Most of the critical health indicators of Telangana are among the best in the country. At 43 maternal deaths per one lakh live births, the State's Maternal Mortality Ratio (MMR) is the third lowest in the country and has shown the sharpest decline in maternal mortality in the country. The State's Infant Mortality Rate (IMR) of 21 infant deaths per 1000 live births is also one of the lowest in the country. The State has already achieved one of the crucial targets of Sustainable Development Goals - Goal#3 i.e., 'Good Health and Well-being', which aims at reducing the global Maternal Mortality Ratio (MMR) to less than 70 per 1,00,000 live births by 2030.

Major health problems related to mothers include young age at marriage, early age at first childbirth, inadequate spacing between births, nutrition-related problems, and high-risk pregnancies. Similarly, health and nutritional deficiencies during early childhood can have adverse impacts on a child's health. Children need the right food at the right time to grow and develop to their full potential. The most critical time for good nutrition is during the 1,000-day period from pregnancy until a child's first three years. The Government is successfully addressing these issues by implementing several interventions and schemes and also by improving the health infrastructure in the State.

There are 35,700 Anganwadi Centers (AWCs) across all districts in the State under 149 ICDS projects. Presently, the Angnawadi services in the State covers over 19.07 lakh beneficiaries. The services cater to the needs of children from the time of birth to six years of age, adolescent girls and pregnant women and lactating mothers through supply and distribution of food and micronutrients, early childhood development and education and counselling services. Similarly on the health front, during 2022-23 upto December 2022, over 2.75 lakh

women benefited from the Amma Vodi scheme and around 1.9 lakh pregnant women benefited from KCR Kits, two flagship schemes targeting maternal health and wellbeing by offering institutional support.

Apart from these, there are other programmes targeting various aspects of health and nutrition among the different beneficiary groups and are discussed in this chapter. This chapter also reviews the outcomes of various health and nutrition indicators and corresponds the achievements to initiatives and programmes implemented by the State Government.

9.2. Maternal Health and Nutrition

Maternal health refers to the health of women during pregnancy, childbirth, and the postnatal period. At each stage, adequate care needs to be given to ensure women and their babies reach their full potential for health and well-being. Recognising the importance of maternal health and nutrition, the Government of Telangana strives towards providing comprehensive, promotive, preventive, curative and rehabilitative services for mothers and children all led to improved maternal outcomes. The interventions cater to the needs of adolescent girls, pregnant women and lactating mothers through the supply and distribution of food and micronutrients, early childhood development, and counselling services.

9.2.1 Maternal Health Outcomes

The State has witnessed considerable improvement across major determinants of maternal health such as access to antenatal, and postnatal services, nutritional services, immunisation and transportation services, etc. Key outcomes that have improved as a result of improvement in these major determinants are discussed below.

9.2.1.1. Maternal Mortality Ratio (MMR)

The Maternal Mortality Ratio measures the number of maternal deaths that happen during childbirth or within 42 days of the same, for every 1,00,000 live births in the population. Over the last decade, the MMR has fallen by 61%, from 110 in 2010-12

to 43 in 2018-20 as per the Sample Registration System[1] (Fig 9.1.). Telangana has already achieved the Sustainable Development Goal (SDG) target of reaching an MMR below 70 by 2030. Telangana has the third lowest MMR among the 18 Non-Special Category States of the country and it has the second lowest MMR among the States (highlighted in green colour in Fig. 9.2) whose Per Capita Income(PCI) is comparable to that of Telangana.

Figure 9.1.

Maternal Mortality Ratio of India and Telangana (2010-12 to 2018-20)
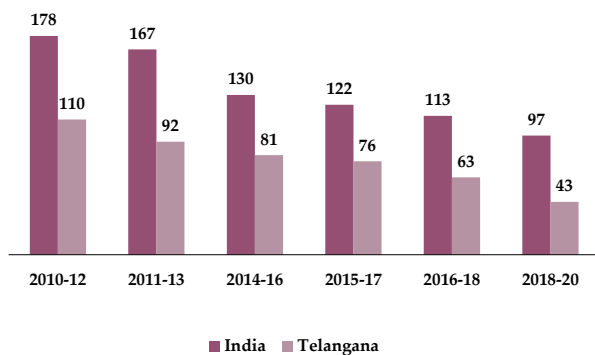
Source: Sample Registration System

Figure 9.2.
Maternal Mortality Ratio of Telangana and Other Non-Special Category States-(2018-19 to 2019-20)
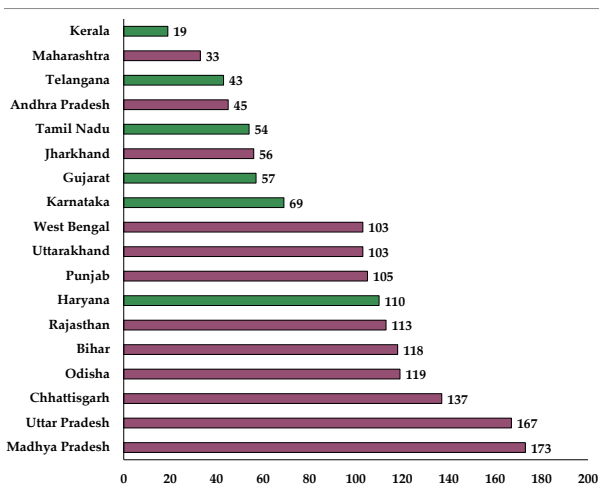
Source: Sample Registration System

9.2.1.2. Institutional Delivery

Improving access to institutional care is vital in reducing infant and maternal mortality, and in treating complications that may arise during delivery. As per National Family Health Survey-5[2] (NFHS-5), about 97% of deliveries in the State were institutional deliveries, a six percentage point increase from NFHS 4. KCR Kit and Ammavodi programmes led to an increase in institutional deliveries from 30.5% in 2015-16 to 61% in 2022.

9.2.1.3. Anaemia Levels

Anaemia in pregnancy can lead to haemorrhage, neural tube defects, low birth weight, premature births, stillbirths, and maternal deaths. As per NFHS-5 over 57% of Indian women are anaemic. Telangana stands at the national average where 57.6% of women between 15-49 years were anaemic at the time of survey for NFHS-5. Among pregnant women, 53.2% women were anaemic in the State. There are many causes of anaemia, out of which iron deficiency accounts for about 50 percent cases of anaemia in school children and among women of reproductive age-group. Thus, the Government has introduced measures and schemes to address the issue of anaemia among women that are caused by iron deficiency by supplying Iron Folic Acid tablets and running various awareness campaigns under Anaemia Mukt Bharat and POSHAN Abhiyan. Over 63% of women in Telangana consumed IFA tablets for more than 100 days during their pregnancy according to NFHS-5 (2019-20). This is a significant improvement from 2015-16 (NFHS-4) when only 52.7% women consumed these tablets.

9.2.2. Initiatives influencing Maternal Health and Nutritional Outcomes

As maternal health is a multi-faceted concern, various schemes and programs are being implemented in the State to improve maternal health and nutritional outcomes. Telangana has been adjudged as the best-performing state in Midwifery and emerged second in the best-performing states in the High-Risk Pregnancy Identification awards in the National Maternal Health Workshop.

9.2.2.1. Amma Vodi

Amma Vodi is an exclusive ambulance service launched by the State Government in 2018. It provides free to-and-fro transport facilities to pregnant women for regular checkups, for delivery, and post delivery for immunisation and other healthcare needs of the newborn and lactating mothers. 300 vehicles are operating across 33 districts under the scheme through the 102-Helpline. During 2022-23, about 2.75 lakh beneficiaries have availed the service till 22 December 2022. This initiative has reduced Out of Pocket expenditure for families and made way for safe deliveries and increased immunisation.

9.2.2.2. KCR Kit

KCR Kit is one of the most successful flagship programme launched by the State Government in 2017 to ensure maternal and child health by promoting institutional deliveries. Under the scheme the mother is provided with the financial assistance of ₹12,000 (₹13,000 for a girl child) to compensate for the loss of wages by the women during the pregnancy and postnatal period. This cash incentive is released in four instalments linked to key milestones between antenatal check-ups and vaccination. After delivery, the mother is provided with a kit consisting of 15 items (clothes, quality baby soaps, baby oil, baby powder, mosquito nets, toys, napkins, and diapers) necessary to keep newborn babies (neonates) warm and hygienic. KCR KIT software is developed for the better implementation of the KCR Kit Programmes, registration of the beneficiary and approval, and transfer of compensation amount through Direct Benefit Transfer (DBT). An anaemia tracker is incorporated in the KCR kit – an IT-based tool for e-governance to track the improvement of Hb levels among pregnant women after each antenatal visit. About 1.9 lakh KCR kits were distributed to beneficiaries in 2022(till December).

Figure 9.3. Beneficiaries of KCR Kits status (in Lakh)(2017-22)

Year	Number of pregnant women	Public Insitutional deliveries	Number of kits distributed
2017-18	4.6	2.3	2.0
2018-19	5.8	2.8	2.4
2019-20	6.4	2.9	2.2
2020-21	6.2	2.8	2.1
2021-22	6.1	2.9	2.3
2022-23 (upto Dec 22)	5.2	2.4	1.9

Source: Department of Health, Medical and Family Welfare, Government of Telangana

Since the launch of the scheme in 2017, the percentage of institutional deliveries in public hospitals has increased. The State also witnessed a reduction in IMR and MMR post-launch of the scheme.

9.2.2.3. KCR Nutrition Kit

The Government launched the flagship programme "KCR Nutrition Kits" on December 21, 2022, in high anaemia prevalent districts such as Adilabad, Bhadradri Kothagudem, Jayashankar Bhupalpally, Jogulamba Gadwal, Kamareddy, Kumuram Bheem Asifabad, Mulugu, Nagar Kurnool, and Vikarabad, aimed at reducing anaemia and improving haemoglobin levels in pregnant women. Nutrition kits will be given twice to every pregnant woman: once on their 2nd ANC visit and the second time during the 3rd ANC visit. Each kit contains one kg of nutritional mix powder, one kg of dates, three bottles of iron syrup, 500 grams of ghee, and a cup.

9.2.2.4. Anaemia Mukt Bharat

Government of India launched a programme to tackle anaemia called Anaemia Mukt Bharat (AMB) which targets to reduce anaemia in women, children and adolescents through a lifecycle approach. In terms of maternal health, the number of ante-natal visits play an important role in anaemia detection and treatment. As per the quarterly report in Anaemia Mukt Bharat's dashboard for Quarter I, 2022, 94.2% of pregnant women received 180 Iron and Folic Acid (IFA) tablets.

9.2.2.5. Aarogya Lakshmi

The programme provides pregnant women and breastfeeding mothers with supplementary nutrition and support through spot feeding, administration of micronutrients, growth monitoring and counselling services. The programme is currently implemented in all the ICDS projects, covering 35,700 AWCs in the State. The funding for this scheme as per Government of India norms is a 50:50 split between the Central and State Government. However, in the interest of women's health and welfare, the Government of Telangana has enhanced the rates by providing an additional allocation of Rs. 14 per beneficiary per day. In addition, the State Government has increased the number of days the beneficiaries receive milk and eggs from 25 to 30, dal, green leafy vegetables for 25 days and 200 ml milk and one egg for 30 days each month. Along with this, they are also administered Iron and Folic Acid tablets for 100 days during pregnancy. In addition to the meal, the pregnant mothers are also administered IFA supplementation every day. The IFA tablets are offered on-site, so that the mothers do not forget to take them alongside their meals.

In 2022-23 the scheme benefited over 19,07,692 pregnant, lactating women and children in the age group of 7 months to 6 years (covered under Balamrutham and Supplementary Nutrition Programme) (Fig. 9.4).

Figure 9.4.
Number of beneficiaries (mothers and children) under Arogya Lakshmi Scheme (2016-17 to 2022-23)
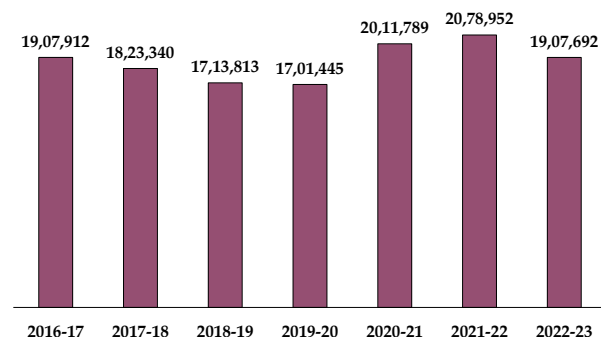
Source: Women Development & Child Welfare Department, Government of Telangana

Telangana Government was commended by NITI Aayog for the provision of Supplementary Nutrition through Anganwadis in its report, "Take Home Ration: Good Practices across States/UTs", in 2022. In its report, NITI Aayog highlights the Arogya Lakshmi Scheme's nutritional enrichment, transparent quality-assured tech-enabled procurement and supply chain of commodities, robust monitoring, etc. as good practices.

9.2.2.6 Home Visits and Counseling (Intintiki Anganwadi)

Home visits for counselling beneficiaries are a part of the ICDS services. The Intintiki Anganwadi Book serves as a guide and an educational resource for nutritional counselling on topics such as dietary practices, household practices, health precautions and actions, and hygiene and sanitation.

Box 9.1

Odisha Millet Mission: an initiative towards improved nutrition

The Government of India (GoI) has prioritised Millets with a vision to make International Year of Millets (IYM), 2023 a 'People's Movement' alongside positioning India as the 'Global Hub for Millets. The promotion of millets could help attain Sustainable Development Goals (SDGs) such as "Zero Hunger" and "Good Health & Well being".

Odisha, recognising the importance of millets launched Odisha Millet Mission(OMM) in 2017 in partnership with Cambridge University. OMM was launched to improve nutrition at the household level through the revival of millets in farms and on the plates of tribal communities in Odisha. The Government of Odisha included millets in Anganwadi Menu and PDS distribution system under the Odisha Millet Mission.

The core objective of the mission was to improve the nutritional status of preschool children. Ragi laddu is being implemented as an additional nutritious supplement in the morning snacks of pre-school children in the Odisha districts of Keonjhar and Sundargarh, affecting around 1.5 lakh children and 6,077 Anganwadi centres. Along with other interventions, the inclusion of millets in the Anganwadi menu, has helped in reducing the stunting and underweight in children by 8.4%, and 7.2% respectively in Kendujhar district, whereas in Sundergarh district stunting and underweight decreased by 4.3 and 9.1 respectively from NFHS 4 to NFHS 5. The percentage of stunting and underweight reduction rates in these 2 districts are higher than the State average stunting and underweight 3.1 and 4.7 respectively. A similar intervention also exists in Telangana, where the AWCs in tribal areas provide multigrain meals, sorghum meals, multigrain sweet meals, peanut-sesame chikki, peanut-fried chikki, and sorghum bytes.

OMM is expanded to 177 blocks in 30 districts of Odisha in the current year. OMM has received recognition from National and International organisations, including the United Nations. In 2021, the Union Government's think tank, NITI Aayog, stated that it will enable OMM's learning in other States.

9.3. Child Health and Nutrition

Nutrition is one of the important factors that influence a child's development. To ensure that every child is born healthy, and grows and thrives to realise their full potential, the Government of Telangana has strategically focused on child-centric investments in health, nutrition, and early childhood education.

The State has witnessed considerable improvement across major determinants of child health and nutritional services such as immunisation and supplementary nutrition, etc. Key outcomes that have improved as a result of improvement in these major determinants are discussed below.

9.3.1 Child Health Outcomes

The Government is also making efforts towards institutionalising convergence and digital governance to improve outcomes as the State witnessed an improvement in determinants of Child health such as neonatal services, nutritional and immunisation, etc. As a result, child health outcomes in the areas of Infant Mortality Rate (IMR), Neonatal Mortality Rate (NMR), Under Five Mortality Rate (U5MR) and Immunisation coverage have all shown improvements.

9.3.1.1. Child Mortality Rates

Telangana has witnessed substantial reductions in all indicators of child mortality The Under-5 Mortality Rate (U5MR) - defined as the number of deaths of children aged 5 or below per 1000 children - has improved from 27.7 in 2015-16 to 26.4 in 2019-20. The Neonatal Mortality Rate for the State has also declined from 20 in 2015-16 to 16.8 in 2019–20 (see Figure 9.5). Telangana's Infant Mortality Rate (IMR) has declined significantly from 35 (2014) to 21 in 2020 as per Sample Registration System and remains below the national IMR of 28 (Fig. 9.6)

Figure 9.5. Status of Child Mortality Rates

Indicator	2015-16	2019-20
Infant Mortality Rate (IMR)	27.70	26.40
Neonatal Mortality Rate (NMR)	20.00	16.80
Under 5 Mortality Rate (U5MR)	31.70	29.40
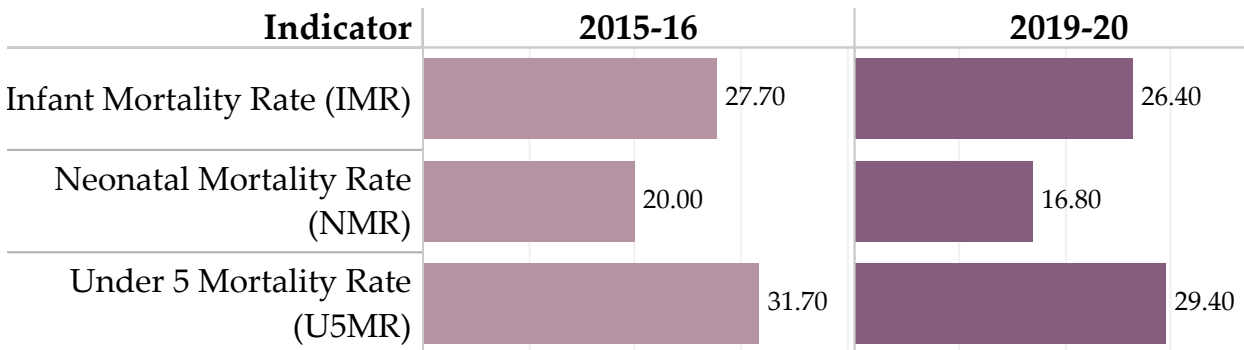
Source: National Family Health Survey-Round 4 and 5

Figure 9.6. Infant Mortality Rate- India and Telangana (2014 to 2020)

India: 39, 37, 34, 33, 32, 30, 28
Telangana: 35, 34, 31, 29, 27, 23, 21

2014   2015   2016   2017   2018   2019   2020
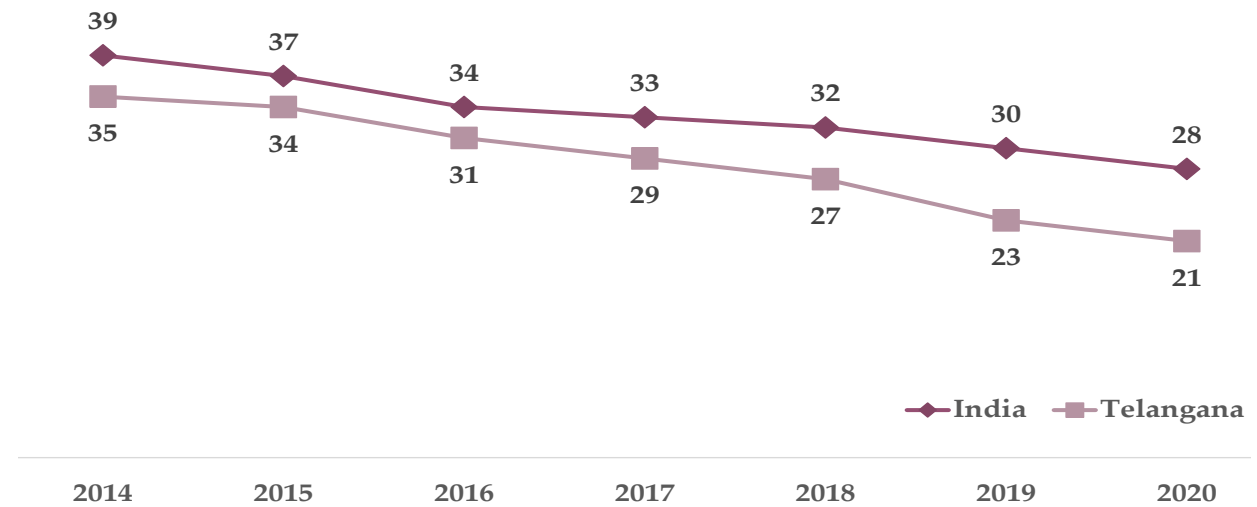
Source: Sample Registration System

Telangana has witnessed a strong correlation between Institutional Births and Neonatal Mortality Rate (Fig. 9.7). As the percentage of Institutional Births improved from 91.5% in 2015-16 to 97% in 2019-20, the Neonatal Mortality Rate saw a decline from 20% in 2015-16 to 16.8% in 2019-20. Better care at public hospitals and the provision of KCR kits are associated with declines in NMR. It remains way below the national NMR of 24.9.

Figure 9.7. Institutional Births vs Neonatal Mortality Rate in Telangana (2015-16 to 2019-20)

Institutional births (%): 91.5, 97
NNMR: 20, 16.8

NFHS-4   NFHS-5
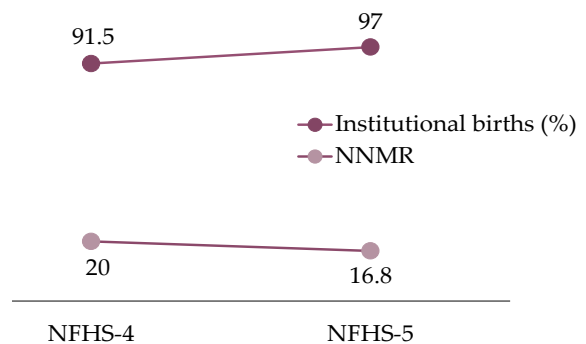
Source: National Family Health Survey-Round 4 and 5

9.3.1.2. Immunisation

The State has seen a large increase in immunisation rates (Fig 9.8.). In 2015-16, 79.1% of children under the age of 2 years were fully immunised, by 2019-20, it has been increased to 87.4%. This has been enabled by counselling and campaigning by ASHA and Anganwadi workers to encourage parents to get their children vaccinated. About 4,94,385 children were fully immunised during 2022-23.

Figure 9.8. Status of Immunisation (%) - India and Telangana
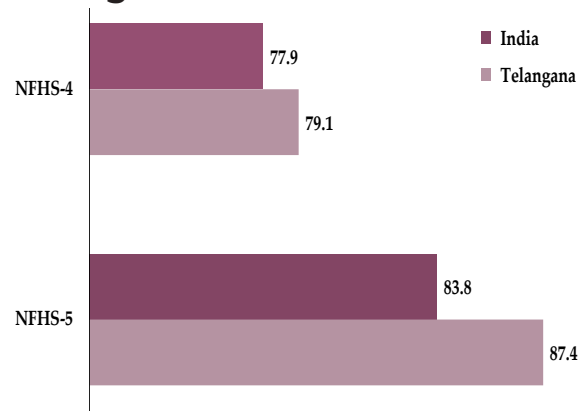
Source: National Family Health Survey-Round 4 and 5

From the above figure, it is clear that the State is faring well in child immunisation as compared to the national performance.

9.3.2. Child Nutritional Outcomes

Undernutrition affects physical and cognitive development of children, their quality of schooling and productivity as young adults. Telangana faces a problem called the 'triple burden' of nutrition - which is under nutrition, over nutrition (obesity) and anaemia. Government interventions have focused largely on addressing problems of under-nutrition. Globally, there are four outcome indicators to measure undernutrition: underweight(low weight-for-age), stunting(low height-for-age), wasting(low weight-for-height) and anaemia(low red blood cell or hemoglobin levels).

The State has performed better than the national average in Stunting and Underweight. Around

21.7% of children under five years of age in the State were wasted, 33.1% were stunted and 31.8% were underweight in 2019-20 (Fig 9.9) as per NFHS 5 in the State.

Figure 9.9 Key Nutritional Outcomes of Children (Under 5 years): India vs Telangana
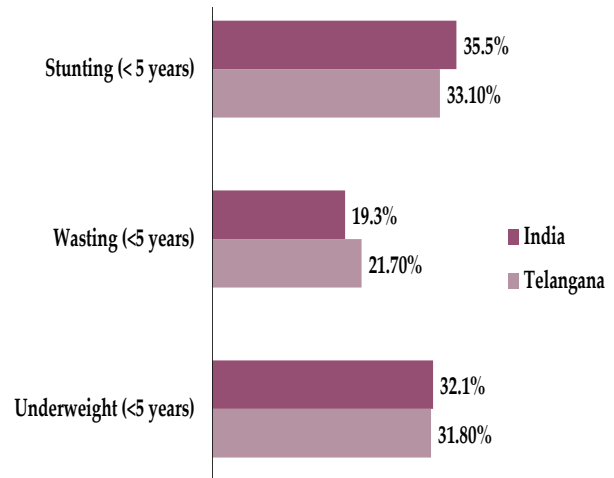
Source: National Family Health Survey-Round 5

Figure 9.10 Underweight percentages across districts in Telangana
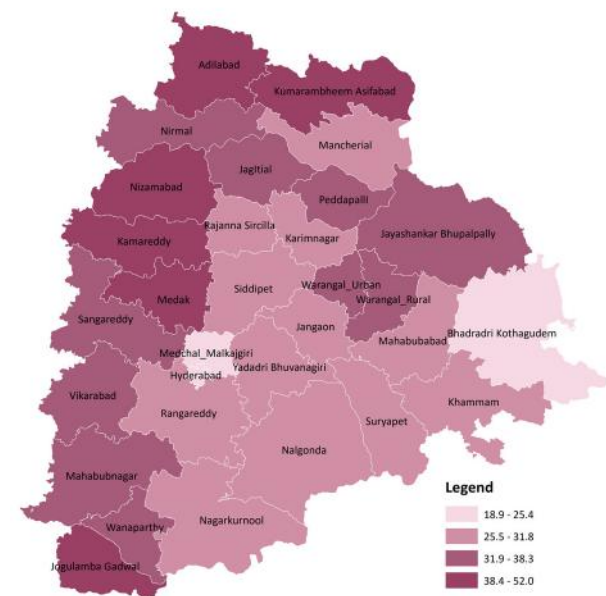
Source: National Family Health Survey-Round 5

Figure 9.11 Stunting percentages across districts in Telangana
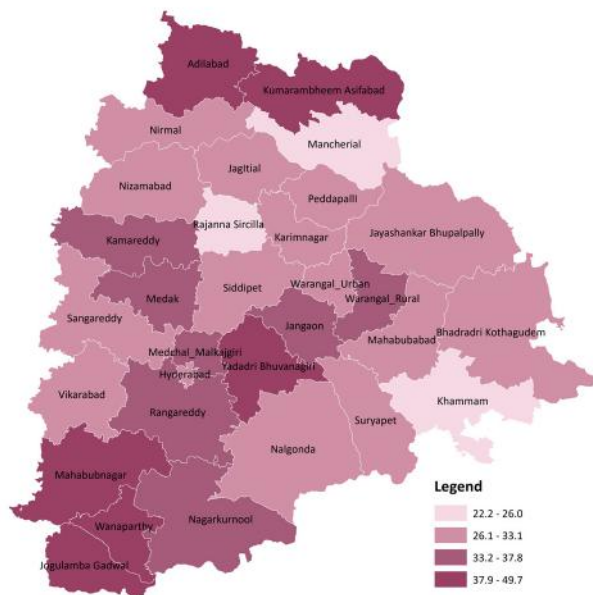
Source: National Family Health Survey-Round 5

Inadequate dietary intake, exclusive breastfeeding, and early breastfeeding start are the direct factors of child nutrition that can be addressed by ICDS interventions. As per NFHS 5, 9.2% of children aged 6-23 months receive an adequate diet, 68.2% are exclusively breastfed, and 37.1% are breastfed within one hour of birth in the State.

Simultaneously, the Government is dedicated to tackling underlying determinants like access to safe drinking water and sanitation; 100% of families in the State have access to clean drinking water. The Government is increasing awareness of best practices, including water, sanitation and hygiene (WASH) practices.

9.3.3. Initiatives influencing Child Health Outcomes

9.3.3.1 Child Healthcare Services

There are 314 PHCs in the State that are notified as round the clock Mother and Child Health Care Centres to promote institutional deliveries to reduce child mortality. In addition to this, there are 66 Comprehensive Emergency Obstetric and Neo-natal Care (CEMONC) units, 29 special newborn care units, 46 special newborn stabilisation units, and 562 newborn care corners in various Government hospitals in the State to reduce infant mortality and improve neonatal care. These units provide care at birth, help in managing sick newborns, resuscitate asphyxiated newborns, follow up on high risk newborns and offer immunisation services.

9.3.3.2 Nutrition Rehabilitation Centres (NRC's)

Undernutrition is an invisible problem. It can jeopardise a child's survival, health, growth and development. To prevent deaths among severely malnourished children under five years of age (0-5), the Government has established the NRC under the National Rural Health Mission. They provide nutritional and clinical management services to children with Severe Acute Malnutrition (SAM). There are 12 NRCs functioning in the State, out of which 10 are 20-bedded and 2 are 10-bedded focussing primarily on the tribal areas of the State.

9.3.3.3. Kangaroo Mother Care Centres

There are 22 Kangaroo Mother Care (KMC) Centres in the State which offer simple, cost-effective and preventive care to mothers and newborns. This care includes services such as breastfeeding and continuous skin-to-skin contact between mother and newborn, for low birth weight infants. The care improves the overall duration of breastfeeding, and reduces the risk of infections in newborns. It promotes growth and development of the child, increases mother-child bonding, and reduces stress in both mother and child. 28,889 newborns were provided care in KMCs between 2015 and December 2022.

9.3.3.4. Rashtriya Bal Swasthya Karyakram (RBSK)

The National Rural Health Mission launched a new initiative of Rashtriya Bal Swasthya Karyakram (RBSK), a child health screening and early intervention services programme to provide quality of life to the children through early detection of birth defects, diseases, deficiencies, developmental

delays, and disability, etc. RBSK services envisages covering 30 identified health conditions for early detection, treatment and management through 300 mobile health teams placed in each block in the State. 5,78,269 children were screened by RBSK teams in 2022

9.3.4. Initiatives influencing Child Nutrition Outcomes

The Government has taken up several initiatives to positively impact the Child Nutrition Outcomes which are reflective in the reduction of the Child Nutrition Outcome as measured by NFHS-5.

9.3.4.1 Supplementary Nutrition Program(SNP)

The Supplementary Nutrition Program is an important component of the ICDS to tackle malnutrition. This program provides supplementary nutrition to children who visit the Anganwadi Centres between the ages of 3-6 years by providing them hot cooked meals and a snack. Over and above its 50% share in the programmatic budget allocation, the Government for children between 7 months to 3 years there is an additional allocation of Rs. 1.79 per child per day; for children between 3 years to 6 years there is an additional allocation of Rs. 1.96 per child per day; and for malnourished children an additional amount of Rs. 5.75 per child.

In Telangana the kilocalories (kCal) of the food provided, marginally exceeds the minimum requirement of kCal to be provided to children under the SNP program between the ages of 3-6 years as per Government of India's National Food Security Bill, 2013 guidelines. For children who are severely underweight or malnourished (SUW,SAM,MAM categories), the food supplied to children is supplemented by an additional serving, doubling the kCal intake at the centre level. Under this, one hot cooked meal & snack food for 25 days and eggs for 30 days is provided to children between 3-6 years.

9.3.4.2 Balamrutham

For children under the age of three and over 7 months, calorie-dense weaning food is provided by the Government called Balamrutham, containing wheat, chana dal, milk powder, oil and sugar with the fortification of iron, calcium, vitamins and other recommended dietary allowance that children require per day. The recommended quantity is 100 gms which is to be given to children 3-5 times every day. Balamrutham is distributed in packets of 2.5 Kg per child per month. It is distributed on the first day of every month on Nutrition Health Day-1 along with the Balamrutham packet, 16 eggs are provided to children in the age group of 7 months to 3 years, and 30 eggs for children in the age group of 3 years to 6 years of age, per month.

The Government has also introduced Balamrutham Plus in the State, which is an enhanced nutrition food fortified with additional carbohydrates, proteins and micronutrients for SAM (Severe Acute Malnutrition) and MAM (Moderate Acute Malnutrition) infants.

9.3.4.3 Supervised Supplementary Feeding Program.

Supervised Supplementary Feeding Program is a result-oriented community-based program for the management of acute malnutrition. As per NFHS-5, 21.7% of children are wasted in the State, out of which 8.4% of children are severely wasted. The Government, with technical and knowledge support from ICMR- National Institute of Nutrition and UNICEF jointly, launched the SSFP program in December 2020. It has been piloted in two districts: Komaram Bheem Asifabad and Jogulamba Gadwal and acts as a cost-effective alternative to facility-based care. As per the SSFP report, the overall cure rates for both SAM & MAM cases were more than 75 percent in both districts and the programme was extended to another 7 districts i.e. Mulugu, Bhadradri Kothagudem, Jayashankar Bhupalapally, Kamareddy, Adilabad, Nagarkurnool and Vikarabad districts during the financial year 2021-22 and expanded to all districts during the financial year 2022-23 .

Other services under Supervised Supplementary Feeding Program include the following: anthropometric assessment, medical assessment, appetite test, nutritional treatment, medicines for SAM children, nutrition and health education, fortnightly SSFP visits AWC, providing Balamrutham Plus based on the weight of the child, and follow up after discharge from SSFP till the end of six months.

9.4. POSHAN Abhiyaan

Launched in March, 2018 POSHAN Abhiyaan is a flagship program of the Government of India to improve nutritional outcomes for children, pregnant women and lactating mothers. It directs the attention to address the issue of malnutrition, specially to reduce the level of stunting, under-nutrition, anaemia and low birth weight in a mission mode. The program is implemented through inter-sectoral convergence for better service delivery, use of technology (ICT) for real time growth monitoring and tracking of children and women respectively, intensified health and nutrition services for the first 1000 days of the program and mobilisation of people.

Major activities implemented in 2022 under POSHAN Abhiyaan include:

- World Breastfeeding Week celebrations: Breastfeeding Week was celebrated during the first week of August 2022 to build awareness on the importance of breast milk and right feeding practices. This was broadcasted on the Society for Telangana State Network (SoFTNET/T-SAT) channel. Myth buster videos were produced and disseminated to demystify myths around breastfeeding. The content was contextualised for urban and rural/tribal audiences.

- Poshan Pakhwada and Poshan Maah: Poshan Pakhwada and Poshan Maah were celebrated in AWCs. These celebrations were used to create awareness on nutrition improvement, growth monitoring, and plantation at Anganwadi centres

- Providing growth-measurement devices: All 35,700 AWCs were provided with a set of growth monitoring devices (infantometers, stadiometers, infant weighing scales and mother and child weighing scales). A growth monitoring drive was conducted in the month of September 2022.

- Training Videos – Training sessions were organised in coordination with the Department of AYUSH through TSAT Programs for Anganwadi Teachers, Anganwadi Helpers and Supervisors on Antenatal and Post-natal care for Pregnant women and Lactating mothers.

9.5. Scheme for Adolescent Girls(SAG)

Launched in 2010, Scheme for Adolescent Girls is a special intervention for adolescent girls of the age group 11-14 years to provide nutrition, and health services and enhance their social and economic status. In March 2021, this scheme was included under Mission POSHAN 2.0. Telangana focussed on addressing the health and nutritional issues of adolescent girls. In this regard, the State has supplied health and nutrition kits to 5397 out of school adolescent girls for every 100 days. The Health and Nutrition kit consists of Wheat, Ghee, Dates, Protein biscuits, Iron with Zinc Syrup and Calcium with multivitamin tablets.

9.6. Giriposhana – an innovative approach towards improved nutrition

Giri poshana is an innovative approach to address issues such as underweight, stunting and anaemia among children and adolescent girls, and low haemoglobin count in pregnant and lactating mothers among the tribal communities through nutritional intervention, is being implemented through the convergence of Tribal Welfare and Women Development and Child Welfare departments, with technological, operational and scientific support from ICRISAT.

The target beneficiaries are being provided with nutritional food products: (1) Three Ready-to-Cook (RTC) food products - Multigrain meal, Jowar Meal, Multigrain sweet meal; (2) Three Ready-to-Eat (RTE) food products - Peanut- Sesame Chikki, Peanut-Fried gram Chikki, and Jowar Bytes. The products have been developed and validated by ICRISAT and are being produced in Tribal women run FSSAI licensed MSME units. The food products are provided in a combination of two products (breakfast and snack) per day for 6 days a week at the Anganwadi Centers.

A total of 29,473 beneficiaries were covered till 2022 resulting in a reduction in cases of anaemia and malnutrition in beneficiaries due to enhanced bioavailability of micronutrients.

Box: 9.2
Nutrition and Health interventions for Adolescent girls

The State Government has focused on nutrition and health interventions for adolescents along with children, pregnant, and lactating women to meet the 2030 Agenda for Sustainable Development and its Global Strategy for Women's, Children's, and Adolescent's Health. Adolescence(10-19 years) is a time of rapid growth and development; also leading to changes in the body's physiology and behaviour. In Telangana, adolescents make up 19% of the population. As per NFHS-V, the percentage of women aged 15-24 years who use a hygienic method of protection during menstruation has increased significantly from 76.6% to 92.1% from 2014-15 to 2019-20. To further improve the hygiene and healthcare of girl students across the State, the Government is making arrangements for the free distribution of adolescent health kits comprising sanitary health and hygiene kits in Government schools and colleges.

Similarly, on the nutrition front, interventions were made for adolescent girls through the supply and distribution of food and micronutrients, education, and counselling services. The Government is supplying health and nutrition kits to out-of-school adolescent girls which contain food and micronutrients such as Iron with Zinc Syrup and Calcium with multivitamin tablets.

Along with the Tata Institute of Social Sciences and UNICEF, the State Government is working on holistic interventions focusing on the psychosocial and physical well-being of adolescent girls. The proposed intervention focuses on psychological and mental health services, awareness about nutrition and health, educating parents to prevent early marriage and teenage pregnancy.

9.7. Way Forward

The Government is committed to improving the nutrition and health outcomes of women, children, and adolescent girls through policy reforms and initiatives and has identified additional areas of improvement for 2023. A few of these measures include:

- The Government plans to integrate registers in the existing application, replacing the manual registers currently in use. This initiative will help collect accurate data and improve evidence-based decision-making and data usage.

- The Government is also planning to improve e-governance with the revamped m-Anganwadi application to make it more outcome-based.

- The Government is also planning to adopt more effective and economical technologies to improve the process of growth monitoring.

- The Government intends to implement measures that improve supervision at every stage of service delivery.

EDUCATION & SKILL DEVELOPMENT

Key Highlights

- The total number of the schools in the State increased from 40,821 in 2015 -16 to 41,369 in 2021-22.

- The transition rates in Telangana in 2021-22 for Primary to Upper Primary (97.01%) and Elementary to Secondary (96.29%) are significantly higher than the national average by 3.83 and 7.48 percentage points.

- The State has announced English as a medium of instruction in all Government Schools from the academic year 2022-23.

- The Government has launched a new program "Tholi Mettu" to strengthen the Foundational Literacy and Numeracy Skills across all Primary Grades (Grades 1 to 5) in the State.

- The Government launched its flagship initiative "Mana Ooru-Mana Badi/Mana Basti-Mana Badi" in January 2022 to upgrade the infrastructure facilities in 26,065 Government schools with an approved budget of Rs.7,289.54 crore.

- The number of residential educational institutions catering to students from the marginalised communities increased from 293 in 2014 to 1002 in 2022-23, including upgradation of 86 existing (BC Welfare-4, SC Welfare-75, and ST Welfare-7) residential schools to Junior Colleges .

- 7,21,526 students and 14,683 faculty members have been covered under various skill initiatives through TASK between April 2021 to October 2022.

10.1. Education for Holistic Development

Education is not only a right, it is key to human development. It is a powerful driver of development and one of the strongest instruments for reducing poverty, and improving health, gender equality, peace, ecological stability, and political stability. Attainment of 100% literacy among youth by 2030 is one of the key Sustainable Development Goals. According to the National Family Health Survey (NFHS-5) 2019-21, the literacy rate of Telangana is 73.4. The male and female literacy rates are 82% and 64.80% respectively.

For children in the age group of 6-14 years, the Right of Children to Free and Compulsory Education (RTE) Act, 2009 represents the consequential legislation envisaged under Article 21-A and ensures that every child has the right to access a formal school up to elementary level of satisfactory and equitable quality.

Since the inception of the Telangana State, the Government has been determined to improve and provide equitable access to quality education. As part of this commitment, the Government has focused on strengthening the Anganwadi Centers, Schools, and Colleges with an emphasis on fostering students' physical, social, emotional, and cognitive development.

Along with the industry-education collaborations, initiatives like Telangana Academy for Skill and Knowledge (TASK), Telangana Skill and Knowledge Centers (TSKC), and Digital Employment Exchange of Telangana (DEET) are enabling collaboration between the Government, academia, and industry to improve skilling, research, and entrepreneurship while also notably enhancing the State's employment ecosystem. (See table 10.1) for the brief education profile of the State.

Table 10.1. Snapshot of Educational Institutions and Student Enrolment in Telangana (2022-23)

Type of Educational Institution	Number of Institutions	Number of Enrolments
Anganwadi Centres (AWC)	35,700 [1]	6,09,922
Schools - All Management [2]	41,369	62,28,665
Junior Colleges	2,963	9,48,321
Degree Colleges	1,073	3,84,021
Professional Colleges	1,327	2,23,427[3]

Source: Department of Women Development & Child Welfare, Department of School Education, and Department of Higher Education, Government of Telangana

10.1.1. Pre- School and School Education

10.1.1.1.Early Childhood Care and Education

Research indicates that 85% of a child's total brain development takes place before the age of 6 (The lancet, 2017), highlighting how crucial it is to nurture and stimulate the brain during these formative years. As a strong start keeps children ahead of the learning curve, pre-schools stimulate children's educational journeys.

The Pre-School curriculum of Telangana State was revised in the year 2018-19 in alignment with the core parameters as envisaged under the National Curriculum Framework of Early Childhood Care and Education(NCF-ECCE). ECCE makes a positive contribution to children's long term development and learning, by facilitating an enabling and stimulating environment at the foundational stages.

The Government runs 31,711 main and 3,989 mini Anganwadi Centres (AWCs). 15,167 AWCs operate in Government school premises in the State. In an era of rapid change and the emergence of new

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1. Includes 3,989 Mini AWCs
2. For the year 2021-22
3. Indicates the overall intake of all Professional Colleges

ideas and practices, these centres work to develop children's cognitive and creative abilities from an early age, along with making the children school ready. Anganwadi Centres develop pre-reading, pre-writing and pre-arithmetic skills in the children with focus on introduction of language (English & Telugu) in a play way method.

10.1.1.2. School Education

School Education is of great significance as it aims to impart minimum and essential general education to all the children in the age groups of 6-14 years and beyond, covering Elementary, Secondary and Higher Secondary Grades. It is also a key stage to equip students with necessary competencies to facilitate the critical connection with undergraduate studies and shape them as responsible citizens of the country.

The Government has adopted the 10+2+3 pattern of education. The first eight years (Grades 1 to 8) constitute the Elementary stage, the next years (Grades 9 to 10) constitute the Secondary stage and the final stage of school education (Grades 11 to 12) constitute the Higher Secondary stage.

As of 2021-22, there are 41,369 schools in the State out of which around 71% of the schools are run by the Government and local bodies, 26.5% schools are run by private management, 1.6% of the total schools are aided, and 0.12% schools are run by the Central Government (Fig. 10.2). Brief classification of schools by Grade and management (Table 10.2.).

Figure 10.1. Classification of Schools by Management (2021-22)
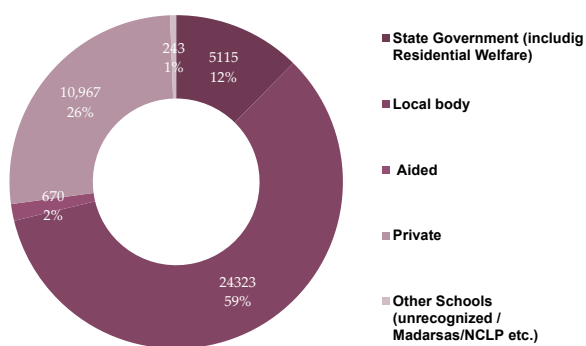
Source: Department of School Education, Government of Telangana

4. National Child Labour Project Scheme

Table 10.2. Classification of number of Schools by Management (2021-22)

Management	Schools	Enrolment
Central Government	51	40,189
State Government(including Residential Welfare)	5,115	98,9316
Local body	24,323	20,62,406
Aided	670	81,171
Private	10,967	3,047,361
Other Schools (unrecognised/Madarsas/NCLP[4] etc.)	243	8,222
Total	41,369	62,28,665

Source: Department of School Education, Government of Telangana

Figure 10.2. District-wise availability of State Government & Local Body Schools (2021-22)
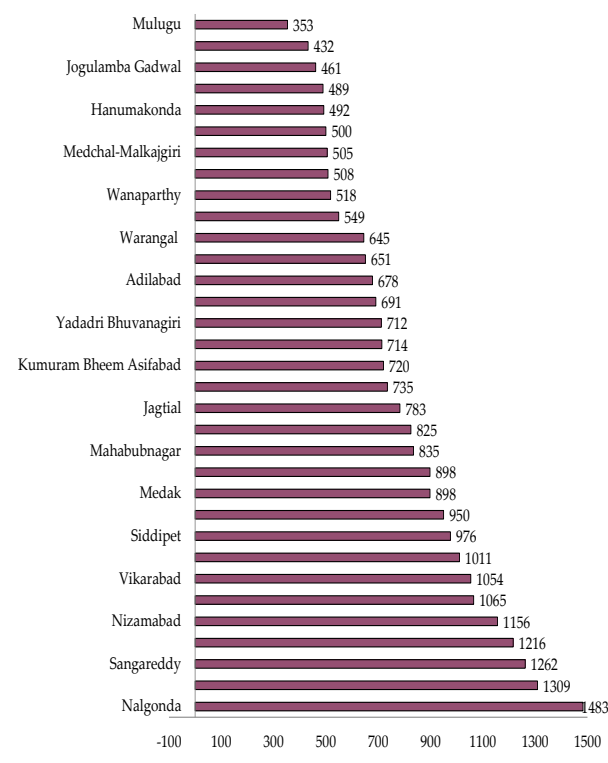
Source: Department of School Education, Government of Telangana

Figure 10.3. District-wise availability of Private Schools (Aided & Unaided) (2021-22)

District	Value
Mulugu	47
Jayashankar Bhupalpally	70
Jangaon	94
Medak	113
Rajanna Sircilla	124
Kumuram Bheem Asifabad	128
Narayanapet	131
Jogulamba Gadwal	132
Mahabubabad	135
Adilabad	157
Wanaparthy	159
Yadadri Bhuvanagiri	167
Kamareddy	169
Nagarkurnool	178
Peddapalli	183
Vikarabad	202
Nirmal	209
Siddipet	215
Mancherial	228
Bhadradri Kothagudem	230
Suryapet	263
Mahabubnagar	267
Jagtial	288
Karimnagar	300
Khammam	321
Warangal	324
Hanumakonda	353
Sangareddy	419
Nalgonda	451
Nizamabad	508
Rangareddy	1421
Medchal-Malkajgiri	1495
Hyderabad	2156

Source: Department of School Education, Government of Telangana

10.1.1.3. School Enrolment

Around 62.29 lakh children were enrolled in all types of schools in the State during the academic year 2021-22. Out of these, 50.23% were enrolled in private schools and 49.77% were enrolled in Government schools[5]. In the year 2021-22, the total enrolment in all Government Schools has increased from 43.47% in 2020-21 to 49.77% in 2021-22 (Figure 10.4).

Figure 10.4. Year-wise Percentage Enrolment in Government and Private Schools

Year	Government	Private
2014-15	47.88	52.12
2015-16	46.95	53.05
2016-17	46.20	53.80
2017-18	45.09	54.91
2018-19	44.30	55.70
2019-20	42.91	57.09
2020-21	43.47	56.53
2021-22	49.77	50.23
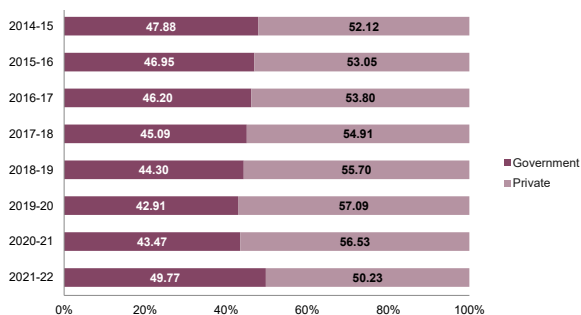
Source: Department of School Education, Government of Telangana

To improve the enrolment in Government schools, the State has taken up several initiatives, which include the improvement of infrastructure, making English as a medium of instruction in all schools, introduction of socio-emotional learning, introduction of soft-skills etc. English as a language of instruction has been launched in Grades 1 to 8 from academic year 2022-23, and would be subsequently scaled to one higher Grade every year to cover all Grades up to Grade 10 by 2024-25.

Out of the total enrolment across all the levels of school education, the enrolment of boys is higher than that of girls by 2,04,983. However, the share of girl enrollment has marginally improved from 48.11% in 2020-21 to 48.4% in 2021-22.

In the academic year 2021-22, out of the total enrolled boys in Grade 1-10 across all types of schools, 49.5% were from Backward Classes (BC), 22.7% from General Category, 16.6% from Scheduled Castes and 11.2% from Scheduled Tribes.

For the same year, out of the total girls enrolled, girls from Backward Classes (BC) constituted 49.4%, from General Category constituted 22.4%, from Schedule Caste constituted 17.5%, and from Schedule Tribe constituted 10.7% (Figure 10.5).

Figure 10.5. Community-wise Enrolment of Boys and Girls for Grade 1-10 in all schools in Telangana (2021-22)

Enrolment of Boys in Grades 1-10

Enrolment of Girls in Grades 1-10
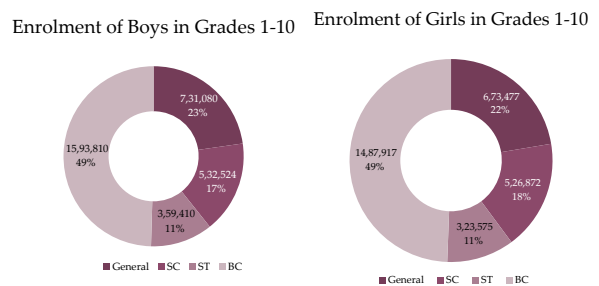
Source: Department of School Education, Government of Telangana

10.1.1.4. Gross Enrolment Ratio (GER)

During the academic year 2021-22, the GER for Primary Schools is 112.1 for Boys and 113 for Girls. Similarly, for Upper Primary Schools, it is 107.5 for Boys and 105.5 for Girls. As per UDISE+ 2021-22 the GER for Primary Schools in Telangana (112.5) is

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5. Includes Central Government, State Government, Local Body, Residential and other schools

significantly higher than the national average (103.4). For the same year, among the non-special category States in the country, the State's GER for Primary Schools stood second after West Bengal (115.3). Among Southern States, Telangana has the highest GER for Primary Schools (Figure 10.6).

Figure 10.6. GER in Primary Schools across Non-Special Category States (2021-22)
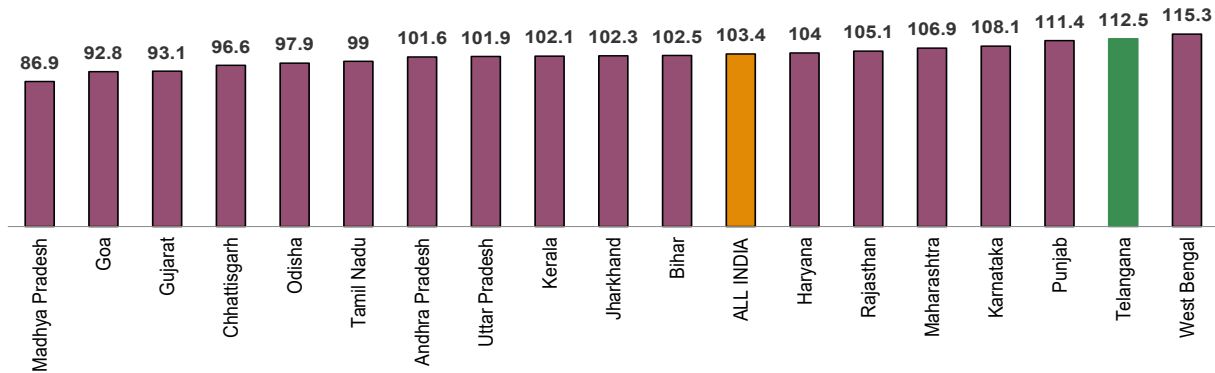
Source: UDISE+ 2021-22

The GER for Upper-Primary schools in Telangana at 106.5 is higher than that of the national average at 94.7. Among the Non-Special category States in the country, Telangana ranks second after Punjab (106.8), and is best performing State among the Southern States (Figure 10.7)

Figure 10.7. GER in Upper-Primary Schools across Non-Special Category States (2021-22)
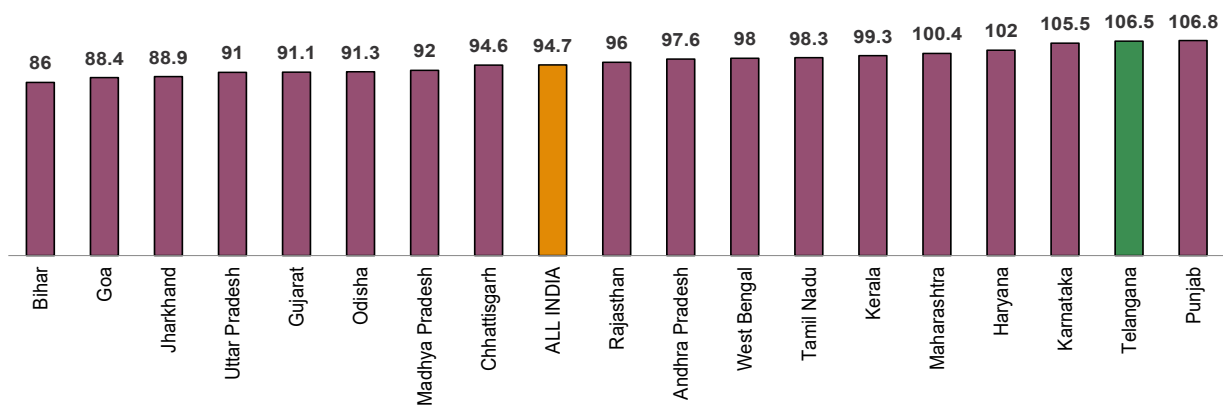
Source: UDISE+ 2021-22

10.1.1.5. Infrastructure in schools

School infrastructure is an essential component of a student's learning environment. There is compelling evidence that good infrastructure promotes better learning, enhances student achievements, and lowers dropout rates, among other positive effects.

The Government launched its flagship initiative 'Mana Ooru-Mana Badi/Mana Basti-Mana Badi' in January

2022 to upgrade the infrastructure facilities across 12 components in 26,065 Government schools in 3 phases, over a period of 3 years, with an approved budget of Rs.7,289.54 crore. In the initial phase for the year 2021- 22, a budget of Rs. 3,497.62 crore has been allotted for 9,123 (35%) schools covering 14,71,684 students.

As per UDISE+ (2021-22), Telangana is performing better than the all India average on indicators such as schools with functional electricity connection,

libraries, and ramps for Children with Special Needs, Library / Reading Corner or Book Bank and Medical check ups for the year 2021-22 (Figure 10.8.).

Figure 10.8. Percentage of Schools with Available Infrastructure in India and Telangana (2021-22)
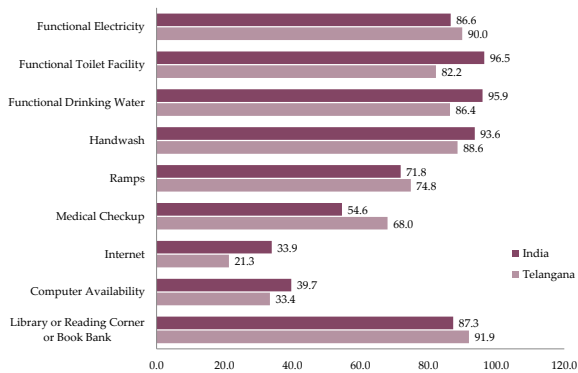
Source: UDISE+ 2021-22

10.1.1.6. Transition Rate

During 2021-22, the State's transition[6] rates across all transition levels were significantly higher than the national average. The State's transition rate from Primary to Upper Primary is 3.83 percentage points higher than the national average, and the transition rate from Elementary to Secondary is 7.48 percentage points higher than the national average. The Secondary to Higher Secondary transition rate of the State stands at 72.61%. (Figure 10.9.).

Figure 10.9. Transition Rates in schools across Grade levels in Telangana and India (2021-22)
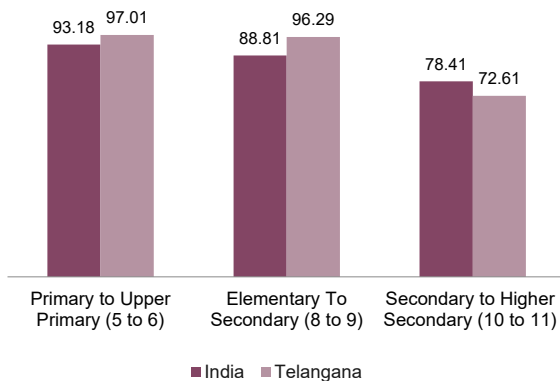
Source: UDISE+ Data 2021-22

For the same year, the transition rates for girls from Primary to Upper Primary (97.31%) and Elementary to Secondary (96.63%) are significantly higher than the average national transition rates of 93.37% and 87.84% respectively. Whereas, the State's transition rate for girls from Secondary to Higher Secondary stands at 74.12% as compared to the national average of 79.29% (Figure 10.10.).

Figure 10.10. Transition Rate among girls across levels in Telangana and India (2021-22)
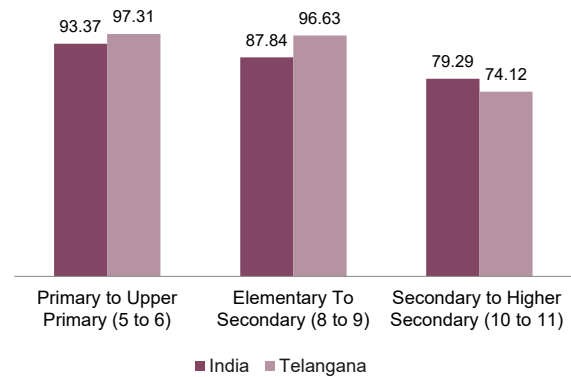
Source: UDISE +2021-22

10.1.2. Foundational Literacy and Numeracy (FLN)

In 2022-23, the State has launched 'Tholi Mettu/ First Step' a Foundational Literacy and Numeracy (FLN) programme for Grades 1-5 in all the schools to practise basic Language and Math skills in a mission mode and achieve the minimum competency at par with the Grade level. The programme has been envisaged with an aim to achieve universal FLN by 2024.

The successful acquisition of FLN helps children learn more meaningfully as they progress to higher Grades. FLN acquisition also equips them with critical thinking and problem solving skills which are imperative to achieve better life outcomes. The programme adopts a contextual pedagogy centred around teaching-learning materials (TLM) and activity-based learning, with an emphasis on engaging children with empathy. The Government has also focused on strengthening the capacity building for Primary Teachers on FLN at the State and District level.

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6. Transition Rate is the proportion of students out of the total enrolled advancing from one Grade to the next Grade.Transition rate is an important indicator of the effectiveness of the education system, as high transition rates suggest that students are able to progress through the education system successfully, while low transition rates suggest that students are facing barriers to progress.

10.1.3. Pupil-Teacher Ratio (PTR)

The State has 2,98,983 teachers in all the schools, out of which 1,33,788 are working in Government schools, 3,058 in Government aided, 1,61,662 in private unaided recognised and 475 in other schools (Table 10.3.).

Table 10.3. Number of Teachers by Gender across School Management (2021-22)

Management	Male	Female	Total
Central Government	497	615	1,112
State Government (including Residential Welfare)	14,441	23,560	38,001
Local body	5,55,05	39,170	94,675
Aided	793	2,265	3,058
Private	40,381	1,21,281	1,61,662
Other Schools (unrecognised / Madarsas/ NCLP etc.)	175	300	475
Total	1,11,792	1,87,191	2,98,983

Source: Department of School Education, Government of Telangana

As per RTE 2009, the PTR[7] for Grades 1 to 5 (Primary) should be 30:1 and for Grades 6 to 8 (Upper Primary) should be 35:1. In Telangana, during 2021-22 the PTR for Primary was 20:1, for Upper Primary, it was 13:1 and for Secondary, it was 9:1.

According to UDISE+ 2021-22 at Primary level, the State ranks third with a PTR of 20:1 among the Non-Special category States (Figure.10.11.). For Upper Primary and Secondary levels, Telangana with a PTR of 13:1 and 9:1 respectively, is the best performer among the Non-Special category States. (Figure. 10.12. and Figure.10.13.).

Figure 10.11. PTR in Primary Level in Telangana Vs. Non-Special Category States (2021-22)
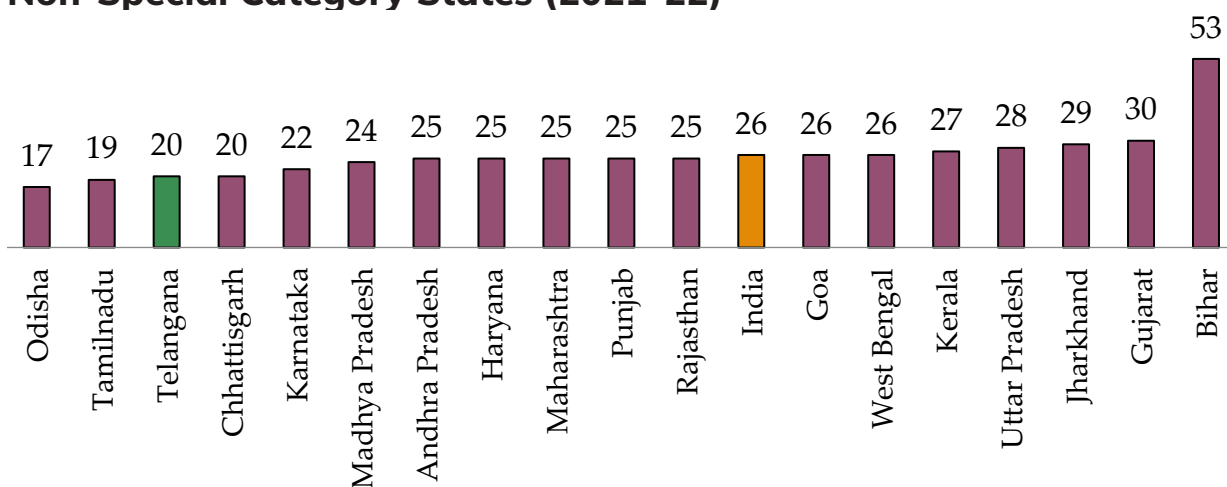
Source : UDISE+ 2021-22

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7. Pupil Teacher Ratio reflects the workload of the teacher and how available they are to provide care and other services to their students. PTR is critical for equitable learning access at the Grade level.

Figure 10.12 . PTR in Upper-Primary Level in Telangana v.s. Non-Special Category States (2021-22)
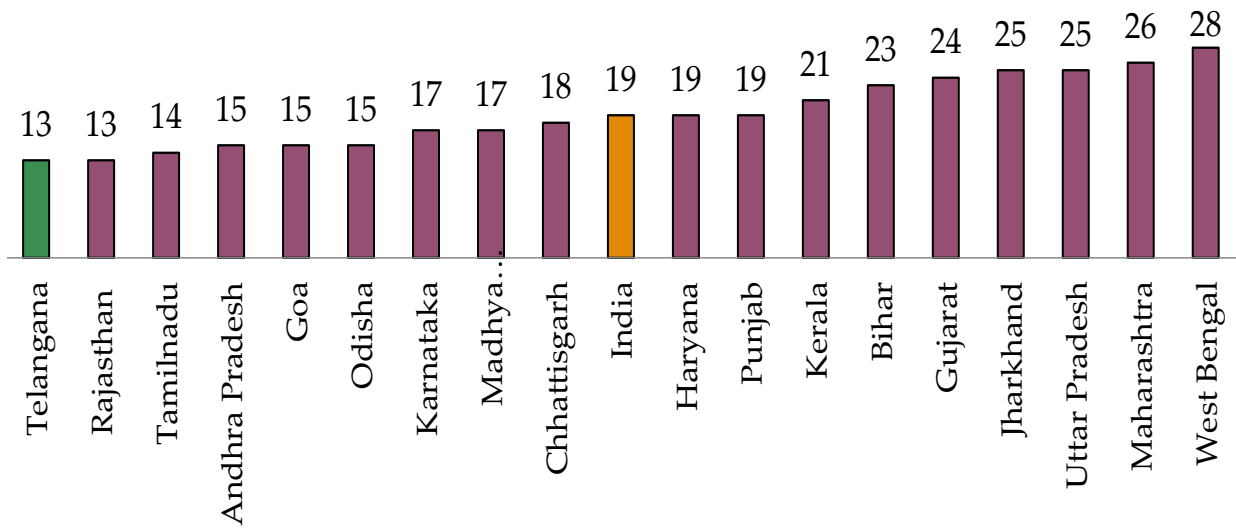
Source: UDISE+ 2021-22

Figure 10.13. PTR in Secondary Level in Telangana v.s. Non - Special Category States (2021-22)
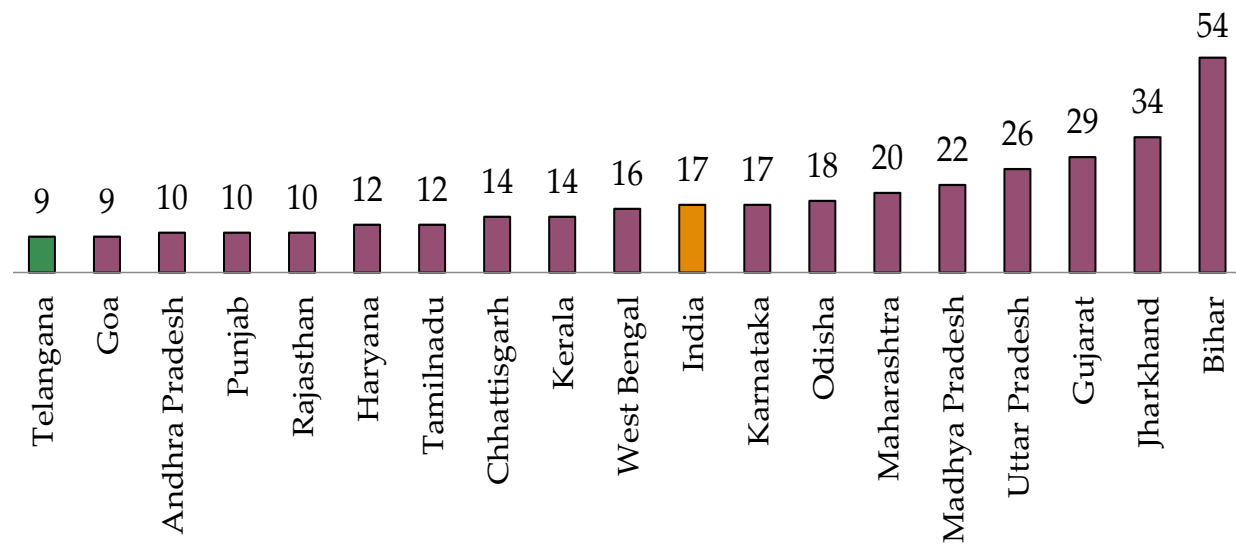
Source: UDISE+2021-22

10.1.4. Initiatives for Students from the Marginalised Communities

The Government, keeping social justice at the centre of its approach in Education, has taken several initiatives to make education equitable, inclusive and accessible for all the students belonging to the SCs, STs, BCs and Minorities.

Box 10.1

Transforming Life Outcomes for Students from Marginalised Communities through Residential Institutions

The Government runs 1,002 residential educational institutions operated by 5 different autonomous grant-in-aid Societies that cater to around 5,58,923 students from the marginalised SC, ST, BC and Minority Communities. Most students are first-generation school goers. These institutions follow a unique 'Plate to Slate approach', catering to all fundamental needs of the students enabling them to live in a healthy, happy, and community oriented school ecosystem. The first residential institution was set up in the early 1970s and was the first of its kind initiative in education for students from socially and economically weaker communities. In the past 8 years, the number of institutions have grown exponentially from 293 to 1,002 and the performance of these institutions has been exemplary with pass percentage in SSC and Intermediate being 96.98% and 83.45% respectively for the academic year 2021-22, and 93.05% for Degree Colleges during the academic year 2020-21.

Along with this, through specialised institutional support, since 2017-18, nearly 1500 students achieved seats into IITs, NITs and Medical colleges across the country, and 1,519 have secured admissions in other premier institutions in the country.

Holistic development of the students is at the core functioning of these institutions. Since 2016-17, students from these residential institutions have clinched around 1,200 Gold, 800 Silver and 700 Bronze medals at International, National and State level sports competitions setting an example for identifying and nurturing grassroots sports talent.

The institutions have been successful in building strong dignity and confidence among the children and their parents, and is also indicative of a very high return on investment by the State.

Figure 10.14. Society-wise number of Institutions established between the period 2014-15 to 2022-23
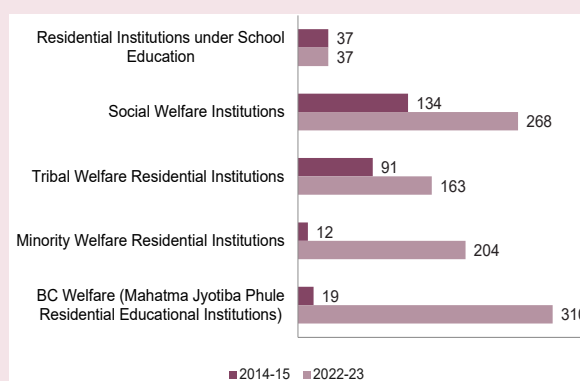
Source: Departments concerned

10.1.4.1. Types of Residential Educational Institutions

The residential educational institutions conduct entrance tests for admission into Grade 5 and Intermediate 1st year. The admissions to degree colleges are done through Degree Online Services Telangana (DOST), a unified online degree system. Each society reserves a large proportion of seats for the respective communities as per Government of Telangana rules.

10.1.4.1.1. Telangana Residential Educational Institutions Society (TREIS)

TREIS was established to provide quality education based on Gurukul method to socially and economically backward rural talented children. As of 2022-23, the Society is running 37 educational institutions catering to 23,504 students.

10.1.4.1.2. Telangana Social Welfare Residential Educational Institutions Society (TSWREIS)

The TSWREI Society runs 268 residential educational institutions (of which 173 are only for girls) with 1,55,863 students. Out of this 238 institutions offer education from Grade 5 to 12, and 30 institutions offer Undergraduate and Postgraduate education exclusively for women. Society also runs special institutions such as the School of Fine Arts & Film Technology, Sainik Schools, Armed Forces Preparatory Degree College for Women, and Sports Academies (29).

10.1.4.1.3. Telangana Tribal Welfare Residential Educational Institutions Society (TTWREIS)

The society currently runs 183[8] residential institutions from Grade I to Postgraduate level. There are 29 Mini Gurukulams exclusively for girls in Grades 1 to 5. There are 109 residential Schools and Junior Colleges offering education from Grades 5 to 12, and 22 Degree Colleges offering Undergraduate and Postgraduate programmes. The Society caters to nearly 72,898 students.

10.1.4.1.4. Telangana Minority Residential Educational Institutions Society (TMREIS)

Minority Residential institutions were set up to impart quality education to economically weak students from the Minority communities. Currently, the society runs 204 schools in the State (107 for boys and 97 for Girls) offering education from Grades 5 to 12 to around 1,25,218 students.

10.1.4.1.5. Mahatma Jyotiba Phule Telangana Backward Classes Welfare Residential Educational Institutions Society (MJPTBCWREIS)

The society currently operates 294 Schools, 142 Junior Colleges and 16 Degree Colleges with a strength of 1,81,440 students. 33 new schools and 15 new Degree Colleges, including 02 Agriculture Degree Colleges for women have been established in the year 2022-23 under the Society.

10.1.4.1.6. Kasturba Gandhi Balika Vidyalayas (KGBV)

The Kasturba Gandhi Balika Vidyalayas were initiated in 2004 in those Educationally Backward Blocks (EBB)/Mandals of the country where the female literacy level is below the national average and the gender gap in literacy is above national average. Since 2014-15 the number of Kasturba Gandhi Balika Vidyalayas (KGBVs) have increased from 391 to 475 offering education from Grade 6 to 12 to around 1,19,596 girl students.

10.1.4.1.7. Telangana Model Schools Secondary Education Society

The Government of India had launched the scheme of setting up of 6,000 Model Schools in Educationally Backward Blocks (EBBs) in the country with an objective to provide free quality education in the country based on the Navodaya School template. These schools offer education from Grade 6 to 12 based on State curriculum.

Model schools started functioning from 2013-14. At present, 194 model schools have been set-up in 29 districts across the State.

10.1.4.2. Financial Assistance to Students from the Marginalised Communities

The Government has been providing financial aid to meritorious students from the SC, ST, BC, and Minority communities to remove financial roadblocks from their path of growth.

10.1.4.2.1. Pre - Matric & Post-Matric Scholarships

In order to reduce student dropout rate, the Government has been providing pre-matric, post-matric scholarships and fee reimbursement to students from marginalised communities. Between 2014-15 to 2022-23, the Government spent Rs. 335.87 crore for SC, Rs. 275.56 crore for ST on providing pre-matric scholarships, and Rs.3,647.51 crore for SC, Rs.1,815.78 crore for ST on providing post-matric scholarships. For BC students, a total of 9,233.62 crore has been spent between 2014-15 to 2022-23. Since 2014-15, the Government spent Rs. 434 crore on post-matric scholarships and Rs. 1,575 crore on fee reimbursement for Minority students.

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8. Includes 23 schools of Telangana State Eklavya Model Residential Schools society

10.1.4.2.2. Assistance for Overseas Education (Mahatma Jyotiba Phule Overseas Vidya Nidhi for BCs, Dr. Ambedkar Overseas Vidya Nidhi Scheme for SC and STs and Chief Minister Overseas Scholarship for Minorities)

The Government is providing scholarships for overseas education of SC, ST, BC and Minority students whose annual family income is up to Rs.5 Lakh.

The scheme was launched for BC students in 2016, SC and ST students in 2014 and for Minority students in 2015. Under this scheme over 2,976 BC students, 953 SC students, 249 ST students and 2,174 Minority students have been benefited. The Government has incurred an expenditure of more than Rs. 863.49 crore since the inception of the scheme.

10.2. Higher Education

Higher educational institutions are a key lever in promoting the exchange of knowledge, research and innovation for engaging students deeply with social, economic, and political problems faced by the Country, and equipping them with necessary knowledge, mindset and skills to find solutions to these problems. The State, through higher education, also aims to enable students to develop as a highly knowledgeable skilled workforce for the industry and innovative entrepreneurs.

In the State, Higher education is subdivided into Board of Intermediate Education, Department of Collegiate Education and Department of Technical Education. For the year 2022-23, there were 1,073 Degree colleges with 3,84,021 student strength and for the year 2022-23 there are over 2,963 Junior Colleges catering to 9,48,321 students.

As per Periodic Labour Force Survey 2020-21, out of the total productive age group (15 yrs and above), 18.4% have completed Secondary education, 13.5% completed Higher Secondary, 11.3% have completed Undergraduate studies. All of these figures are higher than the corresponding national average values of 14%, 12.1%, and 9% respectively(See Figure. 10.15.).

Figure 10.15. Percentage distribution of persons of age 15 years and above by general educational level
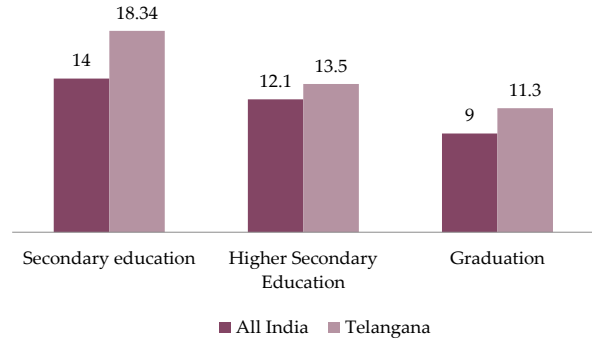
Source: Periodic Labour Force Survey 2020-21

10.2.1 Intermediate Education

Telangana State Board of Intermediate Education regulates and supervises the system of Intermediate education (10+2). In 2022-23, the total number of Junior Colleges being run in the State are 2,963, catering to 9,48,321 students.

10.2.1.1 Enrolment at the Intermediate Level

As per the RBI Handbook of Indian States 2021-22, the Gross enrolment for intermediate education in the State is 63.1% for boys and 66.7% for girls (Figure 10.16.). This is higher than the national average of 57.0% for boys and 58.2% for girls by 6.1 and 8.5 percentage points respectively.

As per UDISE+2021-22, the Pupil Teacher Ratio at the intermediate level in Telangana is 28:1.

Figure 10.16. Gross Enrolment Ratio (by gender) for Intermediate Education (2021-22)
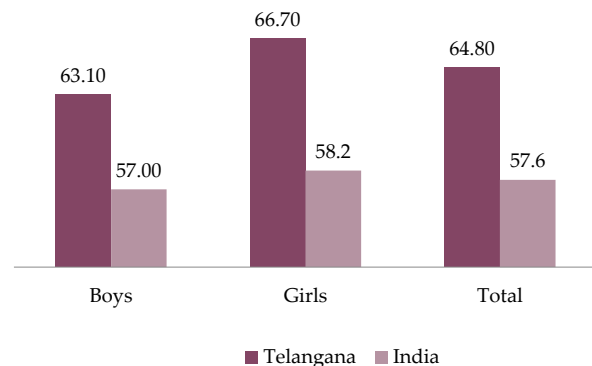
Source: RBI Handbook of Indian States 2021-22

As per RBI handbook of Indian States 2021-22, among the Southern States Telangana ranks 3rd in overall GER (Figure 10.17).

Figure 10.17. GER for Intermediate Education, Telangana vs. Southern States (2021-22)
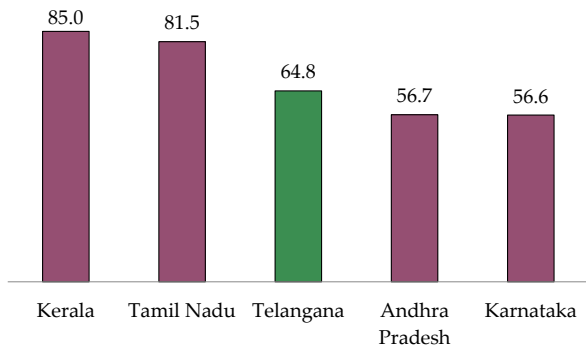
Source: RBI Handbook of Indian States 2021-22

As per UDISE+ 2021-22, the Gender Parity Index[9] (GPI) for the year 2021-22 is 1.06 which is higher than the national GPI of 1.02.

10.3. Collegiate Education

The Commissionerate of Collegiate Education is created to promote and regulate Undergraduate and Postgraduate courses, giving special attention to people in the backward rural areas and women. They aim to introduce industry driven vocational courses replacing the conventional courses in a phased manner.

1,073 degree colleges were functioning in the State, catering to around 3,84,021 as per 2022-23 academic year data. Four new Government Degree Colleges (GDCs) have been established in the State during the academic year 2022-23. NAAC accreditation has been achieved by 88 Government Degree Colleges including 11 Autonomous Colleges and 10 more Government Degree Colleges are in pipeline for NAAC Accreditation, as of Jan 2023.

10.4. Skill Development

India has been in a unique position with a strong demographic dividend, as around 62 per cent of the Indian population is in the working age group. At a macro level, a country's economic performance is heavily influenced by the skills its workforce possesses. Highly skilled workers are typically more productive, and they also make it simpler for businesses to introduce technologies and more efficient working methods. Skilling is a key lever that directly and indirectly supports economic growth through increased productivity, innovation and competition.

The Government's ICT policy (2021-26) with a 5 year road map, targets to increase the total direct employment to 10 lakh IT sector jobs by 2026 from regions around tier-2 and tier-3 cities in the State. The policy seeks to train 5,00,000+ students every year, to fulfil at least 80% of the IT sector workforce requirement by local talent.

10.4.1. Vocational Education

Vocational learning opportunities play a critical role in skill development and employability. It allows students to gain practical experience in their chosen career path before they graduate. Students who finish these rigorous programs have the credentials and training they need to get started right away in their chosen career path.

Under Samagra Shiksha it is operated in Grades 9 to 12. The program is being implemented through the 17 Vocational Training Partners (VTP) empanelled under National Skill Development Council (NSDC).

Since 2015-16, Vocational Education has been implemented in 287 Schools (Model Schools and Government Zilla Parishad Schools) in a phased manner from Grade 9 to 12 across the State. Around 1,04,529 students have enrolled in 10 Vocational Education trades across all 287 schools. The 10 vocational trades that are at offer are Agriculture, Apparel Made-Ups and Home Furnishing, Beauty and Wellness, Electronics and Hardware, Information Technology and IT Enabled Services, Media and Entertainment, Retail, Tourism and Hospitality, HealthCare and Physical Education.

10.4.1.1. Telangana Academy for Skill and Knowledge (TASK)

To nurture the local skill supply and to meet the global skill standards, TASK was set up in 2014 to cater to students from diverse academic and socio-cultural backgrounds.

TASK partners with industry giants like IBM, CISCO, Microsoft, Smartbridge, NASSCOM and Future Skills. Through such partnerships, TASK trains students on emerging and cutting edge technologies. TASK has commenced its regional centres at Hyderabad, Warangal, Karimnagar, Khammam, Sircilla and soon to be inaugurated in Nizamabad, Siddipet and

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9. GPI measures access to higher education among genders and GPI score greater than 1 implies a disparity in favour of females.

Mahabubnagar. It has also bagged the prestigious SKOCH Platinum award 2016 for revamping skilling initiatives for the youth in Telangana.

Around 7,21,526 students and 14,683 faculty have been skilled through TASK initiatives between April, 2021 to October, 2022.

10.4 .1.2. Telangana Skills and Knowledge Centre(TSKC)

The Department of Collegiate Education has established Knowledge Centers with a view to enhance the employment potential of young graduates by imparting Communication Skills, Soft Skills and Computer Oriented Skills.

10.4.2. Technical Education

Technical Education has been instrumental in the State's economic growth. The Government not only aims to make technical education accessible and affordable to the masses, but also aims to ensure relevant employment opportunities. As of 2022-23, the State has a total of 1,327 technical education institutions across all management types catering to around 2,23,427 students. (See table 10.4) for a brief of various types of professional colleges and the student enrollment.

Table 10.4. Number of Professional Colleges and their Intake (2022-23)

Type of College	No. of Colleges	Intake
Poly-Technic [10]	120	30,032
Engineering	178	99,979
Government Medical Colleges [11]	26	3,690
B.Pharm	121	10,420
Pharm – D	65	1,870
ICET MBA	265	32,724
ICET MCA	52	4,290
M.Tech	85	6,316
M.Pharm	107	4,396
LAWCET-5 Y	18	1,980
LAWCET–3 Y	23	4,610
LL.M	20	930
EdCET	210	18,950
B.P.Ed	17	1,760
UG.D.P.Ed	4	350
B.Arch	10	930
M.Arch	6	200
Total	**1,327**	**2,23,427**

Source: Department of Technical Education, Government of Telangana

10. As of 2021-22

11. As of Jan 2023

10.4.3. Industrial Training

Through the Department of Employment and Training, the Government offers both long-term and short-term training to youth in the State to assist in developing industry oriented skills.

There are 299 Industrial Training Institutes (ITIs), providing training across 36 different trades in the State. Of these, 235 are run by private management and 64 are run by the Government. Since 2014, a total of 2,07,974 students have been trained, out of which 62,316 have been placed successfully.

As part of Ministry of Micro, Small & Medium Enterprises, Government of India funded Livelihood Business Incubator Scheme, 6 Govt I.T.I's at Sircilla, Wanaparthy, Khammam, Nizamabad, Medchal and Karimnagar have been identified for establishing incubation centres to promote entrepreneurship.

Additionally to improve the quality of training and placements, 55 ITIs have entered into an MOU with 55 industries.

10.5. Way Forward

The COVID-19 crisis brought education systems across the world to a halt for the first time in the immediate history. "This generation of students now risks losing $17 trillion in lifetime earnings in present value, or about 14 percent of today's global GDP, as a result of COVID-19 pandemic-related school closures", according to a new report published by the World Bank, UNESCO and UNICEF, 2021.

With Schools open again after the national lockdown, the State has started on a strong foot with initiatives such as 'Mana Ooru-Mana Badi/Mana Basti-Mana Badi' to strengthen infrastructure in the schools and 'Tholi Mettu' to strengthen Foundational Literacy and Numeracy in Primary grades. The Government intends to build further on these initiatives aiming at strengthening the fundamentals of the education system in the State keeping long term impact on students' life outcomes into perspective.

WELFARE

Key Highlights

- The Government introduced "Dalit Bandhu" in 2021 to assist SC households with a grant of Rs.10 Lakh per household without any bank loan linkage, to establish a suitable income-generating source. For the year 2022-23, a provision of Rs. 17,700 crore is made with a target of 1,500 beneficiaries per Assembly Constituency.

- The Government from 30th September, 2022 enhanced reservations in the State for STs from 6% to 10%, for admissions in educational institutions and services under the State Government.

- Under the "2-BHK Housing Scheme", the Government constructed 1,36,039 houses with an amount of Rs. 11,635.14 Crore up to December, 2022. Further, the Government has decided to take up 4 Lakh houses with a unit cost of Rs.3.00 Lakh per each house with 100% subsidy to Plot owners under Economically Weaker Sections (EWS).

- Since 2014-15, the Government has covered an average of 39 lakh beneficiaries annually under the "Aasara Pension scheme" with a total disbursement of Rs. 54,989 Crore (till January 2023).

- The Government has taken a new initiative called "KCR Nutrition Kit" for the prevention of Anaemia among pregnant women, It was launched on 21.12.2022 in high anaemia prevalent districts.

- Under the "Kalyana Lakshmi/ Shaadi Mubarak scheme" 12,14,704 marriages have been performed from its inception since 2014. A total of 2.4 lakh SC, 1.5 lakh ST, 5.9 lakh BC and 2.4 lakh Minority brides have benefited from the scheme as of 30.01.2023.

- "SC/ST Special Development Fund Act" was enacted in 2017 for the proportionate allocation of funding to SCs and STs in the budget. Around Rs. 11,430.75 and Rs. 2,623.39 crore earmarked funds have been utilised for the exclusive benefit of SCs and STs during the year 2022-23 (until January 2023).

- To empower women financially, a total number of 46.08 lakh women have been organized into 4.30 lakh "Self Help Groups (SHGs)" in the State, amount disbursed through bank linkage to the SHGs every year.

11.1 Introduction

In the State of Telangana, many welfare initiatives have been launched with the goal of elevating the state's underprivileged and marginalized population to help and align the economic success of Telangana with specific social goals such as creating a level playing field for the marginalized communities.

The Government is dedicated to enhance the welfare of those who are socially and economically underprivileged, including women, children, senior citizens, people with special needs, and members of Scheduled Castes (SCs), Scheduled Tribes (STs), Backward Classes (BCs), and Minority Communities. The agenda of the welfare schemes is to ensure that these reflect the needs of the relevant communities and are meticulously implemented, where the deliverables are aligned with the proposed social goals of the Government.

11.2 Welfare of Scheduled Castes, Scheduled Tribes, Backward Classes and Minorities

The Government has been implementing an advanced framework of welfare programs that will cover every oppressed caste or tribal group, backward community and religious minority to achieve the goal of social justice and creation of an equitable society. This framework aims to achieve social, educational and economic parity between targeted groups of individuals with other developed communities in society.

11.2.1 Dalit Bandhu

The Government launched a scheme called "Dalit Bandhu" in 2021-22 a major initiative for the economic upliftment of the Scheduled Caste people. A complete grant without any bank dependencies to establish a suitable income-generating source is provided with financial assistance of Rs. 10 lakh for each beneficiary.

The scheme was launched on August 4, 2021, in the village of Vasalamarri, in the Alair Assembly Constituency (AC) of the Yadadri-Bhuvanagiri district.

A provision of Rs. 4,441 crore has been prepared for the year 2021-22, of which Rs. 4150 crore has been distributed to the districts to cover approximately 38,323 SC–identified households. The execution of this project will cost Rs. 17,700 crore for the year 2022–23, with a target of 1500 beneficiaries per AC.

11.2.1.1 Dalit Rakshana Nidhi

The Dalit Rakshana Nidhi is established to ensure that a Dalit Bandhu beneficiary family who faces an unfortunate event does not suffer financially. In times of need, money can be spent from this Fund so that the beneficiaries' families can be protected.

11.2.2 Scheduled Castes/ Scheduled Tribes Special Development Funds (SC/ST SDFs)

The Government enacted the "Scheduled Castes and Scheduled Tribes Special Development Fund (Planning, Allocation and Utilization of Financial Resources) Act in 2017" to secure funds for the implementation of programmes that ensure accelerated development of SCs and STs with an focus on economic, educational, and human development along with ensuring their security and social dignity, and promoting equity among them.

There is provision for non-lapsing of these funds on a year-by-year basis. Telangana is the first State to have such a provision. Since the creation of the fund (until January 2023), specific funds of approximately Rs.70,307 crore and Rs.37,777 crore have been used exclusively for the benefit of SC and ST.

SC/ST Special Development funds are utilised for implementing many welfare programs like Kalyana Lakshmi, Aasara Pensions, Drinking water to households, Sanna Biyyam to the students in the SC & ST hostels, Etc. Figures 11.1 & 11.2 shows the expenditure incurred by SC/ST Special Development funds from its inception in 2017 to 2022-23 (till December, 2022). A total of Rs.1,08,084 crore has

been issued under the SC/ST Special Development Fund since came into force from 2017-18 to 2022-23 (till January 2023).

Figure 11.1: Expenditure under SC Development Funds (Rs. Crore) (2017-18 to 2022-23)
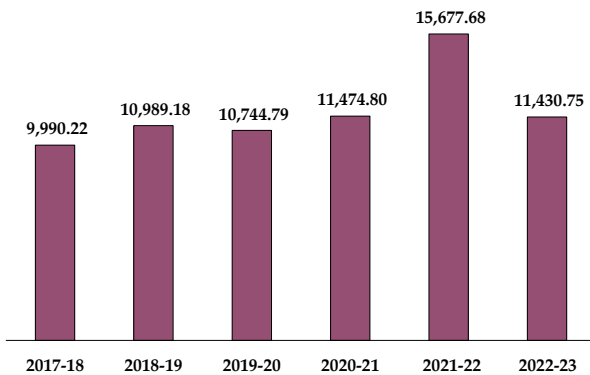
Source: Scheduled Caste Development Department, Government of Telangana

Figure 11.2: Expenditure under ST Development Funds (Rs. Crore) (2017-18 to 2022-23)
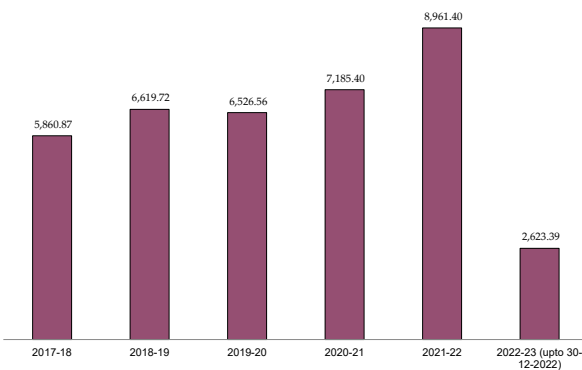
Source: Scheduled Tribes Development Department, Government of Telangana

11.2.3 Reservation for Scheduled Castes (SCs), Scheduled Tribes (STs), Backward Classes (BCs), Minorities, Economically Weaker Sections (EWS) in the State

The government is focused on undoing the historic injustices inflicted on the SC, ST, and BC within the state, making minorities feel empowered by protecting their rights and entitlements; these concerns are being addressed by extending reservations to these communities. Recently the government has increased the Reservation of ST in Educational Institutions and State Government Services from 6% to 10% on 30 September 2022. Currently, ST, SC, BC, Minority (BC-E), and Economically Weak Section (EWS) have 10%, 15%, 25%, 4%, and 10% reservation respectively.

11.2.3.1 Giri Vikasam

"GIRI VIKASAM" scheme is aimed at providing irrigation facilities to the fallow and uncultivable agricultural lands of small and marginal ST farmers to convert them into cultivable lands for sustainable agriculture development. As of December 2022, an area of 56,613 acres of land belonging to 19,698 ST farmers has been converted to cultivable land with the cost of Rs 98.23 crore.

11.2.4 Educational Support to the SC, ST, BC, and Minorities

The Government has a particular focus on programs that make it easier for underprivileged groups to access and benefit from educational opportunities at both the State and Global levels.

11.2.4.1 Residential Schools and Colleges

Since the formation of Telangana in 2014, the government has intended to increase the number of residential schools to focus on the quality of teaching and the physical environment in these schools, and some of the students have graduated from IITs, NITs and other reputable institutions in the country.

Till Januray 2023, the number of residential educational institutions under Social Welfare, Tribal Welfare, BC Welfare and Minority Welfare increased from 298 to 1002.

11.2.4.2 Scholarships

The education of SC, ST, BC, and minority communities in the state are assisted by financial support from the Government through scholarships and reimbursement of tuition fees.

For the year 2022-23 (till January 2023) a total of 5.42 lakh BC and EBC student,1.21 lakh SC students

and 96,185 ST students have been provided with Pre and Post matric scholarships and nearly 52,898 Minority students have been provided with Post matric scholarships.

In order to reduce student's dropout rates, the Government has been providing pre-matric, post-matric scholarships and fee reimbursement to students. Between 2014-15 and 2022-23 (till January 2023) the government has spent Rs.9233.62 crore for BC students, Rs. 3983.38 crore for SC students and Rs.2091.34 crore for ST students for both Pre and Post matric scholarships.

11.2.4.2.1 Scholarships for Overseas Education

The Government has introduced Overseas Scholarship to help children from disadvantaged communities in pursuing higher education abroad, which provides Rs. 20 lakh to one child in a family (whose annual income is less than Rs. 5 lakh) who secured admission to a foreign university from an eligible country. Dr. B.R. Ambedkar Overseas Vidya Nidhi is for SC and ST students, Mahatma Jyotiba Phule Overseas Vidya Nidhi is for BC and EBC students, and Chief Minister's Overseas Scholarship Scheme is for Minority students. Since the launch till January 2023, a total of 953 SC, 260 ST, 2976 BC, and 2174 Minority students have received these overseas scholarships.

From 2014-15 to 2022-23 (till January 2023), the expenditure incurred on Dr. B.R. Ambedkar Overseas Vidya Nidhi for ST students is Rs.35.19 crore and Rs.168.68 crore for SC students and for Mahatma Jyotiba Phule Overseas Vidya Nidhi it is Rs.263.75 crore for BC and EBC students.

11.2.5 Hostels for Marginalised Communities

The Government is providing free boarding and lodging of students for enabling them to pursue Pre-Matric and Post-Matric Studies to all the marginalised communities. There are the details of all the Pre and Post Matric Hostels in the State, since 2014-15 to till January 2023. (Table 11.1).

Table 11.1 Number of Pre and Post-Matric Hostels

Community	Pre-Matric Hostel	Post-Matric Hostel	Total
Scheduled Caste (SC)	648	206	854
Scheduled Tribe (ST)	138	163	301
Backward Classes (BC)	413	287	700
Total	1,199	656	1,855

Source : SC, ST & BC welfare Department

11.3 Housing

To have a decent livelihood for the family the most important aspect is drinking water, adequate housing facilities, sufficient sanitary facilities, and clean surroundings to enable a dignified living by providing protection against human and natural physical hazards.

11.3.1 Two-BHK Housing Programme

The Government announced a 2-BHK housing program in October 2015, with the aim of providing cheap and quality housing to those in need. A total of 2,92,057 homes were approved under this initiative between 2016 and 2022. Of these, the construction of 1,36,039 houses was completed by December 2022 (Fig. 11.3), while the construction of the remaining houses is in various stages of completion. Around Rs. 11,635.14 crore has been spent on the scheme since its inception to December 2022.

Figure 11.3: Number of Houses built under 2-BHK Housing between 2016-17 to 2022-23
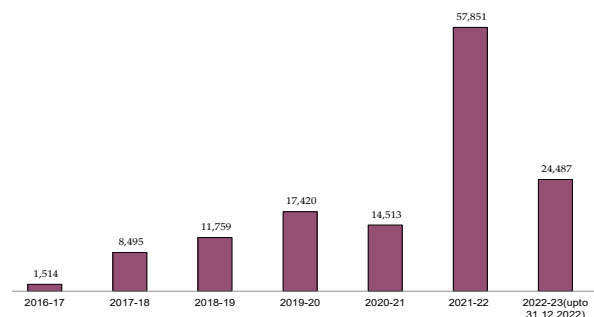
Source: Department of Housing, Government of Telangana

The Government has earmarked a share of these 2BHK houses for specific social groups based on

their population and social justice in mind i.e., 50% are reserved for SCs and STs, 7% for Minorities and 43% for other communities in Rural areas whereas 17% for SCs, 6% for STs, 12% for Minorities and 65% for other communities in Urban areas. Additionally, 2% reservation for ex-Service Personnel and widows of ex-Servicemen, and 5% is earmarked for Persons with Disabilities.

The cost of building each house is Rs. 5.04 lakh in rural areas, Rs. 5.30 lakh in urban areas and between Rs. 7.00 lakh and Rs. 7.90 lakh in the Greater Hyderabad Municipal Corporation (GHMC).

11.3.2 Financial Assistance to Plot owner under EWS

Government has decided to take up 4 Lakh houses with a unit cost of Rs.3.00 Lakh per each house with 100% subsidy. 3,000 houses per each Assembly Constituency will be taken up. A total of 3,57,000 houses will be taken up in the MLA Assembly segments.

11.4 Women Welfare

The Government implements a number of initiatives specifically focused on the well-being and empowerment of women with a focus on reducing the gender gap in employment, improving income and increasing women's bargaining power in a household.

Along with many state level initiatives the Government also implements Centrally sponsored schemes such as the ICDS, Supplementary Nutrition Programme, Poshan Abhiyaan, construction and renovation of Anganwadi Centres, Integrated Child Protection Services, State Resource Centres for Women, Beti Padhao Beti Bachao, and Ujjwala for victims of trafficking and commercial sexual exploitation, among others.

The State Government also provides 33.3% reservation for women under direct recruitment and enrolment of educational institutions in Government jobs.

Major State level initiatives for the welfare of the women are mentioned below.

11.4.1 Kalyana Lakshmi / Shadi Mubarak (Marriage Assistance)/ Aid for Inter-caste marriages

The Government has launched a scheme called 'Kalyana Lakshmi/Shaadi Mubarak' to curtail the burden of girl marriage by providing one-time grant of Rs.1,00,116 to unmarried girls (above 18 years of age) from SC, ST, BC and Minority families (with combined income of both parents not exceeding Rs.2,00,000 per annum) at the time of their marriage. From mid-2019, The Government is also providing financial assistance of Rs.1,25,145 to unmarried disabled girls irrespective of their caste and religion.

Up to January 2023, a total of 2.4 lakh SC, 1.5 lakh ST, 5.9 lakh BC, 2.4 lakh Minority families (Fig. 11.4) benefited from the scheme and an amount of Rs. 10,558.79 crore has been disbursed. This initiative not only curbed child marriages to a significant extent but also greatly relieved the financial burden related to marriages.

Figure 11.4: Beneficiaries under Category wise Kalyana Lakshmi / Shadi Mubarak (Marriage Assistance)/Aid

Year	Schedule Castes	Schedule Tribes	Backward Classes	Minorities
2014-15	5,105	2,482		5,443
2015-16	30,568	17,353		27,695
2016-17	22,455	13,516	26,798	23,521
2017-18	25,224	16,326	61,475	24,944
2018-19	30,607	16,500	82,571	34,224
2019-20	34,587	24,104	71,430	36,311
2020-21	30,868	17,376	1,32,511	29,258
2021-22	36,416	23,797	1,41,272	29,887
2022-23	23,601	14,333	74,512	27,634
Total	2,39,431	1,45,787	5,90,569	2,38,917

Source : SC, ST, BC and Minority Welfare Department

The Government to curtail the evil of casteism in society and to achieve the objective of social integration encourages inter-caste marriages between SC individuals and individuals from other castes by providing a cash incentive of up to Rs. 2.5 lakh to each inter-caste married couple. During the year 2022-23, an amount of Rs.0.93 crore has been disbursed to 37 SC and Rs 6.60 crore to 901 ST inter caste married couples. Since 2014, an amount of Rs.51.08 crore has been disbursed to 5,926 inter-caste married couples.

11.4.2 Land distribution to Dalits

The Government provides 3 acres of agricultural land to landless SC women, along with the provision for creation of irrigation facilities, land development and other agricultural inputs for their sustained livelihood. Under this scheme an extent of 17,096.31 acres of land have been purchased and distributed to 6,995 beneficiaries at a cost of Rs.768.94 crore from 2014-15 to 2022-23 (till January 2023).

11.4.3 Arogya Lakshmi, KCR Kits & KCR Nutrition Kit

The core objectives of these schemes are to enhance the quality and acceptability of supplementary nutrition by Pregnant and Lactating women, by ensuring that Pregnant and Lactating women consume 90+ IFA tablets, eliminate or decrease the number of women with anaemia/ who are undernourished, improve the enrollment of mothers at Anganwadi Centers (AWCs) and by providing nutritious and healthy meals to all pregnant and lactating mothers registered in all the Anganwadi Centres.

11.4.3.1 Aarogya Lakshmi

To alleviate women's health and welfare, the Government has enhanced the rates by providing an additional allocation of Rs. 14 per beneficiary per day over and above the norms mandated by the Government of India. Additionally, the Government has also increased the number of days the beneficiaries receive milk and eggs from 25 to 30.

In 2022-23 the scheme benefited over 19.07 lakh pregnant, lactating women and children in the age group of 7 months to 6 years (covered under Balamrutham and Supplementary Nutrition Programme), the expenditure incurred under Arogya Lakshmi Scheme is Rs.131.35 crore (Till December 2022).

11.4.3.2 KCR Kit

The "KCR Kit" initiative, which aims to lower maternal and infant mortality rates by encouraging institutional births, was introduced in June 2017. Under the scheme, post-delivery mothers receive a kit containing 15 utility items and financial assistance of ₹12,000 (₹13,000 for a girl child) to compensate for the loss of wages by the women during the pregnancy and postnatal period. Since the scheme's inception, 13.91 lakh beneficiaries have received a Direct Benefit Transfer of Rs. 1,261.67 crore, along with KCR Kits. The impact of the scheme can be seen in improved institutional deliveries in the state from 30.5% to 61.0%. Telangana's MMR (no. of maternal deaths per 1,00,000 live births) dropped from 92 in 2014 to 43 in 2020, i.e., a 53% decline, and the state now ranks third in the country.

11.4.3.3 KCR Nutrition Kit

The state is committed to further decreasing anaemia by introducing another flagship program called "KCR Nutrition Kit'' in high anaemia prevalence districts viz., Adilabad, Bhadradri Kothagudem, Jayashankar Bhupalpally, Jogulamba Gadwal, Kamareddy, Kumurambheem Asifabad, Mulugu, Nagarkurnool and Vikarabad. The programme was launched on 21.12.2022. Nutrition kits are given two times to every pregnant woman, once in their 2nd Antenatal Care (ANC) (13-27 weeks) and second time during 3rd ANC (28-34 weeks). The contents of the kit are highly nutritious with proteins, micro and macronutrients and the supplements intended to address anaemia and improve body mass index.

11.4.4 Self-Help Groups (SHGs)

The SHG movement is widely recognized as a grassroots movement that brought about transformative change in the lives of women from marginalized and economically disadvantaged families by empowering them financially. The government further encourages this movement through the SERP (Society for Elimination of Rural Poverty) by building and promoting women's SHGs and their associations. Nearly 46.08 lakh women were organized into 4.30 lakh SHGs across the state. In 2022-23 newly 269 SHGs were formed until December 2022.

Telangana has facilitated the bank linkages to all the SHGs in the State. The amount disbursed to the SHGs has been tripled from Rs.3,738.67 crore in 2014-15 to Rs.12,684.59 crore by 2022-23 (until January 2023) from the State formation.

"MEPMA (Mission for Elimination of Poverty in Municipal Areas)" is the Nodal Agency for implementing Poverty Alleviation Programs in all urban areas of the State. Till date, 15,544 micro-enterprises have been established through urban SHG women with a total cost of Rs.138.96 Crore under the Self Employment Program (SEP). In 2022-23 (tilll January 2023) an amount of Rs.114.35 Crore to 1,134 beneficiaries under the Self Employment Program (SEP). Since 2008 an amount of Rs. 15,144.43 crore is provided to 1.59 lakh beneficiaries, in 2022-23 (tilll January 2023) an amount of Rs. 1,458.97 crore is provided to 18,680 SHGs under Self Help Group - Bank Linkage (SHG-BL).

11.4.5 Mobile retail Fish Outlets

A new welfare scheme for unemployed women has been launched in GHMC limits in 2020 called "Mobile retail Fish Outlets" which provides fresh fish and fish curries at the door step through which 150 unemployed women have been benefited.

11.4.6 Security, Health and Environment (SHE) Teams

SHE Teams is a division of Telangana Police established in 2014 which aims to deal with offences against women like eve-teasing, stalking, and harassment in public or at workplaces, educational institutions, residential areas or social media. At present, there are 331 SHE teams working in the state. Between October 2014-22, a total of 42,788 complaints were received under the initiative, leading to the arrest of over 26,106 perpetrators.

11.5 Poverty Alleviation

The Government's main focus area is addressing poverty and its determinants. In this process, the government has revamped existing poverty-relief programs, particularly the Public Distribution System (PDS) and the Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS), as well as the 100% subsidized 2-BHK Housing Scheme since its inception.

To reduce poverty in both urban and rural areas various state-level organizations like the Society for the Elimination of Rural Poverty (SERP) and the Mission for the Elimination of Poverty in Municipal Areas (MEPMA) support the development of women-led Self Help Groups (SHGs) implements poverty alleviation programs.

Many interventions have been made in Agriculture (Rythu Bandhu, Rythu Bima, Power Subsidy, Milk Incentives, Etc), Health (Kanti Velugu, KCR Nutrition Kit, KCR Kits, Telangana Diagonostics, Arogyasree, Aarogya Lakshmi, Giri Poshana, improving the Public Health Infrastructure, Basthi Dawakhanas etc.,), Education (Mid-day-Meals, Scholarships, Overseas Scholarships, revamping school infrastructure through Mana Ooru Mana Badi), and Living Standards (housing, skill development, asset creation, free electricity, etc.) covering specific marginalized groups by the Government since its inception.

11.5.1 Aasara Pension

"Aasara" Pension scheme has been launched as a net strategy for the welfare and social safety of the Government in November 2014 to safeguard several sections of society, including the elderly and infirm, disabled individuals, widows, people with HIV/AIDS, Filaria patients (Grade-II and III), incapacitated weavers, toddy tappers, poor Beedi workers, and single women and also Dialysis patients are being provided pension. About Rs. 7,565 crore was disbursed to 44.43 lakh pensioners in 2022-23 (up to Januray 2023).

As of 2014, a total of 29,21,828 people were given pensions of Rs.861 crore annually and after the formation of Telangana, a total of 44.43 lakh people were given pensions of Rs.11,628 crore annually. Out of these, 28.58 lakh new pensioners got pensions after Telangana came into existence. Since its inception, the state has provided Rs.54,989 crore as Aasara pensions to the beneficiaries (up to January 2023) (Fig. 11.5). Since 2014, this scheme has covered an average of 39.0 lakh people per year. Further, the minimum age limit for old-age pensioners has been revised from 65 years to 57 years, by this newly 8.96 lakh pensions have been sanctioned in the year 2022-23 (till January 2023).

Since June 2019, the pension amount has been increased from Rs. 1,500/- to Rs. 3,016/- per month for disabled persons and for all other categories of pensioners from Rs. 1,000/- to Rs. 2,016/- per month. Telangana is the only state in the country that is giving pensions to dialysis patients and filaria patients.

Figure 11.5: Number of Beneficiaries and Amount Disbursed (Rs. Crore) under Aasara Pension Scheme (2014-15 to 2022-23)
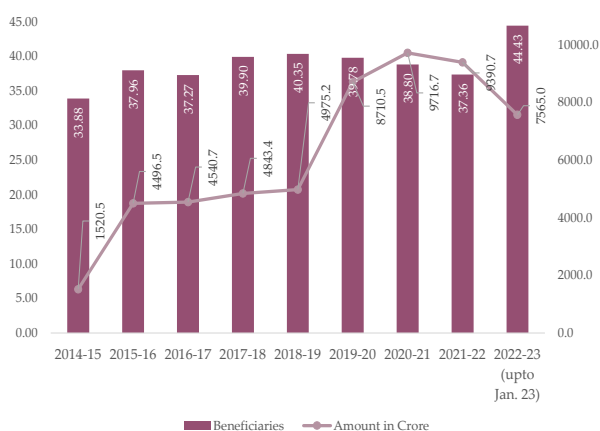
Source: Society for Elimination of Rural Poverty, Government of Telangana

11.5.2 Public Distribution System (PDS)

To the priority households the essential commodities and food grains have been distributed by the Government at subsidised prices as per their eligibility. The Public Distribution system with a network of 17,216 Fair Price Shops has been proactively been implemented by Government

The Government has included 92 lakh people under the PDS thus effectively covering 2.83 crore beneficiaries in the state as on January 2023 over the prescribed coverage of 1.91 crore (persons/units) by Government of India and also enhanced the scale of rice distribution from 5 Kgs per person at Rs. 3 per Kg as prescribed by the Government of India, to 6 Kgs per person at Rs.1 per Kg for all the members in a family.

Along with Food Security, the State has also facilitated Gas Connections to 18,83,734 poor and marginalised households under the DEEPAM Scheme. Table 11.2 shows the rice distribution schemes being implemented in the state.

The total outlay on this program has doubled from Rs. 1140 crore in 2014 to Rs.2638.6 crore in 2022. In the year 2022-23 (Till Januray 2023), the Public Distribution System has served around 2.85 crore beneficiaries in the State.

Table 11.2 Rice Distribution Schemes being implemented in the State

Name of the Scheme	Beneficiary details	Eligibility	End consumer price	The scale of distribution per month
Food Security Cards	91.64 lakh households 268.19 lakh beneficiaries	BPL families	Rs. 1 per Kg	6 kg per member of the family without any ceiling on the number of members in the family.
Antyodaya Anna Yojana (AFSC) cards	5.62 lakh households 15.15 lakh beneficiaries	Poorest of the poor, Primitive tribal, destitute/widows, etc.	Rs. 1 per Kg	35 kg per card
Antyodaya Annapurna (AAP)	5,211 households 5,423 beneficiaries	Indigent old/ senior citizens	Free of cost	10 kg per beneficiary
Welfare hostels & Institutions (SC/ST/ BC Hostels)	9.70 lakh inmates in 4,237 hostels & Institutions	SC/ST/ BC students residing in Government Welfare Hostels & Institutions	Free of cost	15 kg per pre-matric inmate / 18 kgs per post-matric inmates per month.

Name of the Scheme	Beneficiary details	Eligibility	End consumer price	The scale of distribution per month
Mid-Day-Meals	25.26 lakh beneficiaries	Students studying in Government schools	Free of cost	At the primary level - 100 grams (per head per day) Upper primary & High school level - 150 grams (per head per day)
Anganwadi centres	10.82 lakh beneficiaries	Children from 3 to 6 years of age and pregnant /lactating women	Free of cost	For children, 3 years to 6 years - 75 grams (per head per day) Pregnant Women & Lactating Mothers - 150grams (per head per day)

Source: Civil Supplies department, Government of Telangana

11.6 Economic Support Schemes (ESS)

The Government has instituted many schemes for the upliftment of the SC, ST and other weaker sections financially by, i) providing financial assistance for the creation of income-generating assets, ii) imparting training programming for the up-gradation leading to Self / Wage employment and iii) To plug critical gaps of finance in economic support schemes.

Under ESS, 1,62,444 SC beneficiaries were provided with different assets under Industries Service Business and Transport Sector with a total subsidy of Rs.2,029.78 crore from 2014-15 to 2022-23 (as on 18.01.2023).

In 2022-23, over 20,888 ST beneficiaries are covered under the livelihoods sector through Economic Support Schemes, CM's Girivikasam, Rural Transportation, Tribal artist MSMEs, ST skill trainings, etc. with an investment of Rs.135.87 Crore.

Under B.C Corporation, Most Backward Classes and 11 BC Federations (Free Electricity of Washer men & Nayee Brahmin also included) a total of 1,75,647 beneficiaries were provided with subsidy of Rs. 460.39 crore from 2014-15 to 2022-23 (till Januray 2023)

11.6.1 Sheep Rearing and Development Scheme(SRDS)

The Government of Telangana has introduced the scheme to develop the economic standards of Yadava and Kurma communities to make it sustainable livelihood for them by supporting the traditional shepherd families.

A total of 82.64 lakh sheep have been distributed to 3.93 lakh beneficiaries during 2017-2022 and the Government has incurred Rs.3,751.15 crore as 75% subsidy and beneficiary has contributed Rs.1,250.38 crore as 25% share. A total of Rs.5,001.53 crore has been incurred in implementation of the scheme.

The Government has enhanced the unit cost from Rs.1,25,000 to Rs.1,75,000 keeping in view the increase in price of sheep and their transportation.

Meat production has increased from 5.05 lakh Metric Tonnes to 10.85 lakh Metric Tonnes from 2015-16 to 2021-22. Telangana ranks 5th in meat production in the Country.

11.6.2 Free Electricity supply to SC, ST, and BC Communities

The Government is providing free electricity supply to SC & ST for domestic purposes up to 101 units benefitting around 19.30 lakh SC Households with a cost of Rs.253.23 crore and one lakh ST Households with a cost of Rs.192.00 crore since the inception . The Government has also initiated a scheme of free electricity supply to laundries /dhobi ghats and salons upto 250 units benefiting 71,388 beneficiaries for Laundry units and 143 Dhobighats from Washerman community have registered their names as on 17.01.2023 and 34,983 beneficiaries from Nayee Brahmins community have registered their names as on 17.01.2023

11.7 Development and Protection of Culture

Telangana has turned out to be a place of diverse languages and cultures which acts as the best

example of the composite culture, and inclusiveness of India. The state is referred to as Ganga-Jamuna Tehzeeb and the capital Hyderabad is a 'miniature India'.

The Government recognizes the importance of preserving the culture and has constructed a tribal museum at Jodeghat, Medaram, Bhadrachalam and Mannanur. New Ramji Gond Memorial Tribal Freedom Fighters museum is coming up in Abids, Hyderabad.

The Kumuram Bheem Adivasi Bhavan and Sevalal Banjara Bhavan constructed with Rs.22.00 Crore each in the heart of the city in Banjara Hills inaugurated by the Hon'ble Chief Minister on September 17, 2022.

The Government sponsors and celebrates major fairs and festivals of the tribal community like Sammakka Sarakka Jathara, Santh Sevalal Jayanthi, Kumuram Bheem Vardhanthi, Nagoba Jathara, Bourapur Jathara, Jangubai Jathara, Nacharamma Jathara, etc., every year.

Among the tribal festivals, Sammakka Sarakka Jathara (Medaram Jathara) is being celebrated biennially in Tadvai Mandal, Mulugu district, which is the State Festival and largest tribal religious congregation in the world. The Government makes elaborate arrangements for providing logistics, drinking water, sanitation and emergency healthcare facilities every year and nearly one crore pilgrims participated in the festival which took place from February 14th to 20th, 2022.

Bathukamma is an annual flower festival celebrated predominantly in Telangana, and is grandly celebrated by young girls towards the end of monsoon and heralds the abundance that nature has to offer which begins on the day of Mahalaya Amavasya, and is celebrated with much fanfare for nine days. The main purpose of this particular festival is to pray with devotion to the Goddess - Maha Gauri. The Government distributes Bathukamma Sarees to all adult women enrolled under the Food Security Scheme during the festival season every year from 2017 onwards.

Similarly, the Government also supports the celebration of festivals of minority communities in Telangana. The Government is organising Dawat-e-Iftar during Ramzan and Christmas feast which includes distribution of clothes and gift packets on the eve of Christmas every year across the state.

11.8 Empowerment of Persons with Disabilities, Senior Citizens & Transgenders

The Government has newly established a separate department as per the commitment for the Empowering the Transgender in the state and orders were issued changing the nomenclature of the Department to Department for Empowerment of Persons with Disabilities, Senior Citizens & Transgenders.

11.8.1 Empowerment of Persons with Disabilities

As per Census 2011, the total population of Telangana State is 3,50,03,674 out of which 10,46,822 are Persons with Disabilities (PwDs) which constitutes 2.99% of the total population.

The Government is sanctioning Pre and post Matric scholarships to children with disabilities and established 5 Residential schools with a total strength of 830 students and provides with a Marriage Incentive of Rs.1 lakh cash incentive is given to either of the spouse with disability if a normal person marries a Person with Disability.

With the intention of serving the needs of the persons with Disabilities a toll-Free Help Line number of 155326.

11.8.2 Welfare of Senior Citizens

As per the Census 2011,out of 3,50,03,674 people of the State 32,69,579 are Senior Citizens out of which constitutes 9.34% of total population.

The Government has established two old age homes under control of this department for providing free food and accommodation to the abandoned senior citizens.

It has launched "Mobile Evaluation App" for evaluation of Old Age Homes run by private NGOs to monitor the status of inspection at all levels, and maintain digital records with transparency. Presently 265 old age homes are under the Non-Governmental Organisations that were issued registration certificates.

The Government has established toll-free number 14567 exclusively for senior citizens for providing

free information and guidance on pension issues, legal issues, on field intervention in cases of abuse, emotional support, rescue and care for homeless senior citizens, etc.

11.8.3 Empowerment of Transgender

The Government has Constituted State Welfare Board for the Transgender Persons to advise the State Government on formulation of policies, programmes, legislation and projects with respect to transgender persons and sanctioned an amount of Rs.200 lakh for improving socio-economic status of transgenders by providing Skill Development Training, Economic Rehabilitation Scheme, Establishment of Home and Help Desk for Transgenders and issued 245 Cards for the availing various Government schemes.

Box 11.1

Welfare of Transgenders & Beggars across Indian States

Transgender people have a long history in India, both in social and cultural contexts. Usually, they were identified as "Hijra", "Aravanis", and "Kothis" in various parts of India. They usually stay with their community, separated from mainstream society.

In order to protect against discrimination and improve the status of Transgender persons, the Ministry of Social Justice and Empowerment enacted "The Transgender Persons (Protection of Rights) Act, 2019" which prohibits discrimination against Transgender Persons. Provisions of the Act came into force on 10th January, 2020. The Transgender Persons (Protection of Rights) Rules, 2020 were formulated and published in the Gazette of India on 29th September, 20201.

The Ministry of Social Justice and Empowerment has formulated a scheme "SMILE - Support for Marginalised Individuals for Livelihood and Enterprise"2, which includes two sub-schemes - 'Comprehensive Rehabilitation for Welfare of Transgender Persons'. The focus of the sub-scheme is on rehabilitation, provision of medical facilities and intervention, counselling, education, skill development, and economic linkages to transgender persons. The other is the 'Central Sector Scheme for Comprehensive Rehabilitation of persons engaged in the act of Begging'3 - which provide comprehensive welfare and rehabilitation measures to the Transgender community and the people engaged in the act of begging

Kerala is the first State to launch a policy for the transgender sector in the country. As envisaged in the Kerala State Transgender Policy, a comprehensive scheme, named "Mazhavillu" 4 is being implemented for the transgender community by the Department of Social Justice, Kerala.

Similarly, the Government of Odisha has launched a new umbrella scheme "Sweekruti"5 with manifold objectives such as Assistance to parents of transgender children, Provision of pre and post-matric scholarship, upgradation of skills by training, support for Critical Health Care.

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11.9 Way Forward

The schemes and programmes that the government has continued to run in 2022-23, such as Dalit Bandhu, Aasara Pensions, Kalyana Lakshmi, Shadi Mubarak, KCR Kits, KCR Nutrition Kit, SC and ST Special Development Funds, Etc., demonstrate the government's long-term commitment in poverty alleviation for women, SCs, STs, BCs, and other minorities. Going forward, the Government is and will continue to implement welfare schemes for its citizens.

FORESTRY & ENVIRONMENT

Key Highlights

- Telangana has a total forest area of 26,969.61 sq.km, accounting for 24.06% of the total geographical area of the state.

- Five districts - Bhadradri Kothagudem, Mulugu, Nagarkurnool, Kumuram Bheem Asifabad, and Mancherial - together account for more than 50% of the total forest area in the state. Bhadradri Kothagudem district alone accounts for nearly 16% of the total forest area in the State.

- According to the India State of Forest Reports, the forest cover in Telangana was 19,854 sq.km in 2015, which subsequently increased to 20,582 sq.km in 2019 and to 21,214 sq.km in 2021, registering a remarkable increase of 6.85 % in forest cover from 2015 to 2021.

- Hyderabad registered the highest decadal growth rate of forest cover at 146.8% between 2011-21 among the seven megacities of Ahmedabad, Bengaluru, Chennai, Delhi, Kolkata and Mumbai.

- Telangana is endowed with a rich diversity of flora and fauna with over 2,939 plant species, 365 bird species, 103 mammal species, 28 reptile species, 21 amphibian species and a large number of invertebrate species.

- The forest carbon stock of the State increased by 6.68% from 2019 to 2021. The State's carbon density in 2021 was 76.36 tonnes per ha, witnessing a growth of 3.50% compared to 2019.

- Extremely fire-prone areas of the State's forests decreased by 37.23% from 2019 to 2021.

- In 2022-23, the forestry and logging sub-sector added Rs. 8,853 crore accounting for 3.60% of the Gross Value Added (GVA) by the primary sector and 0.74% of the total Gross State Value Added (GSVA) in the state at the current prices.

- The GVA at current prices by forestry and logging grew from Rs. 2,465 crore in 2014-15 to Rs. 8,853 crore in 2022-23, this sub-sector experienced thrice the increase at a Compound Annual Growth Rate of 17.33%.

- 270.65 crore saplings have been planted with an achievement rate of 117.68% as against the target of 230 crore saplings under Telanganaku Haritha Haram programme.

- Hyderabad city was adjudged the winner of the "Green City Award 2022" and "Living Green for Economic Recovery and Inclusive Growth" awards.

- There are 12 protected areas in Telangana that includes 9 wildlife sanctuaries and 3 national parks covering a total area of 5,692 sq.km. Amrabad is the second-largest Tiger Reserve in terms of a core area at 2,166 sq.km among 52 Tiger Reserves in India.

- A quantity of 4.26 lakh tonnes of Construction and Demolition(C&D) waste has been collected and transported in the State, of which 1.83 lakh tonnes of waste has been processed so far by the C&D plants.

- 205 Dry Resource Collection Centres (DRCCs) have been established in 141 Urban Local Bodies (ULB) to process dry waste.

- 244 water quality monitoring stations have been established in the State covering 51 locations on rivers, 135 locations on tanks/lakes, 46 locations on groundwater, and 25 locations on sewage treatment plants.

12.1 A Natural Habitat

Forest management plays an essential role in creating and modifying habitats while also affecting ecosystem services provisioning. In its endeavour to protect the State's forests and biodiversity, the Government's primary goal is to implement laws and programs for the preservation of ecology, natural resources, animal welfare, and pollution prevention, among other initiatives.

The State of Telangana is endowed with a rich diversity of flora and fauna with over 2,939 plant species, 365 bird species, 103 mammal species, 28 reptile species, and 21 amphibian species in addition to a large number of invertebrate species.

Along the banks of Godavari, the State is bestowed with dense teak forests from Nizamabad to Khammam district through Adilabad, Karimnagar, and Warangal. These forests are home to several deciduous species such as Nallamaddi, Yegisa, Rosewood, Narepa, and Bamboo. The State is also home to several endangered species such as Tiger, Leopard, Indian Gaur, Four Horned Antelope, Blackbuck, marsh Crocodile, etc.

12.2 Forest

Forests are among the most complex ecosystems in the world that support the livelihoods of many resource dependent communities while offering numerous ecosystem services. With forests continuing to play a critical role in enhancing food security, water supply and biodiversity conservation, the government of Telangana is implementing various flagship programmes with revolutionary policy changes coupled with robust financial and institutional arrangements to ensure the greening of the State.

12.2.1 Forest Area in Telangana

As the 11th largest State in the country, the geographical area of Telangana is 1,12,077.41 Sq. Km, of which 24.06% i.e., 26,969.61 Sq. Km is forest area. Of this total forest area, 8,494 sq.km (31.49%) is Open Forest (OF), 8,651 sq.km (32.07%) is Moderate Dense Forest (MDF), 1,551 sq.km (5.75%) is Very Dense Forest (VDF), while the other 8,274 sq.km (30.67%) includes scrubs, non-forest & water bodies (from inside the forest area).

Figure 12.1 Forest area in Telangana (in sq.km)

(in Sq. Km & % Share)
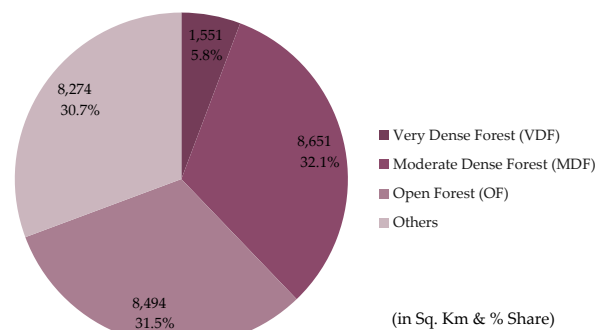
Source: Dept. of Environment, Forests, Science and Technology, Govt. of Telangana.

12.2.2 District-wise Forest Area in Telangana

The top three districts contributing to the total forest area of the State are Bhadradri Kothagudem, Mulugu and Nagarkurnool at 4,311.38 (15.98%), 2,939.15 (10.89%) and 2,496.68 (9.26%) area (in sq.km) respectively. Mulugu district has the highest percentage share of forest area to its total geographical area at 71.22%, followed by Bhadradri Kothagudem and Kumuram Bheem Asifabad at 61.45% and 54.45% respectively.

Figure 12.2 District-wise forest area in Telangana
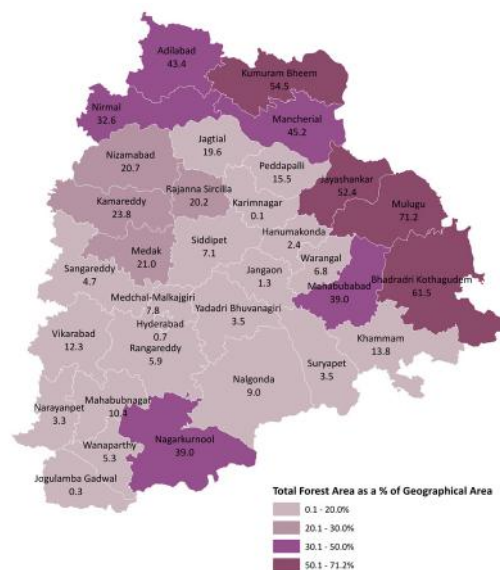
Source: Dept. of Environment, Forests, Science and Technology, Govt. of Telangana, Telangana State Remote Sensing Applications Centre (TRAC) 2020-21

12.2.3 Increase of Forest Cover in Telangana

According to the India State of Forest Reports, the forest cover in Telangana was 19,854 sq.km in 2015, which subsequently increased to 20,582 sq.km in 2019 and to 21,214 sq.km in 2021. The State registered a remarkable increase of 6.85 % in forest cover from 2015 to 2021. While the national net increase of forest cover from 2019 to 2021 was 0.22% (1,540 sq.km), Telangana witnessed a net increase of 3.07% (632 sq.km) which was the highest percentage increase of forest cover amongst all states of the country in the same time period.

Figure 12.3: Percentage increase in forest cover from 2019 to 2021: Telangana vs Indian States
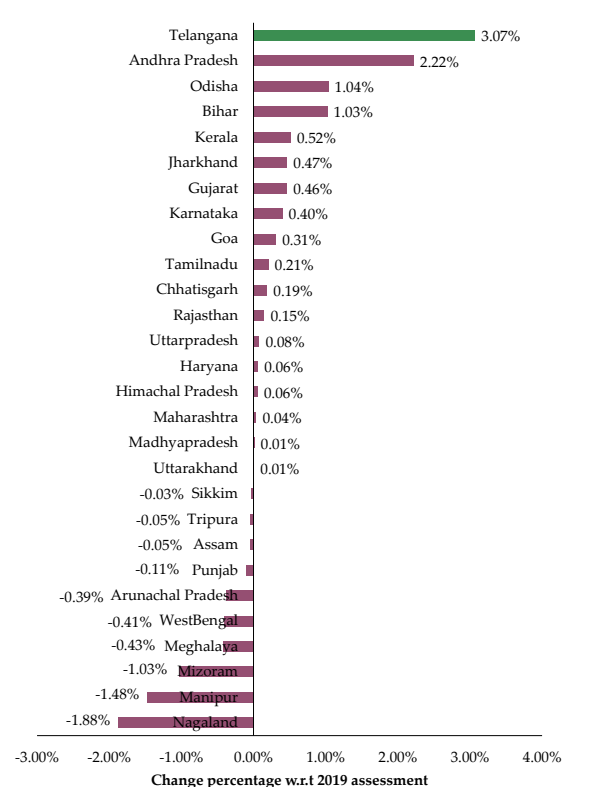
Source: India State of Forest Report (ISFR) 2021

Between 2011 to 2021, amongst seven major cities of the country, Hyderabad recorded the highest increase in forest cover. The city's share constituted 48.7 sq.km out of the total increase of 68 sq.km during this period.

Figure 12.4: Decadal growth rate of forest cover in megacities w.r.t the assessment year 2011 to 2021
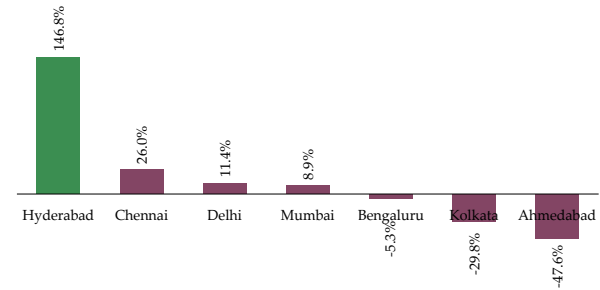
Source: India State of Forest Report (ISFR) 2021

Forest Types in Telangana

The forests of the State can be primarily classified into three groups viz., Tropical Dry Deciduous Forests, Tropical Thorn Forests, and Tropical Moist Deciduous Forests.

Table 12.1: Forest Types in Telangana

Forests Group	Types of Forests	Area (sq.km)
Tropical Dry Deciduous Forests	Southern dry mixed deciduous forest	14,383.62
	Dry deciduous scrub	5,037.40
	Dry teak forest	3,371.64
	Secondary dry deciduous forest	151.94
	Dry bamboo brakes	16.30
	Dry savannah forest	5.04
	Boswellia forest	0.77
	Hordwickia forest	0.47
Tropical Moist Deciduous Forests	Southern moist mixed deciduous forest	49.23
Tropical Thorn Forests	Southern thorn forest	320.41
	Southern thorn scrub	0.80

Source: India State of Forest Report (ISFR) 2021

According to the ISFR 2021 Report, the major Non-timber Forest products (NTFP) species in Telangana are Solanum Nigrum (Black nightshade), Terminalia belerica (Baheda), Desmodium gangeticum (Salaparni), Strychnos patatorum (Clearing Nut

tree) and Strychnos nuxvomica (Snakewood) with a relative abundance of 15.98%, 10.15%, 9.72%, 9.29%, and 9.07% respectively.

Mamidi chettu (Mangifera indica) is the most abundant tree species in the rural areas of the State with a relative abundance of 38.93% while in the urban areas, it is Vepa chettu (Azadirachta indica) with a relative abundance of 18.35%.

12.2.4 Ecosystem Services and Livelihoods

Ecosystem services are the direct or indirect positive benefits that ecosystems provide to human beings. Carbon storage, nutrient cycling, water and air purification, and maintenance of wildlife habitat are some of the major environmental benefits of forests. The produce of the forests of Telangana include timber, bamboo, teak poles, fuel firewood, charcoal, and beedi leaves which support livelihood opportunities, particularly in the rural areas.

In 2022-23, the forestry and logging sub-sector added Rs. 8,853 crore accounting for 3.60% of the Gross Value Added (GVA) by the primary sector and 0.74% of the total Gross State Value Added (GSVA) in the State at current prices.

The share of forestry and logging in the GVA by the primary sector as well as in the total GSVA experienced an increase between 2014-15 and 2022-23. The share of this sub-sector in the primary sector GVA increased by 0.38 percentage points between 2014-15 and 2016-17, while maintaining a constant share at 2.96% between 2017-18 to 2018-19 and witnessed a downward trend in 2019-20. Despite this temporary setback in 2019-20, the forestry and logging sub-sector has shown a significant increase by 1.32 percentage points between 2019-20 to 2022-23. Between 2014-15 and 2022-23, a similar trend is observed where the sub sector's share in the total GSVA at current prices increased by 0.21 percentage points.

Figure 12.5: Contribution of Forestry and Logging in Telangana to GSVA at current prices (2014-15 to 2022-23)
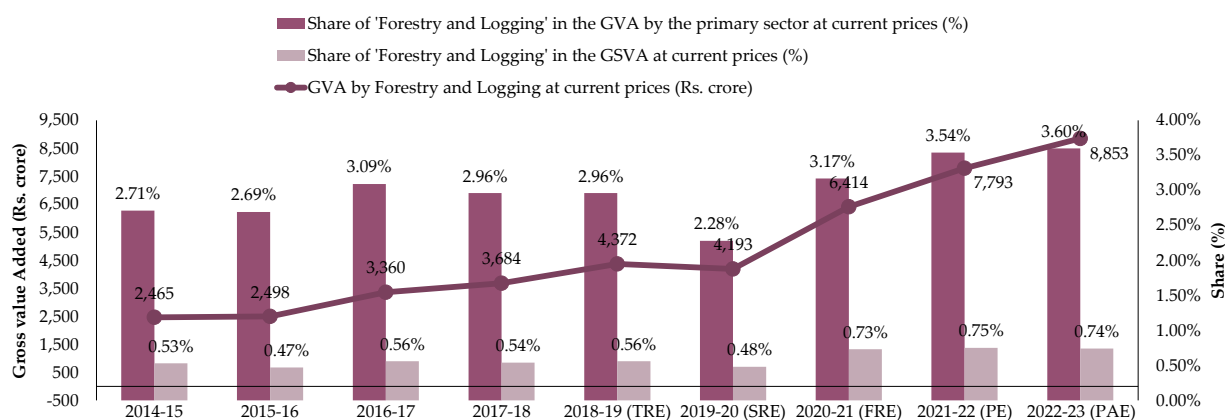
Abbreviations: PAE - Provisional Advanced Estimates, FRE- First Revised Estimates, SRE- Second Revised Estimates, TRE- Third Revised Estimates
Source: Ministry of Statistics and Programme Implementation (MoSPI), Government of India.

The GVA at current prices by forestry and logging grew from Rs. 2,465 crore in 2014-15 to Rs. 8,853 crore in 2022-23, experiencing almost thrice the increase. During this same time period, the GVA at current prices by the sub-sector also experienced a Compound Annual Growth Rate of 17.33%.

12.2.4.1 Carbon Stock

Forest carbon stock is the amount of carbon that has been sequestered from the atmosphere and stored within the forest ecosystem, mainly within living biomass, soil and to a lesser extent in dead wood and litter. Carbon stock plays a critical role in purifying air and water while serving as a tool for flood control and protecting natural resources that people are dependent on.

The total forest carbon stock in the State increased by 6.68% from 2019 to 2021. In this larger carbon pool, deadwood registered a 102.70% increase in the same time period. The State has also reported a carbon density of 76.36 tonnes per ha in 2021 marking a growth of 3.50% compared to 2019.

Table 12.2: Carbon Stock in Different Carbon Pools of Telangana (in '000 tonnes)

	Carbon Pool	2019	2021
Living BioMass	Above Ground Biomass (AGB)	41,389	44,413
	Below Ground Biomass (BGB)	17,227	18,415
Dead Organic Matter	Dead Wood	333	675
	Litter	2,031	2,169
Soil	Soil Organic Matter	90,862	96,314
Total		1,51,842	1,61,986

Source: India State of Forest Report (ISFR) 2019, 2021

12.2.4.2 Fire Prone Forest Areas

Forest fires are a regular phenomenon in our country often observed during summer. Severe fires occur in many forest types particularly in dry deciduous forests, while evergreen, semi-evergreen and montane temperate forests are comparatively less fire prone.

The extremely fire-prone areas of the State reduced by 37.23% in 2021 from 2019 whereas the national decline was only 11.26% in the same time period. Between 2019 and 2021, the moderately fire-prone areas also fell by 5.90%, while the country only saw a 2.38% fall.

Table 12.3: Classification of Forest Fire Prone Areas in Telangana

S No	Forest Fire Prone Classes	2021 Forest cover (in sq.km)	% of total forest cover
1	Extremely fire prone	572	2.70%
2	Very highly fire prone	2,970	14.00%
3	Highly fire prone	3,920	18.48%
4	Moderately fire prone	3,522	16.60%
5	Less fire prone	10,230	48.22%
	Total	21,214	100.00%

Source: India State of Forest Report (ISFR) 2021

12.2.5 Initiatives for a Green Telangana

12.2.5.1 Telanganaku Haritha Haram(TKHH)

The Government of Telangana launched the flagship Programme "Telangana Ku Haritha Haram (Green Garland for Telangana)" (TKHH) in 2015-16. Envisioned and implemented as a people's movement with the active involvement of the general public and farmers, it seeks to increase the tree cover of the State from 24% to 33% of its total geographical area, and is considered the third-largest afforestation programme in human history. This afforestation activity would improve biodiversity, maintain ecological balance, ensure sustainable livelihoods and good rainfalls.

The objectives of TKHH are also in perfect tune with the United Nations (UN) Sustainable Development Goal (SDG) 15 i.e., Life on Land, which seeks to protect, restore and promote sustainable use of terrestrial ecosystems, and forests, combat desertification, halt and reverse land degradation and biodiversity loss.

Under this programme, extensive plantation activities are being taken up inside and outside of the notified forest areas to increase forest density and assist natural regeneration through intensive water harvesting structures.

As reflected in the recently amended Panchayat Raj Act, 2018 and the Municipal Act, 2019, the Government has accorded due priority to the environment by allocating 10% of their budgets as 'Green Budget' for taking up environmental initiatives.

As of 2022 -23, 14,965 nurseries have been established and 270.65 crore saplings have been planted with an 117.68% achievement rate as against the target of 230 crore plantations with an incurred expenditure of Rs.10,417 crore.

Figure 12.6: Plantation achievement under TKHH from 2015-16 to 2022-23

Legend: ■ No. of Plantations ■ Cumulative Plantation

Data labels:
- 2015-16: 15.86
- 2016-17: 31.67
- 2017-18: 60.05
- 2018-19: 36.55
- 2019-20: 42.91
- 2020-21: 33.46
- 2021-22: 29.89
- 2022-23: 20.26
- Total Achmt.: 270.65

Y-axis: No.of Plantations (in Crore)
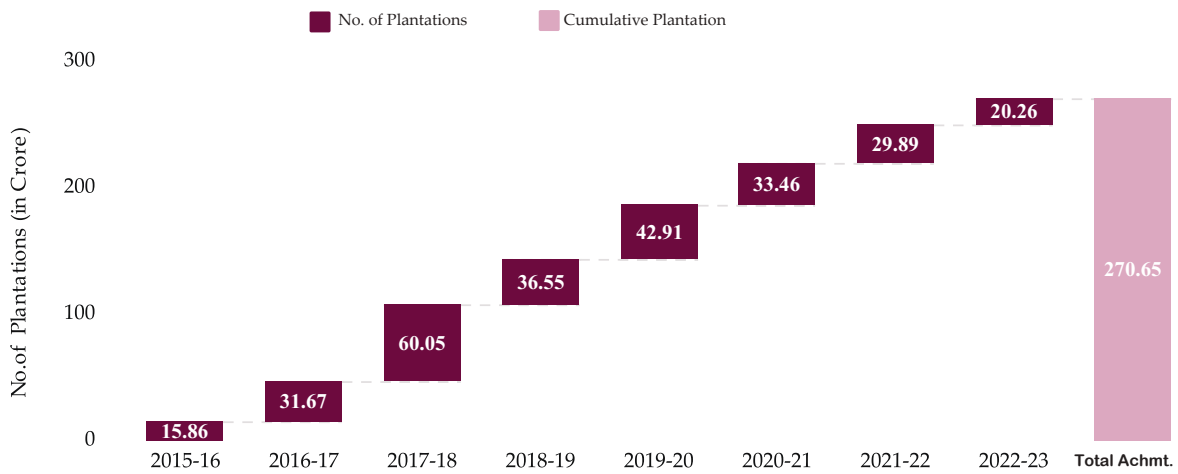
Source: Dept of Environment, Forests, Science and Technology, Govt. of Telangana

According to ISFR, the forest cover outside of the recorded forest area in the State was 1,727 sq.km in 2015 which increased to 2,518 sq km in 2021 showing a significant increase of 45.80%, which can be attributed to the Government's flagship programs like TKHH.

Haritha Nidhi (Green Fund)

In order to expand, enhance and enable sustainable growth of the ongoing TKHH programme, a remarkable initiation of the Government is the creation of Haritha Nidhi (Green Fund). This Green Fund is to receive contributions from various sources viz., public representatives, government employees and other sections of the society which shall be a predefined portion of taxes and fees that the State Government shall impose. So far, an amount of Rs. 29 crore has been contributed under Haritha Nidhi that is being utilised to strengthen the existing TKHH.

Box 12.1

Forest-PLUS 2.0: Forest for Water and Prosperity

In continuation of the Government's commitment to protect and expand the State's rich forest cover, in collaboration with United States Agency for International Development (USAID), it launched a new management tool- "Forest Plus 2.0: Forest for Water and Prosperity" in Medak district on a pilot basis in 2019 to help improve agroforestry, horticulture, and plantation practices in areas outside of forests in the State.

The tool seeks to provide technical assistance to the State Forest Department and its Medak Forest Division to manage forests from an ecosystem approach, promoting the wide range of ecosystem services that forested landscapes provide. A major component of the program is to promote broad-based, inclusive sustainable economic growth banking on key economic enterprises.

As of June 2022, under this program, an integrated system called Van comprising a mobile app and a web portal has been developed to aid in the preparation of Working Plans and collect data on forest inventory, ecosystem services while generating automated reports, including geospatial reports for the Working Plans. Owing to the success achieved in Medak, the Government has scaled up the use of this Van System across the State in 56 other forest divisions.

12.2.5.2 Urban Forestry

Urban Forestry is an integrated concept, defined as the art, science, and technology of managing trees and forest resources in and around community ecosystems for the psychological, sociological and environmental benefits that trees provide to the society.

To make Telangana a greener State, and create more lung spaces for the citizens, the Government has proposed to develop 109 Urban Forest Parks, of which 77 have been completed and 60 made available for the general public. In addition to this, in collaboration with both the Greater Hyderabad Municipal Corporation (GHMC) & the Hyderabad Metropolitan Development Authority (HMDA), greening the twin city efforts are being prioritised:

- Developed Urban Lung Spaces in 16 Forest Blocks over 14,708.24 acres located in the HMDA jurisdiction at the cost of Rs 116.63 crore and opened 6 parks for the general public.

- Developed a Green Corridor through intensive plantation along 158 km of Outer Ring Road and interchanges of 457.23 acres by planting 71.15 lakh seedlings.

- Proposed to develop 59 Urban Forest Parks in the HMDA jurisdiction, of which 48 parks have been developed.

- Greened 14 lakes in the HMDA jurisdiction and opened them up for public recreation purposes.

- 57 major theme parks are being developed with a financial outlay of Rs. 137.21 Crore.

- 406 layout open spaces have been identified for tree plantations and are being converted into Tree Parks for the utilisation of visitors.

- On the occasion of 75 Years of India's Independence, "75 Freedom Parks" are being developed in GHMC.

Awards, Recognitions, and Accolades Received

- The city of Hyderabad was recognised as the "Tree City of the World" by the United Nations Food and Agriculture Organization (FAO) and the Arbor Day Foundation for the two consecutive years of 2020 & 2021.

- Hyderabad won the prestigious "International Association of Horticulture Producers" (AIPH) award in 2022.

- The city of Hyderabad was also awarded "Green Garland to the State of Telangana" in the category of Living Green for Economic Recovery and Inclusive Growth.

12.2.5.3 Telangana State National Green Corps (TSNGC)

The National Green Corps is a major initiative of the Government established to create environmental awareness and discipline among all students of the State's 33 districts through the grouping of eco-clubs. TSNGC promotes environmental awareness through the organisation of programmes and competitions such as quizzes, essay writing, ganesh clay idol promotions etc.,.

12.2.5.4 Geomatics

Geomatics refers to the methods and technologies used to collect, distribute, store, analyse, process, and present geographic data. It encompasses Geographic Information Systems (GIS), Global Positioning Systems (GPS), cartography, remote sensing, and surveying.

The Forest Department uses geomatics-based tools for the efficient management of its forests along with Information and Communication Technology (ICT) tools. The Department has also developed a modular-based web-enabled Forest Management Information System (FMIS) for public servants and other stakeholders.

12.2.5.5 Implementation of Forest Rights Act (FRA), 2006

The Government of India enacted the 'Scheduled Tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) Act' in 2006, also known as FRA, 2006, and subsequently in 2008,

the 'Scheduled Tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) Rules' were introduced.

The FRA, 2006 grants Scheduled Tribes and other traditional forest dwellers the right to ownership of forest land in addition to rights to "protect, regenerate or conserve or manage any community forest resource that they have been traditionally protecting and conserving for sustainable use".

12.2.5.6 Implementation of Telangana State Compensatory Afforestation Fund Management And Planning Authority Act (TS CAMPA)

The TS CAMPA was established in 2014 by the Government and was entrusted with the responsibility of managing funds received from user agencies towards compensatory afforestation, additional compensatory afforestation, penal compensatory afforestation, and Net Present Value to compensate for the diversion of forest land to non-forest uses. It also assists forest fire management, biodiversity wildlife conservation and allied monitoring and evaluation activities.

From 2011-12 to 2022-23, 82,114.22 ha of plantations have been raised, of which 27,403.58 ha were raised under the Compensatory afforestation component and 54,710.64 ha as the Net Present Value component. As of December 2022, Rs. 2,159.95 crore funds have been utilised since 2009-10 to 2022-23.

12.2.6 Institutions for Forest Management, Research, and Training

12.2.6.1 Telangana State Forest Development Corporation Ltd. (TSFDC)

The Telangana State Forest Development Corporation was established with the objective of raising plantations to meet the demand of wood-based industries. The corporation has been raising plantations of various species such as eucalyptus, bamboo, cashew, teak, medicinal plants etc., over 32,951.39 ha to meet the pulpwood demand of various paper mills in the state, thus relieving the natural forests from the burden of supplying the raw materials to them.

Table 12.4: Harvesting of various species for the years from 2014-15 to 2022-23

Species	Eucalyptus pulpwood	Long Bamboo	Bamboo Industrial Cuts	Cashew
Unit	MTs	Numbers	MTs	MTs
2014-15	7,073	10,97,191	437	4.96
2015-16	-	16,23,413	617	4.96
2016-17	1,26,535	28,47,142	544	6.02
2017-18	2,81,813	21,58,276	620	5.96
2018-19	1,20,899	19,69,854	674	5.88
2019-20	1,49,330	26,71,121	860	4.83
2020-21	1,65,000	23,88,046	721	4.83
2021-22	1,18,562	19,14,946	287	5.53
2022-23 (up to 31 Dec 22)	2,35,178	23,87,587	188	-
Total	12,04,390	1,90,57,576	4,948	42.97

Source: Dept. of Environment, Forests, Science and Technology, Govt. of Telangana

Based on the requirements of various industries, 12,04,390 MTs of Eucalyptus pulpwood, 1,90,57,576 numbers of Long Bamboo, 4,948 MTs of Bamboo Industrial Cuts and 42.97 MTs of Cashew species have been harvested and generated a revenue of Rs 623.99 crore as of December 2022.

12.2.6.2. Telangana State Forest Academy(TSFA)

The TSFA is the state-level centre for training the personnel of the Forest Department, representatives of NGOs and Vana Samrakshana Samithi (VSS) on various aspects of natural forestry, geomatics-related topics and natural resource management. In 2022-23 (up to December) the TSFA has organised 29 state-level training programs with 1,829 participants.

12.2.6.3. Forest College Research Institute (FCRI), Mulugu

In 2016, the Forest College and Research Institute (FCRI) was established by the Government in Mulugu mandal of Siddipet district. The Institute aims to train and produce qualified forestry professionals for the conservation and sustainable management of forest resources by offering bachelor's, master's, and doctoral degree programs in forestry. The FCRI also provides extensive training to farmers and develops agro-forestry models suitable for various agroecological systems.

12.3 Biodiversity

According to the Biological Diversity Act of 2002, biodiversity is a measure of variation at the genetic, species, and ecosystem levels. It supports ecosystem services that have an economic value for humans in terms of direct/indirect use, provisioning services such as fuel & fodder as well as regulating services such as carbon sequestration and prevention of soil erosion.

12.3.1 Implementation of Biological Diversity Act, 2002

The Biological Diversity Act 2002, enacted by the Government of India aims to conserve biodiversity, manage its sustainable use and enable fair and equitable sharing of benefits arising out of the use of biological resources and knowledge. These biological resources range from plants, and animals, to microorganisms or parts thereof, their genetic material and by-products (excluding value-added products) with actual or potential use or value, but do not include human genetic material.

12.3.2 Telangana State Biodiversity Board (TSBB)

The Government created the Telangana State Biodiversity Board (TSBB) as a statutory and autonomous body corporate with the objective of strengthening the implementation of the Biological Diversity Act, 2022 and Rules with a focus on access and equitable benefit sharing arising out of the use of these biological resources

The TSBB is entrusted with the responsibility to facilitate the constitution of biodiversity management committees at the local body level, the preparation of people's biodiversity registers in the areas of potential bioresources, to take up capacity building, training and awareness programs about the provisions of the Biodiversity Act & Rules.

Biodiversity Management Committees (BMCs)

The TSBB constituted Biodiversity Management Committees (BMCs) in the State under Section 41 of the Biological Diversity Act, 2002. Currently, there are 13,482 BMCs at all the local body levels (Gram Panchayats, Mandals, Municipalities, and Zilla Parishads).

The major functions of BMCs are the preservation and promotion of local biodiversity- breeds of birds, animals, and plants, preparation of People's Biodiversity Registers (PBR)- an electronic database with inputs from locals, maintenance of data on medicinal plants/resources used by traditional healers, while acting as an advisory to the State & National Biodiversity Boards on matters related to local biodiversity.

People's Biodiversity Registers (PBRs)

One of the main functions of the BMCs is the preparation of the People's Biodiversity Register (PBR) in consultation with local people. These Registers contain comprehensive information on the local biological resources, their medicinal or any other use, and any other traditional knowledge associated with them. As stipulated by the Biological Diversity Act 2002 and Rules 2015, 13,426 (99.58%) BMCs have been prepared with a baseline electronic PBRs dashboard.

12.3.3 Conservation of Biodiversity

Biodiversity conservation refers to the protection, preservation, and management of ecosystems and natural habitats and ensuring that they are healthy and functional. In line with the Government's commitment to conserve and protect the State's ecosystems, it has adopted both in-situ and ex-situ measures for the conservation of biodiversity in the state. In 2021, the Amrabad Poda Lakmi Govu Sangam, Telangana also received an award under the "Conservation of Domesticated Species" category.

12.3.3.1 In-situ Conservation

In-situ Conservation refers to the preservation and protection of the species in their natural habitat. In-situ conservation includes biosphere reserves, national parks, wildlife sanctuaries, biodiversity hotspots, gene sanctuaries, and sacred groves.

To protect the State's rich biodiversity, the Government declared a network of 12 protected areas that includes 9 wildlife sanctuaries (see Table 12.5) and 3 national parks (see Table 12.6) covering an area of 5,692.50 sq.km.

Table 12.5: Wildlife Sanctuaries in Telangana

Name of the sanctuary	District	Area (sq.km)
Kawal Tiger Reserve *	Mancherial and Nirmal	892.23
Pranahita Wild Life Sanctuary	Mancherial	136.02
Siwaram Wild Life Sanctuary	Mancherial and Peddapalli	29.81
Eturunagaram Wild Life Sanctuary	Jayashankar	803.00
Pakhal Wild Life Sanctuary	Mahbubabad	860.20
Kinnerasani Wild Life Sanctuary	Bhadradri Kothagudem	635.40
Manjira Wild Life Sanctuary	Sangareddy	20.00
Pocharam Wild Life Sanctuary	Medak and Kamareddy	129.84
Amrabad Tiger Reserve **	Nagarkurnool and Nalgonda	2,166.39
Total Area		5,672.89

* Core area of Kawal Tiger Reserve ** Core area of Amrabad Tiger Reserve

Source: Dept. of Environment, Forests, Science and Technology, Govt. of Telangana

Table 12.6: National Parks in Telangana

Name of the National Park	District	Area (sq. km)
Kasu Brahmananda Reddy National Park	Hyderabad	1.42
Mrugavani National Park	Rangareddy	3.60
Mahavir Harina Vanasthali National Park	Rangareddy	14.59
Total Area		19.61

Source: Dept. of Environment, Forests, Science and Technology, Govt. of Telangana

12.3.3.1.1 Project Tiger

Telangana has two tiger reserves with the objective to ensure the survival and propagation of tigers (see Table 12.7). The Amrabad Tiger Reserve (ATR) is part of the Nallamala Forest track and has rich biological diversity with several endemic species of flora and fauna. This Tiger Reserve is one of the largest tiger reserves in India that extends over 2,611.39 sq.km over the Nagarkurnool and Nalgonda districts. It is the second-largest tiger reserve in core area at 2,166.37 sq.km and the sixth-largest tiger reserve in terms of the total area, among 52 tiger reserves in India.

The Kawal Tiger Reserve (KTR) with an area of 2,015.44 sq.km has forest areas which are contiguous to the Tadoba-Andheri Tiger Reserve in Maharashtra and Indravati Tiger Reserve in Chhattisgarh. Tigers have been observed to migrate between Kawal and the other two reserves. According to Tiger Census 2018, there are 26 tigers in Telangana, of which 16 tigers are in the Amrabad Tiger Reserve and 10 in the Kawal Tiger Reserve.

Table 12.7: Tiger Reserves in Telangana (in sq.km)

Name of the Tiger Reserve	Core Area	Buffer Area	Total Area
Kawal Tiger Reserve	892.23	1,123.21	2,015.44
Amrabad Tiger Reserve	2,166.37	445.02	2,611.39

Source: Dept. of Environment, Forests, Science and Technology, Govt. of Telangana

Under the Swadesh Darshan initiative of the Government of India, an eco-tourism circuit in Mahbubnagar district has been developed. Encompassing the Nallamala Hills and the Eastern Ghats, this circuit covers numerous rivers, waterfalls, temples, and natural caves, with the Srisailam temple anchoring the whole package. The revenue generated through the eco-tourism projects in Mannanur, Farhabad, Mallelatheertham and Domalapenta with the involvement of local communities is deposited in the Tiger Conservation Foundation and utilised for the development and conservation of wildlife, particularly tigers.

12.3.3.2 Ex-situ Conservation

Ex-situ Conservation refers to the conservation of life outside its natural habitat or place of occurrence. These artificial ecosystems could be zoos, nurseries, botanical gardens etc.,.

The Government has adopted ex-situ conservation methods to facilitate the breeding of endangered species and their rehabilitation in their natural habitat. For this purpose, the Government manages two zoos in the state - Hyderabad and Warangal (see Table 12.8).

The Government has also set up deer parks to conserve antelopes including Blackbuck (Antilope cervicapra), Sambhar deer (Rusa unicolour), Chousingha deer (Tetracerus quadricornis) and Spotted Deer (Axis axis) at four locations. In addition to this, there are two private deer parks in the State (see Table 12.8).

Table 12.8: Zoological Parks and Deer Parks in Telangana

S.No	Name	District	Area (hectares)
Zoological Parks			
1	Nehru Zoological Park	Hyderabad	152.00
2	Kakatiya Zoological Park	Hanamkonda	19.22
Total area under zoological parks			**171.22**
Government-owned Deer Parks			
3	Jawaharlal Nehru Tourist Complex (JLTC)	Medchal Malkajgiri	26.00
4	Pillalamarri Deer Park	Mahabubnagar	5.80
5	Kinnerasani Deer Park	Bhadradri Kothagudem	14.50
6	LMD Deer Park	Karimnagar	12.50
Total area under Government-owned deer parks			**58.80**
Private Deer Parks			
7	Deer Park - Kesoram Cement	Peddapalli	5.31
8	Sanghi Deer Park	Rangareddy	-
Total area under private deer parks			**5.31**
Total area under deer parks			**64.11**
Total area under zoological parks and deer parks			**235.33**

Source: Dept of Environment, Forests, Science and Technology, Govt. of Telangana

12.3.4 BIOSOT

The Government constituted the Biodiversity Conservation Society of Telangana (BIOSOT) to implement conservation measures in the wildlife sanctuaries of the State. The interest accrued for the funds deposited with respect to the Srisailam Left Bank Canal Project is utilised for the protection and management of sanctuaries and tiger reserves by the Society. This includes initiatives such as habitat improvement, installation of solar pump-equipped bore wells, and purchase of camera traps to monitor the movement of wild animals etc.,.

12.4 Pollution Control

12.4.1 Telangana State Pollution Control Board (TSPCB)

The Telangana State Pollution Control Board (TSPCB) is working with a vision "To achieve economic growth with environmental management for an improved quality of life in Telangana". The board is at the forefront of the implementation of environmental legislations in Telangana as well as new initiatives and technologies for controlling industrial pollution and creating public awareness on the same.

12.4.1.1 Air Quality

An Air Quality Index (AQI) is a composite measure of air pollution. Based on the ambient concentration values of air pollutants and their likely health impacts, AQI categorises pollution levels into - Good, Satisfactory, Moderate, Poor, Very Poor, and Severe. No monitoring station in the State recorded an AQI level worse than 'moderate' between 2016 and 2021.

To monitor air quality, the Government has installed 50 ambient air quality stations, 14 Continuous

Ambient Air Quality monitoring stations (CAAQMS), 10 real-time noise monitoring stations and also introduced the TSAIR mobile application through which the public can register complaints related to air pollution.The Board is also targeting a 30% reduction in Particulate Matter of less than 10 microns (PM 10) by 2025-26.

2.4.1.2 Water Quality

The TSPCB monitors water quality of water bodies in the State under the National Water Quality Monitoring Programme (NWMP). 244 water quality monitoring stations have been established in Telangana by covering 51 stations on rivers, 135 locations on tanks/lakes, 46 locations on groundwater and 25 locations on sewage treatment plants. Two Real-Time Water Quality Monitoring Stations (RTWQMS) have also been installed in Hussain Sagar Lake and Fatehnagar.

12.4.2 Waste Management

12.4.2.1 Solid Waste Management

- The Government of Telangana established a biogas plant with a capacity of 5 tonnes, 25 static Secondary Collection & Transfer Points (SCTPS) and deployed 84 mobile SCTPs for the decentralised transportation of waste and effective usage of Swachh Auto Tippers.

- A total quantity of 4.26 lakh tonnes of C&D (Construction and Demolition) waste was collected and transported and about 1.83 lakh tonnes of waste was processed by the two C&D plants of the State.

- The construction of a 14.5 MW capacity 'Waste to Energy' plant at Dundigal has commenced and work is under progress.

- An integrated solid waste management project at Jawahar Nagar is in progress with an outlay of Rs 251.01 Crore.

- Currently, 205 Dry Resource Collection Centres (DRCCs) have been established in 141 Urban Local Bodies (ULB) to process dry waste.

- In the State, 21 Faecal Sludge Treatment Plants (FSTPs) have been constructed, out of the proposed 139 with a capacity of 2,060 KLD in 141 ULBs with an outlay of Rs.428 crore.

12.4.2.2 Bio-Medical Waste (BMW)

Effluents, bio-medical and hazardous waste transport vehicles are being tracked through a GPS-based online vehicle tracking and manifest system in the State. The Government has permitted 11 Common Bio-Medical Waste Treatment Facilities (CBWTFs) in the State for the collection and safe disposal of BMW. Currently, 51 bio-medical waste-carrying vehicles are equipped with GPS tracking.

Between 2016 and 2020, 81.87% of BMW in the State is being generated in bedded hospitals while the remaining 18.13% is from non-bedded hospitals. The Government has always ensured that 100% of all this Bio-Medical Waste generated in the State is treated.

Figure 12.7: Bio-medical Waste generated in Telangana (2016 to 2020) (Qty. in Kgs)
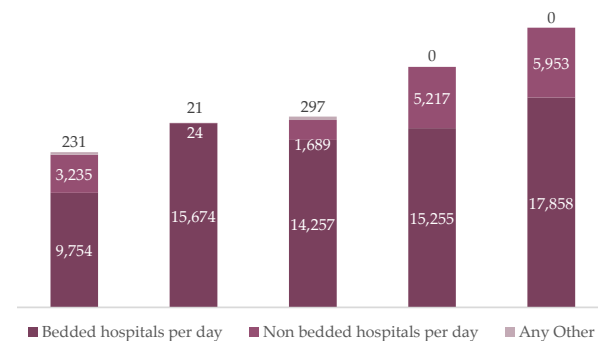
Source: Telangana State Pollution Control Board

12.4.2.3 E-Waste Management Policy 2017

The policy envisions the creation of a society that plays an active role in managing E-Waste through segregation and channelisation of end-of-life

products to the right avenues. For the same, the Government has earmarked industrial spaces or sheds for dismantling or recycling e-waste in the upcoming industrial parks, estates & clusters and has accorded permission to 15 E-waste recycling facilities. Moreover, E-waste workers would be provided with the necessary skills through the Telangana Academy for Skill and Knowledge (TASK) and the Skill Council for Green Jobs.

12.5 Conservation and Climate Action

Climate change (CC) poses a challenge to the sustainability of social and economic development, livelihoods of communities, and environmental management.

Major CC issues for the State are arising in the agriculture and forestry sectors particularly owing to the variability in rainfall and temperature patterns. Besides these two sectors, other critical areas of concern are food security, the increasing number of climate-vulnerable habitats (like slums or village dwellings), and climate-vulnerable infrastructure (like roads and bridges which may be washed away by floods).

12.5.1 Environment Protection Training and Research Institute (EPTRI)

The Government of Telangana appointed EPTRI as the Nodal Agency for Clean Development Mechanism (CDM) and Centre for Climate Change (CC) with the objective of assessing the risk and vulnerability of the State to climate change, to develop sector-specific adaptation and mitigation strategies, build a data bank and a Climate Knowledge Portal for storing and retrieving climate change information at the State level.

EPTRI developed the Telangana State Action Plan for Climate Change (TSAPCC) in 2015 envisioning an inclusive and sustainable development of the State that protects the vulnerable sections of society from adverse effects of CC while improving ecological sustainability. It is currently in the process of revising the same according to the Ministry of Environment, Forest and Climate Change (MoEF&CC) guidelines.

EPTRI also has dedicated centres for carrying out various environmental studies like Environment Engineering and Management, Environment and Sustainable Development Centre and Environmental Innovation and Incubation Hub etc.,.

The Disability Adjusted Life Years (DALY)[1] Rate attributable to Environmental risks in Telangana.

According to India: Health of the Nation's States Report 2017, the Disability Adjusted Life Years (DALY) Rate attributable to "other environmental risks" (per 1 lakh population) in the state is 372. It can be observed that DALY's Rate attributable to "other environmental risks" is less when compared with other southern states.

Figure 12.8: DALY's rate attributable to Other environmental risk factors in southern states, 2017 (No. of Persons)
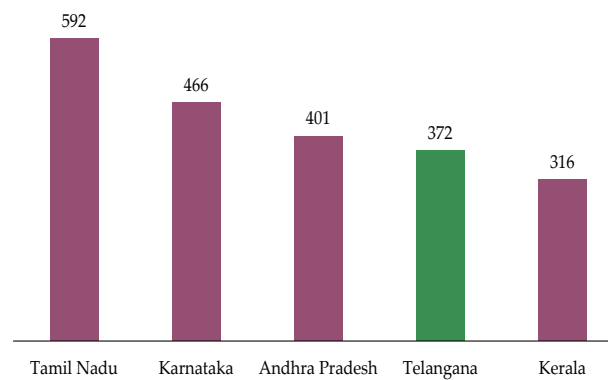
Source: India-Health of the Nation's States Report 2017

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1   DALY stands for 'Disability Adjusted Life Years', and is a time-based measure that combines years of life lost due to premature mortality (YLLs) and years of life lost due to time lived in states of less than full health, or years of healthy life lost due to disability (YLDs). One DALY represents the loss of the equivalent of one year of full health.

12.6 Way Forward

Conservation and ecologically sustainable development can be the only way to make the planet liveable for future generations. With this vision and given the importance of the need to protect the environment and preserve biodiversity, the State has embarked on an ambitious plan to mitigate the impacts of climate change. The State has adopted innovative, inclusive green practices and initiated laudable schemes such as TKHH with an aim to increase the forest cover in Telangana from 24% to 33%. Similarly, to evolve the green spaces of the State for better health and create a salubrious environment for the citizens in urban areas, the Government has developed 77 urban forest parks. In addition to afforestation efforts, Telangana recognises the need to enable an energy transition to renewable sources to reduce its emissions. In this context, solar power is being substantially augmented to add to the energy mix of the State and, currently the State stands second in the 'State Rooftop Attractiveness Index (SARAL)' while being fourth in the country in total solar power production. A 100 Megawatt floating solar plant in Ramagundam that will produce Green Methanol and electric mobility are other notable initiatives to propel the State as a pioneer of renewable energy and effectively contribute to the country's Intended Nationally Determined Contributions (INDCs). In addition to this, the TSPCB and TSBB continue to implement various environmental protection and awareness activities to achieve an ecologically sustainable development vision of Telangana. There shall be a continued focus on reducing the vulnerability of the State to climate change and other environmental risks while mainstreaming sustainability into Telangana's governance.

PANCHAYAT RAJ AND RURAL DEVELOPMENT

Key Highlights

- Government of Telangana, since its formation in 2014, undertook spatial and administrative decentralisation with the underlying tenets of transparent and people-first governance. It reorganised 10 districts into 33 districts, 459 mandals into 612, and 8,368 Gram Panchayats into 12,769 Gram Panchayats.

- The Government promulgated 'The Telangana Panchayat Raj Act 2018 (PR Act 2018)' clearly defining powers available to GPs, outlining the roles and responsibilities of their functionaries, and introducing a monitoring system for Mandal Panchayat Officers to inspect the functioning of GPs once every 3 months. In line with the Panchayat Raj Act, the declaration of many tribal thandas as independent GPs has helped empower marginalised sections of society too.

- In accordance with the new PR Act 2018, Palle Pragathi programme was launched in 2019 with the twin objectives of enhancing the quality of life in rural areas and improving the governance of Gram Panchayats (GPs). The programme completed five campaign rounds until June 2022 with a total expenditure of Rs. 14,235.50 crore. The state has witnessed a transformation in rural governance, with improvements in Gram Panchayat (GP) infrastructure as well as better service delivery relating to the laying of CC roads, sanitation, street lighting, water supply, green cover, and financial management.

- At the primary level, a mobile application for Panchayat Secretaries was developed to capture Gram Panchayat-level data on infrastructure, service delivery and governance. At the secondary level, another mobile application was developed for supervisory officials - Mandal Panchayat Officers (MPOs), Divisional Level Panchayat Officers (DLPOs), and District Panchayat Officers (DPOs) - to capture information during observation and inspection visits. At the tertiary level, State Level Visitors capture and upload observation data during their visits to GPs. These 3 layers of data integrate to form a system of nested supervision and supportive supervision, enabling the Government to effectively assess and track outcomes of flagship schemes and initiatives of the State viz. Palle Pragathi, Haritha Haram, Palle Prakruthi Vanam & Bruhat Palle Prakruthi Vanam, Mission Kakatiya, etc.

Democratic Decentralisation and Development

Active participation and effective governance of the people, by the people and for the people is central to a functioning democracy. Such participation and effectiveness are possible only when the functions and resources of the state are devolved to the elected representatives at all levels of the government. This devolution is aimed at empowering all sections of the people to come together, identify their strengths and problems, and suggest as well as demand solutions and monitor their implementation. This forms the crux of democratic decentralisation.

The 73rd constitutional amendment empowered the Panchayat Raj Institutions (PRIs) to create their own development plans, generate taxes, and administer schools, health facilities, development infrastructure etc., for economic development and social justice at grassroot level.

Taking the concept of democratic decentralisation in its letter and spirit, the Telangana Government, since the formation of the state, has been involved in changing the paradigm of the planning process so as to reflect the felt needs of the people in the policies and programmes. Through the introduction of the new Panchayat Raj Act, 2018 and its implementation through Palle Pragathi (Telangana Rural Inclusive Growth Project), the Telangana Government continues to focus on solving grassroots issues. Further, under the Fifth Schedule of the Constitution, special provisions are made for the Scheduled Areas. Currently, the Scheduled Areas in the state consist of 1,180 scheduled villages spread over 85 mandals in nine districts— Adilabad, Komaram Bheem-Asifabad, Mancherial, Mulug, Warangal (Rural), Mahbubabad, Bhadradri-Kothagudem, Khammam, and Nagarkurnool districts.

Table 13.1 District Wise and Mandal Wise Gram Panchayats in the State

Sl No.	Dis tricts	Number of Mandals	Number of Gram Panchyats
1	Adilabad	17	468
2	Bhadradri Kothagudem	22	481
3	Hanumakonda	12	208
4	Jagitial	18	380
5	Jangoan	12	281
6	Jayashankar Bhupalapally	11	241
7	Jogulamba Gadwal	12	255
8	Kamareddy	22	526
9	Karimnagar	15	313
10	Khammam	20	589
11	Kumuram Bheem Asifabad	15	335
12	Mahabubabad	16	461
13	Mahabubnagar	14	441
14	Mancherial	16	310
15	Medak	20	469
16	Medchal Malkajigiri	5	61
17	Mulugu	9	174
18	Nagarkurnool	20	461
19	Nalgonda	31	844
20	Narayanpet	11	280
21	Nirmal	18	396
22	Nizamabad	27	530
23	Peddapalli	13	266
24	Rajanna Sircilla	12	255
25	Rangareddy	21	558
26	Sangareddy	25	647
27	Siddipet	23	499
28	Suryapet	23	475
29	Vikarabad	18	566
30	Wanaparthy	14	255
31	Warangal	11	323
32	Yadadri Bhuvanagiri	17	421
33	Grand Total	540	12,769

Hierarchy and Status of Panchayat Raj Institutions in the state

Table 13.2 - Panchayat Raj Institutions

Sl. No	Administrative Unit		Number of Units before 2014	Number of Units as on December 2022
1	Zilla Praja Parishads	District	9	32
2	Mandal Praja Parishads	Block	459	540
3	Gram Panchayats	Village	8,368	12,769

13.2 Implementation Status: Telangana Panchayat Raj Act 2018

The Telangana Panchayat Raj Act, 2018 mandates that only the State Legislature is competent to notify or de-notify a gram panchayat. According to the Act, the Gram Panchayat is primarily responsible for

1. Citizen service delivery - welfare schemes and grievance redressal,

2. Local governance - a collection of taxes and non-taxes,

3. Maintenance of infrastructure such as plantations, streetlights, sanitation and roads, etc.,

4. Upkeeping of official registers and records

Each Gram Panchayat shall strive to transform the village into a 'model village' and shall accordingly prepare a perspective plan for the Gram Panchayat called the Gram Panchayat Development Plan (GPDP). This GPDP should help the GP in becoming a model village, which is clearly defined by the Act. In order to ensure the smooth implementation of the plans and accountability of the village-level functionaries, Gram Sabha must meet at least once in two months (at least 6 times a year).

At the mandal level, a group of Gram Panchayats organised as a Mandal Praja Parishad (MPP) ensures that development targets are set for the

Gram Panchayats within their purview. At the district level, the Zilla Praja Parishad coordinates the activities of all rural local bodies in the district such as minor irrigation works, vocational and ITIs, village industries, sanitation and public health, and the primary areas of responsibilities of GPs mentioned above. Zilla Praja Parishad functions mostly through various Standing Committees, which oversee and coordinate the common programmes of the villages under its jurisdiction.

The act stipulates that several reports including the annual development report, audit report and administrative report need to be placed before the Gram Sabha. There are 4 standing committees in the Grama Sabha looking after Sanitation, Street Lights, plantations and Works. Sarpanch and Panchayat Secretary stand to be removed from their positions for non-conduct of Audit in their Panchayat. Further, powers are delegated to the District Collectors to initiate disciplinary action against Panchayat officials. Additionally, a Gram Panchayat Tribunal is constituted to appeal the removal of Sarpanchs. For ensuring equitable representation, reservations to eligible castes and classes are extended for 2 terms, with 100% ST population villages reserved for the ST category only in plain areas. In addition, Article 243D of the Constitution ensures the participation of women in Panchayati Raj Institutions by mandating not less than one-third reservation for women out of a total number of seats to be filled by direct election. Going over and above stipulated laws for furthering women's empowerment, the State has made provisions for 50% reservation for women in Panchayati Raj Institutions through the Telangana PR Act 2018. Elections to all the 3 tiers of the rural local bodies in the state were conducted in 2019.

13.2.1. Administration of Gram Panchayats

Gram Panchayat is locally administered by the Panchayat Secretary and the roles and responsibilities of a Panchayat Secretary is to

- Oversee the activities of the gram panchayat and prepare administrative reports.

- Convene the meetings of the gram sabha after

duly communicating the agenda to the members of GP and keeping its record of the proceedings and resolutions for onward transmission to the MPOs within three days from the date of the meeting.

- Ensure that the Gram Panchayat is clean on a daily basis and monitors sanitation and ensures cleaning of all streets, public places and institutions, schools, and colonies on a regular basis.

- Ensure regular desilting of drains and the collection, transportation and safe disposal of waste in the dumping yard.

- Ensure proper maintenance of Tricycles, tractors and other waste-lifting vehicles and ensures the spreading of bleaching and lime powders as per standards.

- Ensure the proper maintenance of street lights.

13.2.2. Reporting Systems for Panchayat Secretaries

Over the last 3 years, a foundation has been established for technology-based, verifiable data-based reporting by the field-level panchayat raj officials. The first mobile application has been developed for monitoring the work of the Panchayat Secretaries on a daily basis in January 2020. Monthly indicators have been designed to monitor and analyse the performance of Panchayat Secretaries with a strong outcome focus. Indicators designed are aligned with the responsibilities of the Panchayat secretaries as per the Telangana Panchayat Raj Act 2018.

13.2.3. Governance of Gram Panchayats

1. The Mandal Panchayat Officers (MPO) play an important role in the assessment of Gram Panchayats' performance within his/ her jurisdiction. They will review the work of Panchayat Secretaries within their jurisdiction. They will exercise supervision, and control and provide guidance to the Gram Panchayats and their Executive authorities. Ensures timely

preparation and submission of the annual budget, administrative reports, periodical returns, replies to audit reports of the Gram Panchayats, Ensures maintenance of Gram Panchayat accounts strictly in accordance with the rules and upload the accounts in the website specially designed for this purpose in every month as per model accounting manual issued by the Government, Ensures periodical reconciliation of Gram panchayat Accounts with local subtreasury and take immediate necessary steps to identify the reasons for differences, if any and rectify them, Inspects all Gram Panchayats in the Mandal in every quarter, and submit a detailed Inspection Report to Divisional Panchayat Officer. Holds enquiries and submits reports to higher authorities on complaints of maladministration in Gram Panchayats. In summary, the MPO functions as a facilitator of the Gram Panchayat Administration.

With the smallest average mandal population of any state, Telangana is at an advantage.

Figure 13.3. Average Mandal / BlockPopulation -2022

Sl No	18 Non-special category states	Projected Population in 2022	Average Block Population	Number of Mandals/ Blocks
1	Telangana	3,75,56,026	61,366	612
2	Andhra Pradesh	5,27,87,000	79,023	668
3	Goa	15,12,000	1,26,000	12
4	Odisha	4,40,33,000	1,40,233	314
5	Jharkhand	3,84,71,000	1,45,724	264
6	Tamil Nadu	7,64,02,000	1,96,913	388
7	Punjab	3,03,99,000	2,01,318	151
8	Chhattisgarh	2,94,93,000	2,02,007	146
9	Haryana	2,94,83,000	2,07,627	142
10	Rajasthan	7,92,81,000	2,25,231	352
11	Bihar	12,30,83,000	2,30,493	534
12	Kerala	3,54,89,000	2,33,481	152
13	Madhya Pradesh	8,45,16,000	2,70,020	313
14	Uttar Pradesh	23,09,07,000	2,78,874	828
15	Gujarat	6,97,88,000	2,79,152	250
16	West Bengal	9,81,25,000	2,85,248	344
17	Karnataka	6,68,45,000	2,94,472	227
18	Maharashtra	12,44,37,000	3,53,515	352
	Average	1,25,26,07,026	2,07,077	6,049
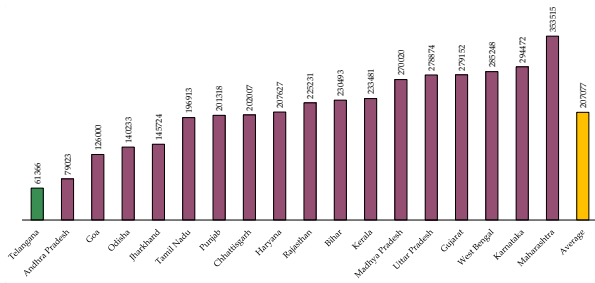
Source: Local Governance Directory and National Commission on Population

2. A second mobile application has been developed in September 2022 for use by Mandal Panchayat Officers as well as other supervising officers tasked with conducting inspections and coordinating the activities of GP level functionaries by the - Divisional Level Panchayat Officers, District Panchayat Officers, Deputy Chief Executive Officers of Zilla Praja Parishads and Chief Executive Officers of Zilla Praja Parishads.

3. These supervisory approaches being deployed by the Panchayat Raj and Rural Development Department can allow managerial officers at each level to efficiently oversee and support the progress of those under their charge, and as such holds potential to be replicated across multiple service delivery departments.

13.2.4. Role of District Administration

In addition to Zilla Praja Parishads, the Panchayat Raj Act 2018 also delegated powers to the District Collectors to guide and monitor the performance of Panchayat Raj officials. To strengthen supervisory capacity at the district level, the state Government has created a new post of 'Additional Collector Local Bodies' to look after the administration of Gram Panchayats, Mandal Praja Parishads and Zilla Praja Parishads and Urban Local Bodies in the district.

13.2.5. Finances to Panchayat Raj Institutions

1. The state plays an important role in financing Gram Panchayats by matching the 15th Finance Commission grants. Allocation and release of funds are proportionate to the population with additional fund support being provided to

vulnerable groups. The major sources of Income for the Panchayat Raj Institutions are Property tax, License Fee, Water tax, User charges, Other taxes and fees, Market Receipts, Grants from 14th/15th Central Finance Commissions, Grants from State Finance Commission, Grants for staff salary and Other Grants from State and Incomes from Other sources. The major items of Expenditure are Staff Salaries, Honorarium to elected representatives, Operations and Maintenance, Buildings and Community Assets, Roads, Water Supply and Sanitation, Capital Expenditure and Others.

2. During 2021-22 an amount of Rs 3,268.55 crore funds have been realised by the Panchayat Raj Institutions in the state as income under various sources and Rs 2,887.40 crore have been utilised. Since September 2019 to December 2022, an amount of Rs. 11,088.80 crore has been released to Panchayat Raj Institutions in the state with a matching ratio by the centre and state. Every month the state Government is releasing an amount of Rs. 256.66 crore to all the PRIs and during 2022-23 Rs.1,684.47 crore releases have been made so far. Efforts have also been made to improve financial planning at the Gram Panchayat level. All Gram Panchayats in the state have prepared their annual budgets till 2023-24, keeping 10% of funds reserved for green activities. A system of expenditure codes has also been launched in Gram Panchayats to track and analyse expenditure for different focus areas mandated by Panchayat Raj Act.

13.2.6. Service Delivery To Citizens

1. Sanitation: Gram Panchayats play a critical role in the sanitation of rural areas, from household waste collection and segregation to daily cleaning of village roads and institutions. The state finances various initiatives to promote waste management practices.

2. Water supply: Gram Panchayats play an essential role in ensuring last-mile access to drinking water as part of the state's flagship Mission Bhagiratha scheme. GPs are required to certify that there

are no leftover households to provide tap water connections. They are also required to report any problems related to the drinking water supply to the concerned Mission Bhagiratha officer and coordinate to ensure the timely resolution of issues. Ministry of Jal Shakthi, GoI recognized that Telangana is the first large state in the country which has achieved 100% coverage of functional household tap connections in all rural habitations through sustainable surface sources. All the 57.01 lakh rural households having functional tap connections in the state are being supplied 100 LPCD (Litres Per Capita Per Day) of water.

3. Streetlights: Streetlights are integral to promoting public safety and reducing road accidents. Panchayat Secretaries are responsible for daily quality checks of streetlights, and the timely payment of power consumption bills. Initiatives have also been taken to improve the quality of streetlight infrastructure in remote areas.

4. Green cover: Telangana ku Haritha Haram (Green Garland for Telangana) is a flagship programme of the state government launched in 2015 to increase the Green Cover in the state from 24% to 33%. Accordingly, massive green cover is promoted by developing Nurseries, Plantations of different types, Palle Prakruthi Vanams, Multi-Layer Avenue Plantation and Bruhat Palle Prakruthi Vanams.

Box 13.1

Monitoring District Level Outcomes Using "Palle Pragathi for Ps' App with support of E- Panchayat

The table below summarises the share of GPs in each district which scored more than 80% on Gram Panchayat scores that are collected as part of daily and monthly reporting of the Panchayat Secretaries in the state. The sanitation indicator includes data on cleanliness of roads, drains and institutions as well as waste management practices of Gram Panchayats.

Table 13.4 District-wise Share of GP's wish score above 80% (Generated from the Mobile Apps) (upto December 2022)

Sl. No	District Name	Scores of Gram Panchayats
1	Mahabubnagar	89.01
2	Jagtial	86.40
3	Sangareddy	86.29
4	Peddapalli	86.12
5	Narayanpet	85.61
6	Bhadradri Kothagudem	85.39
7	Mahabubabad	84.72

Sl. No	District Name	Scores of Gram Panchayats
8	Vikarabad	84.55
9	Rajanna Sircilla	84.49
10	Jangaon	84.12
11	Karimnagar	83.71
12	Nizamabad	83.67
13	Jogulamba Gadwal	83.67
14	Rangareddy	83.54
15	Mulugu	83.07
16	Nagarkurnool	82.98
17	Yadadri Bhuvanagiri	82.05
18	Siddipet	81.84
	Total Average	81.74
19	Hanumakonda	81.65
20	Wanaparthy	81.15
21	Kamareddy	80.99
22	Jayashankar Bhupalapally	80.74
23	Nirmal	80.54
24	Khammam	80.07
25	Suryapet	79.40
26	Medak	78.29
27	Warangal	77.18
28	Nalgonda	76.84
29	Mancherial	76.28
30	Medchal Malkajgiri	75.16
31	Adilabad	74.77
32	Kumuram Bheem Asifabad	71.39

13.2.7 Awards to Gram Panchayats

1. Child-friendly Gram Panchayat Award (CFGPA)-2022 (Appraisal Year 2020-21) - Chandapur Gram Panchayat, Wanaparthy mandal, Wanaparthy District.

2. Gram Panchayat Development Plan Award (GPDPA)-2022 (Appraisal Year 2020-21) - Yerravalle Gram Panchayat, Markook Mandal, Siddipet District.

3. Nanaji Deshmukh Rashtriya Gaurav Gram Sabha Puraskar (NDRGGSP) -2022 Appraisal Year (2020-21) - Manthangod Gram Panchayat, Makthal Mandal, Narayanpet District

Source: Panchayat Raj & Rural Development Department, Government of Telangana

13.2.8 Capacity Building Initiatives

5. Telangana State Institute for Rural Development (TSIRD) is the apex institute for training the Panchayat Raj and Rural Development Department (PRRD) functionaries including the elected representatives. During the year up to December 2022, 312 in-campus training programmes have been conducted with 14,020 participants. Core areas of these training programmes include the Implementation of the PR Act 2018, IT and e-Governance, MGNREGS implementation, social audit and thematic training on topics such as water and sanitation and women and child welfare.

6. The Panchayat Raj and Rural Development Department continues to use a data-driven approach for capacity building. Surveys have been conducted with Panchayat Secretaries to understand training needs. Assessments are conducted post-training to assess the level of understanding.

13.3 Palle Pragathi

In 2019, the Government of Telangana launched the Palle Pragathi programme with the twin objectives of enhancing the quality of life in rural areas and improving the governance of Gram Panchayats (GPs). Key focus areas of the programme - include village sanitation, infrastructure, tree cover and governance of the Gram Panchayats.

Funding of the Program is through grant-in-aids, the panchayat's own resources, convergence funds from other schemes and donations. In addition, the people may also contribute through Shram Daan. An amount of Rs. 14,235.50 crore has been utilised since the launch of the programme in September 2019 till December 2022.

So far, five campaign rounds (Tabel 13.5) of Palle Pragathi have been completed with various activities such as cleaning of roads & desilting of drains, filling up of potholes, replacement of damaged electricity poles, wires and street lights, laying of third wire, identification and bailing out of the water from low lying areas, identification and demolition of old and dilapidated buildings & cleaning of debris, as well as filling up of old and unused open wells, avenue plantation, replacement of the dried-up plants etc.,

Construction of Dump Yards and Vaikunta Dhamams is taken up in all the Gram Panchayats. Each Gram Panchayat is provided with a tractor and trolley for transportation of segregated garbage and a tanker for watering the saplings planted in the Gram Panchayat area under Telangana ku Haritha Haram.

13.3.1 Palle Pragathi Rounds and Key Activities

Table 13.5

Rounds	Period	Focus Areas
1st Round	September 06, 2019, to October 05, 2019	Emphasis on the cleanliness of the villages, identification of sites for the construction of crematorium and dumping yards.
2nd Round	January 02, 2020, to January 12, 2020	Institutionalisation and deepen the activities of 1st round, sanctioning and grounding of IHHLs under the 'No one left behind' category to achieve ODF status

Rounds	Period	Focus Areas
3rd Round	June 01, 2020, to June 08, 2020	Sanitation drive in view of monsoon season, desilting of drains, bailing out the stagnated water, anti larvae measures to prevent the spread of mosquitoes, awareness generation on dry and wet waste, preparation of vermi compost etc., completion of construction of segregation sheds and vaikunta dhamams
4th Round	July 01, 2021, to July 10, 2021	Sanitation, Health, village infrastructure, plantation drive and development of Palle Prakurthi Vanams and Bruhat Palle Prakruthi Vanams), resolving the power supply issues.
5th Round	June 03 2022 to June 15 2022	Sanitation, Plantation, Maintenance of village infrastructure.

Source: Panchayat Raj & Rural Development Department, Government of Telangana

13.3.2 Key Activities under Palle Pragathi

1. **Crematoria:** For facilitating the respectful disposal of dead bodies in the villages construction of Vykuntadhamams/ Crematoriums have been taken up in 12,745 Gram Panchayats in the state out of which 12,742 of them have been completed with an expenditure of Rs. 1,329.73 crore.

2. **Dumping Yards:** In order to take care of sanitation and solid waste, construction of Dumping Yards has been taken up in all the villages in the state. So far 12,753 dumping yards have been completed with an expenditure of Rs. 279.10 crore.

3. **Haritha Haram:** Since the launch of Telangana Ku Haritha Haram (THH) in 2015, an amount of Rs. 5,114.06 crore expenditure has been incurred for the development of village

Nurseries, Plantations, Palle Prakruthi Vanams, Avenue Plantations and Bruhat Palle Prakruthi Vanams, out of which Rs.459.00 crore have been incurred during 2022-23. As per Section 52 (1) (b) of Panchayat Raj Act 2018 each Gram Panchayat should prepare a green action plan and it should have a functional nursery and 10% of the total budget of the GP is earmarked as a green budget.

3.1. **Palle Prakruthi Vanams (Village Nature Parks):** Dense forest-type plantations have been developed in 19,472 Gram Panchayats and habitations with an amount of Rs.238.02 crore. They serve as village nature parks and rural lung spaces.

3.2. **Bruhat Palle Prakruthi Vanams (BPPVs) (Nature Parks of Big Size):** 5 BPPVs are being proposed to be developed in each mandal. Out of the proposed 2,725 BPPVs plantation works have been completed in 1,953 sites with an expenditure of Rs. 45.60 crore.

3.3. **Functional Nurseries:** During 2022-23, 11.68 crore seedlings are being raised in 12,756 nurseries established in the villages with an expenditure of 312.32 crore.

3.4. **Plantation:** During 2022-23 a target of 8.18 crore seedling plantation was targeted and 9.18 crore seedlings have been planted with 112% of achievement with an expenditure of Rs. 592.67 crore.

3.5. **Single-layer Avenue Plantation:** Is taken up in all Gram Panchayats internal roads, Panchayat Raj Roads etc., Out of the 67,276 km of Panchayat Raj Roads single layer avenue plantation has been completed in 65,471 km.

3.6. **Multi-Layer Avenue Plantation:** Under MLAP 9,360 km have been identified in the State and the plantation has been completed in 9,242.70 km i.e., 98.74 % of the target.

4. **Soak Pits:** 11,63,496 individual and 32,174 community magic soak pits have been constructed in all GPs with an expenditure of Rs. 400.57 crore.

5. **Rythu Vedikas:** 2,601 Rythu Vedikas have been constructed so far with an expenditure of Rs. 524.57 crore.

6. **Drying platforms:** Out of the proposed 45,950 proposed Drying Platforms 22,858 have been completed with an expenditure of Rs. 143.43 crore.

13.4 Implementation Of Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) in the State

The Mahatma Gandhi National Rural Employment Guarantee Act provides a minimum of 100 days of guaranteed wage employment in a financial year to every rural household whose adult members volunteer to do unskilled manual work at the notified wage rate. Telangana has channelized the MGNREGS in 12,769 GPs for implementing several works under the State's flagship Palle Pragathi programme to provide not only employment to citizens but also create indispensable permanent quality assets contributing to the overall improvement of rural infrastructure.

13.4.1 Key Highlights Of Telangana's Performance (2022-23)

• **Wage seekers:** The Number of New Job cards issued is 13,33,099 up to 18th January 2023.

• **Person Days:** Rs.10.58 crore person days have been generated with an average wage rate of Rs. 162.82 per day.

• **Average Person Days:** The Expenditure on MGNREGS incurred is Rs. 27,825 crore up to 18th January 2023.

• **Works:** Major works taken up under this scheme are the laying of internal roads, renovation and conservation of water bodies, the establishment of nurseries and development of plantation, sanitation works etc.,

Table 13.6. Achievements under MGNREGS

Sl. No.	Year	No of new job cards issued	No of individual in the new job cards	Person-Days Generated (Rs in crore)	Wage Expenditure (Rs in crore)	Material Expenditure (Rs in crore)	Admin Expenditure (Rs in crore)	Expenditure (Rs. in crore)
1	2014-15	1,13,217	2,21,795	10.56	1,212	643.0	183.2	2,038.2
2	2015-16	1,75,013	3,10,983	13.71	1,779	449.0	164.2	2,392.2
3	2016-17	1,21,775	1,90,295	10.70	1,423	982.0	221.0	2,626.0
4	2017-18	1,53,140	2,99,836	11.50	1,593	1,055.0	282.0	2,930.0
5	2018-19	1,21,589	2,58,183	11.70	1,706	1,043.0	278.0	3,027.0
6	2019-20	1,11,657	2,08,219	10.70	1,638	837.0	259.0	2,734.0
7	2020-21	3,41,292	7,28,446	15.79	2,606	1,732.9	205.4	4,544.3
7	2021-22	1,40,123	2,91,783	14.75	2,572	1,911.0	188.0	4,671.0
9	2022-23 (Up to 18.01.2023)	55,293	1,38,871	10.58	1,801	878.5	182.5	2,862.0
	Total	13,33,099	26,48,411	110.0	16,330	9,531	1,963	27,825

Source: Panchayat Raj & Rural Development Department, Government of Telangana

13.4.2 Performance of districts:

For the year 2022-23 (up to 18.01.2023) 24 districts in the state have surpassed their targeted person days and nearly all districts have achieved more than 80% of their target except Kamareddy district being at 64% (Fig. 13.7).

Person Days Targeted Vs Generated (as on 18.01.2023)

Sl. No	District	Person days (Lakhs)		% Achievement
		Targeted	Generated	
1	Adilabad	36.5	30.6	84%
2	Bhadradri Kothagudem	36.9	43.5	118%
3	Hanumakonda	12.8	15.7	122%
4	Jagtial	24.4	25.5	105%
5	Jangaon	24.6	29.7	121%
6	Jayashankar Bhupalpally	18.9	28.6	151%
7	Jogulamba Gadwal	22.4	25.3	113%
8	Kamareddy	64.7	41.4	64%
9	Karimnagar	20.4	23.4	115%
10	Khammam	45.3	52.2	115%
11	Kumuram Bheem Asifabad	29.7	29.6	100%
12	Mahabubabad	34.8	50.1	144%
13	Mahabubnagar	25.4	26.8	105%
14	Mancherial	26.2	23.5	90%
15	Medak	37.2	37.3	100%
16	Medchal-Malkajgiri	1.3	1.5	109%
17	Mulugu	18.2	19.4	107%
18	Nagarkurnool	25.2	34.1	135%
19	Nalgonda	66.1	52.6	80%
20	Narayanpet	18.6	19	102%
21	Nirmal	41	44.6	109%
22	Nizamabad	49.4	56.4	114%
23	Peddapalli	18.5	22.2	121%
24	Rajanna Sircilla	19	21.8	115%
25	Rangareddy	30.1	25.6	85%
26	Sangareddy	39.3	42.9	109%
27	Siddipet	46.4	45.6	98%
28	Suryapet	51.7	60.4	117%
29	Vikarabad	50.1	49.2	98%
30	Wanaparthy	22	25.8	117%
31	Warangal	17.7	23.2	131%
32	Yadadri Bhuvanagiri	25.1	26.9	107%
	State Average	31.25	32.95	105%

Figure 13.7. Achievement of districts based on physical performance in terms of person days (as of 18.01.2023)
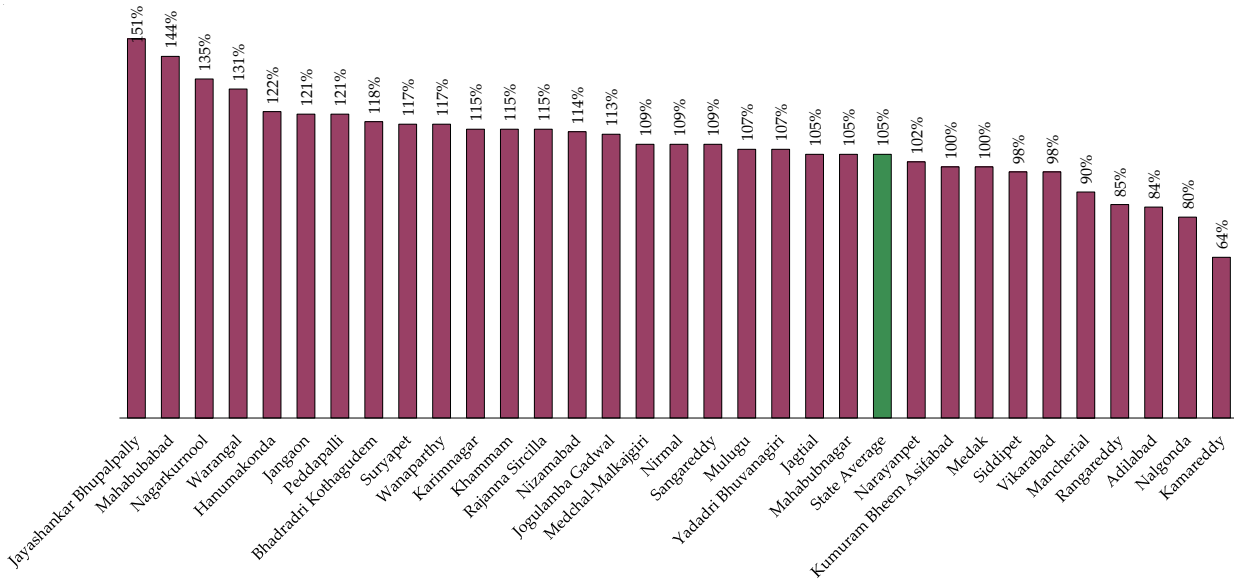
Source: Panchayat Raj & Rural Development Department, Government of Telangana

13.4.3 Expenditure under MGNREGS:

An amount of Rs.2,862 crore has been incurred as expenditure during the year as on 18-01-2023, of which 62.93% (Rs. 1,801 crore) is the wage component, 30.70% (Rs. 878 crore) is the material cost and 6.38% (Rs. 182.5 crore) is the cost of administration.

Figure 13.8. Expenditure distribution during 2022-23
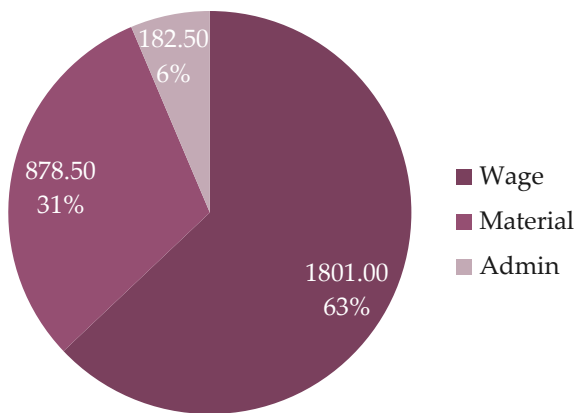
Source: Panchayat Raj & Rural Development Department, Government of Telangana

13.4.4 Key aspects of the implementation of MGNREGS

- **Job Cards:** MGNREGS Job Cards are valid for at least 5 years, after which they are reissued with due verification. As of date, 13,33,099 job cards were issued covering 26,48,411 individuals.

- **Mobile Monitoring System:** NMMS is a mobile phone-based technology that has been customised for the MGNREGS field staff for capturing daily attendance and photographs of wage seekers. The data which is captured from the mobile application is accessible through the web reports in the portal resulting in enhanced transparency and accountability.

- **Transaction-based online application RAGAS (Rashtra Grameena Abhivruddi Samacharam):** It is a highly comprehensive and end-to-end transaction-based application wherein the user can access all the MIS reports that offer information related to employment generation, physical performance, expenditure incurred and reports related to work.

- Quality Control Wing: An exclusive Quality Control Wing has been established under the Chief Quality Control Officer for verifying the quality of the works and for inspecting them regularly. Every month each Q.C team is allotted at least 60 works by the system on a random basis based on the expenditure.

- Grievance Redressal / Call Centre: Grievance redressal rules were notified and a full-fledged complaint cell has been established. Applicants can file complaints by calling a toll-free number (1800-200-1001) or by lodging their complaints on the website (www.rdcallcentre.telangana.gov.in).

- Social Audit and Follow-up of Social Audit findings by the Vigilance Wing: Independent directorate of the Society for Social Audit Accountability & Transparency (SSAAT) established in collaboration with the Government and social activists have been functioning in the state since 2009. SSAAT's mission is to promote the empowerment of rural communities directly benefiting from welfare schemes, minimization of leakages and wastage of public funds. Findings of the Social Audit are presented before the Gram Sabha and Block Public Hearing. A Special Vigilance Wing is formed at the State level and at each district for the follow-up of social audit findings.

13.5 Society for Elimination of Rural Poverty (SERP)

SERP is a sensitive and supportive structure of the Government to facilitate social mobilisation of the poorest of poor in the rural areas of the state, except in the urban district of Hyderabad. It works for the promotion and strengthening of self-managed and financially sustainable community-based organisations that are owned and controlled by the poorest of the poor. On the supply side, SERP has given a special focus on 100% coverage of marginalised communities. On the demand side of the problem, it works by building and nurturing Self Help Groups (SHGs) of women and their federations.

13.5.1 Institution & Capacity Building

- Community-Based Organisations (CBO): A total of 46.10 lakh women have been organised into 4.30 lakh SHGs, in the state of which 92,903 SHGs have been formed after the formation of the state. There are 6,127 SHGs formed by 42,943 Persons with Disabilities. All the groups are further organised into 17,978 Village Organisations.

- Social Category-wise coverage: The SHGs consist of 10.00 lakh members from the Scheduled Castes, 6.39 lakh from the Scheduled Tribes, 24.99 lakh from Backward Castes and 1.52 lakh minority communities.

- Community Investment Fund/ Revolving Fund Grant: An amount of Rs.116.60 crore has been given as a grant to Community-Based Organisations from 2015 to December 2022.

13.5.2 Financial Access

SERP is facilitating bank linkages for SHG members and promoting diversified livelihoods to augment the income of the poor under the SHG-Bank linkage programme.

Since the formation of the State, under SHG Bank linkage, the amount disbursed to the SHGs almost tripled from Rs.3,738.67 crore in 2014-15 to Rs.12,684.59 crore up to 18th January 2022-23. The State Government in association with the Mandal Samakhyas of SERP, and other Town Level Federations have created the Stree Nidhi Credit Co-operative Federation Ltd. (Stree Nidhi) as an apex cooperative society for financing SHGs. SHGs Mobile Accounting App has been developed for seamless record keeping of the details of the financial transactions of the members, SHGs and Village Organisations (VOs).

13.5.3 Human Development: SHGs as a lever for change

Human Development is one of the core focus areas in SERP's larger goal of alleviating poverty. It focuses on enabling institutional platforms to build the

capacities of SHG women to improve their quality of life by availing government services in health, nutrition, sanitation, safe drinking water, hygiene, and Gender etc., There are 4 major interventions under the Human Development Component.

13.5.3.1 SHG 2nd Meeting (Dwiteya)

SHGs have to conduct a meeting called 'Dwiteya' on the second fortnight of every month to facilitate discussion on specific themes. The session would be conducted in such a manner where the members would discuss, get actively involved in activities and games, watch videos on the best practices and interact with each other on the themes related to a balanced diet, hand washing & hygiene, Anaemia prevention, maternal and child nutrition, infant and young child feeding practices, the importance of first 1000 days in a baby's life, menstrual hygiene, household sanitation, communicable diseases, immunisation, challenging gender discriminatory norms, etc., 1,82,377 SHGs are trained in these meetings in 235 mandals under phase-1 and 81,302 SHGs trained in 30 mandals under phase-2.

13.5.3.2 Gender sensitisation

SERP has initiated Gender sensitisation activities to the SHGs on various gender-related issues such as eradication of dowry harassment, woman trafficking, child labour, child marriages and redressal of family disputes, awareness camps on legal rights, hygiene of women and adolescent girls and providing moral support to victims by Social Action Committees (SACs) through Community Managed Family Counselling Centres (CMFCCs) at district and mandal level from 2006. These CMFCCs are seen as a forum for alternate dispute resolution systems in a society where a woman approaching the formal redressal system is still taboo.

Active SHG women are identified as members of SACs. Preference is given to Single women and widows aged between 35-55 years. The selected members are trained on the legal rights and entitlements of women. So far 1623 members have been identified from 541 Mandals @ 3 members per mandal and 1,096 of them have been given 3 days

of training. In addition 3,28,567 SHG Level Gender point persons and 31,571 VO Level Gender point persons have been identified.

SAC members and Gender Point Persons are supposed to deal with the issues through counselling mode which were reported to Mandal Samakhya and Zilla Samakhya by the Women victims.

13.5.3.3 Nutri Garden as an additional source of income

The Nutri Garden programme has been promoted to ensure an adequate supply of local vegetables and fruits and to promote dietary diversification among rural communities. Depending on the number of households in the village, 2 or more women from SHGs with some land are selected and motivated to grow vegetables. The beneficiary shall have more than 1/2 acre of land with sufficient water facility and be willing to raise Nutri Garden and sell only at village point. So far 1,022 Nutri Gardens and 3,78,940 Household backyard kitchen gardens have been initiated

13.5.3.4 Community Managed Rehabilitation Services:

Community Managed Rehabilitation Services (CMRS) is one of the critical components of Government interventions through SERP, focusing on providing Rehabilitation Services and enhancing livelihood, functioning, and community-integration of Persons with Disabilities and their families.

Nearly 2,500 families of persons with disabilities in rural areas are getting rehabilitation services through Neighbourhood centres in 74 mandals of 26 districts.

13.5.4 Farm Livelihoods

13.5.4.1 FARMER PRODUCER ORGANISATIONS.

- Farmers from the SHG groups have been mobilised and formed as Farmer Producer Groups (FPGs) for creating a platform for connecting them with the institutional buyers, strengthening the supply chain and maximising the value capture in the process.

- So far 7,132 FPGs have been formed with 1,13,381 small and marginal farmers consisting of 55,502 BCs, 26,035 SCs, 1,642 STs and 1,637 from minority communities. These FPGs were federated into 65 Farmer Producer Organizations/Companies (FPCs/ FPOs) to focus on procurement and quality aspects and to deal with market and market-related aspects covering 31 districts. 2,620 FPGs have established tool banks with 5,935 implements like Taiwan sprayer, and power weeder etc.,

- FPCs trade either through a state-level federation named Benishan FPC or with local traders. The State-level federation was established in September 2019 and looks after the marketing needs of all the district-level FPOs and has dealt with 44 types of products which includes fruits and vegetables, spices, pulses and processed products and achieved a turnover of Rs.56.58 crore during the last 5 years. Marketing tie-ups have been made with Metro, Polimeras, Ratnadeep, Reliance and e-platforms like Bigbasket etc.,

- Under the PM-FME (Pradhan Mantri Formalisation of Micro Food Processing Enterprises Scheme - Athmanirbhar scheme) scheme, so far 1,22,98 existing enterprises were identified and recommended to SNA (State Nodal Agency) for release of "seed capital fund" for an amount of Rs. 48.32 crore. Among these, Rs. 34.84 crore funds were released to 8,867 enterprises. Under the higher-order enterprise's subsidy scheme, 4,442 DPRs with an amount of Rs. 170.35 Crore were prepared and submitted to respective banks for credit linkage.

Figure 13.9. Social Category-wise Member in FPGs - 2022
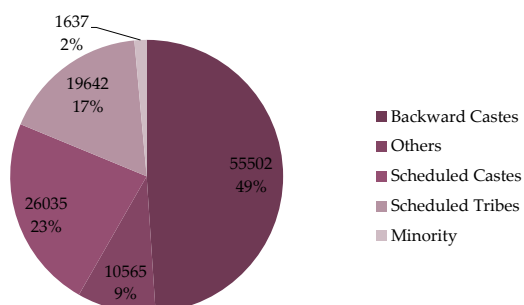
Source: Panchayat Raj & Rural Development Department, Government of Telangana

13.5.4.2 Custom Hiring Centres.

Custom Hiring Centre is a one-stop solution for farm equipment owned and managed by community-based organisations to meet the local needs of Women farmers. Services of these centres can be utilised on a hire basis and on prior notice. The Unit cost of each CHC ranges from 25 lakhs to 30 lakhs. 246 Custom hiring centres have been established and operationalised during the last 3 years 2020– 23 (up to December 2022) years. The Establishment of another 39 Custom Hiring Centres is in the process. An amount of Rs. 396.26 crore including a 25% Grant from NRLM (National Rural Livelihoods Mission)has been released so far to CHCs.

13.5.5 Livestock Livelihood Units

As a part of Livelihood intervention, SERP has been focusing on livestock-based livelihoods in rural areas with an objective to create additional and sustainable income with a special focus on the Poorest of the Poor, SC & ST families with essential backward & forward linkages by promoting the rearing of Small Ruminant animals and backyard poultry.

13.5.5.1 Livestock Farmer Producer Groups

2,913 Livestock Farmer Producer Groups were formed covering 48,371 members. So far, Rs.603.50 Lakh has been released to 2,118 Livestock Farmer producer groups towards the operational costs, purchase of veterinary equipment and as a revolving fund. Besides, Rs.31.00 Lakh has been released to 31 Livestock Farmer Producer Groups towards Ram lamb rearing and Rs.19.60 Lakh have been released to 45 members of Livestock Farmer Producer Groups for the purchase of breeding rams.

13.5.5.2 Pashumitras

Pashu Mitras are trained persons for guiding the farmers who are in animal husbandry by providing them assistance for better management of the major farm animals, medical care, artificial insemination, etc. using various equipment and technology. Under the Livestock Livelihoods initiative, SERP

has imparted training to 2,359 Pashumitras so far by incurring an expenditure of Rs. 176.92 Lakh. These Pashu Mitras will work in liaison with the Government Veterinary Officer and treat 27,82,591 animals. 2,155 Pashumitras have been supported with equipment (First-Aid Medical Kit) worth Rs. 43.11 Lakh. Refresher Training was given to 1,004 Pashumitras with an amount of Rs. 45.18 Lakhs. Additional training on Artificial Insemination skills was imparted to 135 Pashumitras with a worth of Rs. 82.35 Lakhs and 6 days of training to 132 SHG women on First-Aid Veterinary services @ Rs. 12.75 Lakhs.

13.5.6. Non-Farm Livelihoods

As part of Rural Non-Farm Livelihoods activities, Paddy procurement, Enterprise Financing / Rural Startups promotion, Start-up Village Entrepreneurship Program (SVEP) and Marketing of SHG products by organising National Level SARAS Fairs at Hyderabad are the major initiatives taken up by the Community Based Organisations(CBOs) of the SERP.

A. Start Up Village Entrepreneurship Project (SVEP):

Under Start-up Village Entrepreneurship Program (SVEP) which is being implemented in the (10) Districts, i.e., Nagarkurnool, Mulugu, Rangareddy, Sangareddy, Narayanpet, Nalgonda, Bhadradri Kothagudem, Adilabad, Siddipet and Warangal 11,171 units have been established so far.

B. Enterprise Financing / Rural Startups:

The major objective of enterprise financing taken up by SERP is to create 5-8 model enterprises (New) each in all the 17,952 VOs, in 32 Districts of the state, SERP facilitated the orientation programs to the District Teams for smooth grounding of enterprises. 1,02,425 New Enterprises worth Rs.1,335.55 crore have been grounded during 2022-23.

C. Procurement of Paddy:

The Village Organizations promoted by SERP have procured 20.19 lakh metric tons of Paddy from 3.23 lakh farmers under MSP(Minimum Support Price) during 2022-23 (Rabhi & Kharif Seasons) through 1,479 Paddy Procurement Centers established across the state and procured Paddy worth of Rs. 4,132.23 Crore. The Village organisations earned a commission of Rs. 64.63 crore.

D. Aajeevika Grameen Express Yojana (AGEY):

AGEY is a sub-scheme of NRLM (National Rural Livelihoods Mission) which facilitates the SHG women to avail Interest-free loans for carrying out transportation activities as their Livelihoods. Under this Scheme, upto December 2022, 85 vehicles worth Rs.2.55 crore have been given to SHGs.

E. Sale of Articles of Rural Artisans Society (SARAS) Regional Fairs:

SARAS Fairs aim at facilitating and motivating the beneficiaries of Self Help Groups (SHGs) to exhibit and sell their products and provide them with an opportunity to increase their market reach thereby increasing their earning potential. Since the formation of the state, SARAS Fairs (yearly once or twice) have been organised by the state government.

Table 13.10 - SARAS Fairs organised in the State

S. No	Year	Venue	Visitors	Sales (Rs. lakh)
1	2016-17	People's Plaza, Necklace Road, Hyderabad	2,14,000	202.82
2	2017-18 (1st SARAS)	HMDA Ground, Besides I-MAX Theatre, Hyderabad	3,85,000	185
3	2017-18 (2nd SARAS)	Telangana Kala Bharathi (NTR Stadium), Hyderabad	1,20,640	161.35
4	2018-19	Event was not organised due to Election code		
5	2019-20 (1st SARAS)	Telangana Kala Bharathi (NTR Stadium), Hyderabad	2,42,850	260.62
6	2019-20 (2nd SARAS)	Event was not organised due to COVID		
7	2020-21			
8	2021-22	People's Plaza, PVNR Marg (Necklace Road), Hyderabad	1,98,186	152.66
9	2022-23	People's Plaza, PVNR Marg (Necklace Road), Hyderabad	4,17,810	288.36

Nearly 150 SHG members from the state and 200 members from other states are regularly participating in the events. On average 20 to 40 SHG members from the state are participating in the SARAS Melas conducted by other states.

13.5.7 Awards

Two community-based organisations (CBO) of SERP have been conferred awards on 08.03.2022 on the eve of International Women's Day. Atma Nirbhar Sanghatan award is given by the Ministry of Rural Development, GoI by acknowledging the performance of Adarsha Mandal Samkhya, Narsampeta, Warangal District and to the Nandigama mandal Samakhya, Nandigama, Rangareddy District

13.6 Swachh Bharat Mission (Gramin)

To accelerate the efforts to achieve universal sanitation coverage and to put the focus on sanitation, the Prime Minister of India had launched the Swachh Bharat Mission on 2nd October 2014. Under the mission, all villages, Gram Panchayats, Districts, States and Union Territories in India declared themselves "open-defecation free" (ODF) by 2 October 2019, the 150th birth anniversary of Mahatma Gandhi, by constructing over 100 million toilets in rural India. To ensure that the open defecation-free behaviours are sustained, no one is left behind, and that solid and liquid waste management facilities are accessible, the Mission is moving towards the next Phase II of SBMG i.e ODF-Plus. ODF Plus activities under Phase II of the Swachh Bharat Mission (Grameen) will reinforce ODF behaviours and focus on providing interventions for the safe management of solid and liquid waste in villages.

Since the launch of the programme, the state government has been actively involved in achieving 100% coverage of rural sanitation in the State by taking up the construction of Individual Household Latrines (IHHLs) under SBM(G), School toilets and Anganwadi toilets under MGNREGS. In order to have more coverage in rural areas, the incentive for IHHL (bath com toilet size 4'X6') was increased to Rs.12,000/- from 2nd October, 2014, with Central share of Rs.7,200/- and State share of Rs. 4,800/-.

Owing to the efforts of the government the state has been declared as ODF by constructing over 31,55,964 toilets in the last five years, out of which, 19,26,592 toilets were constructed under SBM(G) as on 31st December, 2022.

Having achieved these outcomes, SBM(G) Phase-II is now focusing on the need to sustain the gains made under the Mission and climb the sanitation ladder managing solid and liquid wastes in line with State flagship program- Palle Pragathi. All the 12,769 Gram Panchayats in the state have attained the status of ODF plus. The state government is now focusing on 4 key components of ODF Plus i.e. (i) ODF Sustainability, (ii) Solid Waste Management (SWM) including Bio-degradable Waste Management (BWM) and Plastic Waste Management (PWM), (iii) Liquid Waste Management (LWM) and (iv) Visible cleanliness.

Table 13.11 % of Total ODF Plus Villages
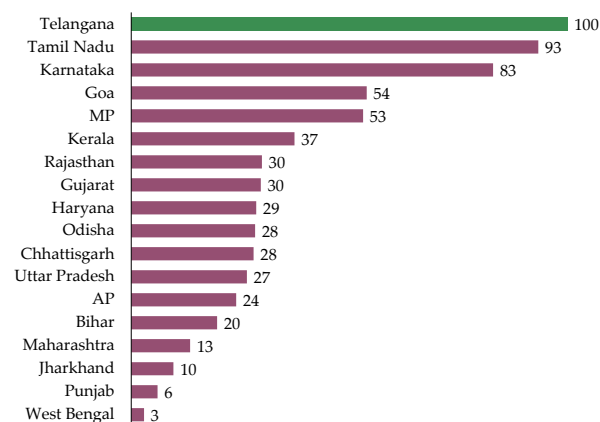
Source: Swachh Bharat Mission, Ministry of Jal Shakti, Department of Drinking Water & Sanitation, GOI

As per the SBM(G) guidelines the indicators that need to be fulfilled by the states under ODF plus are Villages Having Arrangement of Solid Waste Management, Villages Having Arrangement of Liquid Waste Management, Villages with Minimal Litter, Villages with Minimal Stagnant Water. Based on the different stages of the achievement of these indicators, the villages are categorised as 1. Aspiring, 2. Rising, 3. Model. (Annexure-1). The goal under the programme is that all the villages achieve ODF (Model) status at the earliest.

Out of the total 12,769 Gram Panchayats in the state 5,476 have achieved the status of ODF Plus Model Villages, accounting for 43% of total villages. Kerala has 34% of its villages declared as Model Villages, whereas Andhra Pradesh, Karnataka, and Tamil Nadu each have fewer than 5%.

Delta ranking scores are being conferred regularly to the districts to measure the achievement of the ODF plus indicators. These Delta rankings are categorised into 5 types. of . 1. Aspirants (score of 0-25), Performers (score of 25-50) 3. Achievers (score 50-75), 4. High Achievers (score of 75-100) 5. Front Runners (score of 100). They will be given a star rating from one star to five stars. Rajanna Sircilla district is the only district in the country which has achieved the status of Front Runner scoring 5 stars. Three (Karimnagar, Peddapalli and Medchal) out of six High Achiever districts (conferred 4 Stars) in the country are from the state. Based on Delta ranking Scores as of 23rd January 2023, Karimnagar, and Peddapalli topped the district rankings, while Medchal ranked sixth in the country.

Table 13.12 Telangana on key indicators of SBMG as of 23rd January 2023.

Key Indicators	% of villages	Number of villages
Villages having an arrangement of Solid Waste Management (SWM)	100%	12,769
Villages with Minimal Litter	99.8%	12,745
Villages with Minimal Stagnant water	99.7%	12,736
Villages Having Arrangement of Liquid Waste Management	49.5%	6,332

Source: Ministry of Jal Shakti, Department of Drinking Water & Sanitation, Government of India

13.6.1 Awards

Telangana won the first prize in the large states category under the Swachh Survekshan Grameena (SSG) 2022 for sanitation maintenance work in the rural areas of the state. In addition, the state has been conferred many awards in different categories on 02.10.2022 on the eve of the Swachh Bharat Divas.

Table 13.13

S. No	PRESENTED BY	CONFERRED TO	CATEGORY
1	Smt. Droupadi Murmu, Hon'ble President of India	State – 1st position for Overall Top States (Large States)	Swachh Survekshan Grameen -2022
2	Ministry of Jal Shakti	State – 1st position	Sujalam 1.0 Campaign
3	Ministry of Jal Shakti	State – 2nd position	Sujalam 2.0 Campaign
4	Ministry of Jal Shakti	State – 1st position	National Wall Painting competition on ODF Plus – Biodegradable Waste Management
5	Ministry of Jal Shakti	State – 1st position	National Wall Painting competition on ODF Plus – Gobardhan
6	Ministry of Jal Shakti	State – 1st position	National Wall Painting competition on ODF Plus – Plastic Waste Management
7	Ministry of Jal Shakti	State – 1st position	National Wall Painting competition on ODF Plus – Greywater Management
8	Ministry of Jal Shakti	State – 1st position	National Wall Painting competition on ODF Plus – Faecal sludge Management
9	Ministry of Jal Shakti	District – 2nd position (Jagtial)	Swachh Survekshan Grameen -2022
10	Ministry of Jal Shakti	District – 3rd position (Nizamabad)	Swachh Survekshan Grameen -2022
11	Ministry of Jal Shakti	District – 2nd position (Nizamabad)	SSG-2022 - Overall Top District Zone Wise
12	Ministry of Jal Shakti	District – 3rd position (Bhadradri Kothagudem)	SSG-2022- Overall Top District Zone Wise
13	Ministry of Jal Shakti	Gram Panchayat – 2nd Position Nukalampadu Gram Panchayat of Enkur Mandal of Khammam District	National Film Competition from GPs

13.7. Sansad Adarsh Gram Yojana (SAGY):

Saansad Adarsh Gram Yojana (SAGY) was launched on 11th October, 2014 with the aim to translate the comprehensive vision of Mahatma Gandhi about an ideal Indian village into a reality, keeping in view the present context. Under SAGY, each Member of Parliament adopts a Gram Panchayat and guides its holistic progress giving importance for social development at par with infrastructure. The 'Adarsh Grams (Model Villages)' are to become schools of local development and governance, inspiring other Gram Panchayats.

The goal was to develop three Adarsh Grams by March 2019, of which one was to be achieved by 2016. Thereafter, five such Adarsh Grams (one per year) will be selected and developed by 2024. SAGY will keep the soul of rural India alive while providing its people with quality access to basic amenities and opportunities to enable them to shape their own destinies.

Ministry of Rural Development, GoI, ranked the SAGY villages based on different parameters including Gram Panchayat conducting Environmental awareness activities, completing and uploading baseline survey details, whether the draft Village Development Plan got clearance of Gram Sabha, number of non-infrastructure projects completed, number of economic and livelihood activities taken up etc.,

During 2022-23, 11 out of the top 20 performing SAGY villages in the country are from Telangana.

Table 13.14 : Performance of Telanagana under SAGY

Sl.No	District	Block/Mandal	Panchayat	Percentage Score	Rank
1	Yadadri	Alair	Kolanpaka	99.98	1
2	Yadadri	Bhongir	Wadaparthy	99.98	1
3	Karimnagar	Saidapur	Vennampally	99.97	3
4	Nizamabad	Nizamabad	Palda	99.97	3
5	Kumram Bheem(Asifabad)	Jainoor	Marlawai	99.92	8
6	Adilabad	Bela	Guda	99.90	9
7	Adilabad	Boath	Wajar	99.90	9
8	Nalgonda	Nampalle	Nampally	99.86	13
9	Nalgonda	Nalgonda	Buddaram	99.81	15
10	Siddipet	Akkannapeta	Choutapalli	99.79	16
11	Jagtial	Ibrahimpatnam	Mularampur	99.61	17

13.8 Shyama Prasad Mukherjee Rurban Mission (National Rurban Mission)

Shyama Prasad Mukherji Rurban Mission (SPMRM) was launched in 2016 by the Government of India with the mission of stimulating local economic development, enhancing basic services by creating well planned clusters.

So far Rs. 1,638.00 crore, which includes convergence funds of Rs. 1,417.80 crore and Critical Gap Fund(CGF) of Rs. 220.20 crore have been utilised for the execution of various works in the 17 Rurban clusters sanctioned to the state covering 14,200 villages..

Best Practices implemented under the mission are the establishment of solar on-grid connectivity to gram panchayat buildings and educational institutions in the clusters reducing the burden of electricity charges. Skill development needs of the clusters have been integrated with the activities of the Employment Generation Marketing Mission.

13.9 Employment Generation Marketing Mission (EGMM)

Employment Generation Marketing Mission (EGMM) is established in the state to coordinate the employment initiatives in the Rural Areas of the State and it is the implementing agency for Deen Dayal Upadyaya Grameen Koushalya Yojana (DDU-GKY) project. DDU-GKY is the skilling and placement initiative of the Ministry of Rural Development (MoRD), Government of India. The skilled youth are provided assistance in placement with jobs having regular monthly wages at or above the minimum wages. It is one of the clusters of initiatives of the Ministry of Rural Development, Government of India that seeks to promote rural livelihood. It is a part of the National Rural Livelihood Mission (NRLM) - the Mission for poverty reduction called Aajeevika.

After the formation of the state, the Employment Generation and Marketing Mission has been entrusted with 2 projects. Each project should have a time period of 3 years and specific targets have been fixed by the empowered committee of the Ministry of Rural Development, GoI. The execution of Project 1 has been completed and the execution of Project 2 is in progress.

Project 1 (2016-19) : The physical target for Project 1, was 47,311 and the cost of the project was Rs.302 Crore funded by the Centre and State in the ratio of 60:40 respectively. Out of the target, 41,409 youth were trained and placements have been provided to 18,486 of them with a minimum wage of Rs.9,300 per month.

Project 2 (2019-22): The physical target under Project 2 is 90,000 with an outlay of Rs. 817.94 Crore funded by the Centre and State in the ratio of 60:40 respectively. The Project Approval Committee (PAC) of the state has extended the implementation period of the project by one year i.e., 2019-23 due to the pandemic COVID-19.

13.10 Way Forward

Villages are an integral part of the state's economy and society. With 61.12% of the total population of Telangana residing in rural areas, it is critical to focus on improving governance for this section of the population. With the passage of the Panchayati Raj Act 2018, implementation of flagship schemes such as Palle Pragathi and Haritha Haram, and leveraging technology for data-driven local governance, Telangana Government has been making incremental leaps towards realising the demographic dividend of its rural populace. .

Evidently, the Telangana Government's policies and actions resonate the fundamental concept of 'Gram Swaraj' as mentioned in the Directive Principles of State Policy of the Constitution by balancing the wheels of development and governance through the strengthening of service delivery, accountability, and demand in rural areas. The Government is leveraging technology in building nested supervision and supportive supervision and citizen accountability systems through the ecosystem of apps developed for PS Self-reporting and inspections.

The Government is committed to accentuating its efforts to scale its legacy of bringing landmark reforms across all the key areas pertaining to the development of the rural masses. These would include greater access to credit, deepening of forward and backward linkages, and adoption of sector-appropriate technologies, leading to the strengthening of the community-level institutions that are key to achieving the desired development outcomes.

Priority should be given to empowering local governments to fulfil their potential as development actors to ensure effective, coherent and accountable development through bottom-up and demand-driven cooperation. Guided by values of democracy and modernisation, Telangana is gradually inching towards the realisation of 'Bangaru Telangana'.

URBAN DEVELOPMENT
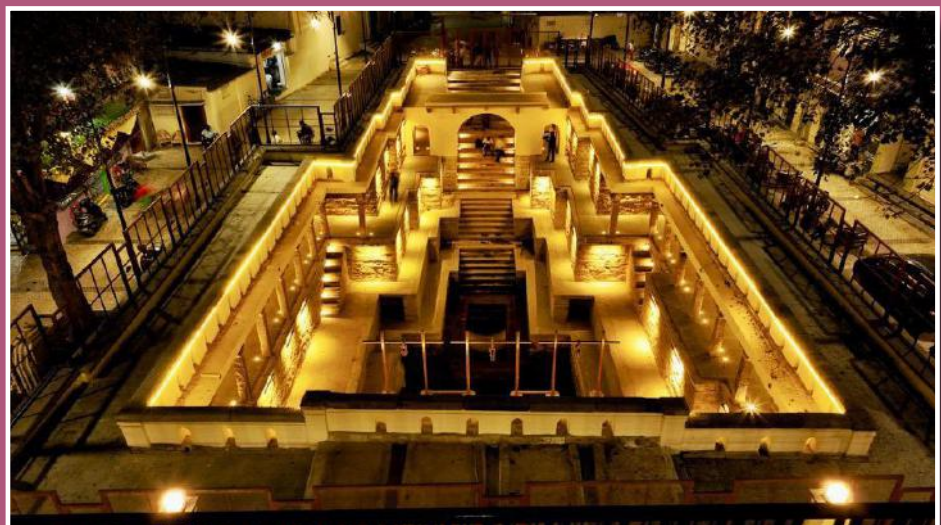
Key Highlights

- The estimated share of Telangana's population living in urban areas is 47.6% in 2023, whereas only 35.1% of India's total population lives in urban areas. Hence, the urban population of Telangana is projected to be 12.5 percentage points higher than that of the country, and this gap is expected to increase to 18.3 percentage points by 2036.

- Telangana's urban areas had a Labour Force Participation Rate (LFPR) and Worker Population Ratio (WPR) of 55.7% and 51.2% respectively in 2020-21, higher than the national level LFPR and WPR of 53.7% and 49.9% respectively.

- A majority of urban workers in Telangana (51%) have a regular or salaried job.

- Hyderabad has been recognised as "Tree City of the World - 2021" by the Arbor Day Foundation and the Food and Agriculture Organisation (FAO) of the United Nations for the second consecutive year.

- Hyderabad has been honoured with the "World Green City Award 2022" at the International Association of Horticulture Producers (AIPH) 2022, organised in Jeju, South Korea. The city also won in the category 'Living Green for Economic Recovery and Inclusive Growth".

- In order to deal with global warming and climate change, the Urban Local Bodies (ULBs) in Telangana have kept aside 10% of their expenditure for a 'Green Budget'.

- In order to reduce the harms from heavy rainfall in Hyderabad, the Greater Hyderabad Municipal Corporation (GHMC) initiated the Strategic Nala Development Programme (SNDP), and a budget of Rs. 340 crore was allocated towards the same in 2022-23.

- South India's largest Waste to Energy (WtE) plant was commissioned in Jawahar nagar in 2021. It started as a 19.8 MW plant, and was later upgraded to a 24 MW plant, and consumes around 1300 to 1500 metric tonnes of waste per day, and will be upgraded to a 48 MW plant soon.

- Owing to the state's efforts in improving garbage collection, 100% of Telangana's urban wards had door-to-door waste collection facilities in 2022-23 as per Ministry of Housing and Urban Affairs (MoHUA).

- 23 Urban Local Bodies (ULBs) of Telangana bagged Swachh Survekshan awards, 2022 conducted by the MoHUA, Government of India. These awards were given for 'Fast Moving City', 'Clean City', 'Self Sustainable City', 'Innovations and Best Practices' and 'Citizens Feedback'. In addition to these, 3 ULBs have been awarded in the Indian Swachhta League Awards 2022.

- According to Asia Pacific Sustainability Index 2021, Hyderabad has been ranked among top 20 most sustainable cities in Asia Pacific region and is ranked third among Indian cities.

14.1 The Urban Landscape

Jan Gehl, a Danish architect and global leader in urban design famously said that first we shape cities, then they shape us. People shape cities by creating built environments that boost liveability, productivity, and connectivity, eventually attracting more people from all around to these cities. Urbanisation – the movement of people from rural to urban areas – leads to fast-paced growth, which is accompanied by creation of job opportunities, infrastructure development, and better economic, political, & social mileages compared to rural areas. However, urbanization also brings with it challenges such as congestion, population and traffic, housing shortage, growth of slums, inadequate civic amenities & jobs, and environmental pollution. Urban policies aim to minimise these costs while maximising the benefits of the cityscape and ensuring that gains are fairly distributed across genders and social classes.

Telangana is one of the rapidly urbanising states in the country. The State has been striving to create a sustainable and equitable urban biosphere within the state since its formation in 2014. As per population projections released by the National Commission on Population (Ministry of Health & Family Welfare, Government of India), 47.6% of the state's population (1.8 crore) is expected to reside in urban areas in the year 2023. This is projected to further increase to 57.3% (2.3 crore) by 2036 (see Figure 14.1) – an increase of 9.8 percentage points between the two years. In the same period, at the national level, the percentage of urban residents is expected to increase from 35.1% in 2023 to 39.1% by 2036. This reflects a 4.0 percentage point rise in the share of urban population in the country as a whole.

This implies that in the year 2023, the urban population of Telangana is projected to be 12.5 percentage points higher than that of the country, and this gap is expected to increase to 18.3 percentage points by 2036. Thus, not only is Telangana more urbanised than India, but also, it is urbanising at a faster pace than the country as a whole.

Figure 14.1 Projected Share (%) of Urban Population for Telangana and India (2011-2036)
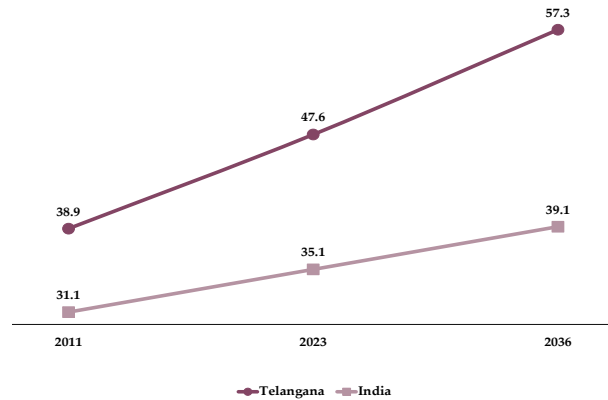
Source: Population Projections for India and States 2011-2036 (National Commission on Population, Ministry of Health and Family Welfare, Government of India; 2020)

Figure 14.2 shows the district-wise share of the urban population in Telangana as per Census 2011. 29 out of the 33 districts in the state have fewer than 50% of their populations residing in urban areas. More people live in urban areas than in the rural areas in 4 districts in the state – Hyderabad, Medchal-Malkajgiri, Warangal-Urban, and Rangareddy.

Figure 14.2 District-wise Share (%) of Population Living in Urban Areas (2011)
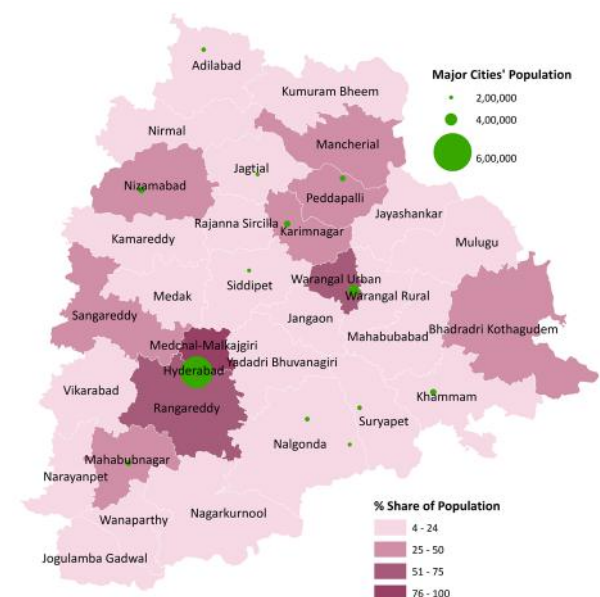
Source: Census, 2011

The largest urban area in the state is Hyderabad, which occupies only 0.6% of Telangana's total land area, but houses over 20% of the total population of the state.

In spite of its high population density, Hyderabad has been awarded the overall "World Green City Award 2022" at the International Association of Horticulture Producers (AIPH), 2022 held in Jeju, South Korea on October 14. The city also won in the category 'Living Green for Economic Recovery and Inclusive Growth".

The development of more prosperous urban areas is a primary policy goal of the Government of Telangana, and the goal is being achieved through the 142 Urban Local Bodies present across the state.

14.2 Urban Infrastructure

Urban infrastructure refers to fundamental facilities that form the "internal structure" of a city, and are essential for people's survival in urban areas. It consists of facilities such as drinking water provisioning, sanitation, sewage systems, electricity and gas distribution, urban transport, primary health services, and environmental regulation. The availability, accessibility, and affordability of infrastructure in urban areas are key indicators of urban economic development. Creation of urban infrastructure, however, is expensive and time consuming, and therefore requires the Government to play a major role. The Government of Telangana has given a massive push to the sector by undertaking significant investments to build and maintain the infrastructure in the urban areas of the state.

14.2.1 Pattana Pragathi

Pattana Pragathi, which literally translates to city development, is one of the flagship programmes of the Government. It was launched in February, 2020 with the objective of ensuring basic amenities, sanitation in towns, and creating detailed plans for the unprecedented future demands of urbanisation.

Pattana Pragathi was executed in four phases – the first of which focussed on developing urban utility infrastructure, the second on sanitation, and the third on both urban utility infrastructure as well as sanitation. Phases I and II of Pattana Pragathi were

implemented in 2020-21, while the third phase and the fourth phase were completed in 2021-22 and 2022-23 respectively.

Under Pattana Pragathi, during 2021-22, the Government released Rs.112 crore each month, of which Rs.59 crore was allocated to GHMC, while the rest was shared among the remaining 141 ULBs. In 2022-23, the Government has been releasing Rs. 116 crore each month.

These funds have been used to address infrastructural gaps to meet the goals of citizen-centric service delivery by the ULBs. Prominent projects address the felt needs in the areas of sanitation and waste management, provision of public toilets, designing public spaces like gardens, markets, graveyards and animal shelters, and making concerted efforts towards greenifying the urban areas.

To improve the sanitation facilities, 141 ULBs (excluding GHMC) purchased 2,165 new sanitation vehicles, adding to the existing fleet of 2,548 sanitation vehicles in the state. Taken together, the fleet can collect 100% (4,356 tonnes per day) of the urban garbage produced by these ULBs on any given day. Additionally, there are 5,250 (4,500 GHMC+750 private) Public Address System-equipped sanitation vehicles in GHMC that work on door-to-door collection of dry, wet, and hazardous solid waste.

While garbage collection is essential, funds were also devoted towards processing of this garbage. In 141 ULBs (excluding GHMC), there are 224 compost sheds/beds and 205 Dry Resource Collection Centres (DRCC). Over Rs. 428 crore has been sanctioned for the construction of Faecal Sludge Treatment Plants (FSTPs) in 139 ULBs, with a capacity of processing 2,060 kilo litres of sludge each day.

In addition to the garbage collection and treatment infrastructure, the Pattana Pragathi funds were used to build public toilets. The Government accomplished the aim of constructing one public toilet per thousand people in urban areas by building 4,118 toilets in 2022, taking the total count of public toilets to 9,088 (5,448 for males and 3,640 for females). Additionally, the maintenance of all toilets is ensured through app-based online checking through 18 parameters on Tuesdays & Fridays every week.

The ULBs also utilised these funds to meet the targets of Telaganaku Haritha Haram (TKHH) - a government policy to improve urban forestry and increase forest land cover in Telangana from 24% to 33%. Under the scheme, the ULBs have established 1,012 nurseries till 2022. Further, in 2022, 309 lakh plants were raised against the target of 280 lakh plants; 830 Pattana Prakruthi Vanalu (Tree Parks) were developed & 33.9 lakh plants were planted in these parks; Multi Layer Avenue Plantations (MLAP) were created through plantation of 19.2 lakh plants (till December, 2022) along 485 kms of road in 284 road stretches. The new plants added under TKHH are regularly watered, weeded, and maintained to ensure a target survival rate of 90%.

Finally, the funds were used to develop utility infrastructure. This includes the construction of 368 open gyms, 2,676 sheds in street vending zones (1,294 completed and 1,382 under construction), animal care shelters in 20 districts – one in each district, 445 Vaikuntha Dhamams (296 completed & 149 under construction), and 137 integrated veg and non-veg markets (IVNMCs) (8 completed & 129 under progress).

The efforts under this scheme have borne fruit, with 23 ULBs in Telangana winning awards under Swachh Survekshan, 2022 & 3 under the Indian Sanitation League, 2022 conducted by MoHUA-GOI. Table 14.1 presents the awards and titles won by the state in various categories.

Table 14.1 Major Awards won by the Urban Local Bodies of Telangana during Swachh Survekshan (2022)

S. No.	Name of the ULB	Category	Award
1	Warangal	3 Lakh to 10 Lakh, South Zone	Second Fastest Moving City
2	Ghatkesar	50 thousand to 1 Lakh, South Zone	Clean City
3	Turkayamjal	50 thousand to 1 Lakh, South Zone	Fast Moving City
4	Sircilla	50 thousand to 1 Lakh, South Zone	Self Sustainable City
5	Kagaznagar	50 thousand to 1 Lakh, South Zone	Second Fast Moving City
6	Jangaon	50 thousand to 1 Lakh, South Zone	Third Fast Moving City
7	Kothpally	25 thousand to 50 thousand, South Zone	Clean City
8	Korutla	25 thousand to 50 thousand, South Zone	Fast Moving city
9	Vemulawada	25 thousand to 50 thousand, South Zone	Award in 'Citizens Feedback'
10	Amangal	25 thousand to 50 thousand, South Zone	Second Fast Moving City
11	Gajwel	15 thousand to 25 thousand, South Zone	Clean City
12	Kompally	15 thousand to 25 thousand, South Zone	Fast Moving City
13	Husnabad	15 thousand to 25 thousand, South Zone	Award in 'Citizens Feedback'
14	Adibatla	15 thousand to 25 thousand, South Zone	Self-Sustainable City
15	Gundlapochampally	15 thousand to 25 thousand, South Zone	Second Fast Moving City
16	Kothakota	15 thousand to 25 thousand, South Zone	Third Fast Moving City
17	Badangpet	Less than 15 thousand, South Zone	Clean City
18	Chandur	Less than 15 thousand, South Zone	Fast Moving City
19	Neredcherla	Less than 15 thousand, South Zone	Award in 'Citizens Feedback'
20	Chityal	Less than 15 thousand, South Zone	Innovation and Best Practices
21	Bhootpur	Less than 15 thousand, South Zone	Self-Sustainable City
22	Wardhanapet	Less than 15 thousand, South Zone	Second Fast Moving City
23	Secunderabad Cantonment Board	Award in 'Citizens Feedback'	Award in 'Citizens Feedback'

Source: Swachh Survekshan Awards, 2022

Table 14.2 Major Awards won by the Urban Local Bodies of Telangana during Indian Sanitation League (2022)

S.No.	Name of the ULB	Category
1	Korutla	50 thousand to 1 Lakh, South Zone
2	Peerzadiguda	25 thousand to 50 thousand, South Zone
3	Alampur	Less than 15 thousand, South Zone

Source: Swachh Survekshan Awards, 2022

14.2.2 Telangana State Building Permission and Self-Certification System (TS-bPASS)

The Government of Telangana introduced TS-bPASS in November, 2020 with the motive of issuing seamless and hassle free building plan approvals to citizens. Under this programme, applications are processed under three categories:

- **Instant Registration** – for individual residential buildings of plot size up to 75 square yards and building height of up to 7 metres

- **Instant Approval** - for individual residential buildings of plot size from 75 to 500 square yards and building height of up to 10 metres

- **Single Window System** - for permissions to all residential buildings of above 500 square metres and 10 metres height

2,262 Instant Registration applications, 38,718 Instant Approval applications, and 3,332 (Building-3,015 & Lay out - 317) Single Window System applications were approved by GHMC from April 2022 to 17th January 2023. The new rules have eliminated the need to obtain building permission for ground floor and ground plus one floor residential buildings. It provides tentative layout approval through online application. It also provides for the processing of land use certificates and land conversion certificates.

14.2.3 Animal Care Centres (ACC)

In order to control the menace of stray animals such as dogs, pigs, cattle, monkeys, etc., GHMC has constructed, and maintains, 5 animal care centres as per the norms of the Welfare Board of India

GHMC has also established a 1.3 acre dog park at Kondapur at a cost of Rs. 1.1 crore, which is a first-of-its-kind project in India (International Standards). The park has play areas for dogs including a splash pool, other dog-playing equipment, a walking track, and recreation facilities for pets.

14.2.4 Innovative Waste Management Practices

Uncontrolled waste disposal in the face of rapidly growing human populations is a frightful danger that cities are faced with. A 2018 study by the National Environment Engineering Research Institute (NEERI) found that Hyderabad has the highest per-capita urban waste generation in the country, producing roughly 0.57 kilograms of urban waste per person per day. If controlled and managed in an intelligent way, the waste can be a valuable source of raw materials, especially considering that many of these raw materials are becoming more and more scarce. In order to reduce the burden of waste on urban landfills and the ecosystem, the Government of Telangana adopted innovative measures to address the problem.

GoTS commissioned South India's largest Waste-to-Energy (WtE) plant in Jawahar Nagar in 2021. It started as a 19.8 MW plant, and was later upgraded to a 24 MW plant, and consumes around 1300 to 1500 metric tonnes of waste per day. As of January 2023, the plant has used up 6.35 lakh tonnes of waste, and produced 225 MW of power. This plant has been permitted to augment its capacity to 48 MW, taking the total capacity to 48MW and reducing the waste by about 2,500-3,000 MT.

Construction of another 14.5 MW waste-to-energy plant with a waste-consumption capacity of 1000-1200 MT is fast approaching completion in Dundigal. The WtE plant has the potential to reduce pressure

on the landfill, lower the foul odour in the area, and prevent ground, soil and water pollution, and is expected to commence operations by March 2023.

Another plant of 15 MW capacity, proposed to be set up on 150 acres of government land in Pyaranagar of Sangareddy district, promises to bring down transportation costs too by offering in situ storage and treatment options for processing the waste. The plant may consume 800-1000 MW of waste per day, collected from the northern parts of the city.

In another instance, GHMC partnered with Ramky Enviro to set up facilities that recycle waste generated by Construction and Demolition (C&D) in urban areas. 2 plants have been set up in the GHMC area in Public Private Partnership mode so far – at Jeedimetla and Fathullaguda, Hayathnagar. The plant at Fathullaguda is among the largest C&D recycling facilities in South India. Both plants have the capacity to handle over 500 tonnes of waste per day, and can recycle and recover 90% of the material from construction waste. This is a huge achievement for the state, as the national estimates by the Centre for Science and Environment (CSE) suggest that currently, only 1% of the construction waste across India is recycled. A total of 4.3 lakh MT of C&D waste was collected & transported, and about 1.8 lakh MT of waste was processed in the two facilities. Currently, around 1,500 metric tonnes to 2,000 metric tonnes of debris is generated every day within GHMC limits and this waste is being recycled by the two C&D plants. C&D from these facilities is being utilised for various non-structural purposes such as to create footpaths, road sub-bases, etc. 2 more C&D recycling plants are expected to be set up in Telangana in the coming years.

In addition to the above innovations, the Government in partnership with waste management firm 'Re Sustainability' has launched secondary and tertiary garbage collection from the Garbage Vulnerable Points (GVPs) across the city. The firm identified and geo-tagged 3,882 GVPs in the city. There are about 495 vehicles deployed for the secondary collection from 934 different routes where the GVPs exist. Official data indicates that in 2022 there has been a 13% to 20% increase in tonnes per day collection of garbage compared to the same corresponding period in 2021.

The state's efforts in improving garbage collection have borne fruit, and as of 2022-23, data from MoHUA suggests that 100% of Telangana's urban wards have door-to-door waste collection facilities. In addition, Hyderabad improved its ranking in Swachh Survekshan 2022 from 37 in 2021 to 26 in 2022.

14.2.5 Integrated Markets

In order to improve market connectivity through infrastructure provisioning, the Government of Telangana has sanctioned 144 integrated markets across the 141 ULBs (excluding GHMC) in the state. Under this allocation, an amount of Rs. 2 crore each has been sanctioned for the 57 ULBs with a population of less than 25,000 for construction of markets on 1 acre of land each, while an amount of Rs.4.5 crore each has been sanctioned for the 84 ULBs having a population of more than 25,000 for construction of markets on 2 acres of land each. 8 ULBs have already constructed these markets, whereas the work is underway in 129 more ULBs. Sites for construction have been identified in the remaining ULBs.

14.2.6 Architectural Illumination of Monuments

Architectural characteristics of a building, any structure or space can be emphasised and highlighted with the use of artificial illumination. Use of illumination not only makes the space visually appealing, but also safer for public use. The Government of Telangana took an initiative of utilising Corporate Social Responsibility (CSR) funds for the beautification of lakes and monuments. The cost incurred by various companies for the illumination works done as a part of CSR activities are as follows:

- Durgam Cheruvu cable-stayed bridge illumination (theme lighting, with display of different themes on festivals and holidays) done at a cost of Rs. 5.1 crore
- Crash barriers lighting to avoid street lighting

with poles, done at a cost of Rs. 3.3 crore

- Deck lighting to have illumination under the bridge and on the surroundings rocks, done at a cost of Rs. 44 lakh

- Architectural Illumination of Moazzam Jahi market, done at a cost of Rs. 1.6 crore

14.2.7 Solar Rooftop

In 2022, GHMC installed 941 kilowatt peak (kWp) solar panels on the vacant rooftop spaces of 34 of its buildings. The estimated cost of the project is 3.5 crore. These panels are expected to generate about 15 lakh units of power a year, saving GHMC around Rs. 1.3 crore per annum. The total carbon emission reduction per year on account of this initiative would be 1,200 tonnes.

14.3 Urban Areas and Jobs

As more and more people migrate to urban areas, there is an increasing demand for goods and services in urban areas, which necessitates the development of new enterprises, thus creating a virtuous cycle of more jobs and prosperity. While this virtuous cycle is created by individual demands, it can only be realised and expedited through supportive government policies that ease the process of establishing and running new businesses.

14.3.1 Employment in Urban Telangana

According to the World Bank, 80% of the global GDP is generated in the cities. They are hubs for businesses, services, and firms that generate new employment in the economy. The two key indicators that capture the status of employment in urban areas are - Labour Force Participation Rate (LFPR)[1] and Worker Population Ratio (WPR)[2]. According to the Periodic Labour Force Surveys (PLFS) 2020-21, the LFPR of the working age population in urban

Telangana, at 55.7% was 2 percentage points higher than India's, at 53.7%. The WPR of the working age population in urban Telangana, at 51.2%, was also higher than that of the all-India level (49.9%).

14.3.1.1 Status of Employment in Urban Telangana

A comparison of the overall employment status in rural versus urban areas reflects the stark difference in the employment statuses across the two areas in the state (see Figures 14.3 & 14.4). Data from PLFS 2020-21 reflects that in Telangana, urban workers across genders are more likely to have regular salaried jobs, whereas rural workers across genders are more likely to be self-employed or working as casual labourers. Among the urban working males in Telangana, 51.7% have a regular salaried job, compared to only 13.2% in rural areas. On similar lines, while 48.9% of urban working women are likely to have salaried jobs, only 7.7% of their rural counterparts are likely to be employed with salaried work.

Figure 14.3 Percentage of working adults by broad employment status in Urban Telangana (2020-21)
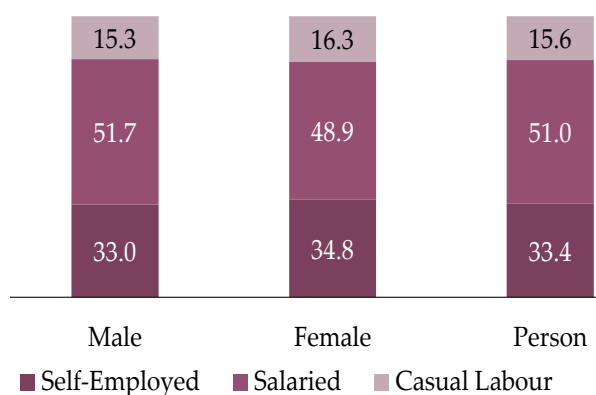
Source: PLFS 2020-21

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1. LFPR is defined as the percentage of population in the labour force. Labour force comprises persons who are either working (employed) or actively seeking work (unemployed).

2. WPR is defined as the percentage of employed persons in the total population.

Figure 14.4 Percentage of working adults by broad employment status in Rural Telangana (2020-21)

	Self-Employed	Salaried	Casual Labour
Male	68.6	13.2	18.1
Female	61.3	7.7	31
Person	65.5	10.8	23.7

Source: PLFS 2020-21

14.3.1.2 Sectoral Distribution of Employment in Urban Telangana[3]

Figure 14.5 shows the industry-wise employment status of urban workers in Telangana according to PLFS 2020-21. 'Trade and automobile repair' is the largest employment generating sector, employing over 19.0% of all working adults in urban Telangana. The next highest employment is generated by the manufacturing sector (16.3%), followed by the construction sector (12.8%), and transportation & storage (7.8%).

More than 60% of all urban jobs in Telangana come from the services sector. In contrast, 66.1% of working adults in rural Telangana are employed in agriculture, forestry & fishing, with Manufacturing

and Construction accounting for 8.3% and 6.9% of the total employment, respectively (see Figure 14.6).

Figure 14.5 Share of Employment by Industry of Work in Urban Telangana (2020-21)
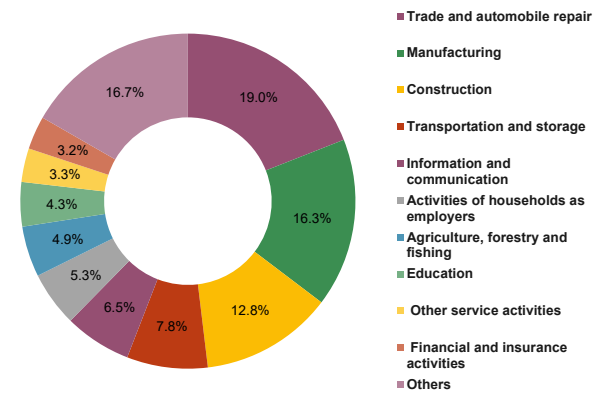
Source: PLFS 2020-21

Figure 14.6 Share of Employment by Industry of Work in Rural Telangana (2020-21)
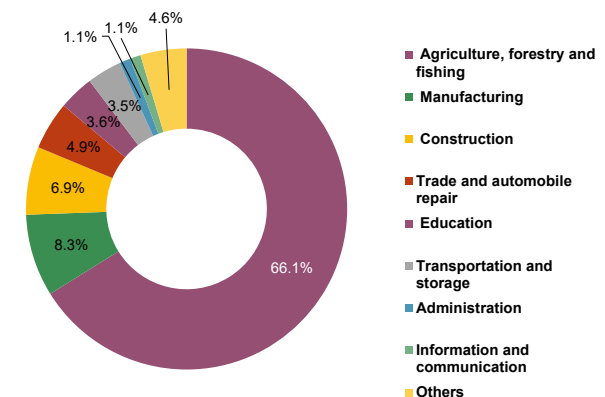
Source: PLFS 2020-21

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3. PLFS classifies industries of work based on the following NIC-2008 classification:

    Section A: Agriculture, forestry and fishing, Section B: Mining and quarrying, Section C: Manufacturing, Section D: Electricity, gas, steam and air conditioning supply, Section E: Water supply; sewerage, waste management and remediation activities, Section F: Construction, Section G: Wholesale and retail trade; repair of motor vehicles and motorcycles, Section H: Transportation and storage, Section I: Accommodation and Food service activities, Section J: Information and communication, Section K: Financial and insurance activities, Section L: Real estate activities, Section M: Professional, scientific and technical activities, Section N: Administrative and support service activities, Section O: Public administration and defence; compulsory social security, Section P: Education, Section Q: Human health and social work activities, Section R: Arts, entertainment and recreation, Section S: Other service activities .Section T: Activities of households as employers; undifferentiated goods and services producing activities of households for own use, Section U: Activities of extraterritorial organisations and bodies.

    For the purpose of this chapter, in the case of urban areas, Trade and automobile repair includes Wholesale and retail trade; repair of motor vehicles and motorcycles, Activities of households as employers includes undifferentiated goods and services producing activities of households for own use, and all other sectors are as per NIC classification. All NIC sectors other than those with slices on the graph are included within 'Other Services'

    For the purpose of this chapter, in the case of rural areas, Trade and automobile repair includes Wholesale and retail trade; repair of motor vehicles and motorcycles, and Administration includes Public administration and defence; compulsory social security. All NIC sectors other than those with slices on the graph are included within 'Other Services'

14.3.1.3 Earnings and Wages in Urban vs. Rural Telangana

Figure 14.7 compares the average reported monthly earnings among the salaried population in rural and urban Telangana. Salaried workers make up the largest worker category in urban areas, at 51.0%, and account for 10.8% of rural workers in the state. Data from PLFS 2020-21 suggests that the average salaried person earns 20.4% more in urban areas than in rural areas. Contradictory to expectations, and in contrast with last year, it is salaried women in the rural areas who earn more than their urban counterparts, by 34.2%.

Similarly, the average earnings of self-employed persons in urban Telangana (who comprise 33.4% of all urban workers) were 58.9% higher than that of self-employed persons in rural areas of the state (where self-employed persons are the largest worker category, at 65.5% of all workers) (see Figure 14.8). Urban self-employed women were, on average, earning close to double the amount earned by rural women in this category.

Casual workers comprise 23.7% of the workforce in rural areas, and 15.6% in the urban areas. During Apr-Jun 2021, the daily earnings of casual workers in Telangana were estimated to be Rs.317/day in rural areas, compared to Rs.440/day in urban areas, mirroring the urban earnings premium observed among the self-employed and salaried workers (see Figure 14.9).

Figure 14.7 Reported Monthly Earnings (in Rs.) among the Salaried in Rural and Urban Telangana (Apr-Jun, 2021)
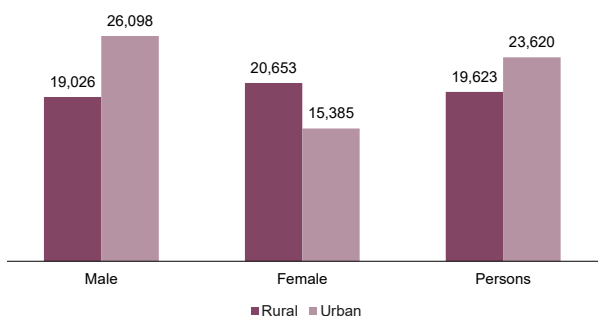
Source: PLFS 2020-21

Figure 14.8 Reported Monthly Earnings (in Rs.) among the Self-Employed Persons in Rural and Urban Telangana (Apr-Jun, 2021)
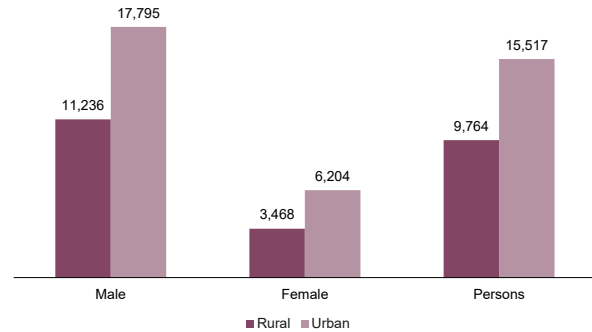
Source: PLFS 2020-21

Figure 14.9 Reported Daily Wages (in Rs.) for Casual Labour in Rural and Urban Telangana (Apr-Jun, 2021)
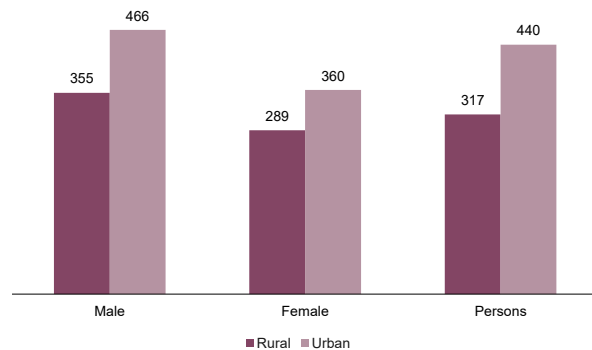
Source: PLFS 2020-21

14.3.2 Initiatives of the Government

The Government is committed to pursuing policies that create new jobs and upskill people to match the needs of new jobs required particularly in the urban areas. This commitment is reflected in the initiatives taken by the Government and the resultant outcomes.

Under PM SVANidhi, 5.36 lakh street vendors were identified under Pattana Pragathi, in addition to the 83,666 vendors identified from 2014 to February, 2020. 680.6 crore worth of loans were sanctioned in 3 tranches to 5.19 lakh street vendors for business development. In addition, the government

also encouraged digital transactions by providing cashbacks to vendors repaying loans digitally. Street vending zones with basic amenities were also developed by the Government under Pattana Pragathi.

Under its 'Social Mobilization & Institution Development' (SM&ID) initiative, 1.77 lakh Self Help Groups (SHGs), 6,260 Area Level Federations (ALFs), and 191 Town Level Federations (TLFs) have been formed till now. A total amount of Rs. 16.97 crore has been released to these SHGs and ALFs so far as revolving fund. In addition, Rs.2,429.55 crore worth of bank linkage was provided to SHGs in the year 2021-22 to promote diversified livelihood, thereby augmenting the income of the urban poor and empowering women.For 2022-23, the Government has set a target of Rs.1,745.23 crore in bank linkage to SHGs, out of which Rs.1,458.97 crore worth of bank linkage had been achieved till November, 2022.

Under the Self Employment Programme, wherein financial assistance is provided to individuals/groups of urban poor for setting up gainful self-employment ventures/ micro-enterprises, 15,387 micro enterprises have been established through urban SHG so far.

The Government also runs the Skills Training & Placement (EST&P) programme to provide skills that help the urban poor gain salaried employment in the private sector. Of the 37,422 candidates trained under this program till December 2022, 17,233 have been provided employment.

14.4 Urban Areas and Climate Change

India recorded extreme weather events on 241 of the 273 days from January 1 to September 30, 2022. Thus, heat and cold waves, cyclones, lightning to heavy rain, floods and landslides were breaking out in one or more parts of the country for close to 90 percent of the first nine months of 2022[4]. Conservative figures (likely an underestimate) suggest that these disasters claimed 2,755 lives, affected 1.8 million

hectares (ha) of crop area, destroyed over 4.17 lakh houses, and killed close to 70,000 livestock[5].

This is the watermark of climate change. An extreme event we saw once every 100 years has now begun to occur every five years or less. Worse, each month is breaking a new record. This in turn is breaking the backs of the poorest who are worst impacted and are fast losing their capacities to cope with these repeated and frequent events.

While climate change is a global challenge, urban areas worldwide have a significant role to play in combating climate change. It is estimated that over 75% of global carbon dioxide emissions arise in the cities. It is essential, therefore, to make cities an integral part of the solution in fighting climate change.

14.4.1 Initiatives of the Government

14.4.1.1 Strategic Nala Development Programme

According to a 2021 report by Telangana State Development Planning Society (TSDPS) and the Directorate of Economics and Statistics (DES), four out of five highest 24-hour rainfall days for Hyderabad from the last century were witnessed in the previous two decades. As per the same reports released in the year 2022, Hyderabad has experienced a significant increase in average rainfall in the last 15 years – ranging from 41 to 80 millimetres (mm) per annum.

Flooding in urban areas caused by intense or prolonged rainfall overwhelms the capacity of the drainage system. To reduce the likelihood and impact of urban flooding, it is essential to implement strategies that better manage water on the surface and store excess water. One such strategy is designing storm water drainage systems that accommodate the expected and unexpected changes in precipitation in the future. In line with this objective, the Government has taken up the

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4. Down-to-Earth's Climate India 2022 Report - January to September, 2022
5. This estimation of loss and damage is probably an underestimate as data for each event is not collated, nor are the losses of public property or crop loss calculated.

Strategic Nala Development Programme (SNDP) – a dedicated project to plan, develop and maintain a comprehensive Storm Water Drainage (SWD)/nala system in Hyderabad and surrounding ULBs. The goal is to improve the city drainage systems so that unusual volumes of rainfall in the future do not lead to flooding. According to GHMC Budget 2022-23, the budget allocated towards SNDP is Rs. 340 crore.

GHMC is responsible for the maintenance of 1,302 km of Storm Water Drains (SWD). During 2021-22, out of the total 979 SWD construction/remodelling works sanctioned for an amount of Rs.506 crore, 450 works costing Rs. 173 crore were completed. During 2022-23, 751 works costing Rs. 442 crore have been taken up, out of which 228 works have been completed at a cost of Rs. 118 crore. The remaining 523 works costing Rs. 324.54 crore are at different stages of execution.

14.4.1.2 Green Budget

In addition to mitigation strategies, the Government has also taken up proactive measures. Since 2020, all ULBs in the state have earmarked 10% of their budget as 'Green Budget'. The goal of 'Green Budget' is to address urban forestry and development of green cover in urban areas on a priority basis. This is done by establishing nurseries and plantations, and carrying out awareness programmes in the urban areas. Taken together, all 142 ULBs in Telangana have set aside Rs. 495 crore for the Green Budget in 2022-23. GHMC allocated Rs. 232.2 crore towards the Green Budget in 2022-23. The proposed expenditure for GHMC under broad heads is shown in Figure 14.10. The largest share of the Green Budget (44.0%) is devoted to construction and improvement of colony parks, followed by repair and maintenance of colony parks (12.9%) and construction and improvement of city level parks (12.9%). Development and maintenance of public parks serves many purposes. It provides recreational spaces for the residents, especially the children, and increases the green cover of the city.

Figure 14.10 Distribution of Expenditure under Green Budget for the GHMC (2022-23)
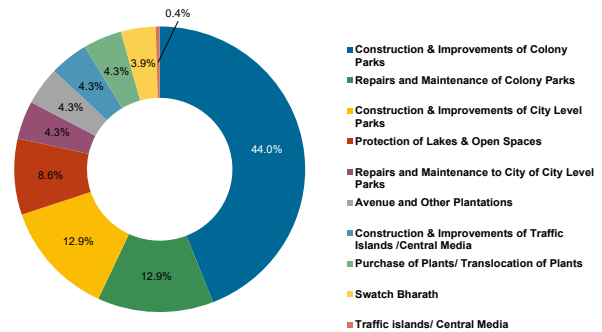
Source: GHMC Budget 2022-23

14.4.1.3 Telangana State Heatwave Action Plan

Heat wave conditions are considered if the maximum temperature of a station reaches at least 40° celsius or more for plains, 37° celsius or more for coastal areas and at least 30° celsius or more for hilly regions[6] . The extreme temperatures and resultant atmospheric conditions adversely affect people as they cause physiological stress, sometimes resulting in death. Cities are particularly vulnerable to heatwaves as their high built density absorbs and retains heat, leading to higher temperatures than the surrounding areas.

According to a recent report by the Revenue (Disaster Management) Department (Government of Telangana), 568 out of 589 mandals of Telangana are susceptible to heatwaves. The Government of Telangana is incorporating both traditional knowledge and recent technologies to mitigate the impact of heat waves. As part of its proactive measures, the Government formulated a heat wave action plan 2021 in line with the guidelines from National Disaster Management Agency (NDMA). The plan suggests various short term and long term mitigation measures to each department along with roles and responsibilities. The plan recognises that the burden of heatwaves is borne disproportionately by construction workers, children, women, street

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6.   As defined by the India Meteorological Department

vendors and the poor and the marginalised, and suggests measures to minimise the impact of heatwaves on all citizens in general, and on these vulnerable groups in particular. It suggests altering the working hours in major cities to avoid peak hours, distributing information on how to deal with heatwaves, ensuring shelter facilities for livestock, deploying health teams at major bus stops, and rescheduling load shedding to avoid peak hours.

14.4.1.4   Early Warning System for Flood Prediction

Data collected from national monitoring networks is often insufficient for local authorities to evaluate flood risk at the local scale, particularly in urban areas. Often, the network density is insufficient and national network stations are situated according to hydrological and meteorological needs.

At the time of state formation, the area under the Greater Hyderabad Municipal Corporation had 33 Automatic Weather Stations (AWS), with a resolution of 10x10 km grid. In order to improve the accuracy and efficiency of the early warning system for flood prediction in Hyderabad, the Department of Planning, Government of Telangana, as per recommendations made by Dr. Kapil Gupta from Indian Institute of Technology (IIT) - Bombay, installed 99 new Automatic Weather Stations (AWS) in the GHMC area, taking the total count of AWS to 132. The resolution of AWS in Telangana has now improved to 2x2 km grid, and they provide hourly data on rainfall (mm), temperature (degree Celsius), humidity (%), wind direction, and speed of wind.

14.5 Developing Hyderabad

Telangana's largest and most populous city - Hyderabad – functions as the central administrative, industrial and commercial hub of the state. Over the past few years, Hyderabad has been heading towards the path of progress to emerge as a city of the future while retaining the valuable core of its past. The city has been in the global limelight not only for its fast paced growth, but also for adopting sustainable and inclusive ways to achieve this growth. The developmental activities in Hyderabad are being taken up by GHMC which delivers urban services. Several other agencies,

such as the Hyderabad Metro Rail Limited (HMRL), the Hyderabad Metro Water Supply and Sewerage Board (HMWSSB), and the Hyderabad Integrated Municipal Solid Waste Limited (HiMSW), and the Hyderabad Metro Development Authority (HMDA) also provide vital services that keep the city running.

14.5.1 Permanent and Temporary Housing

Managing population density in urban areas is fast emerging as a key sustainability challenge. As per estimates, Hyderabad is one of the world's fastest growing cities by population. The high population density puts immense pressure on land and housing resources, and in recognition of this issue, the Government has been implementing a unique 'Dignity Housing Programme'- Two Bedroom (2BHK) housing programme. Under this programme, 2 BHK houses are constructed and given away free of cost to the shelter-less poor people living below the Poverty Line (BPL). These housing complexes are equipped with civic infrastructure such as roads, storm water drains, Sewage Treatment Plants, and underground sewage system, protected water supply arrangements and electrification works, as well as social infrastructure works such as community centres, Health centres, schools, bus stands, parks, playgrounds, etc.

The housing projects are being taken up in 111 locations – 40 in-situ slums and 71 vacant government lands. Since the launch of the scheme in 2015, GHMC has been given a target of constructing 1 lakh houses under this scheme at a financial outlay of Rs. 8,599 crore. Construction of 67,778 houses has been completed, out of which 5,258 houses in 26 locations have been inaugurated, and 3,579 have been handed over to beneficiaries. The remaining 32,222 houses are at various stages of construction, and are expected to be completed by the end of March 2023. An expenditure of Rs.6,868 crore has been incurred on this scheme so far.

In addition to funding permanent housing programs, GHMC has also made arrangements for the temporary housing of the people who visit the city to benefit from its medical and economic prowess. GHMC constructs and maintains night shelters for the economically backward patients and their

attendants coming to the hospitals in the city, and for the urban homeless. There are 21 night shelters within GHMC limits established by the Government – 7 across different Government hospitals of Hyderabad, and 14 night shelters for the urban homeless across different hotspots.

14.5.2 Sewerage and Drainage Facilities

Urban areas generate a large amount of sewage and waste. As per the official GoTS figures, Hyderabad Urban Agglomeration generated around 1,950 Million Litres per Day (MLD) of sewage in 2021. Of this, 1,650 MLD was produced in the GHMC area. Hence, the handling of sewage is a major urban policy concern.

To add to the 25 existing Sewage Treatment Plants (STPs), the Government has taken up the construction of 31 new STPs at a cost of Rs.3,866 crore. These STPs have a combined capacity of 1,259 MLD, and are expected to be completed by June, 2023. Post their completion, Hyderabad will rank at the top among all major cities in the nation for 100% sewage treatment.

Additionally, a 129 km sewer network project covering Karwan & Nampally constituencies has been taken up at cost of Rs.298 crore, and is expected to be completed by December, 2023.

Owing to the efforts of the Government, Hyderabad's rank in the Swachh Surveshan ranking 2022 jumped from 13 to 11 in the category of cities with over 10 lakh population. In the Swachh Survekshan awards 2022 which were given by the Ministry of Housing and Urban Affairs(MoHUA) - Government of India, Hyderabad retained the tag of 'Water Plus' city in the open defecation free cities category. In addition, out of the 142 ULBs in the state, MoHUA declared 70 ULBs as ODF+, 42 as ODF++, Hyderabad as Water Plus and the remaining 29 ULBs as ODF.

GHMC maintains over 1,302 kilometres of stormwater drains in Telangana. During 2022-23, 751 projects costing Rs.442 crore were taken up, of which 228 have been completed at a cost of Rs. 118 crore. The remaining 523 projects costing Rs. 325 crore are in different stages of execution. GHMC also carries out the de-silting of these drains throughout the year to ensure free flow of drains/nalas and to prevent flooding of low lying areas, roadside stagnations, etc. For 2022, 371 works were sanctioned at a cost of Rs.56.3 crore, and so far, 3.6 lakh cum of desilting has been done.

14.5.3 Drinking Water Supply

Drinking water is critical to survival, and the Government has been taking initiatives to maintain a streamlined supply of sufficient quantity, potable drinking water since state formation. Currently, GoTS is working on long-term plans to take care of drinking water needs of Hyderabad and surrounding municipalities till 2051.

Hyderabad and its surrounding municipalities currently get water from the Godavari and Krishna rivers from Ramagundam project and Sunkishala project respectively. The Government plans to bring the Godavari river water to Hyderabad from the Kondapochamma Sagar and Mallanna Sagar reservoirs built as part of the Kaleshwaram project. This is expected to permanently solve drinking water problems in Greater Hyderabad and surrounding municipalities. In order to meet not just the current drinking water requirements of the citizens, but also cater to the future needs, the following projects have been taken up by the Government:

- New source augmentation project of Sunkishala is being taken up at a cost of Rs. 2,214 crores to supplement about 40 thousand million cubic (TMC) feet, to be drawn in phases. This is still under progress, and is expected to be completed by June 2023.

- Water supply network project for the Outer Ring Road (ORR) ULBs, taken up at a cost of Rs. 1,200 crore is currently under progress, due for completion in June 2023. The project includes laying of 2800 km of pipeline network, and is expected to benefit 10 lakh people on completion.

- In order to undertake diversion of water from one source system to other source systems in case of exigencies, and to provide equitable supplies to the ORR zones, Peripheral circle zones and Core City zones, the Ring Main proposals all along the

ORR are being formulated. The tentative cost of the project is expected to be over Rs. 4,500 crore.

- In addition to the above, the following key initiatives and welfare programmes have also been implemented:

- The **'20 kilolitre (KL) Free Water Supply Scheme'** - under which 6.5 lakh free connections have been given

- **BPL Connection Scheme** (Tap water connection for Rs. 1) - under which 43,244 GHMC persons have benefitted

- **Rain Water Harvesting Theme Park:** Established in Hyderabad by the Hyderabad Metropolitan Water Supply and Sewerage Board (HMWS&SB) with the aim of preserving every drop of rainwater for the benefit of future generations.

14.5.4 Urban Mobility

Urban development requires sustainable and efficient mobility options and services that are constantly evolving in line with society's needs. Efficient mobility options include improving roads to facilitate smoother private transport experience, and expanding public transport networks for everyone.

14.5.4.1 Roads, Bridges and Flyovers

GHMC formulated the major infrastructural project - Strategic Road Development Plan (SRDP) with an aim to design road networks that would reduce traffic fatalities and vehicular pollution across the major traffic corridors and activity centers in Hyderabad. The plan includes the construction of flyovers, underpasses, and bridges. So far, 33 works have been completed, and another 15 works under the plan are in progress.

In addition, the Government has also sanctioned Rs.1,839 crore under the Comprehensive Road Maintenance Programme (CRMP) for maintenance of main roads (roads with more than 3 lanes). The funds under the scheme would be released in instalments over a period of 5 years. The programme covers 525 stretches and 7 packages. Till December 2022, GHMC spent Rs. 972 crore out of the total funds allocated to this scheme to recarpet a total length of 711 km, and to maintain footpaths, kerbs, central median, lane markings, sweeping and greenery maintenance along these roads.

GHMC also conducts repair and maintenance work on roads other than main roads. GHMC maintains over 9,013 kilometres of roads. During 2022-23, 3,059 road works amounting to Rs. 815 crore are being taken up, out of which 821 works costing Rs. 220 crore have been completed. The balance works are under various stages of execution.

The Government also took up the works of construction of 5 Fish Markets in Hyderabad at a total outlay of Rs. 20.1 crore to avoid traffic congestion on certain stretches of road and 4 Model Markets at a total outlay of Rs. 63.9 crore.

In addition to the GHMC, the Hyderabad Road Development Corporation Limited (HRDCL) also manages the building and maintenance of roads. During 2021-22, the corporation worked on the Missing Link Roads Project for Hyderabad city. The project has a financial outlay of Rs. 2,984 crore across three phases, and aims to identify and construct roads that serve as missing connections in the distribution of traffic over Hyderabad's roads. Till December 2022, 21 works of 'Phase I' had been completed, 10 out of the 16 works of 'Phase II' were under progress, and Phase III works were at the tender stage. These road links will act as shortest alternative routes that would improve mobility, shorten travel times, facilitate quick movement of essential services like ambulances and fire forces, improve road safety, reduce vehicular exhaust pollution, and connect the abandoned areas of the city, thereby controlling anti-social activities.

Finally, the Hyderabad Growth Corridor Ltd. (HGCL) is responsible for the construction and maintenance of the Outer Ring Road (ORR) to Hyderabad city. The entire corridor of 158 kilometres has been completed at a total cost of Rs. 8,828 crore. Since January 2021, HGCL has also taken up the management of the toll plazas on the ORR, and is also responsible for operating the Highway Traffic Management System

on the road. In addition, HGCL has taken up the beautification of junctions and LED lighting along the ORR.

14.5.4.2 Metro Rail

Hyderabad Metro Rail Project- the world's largest metro rail project in Public Private Partnership (PPP) mode with an investment of Rs. 22,000 crore. The HMRL runs and maintains the Hyderabad Metro, providing a convenient, comfortable and state-of-the-art transport system covering 69 kms.

With a vision to make Hyderabad a Global city (Vishwanagaram), the HMRL had taken up urban rejuvenation works along the 57 metro stations. These works include the construction of sidewalks, adding greenery and public-utility furniture near the metro stations, and developing service lanes. Another initiative taken up by HRML is the development of Multi Level Parking (MLP) Complex with latest German Puzzle Parking technology at Nampally, which is expected to become operational by March 2023.

Additionally, a 31 km long Airport Express Metro Rail from Raidurg Terminal Station of Corridor-3 (Blue Line) to Shamshabad International Airport has been sanctioned at a total outlay of Rs. 6,250 crore.

Further, a cost effective Elevated BRTS (Bus Rapid Transit System)/Metro Neo from KPHB Metro Station of Corridor-I (Red Line) to Neopolis (22 Kms) is being considered for implementation in PPP mode by Government of Telangana at a cost of Rs. 2,500 crore.

Owing to the Government's unceasing efforts, the Hyderabad Metro Rail achieved the Urban Infra Business Leadership Awards 2022 for the outstanding contribution in Smart Urban infrastructure – Rail & Metro category in the year 2021-22.

14.5.5 Health and Nutrition

A key goal of urban policy is to improve the health and nutritional status of the urban residents, so that they can serve as productive members of the society. In Telangana, urban initiatives like Annapurna Meals and Basti Dawakhanas have been designed to supplement the health infrastructure in the city.

14.5.5.1 Basti Dawakhanas

Basti Dawakhanas are Health and Wellness centres established within GHMC limits to meet health care needs of the urban poor. Each dawakhana has a doctor, a staff nurse, supporting staff, and a separate pathology lab. They provide primary health care services such as out patient consultation, tele consultation, basic lab diagnosis, treatment of acute simple illness, immunisation services, antenatal and postnatal care, family planning, screening for anaemia, non-communicable diseases such as BP, blood sugar, cancer health promotion activities etc.

The Government decided to establish 2 Basti Dawakhanas in each of the 150 wards of GHMC. 263 Basti Dawakhanas had been established till December, 2022, and 37 more are under various stages of establishment.

14.5.5.2 Urban Malaria Scheme (UMS)

The entomology wing of GHMC has been implementing Vector Control operations in the GHMC limits to control mosquito breeding and vector borne diseases. Chronic breeding sources are identified, and anti-larval & anti-adult-mosquito measures are carried out in all dengue affected areas. In 2022-23, Rs. 9 crore and Rs. 2 crore were earmarked for urban malaria eradication and dengue eradication respectively.

Some of the activities taken up under UMS by the 2,375 staff members working on Vector Control Operations are as follows:

- Preparation of month wise Health Calendar Activities as per seasons with the coordination of all line Departments
- Mapping of the 4,846 colonies identified as 'dengue identified areas' in order to take up:
  - anti-larval & anti-adult-mosquito measures within a week, or twice in one week for colonies with higher reported cases
  - Stickering of all households, and pamphlet-distribution to every person to explain about Vector Borne Diseases

- Sunday 10am 10 minutes programme for 10 sundays to motivate all residential welfare association presidents and all public representatives
- Conducting Anti Larval Operations (ALOs) in all identified Chronic Breeding sources
- Releasing of Gambusia fishes in all baby ponds (Ganesh immersion and Bathukamma ponds) and in lakes and other stagnated water
- Releasing of Oil balls in all identified dirty stagnated points, ponds, nalas
- Fogging for prevention of dengue and malaria.
- IEC activities in schools

The Government has also been focussing on the use of modern technology in dealing with issues of mosquito menace. Disease 'hot spots' and transmission dynamics were identified for both dengue and malaria based on the previous year incidence rates, and GIS mapping has been done for all the reported cases. 1 Drone per zone is being used to spray the repellents over the lake and its surroundings.

14.5.5.3 Annapurna Meals

Since 2014, GHMC has been providing nutritious and affordable Annapurna meals at Rs. 5 per meal to people across the city, serving over 45,000 lunches each day. During 2022-23, Annapurna lunch meals were provided across 373 centres including mobile Annapurna centres, and Annapurna dinner meals were provided in 259 centres including mobile Annapuma centres. Since the launch of the scheme, 10 crore meals have been served at an expense of Rs. 198 crore. 63 lakh of these meals were served in 2022-23 (up to November,2022) at an expense of Rs. 16.7 crore. GHMC has also identified 32 locations to establish "Seating Annapurna Canteens" for public convenience.

14.5.6 Waste Management

According to the Telangana State Pollution Control Board (TSPCB), Telangana generated 11,261 Tonnes of municipal solid waste per day during 2022-23. 100% of this waste was collected, while 78.3% of this waste was processed. GHMC and HiMSW together handle the city's municipal solid waste under a Public-Private Partnership (PPP). 25 static Secondary Collection & Transfer Points (SCTPS) have been established and 84 mobile SCTPs deployed in the state till date for decentralisation of the transportation of waste, and for effective usage of Swachh Auto Tippers. In addition, 11 existing transfer stations were modernised to avoid open transit of waste from small vehicles to bigger vehicles.

Owing to GoTS's initiatives in the area of Waste Management, Telangana won 23 Swachh Survekshan awards in 2022. Additionally, 3 ULBs were awarded under Indian Swachhata League 2022.

14.5.7 Greenery and Biodiversity

Urban biodiversity and urban forestry can play a vital role in improving a city's environment, in turn, improving the social well-being of its residents. The urban biodiversity of Hyderabad offers a great example of how greenery can be brought back into urban areas by turning wastelands into bustling natural habitats.

GHMC and the Urban Forestry arm of the HMDA have been implementing the Government's flagship programme – Telangana Ku Haritha Haram (TKHH)' (Garland of Greenery) with the objective of enhancing the state's green cover from 24% to 33%. This includes taking up plantation activities under various categories such as avenue plantations, colony plantations, institutional plantations, open-space plantations, graveyard plantations, Yadadri Natural Forest Model(Miyawaki), development of vertical gardens, etc. During 2022-23, 15.6 crore seedlings were planted, and another 4.6 crore seedlings were distributed under TKHH.

In addition to the above, GHMC has developed 600 ward-level nurseries, Miyawaki plantations at 45 locations, 20 Panchatatva Parks, cycling tracks, and 3 urban forest parks in the forest blocks Suraram (455 hectares), Madannaguda (97 hectares) & Nadergul (43 hectares) among other initiatives. 57 Major Theme Parks are being developed at an outlay of Rs. 137 crore.

The Government has taken the initiative of getting the Biodiversity index of Hyderabad city assessed, and ward-wise green cover evaluated through the International Council for Local Environmental Initiatives. The report for the same is expected to be released this year.

The efforts of the Government have led to the recognition of Hyderabad as "Tree City of the World" by the Arbor Day Foundation and the Food and Agriculture Organisation (FAO) of the United Nations for the second consecutive year. According to Asia Pacific Sustainability Index 2021, Hyderabad has been ranked among top 20 most sustainable cities in Asia Pacific region and is ranked third among Indian cities.

14.5.7.1 Rejuvenation of River Musi

The Musi river – a major tributary of the Krisha river – passes through the heart of Hyderabad city, and divides the old city from the new city. The Government has been on a mission to revitalise the river, and restore it to its former glory. The conservation and regeneration plan for the river includes and maintenance of floating trash barriers (completed at 10 locations), cleaning of the river using hydraulic excavators (performed throughout the year), fogging, desiltation to ensure free flow of water (completed in the stretch of 55 km due to which major inundation was mitigated in the recent floods), and landscaping & formation of walkways (nearing completion). An amount of Rs. 5 crore has been allocated towards Musi rejuvenation for the year 2022-23.

14.5.7.2 Solar Roof Cycle Track

A unique 23 km long cycle track is being developed along ORR at Kokapet on pilot basis at a cost of Rs. 95 crore. Out of the 23 km length of the cycle track, 21 km will be covered with a solar roof with a capacity of 16 MW. This track offers protection to cyclists from sun, rain and other harsh weather conditions besides isolating them from regular traffic and ensuring their safety. Other amenities for cyclists such as 24*7 lighting, food courts, surveillance cameras, drinking water and bicycle repair shops would also come up along the track.

14.5.8 Urban Planning

Urban planning is the process of developing and designing sustainable and inclusive urban areas to meet the current as well as future needs of a community. The Government of Telangana has laid considerable focus on ensuring that urban development keeps pace with the growth in the size and the needs of the population. HMDA is the urban planning agency of Hyderabad. It is responsible for planning, coordinating, supervising, and securing the planned development of the Hyderabad Metropolitan Region. During 2022-23, it undertook several projects including layout development at Koheda, Thimmaipally, Yadgarpally, & Kondapur, Solar Roof Cycle Track development along ORR, development of 158 km Green Corridor along ORR, development of Drip Irrigation at ORR, development & maintenance of Urban Lung Spaces in Hyderabad, and construction of skywalks at Uppal & Mehdipatnam, etc.

14.5.9 Leisure and Recreation

Recreational facilities are vital for the psychological well-being of people, and are important for improving the quality of life of citizens. Since the formation of the state, the Government has paid special attention to the development of recreational facilities in Hyderabad city in order to develop it as a 'consumer city', on the lines of other metropolitan cities in the developed countries.

The Government has developed gardens and urban public spaces to meet the leisure needs of the residents. The Buddha Purnima Project, launched in 2000, was a concerted effort to develop the areas around the Hussain Sagar Lake as public recreational spots. The aim of the project was to help the growth of the lake, upgrade the surrounding environment, promote tourism, and encourage eco-tourism in the area. Under this project, the Government developed the Lumbini Park, NTR Gardens,Necklace Road, People's Plaza, Sanjeevaiah Park, Hussain Sagar Lake, and Lake View Park.

In 2022, 10 lakes were adopted by companies for development under Corporate Social Responsibility (CSR). Development of Durgam Cheruvu, Malka Cheruvu, and Pedda Cheruvu was completed, while

that of the other 7 lakes is in progress. These areas provide ideal destinations for the citizens to relax and enjoy, while also serving as a source of livelihood for small businesses, as well as revenue for the government.

14.5.9.1 Sport Complexes & Facilities for Physical Fitness

The Government has taken up 20 works costing Rs. 98.5 crore that include the construction of sports complexes, auditoriums, indoor stadiums and playgrounds in the GHMC area. 10 of these works have been completed so far, while the other 10 are at various stages. These projects not only provide recreational facilities to the public, but also encourage sports persons by providing them with the required amenities.

Other than this, cycling tracks are currently present in the BHEL Vista Park, Durgam Cheruvu, Madannaguda Urban Park, Nadergul Urban Park, and Gajularamaram Urban Park. To add to these existing tracks, the Government has proposed development of cycling tracks in parks having an area of more than 2 acres, as well as all 57 proposed Theme Parks. The Hyderabad Unified Metropolitan Transport Authority (HUMTA) for Hyderabad Metropolitan Region has also planned a 173 km cycle track network across the city.

For daily use by locals/visitors, 74 Open Gyms have been provided in major parks and colony parks with the intention of promoting physical fitness and health.

Lastly, mini play courts for sports such as football, volleyball, basketball, etc. are also proposed to be developed, and inclusion of adventure games in suitable parks is also being planned by the Government.

14.6 Urban Governance

The 74th Amendment Act 1992 stipulated that the responsibilities of providing citizen services in the urban areas and performing administrative tasks like urban planning and land use regulation should fall under the purview of Urban Local Bodies. The Amendment left it to the respective states to enact laws that govern the structure and status of ULBs in their territory.

Accordingly, the Government enacted the Telangana Municipalities Act 2019 to guide the administration of ULBs other than GHMC. The Act pushes the ULBs to be more transparent, accountable, and efficient. In tune with the act, some of the identified focus areas are:

- Promoting Greenery in the urban areas, by demarcating funds towards the 'Green Budget'.

- Encouraging citizen-centric governance by establishing Citizen Service Centres in the Municipalities.

- Saving water, improving sanitation and upgrading the sewerage systems to ensure that water resources are well-utilised.

- Introduction of a single-window online system, called Telangana State Building Permission and Self Certification System (TS-bPASS) to process building certifications in a timely and hassle-free manner.

There are 142 ULBs in Telangana, spread across the districts of the state. Table 14.3 shows the number of ULBs located in each district.

In addition to the ULBs, the Government notifies the creation of Urban Development Authorities (UDAs) from time to time. The objective of UDAs is to ensure that the process of urbanisation does not occur in an unplanned manner, and to therefore provide adequate planning support during the urbanisation process. This involves the creation of master plans and layouts for land-use, water-use and sanitation facilities, and road networks in newly urbanising areas. Before 2014-15, the only UDAs in Telangana were Hyderabad's HMDA and Warangal's Kakatiya Urban Development Authority (KUDA). The following 8 UDAs were created in the state between 2014-15 and February, 2022, taking the total number of UDAs in the state to 10:

- Yadagirigutta Temple Development Authority in Yadadri Bhuvanagiri- formed in November, 2022

- Vemulawada Temple Development Authority in Rajanna Sircilla- formed in February, 2022

- Satavahana Urban Development Authority in Karimnagar- formed in May, 2017

- Nizamabad Urban Development Authority in Nizamabad- formed in July, 2017

- Stambhadri Urban Development Authority in Khammam- formed in July, 2017

- Siddipet Urban Development Authority in Siddipet- formed in October, 2017

- Mahabubnagar Urban Development Authority in Mahabubnagar- formed in February, 2022

- Neelgiri Urban Development Authority in Nalgonda- formed in February, 2022

Table 14.3 District-wise Urban Local Bodies in Telangana (2022)

S. No.	District	No. of ULBs	Name of Municipality/ Municipal Corporation
1	Adilabad	1	1. Adilabad
2	Asifabad	1	2. Kagaznagar
3	Hyderabad	1	**3. GHMC (MC)**
4	Jagitial	5	4. Dharmapuri,
			5. Jagityal,
			6. Korutla,
			7. Metpalli,
			8. Raikal
5	Jangaon	1	9. Jangaon
6	Jayashankar	1	10. Bhupalpally
7	Jogulamba Gadwal	4	11. Alampur,
			12. Gadwal,
			13. Ieeja,
			14. Waddepalle
8	Kamareddy	3	15. Banswada,
			16. Kamareddy,
			17. Yellareddy
9	Karimnagar	5	18. Choppadandi,
			19. Huzurabad,
			20. Jammikunta,
			21. Karimnagar, (MC)
			22. Kothapalli
10	Khammam	4	**23. Khammam, (MC)**
			24. Madhira,
			25. Sattupalli,
			26. Wyra

S. No.	District	No. of ULBs	Name of Municipality/ Municipal Corporation
11	Kothagudem	4	27. Kothagudem,
			28. Manuguru,
			29. Palvancha,
			30. Yellandu
12	Mahabu-babad	4	31. Dornakal,
			32. Mahabubabad,
			33. Maripeda,
			34. Thorrur
13	Mahbubnagar	3	35. Bhoothpur,
			36. Jadcherla,
			37. Mahabubnagar
14	Mancherial	7	38. Bellampally,
			39. Cheenur,
			40. Kyathanpally,
			41. Luxettipet,
			42. Mancherial,
			43. Mandammari,
			44. Naspur
15	Medak	4	45. Medak,
			46. Narsapur,
			47. Ramayampet,
			48. Thoopran
16	Medchal-Malkajgiri	13	**49. Boduppal, (MC)**
			50. Dhammaiguda,
			51. Dundigal,
			52. Ghatkesar,
			53. Gundlapochampally,
			54. Jawaharnagar (MC)
			55. Kompally,
			56. Medchal,
			57. Nagaram,
			58. Nizampet, (MC)
			59. Peerzadiguda, (MC)
			60. Pocharam,
			61.Thumkunta
17	Mulugu	0	No ULBs
18	Nagarkurnool	4	62. Achampet,
			63. Kalwakurthy,
			64. Khollapur,
			65. Nagarkurnool

S. No.	District	No. of ULBs	Name of Municipality/ Municipal Corporation
19	Nalgonda	8	66. Chandur,
			67. Chityal,
			68. Devarakonda,
			69. Haliya,
			70. Miryalaguda,
			71. Nakrekal,
			72. Nalgonda,
			73. Nandikonda
20	Narayanpet	3	74. Kosgi,
			75. Makthal,
			76. Narayanpet
21	Nirmal	3	77. Bhainsa,
			78. Khanapur,
			79. Nirmal
22	Nizamabad	4	80. Armoor,
			81. Bheemgal,
			82. Bodhan,
			83. Nizamabad (MC)
23	Peddapalli	4	84. Manthani,
			85. Peddapalli,
			86. Ramagundam, (MC)
			87. Sulthanabad
24	Rangareddy	16	88. Adibatla,
			89. Amangal,
			90. Badangpet, (MC)
			91.Bandlagudajagir,(MC)
			92. Ibrahimpatnam,
			93. Jalpally,
			94. Kothur,
			95. Manikonda,
			96. Meerpet, (MC)
			97. Narsingi,
			98. Pedda-Amberpet,
			99. Shadnagar,
			100. Shamshabad,
			101. Shankarpally,
			102. Thukkuguda,
			103. Turkayamjal

S. No.	District	No. of ULBs	Name of Municipality/ Municipal Corporation
25	Sangareddy	8	104. Ameenpur,
			105. Andol-Jogipet,
			106. Bollaram,
			107. Narayankhed,
			108. Sadasivapet,
			109. Sangareddy,
			110. Tellapur,
			111. Zaheerabad
26	Siddipet	5	112. Cherial,
			113. Dubbaka,
			114. Gajwel,
			115. Husnabad,
			116. Siddipet
27	Sircilla	2	117.Sircilla,
			118. Vemulawada
28	Suryapet	5	119. Huzurnagar,
			120. Kodada,
			121. Neredcherla,
			122. Suryapet,
			123. Tirumalagiri
29	Vikarabad	4	124. Kodangal,
			125. Parigi,
			126. Tandur,
			127. Vikarabad
30	Wanaparthy	5	128. Amarchinta,
			129. Atmakur,
			130. Kothakota,
			131. Pebbair,
			132. Wanaparthy
31	Warangal - Rural	3	133. Narsampet,
			134. Parakala,
			135. Wardhannapet
32	Warangal - Urban	1	**136. GWMC (MC)**
33	Yadadri Bhuvanagiri	6	137. Alair,
			138. Bhongir,
			139. Choutuppal,
			140. Mothkur,
			141. Pochampally,
			142. Yadagirigutta

Source: Municipal administration & Urban Development Department, GoTS
Note: MC: Municipal Corporation

14.7 Financing Urban Development

The investment needed to meet the unmet and growing needs of urbanisation is huge. At the same time, this investment in high quality infrastructure and services can unlock endogenous growth potential, with benefits that greatly outweigh the costs in the long term. Financing urban development is therefore a productive investment that can lead to sustainable growth.

Unfortunately, most Municipalities in India suffer from low revenues and few tax options to generate their 'own income'. Municipal Corporations in India are required by law to maintain a balanced/surplus budget and hence, they have not been able to tap capital markets sufficiently to supplement their revenues. They have remained dependent on State and Central grants. To address these issues, State's Municipalities/ Municipal Corporations have been experimenting with different strategies of raising finances such as value capture financing, issue of municipal bonds, etc. that have proved to be a success in mobilising funds. Telangana's Urban Local Bodies also benefit from a significant tax base that helps finance the development of its cities.

ULB reforms stipulated by the Department of Expenditure (Ministry of Finance, Government of India) were completed by the Government in January, 2021. This entailed changing the floor rates of property tax to reflect the prevailing circle rates in the nearby areas, and updating the user charges as well. This allowed ULBs to raise resources that could help improve health and sanitation in the areas that they cover. In addition, the Government would also introduce a mechanism to increase these rates periodically.

14.7.1 Greater Hyderabad Municipal Corporation

GHMC is the largest Municipal Corporation in the state, covering a population of 93.6 lakh[7] in 2022. In 2022-23, GHMC proposed a budget estimate of Rs. 6,150 crore. GHMC gets its funds from 3 sources - tax revenues, non-tax revenues and capital grants.

Tax revenue comprises all the taxes collected by GHMC, contributing 25.2% to the total revenues (see Figure 14.11). Over 90% of this collection comes from the property tax levied by the corporation. There has

been no hike in the property tax rate due to correction of inequity in the levy of property tax and efficient collection mechanism. However, using several innovative modes of tax collections, the income from property taxes has been on a continuous uptrend. As per budget estimates for 2022-23, GHMC's estimated property tax collection is Rs.1,700 crore.

The Non Tax Revenues of GHMC include trade licence fee, advertisement fee, fee from town planning (which consists of building permit fee, development charges and betterment charges), etc. Taken together, the non-tax revenues comprise 25.4% of the GHMC budget in 2022-23. In 2022-23, GHMC expects 9.9 crore in advertisement fees and 63 crore in licence fees.

GHMC also receives money from the capital grants provided by the state and central governments. These constitute 5.2% of its budget. During 2022-23, GHMC would receive over Rs.354.0 crore in capital grants.

Finally, the greatest component of GHMC's income in 2022-23 falls under the category 'Others', comprising 'Contributions', 'Regularisation Fees', and 'Borrowings'. This accounts for 44.2% (Rs. 2,996 crore) of GHMC's budget.

In addition to GHMC's own budget, it also raises revenues and incurs expenditure on major projects of other corporations assigned to GHMC. In 2022-23, the budget outlay for the Housing Corporation (2BHK) in 2022-23 is Rs.406.70 crore.

Figure 14.11 Share of different sources of revenue in total budget for GHMC (2022-23)

■ Non-Tax Revenue   ■ Tax Revenues   ■ Grants   ■ Others
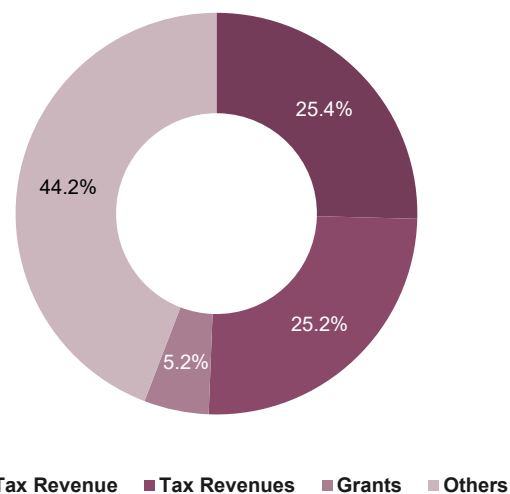
Source: GHMC Budget 2022-23

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7. As per population projections based on the Census 2011 data (https://www.census2011.co.in/data/town/802918-ghmc-andhra-pradesh.html)

Box 14.1

Augmenting property tax collections through Geographical Information System (GIS)

Property tax is the most important tax levied at the local scale (for example, GHMC earns 90% of all tax revenues through property taxes), and it is vital for effective local administration. Though property tax is a significant source of revenue, there are flaws in the traditional tax collection method that lead to suboptimal revenue collection.

In recent times, GIS-based systems for property tax assessment and management have proved to be an effective tool for augmenting collections. Implementation of GIS based property tax collection system involves the following steps:

- Collection of primary data (i.e., categorised property data) through field surveys and drone surveys

- Collection of secondary data (ward boundary lists, slum boundary lists, colony categorisation list etc) from the concerned departments

- Door to door surveys of properties to enable the capture of the entire property details using mobile apps

- Mapping survey data using geocode tool and generation of a unique reference number for each building

- Creation of digital profile which has visual information of building, road, use of lands, and locality

- Creation of thematic maps of the property tax formula parameters where the database will have visible information like use factor such as commercial, residential; Age factor means a year of construction of the building; Structure factor such as kachha, pucca; Occupancy factor such as self-occupied, tenants

- Calculation of tax using thematic maps

- Mapping of taxpayers data using the data

of taxpayers and linking it with spatial data which would give the list of non-tax payers with addresses

GIS-based systems can significantly reduce the hurdles experienced in traditional methods of tax collection, such as lack of transparency & accountability, difficulty in tracking tax evaders, and the requirement of maintaining and regularly updating spatially complete databases of property records. They provide a low-cost solution to surveying techniques, and can supplement data on land use with detailed information on the size, capacity, and use cases of different buildings in the city. Consequently, local governments can leverage this data to improve their property tax collections considerably.

Telangana has taken up the massive exercise of integrating property information spatially by mapping and geo-tagging each property in all of its 142 ULBs. In partnership with the Indian Space Research Organization's (ISRO's) National Remote Sensing Centre (NRSC), a mobile application titled 'Bhuvan' has been developed, that provides images and map visualisation to geo-tag all properties.

This would help the Government ensure transparency in assessment of the properties, as well identify under assessed and un-assessed structures. The exercise would bring down unauthorised constructions than permitted in the building plan approval.

As of December 2022, all the 20.8 lakh properties in the 141 ULBs (excluding GHMC) of Telangana had been mapped through this process. This initiative resulted in 172% increase over the existing demand, and increased revenues to a tune of Rs.88 crore.

Therefore, GIS-based property tax mapping can go a long way in offering a win-win situation for both, the government (by increasing the tax base and thus tax collection), as well as the citizens (by reducing the need to raise tax rates to increase revenues). Telangana has set an inspiring example for other cities in the country by not only introducing an innovative way of property tax collection, but also ensuring its success through constant monitoring.

14.7.2 Other Municipal Corporations

There are 12 other Municipal Corporations in the state. The Greater Warangal Municipal Corporation (GWMC) is the second largest Municipal Corporation, with a population of 8.2 lakh. In 2021-22, the GWMC proposed a budget of Rs. 560 crore. The primary sources of revenues for GWMC were tax revenues (14.3%), non-tax revenues (18.4%) and capital grants (67%).

This is followed by Nizamabad Municipal Corporation, with a population of 3.1 lakh. During 2021-22, the corporation proposed a budget of Rs. 391 crore. The budget was primarily financed through four sources - tax revenues (18.8%), non-tax revenues (7.9%), capital grants (57.9%), and deposits and loans (15.3%).

Karimnagar Municipal Corporation has a population of 2.6 lakh. For 2020-21, the Karimnagar Municipal corporation proposed a budget of Rs. 220 crore. They had three primary sources of revenue - tax receipts (18.8%), non-tax receipts (19.6%), and capital grants (57.9%).

14.8 Way Forward

The speed and scale of urbanisation can bring forth multiple challenges, such as meeting the accelerated demand for affordable housing, viable infrastructure including transport systems, basic services, and jobs, particularly for the urban poor who live in informal settlements to be near opportunities. However, if managed well, urban development can also lead to prosperous, inclusive, and sustainable growth.

There are ample opportunities for socially, economically, and environmentally sustainable urban development in Telangana as the state provides a conducive atmosphere to unlock and adopt impactful modern solutions to urbanisation. Out-of-the-box thinking is encouraged in the state in a systemic manner, as is evident from the investments made by the Government in setting up of T-Hubs, which support some of the most innovative and disruptive startups in the world, some of which are working on solutions to urban development issues. The Government also intends to set up an Urban Centre of Excellence, which would act as a National/Regional level think tank on urban issues, and would include R&D facilities, a hub for urban innovations, a centre for urban start-ups, and training facilities. This would help the state urbanise in a more planned manner in the future. The Government is also keen on experimenting with an Urban Employment Guarantee Scheme. This would not only help bring the urban poor within the fold of employment, but also aid in meeting increasing urban requirements for infrastructure. The environment in the state is also ripe for innovations in the areas of space technology (given Telangana's recently released Space-Tech Framework), smart traffic control, and other Artificial Intelligence-based and Machine Learning-based innovations. Telangana's IT-hubs and technologists are well-suited to act as pioneers in deploying meaningful technologies to improve the urban experience.

Given the citizen-centric focus of the Government, Telangana is poised for a future of sustainable, resilient, and inclusive urbanisation.

GOVERNANCE

Key Highlights

- An increase in the number of public officials can lead to more effective governance and can result in more efficient service delivery to citizens, improved oversight and regulation, and better decision-making. The Government, through TSPSC (Telangana State Public Service Commission), has notified 17,130 jobs during the year. (April 2022 to January 2023).

- Integrated District Office Complexes (IDOCs) are constructed by the State to bring together multiple government offices and services in a single location. The Government has built 17 IDOCs so far as a measure to improve the functioning of the Government and make it more efficient and accessible to citizens.

- In the past 8 years, the Government of Telangana served over 700 million beneficiaries through Direct Benefit Transfer (DBT) mode. More than Rs. 1,10,824 lakh crore has been transferred through DBT since 2014.

- According to a study conducted by NESDA (National e-Governance Service Delivery Assessment 2021), Telangana ranked 4th among all Indian states in terms of services utilised by customers under e-governance. The State's compliance scores of all assessment parameters improved in 2021 as compared to that in 2019. The overall score increased by 37% in 2021 as compared to that in 2019.

- Telangana has achieved a significant feat in e-governance, having the highest cumulative number of e-transactions per 1,000 population among all states in India between 2015 and 2022. The state has ranked second among the non-special category states in the country in terms of the annual number of e-transactions per 1,000 population during 2022.

15.1. Introduction

Good governance is a term used to describe the way in which democracy is exercised in the management of a country. It generally refers to the processes, institutions, and systems by which authority in a country is exercised for the benefit of all citizens.

Good governance is characterised by several key attributes, including

- Transparency, which means that information is readily available and accessible to those who need it

- Participation, which means that citizens have the opportunity to have a say in the decisions that affect them

- Accountability, which means that those in positions of power are held responsible for their actions

- Responsiveness, which means that the Government is responsive to the needs and concerns of citizens

- Effectiveness and efficiency, which means that the Government is able to meet its goals and objectives in a cost-effective and timely manner

Good governance also means that there is the rule of law, an independent judiciary and protection of human rights, and a fair and just society where everyone is equal under the law. Since the formation of the State, the Government of Telangana with the aim of creating responsible and responsive governance, has established various institutions besides streamlining and strengthening the existing institutions to fulfil the aspirations of the people in the new state. Accordingly, to uphold the pillars of "Good Governance", a multitude of measures have been initiated, ensuring

1) Decentralisation of administration

2) Citizen Centric Governance

3) Law and Order for Public Safety and Security

15.2. Decentralisation for Good Governance

Decentralisation is a key aspect of good governance as it allows for the delegation of power and authority to different levels within the administrative hierarchy. This decentralisation leads to improved accessibility for citizens, greater participation in administration, and increased accountability in governance. By making decision-making more localised and tailored to specific issues, decentralisation also speeds up the implementation of policies. In order to promote decentralisation and empower local governance institutions, the Government has implemented various measures to strengthen the governance structure within the state.

Table 15.1. Growth in the administrative divisions in the state (2015-2023)

Administrative Divisions	2015	2023
Districts	10	33
Revenue Divisions	42	74
Mandals	464	612
Zilla Praja Parishad	9	32
Mandal Praja Parishad	438	540
Gram Panchayat	8,691	12,769
Municipal Corporations	6	13
Municipalities	67	129
Cantonment Board	1	1

Source: Directorate of Economics and Statistics, Government of Telangana

Note: Panchayat Raj Institutions (PRIs) have three levels of Government: Zilla Praja Parishad at the District level; Mandal Praja Parishad at the Intermediate level; and Gram Panchayat at the Village level.

The Government of Telangana has implemented a decentralised model of governance that utilises local institutions as a direct link between the Government and citizens, and empowers them to make their own decisions. This model is supported by a robust e-governance system, in which all departments can access Information and Communication Technology for daily tasks, addressing grievances, and public communication. The Government has also passed

several laws to further empower local governance institutions and increase citizen participation in governance. For instance, the Telangana Panchayat Raj Act, 2018 (amended in 2021) aligned to the Constitution (73rd Amendment) Act, 1992 is one of the key legislation for rural governance in the state, and its main objective is to promote democratic decentralisation of power and resources to elected representatives at the grass-root level. Similarly, the Telangana Municipalities Act 2019 governs the municipalities and municipal corporations in the State.

Similarly, the 74th Constitutional Amendment Act mandated the formation of Urban Local Bodies (ULBs) as the lowest governance unit in cities and towns. At present, there are 142 ULBs and 10 Urban Development Authorities (UDAs) across the state. Out of the total 142 ULBs, 97 come under the Telangana Town Planning Act, of 1920. The Government enacted the Telangana Municipalities Act, 2019 to govern the municipalities and municipal corporations in the state. The urban agglomeration of Hyderabad is governed by the Greater Hyderabad Municipal Corporation Act, 1955 (amended in 2020). These laws empower local governance institutions and increase citizen participation in governance.

15.3 Systems Strengthening Citizen-Centric Governance

Citizen-Centric governance aims at placing citizens at the centre stage of public administration. This can be achieved by transparency, efficiency, stability and continuity in the governance systems. The Government at all levels has endeavoured to provide citizen-centric governance by developing e-governance across the administration.

New technologies hold great promise for improving government effectiveness, which includes control of corruption and efficient delivery of public services such as education, health, social security, transport etc. The Government of Telangana has leveraged technology to improve access to services for citizens and to ensure that services are delivered in a timely and efficient manner, while also increasing transparency and accountability in service delivery.

The Direct Benefit Transfer into the bank accounts of the beneficiaries of Rythu Bandhu, Aasara Pensions, Subsidies etc., are a case in point.

According to a study conducted by NESDA (National e-Governance Service Delivery Assessment 2021), Telangana ranked 4th among all Indian states in terms of services utilised by customers under e-governance. The majority of the services utilised by consumers under e-governance are financial transactions and services provided by local bodies, such as electricity and drinking water, among others. This shows that Telangana has made significant progress in implementing e-governance services and making them accessible to citizens, which has led to the high ranking in the NESDA study.

Figure No.15.1 Performance Scores of e-Governance Portals of Telangana during 2019 and 2021
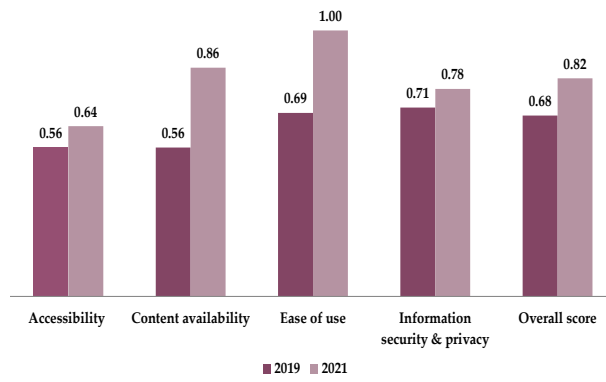
Source: NeSDA 2021 Report

The compliance scores of all assessment parameters improved in 2021 as compared to that in 2019. The overall score increased by 37% in 2021 as compared to that in 2019.

15.3.1 eTaal PROJECT

eTaal serves as a platform for providing integrated, real-time aggregated view of e-Transaction statistics for major e-Governance programmes which are Govt-to-Citizen (G2C), Govt-to-Business (G2B) and Business-to-Citizen (B2C) in nature.

- The State of Telangana has achieved a notable accomplishment in the realm of e-governance, ranking fifth among all other states with 73,76,83,056 e-transactions conducted from January 1, 2022 to December 31, 2022.

- Telangana has achieved a significant feat in e-governance, having the highest cumulative number of e-transactions per 1,000 population among all states in India between 2015 and 2022 (see Figure 15.2). The state has ranked second among the non-special category states in the country in terms of the annual number of e-transactions per 1,000 population in 2022.

Figure 15.2. e-Transactions per 1,000 population (June 2014 to January 2023)

State	e-Transactions
Telangana	1,58,241
Andhra Pradesh	1,41,147
Kerala	1,40,709
Gujarat	84,794
Tamil Nadu	76,803
Chhattisgarh	64,729
West Bengal	54,683
Haryana	46,577
Punjab	41,517
Madhya Pradesh	39,007
Rajasthan	26,564
Uttar Pradesh	25,044
Karnataka	22,486
Jharkhand	18,880
Odisha	18,127
Goa	17,666
Maharashtra	15,819
Bihar	11,267
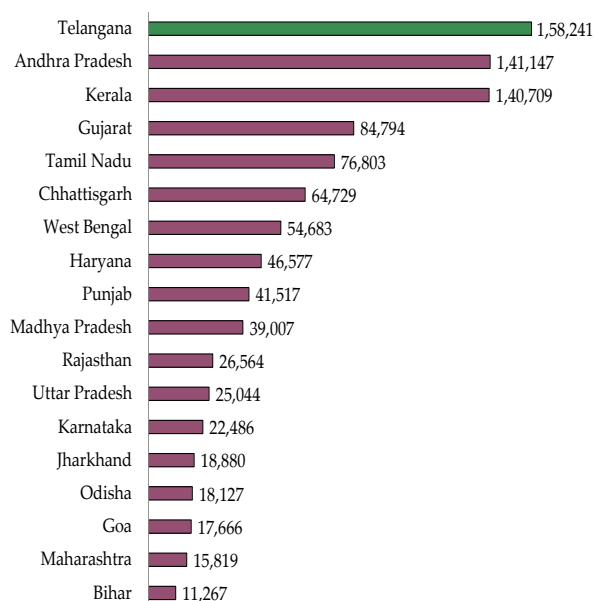
Source: e-Taal Portal, Government of India

15.3.2 GOVERNMENT ORDER ISSUE REGISTER (GOIR)

The Government of Telangana prioritises transparency and absence of corruption in all its departments. To ensure this, all government departments make use of the Online Government Order Issue Register (GOIR) portal to upload and make available to the public. This website, which has been in operation for over 10 years, allows citizens to access and download Government Orders from anywhere at any time.

Table 15.2 Government Order Issue Register details up to 31st March 2022

Department	Numbers processed so far
Secretariat Departments	1,63,896 Government Orders
Commercial Taxes Department	4,26,590 orders
Telangana Transco	34,774 orders (as of 08.05.2022).
File Monitoring System (FMS)	6,89,819 currents by all Secretariat Depts.
Secretariat Office Management System (SOMS)	64,813 communications

Source: Annual Report of ITE&C Department 2021-22

15.3.3 e-PROCUREMENT

The e-Procurement platform is being widely adopted by Government departments, local bodies, municipal corporations, vendors, cooperative sectors, public sector undertakings, and other State Governments. Since the launch of the updated version in October 2017, a total of 2,89,079 tenders worth Rs.1,91,966 Crore have been floated on the platform. Additionally, a total of 1,31,503 tenders worth Rs. 69,377 Crore have been successfully completed and finalised as of May 2022.

15.3.4 e-OFFICE PROJECT

e-Office envisions a paperless office with increased transparency, efficiency, and accountability of the organisation. e-Office project is being successfully implemented in:

- 30 Secretariat Departments, 113 HODs (Including all ULBs)

- 33 District Collectorates & Police Offices and all 16 TSSP Battalions

- 1954 Global Organization Units

- 137 Government Degree Colleges and 56 Polytechnic Colleges

Table 15.3 Status of e-Office as of 31st October 2022

Details	Number
Users	32,339
Receipts Created	29,94,075
Receipts Moved	70,84,591
Files Created	8,98,646
Files Moved	74,71,444

Source: Annual Report of ITE&C Department 2021-22

15.3.5 Mee Seva

"Mee Seva" in Telugu means, 'At your service', i.e. service to citizens. It is a good governance initiative that incorporates the vision of the National eGov Plan "Public Services Closer to Home" and facilitates a single entry portal for the entire range of G2C& G2B services. The objective of MeeSeva is to provide citizen-centric and effective governance facilitated by technology through Mee Seva centres. The platform uses Information and Communications Technology (ICT) innovatively, enabling the electronic delivery of 800-plus services from 90-plus departments.

At present, 4,781 MeeSeva centres are operating across the state. Electricity and telephone bill payments, police complaints, and tax payments are the most popular services accessed by citizens through this platform. MeeSeva handles, on average 1,00,000 to 1,50,000 transactions per day and has completed more than 17.58 Crore transactions since its inception. From January to December 2022, the platform served 2.73 crore citizens (see Figure 15.3), handling transactions worth Rs.6,340 Crore.

Figure 15.3 Year-wise number of citizens served through MeeSeva
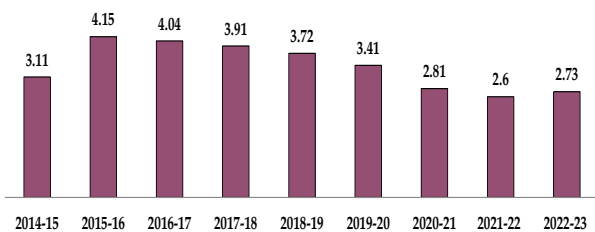
Source: Department of Information Technology, Electronics & Communication, Government of Telangana

15.3.6 T-App Folio

The Government launched its m-governance (mobile governance) initiative, the T App Folio application, as part of Mee Seva 2.0 in 2018. It is an integrated app that leverages the deep penetration of mobile usage in the state to deliver services such as Mee-Seva, Regional Transport Authority services, fee payments and bill payments to the citizens.

The App has enrolled over 270+ G2C, B2C, VAS and Informational active services, generating revenue of Rs.86.7 Crore and launching 12 new services from January to December 2022. It intends to onboard another 500+ services. Currently, the app has 14.75 lakh downloads and records close to 2 lakh transactions per month. T-App Folio experienced 24.28% increase in the number of citizens served between 2020-21 and 2021-22 (see Figure 15.4).

Figure 15.4 Number of citizens served through T-App Folio
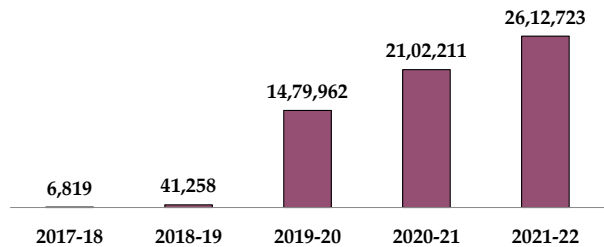
Source: Department of Information Technology, Electronics & Communication, Government of Telangana

15.3.7 Smart PDS Solutions

15.3.7.1 Portability of PDS

Telangana has implemented intra as well as inter state portability of Public Distribution System (PDS) services, to access PDS services from any Fair Price Shop (FPS) in the Telugu states regardless of where their cards are registered. To ensure smooth functioning, the Government allocates 120% of essential commodities in advance to each FPS and encourages competition among dealers. Telangana and Andhra Pradesh are the only states to have implemented a pilot program allowing National Food Security Act cardholders to receive food grains from any FPS under the Integrated Management of Public Distribution System (IMPS) Scheme.

15.3.7.2 Helplines and Consumer Centres

In order to ensure transparency and proper functioning of the targeted Public Distribution System and accountability of the functionaries, 24*7 toll-free helplines '1967' and '180042500333' have been established in the State for registration of grievances. Also, the Government of Telangana has introduced Consumer Information Centers in the State for awareness and protection of consumer rights. Telangana State Food Commission has been constituted to monitor and evaluate the implementation of the provisions of the National Food Security Act in the state.

15.3.7.3 FPS with ePoS and Biometric Technology

As of February 2018, the Government of Telangana has successfully automated its fair price shops (FPS) by deploying a total of 17,123 electronic point of sale (ePoS) machines across all 33 districts in the state. Additional measures such as IRIS recognition and Aadhaar-based mobile OTP have been implemented to ensure cardholders access their ration with ease.

15.4 Improved Land Records Management

15.4.1 Dharani Portal

The Telangana Rights in Land and Pattadar Passbook Act, 2020 was enacted to improve and streamline the process for landholders, making it more efficient and convenient for all parties involved. This act brings in revolutionary reforms to simplify the process of land transactions. The registration process has become more widely available with an increase in the number of registration offices from 141 to 732 in the State. In October 2020, the Government launched the Dharani portal with the goal of making the revenue administration process more transparent, user-friendly, and free of discretion. Dharani is a straightforward and user-friendly web portal that provides a one-stop solution for the registration and mutation of agricultural lands. As of January 2023, 33 transaction modules and 10 information modules have been made available on the Dharani portal.

The portal allows for registration at the citizens' doorsteps, with 100% advance slot booking, instantaneous mutation and registration. The stamp duty fee is automatically calculated by the system. Up to 27th January 2023, a significant number of 23,20,233 transactions have been successfully completed through the Dharani portal. The largest transaction categories were 'sales' and 'gifts', with 58.9% of the total transactions on the portal being sales of land and 18.6% being gifts.

The Dharani portal is a significant step forward in streamlining and modernising the process of registering and mutating agricultural land in India. By providing a one-stop solution for these transactions, the portal makes the process more convenient for citizens and reduces the need for in-person visits to government offices. The high number of transactions (8,52,874) completed through the portal in a short period of time, with a majority of them being sales and gifts, is a testament to the portal's success in making the process more accessible and user-friendly.

Table 15.4. Applications Received vs Approved on Dharani Portal (from November 2020 to December 2022)

Sl. No.	Category	Applications Received	Applications Approved	Average time (in mins)
1.	Registration & Mutation	17,30,909	16,59,866	47
2.	Succession	2,09,885	1,98,208	26
3.	Partition	24,126	22,874	31
4.	Pending Mutation	1,79,834	1,79,216	32
5.	NALA	1,01,652	95,676	28

Source: Telangana Dharani Portal

15.4.2 Telangana State Building Permission Approval and Self-Certification System (TS-bPASS)

TS-bPASS launched on 16th November , 2020, is an online platform developed by the Government of Telangana to streamline the process of obtaining building permits and approvals. The system allows

builders, architects and individuals to apply for building permits, track their status, and self-certify that their plans comply with building regulations. The system is intended to make the process of obtaining building permits more efficient and reduce the need for in-person visits to government offices. It is a valuable tool for streamlining the process of obtaining various permissions required during land development and building construction in Telangana. As of 15th January 2023, 1,97,223 applications were received under TS-bPASS, of which 52.5% (1,03,503) have been approved. The remaining applications are either rejected due to non-fulfilment of mandatory requirements or are still being processed.

Nearly half of the total applications received through TS-bPASS were to the Directorate of Town and Country Planning (DT&CP) with 49.18%. The Hyderabad Metropolitan Development Authority (HMDA) and the Greater Hyderabad Metropolitan Corporation (GHMC) received 29,161 (31.37% of the total) and 18,078 (19.45% of the total) applications respectively. HMDA had the highest approval rate at 70.65%, followed by GHMC and DT&CP at 68.34% and 67.47% respectively.

The high approval rate of the applications received by the HMDA, GHMC, and DT&CP further demonstrates the efficiency of the platform and its effectiveness in simplifying the process. The fact that nearly half of the total applications were to the DT&CP, with HMDA and GHMC also receiving a significant number of applications, highlights the wide reach and impact of the TS-bPASS platform.

Table 15.5. Status of TS-bPASS Applications Upto 17 January 2023

Type	Received	Approved
Instant Approval	1,30,639	1,04,531
Instant Registration	19,719	6,215
Single Window-Building	13,422	6,596
Single Window-Layout	1,293	551

Source: Municipal Administration and Urban Development (MA&UD)

15.5 Mobile Governance

15.5.1 Real-time Digital Authentication of Identity (RTDAI)

Electronic Service Delivery (ESD), a wing of ITE&C, has developed a solution called RTDAI in 2019, which utilises Big Data, AI, ML, etc. to create a document-less and presence-less governance mechanism. This solution has the potential to greatly improve the quality of interactions between government departments and citizens. Four major services (DOST, RTA, FEST, PLCS)[1] are provided to citizens under RTDAI. During 2022, 4 Lakh transactions generated a cumulative revenue of Rs.5.1 Crore.

15.5.2 T-Wallet

T-Wallet, launched in 2017, is a first-of-its-kind state-owned digital wallet. It can be accessed through online browsers, smartphones, and feature phones, as well as in 'no phone' mode. T-Wallet can be used for both Government and private transactions. The users can avail 1,032 services across 73 departments, including the payment of tolls, utilities, and Government benefits/subsidies. As of February 2022, a total of 12,94,085 users and 15,827 merchants were registered for T Wallet, and 11,59,179 government and 1,55,27,521 non-government transactions were carried out through the app.

In 2022, the Government has made significant strides in driving the adoption of T Wallet among citizens and Government departments. 3.3 Lakh citizens have used the channel, generating a transactional value of Rs.3,900 Crore. About 21 new services are added from various departments and agencies during 2022-23. Bharat bill Payment Services like FASTag recharge, Gas Cylinder booking, Insurance Premium Payment, etc are the prominent services launched during this period.

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1. DOST- Degree Online Services Telangana
   RTA- Regional Transport Authority
   FEST- Friendly Electronic Services of Transport Department
   PLCS- Pensioners Life Certificate Authentication through Selfie

15.5.3 RTA m-Wallet

The RTA m-Wallet app, which was launched in March 2016 has seen over 50 lakh downloads and provides a user-friendly interface for managing important vehicle-related documents. It allows users to store digital copies of their driving licence, registration certificate, and motor insurance. Motorists can display these documents on their smartphones through the app during police or Road Transport Authority (RTA) checks. The documents once downloaded on the application will be saved permanently, allowing for easy access and storage.

15.5.4 My GHMC App

The Greater Hyderabad Municipal Corporation (GHMC) launched a mobile app called 'My GHMC App' in July 2016, which provides citizens with five important services. The integrated services offered through the app include the payment of property tax and trade licence fees, viewing the status of Layout Regularization Scheme (LRS) applications, applying for pet dog licences, downloading birth and death certificates, and submitting civic-related grievances such as issues with manholes, potholes, mosquitoes, open dumping points, and streetlights.

15.5.5 Telangana Diagnostics App

In May 2022, the Government of Telangana launched a mobile application to make free healthcare more accessible. These state-run diagnostic centres offer free services with the aim of reducing medical expenses for the poor. Trained personnel at these centres collect samples for a range of tests, including blood, urine, microbiology, and radiology. The results are sent to the registered phone number. Patients who visit these state-run healthcare facilities can use the app to track, view and download their medical reports for all the tests that they have submitted samples at the T-Diagnostic laboratories. Users can also use the mobile application to access previous medical reports from their visits to the patient database. This patient-centric mobile application can also be utilised to search the location of the nearest T-diagnostic testing laboratory, which will be displayed with a complete facility address, contact details, map directions, and the list of diagnostic services available at the laboratory.

15.5.6 Arogyasri App

The Aarogyasri HealthCare Trust's health care app launched in April 2016 is a useful tool for citizens who enrolled in the Aarogyasri Health Scheme of Telangana State. The app provides users with access to a variety of features that make it easier to manage their healthcare needs. Users can check their Health Card status, locate nearby empanelled hospitals on a map, and search for hospitals based on speciality and scheme. Additionally, the app allows users to check the status of their treatments and report any problems or grievances they may have. This app is a valuable resource for individuals enrolled in the Aarogyasri Health Schemes as it provides them with easy access to important information and services related to their healthcare. This app is a step forward by the Government to provide a more efficient and user-friendly system for the citizens.

15.5.7 T-Ration App

The Government of Telangana launched T-Ration mobile app on 8th September 2017, for providing better services to Ration card holders. There are a total of 2.83 Crore PDS beneficiaries with a total of 17,500 Fair Price Shops in the state. App offers 7 G2C (Government to Citizen) and 13 G2G (Government to Government) services.

It provides information on the allocation of commodities to a particular ration card, ration shop location, allocation of commodities to a ration shop, current stock at the ration shop and ration card transactions.

15.5.8 Prajavani

The term 'Prajavani' means 'Voice of People'. It is a centralised public grievance redressal system, and all districts hold grievance redressal sessions every Monday from 10 am to 1 pm as part of it. The District Collector and all District Officers take public grievances directly.

Citizens can file complaints via the prajavani portal or in writing, and their concerns are addressed within specific time constraints. Cumulatively, 4,23,186 issues have been raised as of 18th January 2023, out of which 3,38,733 issues (80%) have been disposed of since it's inception.

15.6 Smart Mobility Governance

15.6.1 Intelligent-Ticket Issue Machine (i-TIMS)

The Telangana State Road Transport Corporation (TSRTC) will soon move to Android-based ticket issuing machines. The move is expected to allow passengers to book tickets 15 minutes before the departure of buses. Intelligent-Ticket Issue Machine (i-TIMS), the move is touted as passenger-friendly and is expected to save time. As many as 928 i-TIMS will be procured. These machines will be operated on long-distance routes where the online bookings and reservations are closed an hour before departure. Payments can be made using debit and credit cards and by means of UPI. Information about the number of vacant seats as well as the estimated time of arrival of buses will also be made available to passengers. In another development, the TSRTC is also planning to roll out smart cards for passengers.

15.6.2 TSRTC Bus Tracking Application

In the pursuit of encouraging citizens to travel by state-run buses, a bus tracking app is made available to improve the accuracy of the state-run public transport service. This initiative helps passengers to know the arrival and departure of buses at various stops across Telangana and nearby states where TSRTC services are available so that the passengers plan their travel to avoid unwanted waiting time at the bus stops/stations.

15.6.3 T-Savaari App

The T-Savaari app offers a one-stop solution for transportation needs, providing information on various modes of transportation, including TSRTC buses, MMTS trains, metro trains, and private carriers. Additionally, users can purchase metro tickets and find the locations of nearby TSRTC bus stops and train stations.

15.6.4 Hyderabad Metro tickets via WhatsApp

The Hyderabad Metro Rail has launched an end-to-end digital payment-enabled Metro ticket booking through the WhatsApp e-ticketing facility in October 2022. It is the first Metro rail in the country to roll out a fully digital payment-enabled WhatsApp e-ticketing facility.

15.6.5 Anywhere-Anytime services in Regional Transport Authority (RTA)

The Government has introduced 'Anytime Anywhere', an m-governance project through which the citizens can avail basic RTA services without visiting the Regional Transport Offices. 71,072 transactions related to licences and registrations have been recorded under this project.

15.7 Public Safety, Policing, and Prisoners' Welfare

The police force plays a vital role in maintaining peace and upholding law and order in society. The Government of Telangana, in collaboration with the community, is committed to fulfilling the needs of the citizens by offering efficient and effective services through programs that focus on crime prevention and protection, with a genuine concern for the safety and well-being of the public.

Modernising the Police Stations: The Government of Telangana has taken initiatives to upgrade the existing police stations in the state to become "smart and responsive police stations" that are focused on providing "citizen-centric uniform service delivery" to the public. As part of this initiative, 22,347 Stipendiary Cadet Trainee Police Constables (SCTPC) were recruited from various police units across the state and provided with a nine-month induction training program between 2014 and 2020.

Police Administration: After the reorganisation of the districts in the state in 2016, a total of 119 police stations, 33 circles, 24 subdivisions, 20 District Police Offices and 9 Commissionerates were established to enhance the accessibility of citizens to police administration. To staff these new facilities, the Government has undertaken a significant recruitment effort, with 28,277 police personnel in the past 7 years and 92 Assistant Public Prosecutors. Additionally, the Government has implemented a reservation for women in recruitment, with 33.3% of positions set aside for female candidates. In May 2022, the Telangana State Level Police Recruitment Board announced the recruitment of an additional 17,516 police personnel in various roles.

Table 15.6. Police Administration Details

Police Administration	2015	2019	% increase
No. police districts	10	20	100%
No. of commissionerates	2	9	350%
Total strength of the police force	52,116	77,680	50%
No. of Assistant Sub Inspectors and Constables (together)	47,925	72,231	50.72%
No. of inspectors and sub-inspectors (together)	3,753	4,909	30.80%

Source: Telangana State Police Department

15.7.1 Cybercrime

Cybercrime is a rapidly evolving transnational crime that can be committed across borders and affects individuals and societies globally. It is essential to take a comprehensive and timely approach to combat it. The Telangana Government promotes sustainable efforts in countering cybercrime by supporting national structures and action. The Government's efforts include providing technical assistance in capacity building, prevention, awareness raising, cooperation, data collection, research, and analysis of cybercrime. 10,303 cases were registered under Cyber Crime in 2021 as against 5,025 cases in 2020,

showing an increase of 105.03%. The highest number of cases were reported from Cyberabad (4,412) followed by Hyderabad (3,303) and Rachakonda (1,548).

15.7.1.1 Telangana Cyber Security Policy, 2016

The state of Telangana has a unique set of regulations in place specifically for addressing cyber security issues. This policy was created in response to the growing global concern over cyber threats and potential cyber warfare. The state hopes to set up a cyber security emergency response team in the process and ramp up its awareness and safe cyber practice programmes among citizens. Some of the salient features include

1. Establishment of a state-level Cyber Security Coordination Centre (CSCC) to monitor and respond to cyber security incidents.

2. Creation of a dedicated Cyber Crime Investigation Unit (CCIU) to investigate cyber crimes and provide technical assistance to law enforcement agencies.

3. Implementation of a Cyber Security Incident Management System (CSIMS) to enable rapid response to cyber incidents.

4. Development of a cyber security ecosystem through the establishment of a cyber security cluster and incubation centre.

5. Collaboration with other states and national agencies to improve cyber security across the country.

15.7.1.2 Telangana Cyber Crime Coordination Centre (T4C)

The Telangana Cyber Crime Coordination Centre (T4C) was established in 2021 with the purpose of providing round-the-clock assistance to victims of cyber fraud. The centre has a 24x7 call centre that helps to coordinate with district police in the registration, investigation and detection of cybercrime cases. The centre has been active since its establishment and is available to address cyber

fraud complaints made to the National Cyber Crime Helpline Number – 1930. T4C has successfully prevented almost 30 crores of public money from being lost to cyber fraudsters.

15.7.2 Telangana Narcotics Bureau

The Government of Telangana established a narcotics bureau in 2016 to enforce the laws related to the possession, sale, and distribution of illegal drugs. The agency works to combat drug trafficking and abuse within the State and conducts investigations and arrests of individuals involved in the illegal drug trade. The Telangana Narcotics Bureau is part of the larger Narcotics Control Bureau (NCB) of India, which is responsible for enforcing drug laws on a national level.

In order to crack down heavily on the drug menace in the city, the Hyderabad police have launched two special units:

1. The Hyderabad Narcotics Enforcement Wing (H-NEW) and

2. Narcotics Investigation Supervision Wing (NISW)

The HNEW wing of the agency focuses on addressing organised drug trafficking, while the NISW wing assists in investigating officers, building strong cases, and ensuring convictions. The NISW will be led by an Assistant Commissioner of Police (ACP) rank officer and assisted by an Inspector and a Sub-Inspector with a support staff of six head constables or constables.

15.7.3 Digital Tools for Policing

15.7.3.1 CCTV Surveillance System

The Government of Telangana has set up a comprehensive network of CCTV cameras throughout the state to help curb, detect and decrease criminal activity. According to a survey conducted by the U.K based organisation Comparitech, Hyderabad is ranked 16th among the top 20 most surveilled cities in the world based on the number of cameras and

safety. The state continues to be the leader in the country, with 10,13,294 CCTV surveillance cameras installed.

Table 15.7. CCTV Details as of January 2023

Cameras installed by	Number
Community	84,535
Nenu Saitham (citizens)	9,10,278
Government	9,099
MP/MLAs	5,471
CSR	3,911
Total	10,13,294

Source: Department of Home Affairs, Government of Telangana

15.7.3.2 Hawk Eye App

The Hawk Eye app developed by Telangana Police has gained popularity among the citizens, with over 3.1 million users since its launch in December 2014. It is the second most widely used app among all the apps launched by various state police departments in India, as per the Data on Police Organisations (DoPO) 2021 issued by the Bureau of Police Research and Development under the Union Home Ministry. The app has a prominent feature of an SOS button that allows users to get immediate help in an emergency. The app also facilitates users to report traffic violations, criminal activities, crimes against women, police misconduct and also to provide suggestions for improving policing and to report good work done by the police.

15.7.3.3 VERIFAST App

The Government of Telangana has launched a mobile application to streamline the process of verifying and issuing passports. This application enables the citizens of Telangana to complete the process of getting a passport in 4 days on average, as opposed to the national average of 21 days for police verification. The application allows the applicants to be constantly updated about the status of their passport application via SMS messaging services on their mobile phones.

15.7.3.4 Body-Worn Cameras

To improve policing and police behaviour, the Hyderabad Traffic Police has introduced the use of Body Worn Cameras. This innovative approach aims to promote socially desirable behaviour by police officers. Police officers have significant powers and there have been instances of abuse of these powers. The use of body-worn cameras can have a positive impact on relations between the police and civilians by providing transparency and accountability in their interactions.

15.7.4 Policing Infrastructure

15.7.4.1 Command Control Centre

The Command Control Centre, inaugurated by Hon'ble Chief Minister on 4th August 2022, is a state-of-the-art facility that serves as a multi-agency technological fusion centre and is the first of its kind in the nation. The centre aids the state police force in bringing together several units under one roof and is focused on operational coordination. It also serves as a platform for crisis management, disaster management, and other major emergency situations. Located in Hyderabad as part of the Safe and Smart City project, the Command Control Centre is commonly referred to as the 'Third Eye' of the city police.

15.7.4.2 AI-based Traffic Signal Control System

To improve traffic flow and enhance road safety at major intersections in the city, the Greater Hyderabad Municipal Corporation (GHMC) has implemented new Adaptive Traffic Signal Control (ATSC) systems which adjust traffic signal timings based on real-time traffic data. The State plans to install 334 traffic signals, of which 212 would be H-TRIMS (Hyderabad Traffic Integrated Management Systems) across the city. In 2022-23, GHMC has planned to install 96 Adaptive Traffic Signal Control (ATSC) systems, and 70 signals using the Pelican system.

15.7.4.3 H-TRIMS (Hyderabad Traffic Integrated Management System) :

Hyderabad Traffic Integrated Management System (H-TRIMS) is a project implemented within the limits of GHMC that aims to improve traffic management through the operation and maintenance of 213 traffic signals. Currently, 122 Automatic Traffic Signal Control (ATSC) systems have been installed, with 111 currently in operation. Additionally, 94 Pedestrian Signal Systems (PSS) have been installed, with 78 online and controlled by the Traffic Command Control Centre (TCC). The project is a joint initiative between GHMC and Hyderabad Traffic Police and provides the city with the latest centrally monitored traffic signalling system, which is the Adaptive Traffic Control System (ATCS). The system reduces waiting time at signal junctions and saves idling fuel costs and reduces GreenHouse Gas emissions. The signals are bright and have better visibility, and they also have more uptime in case of power interruption. Live traffic alerts are also being displayed on Variable Messaging Boards (VMBs) for the benefit of commuters.

15.7.4.4 Traffic Education

In 2022, awareness programs were conducted in 406 schools, junior and degree colleges, and engineering colleges, in which traffic education was provided to 76,997 students. These programs aim to improve traffic awareness among citizens and make Hyderabad a city with "zero" traffic violations. These programs have led to a significant increase in the public's habit of wearing helmets and fastening seat belts.

15.7.4.5 E-challan

Telangana is the only state having a statewide e-challan system. In March 2022, Hyderabad traffic police collected a total of Rs. 275 crores via various online payment gateways during their instalment challans drive, which allowed violators to clear their pending challans. With the help of technology, 99.9% of challans were cleared online.

To encourage people to clear their pending challans, Hyderabad traffic police ran a month-long campaign that offered discounts of up to 75%.

15.7.5 Women's Safety

15.7.5.1 SHE Teams

The She Teams initiative, launched on 24th of October 2014, is a pioneering program established by the Government of Telangana, aimed at creating a safe and protective atmosphere for women and is a first-of-its-kind initiative in India. The services of SHE teams drew wholesome praise from all quarters of society and, more recently, by the Hon'ble President of India, Smt. Draupadi Murmu during her Southern Sojourn in December 2022. She stated the crucial role of SHE teams and their influence on enhancing women's safety.

Women in distress can reach out to the SHE teams through various channels, including WhatsApp, Dial 100, the Hawk Eye App, e-mail, or social media. The 331 SHE teams in the state have received a total number of 42,788 complaints from the year October 2014 to 31st October 2022.

15.7.5.1.1 State Capital is Safe for Women

A study published in January 2022 by the Avatar Group, a diversity, equity & inclusion solutions firm, identified several cities in India as being particularly inclusive and supportive of women. These cities were recognized for their efforts to take women's issues and perspectives into account in their planning and decision-making processes. The study found that the five most inclusive cities with a population of more than 1 Million are Chennai, Pune, Bengaluru, Hyderabad and Mumbai. Among these cities, Hyderabad had a City Inclusion Score of 62.47 and secured 4th position in the list of Top 25 women-friendly cities in the country. Additionally, Warangal ranked 16th in the list of category 2 (cities with a population of less than 1 million).

15.7.5.2 CybHER - Safe for Her

The Women Safety Wing in July 2020, launched a commendable initiative to safeguard the well-being of women and children in the digital realm. The organisation has recognized the increasingly vital role that technology plays in our daily lives and the importance of ensuring that the online experience is secure and protected for all. The campaign aims to empower women and children to navigate the complexities of the digital world with confidence and to be informed on how to safeguard their personal information in cyberspace.

Through creating awareness, the initiative aims to educate women and children on the various online dangers that they may face, including cyberbullying, online harassment, and the sharing of personal information without consent. It also endeavours to provide proactive measures such as teaching them how to use privacy settings, how to detect and report suspicious activity, and how to secure their digital devices. CybHER initiative has reached over 3.75 lakh school children up to January 2023.

15.7.5.3 QR Code Mechanism for complaint

The Women Safety Wing in Telangana launched a new mode of the complaint called QR Code scan in March 2021. 40,000 QR code barcodes in Telugu, English and Urdu language were distributed to all districts in the state. Through this facility, victims can file complaints and send feedback by scanning the barcode. These barcodes are placed on all the metro trains and at every metro station, TSRTC bus depots and bus stands, inside buses, and major railway stations in all the city police commissionerates. When scanned, the barcode lands directly into the SHE Team software, and the concerned SHE Team in-charge will contact the victim for further details if needed and take action based on the complaint and evidence and send feedback to the victim. During the year 2022, 20% of the total complaints were received through the QR code mechanism.

15.7.5.4 Anti-Human Trafficking Unit

In 2019, the Government of Telangana has taken a significant step in addressing the problem of human trafficking with the establishment of Anti-Human Trafficking Units (AHTUs) in 31 police districts and

commissionerates. The Women Safety Wing, as the nodal agency, plays a crucial role in monitoring the functioning of these units and working with various stakeholders to put an end to human trafficking in the state.

The formation of AHTUs and the allocation of adequate resources such as 1 inspector, 2 sub-inspectors, 2 head constables, and 4 police constables (with at least one woman constable) in each unit shows the Government's commitment to tackle human trafficking in the state. This ensures that the AHTUs have the necessary personnel and logistics to efficiently carry out their mandate. In the State, 342 cases of human trafficking were recorded during 2022 (till November). 645 victims were rescued and 491 traffickers were arrested during this period.

Awareness Campaigns

A total of 2,252 Awareness Programs were conducted by AHTUs across the State on the safety of Women and Children to make awareness among the public on Child Marriage, Human Trafficking, Child/ Bonded Labour, Legal Procedure for the adoption of children, Elopement, Cyber abuse etc during the year of 2022 (till November).

National Gender Awareness Campaigns

As per guidelines of the Ministry of Home Affairs, Women Safety Division, New Delhi, the AHTUs, SHE Teams, and Women Helpdesks of Telangana State conducted Gender Awareness Campaigns in collaboration with Child Line & My Choices Foundation NGOs on an Emergency response support system (dial 112), Child Line (dial 1098), dial 100, Women helpdesks, Human Trafficking, Child Marriages, Child/ Bonded Labour, Cyber frauds across the State from 3rd to 23rd December 2022. The awareness campaigns were conducted at Schools, Colleges, Public Places, Weekly market places, Hospitals, with Self Help Groups, with Village Child Protection Committees, Anganwadi Centres, Youth Associations, etc. 10 Day Awareness

Campaign, 'Avagahana Vaarotstavalu' was conducted by AHTUs in selected vulnerable villages based on crime report in Telangana from 1st June-2022 to 10th June-2022

15.7.5.5 Dhruva Portal

"DHRUVA" launched on 11th February 2021, is the first comprehensive online platform dedicated to providing information and resources on the topic of human trafficking. Developed as part of a larger initiative to combat trafficking in the state of Telangana, the portal aims to raise awareness among key stakeholders, including law enforcement, legal professionals, and the general public. By offering a wide range of information and resources, including explanations of key concepts, protocols, and guidelines, "Dhruva" serves as a valuable resource for understanding and addressing the issue of human trafficking.

15.7.5.6 Missing Persons monitoring cell

The Missing Persons Monitoring Cell is a dedicated unit established in November 2021, with the goal of efficiently and effectively locating and returning missing individuals to their families. The cell has been set up in collaboration with key stakeholders, including UNICEF, the Women and Child Development (WCD) department, and the National Informatics Centre (NIC), in order to trace missing people and ensure their safety until they are reunited with their loved ones or rehabilitated.

The team is composed of a Superintendent of Police (SP) as the head, an Inspector, a Sub-Inspector, one police constable from the Women Safety Wing's analysis team, three coordinators or support staff, one representative from UNICEF, one police constable from the Anti-Human Trafficking Unit and one police constable from the Cyber Module.

A total of 16,980 missing cases were registered in Telangana State in the year 2022 (up to October).

Operation Muskaan/Smile Programme

The Government of Telangana has been running an annual program called "Operation Smile" since 2015, which aims to locate missing children, rescue children who have been trafficked or forced into labour, and assist street children. Since its inception, the program has rescued 46,667 children, reunited 25,482 of them with their families, and sent 21,185 children to various childcare institutions for care and rehabilitation.

15.7.5.7 Pride Place - Transgender (LGBQIA+) Persons Protection Cell

Pride Place is an initiative of the Government of Telangana that was launched on 12th April 2022 that aims to provide safety and security, as well as prevent crimes against transgender and LGBQIA+ (Lesbian, Gay, Bisexual, Queer, Intersex, and Asexual) individuals. The initiative seeks to work closely with these communities to build an inclusive society that is safe for all individuals, regardless of their sex, gender, and sexuality. The objectives of Pride Place include:

1. Establishing Transgender Protection (LGBQIA+) person Cells at the state and district levels.

2. Increasing public awareness and education about transgender people's rights, and providing guidance on how to implement transgender laws in the state.

3. Encouraging the creation of trans-inclusive workplaces in both the public and private sectors.

15.7.5.8 Bharosa Centres

Bharosa Centers launched in 2016, are one-stop centres established by the Government of Telangana to provide support and assistance to victims of crimes, particularly women and children. These centres are designed to provide a range of services including legal aid, counselling, medical assistance, and police assistance under one roof. The centres have a team of trained counsellors and social workers to provide emotional and psychological support to the victims.

The main aim of Bharosa Centers is to provide a safe and secure environment for victims to report crimes and receive assistance. As of January 2023, the State has 15 Bharosa Centers.

15.7.6 Disaster Risk Governance

The State Disaster Response and Fire Services Department responds to

1. Fire fighting, preventing and creating public awareness

2. Natural Disasters like Cyclones, floods, and drowning

3. Man Made Disasters like Rail/Road/Aircraft accidents, Buildings Collapses

4. Chemicals, Biological and Nuclear Emergencies.

5. Flushing out of stagnated water in submerged areas during heavy rains/Urban Flooding.

6. Responding to accidents/Emergencies and rescuing trapped people and animals.

The State Fire Services Department has a sanctioned strength of 2,990, with 137 Fire stations and 415 Fire vehicles. The state has procured firefighting vehicles and equipment worth Rs. 68.61 Crore from 2014 to 2022, to provide effective emergency services to citizens. So far, about 40,000 public education programmes have been conducted in schools/hospitals, Government offices, factories and industries, besides organising 920 mock drills and 2,643 surprise inspections.

Table: 15.8. Disaster Risk Governance (2014-2022)

Year	No. of Serious Fire Accidents	No. of Rescue & Emergency Calls	Property Saved (in Crores.)	No. of Lives Saved (Fire Calls)	No. of Lives Saved (Other than Fire calls)
2014	116	200	434.99	125	0
2015	147	245	559.55	207	0
2016	108	285	371.97	226	770
2017	124	346	682.12	228	287
2018	103	351	888.27	30	333
2019	108	333	770.47	115	278
2020	99	541	959.86	59	946
2021	86	536	1,501.62	30	558
2022 (Upto Nov.)	92	529	5,635.36	241	935
Total	**983**	**3,366**	**11,804.21**	**1,261**	**4,107**

Source: State Disaster Response and Fire Services Department

15.7.7 Prisoners' Welfare

The Government of Telangana emphasises the importance of correctional institutions in promoting public safety and social justice. The State Police and Prisons departments ensure that convicts are punished in respect of the law through competent judicial institutions. At the same time, the Government recognises the necessity of protecting prisoners' fundamental rights and rehabilitating them via remedial training.

There are 47 prisons in the state of which 20 are sub-jails and 7 are district jails (see Figure 15.5).

Figure 15.5 Category-wise Prisons in Telangana

- Institution
- Sub Jails
- District Sub Jail Offices
- District Jails
- Special Sub Jails
- Central Prisons
- Prisoner's Agricultural Colony
- SICA Hyderabad
- Special Prison for Women, Hyderabad
- Borstal School, Nizamabad
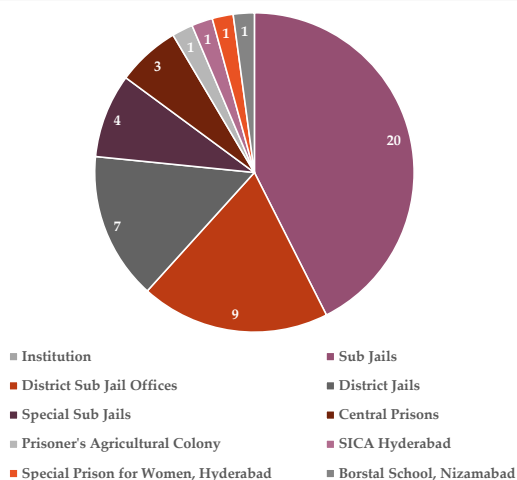
Source: Department of Home Affairs, Government of Telangana

In 2022, 53,965 convicts exist in the state. Out of these, 6,786 prisoners are currently confined in all the jails in the state as of 11th December 2022. Of these, 2,064 are inmates, 4,533 are under trial, and 189 are detenues. The total accommodation capacity of all the jails in the state is 7,845.

The Government of Telangana has taken initiatives to improve the prison infrastructure and provide skill development opportunities for prisoners. Key initiatives among these are :

15.7.7.1 Good Governance for Prisons

15.7.7.1.1 E-Mulakath

The Government of Telangana has introduced e-Mulakath services in all its prisons for inmates to interact with their families through video conferencing. The family or kin of the prisoners can register on the e-Prisons web portal to avail e-mulakth services.

15.7.7.1.2 UNNATI Programme

The UNNATI program is a one-month cognitive-behavioural skill development program designed to reform prisoners and reduce the rate of recidivism. The program focuses on providing psychological counselling sessions to prisoners to help them change their offending behaviour and lead more respectable lives. The UNNATI program has been

successful in achieving this goal, resulting in a significant reduction in the rate of re-incarceration of prisoners who have completed the program.

15.7.7.1.3 Education to Prisoners

The Government of Telangana has recognized the importance of education for prisoners, as it has proven to have significant personal benefits for them post-release. Ex-convicts who have low levels of education often have a hard time finding employment or social support, which can increase their chances of committing crimes and returning to prison. With this in mind, the Government has made efforts to educate prisoners in the state.

Dr. BR Ambedkar Open University and IGNOU have established their study centres in Central Prison, Cherlapally. Recently, 28 inmates received postgraduate degrees in MSC Psychology. Additionally, educated prisoners in all central prisons and women in special prisons are given computer training.

15.7.7.1.4 Mahaparivarthan

This scheme aims to provide interest-free loans to convicted prisoners who have demonstrated good conduct and have at least three years of remaining sentence. These loans are intended to help the prisoners and their families, and assist them in their rehabilitation and reintegration into society once they are released from prison. The scheme also provides an opportunity for them to build a better future for themselves and their family and reduce recidivism.

15.7.7.1.5 Training and Livelihood Opportunities

The Government provides vocational training to inmates in professions such as steel furniture making, soap making, weaving, notebook binding, and tailoring in order to provide livelihood opportunities for convicts and to upskill them in preparation for their life after release from jail. The Government's overall objective is to mainstream ex-convicts by offering them the opportunity to lead a respectable life.

Additionally, the department also maintains 27 petrol outlets in the state that provide employment to the convicts. An MOU was entered with Godrej Industries for the manufacture of Steel Furniture at Central Prison, Cherlapally.

15.8 TSPSC- Recruitment Drive

The Government recognizes the role of public officials and considers them to be the backbone to provide efficient governance. In order to provide effective governance and promote transparency in the selection of suitable candidates for various posts, the Government through TSPSC (Telangana State Public Service Commission) issued 135 Direct Recruitment Notifications for around 55,144 vacancies in the past 8 years. During 2022, the Commission has notified the filling up of 17,134 posts through Direct Recruitment. (up to January 1st, 2023).

Table 15.9 Major Notifications from April 2022 to January 2023

Sl. No.	Category	No. of Posts
1.	Group-I Services	503
2.	Group-II Services	783
3.	Group-III Services	1,365
4.	Group-IV Services	8,039
5.	Assistant Executive Engineers In Various Engineering Departments	1,540
6.	Assistant Engineer, Municipal Assistant Engineer, Technical Officer And Junior Technical Officer In Various Engineering Departments	833
7.	Junior Lecturers Under The Control Of Commissioner Of Intermediate Education	1,392
8.	Hostel Welfare Officers	581

Source: Telangana State Public Service Commission

15.9 Welfare of Persons with Disabilities, Senior Citizens and Transgenders

In order to improve the welfare and services for persons with Disabilities, Senior citizens and Transgender persons in the state, the Government of Telangana has demerged the welfare of disabled and senior citizens department from the Women development and child welfare department at the district level. The newly created department has been renamed as the Department for Empowerment of persons with disabilities, Senior citizens and Transgenders. This move indicates the Government's commitment to providing more effective services to these marginalised sections of society.

15.10 Integrated District Office Complexes

In 2016, the Government of Telangana in its efforts to decentralise the administration, reorganised the number of districts from 10 to 33 and decided to build new Integrated Collectorate Office Complexes that would have all offices in the district under one roof with the best infrastructure. To ease governance, reduce human effort and increase collaboration among departments, the Government has proposed to construct 29 Integrated District Offices Complexes (IDOCs). Out of the proposed 29 IDOCs, 17 have been inaugurated as of January 31st, 2023.

The intention behind IDOCs is to ensure that the district-level offices are easily accessible to the common man, unlike in the past when people had to travel long distances to submit their requests or grievances. The IDOCs have been designed to house departments that have the maximum public interface. These include the departments handling revenue affairs, offices of BC, SC, and ST welfare corporations, DRDAs, and others.

15.10.1 Dr. B. R. Ambedkar Telangana Secretariat

The new integrated secretariat complex at Hyderabad, Dr. B. R. Ambedkar Telangana Secretariat, is nearing completion and is slated for inauguration by the Hon'ble Chief Minister in 2023. The building is designed with a lower ground floor, ground floor, and 11 floors with a built-up area of 64,989 sq.m (around seven lakh sq. ft). It is equipped with state-of-the-art technologies such as the Internet of Things (IoT) as well as future-ready features such as thermal sensitivity and voice-controlled lighting etc.

15.11 Leveraging Technology for Financial Management

15.11.1 Integrated Financial Management and Information System (IFMIS)

IFMIS is a Unified platform developed by the Government of Telangana to promote the efficiency of Government financial management methodologies, secure data management, deep-financial analytics and customised visual reporting. The State Government employees can obtain their Monthly payslips and access their details through this web portal. IFMIS offers many other services such as UTR reports, Budget Volumes, Challans, Challan Forms, etc.

15.11.2 Direct Benefit Transfer (DBT)

Direct Benefit Transfer, by cutting out the middlemen, has changed the mechanism of transferring cash subsidies and benefits. The program was aimed at the transfer of subsidies and cash benefits directly to the people through their Aadhaar-seeded bank accounts with the hope that crediting subsidies into the bank accounts would substantially reduce leakages, and associated delays, owing to the flow of funds in a multi-hierarchy of administrative offices till it reaches the end beneficiary. In the past 8 years, the Government of Telangana served over 700 million beneficiaries (cumulative) through this mode. More than Rs. 1,10,824 lakh crore (cumulative) has been transferred through Direct Benefit Transfer (DBT) mode since 2014.

Table 15.10 Status of DBT during 2022-23

Particulars	As on 23rd January, 2023
Amount transferred	16,354 Crore
No. of transactions	604 Lakhs
No. of Schemes	135
No. of Departments	20

Source: Telangana DBT website

15.12 Institutions to support Governance

15.12.1 Telangana State Development Planning Society

TSDPS is a support system that carries out activities related to weather monitoring, weather forecast, dissemination of real-time weather information, evaluation of Government schemes and collaborative initiatives to improve public governance.

15.12.1.1 Weather Monitoring, Weather Forecasting and Disaster Management Support

The TSDPS (Telangana State Development Planning Society) gathers weather information regularly through 1,044 Automatic Weather Stations placed throughout the state. This real-time data is made available to the public through their website, mobile app, and 42 weather display boards. The data is also used by various departments for operations and research, and by crop insurance companies to process claims. Additionally, TSDPS aids in disaster management by providing real-time weather alerts and forecasts up to three days in advance, which aids in agricultural interventions and disaster mitigation.

15.12.2 Telangana State Remote Sensing Applications Centre (TRAC)

TRAC is a scientific/technical society under the planning department that acts as a nodal agency for providing Remote Sensing, GIS, and GPS technology application services to various government departments in the state. It also supports district administration by providing necessary geospatial inputs. TRAC has created digital databases and developed information systems for various departments and provides domain expertise and digital infrastructure to help the State develop RS GIS-based Applications and Decision Support Systems for planning, development and monitoring of natural resources. The centre has mapped and analysed land use/land cover changes, digitised land records, generated Remote Sensing based in-season Acreage and Production Estimates, developed a Drought Monitoring System for agriculture management, methodologies for Resurvey of agricultural lands, forest lands, urban properties, and Abadi properties and conducted pilot surveys to enable launching of a major land survey program in the state, and also developed Master Plan for implementation of PM Gatishakti Programme in the state of Telangana.

15.12.3 External Partnership with CEGIS

The Government of Telangana has partnered with the Centre for Effective Governance of Indian States (CEGIS) to improve development outcomes through better delivery of services. CEGIS has a dedicated team providing support to the government in core sectors such as education and nutrition, as well as in projects focusing on improving Outcome Measurement, Public Finance, and Performance Management. A Technical Advisory Group (TAG) of researchers from renowned institutions in India and abroad supports the team to ensure the quality of output.

CEGIS has supported multiple departments on a range of projects, such as improving the reporting system of Junior Panchayat Secretaries and ICDS staff, creating the Socio-Economic Outlook 2021 & 2022, enhancing the accuracy of Agricultural Production Estimates through technology and collaboration with the Directorate of Economics and Statistics (DES) and Agriculture Departments, and improving Foundational Literacy and Numeracy for students of classes 1 to 3.

15.12.4 Kakatiya Governance Fellowship

The Government, through TSDPS, has recruited 17 qualified young professionals from reputed institutions in India and abroad under the Kakatiya Governance Fellowship. These professionals are currently involved in the creation of evidence-based policy roadmaps for reforms in key sectors, monitoring and evaluation studies, and the preparation of high-impact reports in the departments of Agriculture, Education, Finance, Health, Mining, Panchayati Raj and Rural Development, Planning and, Women and Child Welfare as well as in the State Planning Board.

15.12.5 Key Performance Indicator Survey for Health & Nutrition sectors

To facilitate the Telangana Government with credible data on key outcomes for enabling effective decision-making on program designs, scheme rationalisation, and resource allocation, the Planning Department through TSDPS has initiated conducting Key Performance Indicator (KPI) Survey. This survey would be a bi-annual multi-sectoral household survey intended to give district-level estimates on KPIs including health, education and nutrition. This survey would also address the design and use-cases gaps of the national surveys in the context of Telangana.

An internationally recognized, independent data collection vendor shall survey about 40,000 households and 1,500 facilities (CHCs, PHCs, etc.) to generate State-level, District-level estimates (and Mandal-level estimates in 2 select mandals/district) on key outcome indicators every 6 months. Survey design and implementation are informed by global and national best practices. Such in-depth, real-time data can allow the Health, Medical & Family Welfare (HM&FW), Education and Women Development and Child Welfare (WDCW) Departments to have a data-driven approach to setting targets, tracking progress and planning its State and District level agenda.

15.12.6 Center for Good Governance

CGG was established by the Government in collaboration with the Department for International Development (DFID) and the World Bank to help it achieve the State's goal of Transforming Governance. It provides consultancy in administrative reforms, process re-engineering, policy formulations, monitoring & evaluation and supports Government departments in improved service delivery.

The e-Governance initiatives developed by CGG have improved public service delivery, reduced cycle time in Government processes, and improved transparency and accountability. Some of the Key Applications developed by CGG:

- Online Beneficiary Management and Monitoring System (OBMMS), Telangana & Andhra Pradesh.

- Electronic Payment and Application System for Scholarships (ePASS)

- Degree Online Services, Telangana (DOST)

- Online Grievance Redressal System (OGRTS)

- GHMC – Over 50 Modules

Centre for Good Governance has been associated with m-Governance related projects by developing mobile based applications for its User departments. To date, CGG has developed over 70 mobile applications for its User departments in various sectors, such as Aadhaar based services, Agriculture, Irrigation, Education, Health, Electoral services, Skill Development, Fire, Police and Citizen-centric services for Urban Local Bodies.

15.13. Way Forward

The Government aims to implement good governance across all its departments, characterised by transparent processes and minimal human intervention, focusing on accountability to citizens. With the aim of creating responsible and responsive governance, the Government plans to establish various institutions besides streamlining and strengthening the existing institutions to fulfil the aspirations of the people in the state.

To improve the efficiency and responsiveness of public service staff, supportive supervisory models are being implemented in various departments, and a robust Human Resource Management System is being implemented to improve decision-making across the personnel life cycle. To provide efficient governance and promote transparency in the selection of suitable candidates for various posts, the Government, through TSPSC, plans to recruit more personnel to strengthen governance across various departments.

To increase the visibility of last-mile beneficiary experiences, departments are collecting outcome indicator data from representative surveys and telephonic calls. The Government also aims to improve interdepartmental collaboration through structural and institutional reforms, such as the construction of IDOCs across all the districts in the state.

ANNEXURES

Gross State Domestic Product at Current Prices (Rs. in crore)

S. No.	Sector	2014-15	2015-16	2016-17	2017-18	2018-19 (TRE)	2019-20 (SRE)	2020-21 (FRE)	2021-22 (PE)	2022-23 (PAE)
1	Agriculture, Livestock, Forestry and Fishing	76,123	75,707	88,979	1,01,390	1,14,292	1,56,645	1,77,442	1,94,656	2,17,877
1.1	Crops	41,706	36,805	43,529	47,457	48,366	78,894	85,959	87,381	98,478
1.2	Livestock	29,282	33,755	39,816	46,595	57,513	68,865	79,814	93,599	1,03,895
1.3	Forestry and Logging	2,465	2,498	3,360	3,684	4,372	4,193	6,414	7,793	8,853
1.4	Fishing and Aquaculture	2,670	2,649	2,275	3,654	4,042	4,694	5,254	5,883	6,650
2	Mining and Quarrying	14,706	17,128	19,687	23,234	33,337	27,514	25,142	25,379	27,917
	Primary	**90,828**	**92,834**	**1,08,666**	**1,24,623**	**1,47,629**	**1,84,159**	**2,02,584**	**2,20,035**	**2,45,794**
3	Manufacturing	54,533	71,032	73,833	82,607	98,148	97,639	96,808	1,22,115	1,33,593
4	Electricity, Gas, Water supply and Other Utility Services	7,340	8,354	7,221	10,455	13,201	17,418	16,673	18,246	21,859
5	Construction	27,786	28,473	28,554	34,495	37,687	38,742	35,230	39,202	43,123
	Secondary	**89,660**	**1,07,860**	**1,09,608**	**1,27,556**	**1,49,036**	**1,53,800**	**1,48,711**	**1,79,563**	**1,98,575**
6	Trade, Repair, Hotels and Restaurants	64,269	74,736	86,693	1,03,866	1,28,745	1,48,254	1,24,383	1,75,400	2,12,634
6.1	Trade and Repair Services	56,974	66,418	77,708	94,286	1,17,600	1,36,749	1,18,730	1,68,055	2,04,187
6.2	Hotels and Restaurants	7,295	8,318	8,985	9,581	11,145	11,504	5,653	7,345	8,447
7	Transport, Storage, Communication & Services related to Broadcasting	35,866	39,666	42,821	45,361	50,105	54,338	47,122	54,081	63,341
7.1	Railways	2,004	2,010	2,216	2,546	2,640	3,361	3,139	3,463	4,052
7.2	Road Transport	20,540	22,633	24,536	27,341	32,354	33,798	27,105	30,987	36,255
7.3	Water Transport	-	-	-	-	-	-	0	0	-
7.4	Air Transport	623	1,126	1,267	1,329	791	1,429	721	1,073	1,595
7.5	Services incidental to Transport	4,937	5,048	5,578	5,834	5,213	5,307	4,942	5,088	5,246
7.6	Storage	178	182	198	172	635	658	731	773	818
7.7	Communication & Services related to Broadcasting	7,584	8,665	9,026	8,137	8,472	9,785	10,484	12,696	15,375
8	Financial Services	30,261	33,123	36,356	40,783	43,841	46,866	49,022	54,659	62,311
9	Real Estate, Ownership of Dwelling and Professional Services	96,912	1,12,172	1,31,824	1,44,498	1,61,635	1,80,720	1,93,875	2,18,705	2,49,105
10	Public Administration	17,166	21,915	25,574	28,049	28,124	26,199	30,197	34,585	42,540
11	Other Services	41,536	48,030	58,644	65,440	67,831	75,635	85,545	1,01,241	1,20,477
	Tertiary	**2,86,011**	**3,29,641**	**3,81,912**	**4,27,998**	**4,80,280**	**5,32,011**	**5,30,145**	**6,38,671**	**7,50,408**
12	Total GSVA at Basic Prices	4,66,499	5,30,336	6,00,186	6,80,177	7,76,946	8,69,969	8,81,440	10,38,270	11,94,777
13	Taxes on Products	48,642	57,754	68,906	82,256	91,799	94,699	1,02,109	1,27,910	1,51,189
14	Subsidies on Products	9,292	10,188	10,767	12,383	11,317	14,382	21,748	18,065	18,472
15	**GSDP**	**5,05,849**	**5,77,902**	**6,58,325**	**7,50,050**	**8,57,427**	**9,50,287**	**9,61,800**	**11,48,115**	**13,27,495**

Sectoral Growth Rates of Gross State Domestic Product at Current Prices (Percentage)

S.No.	Sector	2015-16	2016-17	2017-18	2018-19 (TRE)	2019-20 (SRE)	2020-21 (FRE)	2021-22 (PE)	2022-23 (PAE)
1	Agriculture, Livestock, Forestry and Fishing	-0.5	17.5	13.9	12.7	37.1	13.3	9.7	11.9
1.1	Crops	-11.8	18.3	9.0	1.9	63.1	9.0	1.7	12.7
1.2	Livestock	15.3	18.0	17.0	23.4	19.7	15.9	17.3	11.0
1.3	Forestry and Logging	1.3	34.5	9.6	18.7	-4.1	53.0	21.5	13.6
1.4	Fishing and Aquaculture	-0.8	-14.1	60.6	10.6	16.1	11.9	12.0	13.0
2	Mining and Quarrying	16.5	14.9	18.0	43.5	-17.5	-8.6	0.9	10.0
	Primary	**2.2**	**17.1**	**14.7**	**18.5**	**24.7**	**10.0**	**8.6**	**11.7**
3	Manufacturing	30.3	3.9	11.9	18.8	-0.5	-0.9	26.1	9.4
4	Electricity, Gas, Water supply and Other Utility Services	13.8	-13.6	44.8	26.3	31.9	-4.3	9.4	19.8
5	Construction	2.5	0.3	20.8	9.3	2.8	-9.1	11.3	10.0
	Secondary	**20.3**	**1.6**	**16.4**	**16.8**	**3.2**	**-3.3**	**20.7**	**10.6**
6	Trade, Repair, Hotels and Restaurants	16.3	16.0	19.8	24.0	15.2	-16.1	41.0	21.2
6.1	Trade and Repair Services	16.6	17.0	21.3	24.7	16.3	-13.2	41.5	21.5
6.2	Hotels and Restaurants	14.0	8.0	6.6	16.3	3.2	-50.9	29.9	15.0
7	Transport, Storage, Communication & Services related to Broadcasting	10.6	8.0	5.9	10.5	8.4	-13.3	14.8	17.1
7.1	Railways	0.3	10.2	14.9	3.7	27.3	-6.6	10.3	17.0
7.2	Road Transport	10.2	8.4	11.4	18.3	4.5	-19.8	14.3	17.0
7.3	Water Transport	0.0	0.0	0.0	0.0	0.0	-	-	-
7.4	Air Transport	80.7	12.5	4.9	-40.5	80.8	-49.5	48.7	48.7
7.5	Services incidental to Transport	2.2	10.5	4.6	-10.6	1.8	-6.9	2.9	3.1
7.6	Storage	2.4	8.5	-12.9	268.6	3.7	11.1	5.7	5.7
7.7	Communication & Services related to Broadcasting	14.3	4.2	-9.8	4.1	15.5	7.1	21.1	21.1
8	Financial Services	9.5	9.8	12.2	7.5	6.9	4.6	11.5	14.0
9	Real Estate, Ownership of Dwelling and Professional Services	15.7	17.5	9.6	11.9	11.8	7.3	12.8	13.9
10	Public Administration	27.7	16.7	9.7	0.3	-6.8	15.3	14.5	23.0
11	Other Services	15.6	22.1	11.6	3.7	11.5	13.1	18.3	19.0
	Tertiary	**15.3**	**15.9**	**12.1**	**12.2**	**10.8**	**-0.4**	**20.5**	**17.5**
12	Total GSVA at Basic Prices	13.7	13.2	13.3	14.2	12.0	1.3	17.8	15.1
13	Taxes on Products	18.7	19.3	19.4	11.6	3.2	7.8	25.3	18.2
14	Subsidies on Products	9.6	5.7	15.0	-8.6	27.1	51.2	-16.9	2.3
15	**GSDP**	**14.2**	**13.9**	**13.9**	**14.3**	**10.8**	**1.2**	**19.4**	**15.6**

Sectoral Contribution of Gross State Domestic Product at Current Prices (Percentage)

S. No.	Sector	2014-15	2015-16	2016-17	2017-18	2018-19 (TRE)	2019-20 (SRE)	2020-21 (FRE)	2021-22 (PE)	2022-23 (PAE)
1	Agriculture, Livestock, Forestry and Fishing	16.3	14.3	14.8	14.9	14.7	18.0	20.1	18.7	18.2
1.1	Crops	8.9	6.9	7.3	7.0	6.2	9.1	9.8	8.4	8.2
1.2	Livestock	6.3	6.4	6.6	6.9	7.4	7.9	9.1	9.0	8.7
1.3	Forestry and Logging	0.5	0.5	0.6	0.5	0.6	0.5	0.7	0.8	0.7
1.4	Fishing and Aquaculture	0.6	0.5	0.4	0.5	0.5	0.5	0.6	0.6	0.6
2	Mining and Quarrying	3.2	3.2	3.3	3.4	4.3	3.2	2.9	2.4	2.3
	Primary	**19.5**	**17.5**	**18.1**	**18.3**	**19.0**	**21.2**	**23.0**	**21.2**	**20.6**
3	Manufacturing	11.7	13.4	12.3	12.1	12.6	11.2	11.0	11.8	11.2
4	Electricity, Gas, Water supply and Other Utility Services	1.6	1.6	1.2	1.5	1.7	2.0	1.9	1.8	1.8
5	Construction	6.0	5.4	4.8	5.1	4.9	4.5	4.0	3.8	3.6
	Secondary	**19.2**	**20.3**	**18.3**	**18.8**	**19.2**	**17.7**	**16.9**	**17.3**	**16.6**
6	Trade, Repair, Hotels and Restaurants	13.8	14.1	14.4	15.3	16.6	17.0	14.1	16.9	17.8
6.1	Trade and Repair Services	12.2	12.5	12.9	13.9	15.1	15.7	13.5	16.2	17.1
6.2	Hotels and Restaurants	1.6	1.6	1.5	1.4	1.4	1.3	0.6	0.7	0.7
7	Transport, Storage, Communication & Services related to Broadcasting	7.7	7.5	7.1	6.7	6.4	6.2	5.3	5.2	5.3
7.1	Railways	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.3	0.3
7.2	Road Transport	4.4	4.3	4.1	4.0	4.2	3.9	3.1	3.0	3.0
7.3	Water Transport	-	-	-	-	-	-			
7.4	Air Transport	0.1	0.2	0.2	0.2	0.1	0.2	0.1	0.1	0.1
7.5	Services incidental to Transport	1.1	1.0	0.9	0.9	0.7	0.6	0.6	0.5	0.4
7.6	Storage	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1
7.7	Communication & Services related to Broadcasting	1.6	1.6	1.5	1.2	1.1	1.1	1.2	1.2	1.3
8	Financial Services	6.5	6.2	6.1	6.0	5.6	5.4	5.6	5.3	5.2
9	Real Estate, Ownership of Dwelling and Professional Services	20.8	21.2	22.0	21.2	20.8	20.8	22.0	21.1	20.8
10	Public Administration	3.7	4.1	4.3	4.1	3.6	3.0	3.4	3.3	3.6
11	Other Services	8.9	9.1	9.8	9.6	8.7	8.7	9.7	9.8	10.1
	Tertiary	**61.3**	**62.2**	**63.6**	**62.9**	**61.8**	**61.2**	**60.1**	**61.5**	**62.8**
12	**Total GSVA at Basic Prices**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Gross State Domestic Product at Constant (2011-12) Prices (Rs. in crore)

S. No.	Sector	2014-15	2015-16	2016-17	2017-18	2018-19 (TRE)	2019-20 (SRE)	2020-21 (FRE)	2021-22 (PE)	2022-23 (PAE)
1	Agriculture, Livestock, Forestry and Fishing	55,811	51,615	57,324	62,823	66,725	86,610	88,848	88,804	90,942
1.1	Crops	29,546	24,187	28,478	31,395	29,375	45,691	45,698	43,333	42,987
1.2	Livestock	22,519	23,938	25,520	27,473	33,170	36,464	38,333	40,337	42,596
1.3	Forestry and Logging	1,715	1,683	1,836	1,921	1,942	2,096	2,165	2,158	2,197
1.4	Fishing and Aquaculture	2,031	1,808	1,491	2,034	2,238	2,360	2,652	2,975	3,162
2	Mining and Quarrying	12,604	14,093	15,139	17,572	22,472	18,569	15,829	18,534	20,016
	Primary	**68,415**	**65,708**	**72,463**	**80,395**	**89,197**	**1,05,179**	**1,04,677**	**1,07,337**	**1,10,959**
3	Manufacturing	48,276	63,751	64,943	70,950	82,686	81,045	79,190	87,749	89,240
4	Electricity, Gas, Water supply and Other Utility Services	6,624	7,207	5,736	7,338	8,223	10,657	10,190	10,281	10,445
5	Construction	23,332	23,986	24,355	27,845	29,053	27,592	26,679	26,889	27,964
	Secondary	**78,231**	**94,944**	**95,034**	**1,06,133**	**1,19,962**	**1,19,294**	**1,16,060**	**1,24,919**	**1,27,649**
6	Trade, Repair, Hotels and Restaurants	52,230	58,543	64,832	75,150	89,114	97,343	74,106	98,610	1,13,856
6.1	Trade and Repair Services	46,315	52,044	58,137	68,238	81,417	89,807	70,768	94,527	1,09,651
6.2	Hotels and Restaurants	5,915	6,499	6,695	6,912	7,697	7,536	3,338	4,083	4,205
7	Transport, Storage, Communication & Services related to Broadcasting	31,075	33,892	35,323	36,422	38,271	40,029	31,329	33,055	35,260
7.1	Railways	1,750	1,710	1,704	1,918	1,951	2,042	1,541	2,185	2,295
7.2	Road Transport	17,678	19,116	20,051	21,717	24,367	24,736	18,054	18,573	19,706
7.3	Water Transport	-	-	-	-	-	-	-	-	-
7.4	Air Transport	548	984	1,075	1,103	631	1,112	505	674	903
7.5	Services incidental to Transport	4,338	4,412	4,730	4,842	4,159	4,130	3,461	3,198	3,190
7.6	Storage	145	143	149	125	442	436	449	437	459
7.7	Communication & Services related to Broadcasting	6,617	7,526	7,614	6,718	6,721	7,574	7,320	7,988	8,707
8	Financial Services	28,699	30,906	33,782	35,119	35,294	35,795	37,152	41,425	43,169
9	Real Estate, Ownership of Dwelling and Professional Services	78,506	87,438	97,946	1,03,455	1,10,724	1,19,287	1,19,698	1,23,988	1,32,667
10	Public Administration	13,860	17,024	18,928	19,973	19,418	17,390	18,724	19,848	22,460
11	Other Services	32,057	35,388	41,230	44,095	43,441	45,420	48,095	53,391	57,396
	Tertiary	**2,36,427**	**2,63,191**	**2,92,042**	**3,14,214**	**3,36,262**	**3,55,264**	**3,29,105**	**3,70,317**	**4,04,808**
12	**Total GSVA at Basic Prices**	**3,83,073**	**4,23,842**	**4,59,539**	**5,00,742**	**5,45,421**	**5,79,737**	**5,49,841**	**6,02,573**	**6,43,416**
13	Taxes on Products	41,113	49,417	57,371	66,711	71,836	72,521	76,347	85,857	95,301
14	Subsidies on Products	7,854	8,717	8,964	10,043	8,856	11,014	16,261	12,126	12,047
15	**GSDP**	**4,16,332**	**4,64,542**	**5,07,946**	**5,57,410**	**6,08,401**	**6,41,244**	**6,09,927**	**6,76,304**	**7,26,670**

Sectoral Growth Rates of Gross State Domestic Product at Constant (2011-12) Prices (Percentage)

S. No.	Sector	2015-16	2016-17	2017-18	2018-19 (TRE)	2019-20 (SRE)	2020-21 (FRE)	2021-22 (PE)	2022-23 (PAE)
1	Agriculture, Livestock, Forestry and Fishing	-7.5	11.1	9.6	6.2	29.8	2.6	-0.1	2.4
1.1	Crops	-18.1	17.7	10.2	-6.4	55.5	0.0	-5.2	-0.8
1.2	Livestock	6.3	6.6	7.7	20.7	9.9	5.1	5.2	5.6
1.3	Forestry and Logging	-1.9	9.1	4.6	1.1	7.9	3.3	-0.4	1.8
1.4	Fishing and Aquaculture	-11.0	-17.6	36.5	10.0	5.4	12.4	12.2	6.3
2	Mining and Quarrying	11.8	7.4	16.1	27.9	-17.4	-14.8	17.1	8.0
	Primary	**-4.0**	**10.3**	**10.9**	**10.9**	**17.9**	**-0.5**	**2.5**	**3.4**
3	Manufacturing	32.1	1.9	9.3	16.5	-2.0	-2.3	10.8	1.7
4	Electricity, Gas, Water supply and Other Utility Services	8.8	-20.4	27.9	12.1	29.6	-4.4	0.9	1.6
5	Construction	2.8	1.5	14.3	4.3	-5.0	-3.3	0.8	4.0
	Secondary	**21.4**	**0.1**	**11.7**	**13.0**	**-0.6**	**-2.7**	**7.6**	**2.2**
6	Trade, Repair, Hotels and Restaurants	12.1	10.7	15.9	18.6	9.2	-23.9	33.1	15.5
6.1	Trade and Repair Services	12.4	11.7	17.4	19.3	10.3	-21.2	33.6	16.0
6.2	Hotels and Restaurants	9.9	3.0	3.2	11.3	-2.1	-55.7	22.3	3.0
7	Transport, Storage, Communication & Services related to Broadcasting	9.1	4.2	3.1	5.1	4.6	-21.7	5.5	6.7
7.1	Railways	-2.2	-0.4	12.5	1.8	4.6	-24.5	41.8	5.0
7.2	Road Transport	8.1	4.9	8.3	12.2	1.5	-27.0	2.9	6.1
7.3	Water Transport	-	-	-	-	-	-	-	1
7.4	Air Transport	79.7	9.2	2.7	-42.8	76.3	-54.6	33.5	34.0
7.5	Services incidental to Transport	1.7	7.2	2.4	-14.1	-0.7	-16.2	-7.6	-0.2
7.6	Storage	-1.2	3.8	-15.8	252.3	-1.4	2.9	-2.5	5.0
7.7	Communication & Services related to Broadcasting	13.7	1.2	-11.8	0.0	12.7	-3.4	9.1	9.0
8	Financial Services	7.7	9.3	4.0	0.5	1.4	3.8	11.5	4.2
9	Real Estate, Ownership of Dwelling and Professional Services	11.4	12.0	5.6	7.0	7.7	0.3	3.6	7.0
10	Public Administration	22.8	11.2	5.5	-2.8	-10.4	7.7	6.0	13.2
11	Other Services	10.4	16.5	6.9	-1.5	4.6	5.9	11.0	7.5
	Tertiary	**11.3**	**11.0**	**7.6**	**7.0**	**5.7**	**-7.4**	**12.5**	**9.3**
12	**Total GSVA at Basic Prices**	**10.6**	**8.4**	**9.0**	**8.9**	**6.3**	**-5.2**	**9.6**	**6.8**
13	Taxes on Products	20.2	16.1	16.3	7.7	1.0	5.3	12.5	11.0
14	Subsidies on Products	11.0	2.8	12.0	-11.8	24.4	47.64	-25.43	-0.65
15	**GSDP**	**11.6**	**9.3**	**9.7**	**9.1**	**5.4**	**-4.9**	**10.9**	**7.4**

Sectoral Contribution of Gross State Domestic Product at Constant (2011-12) Prices (Percentage)

S. No.	Sector	2014-15	2015-16	2016-17	2017-18	2018-19 (TRE)	2019-20 (SRE)	2020-21 (FRE)	2021-22 (PE)	2022-23 (PAE)
1	Agriculture, Livestock, Forestry and Fishing	14.6	12.2	12.5	12.5	12.2	14.9	16.2	14.7	14.1
1.1	Crops	7.7	5.7	6.2	6.3	5.4	7.9	8.3	7.2	6.7
1.2	Livestock	5.9	5.6	5.6	5.5	6.1	6.3	7.0	6.7	6.6
1.3	Forestry and Logging	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3
1.4	Fishing and Aquaculture	0.5	0.4	0.3	0.4	0.4	0.4	0.5	0.5	0.5
2	Mining and Quarrying	3.3	3.3	3.3	3.5	4.1	3.2	2.9	3.1	3.1
	Primary	**17.9**	**15.5**	**15.8**	**16.1**	**16.4**	**18.1**	**19.0**	**17.8**	**17.2**
3	Manufacturing	12.6	15.0	14.1	14.2	15.2	14.0	14.4	14.6	13.9
4	Electricity, Gas, Water supply and Other Utility Services	1.7	1.7	1.2	1.5	1.5	1.8	1.9	1.7	1.6
5	Construction	6.1	5.7	5.3	5.6	5.3	4.8	4.9	4.5	4.3
	Secondary	**20.4**	**22.4**	**20.7**	**21.2**	**22.0**	**20.6**	**21.1**	**20.7**	**19.8**
6	Trade, Repair, Hotels and Restaurants	13.6	13.8	14.1	15.0	16.3	16.8	13.5	16.4	17.7
6.1	Trade and Repair Services	12.1	12.3	12.7	13.6	14.9	15.5	12.9	15.7	17.0
6.2	Hotels and Restaurants	1.5	1.5	1.5	1.4	1.4	1.3	0.6	0.7	0.7
7	Transport, Storage, Communication & Services related to Broadcasting	8.1	8.0	7.7	7.3	7.0	6.9	5.7	5.5	5.5
7.1	Railways	0.5	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.4
7.2	Road Transport	4.6	4.5	4.4	4.3	4.5	4.3	3.3	3.1	3.1
7.3	Water Transport	-	-	-	-	-	-			
7.4	Air Transport	0.1	0.2	0.2	0.2	0.1	0.2	0.1	0.1	0.1
7.5	Services incidental to Transport	1.1	1.0	1.0	1.0	0.8	0.7	0.6	0.5	0.5
7.6	Storage	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1
7.7	Communication & Services related to Broadcasting	1.7	1.8	1.7	1.3	1.2	1.3	1.3	1.3	1.4
8	Financial Services	7.5	7.3	7.4	7.0	6.5	6.2	6.8	6.9	6.7
9	Real Estate, Ownership of Dwelling and Professional Services	20.5	20.6	21.3	20.7	20.3	20.6	21.8	20.6	20.6
10	Public Administration	3.6	4.0	4.1	4.0	3.6	3.0	3.4	3.3	3.5
11	Other Services	8.4	8.3	9.0	8.8	8.0	7.8	8.7	8.9	8.9
	Tertiary	**61.7**	**62.1**	**63.6**	**62.7**	**61.7**	**61.3**	**59.9**	**61.5**	**62.9**
12	**Total GSVA at Basic Prices**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Net State Domestic Product at Current Prices (Rs. in crore) and Per Capita Income

S. No.	Sector	2014-15	2015-16	2016-17	2017-18	2018-19 (TRE)	2019-20 (SRE)	2020-21 (FRE)	2021-22 (PE)	2022-23 (PAE)
1	Agriculture, Livestock, Forestry and Fishing	71,272	70,539	83,285	95,098	1,07,472	1,49,178	1,69,227	1,86,141	2,08,293
1.1	Crops	37,528	32,283	38,477	41,946	42,452	72,446	78,916	80,221	90,409
1.2	Livestock	28,900	33,369	39,392	46,115	56,932	68,217	79,088	92,747	1,02,949
1.3	Forestry and Logging	2,441	2,474	3,328	3,650	4,332	4,156	6,357	7,724	8,774
1.4	Fishing and Aquaculture	2,404	2,412	2,089	3,388	3,755	4,359	4,867	5,449	6,160
2	Mining and Quarrying	12,499	14,320	16,531	19,885	28,115	22,641	19,910	20,884	22,972
	Primary	**83,771**	**84,859**	**99,816**	**1,14,983**	**1,35,587**	**1,71,818**	**1,89,138**	**2,07,025**	**2,31,265**
3	Manufacturing	45,156	61,183	63,802	71,274	85,601	84,352	82,768	1,04,405	1,14,219
4	Electricity, Gas, Water supply and Other Utility Services	4,967	5,815	4,983	7,410	9,122	12,228	11,653	12,752	15,277
5	Construction	26,171	26,798	26,836	32,468	35,197	35,968	32,707	36,395	40,035
	Secondary	**76,293**	**93,796**	**95,620**	**1,11,152**	**1,29,920**	**1,32,548**	**1,27,128**	**1,53,552**	**1,69,531**
6	Trade, Repair, Hotels and Restaurants	62,117	72,247	83,849	1,00,247	1,24,701	1,43,676	1,19,260	1,68,235	2,03,991
6.1	Trade and Repair Services	55,213	64,413	75,377	91,136	1,14,164	1,32,824	1,14,347	1,61,852	1,96,650
6.2	Hotels and Restaurants	6,904	7,834	8,472	9,111	10,537	10,852	4,913	6,383	7,341
7	Transport, Storage, Communication & Services related to Broadcasting	29,273	32,533	34,477	35,701	38,628	40,814	32,847	37,439	43,539
7.1	Railways	1,654	1,638	1,783	2,073	2,111	2,729	2,428	2,679	3,134
7.2	Road Transport	16,910	18,694	19,828	21,690	25,484	25,847	18,992	21,713	25,404
7.3	Water Transport	-	-	-	-	-	-	-	-	
7.4	Air Transport	416	928	1,068	1,117	559	871	78	117	173
7.5	Services incidental to Transport	4,352	4,419	4,849	5,029	4,400	4,409	3,916	4,031	4,156
7.6	Storage	149	160	170	145	579	597	657	695	734
7.7	Communication & Services related to Broadcasting	5,792	6,694	6,779	5,647	5,496	6,362	6,776	8,206	9,937
8	Financial Services	29,704	32,409	35,554	39,892	42,780	45,798	47,836	53,337	60,804
9	Real Estate, Ownership of Dwelling and Professional Services	83,407	97,185	1,14,209	1,22,977	1,38,945	1,55,847	1,65,412	1,86,596	2,12,533
10	Public Administration	13,616	17,357	20,735	23,060	23,300	21,774	25,654	29,382	36,140
11	Other Services	38,750	45,040	55,413	61,542	64,048	71,511	81,290	96,205	1,14,484
	Tertiary	**2,56,866**	**2,96,772**	**3,44,236**	**3,83,419**	**4,32,402**	**4,79,422**	**4,72,299**	**5,71,195**	**6,71,492**
12	**Total NSVA at Basic Prices**	**4,16,930**	**4,75,428**	**5,39,673**	**6,09,554**	**6,97,909**	**7,83,787**	**7,88,565**	**9,31,772**	**10,72,287**
13	Taxes on Products	48,642	57,754	68,906	82,256	91,799	94,699	1,02,109	1,27,910	1,51,189
14	Subsidies on Products	9,292	10,188	10,767	12,383	11,317	14,382	21,748	18,065	18,472
15	**Net State Domestic Product**	**4,56,280**	**5,22,994**	**5,97,812**	**6,79,427**	**7,78,391**	**8,64,105**	**8,68,926**	**10,41,617**	**12,05,005**
16	Population ('000)	36,766	37,134	37,505	37,881	37,093	37,346	37,599	37,816	37,999
17	**Per Capita Income (Rs.)**	**1,24,104**	**1,40,840**	**1,59,395**	**1,79,358**	**2,09,848**	**2,31,378**	**2,31,103**	**2,75,443**	**3,17,115**

Net State Domestic Product at Constant (2011-12) Prices (Rs. in crore) and Per Capita Income

S. No.	Sector	2014-15	2015-16	2016-17	2017-18	2018-19 (TRE)	2019-20 (SRE)	2020-21 (FRE)	2021-22 (PE)	2022-23 (PAE)
1	Agriculture, Livestock, Forestry and Fishing	51,883	47,578	53,042	58,220	61,889	81,492	83,451	83,571	85,688
1.1	Crops	26,191	20,723	24,759	27,454	25,269	41,383	41,208	39,076	38,763
1.2	Livestock	22,190	23,592	25,148	27,077	32,720	35,964	37,787	39,763	41,990
1.3	Forestry and Logging	1,694	1,662	1,809	1,893	1,911	2,067	2,123	2,115	2,154
1.4	Fishing and Aquaculture	1,808	1,601	1,325	1,797	1,989	2,078	2,333	2,617	2,782
2	Mining and Quarrying	10,704	11,743	12,541	14,885	18,416	14,899	12,010	14,871	16,060
	Primary	**62,586**	**59,321**	**65,582**	**73,105**	**80,304**	**96,391**	**95,460**	**98,442**	**1,01,749**
3	Manufacturing	39,854	54,924	55,949	61,027	72,079	69,994	67,687	75,002	76,277
4	Electricity, Gas, Water supply and Other Utility Services	4,502	4,933	3,731	4,676	4,769	6,288	6,062	6,116	6,214
5	Construction	21,833	22,462	22,715	25,920	26,756	24,997	24,170	24,360	25,333
	Secondary	**66,189**	**82,319**	**82,395**	**91,623**	**1,03,604**	**1,01,279**	**97,919**	**1,05,478**	**1,07,824**
6	Trade, Repair, Hotels and Restaurants	50,341	56,317	62,313	72,080	85,840	93,679	70,102	93,326	1,07,819
6.1	Trade and Repair Services	44,769	50,250	56,071	65,564	78,633	86,662	67,340	89,949	1,04,341
6.2	Hotels and Restaurants	5,572	6,067	6,241	6,515	7,207	7,017	2,761	3,377	3,478
7	Transport, Storage, Communication & Services related to Broadcasting	25,095	27,468	27,874	27,970	28,452	28,884	20,057	20,996	22,239
7.1	Railways	1,445	1,387	1,333	1,524	1,530	1,550	1,001	1,419	1,490
7.2	Road Transport	14,298	15,441	15,733	16,658	18,322	18,077	11,667	12,002	12,734
7.3	Water Transport	-	-	-	-	-	-	-	-	-
7.4	Air Transport	354	801	893	915	430	646	(1)	(1)	(1)
7.5	Services incidental to Transport	3,821	3,859	4,095	4,158	3,494	3,409	2,651	2,450	2,444
7.6	Storage	120	123	124	102	397	387	391	381	400
7.7	Communication and Services related to Broadcasting	5,058	5,856	5,696	4,613	4,278	4,816	4,348	4,744	5,171
8	Financial Services	28,204	30,286	33,080	34,359	34,423	34,935	36,207	40,371	42,071
9	Real Estate, Ownership of Dwelling and Professional Services	66,962	74,858	83,156	85,972	93,137	1,00,241	98,154	1,01,672	1,08,789
10	Public Administration	10,648	12,874	14,532	15,571	15,314	13,690	15,006	15,906	18,000
11	Other Services	29,612	32,749	38,393	40,797	40,385	42,130	44,763	49,692	53,419
	Tertiary	**2,10,862**	**2,34,552**	**2,59,347**	**2,76,749**	**2,97,552**	**3,13,559**	**2,84,288**	**3,21,963**	**3,52,336**
12	Total NSVA at Basic Prices	3,39,638	3,76,192	4,07,324	4,41,477	4,81,461	5,11,229	4,77,667	5,25,883	5,61,909
13	Taxes on Products	41,113	49,417	57,371	66,711	71,836	72,521	76,347	85,857	95,301
14	Subsidies on Products	7,854	8,717	8,964	10,043	8,856	11,014	16,261	12,126	12,047
15	**Net State Domestic Product**	**3,72,897**	**4,16,892**	**4,55,731**	**4,98,145**	**5,44,441**	**5,72,736**	**5,37,753**	**5,99,614**	**6,45,163**
16	**Population ('000)**	**36,766**	**37,134**	**37,505**	**37,881**	**37,093**	**37,346**	**37,599**	**37,816**	**37,999**
17	**Per Capita Income (Rs.)**	**1,01,424**	**1,12,267**	**1,21,512**	**1,31,503**	**1,46,777**	**1,53,360**	**1,43,023**	**1,58,561**	**1,69,784**

Gross Domestic Product and Per Capita Income of All India at Current Prices
(Rs. in crore)

S. No.	Sector	2014-15	2015-16	2016-17	2017-18	2018-19 (TRE)	2019-20 (SRE)	2020-21 (FRE)	2021-22 (PE)	2022-23 (PAE)
1	Agriculture, Livestock, Forestry and Fishing	20,93,612	22,27,533	25,18,662	28,29,826	30,29,925	33,58,364	36,09,494	39,80,067	44,77,171
1.1	Crops	12,92,874	13,27,992	14,86,044	16,33,264	16,80,777	18,91,966	19,97,147		
1.2	Livestock	5,10,411	5,82,410	6,72,611	7,85,683	8,82,009	9,77,730	11,14,249		
1.3	Forestry and Logging	1,73,760	1,84,411	2,05,364	2,17,603	2,55,053	2,60,603	2,65,479		
1.4	Fishing and Aquaculture	1,16,567	1,32,720	1,54,643	1,93,275	2,12,087	2,28,065	2,32,620		
2	Mining and Quarrying	3,08,476	2,94,011	3,26,808	3,36,109	3,77,661	3,58,517	3,24,980	5,13,076	7,05,034
	Primary	**24,02,088**	**25,21,544**	**28,45,470**	**31,65,935**	**34,07,586**	**37,16,881**	**39,34,474**	**44,93,143**	**51,82,205**
3	Manufacturing	18,78,369	21,46,189	23,33,721	25,66,623	28,12,560	27,04,809	27,09,435	33,07,315	35,74,404
4	Electricity, Gas, Water supply and Other Utility Services	2,82,258	3,34,965	3,55,709	4,25,718	4,49,459	5,01,618	5,07,352	5,86,679	7,58,959
5	Construction	9,79,086	9,91,084	10,80,870	12,00,414	13,52,118	13,72,759	13,15,608	17,19,098	20,04,178
	Secondary	**31,39,713**	**34,72,238**	**37,70,300**	**41,92,755**	**46,14,137**	**45,79,186**	**45,32,395**	**56,13,092**	**63,37,541**
6	Trade, Repair, Hotels and Restaurants	13,20,833	14,33,969	16,09,001	18,81,395	21,36,707	23,25,812	18,18,981	35,28,896	43,88,212
6.1	Trade and Repair Services	12,06,474	13,07,323	14,68,583	17,22,671	19,55,798	21,29,686	17,32,821		
6.2	Hotels and Restaurants	1,14,359	1,26,646	1,40,418	1,58,723	1,80,909	1,96,127	86,160		
7	Transport, Storage, Communication & Services related to Broadcasting	7,86,763	8,60,544	9,30,155	9,97,528	10,66,055	11,52,680	10,47,412		
7.1	Railways	92,459	1,00,451	1,06,786	1,16,584	1,23,596	1,35,477	1,36,807		
7.2	Road Transport	3,70,364	3,99,902	4,34,947	4,84,134	5,36,552	5,65,438	4,47,164		
7.3	Water Transport	7,590	7,298	9,206	13,021	13,059	13,350	13,418		
7.4	Air Transport	11,820	20,344	21,496	22,444	12,730	22,508	10,323		
7.5	Services incidental to Transport	91,681	88,246	1,02,468	97,602	1,03,341	1,03,301	98,170		
7.6	Storage	6,407	7,021	7,442	16,194	18,597	19,513	19,628		
7.7	Communication & Services related to Broadcasting	2,06,442	2,37,282	2,47,809	2,47,549	2,58,179	2,93,094	3,21,902		
8	Financial Services	6,61,411	7,26,286	7,50,201	8,46,194	9,41,778	10,27,359	10,88,222	45,43,303	51,98,108
9	Real Estate, Ownership of Dwellings and Professional Services	17,01,935	18,99,852	21,61,236	22,81,018	25,87,720	28,51,979	29,57,538		
10	Public Administration and Defence	6,76,818	7,31,578	8,27,438	9,45,082	10,45,488	11,47,741	12,38,383	31,70,966	36,20,148
11	Other Services	8,14,718	9,28,489	10,71,399	11,95,759	13,75,658	15,53,471	14,40,404		
	Tertiary	**59,62,478**	**65,80,718**	**73,49,430**	**81,46,976**	**91,53,406**	**1,00,59,042**	**95,90,940**	**1,12,43,165**	**1,32,06,468**
12	**Total GSVA at Basic Prices**	**1,15,04,279**	**1,25,74,499**	**1,39,65,200**	**1,55,05,665**	**1,71,75,128**	**1,83,55,109**	**1,80,57,810**	**2,13,49,399**	**2,47,26,214**
13	Taxes on Products	12,91,662	15,18,496	17,46,288	18,98,896	20,43,568	20,76,662	22,55,495	23,15,238	25,81,537
14	Subsidies on Products	3,27,982	3,21,121	3,19,819	3,14,518	3,19,028	3,56,916	5,12,391		
15	**Gross Domestic Product**	**1,24,67,959**	**1,37,71,874**	**1,53,91,669**	**1,70,90,042**	**1,88,99,668**	**2,00,74,856**	**1,98,00,914**	**2,36,64,637**	**2,73,07,751**
16	**Per Capita Income (Rs.)**	**86,647**	**94,797**	**1,03,870**	**1,15,224**	**1,25,946**	**1,32,115**	**1,26,855**	**1,50,007**	**1,70,620**

Sectoral Growth Rate of GDP and PCI of All India at Current Prices (Percentage)

S.No.	Sector	2014-15	2015-16	2016-17	2017-18	2018-19 (TRE)	2019-20 (SRE)	2020-21 (FRE)	2021-22 (PE)	2022-23 (PAE)
1	Agriculture, Livestock, Forestry and Fishing	8.7	6.4	13.1	12.4	7.1	10.8	7.5	10.3	12.5
1.1	Crops	3.5	2.7	11.9	9.9	2.9	12.6	5.6		
1.2	Livestock	20.7	14.1	15.5	16.8	12.3	10.9	14.0		
1.3	Forestry and Logging	10.9	6.1	11.4	6.0	17.2	2.2	1.9		
1.4	Fishing and Aquaculture	18.7	13.9	16.5	25.0	9.7	7.5	2.0		
2	Mining and Quarrying	4.3	-4.7	11.2	2.8	12.4	-5.1	-9.4	57.9	37.4
	Primary	**8.1**	**5.0**	**12.8**	**11.3**	**7.6**	**9.1**	**5.9**	**14.2**	**15.3**
3	Manufacturing	9.6	14.3	8.7	10.0	9.6	-3.8	0.2	22.1	8.1
4	Electricity, Gas, Water supply and Other Utility Services	8.5	18.7	6.2	19.7	5.6	11.6	1.1	15.6	29.4
5	Construction	6.3	1.2	9.1	11.1	12.6	1.5	-4.2	30.7	16.6
	Secondary	**8.5**	**10.6**	**8.6**	**11.2**	**10.1**	**-0.8**	**-1.0**	**23.8**	**12.9**
6	Trade, Repair, Hotels and Restaurants	11.5	8.6	12.2	16.9	13.6	8.9	-21.8	23.1	24.4
6.1	Trade and Repair Services	11.9	8.4	12.3	17.3	13.5	8.9	-18.6		
6.2	Hotels and Restaurants	7.7	10.7	10.9	13.0	14.0	8.4	-56.1		
7	Transport, Storage, Communication & Services related to Broadcasting	14.0	9.4	8.1	7.2	6.9	8.1	-9.1		
7.1	Railways	17.4	8.6	6.3	9.2	6.0	9.6	1.0		
7.2	Road Transport	9.5	8.0	8.8	11.3	10.8	5.4	-20.9		
7.3	Water Transport	17.2	-3.8	26.1	41.4	0.3	2.2	0.5		
7.4	Air Transport	72.5	72.1	5.7	4.4	-43.3	76.8	-54.1		
7.5	Services incidental to Transport	21.1	-3.7	16.1	-4.7	5.9	0.0	-5.0		
7.6	Storage	6.3	9.6	6.0	117.6	14.8	4.9	0.6		
7.7	Communication & Services related to Broadcasting	16.1	14.9	4.4	-0.1	4.3	13.5	9.8		
8	Financial Services	10.4	9.8	3.3	12.8	11.3	9.1	5.9	12.3	14.4
9	Real Estate, Ownership of Dwellings and Professional Services	15.8	11.6	13.8	5.5	13.4	10.2	3.7		
10	Public Administration and Defence	12.4	8.1	13.1	14.2	10.6	9.8	7.9	18.4	14.2
11	Other Services	16.4	14.0	15.4	11.6	15.0	12.9	-7.3		
	Tertiary	**13.7**	**10.4**	**11.7**	**10.9**	**12.4**	**9.9**	**-4.7**	**17.2**	**17.5**
12	**Total GSVA at Basic Prices**	**11.0**	**9.3**	**11.1**	**11.0**	**10.8**	**6.9**	**-1.6**	**18.2**	**15.8**
13	Taxes on Products	9.4	17.6	15.0	8.7	7.6	1.6	8.6	32.8	11.5
14	Subsidies on Products	5.8	-2.1	-0.4	-1.7	1.4	11.9	43.6		
15	**Gross Domestic Product**	**11.0**	**10.5**	**11.8**	**11.0**	**10.6**	**6.2**	**-1.4**	**19.5**	**15.4**
16	**Per Capita Income (Rs.)**	**9.5**	**9.4**	**9.6**	**10.9**	**9.3**	**4.9**	**-4.0**	**18.3**	**13.7**

Sectoral Composition of GVA of All India at Current Prices   (Percentage)

S. No.	Sector	2014-15	2015-16	2016-17	2017-18	2018-19 (TRE)	2019-20 (SRE)	2020-21 (FRE)	2021-22 (PE)	2022-23 (PAE)
1	Agriculture, Livestock, Forestry and Fishing	18.2	17.7	18.0	18.3	17.6	18.3	20.0	18.6	18.1
1.1	Crops	11.2	10.6	10.6	10.5	9.8	10.3	11.1		
1.2	Livestock	4.4	4.6	4.8	5.1	5.1	5.3	6.2		
1.3	Forestry and Logging	1.5	1.5	1.5	1.4	1.5	1.4	1.5		
1.4	Fishing and Aquaculture	1.0	1.1	1.1	1.2	1.2	1.2	1.3		
2	Mining and Quarrying	2.7	2.3	2.3	2.2	2.2	2.0	1.8	2.4	2.9
	Primary	**20.9**	**20.1**	**20.4**	**20.4**	**19.8**	**20.2**	**21.8**	**21.0**	**21.0**
3	Manufacturing	16.3	17.1	16.7	16.6	16.4	14.7	15.0	15.5	14.5
4	Electricity, Gas, Water supply and Other Utility Services	2.5	2.7	2.5	2.7	2.6	2.7	2.8	2.7	3.1
5	Construction	8.5	7.9	7.7	7.7	7.9	7.5	7.3	8.1	8.1
	Secondary	**27.3**	**27.6**	**27.0**	**27.0**	**26.9**	**24.9**	**25.1**	**26.3**	**25.6**
6	Trade, Repair, Hotels and Restaurants	11.5	11.4	11.5	12.1	12.4	12.7	10.1		
6.1	Trade and Repair Services	10.5	10.4	10.5	11.1	11.4	11.6	9.6		
6.2	Hotels and Restaurants	1.0	1.0	1.0	1.0	1.1	1.1	0.5		
7	Transport, Storage, Communication & Services related to Broadcasting	6.8	6.8	6.7	6.4	6.2	6.3	5.8		
7.1	Railways	0.8	0.8	0.8	0.8	0.7	0.7	0.8		
7.2	Road Transport	3.2	3.2	3.1	3.1	3.1	3.1	2.5	16.5	17.7
7.3	Water Transport	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
7.4	Air Transport	0.1	0.2	0.2	0.1	0.1	0.1	0.1		
7.5	Services incidental to Transport	0.8	0.7	0.7	0.6	0.6	0.6	0.5		
7.6	Storage	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
7.7	Communication & Services related to Broadcasting	1.8	1.9	1.8	1.6	1.5	1.6	1.8		
8	Financial Services	5.7	5.8	5.4	5.5	5.5	5.6	6.0		
9	Real Estate, Ownership of Dwellings and Professional Services	14.8	15.1	15.5	14.7	15.1	15.5	16.4	21.3	21.0
10	Public Administration and Defence	5.9	5.8	5.9	6.1	6.1	6.3	6.9	14.9	14.6
11	Other Services	7.1	7.4	7.7	7.7	8.0	8.5	8.0		
	Tertiary	**51.8**	**52.3**	**52.6**	**52.5**	**53.3**	**54.8**	**53.1**	**52.7**	**53.4**
12	**Total GSVA at Basic Prices**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**

Gross Domestic Product and Per Capita Income of All India at Constant (2011-12) Prices (Rs. in crore)

S. No.	Sector	2014-15	2015-16	2016-17	2017-18	2018-19 (TRE)	2019-20 (SRE)	2020-21 (FRE)	2021-22 (PE)	2022-23 (PAE)
1	Agriculture, Livestock, Forestry and Fishing	16,05,715	16,16,146	17,26,004	18,40,023	18,78,598	19,82,303	20,48,032	21,09,697	21,82,582
1.1	Crops	9,98,425	9,69,344	10,20,258	10,75,111	10,49,211	11,06,545	11,27,575		
1.2	Livestock	3,90,449	4,19,637	4,61,572	4,97,830	5,40,970	5,81,450	6,17,117		
1.3	Forestry and Logging	1,34,609	1,36,960	1,44,547	1,52,351	1,63,949	1,64,416	1,65,624		
1.4	Fishing and Aquaculture	82,232	90,205	99,627	1,14,730	1,24,468	1,29,893	1,37,716		
2	Mining and Quarrying	2,88,685	3,17,974	3,49,248	3,29,612	3,26,815	3,21,766	2,94,024	3,27,984	3,35,810
	Primary	**18,94,400**	**19,34,120**	**20,75,252**	**21,69,634**	**22,05,413**	**23,04,070**	**23,42,056**	**24,37,681**	**25,18,392**
3	Manufacturing	16,83,938	19,03,850	20,54,764	22,09,428	23,28,992	22,61,294	22,47,740	24,70,822	25,09,366
4	Electricity, Gas, Water supply and Other Utility Services	2,14,047	2,24,158	2,46,496	2,72,650	2,94,147	3,00,675	2,89,771	3,11,598	3,39,660
5	Construction	8,35,229	8,65,335	9,16,445	9,64,306	10,26,789	10,38,680	9,62,835	10,73,595	11,71,315
	Secondary	**27,33,214**	**29,93,343**	**32,17,705**	**34,46,384**	**36,49,928**	**36,00,649**	**35,00,346**	**38,56,015**	**40,20,341**
6	Trade, Repair, Hotels and Restaurants	11,35,841	12,61,426	13,89,322	15,68,175	17,07,781	18,28,425	14,18,045	23,85,605	27,12,235
6.1	Trade and Repair Services	10,37,640	11,50,121	12,68,230	14,35,984	15,63,237	16,74,210	13,50,823		
6.2	Hotels and Restaurants	98,201	1,11,305	1,21,092	1,32,191	1,44,544	1,54,215	67,222		
7	Transport, Storage, Communication & Services related to Broadcasting	6,71,848	7,31,399	7,57,056	8,00,245	8,30,977	8,61,301	7,29,634		
7.1	Railways	80,720	85,452	82,161	87,886	91,350	82,303	67,154		
7.2	Road Transport	3,20,813	3,43,155	3,62,324	3,96,401	4,17,538	4,32,223	3,28,137		
7.3	Water Transport	7,954	8,095	8,569	11,915	12,628	13,018	12,294		
7.4	Air Transport	5,188	6,053	7,172	8,373	9,402	9,159	3,177		
7.5	Services incidental to Transport	75,596	81,156	86,835	84,351	89,061	91,369	81,385		
7.6	Storage	5,529	6,245	6,100	12,976	13,784	13,916	14,329		
7.7	Communication & Services related to Broadcasting	1,76,047	2,01,243	2,03,896	1,98,344	1,97,215	2,19,313	2,23,158		
8	Financial Services	6,27,255	6,72,788	6,95,983	7,28,670	7,58,170	7,84,672	8,24,734	30,87,360	32,84,130
9	Real Estate, Ownership of Dwellings and Professional Services	14,46,460	16,21,999	17,96,983	18,08,521	19,56,051	21,12,722	21,37,176		
10	Public Administration and Defence	5,43,853	5,65,106	6,14,238	6,76,507	7,22,773	7,59,976	7,77,126	18,38,814	19,83,575
11	Other Services	6,59,262	7,11,691	7,81,744	8,36,035	9,02,705	9,67,662	8,55,955		
	Tertiary	**50,84,519**	**55,64,409**	**60,35,326**	**64,18,153**	**68,78,457**	**73,14,758**	**67,42,670**	**73,11,779**	**79,79,940**
12	**Total GSVA at Basic Prices**	97,12,133	1,04,91,870	1,13,28,285	1,20,34,171	1,27,33,798	1,32,19,476	1,25,85,074	1,36,05,474	1,45,18,673
13	Taxes on Products	10,92,430	11,45,558	12,39,334	13,54,508	14,95,644	15,53,534	13,30,491	11,30,041	12,41,690
14	Subsidies on Products	2,76,889	2,67,935	2,59,425	2,44,097	2,36,527	2,57,052	3,57,092		
15	**Gross Domestic Product**	1,05,27,674	1,13,69,493	1,23,08,193	1,31,44,582	1,39,92,914	1,45,15,958	1,35,58,473	1,47,35,515	1,57,60,363
16	Per Capita Income (Rs.)	72,805	77,659	83,003	87,586	92,133	94,270	85,110	91,481	96,522

Sectoral Growth Rate of GDP and PCI of All India at Constant (2011-12) Prices (Percentage)

S. No.	Sector	2014-15	2015-16	2016-17	2017-18	2018-19 (TRE)	2019-20 (SRE)	2020-21 (FRE)	2021-22 (PE)	2022-23 (PAE)
1	Agriculture, Livestock, Forestry and Fishing	-0.2	0.6	6.8	6.6	2.1	5.5	3.3	3.0	3.5
1.1	Crops	-3.7	-2.9	5.3	5.4	-2.4	5.5	1.9		
1.2	Livestock	7.4	7.5	10.0	7.9	8.7	7.5	6.1		
1.3	Forestry and Logging	1.9	1.7	5.5	5.4	7.6	0.3	0.7		
1.4	Fishing and Aquaculture	7.5	9.7	10.4	15.2	8.5	4.4	6.0		
2	Mining and Quarrying	9.7	10.1	9.8	-5.6	-0.8	-1.5	-8.6	11.5	2.4
	Primary	**1.2**	**2.1**	**7.3**	**4.5**	**1.6**	**4.5**	**1.6**	**4.1**	**3.3**
3	Manufacturing	7.9	13.1	7.9	7.5	5.4	-2.9	-0.6	9.9	1.6
4	Electricity, Gas, Water supply and Other Utility Services	7.2	4.7	10.0	10.6	7.9	2.2	-3.6	7.5	9.0
5	Construction	4.3	3.6	5.9	5.2	6.5	1.2	-7.3	11.5	9.1
	Secondary	**6.7**	**9.5**	**7.5**	**7.1**	**5.9**	**-1.4**	**-2.8**	**10.2**	**12.9**
6	Trade, Repair, Hotels and Restaurants	9.8	11.1	10.1	12.9	8.9	7.1	-22.4	11.1	13.7
6.1	Trade and Repair Services	10.2	10.8	10.3	13.2	8.9	7.1	-19.3		
6.2	Hotels and Restaurants	6.1	13.3	8.8	9.2	9.3	6.7	-56.4		
7	Transport, Storage, Communication & Services related to Broadcasting	8.8	8.9	3.5	5.7	3.8	3.6	-15.3		
7.1	Railways	9.5	5.9	-3.9	7.0	3.9	-9.9	-18.4		
7.2	Road Transport	6.7	7.0	5.6	9.4	5.3	3.5	-24.1		
7.3	Water Transport	8.3	1.8	5.9	39.0	6.0	3.1	-5.6		
7.4	Air Transport	14.0	16.7	18.5	16.7	12.3	-2.6	-65.3		
7.5	Services incidental to Transport	7.7	7.4	7.0	-2.9	5.6	2.6	-10.9		
7.6	Storage	6.1	12.9	-2.3	112.7	6.2	1.0	3.0		
7.7	Communication & Services related to Broadcasting	12.8	14.3	1.3	-2.7	-0.6	11.2	1.8		
8	Financial Services	8.5	7.3	3.4	4.7	4.0	3.5	5.1	4.2	6.4
9	Real Estate, Ownership of Dwellings and Professional Services	12.2	12.1	10.8	0.6	8.2	8.0	1.2		
10	Public Administration and Defence	6.6	3.9	8.7	10.1	6.8	5.1	2.3	12.6	7.9
11	Other Services	9.7	8.0	9.8	6.9	8.0	7.2	-11.5		
	Tertiary	**9.8**	**9.4**	**8.5**	**6.3**	**7.2**	**6.3**	**-7.8**	**8.4**	**9.1**
12	**Total GSVA at Basic Prices**	**7.2**	**8.0**	**8.0**	**6.2**	**5.8**	**3.8**	**-4.8**	**8.1**	**6.7**
13	Taxes on Products	8.3	4.9	8.2	9.3	10.4	3.9	-14.4	16.1	9.9
14	Subsidies on Products	2.1	-3.2	-3.2	-5.9	-3.1	8.7	38.9		
15	**Gross Domestic Product**	**7.4**	**8.0**	**8.3**	**6.8**	**6.5**	**3.7**	**-6.6**	**8.7**	**7.0**
16	**Per Capita Income (Rs.)**	**6.2**	**6.7**	**6.9**	**5.5**	**5.2**	**2.3**	**-9.7**	**7.5**	**5.5**

Sectoral Composition of GVA of All India at Constant (2011-12) Prices   (Percentage)

Sl. No.	Sector	2014-15	2015-16	2016-17	2017-18	2018-19 (TRE)	2019-20 (SRE)	2020-21 (FRE)	2021-22 (PE)	2022-23 (PAE)
1	Agriculture, Livestock, Forestry and Fishing	16.53	15.40	15.24	15.29	14.75	15.00	16.27	15.51	15.03
1.1	Crops	10.28	9.24	9.01	8.93	8.24	8.37	8.96		
1.2	Livestock	4.02	4.00	4.07	4.14	4.25	4.40	4.90		
1.3	Forestry and Logging	1.39	1.31	1.28	1.27	1.29	1.24	1.32		
1.4	Fishing and Aquaculture	0.85	0.86	0.88	0.95	0.98	0.98	1.09		
2	Mining and Quarrying	2.97	3.03	3.08	2.74	2.57	2.43	2.34	2.41	2.31
	Primary	**19.51**	**18.43**	**18.32**	**18.03**	**17.32**	**17.43**	**18.61**	**17.92**	**17.35**
3	Manufacturing	17.34	18.15	18.14	18.36	18.29	17.11	17.86	18.16	17.28
4	Electricity, Gas, Water supply and Other Utility Services	2.20	2.14	2.18	2.27	2.31	2.27	2.30	2.29	2.34
5	Construction	8.60	8.25	8.09	8.01	8.06	7.86	7.65	7.89	8.07
	Secondary	**28.14**	**28.53**	**28.40**	**28.64**	**28.66**	**27.24**	**27.81**	**28.34**	**27.69**
6	Trade, Repair, Hotels and Restaurants	11.70	12.02	12.26	13.03	13.41	13.83	11.27		
6.1	Trade and Repair Services	10.68	10.96	11.20	11.93	12.28	12.66	10.73		
6.2	Hotels and Restaurants	1.01	1.06	1.07	1.10	1.14	1.17	0.53		
7	Transport, Storage, Communication & Services related to Broadcasting	6.92	6.97	6.68	6.65	6.53	6.52	5.80	17.53	18.68
7.1	Railways	0.83	0.81	0.73	0.73	0.72	0.62	0.53		
7.2	Road Transport	3.30	3.27	3.20	3.29	3.28	3.27	2.61		
7.3	Water Transport	0.08	0.08	0.08	0.10	0.10	0.10	0.10		
7.4	Air Transport	0.05	0.06	0.06	0.07	0.07	0.07	0.03		
7.5	Services incidental to Transport	0.78	0.77	0.77	0.70	0.70	0.69	0.65		
7.6	Storage	0.06	0.06	0.05	0.11	0.11	0.11	0.11		
7.7	Communication & Services related to Broadcasting	1.81	1.92	1.80	1.65	1.55	1.66	1.77		
8	Financial Services	6.46	6.41	6.14	6.06	5.95	5.94	6.55		
9	Real Estate, Ownership of Dwellings and Professional Services	14.89	15.46	15.86	15.03	15.36	15.98	16.98	22.69	22.62
10	Public Administration and Defence	5.60	5.39	5.42	5.62	5.68	5.75	6.17	13.52	13.66
11	Other Services	6.79	6.78	6.90	6.95	7.09	7.32	6.80		
	Tertiary	**52.35**	**53.04**	**53.28**	**53.33**	**54.02**	**55.33**	**53.58**	**53.74**	**54.96**
12	**Total GSVA at Basic Prices**	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Gross District Domestic Product of Telangana from 2018-19 to 2020-21 (Rs. in Lakh)

S. No.	District	Current prices			Constant (2011-12) prices		
		2018-19 (TRE)	2019-20 (SRE)	2020-21 (FRE)	2018-19 (TRE)	2019-20 (SRE)	2020-21 (FRE)
01	Adilabad	11,54,047	13,36,465	12,68,948	7,98,691	9,00,567	8,05,296
02	Kumuram Bheem	8,85,630	8,76,499	7,93,501	6,00,463	5,79,188	4,83,622
03	Mancherial	13,86,841	15,75,914	15,48,421	9,86,055	10,56,378	9,78,432
04	Nirmal	10,82,759	13,03,864	12,57,558	7,20,498	8,36,454	7,54,150
05	Nizamabad	23,53,012	28,39,655	28,47,942	16,19,060	18,56,931	17,55,827
06	Jagtial	12,89,307	17,05,526	16,83,580	8,63,341	10,94,453	9,96,070
07	Peddapalli	17,05,157	18,01,097	16,32,720	12,27,976	12,34,955	10,53,842
08	Jayashankar	12,73,224	12,13,899	10,86,198	8,18,798	7,68,335	6,52,669
09	Bhadradri Kothagudem	21,17,545	24,53,213	22,95,532	15,16,364	16,48,523	13,93,555
10	Mahabubabad	11,96,055	12,25,255	13,36,773	7,83,089	7,77,344	7,70,050
11	Warangal Rural	10,44,080	12,89,242	14,27,627	7,17,591	8,32,451	8,62,623
12	Warangal Urban	15,64,120	17,66,100	16,58,798	11,02,980	11,83,384	10,56,159
13	Karimnagar	18,86,679	19,86,281	21,36,297	13,14,396	13,19,681	13,49,376
14	Rajanna Siricilla	7,96,191	9,64,127	9,84,442	5,36,683	6,21,398	5,94,960
15	Kamareddy	13,76,455	16,92,099	16,92,888	9,24,222	10,80,835	10,17,572
16	Sangareddy	41,28,535	46,43,862	45,62,651	31,47,985	33,79,196	32,01,366
17	Medak	15,84,553	19,51,919	19,18,407	11,50,600	13,11,371	12,36,170
18	Siddipet	20,43,669	20,48,892	25,33,232	13,39,044	13,15,834	14,83,236
19	Jangaon	8,27,758	10,95,245	10,65,108	5,57,601	6,86,505	6,29,195
20	Yadadri Bhuvanagiri	15,00,490	17,82,830	18,65,142	10,37,828	11,64,245	11,42,315
21	Medchal-Malkajgiri	61,76,859	67,55,930	62,50,642	46,50,355	48,88,460	43,19,009
22	Hyderabad	1,61,75,971	1,66,03,914	1,62,56,483	1,16,92,204	1,13,32,251	1,05,78,533
23	Rangareddy	1,71,13,683	1,83,29,902	1,98,99,741	1,23,25,617	1,26,64,718	1,28,12,646
24	Vikarabad	15,91,936	15,01,430	14,34,466	10,40,156	9,64,378	8,69,430
25	Mahabubnagar	20,86,603	21,45,366	22,78,710	15,06,425	14,88,797	14,89,745
26	Jogulamba Gadwal	9,63,400	10,09,425	10,40,266	6,28,477	6,38,462	6,01,160
27	Wanaparthy	8,34,528	10,31,184	10,12,800	5,67,452	6,53,972	5,93,931
28	Nagarkurnool	12,08,109	16,25,297	15,89,731	8,02,385	10,23,751	9,41,557
29	Nalgonda	29,89,153	37,26,939	38,92,744	21,10,146	24,56,014	24,08,521
30	Suryapet	17,18,923	21,97,148	22,52,381	11,78,037	14,10,111	13,48,527
31	Khammam	26,12,203	30,90,074	31,91,196	18,65,060	20,35,849	19,59,598
32	Mulugu	4,82,782	5,76,622	5,62,604	3,13,160	3,59,355	3,20,048
33	Narayanpet	5,92,452	8,83,457	9,22,506	3,97,399	5,60,283	5,33,545
	GDDP	8,57,42,707	9,50,28,675	9,61,80,037	6,08,40,138	6,41,24,428	6,09,92,734

Per Capita Income of Telangana by Districts from 2018-19 to 2020-21 (in Rs.)

Sl. No	District	Current prices			Constant (2011-12) prices		
		2018-19 (TRE)	2019-20 (SRE)	2020-21 (FRE)	2018-19 (TRE)	2019-20 (SRE)	2020-21 (FRE)
01	Adilabad	1,39,949	1,62,750	1,52,455	95,502	1,07,891	94,587
02	Kumuram Bheem	1,49,441	1,46,748	1,31,843	99,322	95,090	78,282
03	Mancherial	1,46,432	1,66,813	1,60,883	1,02,236	1,09,599	98,914
04	Nirmal	1,32,694	1,60,064	1,52,634	86,924	1,00,888	89,308
05	Nizamabad	1,29,238	1,56,409	1,55,515	87,586	1,00,362	93,672
06	Jagtial	1,12,997	1,50,406	1,46,723	74,498	94,909	84,742
07	Peddapalli	1,80,401	1,89,659	1,70,353	1,27,162	1,26,860	1,06,184
08	Jayashankar	2,57,006	2,42,973	2,15,612	1,62,786	1,51,324	1,26,461
09	Bhadradri Kothagudem	1,68,302	1,93,498	1,79,112	1,17,963	1,26,749	1,04,865
10	Mahabubabad	1,35,909	1,37,644	1,48,711	87,519	85,671	83,560
11	Warangal Rural	1,25,151	1,55,640	1,71,111	84,739	98,727	1,01,090
12	Warangal Urban	1,25,271	1,40,819	1,30,821	87,054	92,644	81,295
13	Karimnagar	1,62,279	1,69,010	1,79,908	1,11,273	1,10,119	1,10,568
14	Rajanna Siricilla	1,24,564	1,50,262	1,51,412	82,442	94,749	88,932
15	Kamareddy	1,23,688	1,51,659	1,49,575	81,791	95,172	87,815
16	Sangareddy	2,29,464	2,57,610	2,49,091	1,73,443	1,85,214	1,72,111
17	Medak	1,76,605	2,19,095	2,11,445	1,26,447	1,44,545	1,33,295
18	Siddipet	1,74,560	1,74,794	2,12,788	1,12,693	1,10,380	1,21,960
19	Jangaon	1,34,647	1,79,417	1,72,118	89,257	1,10,400	99,243
20	Yadadri Bhuvanagiri	1,68,270	1,99,865	2,07,322	1,14,580	1,28,266	1,24,155
21	Medchal-Malkajgiri	2,13,362	2,28,866	2,09,838	1,58,856	1,63,033	1,42,148
22	Hyderabad	3,56,398	3,63,526	3,49,061	2,54,660	2,44,397	2,22,471
23	Rangareddy	5,90,015	6,23,728	6,69,102	4,18,733	4,23,011	4,18,964
24	Vikarabad	1,50,784	1,40,128	1,31,962	97,153	88,397	78,032
25	Mahabubnagar	1,95,618	1,98,855	2,08,343	1,39,646	1,36,108	1,33,744
26	Jogulamba Gadwal	1,38,811	1,44,028	1,46,990	89,154	89,500	82,934
27	Wanaparthy	1,25,292	1,56,059	1,51,299	83,624	97,132	86,514
28	Nagarkurnool	1,20,698	1,64,252	1,59,267	78,855	1,01,664	92,115
29	Nalgonda	1,57,441	1,97,896	2,04,847	1,09,643	1,28,223	1,23,962
30	Suryapet	1,34,266	1,73,186	1,75,606	90,526	1,09,200	1,02,703
31	Khammam	1,60,810	1,90,024	1,94,337	1,12,982	1,22,709	1,16,318
32	Mulugu	1,44,051	1,70,295	1,63,285	92,005	1,04,175	90,268
33	Narayanpet	91,139	1,37,057	1,41,809	60,053	85,427	80,079
	GDDP	2,09,848	2,31,378	2,31,103	1,46,777	1,53,360	1,43,023

Demographic Details of Telangana

a. Population of Telangana State from 1961 to 2011 (in Nos.)

Year	1961	1971	1981	1991	2001	2011
Telangana	1,27,11,785	1,58,17,895	2,01,81,085	2,60,89,074	3,09,87,271	3,50,03,674
India	43,92,34,771	54,81,59,652	68,33,29,097	84,64,21,039	1,02,86,10,328	1,21,08,54,977

b. Percentage of Urban Population to total Population from 1961 to 2011

Year	1961	1971	1981	1991	2001	2011
Telangana	19.27	20.99	25.27	30.18	31.79	38.88
India	17.97	17.98	19.51	22.87	25.49	31.15

c. Percentage of Decadal Growth Rates of Population from 1951-61 to 2001-2011

Year	1951-61	1961-71	1971-81	1981-91	1991-01	2001-2011
Telangana	16.48	24.60	27.59	29.27	18.77	13.58
India	21.51	24.80	24.66	23.85	21.54	17.70

d. Density of Population from 1961 to 2011

Year	1961	1971	1981	1991	2001	2011
Telangana	111	138	176	227	270	312
India	144	177	216	273	325	382

e. Sex Ratio of Population from 1961 to 2011

Year	1961	1971	1981	1991	2001	2011
Telangana	975	969	971	967	971	988
India	941	930	934	927	933	943

f. Literacy Rate of Population from 1961 to 2011

Year	1961	1971	1981	1991	2001	2011
Telangana	17.34	20.70	26.49	41.30	58.00	66.54
India	28.30	34.45	43.57	52.21	64.84	72.98

Source: Registrar General and Census Commissioner, India.

Population by Districts, 2011 Census

S. No.	District	Total Population (Nos.)			Rural Population (Nos.)			Urban Population (Nos.)		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
01	Adilabad	3,56,407	3,52,565	7,08,972	2,71,594	2,69,632	5,41,226	84,813	82,933	1,67,746
02	Kumuram Bheem	2,58,197	2,57,615	5,15,812	2,14,967	2,13,861	4,28,828	43,230	43,754	86,984
03	Mancherial	4,08,272	3,98,765	8,07,037	2,27,974	2,25,216	4,53,190	1,80,298	1,73,549	3,53,847
04	Nirmal	3,46,721	3,62,697	7,09,418	2,70,768	2,86,968	5,57,736	75,953	75,729	1,51,682
05	Nizamabad	7,68,477	8,02,545	15,71,022	5,37,574	5,68,698	11,06,272	2,30,903	2,33,847	4,64,750
06	Jagitial	4,85,819	5,03,094	9,88,913	3,75,266	3,92,311	7,67,577	1,10,553	1,10,783	2,21,336
07	Peddapalli	3,97,585	3,94,251	7,91,836	2,43,312	2,44,511	4,87,823	1,54,273	1,49,740	3,04,013
08	Jayashankar	2,07,998	2,08,765	4,16,763	1,86,188	1,88,188	3,74,376	21,810	20,577	42,387
09	Bhadradri Kothagudem	5,32,390	5,36,871	10,69,261	3,64,807	3,65,371	7,30,178	1,67,583	1,71,500	3,39,083
10	Mahabubabad	3,88,058	3,86,491	7,74,549	3,50,530	3,47,643	6,98,173	37,528	38,848	76,376
11	Warangal	3,69,551	3,67,597	7,37,148	2,55,622	2,54,435	5,10,057	1,13,929	1,13,162	2,27,091
12	Hanumakonda	5,32,065	5,30,182	10,62,247	2,48,907	2,49,711	4,98,618	2,83,158	2,80,471	5,63,629
13	Karimnagar	5,04,620	5,01,091	10,05,711	3,48,914	3,47,813	6,96,727	1,55,706	1,53,278	3,08,984
14	Rajanna Sircilla	2,74,109	2,77,928	5,52,037	2,15,791	2,19,354	4,35,145	58,318	58,574	1,16,892
15	Kamareddy	4,78,389	4,94,236	9,72,625	4,17,488	4,31,515	8,49,003	60,901	62,721	1,23,622
16	Sangareddy	7,77,870	7,51,033	15,28,903	5,05,475	4,93,463	9,98,938	2,72,395	2,57,570	5,29,965
17	Medak	3,78,019	3,88,134	7,66,153	3,49,456	3,57,843	7,07,299	28,563	30,291	58,854
18	Siddipet	5,04,141	5,07,924	10,12,065	4,34,875	4,38,138	8,73,013	69,266	69,786	1,39,052
19	Jangaon	2,67,875	2,67,116	5,34,991	2,31,389	2,32,245	4,63,634	36,486	34,871	71,357
20	Yadadri Bhuvanagiri	3,90,492	3,80,341	7,70,833	3,28,096	3,19,572	6,47,668	62,396	60,769	1,23,165
21	Medchal Malkajgiri	12,56,883	12,03,212	24,60,095	1,08,551	1,01,277	2,09,828	11,48,332	11,01,935	22,50,267
22	Hyderabad	20,18,575	19,24,748	39,43,323	-	-	-	20,18,575	19,24,748	39,43,323
23	Rangareddy	12,43,967	11,82,276	24,26,243	5,25,796	5,00,317	10,26,113	7,18,171	6,81,959	14,00,130
24	Vikarabad	4,73,021	4,73,088	9,46,109	4,10,566	4,10,574	8,21,140	62,455	62,514	1,24,969
25	Mahabubnagar	4,55,534	4,50,126	9,05,660	3,21,335	3,17,874	6,39,209	1,34,199	1,32,252	2,66,451
26	Jogulamba Gadwal	3,09,274	3,00,716	6,09,990	2,77,339	2,69,474	5,46,813	31,935	31,242	63,177
27	Wanaparthy	2,94,833	2,82,925	5,77,758	2,47,528	2,37,942	4,85,470	47,305	44,983	92,288
28	Nagarkurnool	4,37,986	4,23,780	8,61,766	3,93,137	3,80,799	7,73,936	44,849	42,981	87,830
29	Nalgonda	8,18,306	8,00,110	16,18,416	6,33,429	6,16,684	12,50,113	1,84,877	1,83,426	3,68,303
30	Suryapet	5,50,974	5,48,586	10,99,560	4,66,191	4,62,330	9,28,521	84,783	86,256	1,71,039
31	Khammam	6,99,124	7,02,515	14,01,639	5,42,500	5,42,311	10,84,811	1,56,624	1,60,204	3,16,828
32	Mulugu	1,46,205	1,48,466	2,94,671	1,40,429	1,42,749	2,83,178	5,776	5,717	11,493
33	Narayanpet	2,79,896	2,82,252	5,62,148	2,59,199	2,61,197	5,20,396	20,697	21,055	41,752
	Grand Total	**1,76,11,633**	**1,73,92,041**	**3,50,03,674**	**1,07,04,993**	**1,06,90,016**	**2,13,95,009**	**69,06,640**	**67,02,025**	**1,36,08,665**

Source: Registrar General and Census Commissioner, India.

Child (0-6 Years) Population by Districts, 2011 Census

S.No	District	Total Child Population (Nos.)			Rural Child Population (Nos.)			Urban Child Population (Nos.)		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
1	Adilabad	45,198	42,094	87,292	35,428	33,040	68,468	9,770	9,054	18,824
2	Kumuram Bheem	34,053	32,153	66,206	29,422	27,724	57,146	4,631	4,429	9,060
3	Mancherial	38,578	35,147	73,725	22,988	21,119	44,107	15,590	14,028	29,618
4	Nirmal	42,462	40,307	82,769	33,080	31,406	64,486	9,382	8,901	18,283
5	Nizamabad	86,867	82,754	1,69,621	59,559	56,475	1,16,034	27,308	26,279	53,587
6	Jagitial	48,048	45,523	93,571	35,843	33,990	69,833	12,205	11,533	23,738
7	Peddapalli	34,614	31,899	66,513	21,302	19,858	41,160	13,312	12,041	25,353
8	Jayashankar	20,234	18,473	38,707	18,318	16,821	35,139	1,916	1,652	3,568
9	Bhadradri Kothagudem	54,650	52,676	1,07,326	37,706	36,490	74,196	16,944	16,186	33,130
10	Mahabubabad	42,610	38,472	81,082	38,751	34,933	73,684	3,859	3,539	7,398
11	Warangal	37,191	33,893	71,084	25,443	23,005	48,448	11,748	10,888	22,636
12	Hanumakonda	50,194	46,774	96,968	23,015	21,031	44,046	27,179	25,743	52,922
13	Karimnagar	46,124	42,955	89,079	30,000	27,761	57,761	16,124	15,194	31,318
14	Rajanna Sircilla	25,099	23,652	48,751	19,315	18,235	37,550	5,784	5,417	11,201
15	Kamareddy	57,528	54,138	1,11,666	50,455	47,327	97,782	7,073	6,811	13,884
16	Sangareddy	99,792	95,343	1,95,135	65,504	62,627	1,28,131	34,288	32,716	67,004
17	Medak	48,167	45,546	93,713	44,866	42,326	87,192	3,301	3,220	6,521
18	Siddipet	53,194	50,658	1,03,852	45,709	43,542	89,251	7,485	7,116	14,601
19	Jangaon	26,914	25,171	52,085	23,435	21,768	45,203	3,479	3,403	6,882
20	Yadadri Bhuvanagiri	41,418	38,185	79,603	34,564	31,722	66,286	6,854	6,463	13,317
21	Medchal Malkajgiri	1,48,754	1,38,960	2,87,714	12,686	11,930	24,616	1,36,068	1,27,030	2,63,098
22	Hyderabad	2,45,127	2,23,999	4,69,126	-	-	-	2,45,127	2,23,999	4,69,126
23	Rangareddy	1,54,762	1,43,079	2,97,841	66,458	61,466	1,27,924	88,304	81,613	1,69,917
24	Vikarabad	60,446	57,102	1,17,548	52,900	49,952	1,02,852	7,546	7,150	14,696
25	Mahabubnagar	60,378	56,380	1,16,758	44,515	41,528	86,043	15,863	14,852	30,715
26	Jogulamba Gadwal	43,304	40,424	83,728	39,520	36,740	76,260	3,784	3,684	7,468
27	Wanaparthy	38,040	34,337	72,377	32,962	29,645	62,607	5,078	4,692	9,770
28	Nagarkurnool	56,292	51,167	1,07,459	51,101	46,261	97,362	5,191	4,906	10,097
29	Nalgonda	94,926	87,070	1,81,996	75,090	68,401	1,43,491	19,836	18,669	38,505
30	Suryapet	56,922	53,214	1,10,136	48,504	45,255	93,759	8,418	7,959	16,377
31	Khammam	71,760	67,854	1,39,614	55,652	52,738	1,08,390	16,108	15,116	31,224
32	Mulugu	14,788	14,356	29,144	14,314	13,873	28,187	474	483	957
33	Narayanpet	39,501	37,476	76,977	36,859	35,121	71,980	2,642	2,355	4,997
	Total	**20,17,935**	**18,81,231**	**38,99,166**	**12,25,264**	**11,44,110**	**23,69,374**	**7,92,671**	**7,37,121**	**15,29,792**

Source: Registrar General and Census Commissioner, India.

Sex Ratio by Districts, 2011 Census

S. No.	District	Population Sex Ratio			Child (0-6 Years) Sex Ratio		
		Rural	Urban	Total	Rural	Urban	Total
1	Adilabad	993	978	989	933	927	931
2	Kumuram Bheem	995	1,012	998	942	956	944
3	Mancherial	988	963	977	919	900	911
4	Nirmal	1,060	997	1,046	949	949	949
5	Nizamabad	1,058	1,013	1,044	948	962	953
6	Jagitial	1,045	1,002	1,036	948	945	947
7	Peddapalli	1,005	971	992	932	905	922
8	Jayashankar	1,011	943	1,004	918	862	913
9	Bhadradri Kothagudem	1,002	1,023	1,008	968	955	964
10	Mahabubabad	992	1,035	996	901	917	903
11	Warangal	995	993	995	904	927	911
12	Hanumakonda	1,003	991	996	914	947	932
13	Karimnagar	997	984	993	925	942	931
14	Rajanna Sircilla	1,017	1,004	1,014	944	937	942
15	Kamareddy	1,034	1,030	1,033	938	963	941
16	Sangareddy	976	946	965	956	954	955
17	Medak	1,024	1,060	1,027	943	975	946
18	Siddipet	1,008	1,008	1,008	953	951	952
19	Jangaon	1,004	956	997	929	978	935
20	Yadadri Bhuvanagiri	974	974	974	918	943	922
21	Medchal Malkajgiri	933	960	957	940	934	934
22	Hyderabad	-	954	954	-	914	914
23	Rangareddy	952	950	950	925	924	925
24	Vikarabad	1,000	1,001	1,000	944	948	945
25	Mahabubnagar	989	985	988	933	936	934
26	Jogulamba Gadwal	972	978	972	930	974	933
27	Wanaparthy	961	951	960	899	924	903
28	Nagarkurnool	969	958	968	905	945	909
29	Nalgonda	974	992	978	911	941	917
30	Suryapet	992	1,017	996	933	945	935
31	Khammam	1,000	1,023	1,005	948	938	946
32	Mulug	1,017	990	1,015	969	1,019	971
33	Narayanpet	1,008	1,017	1,008	953	891	949
	State	**999**	**970**	**988**	**934**	**930**	**932**

Source: Registrar General and Census Commissioner, India.

Literate Population (7 Years and above) by Districts, 2011 Census

S. No.	District	Total Literates (Nos.)			Rural Literates (Nos.)			Urban Literates (Nos.)		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
1	Adilabad	2,28,689	1,65,802	3,94,491	1,64,470	1,13,386	2,77,856	64,219	52,416	1,16,635
2	Kumuram Bheem	1,47,911	1,07,091	2,55,002	1,14,535	78,824	1,93,359	33,376	28,267	61,643
3	Mancherial	2,69,729	2,02,127	4,71,856	1,34,794	96,600	2,31,394	1,34,935	1,05,527	2,40,462
4	Nirmal	2,10,021	1,51,977	3,61,998	1,55,234	1,07,864	2,63,098	54,787	44,113	98,900
5	Nizamabad	5,04,933	3,95,503	9,00,436	3,34,248	2,49,189	5,83,437	1,70,685	1,46,314	3,16,999
6	Jagtial	3,08,880	2,30,408	5,39,288	2,25,757	1,63,278	3,89,035	83,123	67,130	1,50,253
7	Peddapalli	2,67,654	2,08,055	4,75,709	1,52,684	1,15,852	2,68,536	1,14,970	92,203	2,07,173
8	Jayashankar	1,29,026	93,906	2,22,932	1,12,539	80,672	1,93,211	16,487	13,234	29,721
9	Bhadradri Ko-thagudem	3,51,411	2,87,288	6,38,699	2,22,077	1,73,979	3,96,056	1,29,334	1,13,309	2,42,643
10	Mahabubabad	2,29,809	1,66,389	3,96,198	2,00,619	1,41,311	3,41,930	29,190	25,078	54,268
11	Warangal Rural	2,48,397	1,81,575	4,29,972	1,60,659	1,12,676	2,73,335	87,738	68,899	1,56,637
12	Warangal Urban	3,98,182	3,17,376	7,15,558	1,66,533	1,21,418	2,87,951	2,31,649	1,95,958	4,27,607
13	Karimnagar	3,57,364	2,76,616	6,33,980	2,32,177	1,69,586	4,01,763	1,25,187	1,07,030	2,32,217
14	Rajanna Sircilla	1,82,946	1,32,665	3,15,611	1,38,476	98,230	2,36,706	44,470	34,435	78,905
15	Kamareddy	2,83,542	2,03,017	4,86,559	2,37,197	1,64,145	4,01,342	46,345	38,872	85,217
16	Sangareddy	4,95,096	3,59,497	8,54,593	2,91,040	1,97,667	4,88,707	2,04,056	1,61,830	3,65,886
17	Medak	2,22,678	1,54,673	3,77,351	2,01,412	1,36,379	3,37,791	21,266	18,294	39,560
18	Siddipet	3,26,013	2,33,560	5,59,573	2,72,345	1,90,026	4,62,371	53,668	43,534	97,202
19	Jangaon	1,72,009	1,25,480	2,97,489	1,42,923	1,02,772	2,45,695	29,086	22,708	51,794
20	Yadadri Bhuvanagiri	2,63,588	1,87,376	4,50,964	2,15,119	1,49,008	3,64,127	48,469	38,368	86,837
21	Medchal-Malkajgiri	9,68,890	8,22,812	17,91,702	75,017	54,495	1,29,512	8,93,873	7,68,317	16,62,190
22	Hyderabad	15,42,688	13,49,467	28,92,155	-	-	-	15,42,688	13,49,467	28,92,155
23	Rangareddy	8,59,096	6,70,849	15,29,945	3,21,466	2,17,056	5,38,522	5,37,630	4,53,793	9,91,423
24	Vikarabad	2,78,403	2,00,314	4,78,717	2,32,741	1,61,588	3,94,329	45,662	38,726	84,388
25	Mahabubnagar	2,79,816	2,02,393	4,82,209	1,75,945	1,15,655	2,91,600	1,03,871	86,738	1,90,609
26	Jogulamba Gadwal	1,59,704	1,02,751	2,62,455	1,37,276	85,307	2,22,583	22,428	17,444	39,872
27	Wanaparthy	1,68,792	1,12,539	2,81,331	1,33,446	85,361	2,18,807	35,346	27,178	62,524
28	Nagarkurnool	2,47,538	1,62,621	4,10,159	2,13,365	1,36,622	3,49,987	34,173	25,999	60,172
29	Nalgonda	5,34,573	3,81,169	9,15,742	3,87,059	2,57,677	6,44,736	1,47,514	1,23,492	2,71,006
30	Suryapet	3,62,596	2,71,717	6,34,313	2,94,818	2,11,866	5,06,684	67,778	59,851	1,27,629
31	Khammam	4,62,275	3,70,045	8,32,320	3,37,475	2,56,787	5,94,262	1,24,800	1,13,258	2,38,058
32	Mulugu	94,549	70,766	1,65,315	90,326	67,401	1,57,727	4,223	3,365	7,588
33	Narayanpet	1,44,931	97,225	2,42,156	1,30,402	85,223	2,15,625	14,529	12,002	26,531
	Total	1,17,01,729	89,95,049	2,06,96,778	64,04,174	44,97,900	1,09,02,074	52,97,555	44,97,149	97,94,704

Source: Registrar General and Census Commissioner, India.

Literacy Rates by Districts, 2011 Census

S. No.	District	Total Literacy Rate			Rural Literacy Rate			Urban Literacy Rate		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
1	Adilabad	73.48	53.40	63.46	69.64	47.92	58.77	85.58	70.95	78.32
2	Kumuram Bheem	65.99	47.50	56.72	61.73	42.35	52.02	86.47	71.88	79.11
3	Mancherial	72.96	55.59	64.35	65.76	47.33	56.56	81.92	66.15	74.16
4	Nirmal	69.03	47.14	57.77	65.31	42.21	53.34	82.30	66.01	74.14
5	Nizamabad	74.08	54.95	64.25	69.92	48.65	58.92	83.84	70.49	77.10
6	Jagitial	70.56	50.35	60.23	66.51	45.57	55.76	84.52	67.64	76.04
7	Peddapalli	73.74	57.42	65.59	68.77	51.57	60.12	81.56	66.96	74.35
8	Jayashankar	68.72	49.35	58.97	67.04	47.08	56.95	82.87	69.93	76.56
9	Bhadradri Kothagudem	73.56	59.33	66.40	67.89	52.90	60.38	85.86	72.95	79.31
10	Mahabubabad	66.52	47.81	57.13	64.35	45.19	54.75	86.70	71.02	78.67
11	Warangal	74.74	54.41	64.55	69.80	48.69	59.21	85.87	67.37	76.61
12	Hanumakonda	82.63	65.65	74.13	73.72	53.10	63.35	90.50	76.93	83.73
13	Karimnagar	77.94	60.38	69.16	72.80	52.99	62.88	89.69	77.51	83.63
14	Rajanna Sircilla	73.47	52.17	62.71	70.48	48.84	59.53	84.65	64.78	74.66
15	Kamareddy	67.37	46.13	56.51	64.63	42.73	53.43	86.10	69.53	77.65
16	Sangareddy	73.01	54.83	64.07	66.15	45.88	56.12	85.70	71.97	79.03
17	Medak	67.51	45.15	56.12	66.13	43.22	54.47	84.18	67.58	75.59
18	Siddipet	72.30	51.08	61.61	69.98	48.16	58.99	86.87	69.47	78.10
19	Jangaon	71.38	51.86	61.60	68.73	48.83	58.72	88.12	72.16	80.33
20	Yadadri Bhuvanagiri	75.51	54.76	65.24	73.29	51.77	62.63	87.27	70.65	79.05
21	Medchal Malkajgiri	87.43	77.31	82.48	78.25	60.99	69.93	88.30	78.81	83.65
22	Hyderabad	86.99	79.35	83.25	-	-	-	86.99	79.35	83.25
23	Rangareddy	78.87	64.55	71.88	69.98	49.46	59.96	85.36	75.59	80.59
24	Vikarabad	67.48	48.15	57.78	65.07	44.81	54.90	83.16	69.95	76.53
25	Mahabubnagar	70.81	51.40	61.12	63.56	41.85	52.71	87.78	73.88	80.86
26	Jogulamba Gadwal	60.05	39.48	49.87	57.72	36.65	47.30	79.67	63.30	71.57
27	Wanaparthy	65.73	45.27	55.67	62.19	40.98	51.74	83.70	67.45	75.77
28	Nagarkurnool	64.85	43.64	54.38	62.38	40.84	51.73	86.17	68.28	77.41
29	Nalgonda	73.90	53.46	63.75	69.32	47.00	58.26	89.38	74.95	82.17
30	Suryapet	73.39	54.85	64.11	70.58	50.80	60.70	88.76	76.44	82.52
31	Khammam	73.69	58.31	65.95	69.32	52.45	60.86	88.82	78.06	83.35
32	Mulugu	71.95	52.77	62.26	71.62	52.30	61.86	79.65	64.29	72.02
33	Narayanpet	60.29	39.72	49.91	58.65	37.70	48.09	80.47	64.18	72.18
	State	**75.04**	**57.99**	**66.54**	**67.56**	**47.12**	**57.30**	**86.65**	**75.39**	**81.09**

Source: Registrar General and Census Commissioner, India.

Working Population by Districts, 2011 Census (in No.s)

S. No.	District	Total Population	Cultivators	Agricultural Lobourers	Workers in Household Industry	Other Workers	Total Workers	% Working Population
1	Adilabad	7,08,972	1,26,363	1,19,664	10,313	92,781	3,49,121	49.2
2	Kumuram Bheem	5,15,812	88,045	99,667	7,490	57,799	2,53,001	49.0
3	Mancherial	8,07,037	45,831	1,48,377	8,423	1,42,154	3,44,785	42.7
4	Nirmal	7,09,418	1,03,498	1,17,204	58,435	97,623	3,76,760	53.1
5	Nizamabad	15,71,022	1,44,090	2,31,941	1,26,712	2,59,823	7,62,566	48.5
6	Jagitial	9,88,913	1,11,866	1,78,654	89,940	1,57,870	5,38,330	54.4
7	Peddapalli	7,91,836	45,594	1,58,843	8,164	1,30,719	3,43,320	43.4
8	Jayashankar	4,16,763	51,785	1,30,897	2,993	35,356	2,21,031	53.0
9	Bhadradri Ko-thagudem	10,69,261	89,435	2,62,753	8,446	1,56,477	5,17,111	48.4
10	Mahabubabad	7,74,549	1,22,597	2,04,458	7,427	73,002	4,07,484	52.6
11	Warangal	7,37,148	80,658	1,59,416	8,825	1,13,508	3,62,407	49.2
12	Hanumakonda	10,62,247	62,040	1,61,987	14,881	2,14,937	4,53,845	42.7
13	Karimnagar	10,05,711	78,516	1,86,363	18,694	1,80,347	4,63,920	46.1
14	Rajanna Sircilla	5,52,037	66,751	1,01,737	46,647	83,528	2,98,663	54.1
15	Kamareddy	9,72,625	1,33,267	2,13,224	44,358	1,03,332	4,94,181	50.8
16	Sangareddy	15,28,903	1,09,789	2,99,375	17,234	2,62,362	6,88,760	45.0
17	Medak	7,66,153	1,29,391	1,62,442	15,811	77,562	3,85,206	50.3
18	Siddipet	10,12,065	1,56,467	1,71,665	40,520	1,40,911	5,09,563	50.3
19	Jangaon	5,34,991	80,477	1,20,447	7,462	62,386	2,70,772	50.6
20	Yadadri Bhuvanagiri	7,70,833	67,500	1,57,672	17,038	1,31,864	3,74,074	48.5
21	Medchal Malkajgiri	24,60,095	26,675	44,980	38,872	8,54,205	9,64,732	39.2
22	Hyderabad	39,43,323	28,308	23,029	46,157	13,15,803	14,13,297	35.8
23	Rangareddy	24,26,243	1,65,705	2,13,624	29,544	6,13,768	10,22,641	42.1
24	Vikarabad	9,46,109	1,69,562	1,95,455	10,957	1,04,202	4,80,176	50.8
25	Mahabubnagar	9,05,660	96,949	1,67,858	14,694	1,55,407	4,34,908	48.0
26	Jogulamba Gadwal	6,09,990	85,048	1,83,459	8,441	51,138	3,28,086	53.8
27	Wanaparthy	5,77,758	60,914	1,44,713	8,749	81,773	2,96,149	51.3
28	Nagarkurnool	8,61,766	1,54,560	1,90,030	9,633	1,02,539	4,56,762	53.0
29	Nalgonda	16,18,416	1,58,951	3,89,621	19,633	2,37,886	8,06,091	49.8
30	Suryapet	10,99,560	98,773	3,15,838	8,453	1,38,464	5,61,528	51.1
31	Khammam	14,01,639	95,769	4,14,250	9,198	1,85,512	7,04,729	50.3
32	Mulugu	2,94,671	35,561	1,05,511	2,042	19,704	1,62,818	55.3
33	Narayanpet	5,62,148	80,654	1,39,997	10,343	64,131	2,95,125	52.5
	Total	**3,50,03,674**	**31,51,389**	**59,15,151**	**7,76,529**	**64,98,873**	**1,63,41,942**	**46.7**

Source: Registrar General and Census Commissioner, India.

Pattern of Land Utilisation from 2008-09 to 2020-21 (Area in Lakh Hects.)

Year	Forest	Barren and Uncultivable Land	Land put to Non-Agricultural Uses	Culturable Waste	Permanent Pastures and Other Grazing Lands	Misc. Tree Crops and Groves not included in Net Area Sown	Current Fallow	Other Fallow Lands	Net Area Sown	Geographical Area
2008-09	27.43	6.26	8.19	1.71	3.09	1.16	16.79	7.88	42.33	114.84
2009-10	27.43	6.18	8.24	1.70	3.08	1.16	19.38	8.08	39.59	114.84
2010-11	27.43	6.17	8.71	1.67	3.03	1.14	13.97	7.80	44.92	114.84
2011-12	27.43	6.17	8.82	1.65	3.02	1.14	12.36	8.26	45.99	114.84
2012-13	27.43	6.17	8.86	1.74	3.02	1.14	12.03	7.91	46.54	114.84
2013-14	25.40	6.07	8.81	1.77	3.00	1.12	9.51	7.17	49.23	112.08
2014-15	25.40	6.07	8.85	1.82	2.99	1.12	14.01	8.05	43.77	112.08
2015-16	25.40	6.07	8.92	1.82	2.99	1.12	15.79	8.22	41.75	112.08
2016-17	26.98	6.07	8.52	1.82	2.99	1.12	10.15	6.69	47.74	112.08
2017-18	26.98	6.07	8.34	1.82	2.99	1.12	9.16	6.62	48.98	112.08
2018-19	26.98	6.07	8.36	1.80	2.99	1.12	10.65	7.51	46.60	112.08
2019-20	26.98	6.07	8.36	1.63	2.82	1.12	4.44	5.66	55.00	112.08
2020-21	27.68	6.07	8.36	1.16	2.80	0.84	2.10	3.80	59.27	112.08

Source: Directorate of Economics and Statistics, Hyderabad.

Rainfall by Seasons from 1990-91 to 2021-22 (in mm)

S. No.	Year	South-West Monsoon (June to September)		North-East Monsoon (October to December)		Winter Period (January to February)		Hot Weather Period (March to May)		Total	
		Actual	% Dev. over normal	Actual	% Dev. over normal	Actual	% Dev. over normal	Actual	% Dev. over normal	Actual	% Dev. over normal
	Normal	**715.1**		**129.2**		**11.5**		**50.8**		**906.6**	
1	1990-91	653.1	-8.7	140.5	8.7	6.9	-40.0	31.1	-38.8	831.6	-8.3
2	1991-92	578.1	-19.2	50.5	-60.9	1.2	-89.6	14.9	-70.7	644.7	-28.9
3	1992-93	489.6	-31.5	82.5	-36.1	0.0	-100.0	43.3	-14.8	615.4	-32.1
4	1993-94	480.3	-32.8	106.5	-17.6	7.2	-37.4	16.7	-67.1	610.7	-32.6
5	1994-95	436.1	-39.0	166.1	28.6	39.5	243.5	49.7	-2.2	691.4	-23.7
6	1995-96	512.6	-28.3	240.3	86.0	1.3	-88.7	21.9	-56.9	776.1	-14.4
7	1996-97	643.5	-10.0	95.4	-26.2	13.4	16.5	52.1	2.6	804.5	-11.3
8	1997-98	481.3	-32.7	126.5	-2.1	12.3	7.0	26.6	-47.6	646.7	-28.7
9	1998-99	745.1	4.2	78.4	-39.3	4.7	-59.1	46.5	-8.5	874.7	-3.5
10	1999-2K	574.3	-19.7	37.6	-70.9	6.7	-41.7	33.4	-34.3	652.0	-28.1
11	2000-01	827.1	15.7	23.1	-82.1	3.3	-71.3	37.4	-26.4	890.9	-1.7
12	2001-02	582.3	-18.6	134.8	4.3	19.0	65.2	32.6	-35.8	768.8	-15.2
13	2002-03	488.3	-31.7	86.0	-33.4	2.7	-76.5	23.9	-53.0	600.9	-33.7
14	2003-04	672.6	-5.9	103.0	-20.3	29.7	158.3	50.4	-0.8	855.8	-5.6
15	2004-05	455.8	-36.3	76.4	-40.9	37.4	225.2	44.4	-12.6	614.0	-32.3
16	2005-06	808.2	13.0	172.3	33.4	0.0	-100.0	137.1	169.9	1117.6	23.3
17	2006-07	728.9	1.9	65.4	-49.4	0.6	-94.8	9.4	-81.5	804.2	-11.3
18	2007-08	734.6	2.7	61.6	-52.3	19.6	70.4	124.2	144.5	940.0	3.7
19	2008-09	755.2	5.6	38.6	-70.1	0.0	-100.0	27.1	-46.7	820.9	-9.5
20	2009-10	494.9	-30.8	122.0	-5.6	18.8	63.5	46.1	-9.3	681.7	-24.8
21	2010-11	894.4	25.1	152.6	18.1	10.1	-12.2	43.7	-14.0	1100.8	21.4
22	2011-12	601.1	-15.9	24.0	-81.4	8.0	-30.4	27.5	-45.9	660.6	-27.1
23	2012-13	707.2	-1.1	141.8	9.8	34.5	200.0	33.3	-34.4	916.8	1.1
24	2013-14	851.5	19.1	243.2	88.2	1.3	-88.7	116.2	128.7	1212.2	33.7
	Normal	**713.5**		**129.5**		**11.5**		**50.8**		**905.3**	
25	2014-15	494.7	-30.7	54.4	-58.0	13.0	13.0	120.0		682.1	-24.7
26	2015-16	611.2	-14.3	27.5	-78.8	1.5	-87.0	76.9	51.4	717.1	-20.8
	Normal	**712.9**		**127.1**		**11.4**		**49.8**		**901.2**	
27	2016-17	912.1	27.9	70.9	-44.2	0.0	-100.0	35.6	-28.5	1018.6	13.0
	Normal	**719.3**		**126.1**		**11.8**		**48.8**		**906.0**	
28	2017-18	647.2	-10.0	129.5	2.7	2.4	-79.7	61.4	25.8	840.5	-7.2
29	2018-19	661.1	-8.1	37.4	-70.3	23.7	100.8	26.3	-46.1	748.4	-17.4
	Normal	**720.4**		**124.9**		**11.5**		**48.6**		**905.4**	
30	2019-20	791.4	10.0	173.1	38.6	15.4	34.0	52.8	9.0	1032.6	14.0
31	2020-21	1078.3	49.7	179.4	43.6	4.3	-62.6	60.5	24.5	1322.5	46.0
	Normal	**721.2**		**124.9**		**11.4**		**48.6**		**906.1**	
32	2021-22	1009.6	40.0	93.1	-25.0	35.9	215.0	42.2	-13.0	1180.8	30.0
33	2022-23*	1098.8	52.0	125.7	1.0						

Source: Directorate of Economics and Statistics, Telangana. Note: * Rainfall data upto December 2022.

Area Sown and Production of Foodgrains from 1990-91 to 2021-22

Sl. No.	Year	Area (Lakh Hects)	Production (Lakh Tonnes)
1	1990-91	34.10	48.19
2	1991-92	32.33	43.21
3	1992-93	28.39	39.08
4	1993-94	28.03	39.90
5	1994-95	27.76	41.60
6	1995-96	27.73	39.79
7	1996-97	30.56	53.06
8	1997-98	25.90	35.25
9	1998-99	32.47	60.94
10	1999-00	30.77	52.48
11	2000-01	33.39	64.63
12	2001-02	29.64	55.32
13	2002-03	26.67	39.48
14	2003-04	29.93	57.99
15	2004-05	24.97	41.68
16	2005-06	31.31	75.29
17	2006-07	30.81	65.22
18	2007-08	30.09	81.34
19	2008-09	31.72	82.48
20	2009-10	26.49	51.90
21	2010-11	34.44	92.60
22	2011-12	31.09	75.01
23	2012-13	28.36	82.42
24	2013-14	34.30	106.86
25	2014-15	26.13	72.18
26	2015-16	21.80	51.45
27	2016-17	34.39	101.29
28	2017-18	32.45	96.20
29	2018-19	30.56	92.75
30	2019-20	44.81	162.35
31	2020-21	52.79	171.75
32	2021-22	51.60	172.02

Source: Directorate of Economics and Statistics, Telangana.

Estimates of Area, Production and Yield of Total Foodgrains by States, 2020-21

State/UT	Area ('000 Hectares)	Rank	Production ('000 Tonnes)	Rank
Uttar Pradesh	19,933.00	1	58,106.92	1
Madhya Pradesh	15,014.00	3	32,844.23	2
Punjab	6,604.50	7	30,418.34	3
Rajasthan	15,556.35	2	24,282.31	4
West Bengal	6,612.34	6	20,004.64	5
Haryana	4,595.14	11	18,309.50	6
Maharashtra	11,345.88	4	15,766.09	7
Bihar	6,359.43	8	15,382.59	8
Karnataka	8,235.11	5	14,550.07	9
Telangana	4,145.10	13	12,745.62	10
Andhra Pradesh	4,074.50	14	11,299.04	11
Tamil Nadu	3,819.58	15	10,823.62	12
Odisha	4,978.46	9	9,523.56	13
Gujarat	4,230.29	12	8,973.93	14
Chhattisgarh	4,804.45	10	8,225.52	15
Assam	2,558.24	17	5,487.51	16
Jharkhand	2,811.02	16	4,871.69	17
Uttarakhand	809.00	19	2,001.84	18
Jammu & Kashmir	841.89	18	1,594.95	19
Himachal Pradesh	727.03	20	1,535.51	20
Tripura	313.56	22	867.64	21
Manipur	284.71	23	697.09	22
Kerala	207.66	25	636.38	23
Nagaland	342.60	21	570.24	24
Arunachal Pradesh	229.04	24	377.07	25
Meghalaya	137.48	26	353.33	26
Delhi	29.70	30	111.79	27
Sikkim	54.74	27	91.75	28
Goa	36.52	29	91.09	29
Mizoram	46.48	28	80.68	30
Puducherry	19.33	31	50.70	31
D & N Haveli	16.70	32	34.34	32
A & N Islands	6.94	34	13.72	33
UT of Ladakh	11.69	33	11.96	34
Daman & Diu	1.93	35	3.55	35
Chandigarh	0.63	36	2.92	36
All India	**1,29,795.01**		**3,10,741.74**	

Estimates of Area, Production and Yield of Cotton by States, 2020-21

State/UT	Area		Production		Yield	
	('000 Hectares)	Rank	('000 bales of 170 kgs. each)	Rank	(Kg./Hectare)	Rank
Maharashtra	4,544.60	1	10,105.05	1	378	14
Gujarat	2,270.50	3	7,212.18	2	540	6
Telangana	2,358.00	2	5,797.91	3	418	12
Rajasthan	807.84	5	3,207.59	4	675	3
Karnataka	820.00	4	2,320.12	5	481	8
Haryana	739.60	6	1,822.90	6	419	11
Andhra Pradesh	606.00	7	1,600.55	7	449	9
Madhya Pradesh	588.00	8	1,338.56	8	387	13
Punjab	251.60	9	1,022.68	9	691	2
Odisha	171.24	10	550.99	10	547	5
Tamil Nadu	112.05	11	243.21	11	369	15
Meghalaya	7.24	12	8.65	12	203	19
Chhattisgarh	4.20	13	8.40	13	340	17
Uttar Pradesh	3.00	14	6.46	14	366	16
Tripura	0.61	16	0.94	15	265	18
West Bengal	0.30	18	0.87	16	501	7
Puducherry	0.33	17	0.83	17	425	10
Assam	0.76	15	0.39	18	88	20
Kerala	0.01	20	0.03	19	1,156	1
Nagaland	0.01	21	0.02	20	600	4
Mizoram	0.02	19	0.01	21	78	21
All India	**13,286**		**35,248**		**451**	

Estimates of Area, Production and Yield of Rice by States, 2020-21

State/UT	Area		Production		Yield	
	('000 Hectares)	Rank	('000 Tonnes)	Rank	(Kg./Hectare)	Rank
West Bengal	5,585.63	2	16,524.44	1	2,958	11
Uttar Pradesh	5,678.00	1	15,520.02	2	2,733	16
Punjab	2,928.00	7	12,783.65	3	4,366	2
Telangana	3,186.40	5	10,217.13	4	3,206	6
Odisha	4,038.24	3	8,810.30	5	2,182	22
Andhra Pradesh	2,323.50	9	7,882.86	6	3,393	3
Chhattisgarh	3,791.00	4	7,161.20	7	1,889	31
Tamil Nadu	2,036.24	11	6,881.16	8	3,379	4
Bihar	3,020.86	6	6,746.99	9	2,233	20
Assam	2,360.47	8	5,214.76	10	2,209	21
Haryana	1,327.20	15	4,424.88	11	3,334	5
Madhya Pradesh	2,117.00	10	4,413.79	12	2,085	26
Karnataka	1,397.10	14	4,291.75	13	3,072	9
Maharashtra	1,560.57	12	3,291.66	14	2,109	25
Jharkhand	1,411.00	13	2,752.86	15	1,951	30
Gujarat	906.63	16	2,145.70	16	2,367	19
Tripura	263.79	18	803.12	17	3,045	10
Uttarakhand	254.00	19	714.88	18	2,814	12
Rajasthan	231.47	20	634.00	19	2,739	15
Kerala	205.04	23	633.77	20	3,091	8
Manipur	225.77	21	602.15	21	2,667	18
Jammu & Kashmir	267.58	17	581.45	22	2,173	23
Nagaland	218.81	22	367.39	23	1,679	35
Meghalaya	107.60	25	295.85	24	2,750	14
Arunachal Pradesh	133.77	24	247.08	25	1,847	33
Himachal Pradesh	68.46	26	140.47	26	2,052	28
Goa	32.68	28	87.34	27	2,673	17
Mizoram	35.25	27	62.19	28	1,764	34
Puducherry	18.15	29	50.01	29	2,756	13
D & N Haveli	15.85	30	32.94	30	2,078	27
Delhi	6.17	33	19.75	31	3,200	7
Sikkim	8.70	31	16.19	32	1,861	32
A & N Islands	6.26	32	13.34	33	2,133	24
Daman & Diu	1.43	34	2.80	34	1,956	29
Chandigarh	0.08	35	0.44	35	5,500	1
All India	**45,768.69**		**1,24,368.32**		**2,717**	

State-wise Production of Oil Palm Fresh Fruit Bunches and Crude Palm Oil for the year 2020-21 (Production in Metric Tonnes)

S.No.	State	Fresh fruit Bunches	Crude Palm Oil
1	Andhra Pradesh	14,71,521	2,37,900
2	Telangana	1,49,488	26,690
3	Kerala	27,627	4,281
4	Karnataka	15,877	2,734
5	Mizoram	10,563	-
6	Gujarat	7,425	-
7	Tamilnadu	3,038	429
8	Assam	2,200	-
9	Goa	1,717	305
10	Nagaland	280	-
11	Chhattisgarh	6	-
12	Odisha	0	-

Source : Agriculture Statistics at a Glance 2021,MoAFW, GoI

Note : Figures are provisional

Livestock and Poultry Population by Districts, 2019 Census (in Lakhs)

S.No.	District	Cattle	Buffaloes	Sheep	Goat	Pigs	Others	Total Livestock	Dogs	Rabbits	Poultry
1	Adilabad	3.11	0.49	1.53	1.86	0.02	0.00	7.02	0.05	0.00	5.54
2	Kumuram Bheem	2.64	0.49	1.61	2.60	0.01	0.00	7.35	0.01	0.01	4.56
3	Mancherial	1.80	1.06	5.21	1.84	0.02	0.00	9.92	0.08	0.00	8.68
4	Nirmal	1.79	1.21	5.03	1.32	0.03	0.00	9.38	0.09	0.00	5.01
5	Nizamabad	1.01	2.07	7.36	1.57	0.02	0.00	12.02	0.04	0.00	17.20
6	Jagtial	0.47	1.24	6.11	0.97	0.15	0.00	8.95	0.03	0.00	8.67
7	Peddapalli	0.56	0.91	5.49	0.96	0.04	0.00	7.96	0.04	0.00	10.70
8	Jayashankar	0.69	0.63	2.92	0.81	0.01	-	5.06	0.02	0.00	4.22
9	Bhadradri Ko-thagudem	2.84	1.72	2.67	2.56	0.03	0.00	9.82	0.26	0.00	16.11
10	Mahabubabad	1.82	1.30	6.78	1.78	0.08	0.00	11.75	0.11	0.00	11.09
11	Warangal Rural	0.81	1.11	6.12	0.97	0.08	0.00	10.56	0.03	0.00	19.17
12	Warangal Urban	0.49	0.76	5.08	0.62	0.09	0.00	5.56	0.07	0.00	9.83
13	Karimnagar	0.82	0.95	6.39	0.93	0.07	0.00	9.16	0.07	0.03	21.68
14	Rajanna Sircilla	0.44	0.73	3.88	0.88	0.03	0.00	5.96	0.03	0.00	7.44
15	Kamareddy	1.12	1.81	5.74	1.68	0.06	0.01	10.41	0.07	0.00	13.75
16	Sangareddy	1.54	1.65	4.39	2.29	0.06	0.01	9.94	0.14	0.00	12.41
17	Medak	0.89	1.90	6.37	1.53	0.05	0.00	10.73	0.18	0.00	24.58
18	Siddipet	1.27	1.78	8.01	1.83	0.09	0.00	12.98	0.03	0.01	91.37
19	Jangaon	1.02	1.20	6.17	1.15	0.03	0.00	10.46	0.02	0.00	7.25
20	Yadadri Bhuvanagiri	1.10	1.69	7.16	1.60	0.03	0.01	10.64	0.07	0.01	45.41
21	Medchal-Malkajgiri	0.27	0.60	1.49	0.40	0.02	0.00	2.79	0.52	0.00	39.58
22	Hyderabad	0.16	0.23	0.13	0.34	0.00	0.01	0.87	0.51	0.03	0.25
23	Rangareddy	2.41	1.67	7.67	2.57	0.06	0.02	14.39	0.27	0.03	240.70
24	Vikarabad	1.76	0.83	2.47	2.61	0.10	0.00	7.55	0.04	0.00	5.41
25	Mahabubnagar	1.35	0.97	9.99	1.49	0.09	0.00	14.11	0.10	0.00	23.61
26	Jogulamba Gadwal	0.75	0.58	5.75	0.67	0.05	0.00	7.83	0.02	0.00	14.80
27	Wanaparthy	0.75	0.73	9.77	0.81	0.09	0.00	12.14	0.08	0.00	7.66
28	Nagarkurnool	2.23	1.12	9.68	2.06	0.11	0.00	15.21	0.14	0.00	27.70
29	Nalgonda	2.03	3.08	10.95	3.36	0.07	0.00	19.54	0.12	0.00	44.30
30	Suryapet	0.95	2.90	7.79	1.40	0.03	0.00	13.07	0.08	0.00	20.03
31	Khammam	1.41	3.75	6.67	1.90	0.06	0.00	13.79	0.13	0.00	21.59
32	Mulugu	0.99	0.61	1.29	0.75	0.01	-	3.65	0.04	0.00	5.14
33	Narayanpet	1.01	0.50	12.96	1.26	0.12	0.00	15.83	0.06	0.00	4.57
	Total	**42.33**	**42.26**	**190.63**	**49.35**	**1.78**	**0.06**	**326.41**	**3.55**	**0.15**	**799.99**

Source : Director of Animal Husbandry , Telangana.

Fish and Prawn Production from 2008-09 to 2021-22

S.No.	Year	Inland Fish Production (Tonnes)	Fresh Water Prawn Production (Tonnes)	Total
1	2008-09	1,49,049	2,242	1,51,291
2	2009-10	1,33,613	2,008	1,35,621
3	2010-11	1,33,587	2,206	1,35,793
4	2011-12	1,96,708	3,774	2,00,482
5	2012-13	2,14,591	5,037	2,19,628
6	2013-14	2,43,037	6,596	2,49,633
7	2014-15	2,60,010	8,352	2,68,362
8	2015-16	2,28,185	8,567	2,36,752
9	2016-17	1,93,732	5,189	1,98,921
10	2017-18	2,62,252	7,783	2,70,035
11	2018-19	2,84,211	9,998	2,94,209
12	2019-20	2,99,869	10,453	3,10,322
13	2020-21	3,37,117	11,734	3,48,851
14	2021-22	3,76,142	13,827	3,89,969

Source: Commissioner of Fisheries, Hyderabad.

33. Production of Milk, Meat and Eggs from 2013-14 to 2021-22

S.No.	Year	Milk (in '000 Tonnes)	Meat including Chicken (in '000 Tonnes)	Eggs (in Lakh Nos.)
1	2013-14	3,924.14	230.29	1,00,605.98
2	2014-15	4,207.26	505.05	1,06,185.33
3	2015-16	4,442.45	542.05	1,12,058.23
4	2016-17	4,681.09	591.04	1,18,186.35
5	2017-18	4,965.37	645.03	1,26,700.02
6	2018-19	5,416.13	754.06	1,36,868.43
7	2019-20	5,590.21	848.16	1,48,055.17
8	2020-21	5,765.19	920.25	1,58,469.75
9	2021-22	6,099.97	1,014.73	1,72,506.12

Source : Director of Animal Husbandry , Telangana.

Mineral Production and Value of Mineral Produced, 2020-21 and 2021-22

S.No.	Mineral	Unit	2020-21		2021-22	
			Production	Value (Rs. in '000)	Production	Value (Rs. in '000)
I. Major Minerals						
1	Coal	Tonnes	4,85,17,153	11,88,670.25	6,53,78,118	16,01,76,388.41
2	Lime Stone	Tonnes	2,39,93,360	80,617.69	2,84,04,124	1,17,02,498.96
3	Manganese Ore	Tonnes	11,735	718.77	10,522	62,755.47
4	Stowing Sand	Tonnes	8,38,494	1,165.51	5,46,198	83,022.10
6	Iron Ore	Tonnes	0	0.00	0	0.00
	Total			**12,71,172.21**		**17,20,24,664.94**
II. Minor Minerals						
1	Amethyst	Tonnes	0	0.00	0	0.00
2	Barytes	Tonnes	500	24.96	2,060	10,281.46
3	Dolomite	Tonnes	3,59,450	2,174.67	6,08,698	3,68,262.29
4	Feldspar	Tonnes	6,70,106	3,206.46	7,29,646	3,49,500.48
5	Fire Clay	Tonnes	0	0.00	0	0.00
6	Latarite	Tonnes	36,02,917	12,682.27	53,59,405	18,86,510.42
7	Mica	Tonnes	1,500	525.00	-	-
8	Quartz	Tonnes	9,04,734	3,781.79	12,28,337	5,13,444.87
9	Silica Sand	Tonnes	0	0.00	0	0.00
10	Shale	Tonnes	21,350	38.75	25,700	5,654.00
11	White Clay	Tonnes	37,215	112.58	34,850	7,667.00
12	Yellow Ochre	Tonnes	0	0.00	0	0.00
	Total			**22,546.47**		**31,41,320.52**
III. Other Minor Minerals						
1	Black Granite	M3	3,58,438	78,067.87	350210.00	88,98,832.77
2	Colour Granite	M3	8,38,963	2,13,180.40	7,61,663	1,65,89,026.02
3	Gravel / Earth	M3	8,01,10,611	3,68,348.59	6,56,35,879	1,56,86,975.19
4	Fuller's Earth	Tonnes	3,86,506	4,846.79	3,41,617	1,58,851.91
5	Lime Stone Slabs	M2	21,92,763	6,898.43	23,90,392	3,96,805.07
6	Limekankar	Tonnes	-	0.00	0	0.00
7	Mosaic Chips	Tonnes	1,67,008	1,533.96	2,06,715	33,694.55
8	Marble	Tonnes	-	0.00	0	0.00
9	Road Metal	M3	8,35,93,649	9,57,230.87	10,52,79,093	7,15,89,783.34
10	Ordinary Sand	M3	1,21,63,006	72,978.04	1,23,96,466	74,37,879.60
	Total			**17,03,084.95**		**12,07,91,848.45**
	Grand Total			**29,96,803.63**		**29,59,57,833.91**

Source: Director of Mines and Geology, Hyderabad.

Functioning of Fair Price Shops and Food Security cards by Districts, 2021-22

S.No.	District Name	No. of FP Shops	Annapurna Cards (AAP)	Anthyodaya Food Security Cards (AFSC)	Food Security Cards (FSC)	Total Cards
1	Adilabad	355	272	14,137	1,78,498	1,92,907
2	Kumuram Bheem	278	21	13,024	1,27,370	1,40,415
3	Mancherial	423	169	15,502	2,05,059	2,20,730
4	Nirmal	412	35	12,544	1,97,465	2,10,044
5	Nizamabad	751	1,092	21,046	3,82,977	4,05,115
6	Jagtial	587	146	14,483	2,95,916	3,10,545
7	Peddapalli	413	175	12,394	2,09,955	2,22,524
8	Jayashankar	277	39	9,332	1,14,800	1,24,171
9	Bhadradri Kothagudem	442	4	18,880	2,76,762	2,95,646
10	Mahabubabad	553	2	15,453	2,25,763	2,41,218
11	Warangal	509	8	13,483	2,54,279	2,67,770
12	Hanumakonda	414	25	11,352	2,17,995	2,29,372
13	Karimnagar	487	42	15,859	2,64,994	2,80,895
14	Rajanna Sircilla	344	234	13,691	1,61,559	1,75,484
15	Kamareddy	578	989	17,585	2,35,199	2,53,773
16	Sangareddy	845	104	27,178	3,53,085	3,80,367
17	Medak	521	75	13,908	2,02,620	2,16,603
18	Siddipet	683	93	18,817	2,74,475	2,93,385
19	Jangaon	335	96	10,674	1,52,091	1,62,861
20	Yadadri Bhuvanagiri	513	0	13,773	2,05,585	2,19,358
21	Medchal-Malkajgiri	636	110	18,371	5,05,934	5,24,415
22	Hyderabad	668	1,310	30,170	6,05,093	6,36,573
23	Rangareddy	919	43	35,256	5,24,591	5,59,890
24	Vikarabad	588	38	26,933	2,14,624	2,41,595
25	Mahabubnagar	506	219	19,120	2,21,284	2,40,623
26	Jogulamba Gadwal	333	136	10,208	1,50,293	1,60,637
27	Wanaparthy	324	114	10,015	1,47,254	1,57,383
28	Nagarkurnool	558	40	18,811	2,20,053	2,38,904
29	Nalgonda	991	67	30,155	4,37,553	4,67,775
30	Suryapet	610	42	19,874	3,05,866	3,25,782
31	Khammam	669	3	27,036	3,89,625	4,16,664
32	Mulugu	222	2	8,076	83,821	91,899
33	Narayanpet	298	30	9,511	1,30,676	1,40,217
	Total	**17,042**	**5,775**	**5,66,651**	**84,73,114**	**90,45,540**

Source : Commissioner , Civil Supplies, Telangana

Functioning of Anganwadi Centers by Districts, 2021-22

S.No.	District	Projects	Mandals Covered	No.of AWCs	No.of AWTs	Ayahs (Helpers)	No.of Children Enrolled
1	Adilabad	5	18	1,256	1,179	885	65,168
2	Kumuram Bheem	5	15	973	896	736	45,771
3	Mancherial	4	18	969	920	763	55,257
4	Nirmal	4	19	926	880	693	63,607
5	Nizamabad	5	29	1,500	1,477	1,255	1,29,631
6	Jagtial	4	18	1,065	1,044	926	72,014
7	Peddapalli	3	14	706	684	634	42,965
8	Jayashankar	2	11	644	413	370	29,550
9	Bhadradri Kothagudem	11	23	2,060	1,932	1,287	98,208
10	Mahabubabad	5	16	1,437	1,372	1,167	71,621
11	Warangal	3	16	919	853	691	65,222
12	Hanumakonda	3	11	788	739	632	56,531
13	Karimnagar	4	16	777	745	690	63,520
14	Rajanna Sircilla	2	13	587	570	500	42,605
15	Kamareddy	5	22	1,193	1,164	990	78,879
16	Sangareddy	5	26	1,504	1,459	1,149	1,32,819
17	Medak	4	20	1,076	1,024	751	72,204
18	Siddipet	5	22	1,150	1,095	969	70,785
19	Jangaon	3	12	695	676	622	33,179
20	Yadadri Bhuvanagiri	4	17	901	869	781	50,708
21	Medchal-Malkajgiri	3	15	793	745	621	1,81,843
22	Hyderabad	5	16	914	854	757	1,27,062
23	Rangareddy	7	27	1,600	1,581	1,308	1,50,544
24	Vikarabad	5	18	1,107	1,068	875	64,464
25	Mahabubnagar	4	15	1,185	1,132	945	63,370
26	Jogulamba Gadwal	3	12	713	670	575	55,834
27	Wanaparthy	3	14	589	570	517	34,250
28	Nagarkurnool	5	20	1,131	1,055	800	57,559
29	Nalgonda	9	31	2,093	2,012	1,709	1,04,580
30	Suryapet	5	23	1,209	1,155	1,018	68,728
31	Khammam	7	21	1,896	1,783	1,454	95,784
32	Mulugu	4	9	640	571	434	26,139
33	Narayanpet	3	11	704	687	575	52,609
Total		**149**	**588**	**35,700**	**33,874**	**28,079**	**24,23,007**

Source: Commissioner, Women Development and Child Welfare, Hyderabad.

Enrolment of Children in Schools from 2007-08 to 2021-22 (in No.s)

Year	Pre-Primary	I-V Classes	VI-VIII Classes	IX-X Classes	XI-XII Classes	Total
2007-08	4,19,329	33,58,789	18,10,849	9,67,072	4,035	65,60,074
2008-09	4,26,829	33,32,610	17,49,325	10,32,127	4,607	65,45,498
2009-10	2,55,699	33,28,545	16,92,809	10,45,235	11,023	63,33,311
2010-11	2,31,939	32,97,475	16,94,139	10,23,502	8,801	62,55,856
2011-12	2,25,741	32,56,509	17,25,626	10,15,125	11,063	62,34,064
2012-13	2,31,107	31,72,977	17,19,724	9,89,919	15,657	61,29,384
2013-14	1,83,223	32,06,958	17,38,259	10,25,861	24,194	61,78,495
2014-15	1,67,396	31,91,573	17,27,617	10,35,186	31,638	61,53,410
2015-16	94,892	32,46,976	17,58,209	10,58,128	33,577	61,91,782
2016-17	1,33,740	31,08,993	17,08,979	10,48,814	32,670	60,33,196
2017-18	1,51,672	30,78,186	17,03,766	10,54,358	48,554	60,36,536
2018-19	1,44,516	30,52,115	16,84,041	10,74,334	60,591	60,15,597

Year	Pre-Primary	Primary Schools I-V Classes	UPS (I-VII/VIII)	High Schools (I-X&VI-X)	Higher Secondary Schools (I-XII&VI-XII)	Total
2019-20*	NA	10,10,575	8,91,136	39,67,147	4,09,651	62,78,509
2020-21*	NA	9,79,573	8,89,464	39,46,999	4,65,345	62,81,381
2021-22*	NA	12,13,090	8,46,106	36,60,181	5,09,288	62,28,665

Source: Commissioner and Director of School Education, Educational Statistics Booklet, 2018-19
* Commissioner and Director of School Education

School Dropout Rates from 2012-13 to 2021-22

Year	Primary Level (I-V)			Elementary Level (I-VIII)			Secondary Level (I-X)		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
2012-13	24.28	24.56	24.42	33.98	31.35	32.69	42.71	41.59	42.16
2013-14	22.6	22.02	22.32	33.72	35.34	32.56	39.05	37.33	38.21
2014-15	19.52	18.95	19.25	31.93	30.31	31.14	38.76	36.31	37.56
2015-16	16.57	16.08	16.33	29.88	28.93	29.42	38.18	35.75	36.99
2016-17	18.85	18.08	18.48	33.15	31.46	32.33	38.89	36.89	37.92
2017-18	19.03	17.57	18.33	31.05	29.21	30.16	38.02	36.36	37.21
2018-19	15.95	15.55	15.76	30.00	28.70	29.37	35.80	33.43	34.65
2019-20	15.65	15.19	15.43	24.15	21.91	23.07	32.18	30.03	31.14
2020-21	7.38	7.35	7.37	21.10	19.35	20.26	28.59	27.56	28.09
2021-22	-	-	-0.54	-	-	3.14	-	-	13.74

Source : Commissioner and Director of School Education , Educational Statistics Booklet 2019-2020

Company wise Number of LPG connections by Districts, 2020-2021 and 2021-22 (in '000)

S. No.	District	2020-21				2021-22			
		IOCL	HPCL	BPCL	Total	IOCL	HPCL	BPCL	Total
1	Adilabad	32.7	118.8	43.3	194.9	33.0	127.6	44.2	204.8
2	Kumuram Bheem	25.1	78.1	24.2	127.4	25.6	81.5	25.3	132.4
3	Mancherial	97.0	63.7	84.1	244.8	97.9	67.1	85.6	250.6
4	Nirmal	126.1	54.3	23.9	204.4	127.9	56.6	24.4	208.9
5	Nizamabad	154.5	136.8	179.9	471.2	158.2	143.7	182.6	484.6
6	Jagtial	201.6	35.8	60.8	298.2	204.3	38.3	62.7	305.3
7	Peddapalli	173.0	7.4	34.1	214.6	174.9	9.1	34.7	218.7
8	Jayashankar	39.4	44.9	36.9	121.2	52.5	47.5	37.7	137.7
9	Mulugu	13.4	56.2	7.7	77.2	0.0	58.4	7.7	66.1
10	Bhadradri Kothagudem	49.6	269.1	32.1	350.8	50.3	278.6	32.9	361.8
11	Mahabubabad	48.7	63.3	46.5	158.5	47.5	64.3	48.1	159.9
12	Warangal Rural	93.6	28.7	61.1	183.4	96.6	52.6	63.1	212.4
13	Warangal Urban	100.4	118.5	169.6	388.5	100.7	104.3	173.9	378.9
14	Karimnagar	72.4	162.6	150.0	385.0	73.7	167.3	154.3	395.3
15	Rajanna Sircilla	89.2	28.6	25.8	143.6	89.9	29.9	26.0	145.8
16	Kamareddy	61.4	82.5	116.1	259.9	62.2	87.2	117.6	267.0
17	Sangareddy	187.9	177.1	114.9	479.9	193.2	188.6	118.1	500.0
18	Medak	35.4	85.5	87.0	207.9	36.3	90.5	88.0	214.9
19	Siddipet	126.6	109.4	75.9	312.0	128.4	113.6	77.8	319.8
20	Jangaon	30.1	35.9	78.7	144.6	30.7	36.8	80.5	147.9
21	Yadadri Bhuvanagiri	116.1	35.7	52.9	204.8	115.4	37.5	53.9	206.7
22	Medchal-Malkajgiri	519.5	681.7	200.0	1401.1	506.2	445.8	209.3	1161.2
23	Hyderabad	611.7	734.2	214.2	1560.2	627.5	760.5	217.6	1605.6
24	Rangareddy	572.9	131.3	175.5	879.7	620.3	424.4	185.3	1230.0
25	Vikarabad	113.2	60.2	38.7	212.0	117.7	62.6	40.4	220.6
26	Mahabubnagar	96.7	27.7	136.7	261.1	140.0	30.5	141.6	312.1
27	Narayanpet	52.7	26.4	42.2	121.4	14.4	28.5	43.2	86.1
28	Jogulamba Gadwal	44.2	121.6	2.7	168.5	45.3	125.1	3.0	173.4
29	Wanaparthy	49.0	7.6	70.0	126.5	50.0	8.1	71.1	129.2
30	Nagarkurnool	75.3	41.8	72.2	189.3	78.0	43.6	74.5	196.1
31	Nalgonda	191.1	186.1	100.9	478.1	193.1	192.9	103.0	489.0
32	Suryapet	230.7	35.2	62.1	328.0	229.8	37.2	62.8	329.8
33	Khammam	173.7	182.5	108.2	464.4	177.0	188.0	113.0	477.9
	Total	**4,605.0**	**4,029.4**	**2,728.9**	**11,363.3**	**4,698.6**	**4,228.1**	**2,803.7**	**11,730.4**

Source : Sr. Manager-SLC/TS, HPCL, Secunderabad.

Yadadri Thermal Power Plant

Warangal Super Speciality Hospital

Government of Telangana
Planning Department
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