INDIA
VNR 2020

DECADE OF ACTION
TAKING SDGs FROM
GLOBAL TO LOCAL

Government of India

NITI Aayog

Government of India

DECADE OF ACTION
TAKING SDGs FROM
GLOBAL TO LOCAL

India Voluntary National Review 2020

United Nations High Level Political Forum
for Sustainable Development 2020

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Government of India
New Delhi, India

message

The SDG framework has redefined development policies, government priorities, responsibilities of businesses and citizens, and metrics for measuring development progress across the world.

India has fully adopted the SDG framework and aligned its development priorities with the Global Goals. The Government of India is taking a lead role in implementing the framework, monitoring the progress and bringing on board various stakeholders in the journey towards achieving the targets. Being a large continental sized economy with marked diversities across the regions, the Government has also taken extensive measures to localise the SDGs and mainstream them into the development priorities of various States and Union Territories. Indian businesses have begun to adopt the 'triple bottom line' that gives equal weight to financial, social and environmental targets in attaining pre-defined corporate objectives. India's civil society organisations, which are viewed as development partners by the Government, have been making invaluable contributions through information, education and by spreading awareness about the framework. Thus, a 'whole of society' approach has been adopted with local variation in setting priorities for achieving the 2030 Agenda.

We are honoured to present our second Voluntary National Review and report on the progress made towards fulfilling the 2030 Agenda. India, today, is one of the largest and fastest growing emerging market economies of the world. Through consistent growth and social inclusion initiatives, India has been able to reduce poverty, improve education levels, aggressively expand basic infrastructure capacities, conserve our rich biodiversity and build partnerships for sustainable development. Poverty – monetary and multidimensional, has fallen considerably in recent years. Health insurance coverage programmes covering over 500 million people have been successfully rolled out. Over 100 million household toilets have been built since October 2014. All our villages and over 99 percent of our households are electrified. Our forest cover, between assessments in 2017 and 2019, has increased. India's technical assistance programmes reach 160 countries across the world. We have jumped 79 places in the World Bank's Ease of Doing Business ranking of countries in the past five years, moving from 142 in 2014 to 63 in 2019. Jointly with France, India facilitated the formation of the International Solar Alliance, bringing together countries that are well-positioned to invest aggressively in solar energy. These are just a few examples of the progress made. This report presents a comprehensive view of the country's efforts.

While we take satisfaction in our accomplishments, we are well aware of the arduous path ahead. Ours is a young population with rising aspirations. Fulfilling these aspirations of nearly 1.3 billion people, from different social, economic and cultural backgrounds is a daunting challenge. The COVID-19 pandemic has thrown up several challenges. These will be addressed in the shortest possible time. Our aim is to build a resilient system that will help us face the next adversity with confidence and with minimal human costs. Bringing the economy back on track, after the devastating consequences of the pandemic, to generate the necessary employment and business opportunities, thereby creating prosperity for everyone, is the most pressing task at hand.

Furthermore, India needs to progress faster on nutrition, learning outcomes, women's active participation in the economy, structural reforms, gainful employment for all and reducing pollution. The SDG India Index, the first Government-led measure of SDG progress at the sub-national level in the world, is our principal tool to periodically monitor our progress towards meeting the Global Goals. The Index also helps to spur healthy competition among States, which can be the main driver for the States to achieve their SDG targets. This VNR report includes key insights from the 2019-20 report on the SDG Index.

It is befitting here to mention the process of preparation of this VNR. We followed a participative process, involving as active partners the local governments, private businesses and civil society organizations. Over a thousand CSOs, NGOs and community organizations were part of the process and were instrumental in highlighting reflections from the grassroots. I wholeheartedly thank everyone who provided invaluable inputs to this report.

As the world community enters the 'decade of action', India reiterates its commitment to the principles of sustainable development and the targets set under the SDG framework. India is determined to keep to the principles of *Sabka Saath, Sabka Vikas*, which translates to 'collective efforts, inclusive growth', with sustainability at its core. By conventional standards, ten years is a compact timeframe for implementing sea changes across sectors, for a nation. The transformation the world is striving for, is not only policy or programme-based, but also behavioural and social, which, looking back at history, had taken decades to accomplish. However, we must remind ourselves that we do not have the luxury of time. The COVID-19 pandemic has caused disruptions to plans and timelines. Therefore, we have every reason to double or triple our efforts for achieving the targets of the Agenda 2030. We must also be deeply cognizant of the fact that our efforts in the coming years will determine the kind of planet that will be inherited by successive generations. It is our bounden duty/*dharma* to ensure that their quality of life is better than of the present generation. To this end and with a deep commitment to harmony in the global community, to improving equity in society and preserving nature's balance, India will do its utmost to achieve the 2030 Agenda.

Dr. Rajiv Kumar

June 1, 2020
New Delhi
India

Amitabh Kant
Chief Executive Officer
National Institution for Transforming India
Government of India
New Delhi, India

The year 2020 marks the fifth anniversary of the adoption of the Sustainable Development Goals by the global community. It also heralds our stepping into the final 'Decade of Action', wherein our collective efforts and collaborative partnerships will determine the extent of our success in translating the 2030 Agenda into a national and global reality.

India is proud to present to the United Nations High Level Political Forum, its Voluntary National Review on the progress made towards achieving the SDGs for the second time, having presented the first in 2017. For India, the presentation of the second Review is an opportunity not only to highlight the country's progress but also to identify the main challenges, and build on feedback and synergetic partnerships with subnational and local governments, civil society and markets. India's second VNR marks a conscious paradigm shift to the 'whole of the society' approach by being one of the most democratic, participatory and inclusive processes in the genre of the SDG agenda. The VNR preparation, steered by NITI Aayog, Government of India, was a long-drawn process, which saw the coming together of all key stakeholders - state and local governments, civil society organisations, communities at the grassroots, academia and the business sector. This VNR report thus stands true testament to this 'whole of society' paradigm for it reflects insights from over a thousand civil society organisations working with groups in situations of vulnerability, business sector representatives and subnational governments.

Today, India is not only the fastest growing emerging economy in the world, but also has an emulative focus on low carbon growth, good governance and socio-economic equity. The country is also fast emerging as an epicentre of some of the most advanced technological and digital solutions. With 18 per cent of the world's population and the highest numbers of aspiring youth, India recognises that its efforts in this 'Decade of Action' will push the world towards a virtuous cycle of development and well-being.

message

With a robust SDG Localisation model which epitomises our faith in cooperative and competitive federalism, supported by evidence-based policy-making mechanisms, India has surged ahead on multiple fronts which are key to achieving these Goals. The SDG India Index and Dashboards – the first government-led measure of subnational progress on SDGs, have provided direction to efforts of subnational governments.

Multidimensional poverty has been drastically lowered across different dimensions, comprehensive initiatives have been effectively implemented to enhance inclusivity and equity, massive strides have been made towards universalising access to health protection, education, nutrition and basic infrastructure, access to modern and clean energy has exponentially multiplied and India is also partaking a global lead in climate action.

While the COVID-19 pandemic has jolted the momentum of this growth story and thrown open a sea of challenges, it has also shown the remarkable resilience of a nation, which stands united by forging strong partnerships among the State, civil society, community and the business sector in creating a robust unified response system.

In the spirit of international cooperation for realising the 2030 Agenda, India is pleased to present its second VNR, which is the result of the collective efforts of NITI Aayog and all our partners in progress - the Governments of 37 States and UTs, the Central Ministries, the United Nations in India and our vibrant civil society. We are confident that the localisation of the SDGs in India will accelerate their achievement, leaving no one behind and also offer a useful lens to the global community.

Amitabh Kant

June 1, 2020
New Delhi
India

LIST OF ABBREVIATIONS

10YFP	10-Year Framework of Programme
AAY	Antyodaya Anna Yojana
AD	Accelerated Depreciation
ADP	Aspirational District Programme
AIC	Atal Innovation Centre
AIFs	Alternate Investment Funds
AMRUT	Atal Mission for Rejuvenation and Urban Transformation
APY	Atal Pension Yojana
ART	Anti-Retroviral Therapy
ASER	Annual Status of Education Report
ATL	Atal Tinkering Labs
AWCs	Anganwadi Centers
AYUSH	Ayurveda, Yoga & Naturopathy, Unani, Siddha and Homoeopathy
BEE	Bureau of Energy Efficiency
CAF	Common Application Form
CAG	Comptroller and Auditor General
CBAS	Coral Bleaching Alert System
CBD	Convention on Biological Diversity
CBDR-RC	Common But Differentiated Responsibilities and Respective Capability
CDRI	Coalition for Disaster Resilient Infrastructure
CFC	Chlorofluorocarbon
CGPDTM	Controller General of Patents, Designs and Trade Marks
CMFRI	Central Marine Fisheries Research Institute
CRZ	Coastal Regulation Zone
CSA	Climate-Smart Agriculture
CSOs	Civil Society Organisations
CSR	Corporate Social Responsibility
CSSs	Centrally Sponsored Schemes
DAC	Development Assistance Committee
DBT	Direct Benefit Transfer
DDRS	Deen Dayal Rehabilitation Scheme
DIFs	District Indicator Frameworks
DISHA	District Development Coordination and Monitoring Committees
DSSS	Development Support Service to States
ECBC	Energy Conservation Building Code
ECCE	Early Childhood Care and Education
EEZ	Exclusive Economic Zone
EoDB	Ease of Doing Business
EPA	Environment Protection Act
FDI	Foreign Direct Investment
FFPM	Forest Fire Prevention and Management
FiT	Feed-in Tariffs
FRA	Forest Rights Act
GBI	Generation Based Incentives
GCF	Gross Capital Formation
GDDP	Gross District Domestic Product

GER	Gross Enrolment Rate
GIFMIS	Government Integrated Financial Management Information System
GP	Gram Panchayats
GPDP	Gram Panchayat Development Plan
GRIHA	Green Rating for Integrated Habitat Assessment
GST	Goods and Services Tax
GVA	Gross Value Added
HLSC	High-Level Steering Committee
HRG	High Risk Groups
HWC	Health and Wellness Centre
ICDS	Integrated Child Development Services
ICMAM	Integrated Coastal and Marine Area Management
IDU	Injecting Drug Users
IEC	Information, Education and Communication
IGEN-GEC	Indo-German Energy Programme – Green Energy Corridors
IIP	Index of Industrial Production
IMF	International Monetary Fund
INCOIS	Indian National Centre for Ocean Information Services
IPCC	Intergovernmental Panel on Climate Change
IPRs	Intellectual Property Rights
ISA	International Solar Alliance
JAM	Jan Dhan-Aadhaar-Mobile
JFM	Joint Forest Management
LCOE	Levelised Cost of Electricity
LDCs	Least Developed Countries
LEED	Leadership in Energy and Environmental Design
LLDCs	Land Locked Developing Countries
MCMAATM	Multilateral Convention on Mutual Administrative Assistance in Tax Matters
MDM	Mid-Day Meal
MFF	Mangroves For the Future
MGNREGA	Mahatma Gandhi National Rural Employment Guarantee Act
Mha	Million hectares
MIMO	Minimum Investment Maximum Outcome
MMR	Maternal Mortality Ratio
MOSAIC	Marine Observation System Along the Indian Coast
MoSPI	Ministry of Statistics and Programme Implementation
MPA	Marine Protected Areas
MPI	Multidimensional Poverty Index
MSW	Municipal Solid Waste
MUDRA	Micro Units Development and Refinance Agency
NACP	National AIDS Control Programme
NAP	National Afforestation Programme
NAPCC	National Action Plan on Climate Change
NCEEF	National Clean Energy and Environment Fund
NDCs	Nationally Determined Contributions
NER	North Eastern Region

NFHS	National Family Health Survey
NFSA	National Food Security Act
NGRBC	National Guidelines on Responsible Business Conduct
NHM	National Health Mission
NIF	National SDG Indicator Framework / National Indicator Framework
NIIF	National Infrastructure and Investment Fund
NIP	National Infrastructure Plan
NMEEE	National Mission for Enhanced Energy Efficiency
NMSA	National Mission on Sustainable Agriculture
NNM	National Nutrition Mission (Poshan Abhiyan)
NPCA	National Plan for Conservation of Aquatic Ecosystems
NPCDCS	National Programme for Prevention and Control of Cancer, Diabetes, Cardiovascular Diseases and Stroke
NRCP	National River Conservation Plan
NREP	National Resource Efficiency Policy
NROER	National Repository of Open Educational Resources
NSAP	National Social Assistance Programme
NUTP	National Urban Transport Policy
NVBDCP	National Vector Borne Disease Control Programme
NVGs	National Voluntary Guidelines
ODF	Open Defecation Free
OOMF	Output Outcome Monitoring Framework
OoPE	Out of Pocket Expenditure
PAT	Perform, Achieve and Trade
PFMS	Public Finance Management System
PMAY	Pradhan Mantri Awas Yojana
PMFBY	Pradhan Mantri Fasal Bima Yojana
PMGKY	Pradhan Mantri Garib Kalyan Yojana
PMJAY	Pradhan Mantri Jan Arogya Yojana
PMJDY	Pradhan Mantri Jan-Dhan Yojana
PMJJBY	Pradhan Mantri Jeevan Jyoti Bima Yojana
PM-KISAN	Pradhan Mantri Kisan Samman Nidhi
PMKSY	Pradhan Mantri Krishi Sinchayee Yojana
PMKVY	Pradhan Mantri Kaushal Vikas Yojana
PMMVY	Pradhan Mantri Matru Vandana Yojana
PMMY	Pradhan Mantri Mudra Yojana
PMSBY	Pradhan Mantri Suraksha Bima Yojana
PRIs	Panchayati Raj Institutions
PV	Photovoltaic
PwDs	Persons with Disabilities
REC	Renewable Energy Certificate
RMNCAH+N	Reproductive, Maternal, Newborn, Child, Adolescent Health and Nutrition
RMNCH+A	Reproductive, Maternal, Newborn, Child and Adolescent health
RPwD	Rights of Persons with Disabilities
RTE	Right of Children to Free and Compulsory Education
RUSA	Rashtriya Uchchatar Shiksha Abhiyan

S/DIF	State and District Indicator Frameworks
SAG	Scheme for Adolescent Girls
SAPCC	State Action Plan for Climate Change
SATH	Sustainable Action for Transforming Human Capital
SBM	Swachh Bharat Mission
SCM	Smart Cities Mission
SCO	Shanghai Cooperation Organisation
SEEP	Super-Efficient Equipment Programme
SHCs	Soil Health Cards
SHGs	Self Help Groups
SHM	Soil Health Management
SIDS	Small Island Developing States
SIF	State Indicator Framework
SIPP	Startups Intellectual Property Protection
SNT	Semi-Nomadic Tribes
SSS	Support for Statistical Strengthening
STEP	Support to Training and Employment Programme
STI	Science, Technology and Innovation
STP	Sewage Treatment Plant
STUs	State Transmission Utilities
SUTP	Sustainable Urban Transport Project
TFM	Technology Facilitation Mechanism
TOT	Toll Operate Transfer
TPED	Total Primary Energy Demand
TTCI	Travel and Tourism Competitiveness Index
ULBs	Urban Local Bodies
UNFCCC	United Nations Framework Convention on Climate Change
UNGPs	United Nations Guiding Principles
UTs	Union Territories
VSS	Voluntary Sustainability Standard
WIPO	World Intellectual Property Organization

Terms used interchangeably in the text

State/Subnational - State refers to subnational level

Centre/Union/National – Centre/Union refers to national level

Exchange rate

USD 1 = INR 75

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Photo courtesy of Rakesh Pulapa

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INDIA VOLUNTARY NATIONAL REVIEW 2020

INDIA OCCUPIES A UNIQUE PLACE AMONG THE NATIONS OF THE WORLD. IT IS A YOUNG SOVEREIGN STATE BUILT ON MILLENNIA OF WISDOM, CULTURE AND TRADITIONS. THE SEVENTH LARGEST AND THE SECOND MOST POPULOUS COUNTRY IS ALSO THE LARGEST DEMOCRACY.

India has always celebrated plurality, a value which is steeped in our tradition and enshrined in our Constitution. India, whose people speak 121 major and 1369 other languages, is the birthplace of four of the world's major religions. Each of the 37 subnational entities house unique cultural and linguistics traditions. With diversity at its core, India is fast progressing on a journey that seeks prosperity and well-being for everyone from every culture and language, leaving no one behind. This is where India's development philosophy intersects with the fundamental principles of the SDG framework.

India recognises that the 2030 Agenda for Sustainable Development constitutes a fitting framework that calls the attention of every nation, to the challenges of building a sustainable future for the planet and all its life, while offering an opportunity to seek consensus and collaborative action. *Vasudhaiva Kutumbakam*, an ancient Indian phrase, which translates into 'the whole world is my family', pithily, captures this Indian approach towards all aspects of life and development.

India, home to one-sixth of all humanity, holds the key to the success of the 2030 Agenda. It has made a conscious paradigm shift to a 'whole of society' approach by engaging all key stakeholders – subnational and local governments, civil society, communities and private sector in collaborative adoption, implementation and evaluation of the SDGs. India's second VNR is a true testament of this shift as it takes into account inputs and insights from multiple levels of the government, as well as from over a thousand civil society organisations, population groups in situations of vulnerability and the private sector.

India's commitment is reflected in the complete convergence of the national development agenda with SDGs, whose core principle, to leave no one behind, perfectly mirrors in our motto of *Sabka Saath Sabka Vikaas* (Collective Effort for Inclusive Growth). India also recognises that in a country with 28 States, 9 Union Territories and over 700 districts, mere national action is not sufficient, given the enormous geographic, demographic and cultural diversities coupled with significant socio-economic developmental variations. Based on the evidence from the SDG India Index - the government-led subnational measure on SDGs, India has developed a robust SDG localisation model. At the subnational level, States and districts drive the adoption of the Global Goals and targets, determine the local means of implementation, and design the monitoring and

evaluation frameworks. Centered on a blended collaborative learning approach, the model epitomises the ethos of cooperative and competitive federalism.

India, with 17 per cent of the world's humanity and 2.4 per cent of the land area, is also home to a multitudinous array of development challenges that cut across sectors of health, nutrition, education, urbanisation and climate action. The COVID-19 pandemic has, additionally, thrown open a sea of challenges that are not bound by either geography or the level of development. India is at the forefront in the call for joint global action to address the COVID-19 pandemic. The country has extended medical assistance to several countries and has operationalised the SAARC COVID-19 Emergency Fund with an initial contribution of USD 10 million. Domestically, India's response to the COVID-19 pandemic includes a USD 279 billion economic package, comprehensive health coverage for front-line workers and direct cash transfers for the most vulnerable. The government is leading a multi-faceted effort to revamp the public health infrastructure, protect jobs and livelihoods, ratchet up various economic sectors and break the siege of the pandemic. While the pandemic has given some jolts to the process of achieving the Global Goals, it has also offered an opportunity for forging and strengthening partnerships among the State, civil society organisations and the private sector for creating a unified and robust response system to deal with the public health and economic exigencies. Still grappling with these challenges, India continues to grow as an epicenter of some of the most advanced technological and digital solutions.

The 2030 Agenda embodies an indispensable approach for India to enable its citizens to participate fully and freely in the economy and society. This has emboldened our focus on ensuring faster economic growth with equality and inclusion. In this endeavour, working with States and Union Territories to continuously improve performance on SDG targets would be critical. Further, India remains firmly committed to regional and global cooperation for learning, capacity building and greater progress. As part of South-South Cooperation, for realising the 2030 agenda, India supports developing countries through the USD 150 million India-UN Development Partnership Fund. In this spirit of regional and global partnerships and the country's

commitment to 'leave no one behind', India steps into the decade of action (2020–2030), drawing confidence from its vast experience in addressing challenges. The Government of India will continue to work collaboratively with all domestic and global stakeholders to accelerate efforts to build a sustainable planet for future generations.

The following narrative further encapsulates India's progress across the SDGs.

Sashakt Bharat Sabal Bharat
Empowered and Resilient India
In its war against poverty, India with its focus on economic growth and social inclusion, has halved the incidence of multidimensional poverty by lifting 271 million from the most vulnerable sections of society out of poverty, while reducing extreme income poverty from 21.2 per cent in 2011 to 13.4 per cent in 2015. Deprivations have significantly reduced across nutrition, child mortality, education, sanitation and drinking water, electricity and housing, and other basic services.

Swachh Bharat Swastha Bharat
Clean and Healthy India
For a country with 1.3 billion people, improving access, affordability and quality of sanitation, nutrition and health services has been a ceaseless endeavour. With a nationwide nudge provided by the Clean India Campaign and the National Nutrition Mission, India achieved universal sanitation in all 603,175 villages in 2019, recording a quantum leap from the 2014 figure of 38 per cent villages with sanitation. Similarly, child and maternal mortality and stunting levels have also sharply reduced.

Moving toward universal health coverage, accessible, affordable and quality health care has been institutionalised under *Ayushman Bharat*, which is the world's largest health protection scheme providing an annual cover of INR 500,000 (USD 6,666.7) to 100 million families (approximately 500 million Indians) from economically weaker sections.

To check the spread of the COVID-19 pandemic, the expedited development of a contact and tracing application called *'Aarogya Setu'*, is one such outcome of India's efforts to exponentially increase capacity through the use of digital platforms. Within a few weeks of its roll out, more than 100 million Indians have downloaded this

application, demonstrating the speed with which digital platforms are being adopted by Indian citizens to access healthcare solutions.

Samagra Bharat Saksham Bharat
Social and Financial Inclusion

The most compelling vision of the 2030 Agenda, 'leave no one behind' resonates deeply in the philosophy of Mahatma Gandhi and is also enshrined in our constitution. Social inclusion is the cornerstone of the national development agenda which entails both legislative and executive action to create a level playing field, to universalise access to basic services and to address the challenges faced by communities in vulnerable situations in all spheres of life such as nutrition, health, education, skilling and livelihoods, employment and social security.

While legislations and interventions focus on protecting and main-streaming the vulnerable, intersectionality and its impact on accentuating the existing vulnerabilities is addressed by developing multi-sectoral and convergent programmes and greater implementation efficiency is achieved through collaboration with civil society and the private sector.

Financial inclusion, the path to promoting social inclusion, was greatly aided by the *Jan Dhan-Aadhaar*-Mobile (JAM) trinity, which provides near-universal access to bank accounts under the *Jan Dhan Yojana,* bio-metric identity for about 90 per cent of people, and access to mobile phones and internet services to over 665 million people. This has propelled the unbanked, especially over 200 million women, into the mainstream financial system, accelerating their economic empowerment through new avenues of credit, insurance and Direct Benefit Transfers (DBT).

Satat Bharat Sanatan Bharat
Sustainable India

Taking forward its nationally determined contributions under the UNFCCC, India's climate action strategies emphasise clean and efficient energy systems, resilient urban infrastructure and planned eco-restoration among others. With all its 6,03,175 villages electrified; clean cooking fuel reaching 80 million additional households since 2015; renewable energy installed capacity growing by 75 per cent since 2014, to, 132 GW; energy-saving appliances reducing CO_2 emission

annually by 38 million tonnes, India is well-placed on fulfilling its climate action agenda. Globally, India stands third in renewable power, fourth in wind power and fifth in solar power. India launched the Coalition for Disaster Resilient Infrastructure and the International Solar Alliance to leverage global partnerships for climate action and disaster resilience. On the other hand, India has implemented a systematic disaster resilience strategy based on the Sendai Framework to manage its high vulnerability to climate-induced natural disasters and their impact on the poor.

Sampanna Bharat Samriddha Bharat
Prosperous and Vibrant India

India is one of the fastest growing emerging market economies. With a GDP of USD 2.72 trillion in the year 2018-19, India strives to become a USD 5 trillion economy by 2025 following an inclusive and sustainable growth trajectory. India is pursuing aggressive reforms to stimulate manufacturing, build infrastructure, spur investments, foster technological innovation and boost entrepreneurship. Major reforms include a single Goods and Services Tax (GST) regime, FDI liberalisation, Insolvency and Bankruptcy legislation, Ease of Doing Business Reforms and flagship programmes like Make in India, Startup India and Skill India. As a result, FDI grew to USD 284 billion between 2014-19. These policies, together with a young population and burgeoning innovation and business ecosystem, make for a robust engine of economic progress. India's performance on several global indices testifies to its steady progress.

India moved up 79 positions from 142nd rank in 2014 to 63rd in 2019 **in the World Bank's Ease of Doing Business Index**

India rose from 71st rank in 2014 **to 68th in 2018** in the **Global Competitiveness Index** of the World Economic Forum

India climbed from 76th rank in 2014 to **52nd in 2019** in the **Global Innovation Index** by the World Intellectual Property Organization

Aatmanirbhar Bharat Self-Reliant India

The *Aatmanirbhar Bharat Abhiyan* or 'Self-Reliant India Movement' was launched by the Hon'ble Prime Minister during his address to the nation on May 12, 2020.
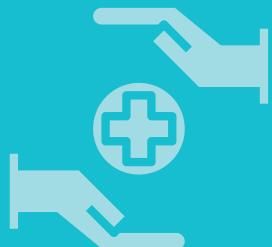
The clarion call for self-sufficiency is based on his vision of translating immediate COVID-19 related policy measures to bring about transformative changes in the country. A self-reliant India will rest on five pillars: i) Economy, which brings in quantum leap and not incremental change; ii) Infrastructure, which should become the identity of the country; iii) System, based on 21st century technology driven arrangements; iv) Vibrant Demography, the source of human capital and potential; and v) Demand, whereby the strength of the country's demand and supply chain will be utilized to full capacity. Some of the highlights of this initiative have been detailed below:

SHORT TERM AND LONG-TERM MEASURES TO ENSURE THAT NO ONE IS LEFT BEHIND

○ **Leveraging technology** to create a geographically independent **'One Nation One Ration Card'** platform

○ Additional INR **400 billion** (USD 5.33 billion) for MGNREGA **to generate 3 billion person days of employment**

○ Scheme for **affordable rental housing complexes** for migrant workers and urban poor

○ **INR 50 billion** (USD 666.7 million) **credit facility** for street vendors

○ **INR 300 billion** (USD 4 billion) additional **emergency working capital for farmers**

○ **INR 2 trillion** (USD 26.7 billion) **concessional credit boost** to **25 million farmers**

○ **INR 60 billion** (USD 800 million) for afforestation and plantation works to create job opportunities

HEALTHCARE REFORMS AND INVESTMENTS

- **INR 5 million** (USD 66.7 thousand) **insurance** cover for **health professionals**

- **E-Sanjeevani** teleconsultation services

- **Increased public health expenditure**, ramp up health and wellness centres in rural and urban areas

- **Future pandemics** - Integrated public health labs in all districts & block level labs & public health unit

RELIEF AND CREDIT SUPPORT RELATED TO BUSINESSES

- **INR 3 trillion** (USD 40 billion) **emergency working capital** facility for businesses, including **MSMEs**

- **INR 500 billion** (USD 6.7 billion) **equity infusion** through MSME Fund of Funds

- **INR 300 billion** (USD 4 billion) special **liquidity scheme** for NBFC/HFC/MFIs

- **INR 450 billion** (USD 6 billion) **partial credit guarantee scheme** 2.0 for liabilities of NBFCs/MFIs

- **INR 900 billion** (USD 12 billion) liquidity injection for DISCOMs

MEASURES TO STRENGTHEN AGRICULTURE, FISHERIES AND FOOD PROCESSING SECTORS

- **INR 1 trillion** (USD 13.3 billion) fund for **farm-gate** infrastructure for farmers

- **INR 200 billion** (USD 2.7 billion) for **fishermen**

- **Animal Husbandry Infrastructure** Development Fund – **INR 150 billion** (USD 2 billion)

TECHNOLOGY DRIVEN EDUCATION WITH EQUITY

- **PM e-VIDYA**, a programme for multi-mode access to digital/**online education**

- *Manodarpan*: an initiative for **psycho-social support** for students, teachers and families for mental health and emotional well-being

- **New National Curriculum** and pedagogical framework for **school, early childhood and teachers**

METHODOLOGY AND PROCESS OF THE VNR REPORT PREPARATION

INDIA ADOPTED A WELL-STRUCTURED PROCESS OF PREPARING THE VNR REPORT, FOLLOWING THE SECRETARY-GENERAL'S VOLUNTARY COMMON REPORTING GUIDELINES FOR VNRs.

The process has been a government led one, which has involved analysing the country's achievements in the SDG space so far, identifying gaps and challenges, highlighting strategies to overcome the challenges, recognising success factors and good practices, analysing new and emerging issues; all this while respecting the interlinkages among Goals and the three dimensions of sustainable development. The process was built on India's existing institutional framework for SDG adoption, implementation and monitoring. It is based on official data compiled at the national and subnational levels. Most importantly, the VNR report preparation process has been inclusive, with participation from CSOs, NGOs, community organisations, private sector and subnational and local governments.

The preparation for the VNR was set in motion in October 2019 with NITI Aayog - the nodal agency for overall coordination on SDGs in the Union Government, preparing the VNR action plan. The action plan included a calendar of events, roadmap, timelines and deliverables aligned to the HLPF 2020 deadlines and key partners. UN in India was identified as a key partner, particularly for facilitating the active participation and contribution of the CSOs and community organisations. While HLPF 2020 focuses on a select set of Goals, India's VNR report addresses progress and challenges under all Goals, with equal importance and utilises this opportunity to review the progress under the SDG framework at the national level. The report is anchored by the data compiled by the respective central ministries from all States/UTs, at the national level.

The report preparation process involved seven major elements, detailed below.

I. The VNR Forum

A forum consisting of senior officers/staff from NITI Aayog, Ministry of External Affairs, Ministry of Finance, Ministry of Statistics and Programme Implementation, UN in India, *Wada Na Todo Abhiyan* (WNTA) – a civil society network and Confederation of Indian Industry (CII), was put together to facilitate consultations with different stakeholder groups.

The preparation for the VNR was set in motion in October 2019 with NITI Aayog - the nodal agency for overall coordination on SDGs in the Union Government, preparing the VNR action plan.

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Photo courtesy of Rakesh Pulapa

II. The SDG Taskforce

The Taskforce, which was already in place, provided technical inputs on the SDGs and gave comments on the various drafts of the report before its finalisation. It comprised senior officers/staff from key central ministries, state governments and think tanks.

III. Stakeholder Engagement

The CSOs, NGOs, community organisations and the private sector play a major role in ensuring the success of the SDG agenda in the country. Therefore, consultations with them are critical to the VNR preparation process. One of the first steps taken towards the report preparation was mapping of all the key stakeholders in the CSO, NGO and private sector space. This was done as early as November 2019. Fourteen specific population groups were identified, including a regional group, with whom focused consultations were conducted, in line with the core principle of 'Leaving No One Behind.' Over a thousand CSOs were part of this consultation process, organised in tranches across the country. From December 2019 to February 2020, these CSO networks led and conducted consultations in seven cities across the length and breadth of the country. This resulted in documenting their challenges, expectations and commitments. These insights and voices from grassroots provide heft to the VNR report.

The report preparation process also provided an excellent opportunity to strengthen the engagement with the private sector on SDGs. In the recent past, private sector spending under Corporate Social Responsibility (CSR) initiatives was the major channel for private sector involvement in the SDG framework. However, the VNR report preparation process brought forth the enhanced uptake in adoption of business responsibility and sustainability frameworks and the proliferating consciousness among industry leaders for the same.

IV. Government Consultations

The governments at the national, subnational and local levels were key actors in the VNR report preparation process. Central ministries were consulted regularly for data, for periodic monitoring and state governments were consulted in two rounds for inputs on progress update and knowledge sharing.

One of the engagements with the State governments stands out, owing to its scale. In February 2020, NITI Aayog conducted an SDG Conclave for all eight states in the North Eastern Region (NER) of the country. The NER of India, owing to its unique geographical and political situation, has been lagging, historically, in development. Given this context, the three-day conclave brought together stakeholders from the central and subnational governments, civil society, academia, technical experts and industry partners, to brainstorm on sustainable development strategies for the region, under the framework of SDGs. It produced an array of recommendations, which are being pursued by the States in the region, Central ministries and NITI Aayog.

V. Communications

A communication and outreach plan for the VNR was prepared in November 2019. The major components of this plan included media outreach, a short video to be presented along with the VNR, and awareness and publicity through social media. The UN in India and NITI Aayog jointly drove the social media campaign.

VI. Research

Financing the SDGs is crucial to their timely achievement. NITI Aayog and the Ministry of Finance undertook a joint study with the International Monetary Fund (IMF) to estimate the cost for achieving select SDGs. The study has provisionally concluded that making significant progress in these SDG sectors will require an additional annual spending of 6.2 percentage points of GDP by 2030. Overall, in terms of additional spending, India is above the median emerging economies globally and about in the middle for emerging economies in Asia. This study has contributed significantly to understanding the financial resources required to address the SDG challenges and issues that have emerged during the VNR report preparation.
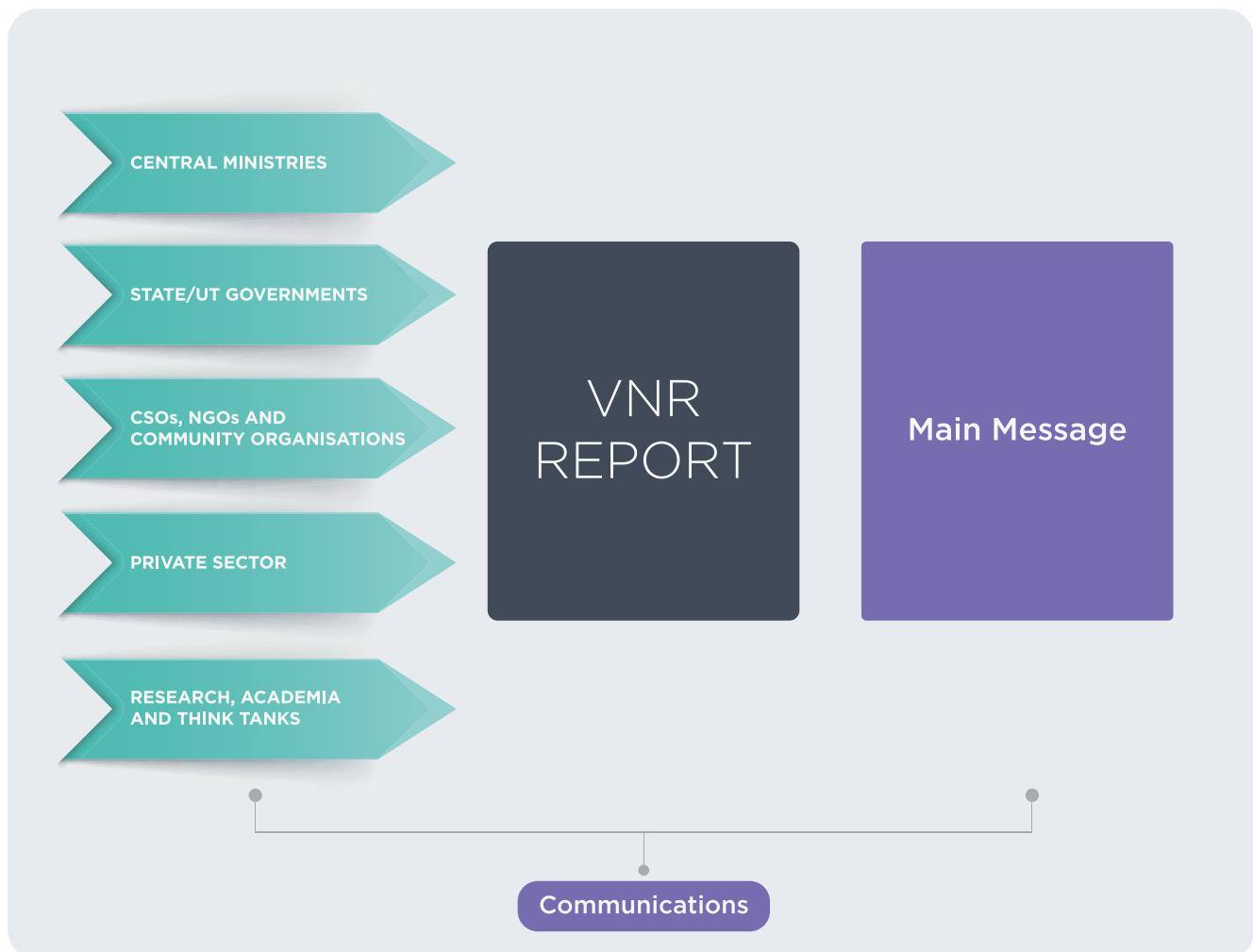
VII. Drafting the VNR Report

The inputs from CSOs, private sector, central ministries and the governments at the State and UT levels were collected, collated and finalised by the end of April 2020. In addition to the feedback and inputs of States/UTs and other stakeholders, government reports, credible research documents and official data were used to prepare the VNR report.

The inclusive nature of India's VNR report preparation process was a conscious effort to embody the principle of *Sabka Saath Sabka Vikaas* (Collective Effort for Inclusive Growth) and Leaving No One Behind - which is central to the 2030 Agenda. The inclusion of voices from people in vulnerable situations, private sector and various levels of government ensures that India's VNR report will have a utility well beyond HLPF 2020 and will serve as a guiding document for accelerating the progress towards achieving the SDG agenda in this decade of action.

STAKEHOLDERS: INDIA VNR 2020

CENTRAL MINISTRIES

STATE/UT GOVERNMENTS

CSOs, NGOs AND COMMUNITY ORGANISATIONS

PRIVATE SECTOR

RESEARCH, ACADEMIA AND THINK TANKS

VNR REPORT

Main Message

Communications

POLICY AND ENABLING ENVIRONMENT

3

INDIA HAS A FEDERAL SYSTEM OF GOVERNANCE, WHERE THE SUBNATIONAL GOVERNMENTS HAVE CONSTITUTIONALLY, WELL-DEFINED LEGISLATIVE AND EXECUTIVE JURISDICTION. THE FEDERAL SYSTEM HAS SUBSTANTIVELY MATURED OVER THE YEARS, WHEREIN THE STATES EXERCISE CONSIDERABLE AUTONOMY IN THEIR SOCIAL, ECONOMIC AND POLITICAL MANAGEMENT.

States and local governments are responsible for the delivery of critical public service infrastructure including water supply, electricity, sanitation, drainage, police, courts, roads, traffic, schools, colleges, healthcare and a myriad of other services.

The Centre and States as Partners and Collaborators

The past several years have seen a positive move towards cooperative federalism with the coming together of 'Team India', which comprises, the Centre, the States and the Union Territories, working in close collaboration to drive and implement the SDG and the development agenda. A major factor that has progressively made the States and UTs active partners in development cooperation, is the drive for economic reforms. India has progressively opted out of central planning and deregulated several economic policies. The Centre and State Governments have worked together to improve the investment climate across the country. This environment has fostered competitiveness among States to attract investments, both domestic and foreign, and improve their financial prospects. The adoption of the nation-wide Goods and Services Tax (GST) regime through a long process of negotiation has been the most recent example of such economic coming-of-age partnership between the Centre and States.

This collaborative environment of partnership between the Centre and States was further enhanced with the establishment of NITI Aayog in 2015. The 'one-size-fits-all' model of central planning, which was followed earlier, did very little to plan and implement public sector investments. It instead, exerted a restrictive influence on public–private partnerships and led to a proliferation of centrally sponsored schemes that contributed to severe distortions in public spending. This approach was replaced with a dynamic model of cooperative federalism, consensual national development and growth agenda and redefined reforms, brought in by NITI Aayog. Over the last four years, the Centre and States have trodden a re-imagined collaborative pathway. NITI Aayog has constantly striven to evolve a shared vision of national priorities, sectors and strategies with the active involvement of States, wherein States are equal stakeholders in the development process.

This collaborative environment of partnership between the Centre and States was enhanced with the establishment of NITI Aayog in 2015. A dynamic model of cooperative federalism, consensual national development and growth agenda and redefined reforms were brought in by NITI Aayog.

The instances below demonstrate how the partnership process is moving forward.

The New Turn in Fiscal Federalism

The Centre-State fiscal relations underwent major changes in recent years on account of two major moves: (i) fundamental changes in the system of revenue transfers from the Centre to the States by providing higher tax devolution to the States from the fiscal year 2015-16 onward, (based on the recommendations of the 14th Finance Commission); and (ii) the Constitutional amendment to introduce the Goods and Services Tax (GST) and the establishment of the GST Council for the Centre and State governments to deliberate and jointly take decisions.

With the acceptance and implementation of the 14th Finance Commission award, financial devolution to the States was increased from 32 to 42 per cent of the divisible pool of taxes along with an increased share of cess and surcharge in tax collections, which are not part of the divisible pool of taxes. The share of general-purpose transfers that are unconditional has increased from 51.41 per cent of the total transfers to around 60 per cent of the total, with a corresponding decline in specific-purpose or conditional transfers. With the rationalisation of the central schemes (mostly conditional grants), States' autonomy in development spending has improved further. On the other hand, a significant part of the devolution is to the local bodies, which fuels planning and development at the local level according to local priorities. The trend has continued apace since 2015-16: total transfers to States has maintained a progressive upward trend, climbing steadily from INR 8.29 trillion (USD 110.5 billion) in 2015-16 to INR 13.19 trillion (USD 175.9 billion) in 2019-20. All this evinces a heightened salience of the States, UTs and local governments in determining and pursuing their own development agenda, which augurs well for the implementation of SDGs.

It is quite clear that on account of increased transfer to the States, there has been an increase in the financial autonomy as well as total expenditure. Issues pertaining to Centre-State devolution of funds are being addressed through recommendations of the 15th Finance Commission and appropriate fiscal management measures.

## Addressing Local Priorities – The Space for the Third Tier
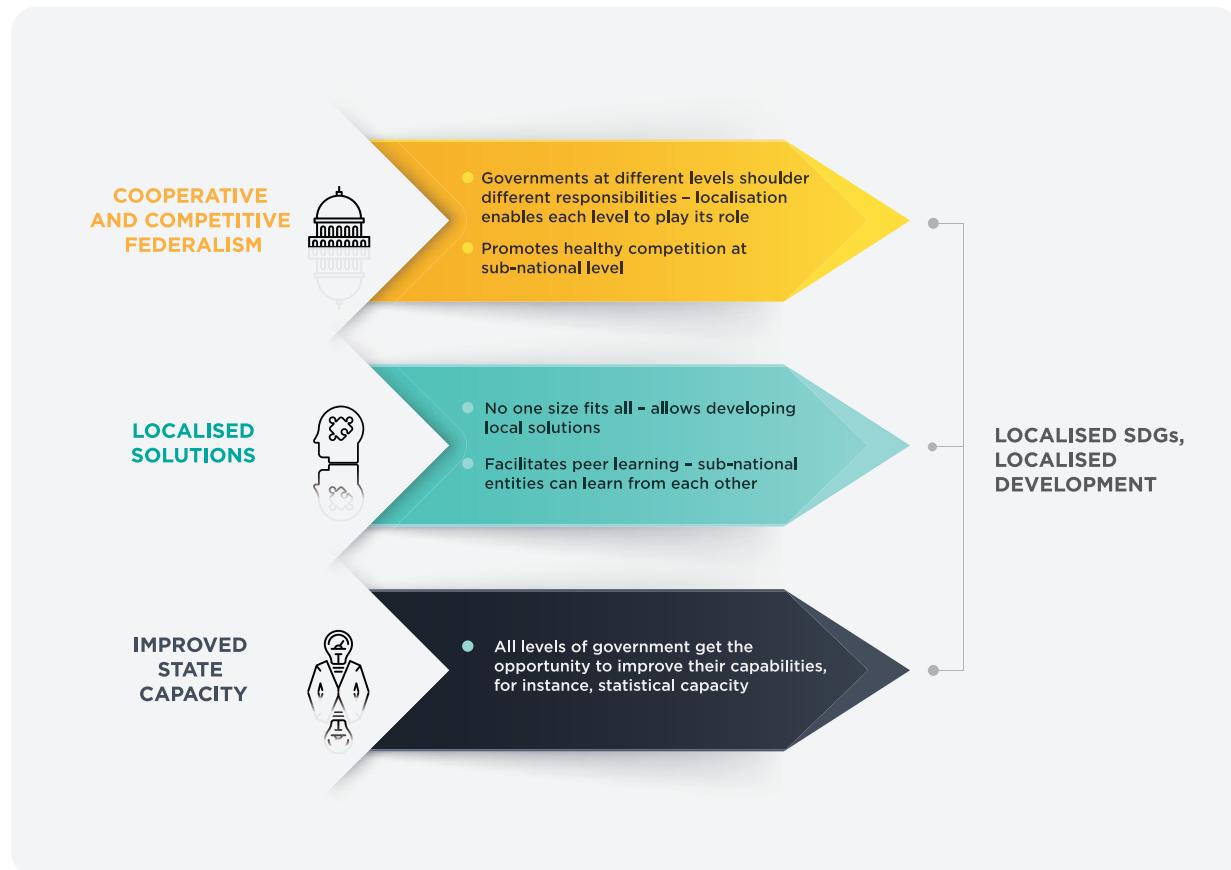
While there have been several policy initiatives in post-Independence India to initiate and institutionalise decentralised local development planning, it came into practice only after the 73rd and 74th Constitutional Amendments in 1992, which conferred constitutional mandate respectively to the Panchayati Raj Institutions (PRIs) at the village, block and district levels. It allowed the Urban Local Bodies (ULBs), to prepare the District Annual Plans by involving *Gram Sabha/ Ward Sabha* for grass root level planning. The local development planning received a big push from the 14th Finance Commission award as more than 50 per cent of the financial devolution was meant for the local governments. Capitalising on the new fiscal decentralisation measure, the Government in 2015-16 began a new initiative of preparation village-level holistic planning at the *Gram Panchayat* (village council) level, for pooling of resources. This was called *Gram Panchayat* Development Plan (GPDP).

The process of GPDP has since picked up momentum and focuses on planning for economic development and social inclusion by utilising the resources available to local governments. The GPDP planning process aims to be comprehensive and participatory, involving full convergence with schemes of all related Central Ministries - pertaining to the 29 subjects enlisted in the 11th Schedule of the Constitution. *Panchayats* have a significant role to play in the effective and efficient implementation of flagship schemes on subjects of national and state importance for transformation of rural India. Additionally, the *Gram Swaraj Abhiyan*, launched by the Government of India in 2018, covering over 65,000 villages, was a nationwide campaign to mobilise people and key stakeholders to intensify the local planning processes and saturate the relatively worse off villages in key government schemes across important sectors.

The above initiatives have reaped impressive results, which are as follows:

- As many as 225,748 *Gram Panchayats* (Village Councils) have prepared and adopted GPDPs.

- Planning facilitators are available and active in 261,993 GPs.

THE LOCALISATION IMPERATIVE

COOPERATIVE AND COMPETITIVE FEDERALISM

- Governments at different levels shoulder different responsibilities – localisation enables each level to play its role
- Promotes healthy competition at sub-national level

LOCALISED SOLUTIONS

- No one size fits all – allows developing local solutions
- Facilitates peer learning – sub-national entities can learn from each other

IMPROVED STATE CAPACITY

- All levels of government get the opportunity to improve their capabilities, for instance, statistical capacity

LOCALISED SDGs, LOCALISED DEVELOPMENT

- Mission *Antyodaya* (a programme for converging various Central and State government sectoral schemes) has been taken up in 238,854 GPs.

The process of developing a GPDP is fully steeped in SDG principles, with detailed guidelines issued and planning facilitators trained in the matter. This is a critical intervention to localise SDGs at the community level across the country with opportunities for upward integration at block, district and State levels, which can be ensured in due course.

Aspirational District Programme – Fast Forward on SDGs

NITI Aayog initiated a new programme for rapid transformation of the low-performing districts (Aspirational Districts) in January 2018. The programme is being implemented in 112 districts, in 28 States, which have been identified on the basis of indicators in areas of health and nutrition, education, agriculture and water resources, financial inclusion and skill development, and basic infrastructure - including access to road, potable water, rural electrification and individual household toilets. The objective of identifying Aspirational Districts was to improve the Human Development Index related outcomes in these districts through convergent action and real-time monitoring. The programme strategy has the following core components: a) mobilise key stakeholders (government officials, other organisations and local leaders) to prepare a positive narrative based on a transformative vision and action plans, and spark a social movement; b) ensure convergence of interventions by government as well as other development agencies in the area; c) facilitate evidence-based decision-making and spur competition among districts for better performance; d) create and harness capacity and competence by partnering with experts and civil society organisations.

The Aspirational Districts Programme (ADP) has been able to generate appreciable results within a short span of time (March 2018 – July 2019), average improvement on 49 indicators has ranged from 10 to 59 per cent. Several districts have also made major progress and improved their ranks. For instance, the district of Balrampur in the State of Uttar Pradesh jumped from 112th to 42nd rank and Darrang in Assam moved from 75th to 35th rank - between March 2018 and December 2019. The programme has demonstrated a virtuous cycle to achieve disruptive change in a very short time, which is practically feasible for every other district in the country.
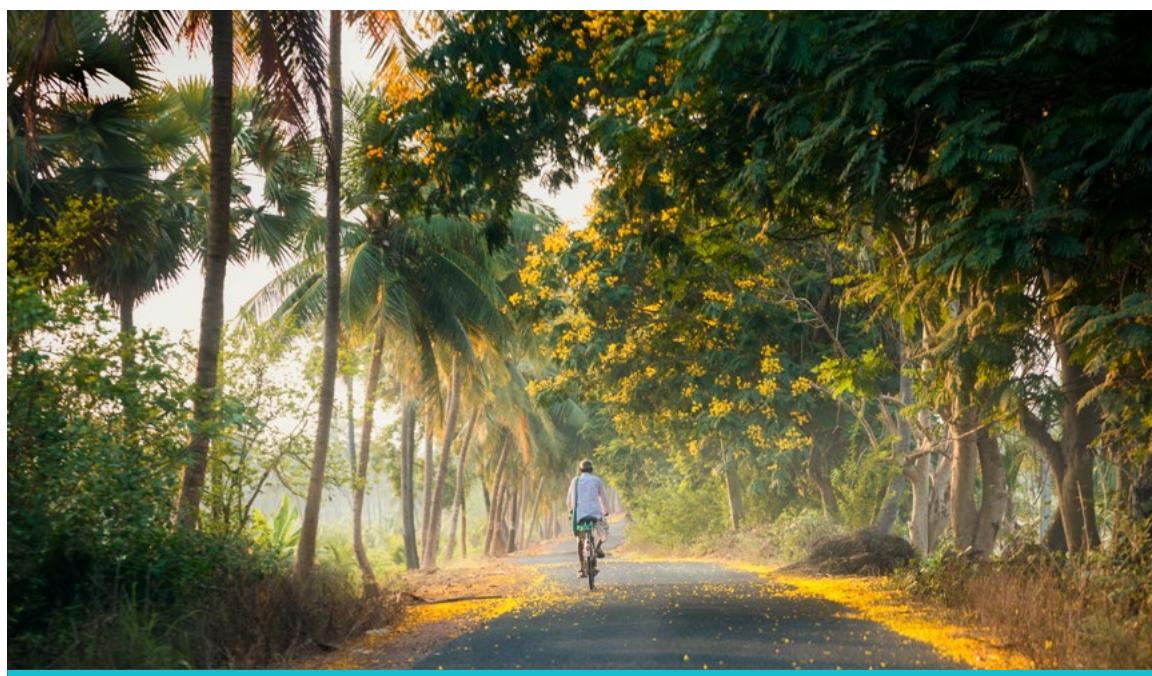
Leapfrogging Towards Achieving SDG Targets

The new potentials created in the policy space are being leveraged for catapulting to higher levels of performance. The space and opportunities for partnerships between the Centre and the States and UTs are being utilised to develop policy instruments for driving action at national and State levels (e.g. Strategy for a New India@75 by NITI Aayog, vision documents by various States, SDG India Index of NITI Aayog etc.). New ways of working together for the States/UTs and the Centre as well as among the States/UTs are being devised to share knowledge and information and to collaborate for common objectives.

Opportunities for vertical and horizontal policy coherence are being created and utilised, including strategic interlinkages and convergence of various programmes and schemes. Initiatives and experiences in this regard are given in detail in the next chapter.

The new climate and resource base developed in fiscal federalism is being harvested by various States/UTs to acquire new capabilities for achievement on SDGs. The autonomy and space for designing and implementing programmes according to local priorities expands the scope for new levels of innovation and excellence. At the same time, new vistas for improving the federal fiscal space can also open up in the course of working together. SDG oriented budgeting and wider SDG financing measures are important interventions that are being resorted to by various States. There is a need for concerted efforts in that space to identify enhanced means to leverage available resources and bridging existing gaps.

While there are valuable leads, such as those emerging from the ADP as well as the GPDP initiatives, to be followed in the local development planning space, there is a need for a range of institutional interlinkages and stakeholder collaborations. While challenges are considerable, emerging experiences and opportunities provide exciting leads for the future.

Photo courtesy of Rakesh Pulapa

THE INDIAN APPROACH TO LOCALISING SDGs

LOCALISATION OF SDGs IS CRUCIAL TO ANY STRATEGY AIMED AT ACHIEVING THE GOALS UNDER THE 2030 AGENDA. ESSENTIALLY, LOCALISING SDGs INVOLVES THE PROCESS OF UNDERSTANDING, ADAPTING, PLANNING, IMPLEMENTING AND MONITORING THE SDGs FROM NATIONAL TO LOCAL LEVELS BY RELEVANT INSTITUTIONS.

Therefore, it begins with setting the national as well as the subnational context of the 2030 agenda and moving forward to adapting the goals and targets, identifying indicators, designing the local means and structures of implementation and creating monitoring frameworks from national to local levels. In terms of engagement and collaboration of institutions, it is consequential how the Centre, State and local governments work together to achieve the SDGs at the national level; and how SDGs provide a framework for subnational and local policy, planning and action for realisation of the SDG targets at local levels. While India's key developmental programmes, policy focus and resource allocation align with the SDGs, it is equally essential to put in place a coordinating and monitoring mechanism for them.

State Governments – Pivots of Localisation

The State governments play a critical role in the development of the country within the federal polity. The federal framework is designed to realise balanced and equitable social and economic development in a diverse country like India, with States assuming a leading role in a decentralised governance system, to utilise the available resources more efficiently to meet the aspirations of their local populations. The States represent a unique spectrum of demographic and economic variation. There are 28 States with their own democratically elected assemblies. As many as 10 among them have a population of 50 million or more and three have more than 100 million residents. There are also nine UTs, of which three - Delhi, Puducherry and Jammu & Kashmir, have elected legislatures and enjoy partial statehood. The States and UTs vary enormously in terms of their economies. While nine of them have their GSDP in excess of INR 10 trillion (USD 133 billion), for 11 of them, it is less that INR 1 trillion (USD 13 billion). Therefore, States and UTs play a leading role in determining the level of progress and prosperity of people under their jurisdiction while working in collaboration with the Central government.

The powers and functions of the States with respect to various sectors are determined by the Constitutional allocations under the 7th Schedule. Under the 7th Schedule, the State List gives almost exclusive power to States with respect to 61 items, which include public health, education, agriculture, water, transport and communication, public order, local government etc. This means that the States have the power and functions to set up and execute policies in relation to almost all SDGs and their associated targets. It is the States who are institutionally empowered and positioned to achieve the SDGs with the support of the Central Government and allied institutions. Hence, the

States have the power and functions to set up and execute policies in relation to almost all SDGs and their associated targets.

States are the key actors in the process of locali-sation of SDGs with the Central Government play-ing an enabling role.

Institutional Mechanisms to Localise SDGs

National Coordination

NITI Aayog replaced the erstwhile Planning Commission of India in a historic institutional makeover in 2015, to nourish the federal spirit of the Constitution. It brought in a range of changes and overhauled practices to strengthen the lower rung of functioning bodies and move towards collaborative development. While designing stra-tegic and long-term policies and programmes for the Government of India, NITI Aayog makes regu-lar interventions to facilitate entrepreneurship, innovation and new-age leadership on various development fronts. The key aspect of its role is to articulate the national development agenda and work as an integrative platform to bring the Central Ministries, States and UTs to strive to achieve the national development goals.

Therefore, NITI Aayog is naturally positioned to promote and facilitate implementation of the multi-sectoral and poly-dimensional 2030 Agenda for Sustainable Development in coordi-nation with Central Ministries, State Governments and other stakeholders. According to the Allocation of Business Rules of the Government of India, NITI Aayog has the mandate to evolve and monitor vision and strategies for national devel-opment in collaboration with State Governments, facilitate partnerships among relevant stake-holders and support inclusive development. As a quintessential federal institution, NITI Aayog progressively devised a strategy for implemen-tation of SDGs which has been firmly ensconced in a participatory and bottom-up approach and incremental localisation of SDGs. NITI Aayog has been designated as the government insti-tution responsible for overall coordination and monitoring of the SDGs in the country, in close collaboration with Ministry of Statistics and Programme Implementation (MoSPI), which is responsible for the development of the base-line data on the National Indicator Framework, along with all central ministries, State/UT govern-ments and international development organi-sations such as the UN system, think tanks and the civil society organisations, in driving the

adoption, implementation and monitoring of the SDG agenda.

Role of the Indian Parliament

The Parliament of India has taken exemplary initiatives to propel the SDG agenda forward. The Public Accounts Committee of the Indian Parliament exercises legislative oversight on the progress of the SDG agenda through periodic reviews of NITI Aayog and related line ministries. Several briefing sessions on SDGs have been organised from time to time for Members of Parliament, including bringing together legisla-tors from South Asia and the other BRICS nations to collectively work towards the realisation of the goals.

Indian Parliament has been holding frequent meetings and conferences, such as BRICS Women Parliamentarians' Forum in 2016, on 'Perspectives on implementation of SDGs', 'Achieving SDGs - Role of Women Parliamentarians in involving Citizens'. The South Asian Speakers' Summit on Achieving the SDGs was organised in 2017 on 'Strengthening Regional Cooperation and Resources for the SDGs' and called upon parlia-ments to create gender-sensitive elected bodies, particularly at the grassroots level, with a view to achieving gender equality and prioritising issues pertinent to women. It encouraged parlia-ments to put in place legislative measures to protect women against discrimination, violence, sexual harassment, atrocities and trafficking. The National Legislators' Conference was organised by the Parliament of India in 2018, which provided a platform to lawmakers and legislators from across the country to develop a perspective on developmental issues on the lines of sustainable development on the theme 'We for Development'. It extensively discussed the 'Role of Legislators in Development Process' and 'Optimum Utilisation of Resources in Development'. The Indian Parliament has been proactive in championing and exercising legislative oversight on the SDGs.

Institutional Structures at the Subnational Level
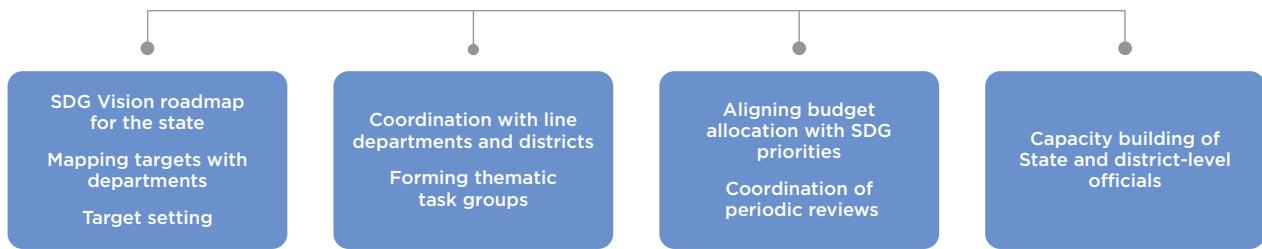
Early lessons on the SDGs inform us that imple-mentation requires a whole-of-the-government approach, and both horizontal and vertical convergence of multiple government agencies at different levels is essential. Therefore, all the

NODAL BODIES FOR INSTITUTIONALISING SDGs AT THE NATIONAL AND SUB-NATIONAL LEVEL

NITI AAYOG: At national level

Mapping targets to programmes and policies	Coordination with central ministries	Coordination with State Planning Departments	Supporting States in developing monitoring framework
Target setting	Assigning data responsibilities	Bi-annual review	Facilitating partnership building

PLANNING DEPARTMENT: At sub-national level

SDG Vision roadmap for the state	Coordination with line departments and districts	Aligning budget allocation with SDG priorities	Capacity building of State and district-level officials
Mapping targets with departments	Forming thematic task groups	Coordination of periodic reviews	
Target setting			

States and UTs have created discrete institutional structures for implementation of SDGs in their own specific contexts. All States and UTs have identified and tasked nodal departments for implementation of SDGs. Departments dealing with planning and finance have been given this nodal responsibility. Several States have also created nodal mechanisms within every department and also at the district levels to make coordination, convergence and data management more precise and predictable.

Further, given that the SDGs are highly interlinked and implementation and assessment of results often need multi-sectoral focus, States have constituted working groups for each of the SDGs, headed by the senior-most officer from a nodal department. The groups include designated officers and resource persons from all concerned contributing departments.

High level committees have been established at the State level, to provide continuous guidance, oversee implementation and monitoring, and put in place mechanisms for ensuring coordinated action on SDGs. These Committees are usually chaired by the Chief Secretary of the State with all departmental heads as members. In a few cases, States also have such committees headed by the Chief Minister which lends more thrust to the SDG reviews. Meetings of these high level committees are held at high frequency (at least once a quarter), which further strengthens its catalytic efficiency. The fact that States and UTs are increasingly adopting such a structure, testifies to its effectiveness.

All States have also created professional units on SDGs in the shape of an SDG cell in the nodal department with personnel having technical expertise and experience. Key activities of the SDG cells/teams include: preparing knowledge products and progress reports, organising capacity building programmes, providing inputs as required from time to time and playing a support-oriented role in interventions on SDGs. As many as six States/UTs (Assam, Uttarakhand, Andhra Pradesh, Telangana, Karnataka and Haryana) have matured renditions of such unit with full-fledged centres of excellence in collaboration with support organisations like UNDP and with wider functions and outreach, to:

- Build internal state capacity on SDGs; create awareness; maintain high quality knowledge management and build capacities and partnerships.

- Develop communication strategies as well as IEC materials (in local language and illustrative form) to inform government functionaries and the public of their roles and responsibilities in achieving the SDG vision of the state.

- Coordinate SDG implementation and localisation at the districts/village level.

- Analyse and propose strategies and schemes to accelerate progress towards SDGs and develop integrated development solutions.

- Design monitoring and evaluation systems to track the state's progress against the goals, targets and indicators, including third party monitoring mechanisms. Develop and introduce sophisticated tools using technology, including dashboards, citizen feedback loops and real-time monitoring technologies like sensors.

- Develop an institutional mechanism and suggest policy level changes for efficient coordination to implement the SDG vision through establishment of technical and management support group at appropriate levels.

- Facilitate the application of big data analytics for decision making.

- Undertake bottleneck analysis in priority areas to assess service delivery bottlenecks, particularly at the last mile and propose solutions to leverage disruptive technologies.

- Help mobilise human, financial and physical resources and manage their utilisation.

These sophisticated structures often assume and integrate a significant amount of coordination and technical support function required in the context of inter-sectoral coordination and convergence. Such overreach only contributes to strengthening their institutional roots and added relevance of the overarching SDG strategy.

Several States have gone further and established or adapted even district level structures for taking SDG implementation and monitoring to the grassroots. The district level mechanisms are seen to be evolving in the following ways:

- District Planning Committees (DPC) are constitutionally mandated structures to facilitate planning and review at the district level. Given their multi-departmental focus and linkages with local governments as well as other stakeholders, several States have utilised them for SDG implementation and monitoring.

- A few States (e.g. Madhya Pradesh and Chhattisgarh) are developing a methodology to orient district planning to SDGs and preparing manuals/guidelines for the same.

- The District Development Coordination and Monitoring Committee (called DISHA) at the district level, actively coordinates and monitors 28 major schemes/programmes in tandem with the Central, State and local government. It also generates significant amount of district-level data. Thus, many States recognise it to have remarkable advantage for taking up SDGs and bringing about necessary improvement in development outcomes.

- The institutional mechanism created under the Aspirational District Programme (ADP) has produced transformative results on 49 indicators. Though the SDGs are more expansive in terms of targets and indicators, the institutional as well as programmatic niche developed under the ADP provides an excellent opportunity to integrate SDGs in the implementation and monitoring framework.

- Several other States have taken up SDGs as part of their regular district level coordination by carving out a district unit/team for the work.

The district level institutional mechanisms are still at an inchoate state as compared to those at the State level. However, several districts across many States are presenting fairly consistent performance, which may be replicable on a larger scale by all States in the near future.

Localising SDGs – Sensitisation and Awareness Development

A process of country-wide sensitisation and awareness development of all stakeholders has also been at the core of the coordination process, because effectiveness in policy coherence requires the knowledge and awareness to design and manage appropriate implementation strategies while engaging multiple stakeholders. NITI Aayog, in partnership with the United Nations and other knowledge partners, initiated sensitisation and awareness building measures from an early stage. It has conducted a series of 25 national and subnational consultations on SDGs and their implementation strategies, involving Central Ministries, State Governments, local governments, civil society organisations, academia, think tanks, international organisations and other stakeholders. The rich leadership, creativity and innovations demonstrated by the States and Union Territories were in full display in these consultations.

NITI Aayog has vigorously pursued advocacy with States and UTs to heighten the thrust on SDGs. The States have devised their own strategies for

STEPS IN SDG LOCALISATION AT THE SUBNATIONAL LEVEL (STATES/UTs)

STEP 8
Ranking of Districts
Undertake periodic, preferably annual, ranking of districts on SDG performance

STEP 7
Review Mechanisms
Set up SDG review mechanism at the Chief Secretary/ Chief Minister level

STEP 1
Sensitization
SDG related awareness generation of the leadership

STEP 6
Operationalize Dashboard
Activate the dashboard and utilize it for any-time SDG reviews

STEP 2
State and District Indicator Frameworks
Nodal department coordinates drafting of SIF and DIF in consultation with NITI Aayog

STEPS IN
SDG Localisation
at the subnational
level (States/UTs)

STEP 5
SDG Coordination Centre
Set up a center within the SDG nodal department to coordinate all SDG - related initiatives

STEP 3
Improve Data Ecosystem
The State/UTs improves its data collection systems and widens the quantum of indicators captured

STEP 4
Building Partnerships
The State/UT enters into partnership with knowledge partner/technical agency for developing dashboard

sensitising elected representatives and officials at the State/district/local levels, CSOs and communities. Key elements distinguishing these subnational initiatives are as follows:

•   Complementing the national initiatives in terms of outreach by including the district and local level official functionaries, civil society and other stakeholders.

•   Continuing the conversation in local languages, bridging communication gaps and linking to local perceptions, knowledge and experiences.

•   Using local knowledge and cultural artefacts and generating local IEC materials for multiplying outputs.

SDGs and Envisioning Sustainable Futures

India is committed to the 2030 Agenda and posited its correspondence with the National Development Agenda. Both at the national and the State level, SDGs were taken as key contours of envisioning development. NITI Aayog has released the national strategy document, namely, 'Strategy for New India@75', envisioning a thriving nation in the year 2022, which marks the 75th anniversary of India's attainment of independence. It lays out a detailed multi-pronged strategy to materialise the 'New India' and factors in SDGs and related targets across all strategic domains. The strategy is focused on making a transformative transition to 'clean, inclusive, sustained and sustainable growth'. The strategy document has identified 41 sectors – each mapped to the relevant SDGs – where the transformation is targeted. Providing a sense of priority, the sectors have been grouped into four clusters: drivers, infrastructure, inclusion and governance. The 'drivers' centre upon performance boosting economic initiatives across various sectors, widening and diversifying labour participation and upgrading the science, technology and innovation ecosystem. The second cluster of 'infrastructure' focuses on strengthening the foundations of rapid economic growth as well as creation of social and public goods, which would facilitate greater ease of living for citizens of the country. The third cluster of 'inclusion' addresses the principle of 'leaving no one behind'. It deals with elements of empowerment, such as, education, health,

housing etc. and providing enabling conditions to people in vulnerable situations. The last cluster on 'governance' focuses on improving the health of the institutional system from local to national level by privileging performance and broad-basing transparency and accountability. The strategic armoury constructed across the sectors goes strong on all options for improving and entrenching multi-stakeholder partnerships involving the private sector, civil society and individual citizens.

Encouraged by NITI Aayog, all State governments embarked upon the process of preparation of their vision documents on SDGs. As of now, almost all States and several of the UTs have already prepared or adopted their SDG vision documents. The vision documents aid the SDG localisation process in many ways:

•   Stating the Goals and the extent of their achievement by 2030, in the context of the local reality and also with respect to various social/population groups in the State/UT.

•   Specifying a whole-of-the-government approach to achieve the SDGs through inter-departmental and cross-sectoral collaboration - it has a salutary influence on silo-based functioning to which departmental programme implementation at times get reduced to.

•   Localising the targets by providing the milestones and sometimes, the periodised levels of achievements in concrete terms.

•   Identifying priorities in accordance with the socio-economic and geo-physical situation and current level of achievement along various parameters.

•   Identifying various social groups and communities in vulnerable situations and announcing strategies to help achieve their longer-term development outcomes.

•   Clustering different development programmes and schemes and announcing packages targeting various sections of the population.

•   Laying down principles for programme implementation to be adhered to by various departments.

- Providing guidance for identification and adoption of indicators for SDG targets.

- Providing guidance for preparation and adoption of monitoring and evaluation frameworks.

- Providing context for analysis and understanding of interrelationships between the SDGs in terms of positive reinforcements or negative trade-offs.

- Embodying the useful tools required for SDG-driven policy coherence and programme implementation.

The SDG vision documents and related advisories have considerable potential to work as tools for policy oversight and appraisal, designing alternative implementation strategies and sparking innovation in the processes of planning, monitoring and programme implementation. These initiatives across the States show varied promise and significant scope for future impact.

Aligning SDGs with the National, State and Local Development Agenda

A primary aspect of central coordination is the alignment of multifarious development programmes with SDGs, since implementation of these programmes constitute the principal means of achieving the SDG targets. In August 2018, NITI Aayog modified its earlier mapping of the 17 SDGs as well as all associated targets on Central Ministries, Centrally Sponsored Schemes (CSSs) and other government initiatives by covering almost all programmes and schemes implemented by the Government of India, to fully account for interconnectedness across SDGs/targets. Apart from programmes and schemes, the mapping has also placed the functioning of the Ministries/Departments concerned in the compass of the SDGs/targets and has brought about a sharper focus on SDG-driven implementation.

Following the mapping at the national level, State governments have also mapped the schemes and programmes implemented by them, in addition to the CSS, with the SDGs. Along with the schemes, the implementing departments are also mapped. This completes the processual cycle and comprehensively classifies the development planning and implementation across the country according to SDG targets.

Extensive attempts have been made to integrate SDGs in the development planning processes at the level of local governments at village/community levels. As discussed before, an enabling environment has been created in the country for local development planning through greater fiscal decentralisation after the acceptance of the award of the 14th Finance Commission in 2015. Mechanisms and processes have been created for local planning through GPDPs by issuance of general national guidelines and customised State-specific guidelines for GPDP; development and capacity building of large number of trainers and facilitators for preparation of GPDPs; creation of institutional structures at district and sub-district levels to provide support to the process and implementation of projects/programmes for review and improvement of these planning processes. It has been attempted to integrate SDGs into all the aforesaid interventions. The guidelines have been revised, capacity-building and facilitation processes have been reoriented and SDG targets and indicators have been developed for use in the planning process. While it would take time for the local plans by *Panchayats* to fully address the SDGs, the process has been initiated in all the States with active support from national level bodies.

Laying Down the Monitoring and Data System

With 17 Goals and 169 targets, the 2030 Agenda offers a lot of challenges in terms of monitoring and measuring progress. These challenges have the potential of becoming formidable for a country like India that has vast geographical, economic, demographic and social diversity and variance.

National Indicator Framework

India has taken significant strides by developing a National SDG Indicator framework (NIF) with 297 indicators across all 17 goals and a coordinated system for generating and managing data through a process of multi-layered and iterative consultations involving federal ministries, subnational governments, research institutions, UN and other international organisations as well as the civil society.

The process of developing the NIF was led by the Ministry of Statistics and Programme

Implementation (MoSPI). The framework consists of nationally defined indicators responding to national priorities and needs. National acceptability was an important criterion used in selecting the indicators. There is scope for improving the framework by adding/deleting/modifying indicators with the improvement in the Statistical System and availability of data. A High-Level Steering Committee (HLSC) has been instituted to periodically review and refine the NIF in keeping with emerging monitoring requirements.

The first NIF Baseline report (as on 2015-16) was released by MoSPI in 2019, with its first progress report in March 2020. The reports contain data snapshots, metadata definitions, computation formulae, data including sources, unit of measurement and periodicity. Each of the 297 indicators have been mapped with respect to the periodicity of data availability, baseline reference period and data sources.

SDG India Index & Dashboard

The importance of monitoring progress on SDGs cannot be overstated. Towards this end, NITI Aayog developed the SDG India Index first in 2018 to measure progress, rank the performance of the State/Union Territories (UTs) and trigger remedial action. The first SDG India Index covered 13 out of 17 SDGs (excepting Goals 12, 13, 14 and 17) in 2018, while the 2019 edition was far more comprehensive, covering all the 17 Goals. The Index is an aggregate measure which is amenable to understanding and use by everyone — policymakers, businesses, civil society and other stakeholders.

SDG India Index provides critical insights on the country status of SDGs, along with a comparative assessment of the performance of all the 37 States and UTs. It is a useful development tool to:

• Support States/UTs to benchmark their progress against the national targets and performance of their peers and devise improved strategies to achieve the SDGs by 2030.

• Support States/UTs to identify priority areas to modulate their initiatives and investments as well as to measure incremental progress.

• Highlight data gaps across SDGs and identify areas for building individual and systems capacity for better data management.

SDG India Index & Dashboard, 2019-20

The second edition of the Index is based on data on indicators for the first 16 goals while a qualitative assessment has been made for Goal 17. The indicator base has been substantially widened to cover 100 indicators, which are largely drawn from the National Indicator Framework (NIF). Out of the 100 indicators, 40 were adopted from the 2018 version and the remaining 60 were sourced from NIF or were suitable refinements. Updated values have been used for indicators wherever available. It is accompanied by a dashboard which is in the public domain and hosts state-of-the-art visualisation and analysis tools for data at the national and State/UT level to collect and analyse feedback. The dashboard enables the government, civil society, think tanks and academia in carving out useful insights which the States/UTs can use for faster progress under the SDG framework.

The Index is designed to function as a tool for focused policy dialogue, formulation and implementation, and moving towards development action pegged to globally recognisable metrics. It has helped in highlighting crucial gaps related to monitoring SDGs and the need for improving statistical systems at the National/State/UT levels.

In light of the mapping at the national level, State governments have also mapped the schemes and programmes implemented by them, in addition to the Centrally Sponsored Schemes, with the SDGs. Along with the schemes, the implementing departments are also mapped.

● ●

Going Forward on the Index

While the SDG India Index 2019 continues to be the key instrument to assess the progress of the States/UTs in adopting and implementing the SDG agenda, it will be improved upon in several ways including the following:

• The Index does not cover SDG 17 owing to the unavailability of suitable data at the State/UT level. While a qualitative assessment of the progress under the goal has been included in the latest version, quantitative data may be covered in future.

• As more data becomes systematically available, the Index would include more indicators with higher frequency and greater granularity data which is also disaggregated by gender, community, social category, urban-rural and other classifications. It will be a constant endeavour to include data from all reliable and robust sources in keeping with the requirement of data comparability and authenticity.
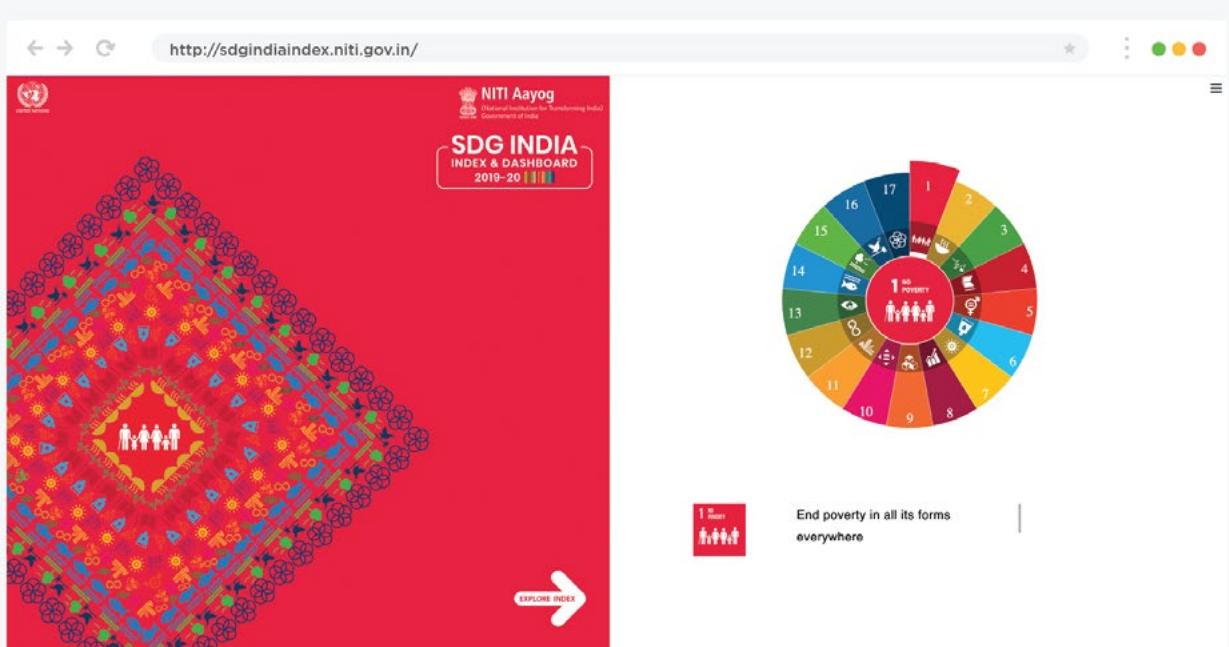
Positive outcomes of the Index

The Index is playing a key role in driving the SDG agenda in India. The results of the ranking were highly publicised by the media throughout the nation. It raised awareness on SDGs on many levels – within government, media, researchers and civil society organisations. In many States/UTs, after the release of the Index report, structured SDG reviews were initiated. Some governments instituted high-level committees to oversee SDG adoption. The Index also pushed SDG localisation in some States/UTs to the subsequent level where district-level monitoring was initiated, thereby promoting healthy competition among districts.

Monitoring at the State Level

States shoulder the primary responsibility for follow-up and review at the state, district and sub-district levels about progress made in implementing the SDGs. It is thus important for States to develop their own State Indicator Framework

SDG INDIA INDEX DASHBOARD

Dashboard URL: http://sdgindiaindex.niti.gov.in/

Linked from NITI Aayog's website

(SIF) based on their individual critical development priorities, data requirements, available infrastructure and resources.

As the monitoring requirements at the state level vary, the States are expected to adapt the NIF as per their policy and contextual needs. For example, States may require more disaggregated data not only vertically (districts, sub-districts and lower level) but also horizontally (sex, social groups, persons with disabilities, elderly, etc.). This process of customisation has to be balanced with the need for alignment with the NIF for national coherence and comparability.

State Indicator Frameworks

In the course of the consultations with NITI Aayog and MoSPI, State Governments increasingly realised the need for additional indicators for State level monitoring and tracking of progress. While collaborating to arrive at the NIF, many of them have gradually developed their State Indicator Frameworks (SIF).

At present, about 60 per cent of the States have developed SIFs, which significantly vary in terms of the number of indicators. They have been developed in consultation with all relevant stakeholders in the light of the broad national guidelines of Government of India. This has ensured a general congruence despite local specific differences and uniqueness.

Similarly, the States are in the process of developing District Indicator Frameworks (DIFs). DIFs would enable addressing local aspirations and capturing details of ground level performance, with focused monitoring of indicators and goals at the grassroots. Presently, about 30 per cent of the States have brought out their DIFs.

Challenges and Future Directions

While remarkable strides have been made in the localisation of SDGs in India, the process is far from complete. It is especially challenging, considering the dimensions, diversity and enormity of the development undertaking in the country. There are several areas on which work continues and progress is being achieved.

Awareness and capacity development of various stakeholders, especially of the communities and local governments, on all aspects of localisation is very important. It would increase the commitment, improve participation and collaboration in programme implementation as well as monitoring and, consequently, lead to better performance and faster achievement of the Goals.

Implementation of SDGs has prompted substantial enthusiasm and enterprise among the States. The competitive ethos as well as the *esprit de corps* generated is palpable. There is a need to analyse good practices and promote peer learning on a regular basis. NITI Aayog is continuously engaged on this front of building repository of good practices, creating cross-learnings from the journey of all States/UTs in SDG localisation.

The domain of indicators, data and monitoring associated with the SDG framework is immensely vibrant and dynamic. The NIF, SIFs and DIFs, together represent a vast data ecosystem hitherto never attempted in the country before. Regular generation of data and reporting, with new methodologies, technological innovations, big data and geo-spatial data analytics will present a very exciting future for all stakeholders.

INDIA'S MARCH FORWARD

PROGRESS ON THE SUSTAINABLE DEVELOPMENT GOALS

SDG 1
NO POVERTY
End poverty in all its forms everywhere

Designing effective strategies to rapidly reduce poverty has persistently challenged nations all over the world. This has particularly been the defining agenda in low- and middle-income countries, where the incidence of both income poverty and multi-dimensional poverty is relatively larger than that in other parts of the world. Such poverty manifests itself in diminished opportunities for livelihood and quality education, lack of access to resources, social discrimination and vulnerability to extreme climate events.

India is implementing a comprehensive development strategy to end poverty in all its forms, through accelerated economic growth and broader social safety nets. A wide range of programmes for promoting gainful employment, strengthening livelihood opportunities and improving accessibility of citizens to basic services, such as health, nutrition, drinking water and sanitation, education, skills, infrastructure and utilities, have been operationalised. The mechanisms for targeted social assistance to people in vulnerable situations are being continuously improved.

Level and Extent of Poverty

The country is focused on steadily accelerating Gross Domestic Product (GDP) growth rate to sustain eight per cent growth between 2018-2023, to become a USD 5 trillion economy by 2025. While the recent COVID-19 pandemic has caused a setback, the economic growth rate in India has been broadly on an accelerating path, with India being one of the fastest growing major economies in the world.

The rapid growth of the economy has contributed to 25.5 per cent growth in per capita income which grew from USD 1,610 in 2015 to USD 2,020 in 2018. According to national estimates, poverty rate in India declined from 37.2 per cent in 2004-05 to 21.92 per cent in 2011-12. Further, extreme poverty, as measured by the World Bank's International Poverty line, declined from 21.2 per cent in 2011 to 13.4 per cent in 2015. The incidence of multidimensional poverty, as measured by the Multidimensional Poverty Index of OPHI and UNDP, reduced by half to 27.5 per cent between 2005-06 and 2015-16, implying that over 271 million people escaped poverty. Deprivations significantly reduced in all 10 indicators – nutrition, child mortality, years of schooling, school attendance, cooking fuel, sanitation, drinking water, electricity, housing and assets. Poverty reduction in rural areas has outpaced that in urban areas. Improvement among the bottom 40 per cent exceeded that of the total population.

India is implementing a comprehensive development strategy to end poverty in all its forms, through accelerated economic growth and broader social safety nets.

A multi-pronged strategy with targeted Government programmes has facilitated income growth for the economically disadvantaged by developing infrastructure and support services, creating productive assets, developing skills and supporting entrepreneurship. Social protection measures aimed at mitigating risks from natural and other disasters ensure that unforeseen exigencies do not disrupt the poverty reduction efforts.

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Graph 1. India's Real GDP Growth (in per cent)

Social Protection and Safety Nets

The social security net in India covers the vulnerable sections, including the elderly, persons with disabilities, children, women and widows, through multiple targeted pension schemes under the National Social Assistance Programme. Additionally, a sizeable percentage of India's rural population is protected against unemployment to the extent of 100 days of guaranteed wage employment per household in a year under the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA). 136 million job cards have been issued so far under the MGNREGA Scheme. It had generated 2.64 billion person days of employment in FY 19-20 which marked an increase of about 12 per cent against 2.36 billion person days generated in FY 16-17. More women (54 per cent) have taken advantage of this employment scheme. An additional INR 400 billion (USD 5.33 billion) has been allocated for the benefit of workers in the aftermath of COVID-19.

Access to Basic Services

India has set ambitious targets for poverty reduction, defined not only in terms of monetary threshold of poverty, but also of other factors pertaining to well-being, such as access to nutrition, health care facilities, drinking water and sanitation, education, affordable housing, electricity, clean cooking fuel, and roads and utilities, apart from targeted programmes for digital and financial inclusion.

Financial inclusion of the hitherto unbanked sections of the population has been achieved by ensuring access to a range of financial services including banking, credit, insurance and pension under the *Pradhan Mantri Jan-Dhan Yojana* (PMJDY). As of 1st April 2020, 381 million accounts were opened under PMJDY, of which 203 million were by women. The increased coverage of banking services along with PMJDY has also enabled direct benefit transfer of over INR 11 trillion (USD 149 billion) to the accounts of beneficiaries, which improved the effectiveness of social security provisions. Cash relief has been extended to more than 200 million women bank account holders to meet the hardships of the lockdown during the COVID-19 pandemic under the PM *Gareeb Kalyan Yojana.*

Universalising primary healthcare is strengthened with the initiation of *Pradhan Mantri Jan Arogya Yojana* (PMJAY) programme. The complementing component under the programme, *Ayushman Bharat*, covers 500 million beneficiaries from over 100 million poor and vulnerable families with health insurance coverage up to INR 500,000 (USD 6,666.7) per family per year for secondary and tertiary institutional care. By May 2020, more than 10 million hospital treatments worth nearly INR 134 billion (USD 1.8 billion) have been provided under the scheme. Over 21,000 public and private hospitals have been empanelled across the country to provide inpatient services to the beneficiaries.

Access to safe housing is a critical part of essential services, which is ensured under the initiative 'Housing for All by 2022'. The economically disadvantaged households are provided with financial assistance for constructing houses equipped with basic amenities. Under the credit-linked subsidy scheme, women get special interest rates and benefits. The number of houses completed in a year under the rural component of the programme has increased by about four times from 1.2 million in 2014-15 to 4.7 million in 2018-19. Under the urban component, against the assessed demand of 11.2 million, 10.3 million houses were sanctioned, 6.1 million grounded for construction and 3.2 million delivered as on 1st January, 2020.
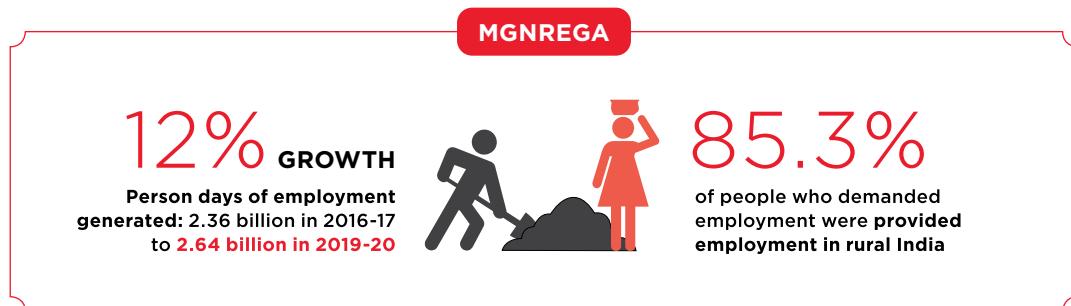
Table 1. Trends in Social Service Sector Expenditure by Government (combined Centre and States)

ITEM	2014-2015	2015-2016	2016-2017	2017-2018	2018-2019 RE	2019-2020 BE
INR Trillion						
Total Budgetary Expenditure	32.85	37.61	42.66	45.16	55.17	60.72
Expenditure on Social Services of which:	7.68	9.16	10.41	11.4	14.47	15.79
i) Education	3.54	3.92	4.35	4.83	5.81	6.43
ii) Health	1.49	1.75	2.13	2.43	2.92	3.24
iii) Others	2.65	3.48	3.93	4.13	5.74	6.12
As percentage to GDP						
Expenditure on Social Services of which:	6.2	6.6	6.8	6.7	7.6	7.7
i) Education	2.8	2.8	2.8	2.8	3.1	3.1
ii) Health	1.2	1.3	1.4	1.4	1.5	1.6
iii) Others	2.1	2.5	2.6	2.4	3	3

Note:

1. Social services include, education, sports, art and culture; medical and public health, family welfare; water supply and sanitation; housing; urban development; welfare of SCs, STs and OBCs, labour and labour welfare; social security and welfare, nutrition, relief on account of natural calamities etc.

2. Expenditure on 'Education' pertains to expenditure on 'Education, Sports, Arts and Culture'.

3. Expenditure on 'Health' includes expenditure on 'Medical and Public Health', 'Family Welfare' and 'Water Supply and Sanitation'.

4. The ratios to GDP at current market prices are based on 2011-12 base. GDP for 2019-20 is First Advance Estimates released by National Statistical Office (NSO) on January 07, 2020.

MGNREGA

12% GROWTH

Person days of employment generated: 2.36 billion in 2016-17 to **2.64 billion in 2019-20**

85.3%

of people who demanded employment were **provided employment in rural India**

The National Sample Survey indicates that 5.9 per cent and 0.8 per cent of the households in rural and urban India, respectively, live in temporary houses as of 2018, which is a sharp fall from 9.6 per cent households in rural India and 1.4 per cent households in urban India in 2012. The Survey summarises that 96 per cent of India's urban population and 76.7 per cent of rural live in permanent houses in 2018, a substantive improvement from 2012. Additionally, the Government announced affordable rental housing for the migrant and urban poor amidst the COVID-19 outbreak.

Strengthening Livelihood Opportunities and Skilling Ecosystem

Agriculture provides livelihoods to 650 million people or 59 per cent of Indian households and is a key contributor to growth, job creation, as well as poverty reduction. Therefore, there has been a comprehensive array of measures to improve agricultural productivity while simultaneously seeking to double farmers' income by 2022. Interventions include improving crop insurance through *Pradhan Mantri Fasal Bima Yojana* (Prime Minister's Crop Insurance scheme), increasing irrigation efficiency through the *Pradhan Mantri Krishi Sinchayee Yojana* (Prime Minister's Irrigation Scheme), strengthening agricultural marketing, building up farmer producer organisations for all-round promotion of farm entrepreneurship etc.

To increase the income levels of low-income groups through better skilling opportunities and more productive employment, India has introduced measures and programmes to revamp the educational and skilling ecosystem by reorienting the skilling curriculum to the demands from the industry, creating infrastructure and ecosystem for promoting entrepreneurship, rural business models, micro and medium finance for start-up projects and micro-enterprises. The range of interventions to ramp up the skilling and livelihood ecosystem include Stand Up India, Skill India, National Apprenticeship Programme, and National Rural and Urban Livelihood Mission. As a result, the share of regular wage/salaried employees increased from 18 per cent in 2011-12 to 23 per cent in 2017-18, with a growth of around 26.2 million new jobs. Proportion of women workers in regular wage/salaried jobs also saw an increase from 13 per cent in 2011-12 to 21 per cent in 2017-18.
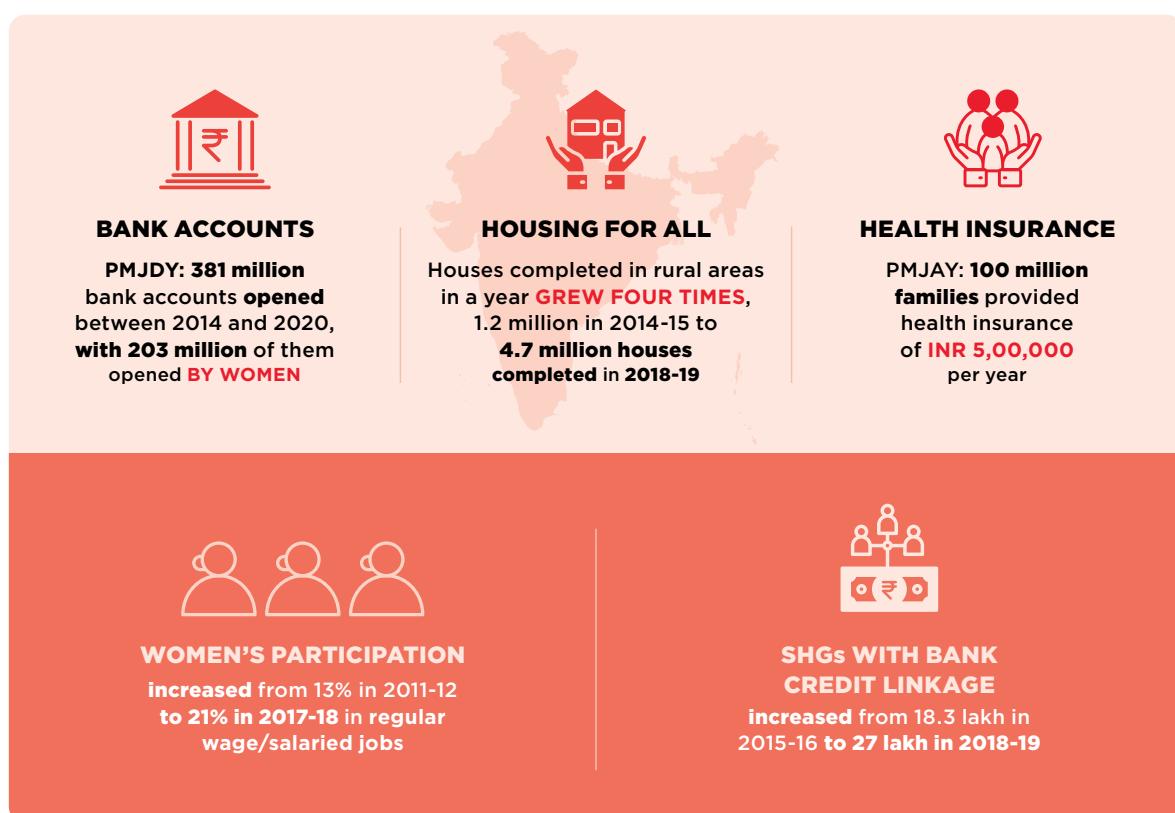
Monitoring Progress at the National and Sub-National levels

India has a robust monitoring framework to measure the progress of the country and its sub-national constituents by way of the SDG India Index and Dashboard. For SDG 1 and its disaggregated five national indicators, the overall Index Score for the country is 50 and ranges between 28 and 72 for the States, and between 33 and 58 for the UTs, on a scale of 0-100, where 0 denotes the worst performance and 100 denotes achievement of the target. This indicates that the distance to target covered so far by India under SDG 1 remains 50, with a significant variation among the sub-national units.

Challenges and Way Forward

○ **Regional Variance:** Much of India's poverty is concentrated in rural areas and in low-income States. The difference among the States in terms of the proportion of people living below the poverty line is stark: Chhattisgarh has 39.9 per cent of people living below poverty while the corresponding figure for Andaman & Nicobar Islands is 1 per cent. Between 2004-05 and 2011-12, the percentage of people below poverty line has decreased significantly from 13.8 per cent to 5 per cent in Goa. However, Chhattisgarh has seen only marginal reduction, from 40.9 per cent to 39.93 per cent.

○ **Feminisation of Poverty:** Feminisation of poverty, especially rural poverty, is another challenge. Poverty affects women more than men as women have limited access to resources, be it food and nutritional security, or health care and public services, apart from the skewed ownership of assets.

○ **Rapid Urbanisation:** While bringing a range of economic benefits, rapid urbanisation has brought with it enormous challenges, most noticeably in the form of demand-supply gaps in housing, infrastructure, employment, and other economic opportunities and services.

○ **Education, Employment and Human Resource Development:** New knowledge and technologies are transforming the conventional structures of skills, work and employment. There is a need to refashion education and skill development so that the existing, emerging and future labour force has the capability and requisite opportunities to engage in appropriately gainful employment. This would also require befitting labour reforms, which the government has already embarked upon. There is also a need to invest in and enhance quality and accessibility of health care, especially for the economically weaker sections and people in vulnerable situations.

BANK ACCOUNTS

PMJDY: **381 million** bank accounts **opened** between 2014 and 2020, **with 203 million** of them opened **BY WOMEN**

HOUSING FOR ALL

Houses completed in rural areas in a year **GREW FOUR TIMES**, 1.2 million in 2014-15 to **4.7 million houses completed** in **2018-19**

HEALTH INSURANCE

PMJAY: **100 million families** provided health insurance of **INR 5,00,000** per year

WOMEN'S PARTICIPATION

increased from 13% in 2011-12 **to 21% in 2017-18** in regular wage/salaried jobs

SHGs WITH BANK CREDIT LINKAGE

increased from 18.3 lakh in 2015-16 **to 27 lakh in 2018-19**

India continues to pursue a National Development Agenda, which resonates with the motto of 'Sabka Saath, Sabka Vikas (collective efforts for inclusive growth)'. The underlying development strategy remains focused on reducing poverty, raising incomes, improving living standards and enhancing the ease of living of all communities, while leaving no one behind. The increase in public expenditure (by 1.5 percentage points from 6.2 to 7.7 per cent of GDP during 2014-20) in social sectors including health and education affirms the commitment of the Government towards maximising social well-being. The improvement in India's position in the Human Development Index by six places between 2014 and 2019, is a sign of progress in the right direction. To deal with the COVID-19 crisis, India launched the *Pradhan Mantri Garib Kalyan Yojana* (Prime Minister's Welfare Scheme for the poor) package of INR 1.7 trillion, targeting the poor and migrant population, which offers insurance cover of INR 5 million (USD 66.7 thousand) per health worker, free food for 800 million people, social security net of INR 6,000 (USD 80) each for 200 million women, immediate ex-gratia of INR 1,000 (USD 13) to 30 million elderly, widows and persons with disabilities, farmers and construction workers. While the State is the dominant actor in driving this agenda, the efforts are substantially complemented by the private sector and the civil society to accelerate the achievement of the targets under Goal 1.
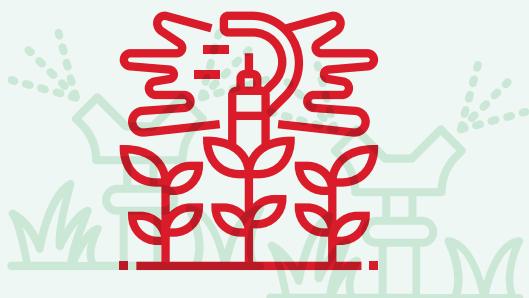
good practices

KUDUMBASHREE, meaning 'prosperity of the family' in Malayalam, is the **poverty eradication and women empowerment programme** implemented by the State Poverty Eradication Mission of the State of Kerala jointly with the National Bank for Agriculture and Rural Development. **The Mission consists of a three-tier structure with Neighbourhood Groups** (NHGs) as primary level units, Area Development Societies (ADS) at the ward level and Community Development Societies (CDS) at the local government level. In 2011, Government of India recognised *Kudumbashree* as the State Rural Livelihoods Mission under the National Rural Livelihoods Mission.

The Mission has over the last two decades drastically transformed the lives of women through grassroots level initiatives that have empowered them economically and socially by generating sustainable livelihood opportunities.

EMPLOYMENT GENERATION through MGNREGA in the Aspirational District of Garhwa in Jharkhand: Garhwa, a district in the State of Jharkhand, has undertaken **extensive development of farm ponds, wells and installation of micro irrigation sprinklers with the help of non-conventional sources of energy** through employment generation under the MGNREGA social security scheme.

Photo courtesy of Rakesh Pulapa

SDG 2

ZERO HUNGER
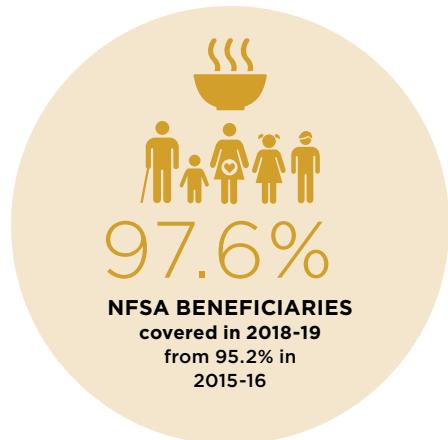
End hunger, achieve food security, improve nutrition and promote sustainable agriculture

Eradicating hunger and all forms of malnutrition, and increasing agricultural productivity are the prerequisites for lifting millions from poverty, deprivation and underdevelopment. Under-nutrition is the prime risk factor in over 40 per cent of under-five child deaths in India. Food security is influenced by a number of factors, including those that determine food availability — domestic food production and the capacity to import food, as well as determinants of food access, utilisation and vulnerability. Access to food is determined by purchasing power of households, access to government programmes and gender inequality. India is amongst the world's largest producers of wheat, rice, sugarcane, milk, pulses, fruits and vegetables. Yet, improving access, utilisation and reducing vulnerability remain a challenge. Vulnerability to shocks and disasters too influence food security.

Despite serious challenges, India has made significant progress in improving food and nutrition security. With nearly a six-fold increase in food grain production from 50 million tonnes in 1950-51 to more than 292 million tonnes in 2019-20, India has done well to expand food production and build stocks of food grains. Access to subsidised food has been made an entitlement and the public distribution system enables access to basic food across the country. Given the fact that 70 per cent of rural Indian households and 59 per cent of India's workforce are dependent on agriculture, the Government has prioritised strengthening agriculture through measures to improve irrigation and agri-marketing infrastructure, reduce risks through public procurement and crop insurance, and improve productivity through better yielding varieties.

Food Security

India's food security programme is the largest of its kind in the world, which provides affordable access as a legal entitlement. The implementation of the revamped Public Distribution System under the National Food Security Act (NFSA), 2013, which moved from welfare to a rights-based approach, with a coverage of around 813 million people, is a paradigm shift in the approach towards the issue of food security at the household level, for almost two-thirds of India's population. In recognition of women's central role in food security, ration cards are issued in the name of the senior female member of the household. Under the *Antyodaya Anna Yojana* (AAY), 25 million families from economically weaker sections are entitled to 35 kg of food grains per household per month while the remaining 'priority category' households get 5 kg of food grains per person per month. The food grains are distributed through a network of over 5,40,000 Fair Price Shops all over the country and at highly subsidised prices of INR 1/2/3 (1.3-5 cents) per kg, which is less than one-tenth of the total economic cost to the government.

97.6%
NFSA BENEFICIARIES
covered in 2018-19
from 95.2% in
2015-16

PDS TRANSFORMATION

5,40,000
Fair Price
Shops

234 MILLION
Ration Cards
Digitized

COMPUTERISATION
of Supply Chain
Management

**AADHAAR
SEEDING**
of Ration Cards

ELECTRONIC
POS Machines

In order to improve access to and efficiency of food distribution at such a massive scale, various reform measures have been put in place in the recent years. These include digitisation of 234 million ration card database across States/ Union Territories (100 per cent completed); computerisation of supply chain management (close to 100 per cent); *Aadhaar* seeding of ration cards, thereby enabling biometric authentication of the beneficiaries (90 per cent completed); and automation of Fair Prices Shops and installation of electronic-Point of Sales (PoS) machines (90 per cent completed). In addition to online allocation of food grains to all ration shops, there are online grievance redressal systems, toll-free helplines and transparency portals for the entire country. Further, India has launched the 'One Nation One Card' scheme in 2020 which enables beneficiaries to get access to subsidised grains from anywhere in the country. This ration card portability will provide a major boost to the food security system and benefit over 130 million migrant population.
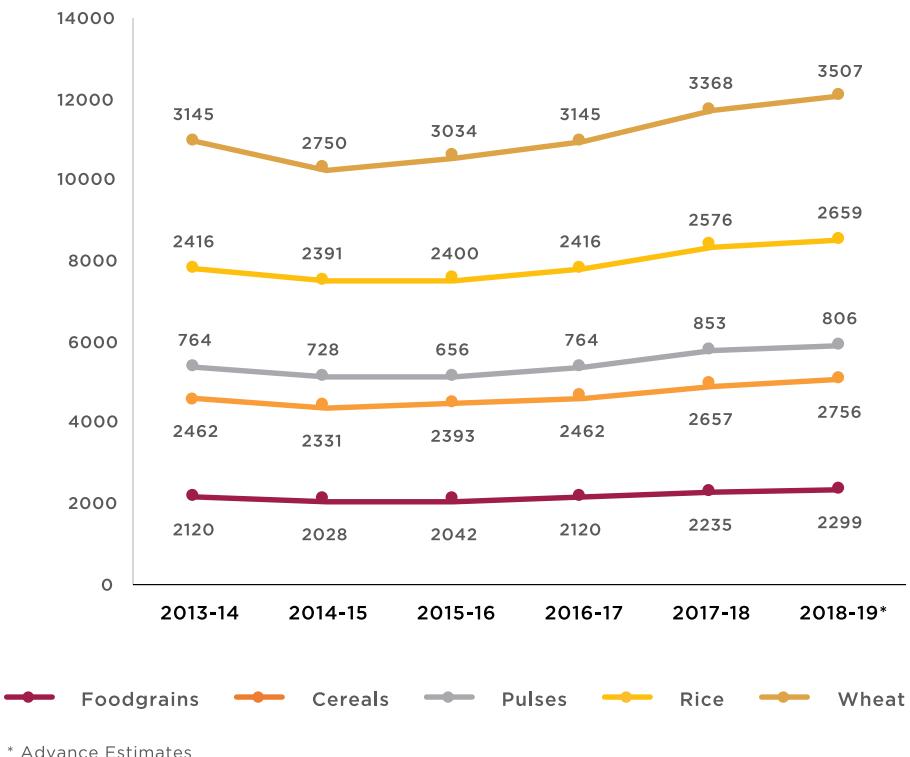
Nutrition Security

India has addressed the issue of food access to a large extent, however, undernourishment remains a challenge, indicated by the high prevalence of stunting and wasting amongst children under the age of five. Such undernourishment is on account of complex interactions of several factors like sanitation, genetics, environment and food intake.

India accords high priority to the issue of malnutrition and implements several schemes and programmes to address the same, such as *Anganwadi* Services, *Pradhan Mantri Matru Vandana Yojana* (PMMVY) and the Scheme for Adolescent Girls (SAG) under the umbrella Integrated Child Development Services Scheme (ICDS) to address the problem of malnutrition among women and children in the age group

0-6 years. The *Anganwadi* Services scheme provides a package of six services including supplementary nutrition, pre-school non-formal education, nutrition and health education, immunization, health and referral services. These services operate through 1.38 million *Anganwadi* Centres, benefitting 79.6 million people of which 64 million are children under six years of age and 15.6 million are pregnant women and lactating mothers. Pre-school education is provided to 28.5 million children of 3-6 years of age. In addition, the Reproductive, Maternal, Newborn, Child, Adolescent Health and Nutrition programme (RMNCAH+N) under National Health Mission (NHM) is also implemented to reduce malnutrition across the life cycle.

In a renewed focus on synergised efforts to battle stunting, wasting, anaemia and malnutrition among children, the *Poshan Abhiyan* (National Nutrition Mission) was launched in 2017. This multi-ministerial convergence mission aims to mount a concerted attack on stunting, under-nutrition, anaemia and low birth weight by 2, 2, 3 and 2 per cent per annum, respectively, over a three-year timeframe. It targets to bring down stunting among children in the age group 0-5 years from 38.4 per cent to 25 per cent by 2022. The prevalence of stunting, underweight and wasting among children aged 0-4 years was 34.7, 33.4 and 17.0 per cent respectively in 2018 while prevalence of anaemia in (children in the age group 1 to 4 years) was pegged at 40.5 per cent. Cooked meals for children in *Anganwadi* centres and Mid-Day Meal (MDM) for school-going children are the twin pillars of improving nutrition and education related outcomes. The MDM Programme in the public sector schooling system is also one of the world's largest programmes of supplementary school nutrition which ensures access to nutritious cooked meals to 116 million children at primary and upper primary level.

Graph 2. Yield Per Hectare of Major Crops (Kg/ Hectare)

Legend: Foodgrains · Cereals · Pulses · Rice · Wheat

* Advance Estimates

Agricultural Productivity and Farmers' Income

With more than 85 per cent of farmers belonging to the small and marginal categories, India has been implementing a multi-faceted strategy for doubling farmers' income by 2022 by focusing on seven growth factors. These are: improved crop productivity, increased livestock productivity, cost-effective production processes, increased cropping intensity, crop diversification favouring high-value crops, access to better prices and shifting to non-farm occupations.

As 55 per cent of India's gross cropped area are rain-fed, food production has high vulnerability to climate change. The National Mission on Sustainable Agriculture (NMSA) and other allied Missions under the comprehensive National Action Plan on Climate Change (NAPCC) strive to mitigate the effects of climate change by building climate resilient agricultural practices. Under NMSA, 224 million soil health cards have been distributed to farmers for crop-wise nutrient management recommendations for enhancing soil fertility. Land under certified organic farming has increased by about 2.5 times from 0.72 million hectares in 2013-14 to 1.78 million hectares by 31st March 2018. India's agricultural productivity has been on the rise: to 2659 kg/ha for rice and 3507 kg/ha for wheat in 2018-19, from 2391 kg/ha for rice and 2750 kg/ha for wheat, respectively, in 2014-15. This marks an increase of 11 per cent and 28 per cent respectively, for rice and wheat.

INR
68,531 2017-18
GVA IN AGRICULTURE
per worker **Increased** from INR 57,087 in 2011-12

224 MILLION
SOIL HEALTH CARDS
distributed

A host of interventions are in place for boosting agricultural productivity. Improved water efficiency with the motto of *Har Khet Ko Paani* and 'Per drop more crop' is being driven under *Pradhan Mantri Krishi Sinchayee Yojana* (PMKSY), which provides end-to-end solutions in the irrigation supply chain, viz. water sources, distribution network and farm-level applications. Efforts have been made to revamp crop insurance support for minimising farm losses, proving subsidised credit and ensuring single-window comprehensive risk coverage for crops under *Pradhan Mantri Fasal Bima Yojana* (PMFBY). The increase in minimum support price for all kharif and rabi crops, at least by 150 per cent of the cost of production, has also shored up farmers' income. Additionally, *Pradhan Mantri Kisan Yojana* guarantees a minimum support of INR 6,000 per year to 125 million eligible farmers. Focusing on the agro-value-chain, the *Pradhan Mantri Kisan Sampada Yojana*, finances the establishment of mega food parks, agro-processing clusters, integrated cold chain and other value addition infrastructure.

Monitoring Progress at the National and Sub-National Levels

While measuring the country's performance on the SDG India Index and Dashboard, for SDG 2 and its disaggregated seven national indicators, the overall Index Score for the country is 35 and ranges between 22 and 76 for the States, and between 12 and 73 for the UTs, on a scale of 0-100. This indicates that the distance to target covered so far by India in Zero Hunger remains 35, with a significant variation among the sub-national units

good practices

BREAST MILK BANK was established in the Aspirational District of Ramanathapuram, Tamil Nadu to provide **access to breast milk for low birth weight, pre-term and orphan babies.**

85.5%
ACCESS TO
BREAST MILK

The initiative helped **improve rates of breastfeeding within the first hour** from 42.9 per cent in 2015-16 to 85.5 per cent in the district.
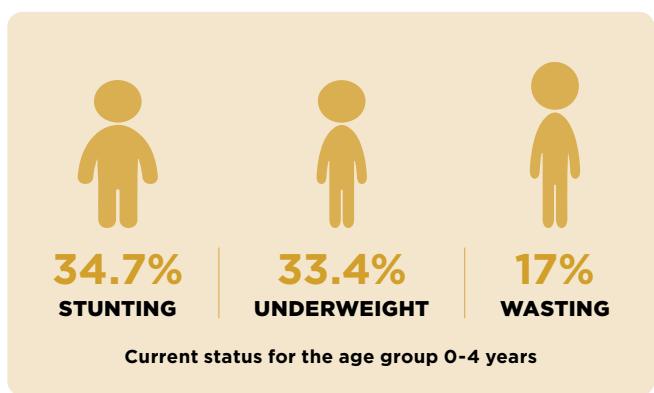
CENTRALISED KITCHENS FOR BETTER NUTRITION: In the Aspirational District of Nandurbar, Maharashtra, central kitchen has been set up by the Tribal Development Department of the State Government to **provide hot and nutritious meals to children in** residential schools, known as *Ashram Shalas*. This central kitchen caters to **28 ashram schools with a capacity up to 10,000 students.**

Challenges and Way Forward

O   While almost 11.4 million hectares have been brought under micro-irrigation in 2019, and average productivity of fruits and vegetables has increased by about 11 per cent between 2013-14 and 2017-18, food wastage remains a challenge, at harvest, post-harvest, distribution and storage stages. Such food could be salvaged by withdrawing it in time from the distribution network, aggregating it and then redirecting it to the people in need. Social structures also determine food availability, especially for women, whose nutritional requirements are often overlooked.

O   India continues to combat high levels of malnutrition, stunting and anaemia. NFHS-4 (2015-16) points out that almost half of the pregnant women aged between 15 and 49 years are anaemic and more than one-third of women have a low Body Mass Index. Among children younger than five years of age, prevalence of detrimental under-nourishment conditions like stunting and wasting remains a challenge. Food security and nutrition related challenges in India are modulated by a number of factors such as access to nutritious food, water and sanitation, micronutrient deficiencies and inadequate awareness.

O   With climate change looming large on the horizon, a fundamental measure to sustain food security is climate-smart agriculture. Challenges remain for wider adoption of climate-adaptive sustainable agriculture practices, new technology and development plans involving large swathes of land cultivated by small and marginal farmers, who constitute about 85 per cent of all farmers, but often lack necessary assets and resources. In addition to sensitisation and capacity development, their access to technology, financial inputs and services like insurance, advanced weather-forecasting systems and appropriate agricultural extension support will be essential.

34.7%
STUNTING

33.4%
UNDERWEIGHT

17%
WASTING

Current status for the age group 0-4 years

Food security and nutrition related challenges in India are modulated by a number of factors such as access to nutritious food, water and sanitation, micronutrient deficiencies and inadequate awareness.

SDG 3

GOOD HEALTH AND WELL-BEING
Ensure healthy lives and promote well-being for all at all ages

India has made remarkable progress in providing universal access to affordable healthcare solutions with special emphasis on groups in situations of vulnerability. An array of initiatives, primarily under the National Health Policy, 2017, have been instrumental in achieving considerable progress in several areas – improving child and maternal health, reducing mortality, raising life expectancy and strengthening the defense against major communicable diseases. As the largest supplier of vaccines and generic drugs, India is widely acknowledged as the 'pharmacy of the world'. Globally, maternal mortality has fallen by almost 50 per cent since 1990 and measles vaccines have averted nearly 15.6 million deaths since 2000. On the other hand, the risk of death from non-communicable diseases remains high at 18 per cent. Challenges persist in the battles against HIV/AIDS, malaria and tuberculosis. The global pandemic COVID-19 has thrown open India's health systems to multifarious challenges, which the country is combating with ground-breaking synergies among industry, civil society and different levels of the government.

India's focus primarily has been on universalising preventive healthcare, ensuring primary healthcare affordability and ramping up modern medical infrastructure. Special interventions have been rolled out for improving the health status of women and children, and for preventing communicable and non-communicable diseases.

Universal Health Protection and Affordable Healthcare

The launch of the world's largest health protection programme, *Ayushman Bharat* and its two components, facilitate inclusive health care to at-risk communities. Health and Wellness Centres (HWC), provide comprehensive primary health care (1,50,000 HWCs are planned to be set up by 2022, of which 39,039 are already functional); *Pradhan Mantri Jan Aarogya Yojana* provides health cover to 100 million vulnerable families up to INR 500,000 (USD 6,666.7) per family per year for secondary and tertiary hospitalisation. Since its implementation in 2018, *Ayushman Bharat* has reached close to 10 million beneficiaries, who have benefitted from cashless treatment worth INR 134 billion (USD 1.8 billion). About 61.4 million women have accessed services of HWCs accounting for 54 per cent of the total footfalls. Out of the 1393 Health Benefit Packages (HBP) under PMJAY, 116 are female centric, 64 are only for males and 1213 are common for both.

India has made significant progress in providing universal access to affordable healthcare solutions.

With a significant increase in access to State-supported healthcare, the out of pocket expenditure (OoPE) as a percentage of total health expenditure has declined from 64.2 per cent in 2013-14 to 58.7 per cent in 2016-17. The *Pradhan Mantri Jan Aushadhi Pariyojana*, under which quality medicine is supplied at affordable prices, has played a big role in reducing the OoPE of patients. In addition, availability of free drugs and a basket of diagnostic services at the district and sub-district levels across the country under the Free Drugs Service initiative has also helped significantly in cutting down OoPE. Hastening the pace towards universal healthcare, India aims to increase primary healthcare expenditure from the current level of 52.1 per cent to two-thirds of total public health expenditure. These initiatives, in conjunction with *Ayushman Bharat*, have made unprecedented strides in providing affordable healthcare to the poor and vulnerable in the true spirit of 'Leave No One Behind'.

45

Table 2. Healthcare Infrastructure and Human Resource

FACILITIES	2018 (in number)	Percentage Increase from 2014
SC/PHC/CHC	1,89,784	3.87
Government Hospital (rural and urban areas, including CHC)	25,778	26.95
AYUSH Hospital and Dispensaries	31,986	7.58
Medical Colleges	539	35.43
Nursing Personnel	29,66,375	13.13
Pharmacists	11,25,222	69.42
Doctors (Modern System)*	9,23,749	23.64
AYUSH Doctors	7,99,879	8.60

Notes:

1. SC: Sub Centre; PHC: Primary Health Centre; CHC: Community Health Centre;
   AYUSH: Ayurveda, Yoga & Naturopathy, Unani, Siddha and Homoeopathy
2. * Assuming 80 per cent of registered doctors are available

Enhancing Medical Infrastructure

India has a doctor-population ratio of 1:1456, against the WHO benchmark of 1:1000. To address the challenge of shortage of doctors, India has embarked on an ambitious programme for upgrading health infrastructure - from district hospitals to medical colleges. Since 2014, 141 new medical colleges have been sanctioned and with an increase in the intake capacity of medical students.

Reducing Maternal Mortality Ratio

India has reduced Maternal Mortality Ratio (MMR) by 6.15 per cent - from 130 in 2014-16 to 122 in 2015-17, which puts it on track to achieve an MMR of less than 70 by 2030. The implementation of the Reproductive, Maternal, Newborn, Child and Adolescent Health (RMNCH+A) strategy, with interventions across the life stages of women and children, and focus on addressing inequitable healthcare delivery for groups in situations of vulnerability, has had a profound impact on the maternal health situation. NHM has also led to the creation of a million strong workforce of front-line workers - Accredited Social Health Activist (ASHA) directly involved in preventive, promotive and service delivery activities.

Further, institutional deliveries doubled between 2005-06 and 2015-16 from 39 per cent to 79 per cent, increasing by 21 percentage points in urban and by 46 percentage points in rural India. A record of 94.3 per cent of all reported deliveries in India in 2019-20, took place at a health institution. Key initiatives under maternal health including *Janani Suraksha Yojana* (conditional cash transfer for institutional delivery), *Dakshata, LaQshya* (quality of care around child birth) have played a huge role in this improvement.

Reducing Neonatal and Under Five Mortality

Infant Mortality Rate (IMR) declined from 37 to 32 between 2015 and 2018. Under-5 Mortality Rate has declined, as well, in recent years, from 43 in 2015 to 37 in 2017. The reduction has been more for girls (by 13.3 per cent) than for boys (by 10 per cent). Neonatal mortality rate also declined by 8 per cent from 25 to 23 during this period.

The percentage of children aged 12-23 months who have received all basic vaccinations increased from 44 per cent in 2005-06 to 62 per cent in 2015-16. The coverage of immunization in children aged between 9-11 months has increased by about 3.1 percentage points, from 88.66 per cent in 2016-17 to 91.76 per cent in 2018-19. The progress is largely attributed to the Integrated Child Development Services (ICDS) Scheme, one of the world's largest programmes which provides an integrated package of services for the holistic development of children, and Mission *Indradhanush*, a focused initiative for universalising immunization.
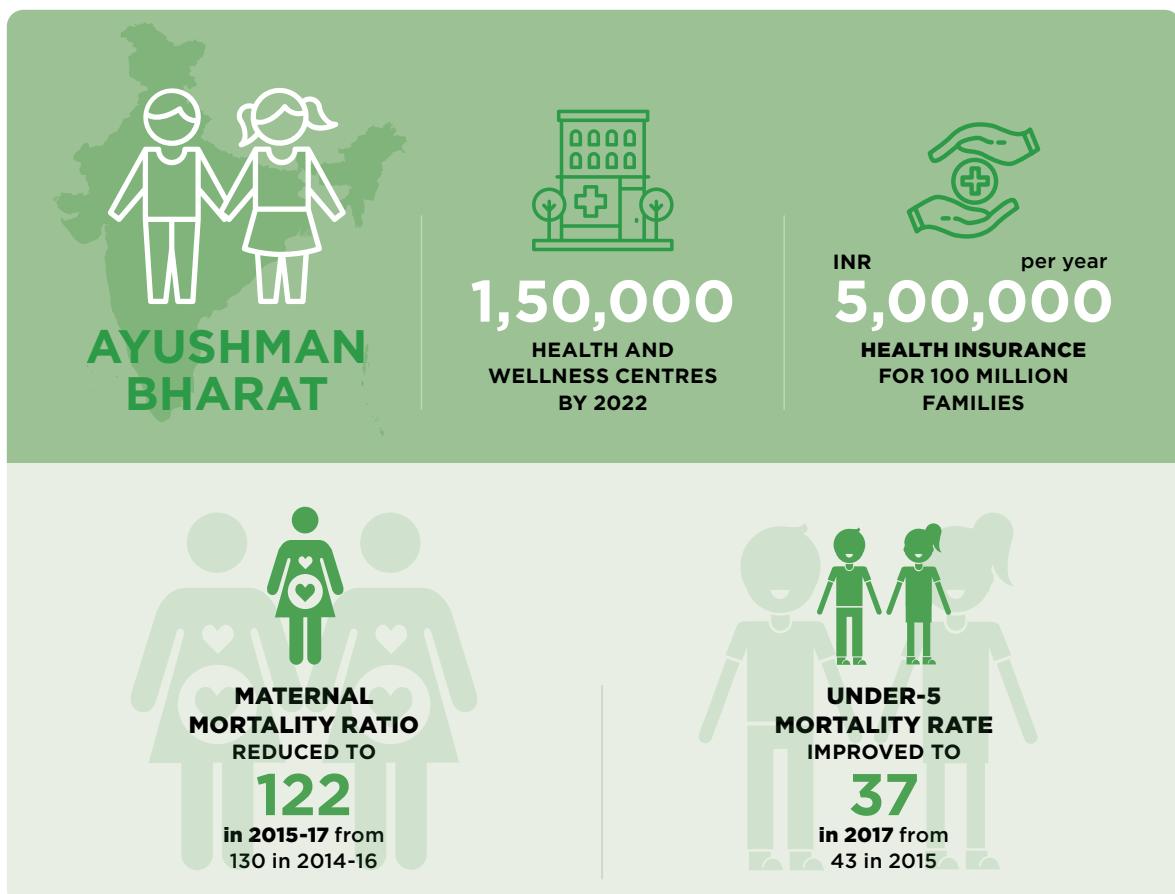
Eliminating Communicable and Non - Communicable Diseases

The National Vector Borne Disease Control Programme (NVBDCP) leads India's fight against communicable diseases such as polio, malaria, TB and lymphatic filariasis. India achieved polio-free status in 2014. Among the 11 most malaria-affected countries globally, India showed a continuous reduction in reported cases during 2016-18 - 60 per cent in 2016-17 and 51 per cent in 2017-18. As far as lymphatic filariasis is concerned, there has been steady progress in terms of reduction in infection levels below the threshold in 37 per cent of all districts. An 'accelerated plan' is being implemented to make India free of lymphatic filariasis by 2021. With respect to TB, India has been able to improve notification of cases, which grew by 16 per cent in 2018. At the same time, there has been a decline in the incidence of cases (per 100,000 population) from 217 cases in 2015 to 204 cases in 2017 – a decline of 6 per cent, thereby consistently moving towards complete elimination of TB by 2025. The emphasis on water and sanitation, especially through the *Swachh Bharat*

Mission, has had an appreciable dent on spread of communicable diseases.

India, with the third largest HIV incidence in the world, has 2.14 million people living with HIV. While the HIV prevalence in India stood at 0.22 per cent in 2017 (0.25 per cent among males and 0.19 per cent among women), new HIV infections per 1000 uninfected people declined by 12.5 per cent, from 0.08 in 2015 to 0.07 in 2017, primarily attributable to the National AIDS Control Programme (NACP).

India is among the first few countries to set specific targets and indicators to bring down the burden of NCDs based mortality by 25 per cent by the year 2025. India's response to NCDs has been robust with the expansion of National Programme for Prevention and Control of Cancer, Diabetes, Cardiovascular Diseases and Stroke (NPCDCS) to the entire country. The Mental Healthcare Act came into being in 2017, which has adopted an entitlement approach to delivery of mental healthcare and services, which also improved the awareness on mental health.

AYUSHMAN BHARAT

1,50,000
HEALTH AND WELLNESS CENTRES BY 2022

INR **5,00,000** per year
HEALTH INSURANCE FOR 100 MILLION FAMILIES

MATERNAL MORTALITY RATIO
REDUCED TO
122
in 2015-17 from 130 in 2014-16

UNDER-5 MORTALITY RATE
IMPROVED TO
37
in 2017 from 43 in 2015

Monitoring Progress at the National and Sub-national levels

While measuring the country's performance on the SDG India Index and Dashboard, for SDG 3 and its disaggregated eight national indicators, the overall Index Score for the country is 61, and ranges between 29 and 82 for the States, and between 50 and 71 for the UTs, on a scale of 0-100 This indicates that the distance to target covered so far by India in Good Health and Well Being remains 61, with a significant variation among the sub-national units.

good practices

11 LANGUAGES

100 MILLION USERS

AAROGYA SETU

Aarogya Setu is a **COVID-19 tracking mobile application developed by Government of India** which enables people to self-assess the risk of the Corona Virus infection based on their interaction with others, using cutting edge Bluetooth technology and algorithms based on artificial intelligence.

Available in 11 languages, this **app augments the initiatives of the Government to contain the risks of COVID-19 and share the best practices.** It is the world's fastest-growing mobile application with more than 100 million installations on the Google Play Store, just weeks after its launch on April 2, 2020. It now brings **online medical consultations** (call and video), **Home Lab Test** and **e-Pharmacy**.

YSR AAROGYASRI SCHEME

Towards achievement of universal health coverage for BPL families, whether defined in terms of financial protection or access to and effective use of healthcare, the Government of Andhra Pradesh is implementing the YSR *Aarogyasri* Health Insurance Scheme. The aim of the scheme is to **provide Universal Health Coverage to BPL families**. The scheme has established a demand-side mechanism that **mobilises and channels additional public financing to health**, introduced an explicit benefits package, pioneered cashless care and fostered public private partnerships.

Challenges and Way Forward

As the world's second-most populous country, India faces a number of challenges in the health sector.

○ **Affordability and the cost of healthcare:** The private sector is a significant player in healthcare. Paucity of regulation in the private sector and the consequent variation in quality and cost of services continues to be a challenge. Although healthcare offered by the public sector comes at low or no cost, it is often not the first choice on account of perceived unreliability and indifferent quality.

○ **Health workforce density:** India has one of the lowest densities of healthcare personnel. Though the number of physicians, nurses and midwives per 10,000 population increased by about 1.7 per cent, from 35.8 in 2015 to 36.4 in 2016, marking progress, India continues to persevere towards further improvement in this area.

○ **Lack of Health Awareness:** While health awareness has spread considerably, major gaps still remain. Areas that particularly require attention include child and adolescent health, sexual and reproductive healthcare, food and nutrition, lifestyle aspects, geriatric morbidity and care, and mental health. Causes are diverse-inadequate preventive care and patient counseling in the health delivery system, lower public priority to health concerns and weaker links between education and health.

The health system has geared up with exemplary resilience to manage the COVID-19 pandemic, with effective containment, treatment, surveillance and tracking systems, as is evident in the way in which India has been managing the crisis. The response of the public health system across the country and the services of frontline workers have been diligent with implementation of effective strategies for containment, tracking, testing and treatment to keep the crisis from flaring.

Significant strides have been made in increasing life expectancy and reducing the threats associated with child and maternal mortality. However, further impetus is required to fully eradicate a wide range of diseases and address different persistent and emerging health issues.

India has a rich tradition of alternative medicine, which needs to be researched and tapped into as a part of the mainstream healthcare system. The Government has proposed to set up an Ayurveda hospital in each district with the assistance of the Ministry of Ayush (Ayurveda, Yoga & Naturopathy, Unani, Siddha and Homoeopathy).

Leveraging technology is transforming the public health scenario in India. It is, for example, connecting remote areas with national centers of excellence or patients in villages with doctors in hospitals in urban areas through measures like tele-medicine. Technology can further break distance barriers, by providing swifter solutions through better diagnostics and e-payment services, thereby truly universalising access to the best of diagnostics, tele-medicine and other healthcare services.

There are ample opportunities for the private sector to support health promotion and disease prevention activities under public–private partnerships and through corporate social responsibility initiatives. Engaging the private sector in a creative and positive manner as partners for health action coordinated by the government, can go a long way in addressing health challenges in the next decade and beyond.

The health system has geared up with exemplary resilience to manage COVID-19 pandemic, with effective containment, treatment, surveillance and tracking systems, as is evident in the way in which India has been managing the crisis.

SDG 4

QUALITY EDUCATION

Ensure inclusive and equitable quality education
and promote lifelong learning opportunities for all

The conviction that quality education is the foundation for improving the lives of its 1.3 billion citizens forms the sheet anchor of India's education policy. Since leaving no one behind requires improving human capital to make informed decisions in all walks of life, the emphasis has been to ensure the completion of secondary education by all children, guaranteeing equal access to quality and affordable technical and vocational education, while eliminating gender, caste, regional and income disparities and to achieve universal access to quality higher education. India's sizeable youth population, which is 28 per cent of the total population, has made a global imprint in competitiveness, primarily due to the enabling environment in the country to acquire quality higher education - especially in STEM and the competencies necessary for adapting to global challenges, modern technologies and the changing demands of the global labour market.

India has seen remarkable improvement in the number of schools, enrolment and retention of children in primary and secondary education and gender parity in access to education. With such strides in the growth of physical infrastructure and enrolment rates, the focus has moved to improving the educational outcomes, which continues to remain a challenging area in the public education sector.

Early Childhood Care, Development and Education

The National Early Childhood Care and Education Policy, effective since 2013, details out a comprehensive approach for ensuring child survival, growth and development with focus on care and early learning for every child. Further, the draft National Education Policy

2019, strengthens the space and priority for early childhood or pre-primary education and makes it an integral part of school education.
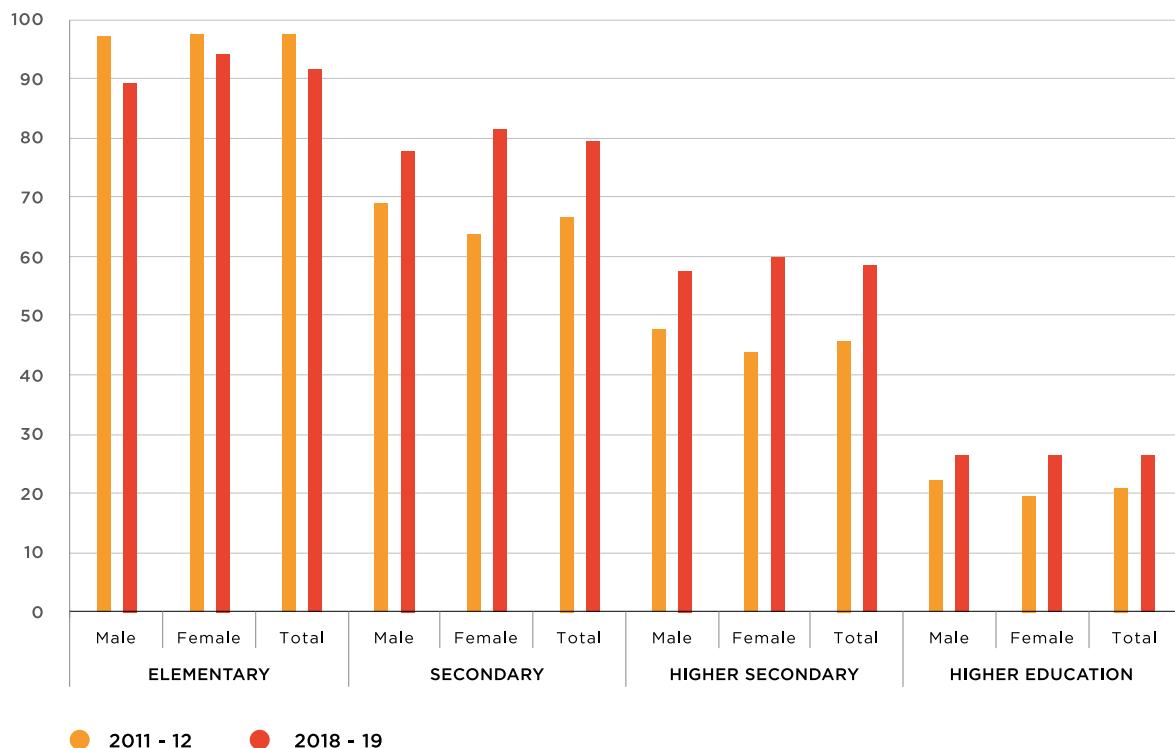
The Integrated Child Development Services (ICDS) Scheme is an omnibus programme covering all aspects of early childhood care, education and development in India. It caters to children aged less than six years through a network of 1.38 million *Anganwadi* Centers (AWCs) across the country. The comprehensive services include immunization, growth monitoring, supplementary nutrition, health check-up, referral services and pre-primary education. It offered pre-primary education to about 28.5 million children in 2019, which substantially contributed to higher enrolment and retention at the primary level.

The conviction that quality education is the foundation for improving the lives of its 1.3 billion citizens forms the sheet anchor of India's education policy.

Elementary and Secondary Education

India had made free and compulsory education up to the age of 14 years a fundamental right of citizens and detailed it in the Right of Children to Free and Compulsory Education (RTE) Act, 2009. Gross Enrolment Ratio at elementary and secondary levels was at 91.64 per cent and 79.6 per cent respectively in 2018-19. The dropout rates reduced to 2.72 per cent and 9.74 per cent respectively at elementary and secondary levels in 2018-19. GER at secondary and higher secondary levels has increased from 76.91 per cent to 79.6 per cent and 52.54 per cent to 58.6 per cent, respectively, between 2014-15 and 2018-19. However, Net Enrolment Ratio (NER) still remains low at the

Graph 3. Gross Enrolment Ratio (GER) at all India level (in per cent)

● 2011 - 12   ● 2018 - 19
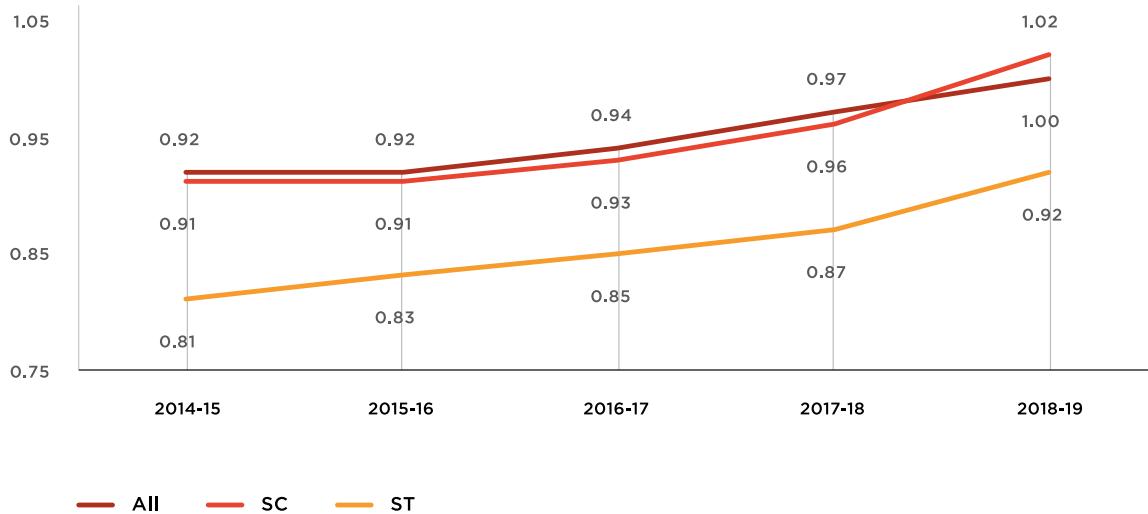
secondary and higher education levels at 51.77 per cent and 30.95 per cent as of 2016-17, indicating issues of dropout.

Both at policy and programmes levels, there is a clear focus on improving the quality of educational outcomes. India's New Education Policy sets out to meet the changing dynamics of the needs of the population with regard to quality education, innovation and research, aiming to make India a knowledge superpower by equipping its students with relevant skills and knowledge. *Samagra Shiksha*, the overarching programme for the school education sector extending from pre-school to class 12, aims at improving school effectiveness measured in terms of equal opportunities for schooling and equitable learning outcomes. To provide quality education to girls from disadvantaged groups, *Kasturba Gandhi Balika Vidyalayas*, residential schools are operationalised in educationally backward blocks under the *Samagra Shiksha*. Nutritional status of children in schools has been strengthened by providing free wholesome cooked meals.

Gender parity has appreciably improved with the Gender Parity Index rising to 1.06 at elementary

and 1.04 at secondary level. With various scholarships to female students and gender-sensitive physical infrastructure, retention rates among girl students have increased from 68.14 per cent to 71.38 per cent at elementary level between 2014-15 and 2016-17. Special attention (e.g. through scholarships; improved teaching learning process; aids, appliances and assistive devices, special educators and their capacity building, etc.) has been given to improve educational access and attainment among specific social groups, such as, Scheduled Caste/Tribe communities, minority communities as well as children with disabilities/children with special needs.
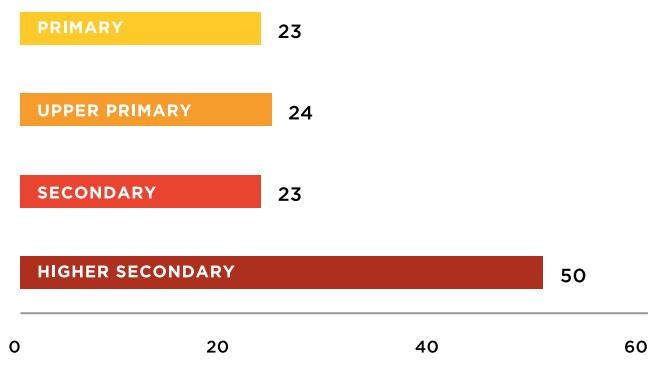
Given the importance of digitalisation in the education system, internet access in schools is fast expanding: more than 80 per cent of the teachers have been formally trained. School infrastructure is continuously upgraded through provision of electricity, drinking water and separate toilets. Access to electricity for schools increased from 60.01 per cent in 2014-15 to 76.71 per cent in 2018-19; elementary schools with separate toilets for girls increased from 87.16 per cent in 2013-14 to 98.38 per cent in 2017-18.
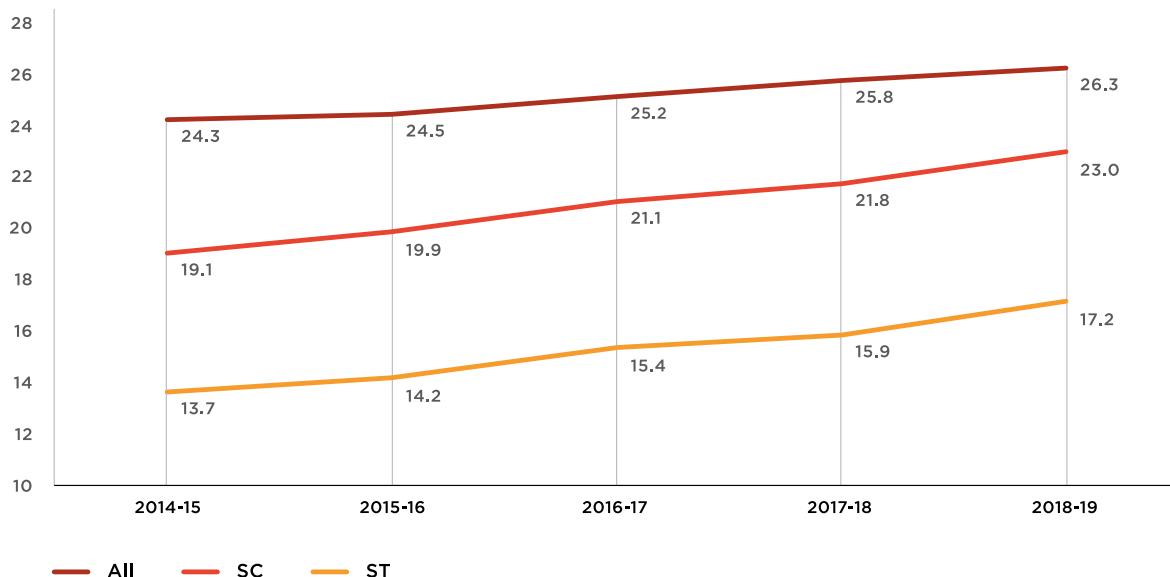
Graph 4. Category-wise Gender Parity Index in Higher Education (18-23 year age group)

	All	SC	ST

Improved Educational Outcomes at Primary and Secondary Levels

Improving the learning outcomes at the primary and secondary levels across communities and bridging the urban-rural divide have necessitated defining the competencies in numeracy and literacy for different grades and their periodic assessment through the comprehensive National Achievement Survey. The modernisation of education has introduced updated content, with emphasis on functional literacy and numeracy, critical thinking and cognitive skills. Through broad-based programmes of induction and in-service training of teachers, prescribing strict criteria for teachers' eligibilities, learning enhancement programmes, improving teacher-pupil ratio, intensive use of modern ICT in education, revision of curricula, provision of libraries, etc, there has been a marked improvement in learning levels in the country.

Between 2015-16 and 2017-18, the proportion of trained teachers increased from 75.49 per cent to 77.85 per cent and 78.52 per cent to 83.69 per cent in primary and secondary levels, respectively. Percentage of schools with pupil-teacher ratio less than or equal to 30, which is the prescribed benchmark, increased from 65.91 per cent in 2014-15 to 70.43 per cent in 2016-17, recording

Graph 5. Pupil-Teacher Ratio by School Category 2018-19

53

Graph 6. Category-wise Gross Enrolment Ratio in Higher Education (18-23 year age group in per cent)

	2014-15	2015-16	2016-17	2017-18	2018-19
All	24.3	24.5	25.2	25.8	26.3
SC	19.1	19.9	21.1	21.8	23.0
ST	13.7	14.2	15.4	15.9	17.2

— All   — SC   — ST

a rise of 7 per cent. 90 per cent of students in grade III, 83 per cent of students in grade V and 72 per cent of students in grade VIII achieved the minimum proficiency level in language and mathematics in terms of nationally defined learning outcomes in the National Achievement Survey, 2017-18.

Higher Education

Consistent efforts have been made to expand the formal base of higher education, with special focus on including technical, professional and vocational education. India has 993 universities, 39,931 colleges and 10,725 stand-alone institutions, with the private sector accounting for 38.7 per cent of universities and over 75 per cent of the other two. The number of university level institutions has grown by about 37 per cent and the number of colleges by about nine per cent over the last five years. Gross Enrolment Ratio (GER) in Higher education, calculated for 18-23 years of age group, is 26.3 per cent. Gender Parity Index for Higher education increased from 0.92 in 2014-15 to one in 2018-19 reflecting an improvement in women's access to learning opportunities.

Skill Development and Vocational Education

The youth in the country make up 27 to 28 per cent of the population. Thus, vocational education starting at higher levels to enhance their employability, through skill development, is a viable alternative path for the youth. Integrating skills-based training into the academic cycle of the universities aims to bridge the industry-academia gap. A strong network of Industrial Training Institutes provide long term skill development training to youth, while focusing on women. Under the Skill India mission and the *Pradhan Mantri Kaushal Vikas Yojana* (PMKVY), the youth are given skill training to inculcate industry relevant skills to secure a better livelihood. Under PMKVY, 8.7 million candidates have been trained till date.
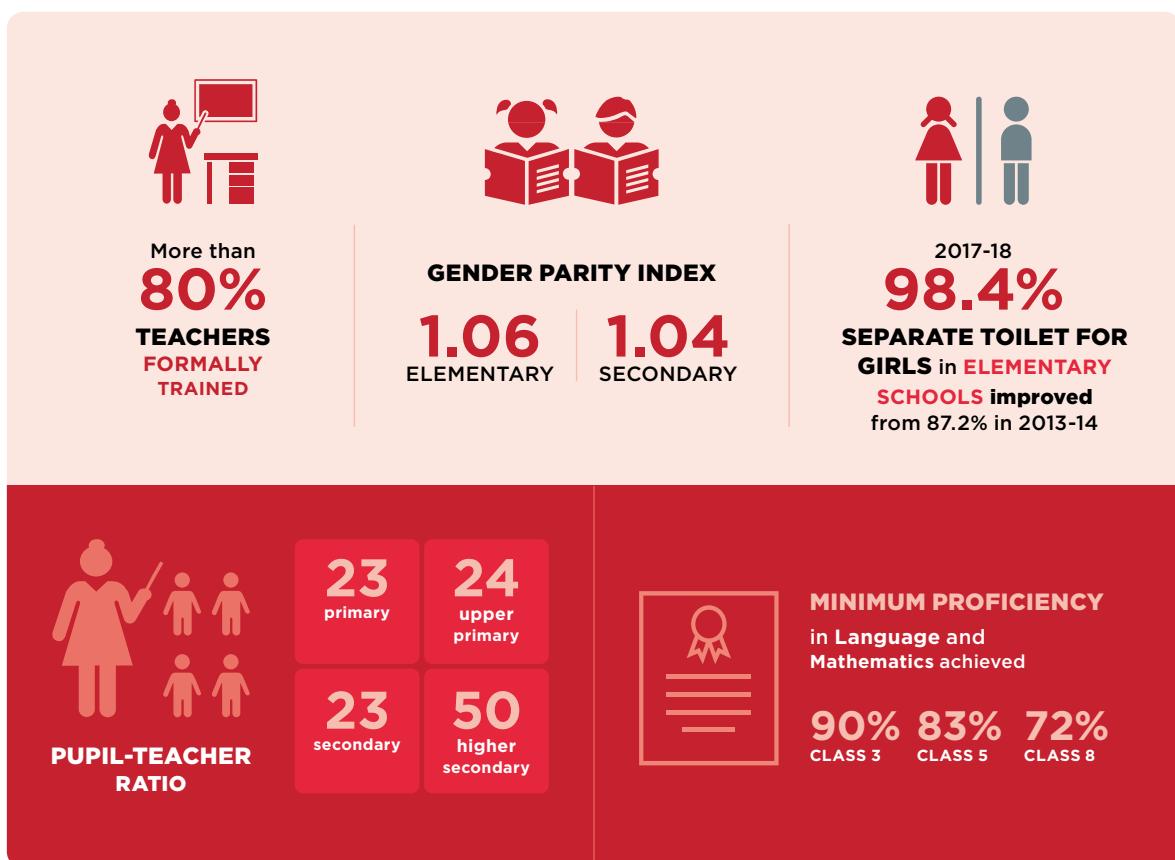
Conducive Education Facilities that are Child, Disability and Gender Sensitive

'Leave no one behind' is the guiding principle in India's education policy, which enabled focused interventions through enrolment drives, nutritious meals, scholarships and provision of supplementary learning material to encourage education of girls, children with disabilities and special needs, children from SC/ST and other communities in situations of vulnerability. *Beti Bachao, Beti Padhao* (Save and Educate the Girl Child) campaign has spread awareness on the importance of gender parity in education on a pan-India scale.

Educational facilities that are sensitive to the needs of children with disabilities have ensured an inclusive learning environment for all. With *Swachh Vidyalaya*, separate toilet facilities for girls have helped to arrest female dropout to a considerable extent. GER for girls is 94.3 per cent and 81.3 per cent, and hence, the Gender Parity Index stands at 1.06 and 1.04 at the elementary and secondary level, respectively. By 2019, almost all primary and secondary schools had created the necessary conditions for inclusive education. These schools are equipped with ramps, special hygiene rooms and required teaching materials. Further, nation-wide efforts to make schools disabled-friendly have led to an increase in the school attendance of children with disabilities, from 50.5 per cent in 2001 to 61.1 per cent in 2011.

More than
80%
TEACHERS
**FORMALLY
TRAINED**

GENDER PARITY INDEX

1.06
ELEMENTARY

1.04
SECONDARY

2017-18
98.4%
**SEPARATE TOILET FOR
GIRLS** in **ELEMENTARY
SCHOOLS improved**
from 87.2% in 2013-14

23
primary

24
upper
primary

23
secondary

50
higher
secondary

**PUPIL-TEACHER
RATIO**

MINIMUM PROFICIENCY
in **Language** and
Mathematics achieved

90%
CLASS 3

83%
CLASS 5

72%
CLASS 8

Monitoring Progress at the National and Sub-national levels

While measuring the country's performance on the SDG India Index and Dashboard, for SDG 4 and its disaggregated nine national indicators, the overall Index Score for the country is 58, and ranges between 19 and 81 for the States, and between 43 and 80 for the UTs, on a scale of 0-100. This indicates that the distance to target covered so far by India in quality education remains 58, with a significant variation among the subnational units.

good practices

UNNAYAN BANKA
SMART CLASSROOM MODEL

Unnayan Banka **implemented in the Aspirational District of Banka, Bihar, is an initiative that envisages 'quality education for all', using latest technologies.** It is a multiplatform model in which students get modern day animated, contextualised and comprehensive videos on various technology platforms like LCD/LED TVs, projectors and mobile phones. Shifting from traditional model of education of chalk and talk, *Unnayan* is reinventing teaching using technology.

90%
attendance

In Banka, **learning outcomes improved from 17 per cent to 54 per cent with 90 per cent attendance**. Following the success of this innovation, the model has now been successfully implemented in all districts of Bihar and other Aspirational Districts such as Godda (Jharkhand), Ramgarh (Jharkhand), Dhubri (Assam), Namsai (Arunachal Pradesh) and Dhenkanal (Odisha).

TEACH GAJAPATI

The initiative implemented in Gajapati district of Odisha, which is one of the Aspirational Districts, **enables willing government officers and other educated volunteers to enrol as teachers** and take 15 sessions per subject followed by tests, culminating in substantial improvements in learning outcomes in these schools.

improved learning outcomes

Challenges and Way Forward

Despite various efforts and significant progress achieved in the education sector in different dimensions, several challenges need to be addressed.

○ Despite significant improvements in maternal and infant health owing to increased awareness, challenges lie in ensuring cognitive development of children through Early Childhood Care and Education (ECCE). The National Policy on Education aims to strengthen and expand *Anganwadi* system to include a robust educational component with ECCE curriculum and pedagogy which will be implemented by the ministries of Health, Women and Child Development, and Education.

○ Various learning assessments point at the regional disparity in literacy and numeracy skills among children in primary schools. Data also suggest that a sizable proportion of children still need to meet the level of learning outcomes prescribed for their respective class. Tackling these challenges requires a focus on curriculum development, training of teachers, greater use of technology and active community participation.

○ The perceptive bias against public sector primary education requires consistent nation-wide efforts. Despite increasing access, enrolment in public primary schools has declined by 23.1 million in absolute numbers from 2007-08 to 2015-16, while enrolment in private primary schools has increased by 14.5 million over the same period.

○ Gearing the education system towards learning outcomes is a major focus area in the country. To shift the emphasis from quantity to quality in the education sector, while addressing equity and inclusion, several reforms are underway to rationalise the public school structure for optimum utilisation of limited financial and human resources, such as, designing the curriculum on a skill/competency based continuum, continuous training of teachers, system improvement for comprehensive and continuous evaluation of teachers and students to achieve the defined teaching standards and learning outcomes, and intensive use of modern technology in the entire process.

○ Higher education in India, despite all its advantages of affordability, access and high quality, still has a low Gross Enrolment Ratio of 26.3 per cent as of 2018-19, and hence needs to be made more inclusive with stronger incentives for enabling the research and innovation ecosystem. Further, relatively lower enrolment of women in STEM, particularly in engineering and technology, which currently stands at 18 per cent in IITs, calls for more incentives. Among the 620 Institutes and Universities including IITs, NITs, ISRO and DRDO, only 20 per cent women were on the scientific and administrative staff, 27.8 per cent were Post – Doctoral Fellows and 33.5 per cent Ph.D scholars. The *Rashtriya Uchchatar Shiksha Abhiyan* (RUSA), seeks to improve access, equity and quality in state higher education institutions through graded autonomy, reforms-based approach and linking funding to performance. Focus on quality and excellence has also been driven by making accreditation of higher education institutions mandatory, with transparency and periodic assessment on multiple parameters.

While India has made commendable progress in modernisation of the higher education system, the positions of the country's universities in major global university rankings, such as the QR World University Rankings or Times Higher Education Rankings, still fall short of the desirable. The recent reforms of graded autonomy, performance linkage of grants and incentives, governance reforms, greater managerial and academic freedom, and stronger push for research and innovation, will undoubtedly pave the way for greater institutional excellence. Coupled with this, the emphasis on providing the youth, especially women, affordable, inclusive, and industry relevant vocational and technical education, holds the key to building the research-innovation-entrepreneurship ecosystem, and unlocking the development potential of the Indian society and economy.

Photo courtesy of Rakesh Pulapa

SDG 5
GENDER EQUALITY
Achieve gender equality and empower all women and girls

The principles of gender equality and justice are embedded in the Constitution of India. Since its initial days as an independent nation state, India has taken bold steps to further gender equality. For instance, India adopted universal and equal suffrage in 1947, well before many world nations, some in advanced stages of development. The various policies, legislation, programmes, and schemes focused on gender equality aim to ensure that women and girls are not excluded from India's growth and prosperity and are able to benefit from and contribute to it. India's focus during the era of SDGs is to carefully look back at the host of initiatives, analyse their performance and achievements, undertake midcourse correction, set new targets to address new and emerging challenges, and meet the aspirations of all generations of women and girls.

In the past five years, India has sharpened action on gender equality. While the change has been slow in some areas, other areas have seen positive results. For instance, political participation of women is a key area where there has been commendable progress in the recent past.

Social Protection and Livelihoods

The strategy to improve women's economic participation was based on the sound footing of social protection and financial inclusion and powered by skill development and new technologies. In the area of gainful employment, the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA), which stipulates women's participation at a minimum of 33 per cent, saw 54.59 and 54.67 per cent participation, in 2018-19 and 2019-20, respectively. Financial support by capital accumulation through savings mobilisation and access to credit and insurance services to women entrepreneurs have grown considerably in recent years. The *Deen Dayal Antyodaya Yojana* - National Livelihoods Mission aims to mobilise and organise women, build their skills, facilitate access to credit, marketing, and other livelihoods services and organises women into Self Help Groups (SHGs). There are 10 million bank-linked SHGs, with as many as 87.66 per cent being women-exclusive. Their membership is derived from 122.4 million households, with an annual credit uptake of INR 583 billion (USD 7.7 billion) in 2018-19.
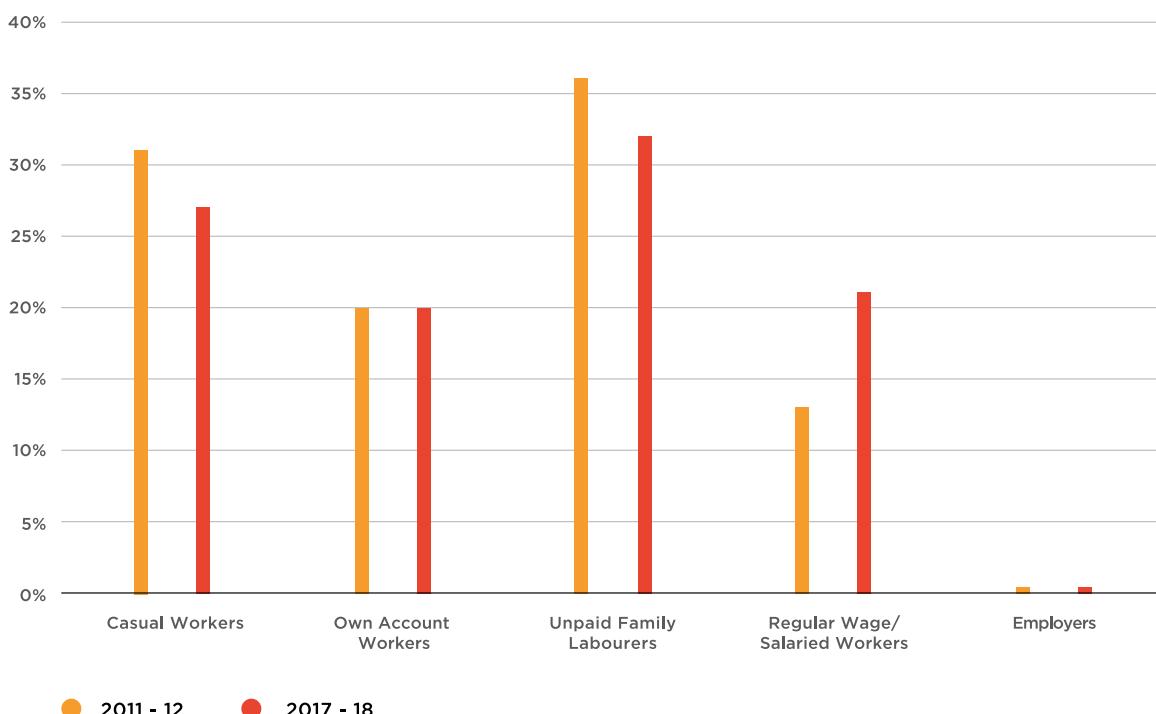
SELF HELP GROUPS

10 MILLION
LINKED WITH BANKS
drawing membership from over
120 million households

INR
583 BILLION
ANNUAL CREDIT UPTAKE

Graph 7. Distribution of Female Workers (principal status plus subsidiary status, all ages) by Sector and Employment Status (in per cent)

● 2011 - 12   ● 2017 - 18

Skilling and Financial Inclusion

Financial inclusion received a big boost with the *Pradhan Mantri Jan Dhan Yojana* (PMJDY) widely expanding access to bank accounts along with access to direct benefits under various welfare schemes, credit and insurance services, and other savings instruments like term deposits, among others. Of the 380 million accounts opened so far under PMJDY, 54 per cent were owned by women. In 2017, women's access to bank accounts rose to 77 per cent from 43 per cent in 2014 and the gender gap slumped to 6.4 per cent from 19.8 per cent during the same period.

During 2014-18, there was a 97 per cent rise in women enrolling in long-term skill development courses. Nearly half of all candidates trained under *Pradhan Mantri Kaushal Vikas Yojana* (PMKVY) – the flagship programme for short-term skill development, are women. There is a focus on developing women entrepreneurs through incentives and enabling credit, ranging up to INR 1 million (USD 13,300), under the

MUDRA *Yojana* - of which 75 per cent of the beneficiaries are women.

The National Social Assistance Programme, which provides pension to those over 60 years of age, widows, persons with disabilities and families without an earning member, significantly caters to the financial needs of women. Women constitute 59 and 57 per cent of the beneficiaries, respectively, at Central and State levels.

Political and Economic Participation

Women's political participation and representation remains low but is steadily increasing. Representation of women in the lower house of the national parliament increased from 11.4 per cent in 2014 to 14.4 per cent in 2019. On the other hand, women's turnout for voting is rapidly and consistently increasing. The 2014 general elections saw female voter turnout rising substantially to 65.5 per cent from 55.82 per cent in 2009, and the gender gap stood at 1.8 percentage points. In 2019, women voter turnout rose to 68 per cent, tipping over that of men.
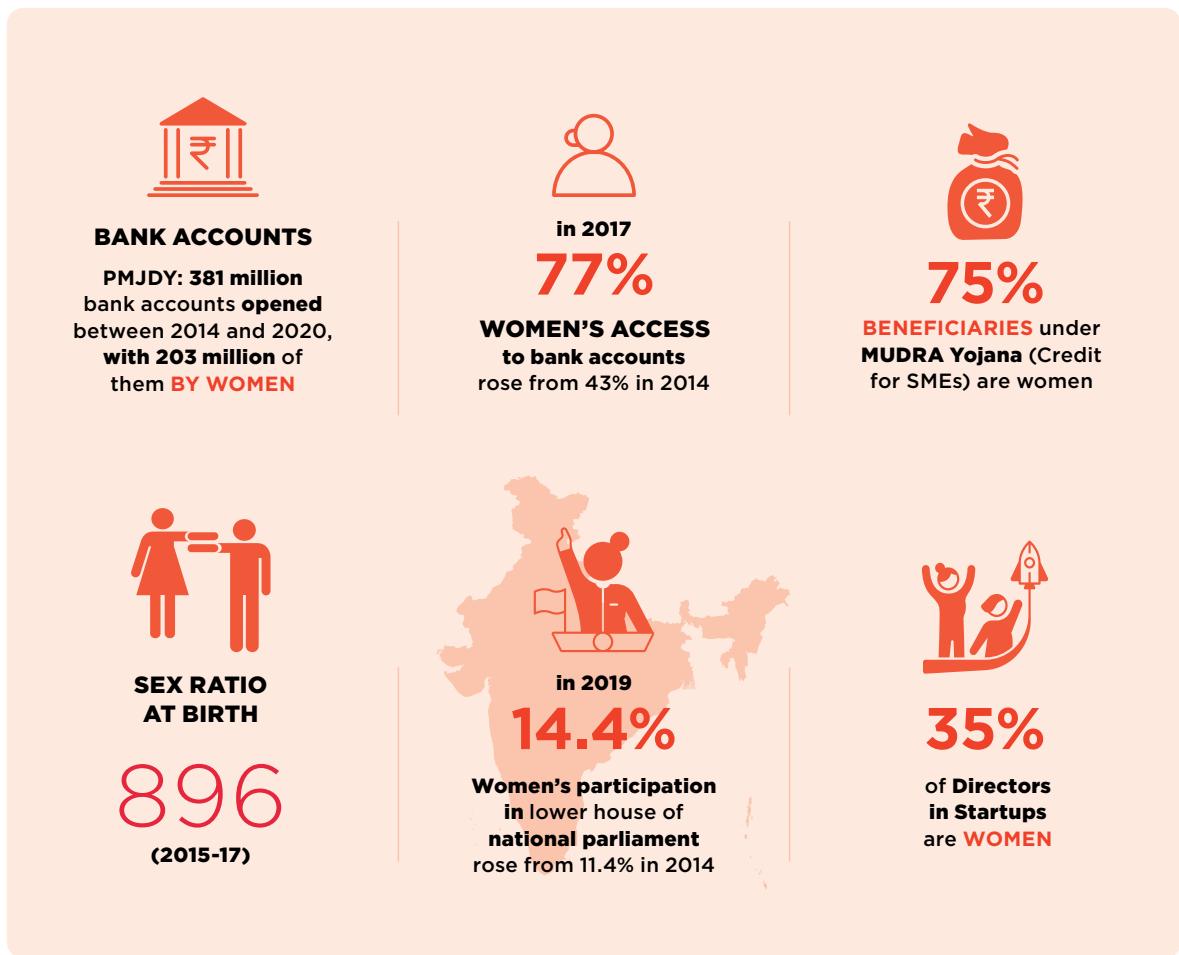
Between 2015-16 and 2017-18, number of women engaged in managerial positions declined, from 173 to 167, for every 1000 persons. Female labour force participation, in the age category 15-59 years, declined by 7.8 percentage points from 33.1 per cent in 2011-12 to 25.3 per cent in 2017-18.

Social Empowerment

On the other end of the spectrum, sex ratio has dropped from 898 in 2014-16 to 896 in 2015-17. The *Beti Bachao Beti Padhao* (Save the Girl Child, Enable her Education) scheme aims to reverse this trend, by awareness generation mainly through country-wide campaigns. The registered cases of crime against women saw an uptick from 53.9 per 1, 00,000 female population in 2015 to 58.8 in 2018. Health and nutrition of women and girls is an area of concern. The *POSHAN Abhiyan* (National Nutrition Mission), targets to reduce the level of stunting, under-nutrition, anaemia and low birth weight among babies by reducing malnutrition/under-nutrition, anaemia among young children, adolescent girls, pregnant women and lactating mothers. The Scheme for Adolescent Girls is also intended at breaking the inter-generational lifecycle of nutritional and gender disadvantage by providing a supportive environment to the girls in the age group of 11 to 14 years, for self-development. The Maternity Benefit Programme, *Pradhan Mantri Matru Vandana Yojana*, was initiated in 2016 under the umbrella ICDS scheme and aims to provide partial compensation for the wage loss in terms of cash incentives.

BANK ACCOUNTS

PMJDY: 381 million bank accounts **opened** between 2014 and 2020, **with 203 million** of them **BY WOMEN**

in 2017
77%
WOMEN'S ACCESS to bank accounts rose from 43% in 2014

75%
BENEFICIARIES under **MUDRA Yojana** (Credit for SMEs) are women

SEX RATIO AT BIRTH
896
(2015-17)

in 2019
14.4%
Women's participation in lower house of **national parliament** rose from 11.4% in 2014

35%
of **Directors in Startups** are **WOMEN**

Monitoring Progress at the National and Subnational Levels
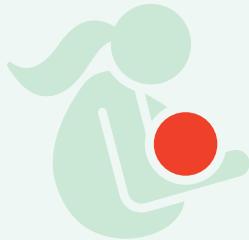
While measuring the country's performance on the SDG India Index and Dashboard, for SDG 5 and its disaggregated eight national indicators, the overall Index Score for the country is 42, and ranges between 26 and 52 for the States, and between 27 and 53 for the UTs, on a scale of 0-100. This indicates that the distance to target covered so far by India in Gender Equality remains 42, with a significant variation among the subnational units, also reflecting the need for greater collaborative action across the nation.

good practices

THE CHILD PROTECTION UNIT

Children First: The Child Protection Unit in the Aspirational District of Muzzafarpur **performs an integrated role in child rights, health and education.** This unit mobilises the community and emphasises the importance of gender equality, reduction of mortality rates and relevant indicators pertaining to children and women.

The unit **creates awareness on pre and post-natal, mother and child healthcare**. The community members are sensitised using informative videos in the local language during daily *panchayats* and *Ratri Chaupals* (night meetings). Such activities have been drawing a large number of people, especially girls and women who have been pro-active in spreading information and walking the talk.

ASHA EK UMEED KI KIRAN – WOMEN EMPOWERMENT CENTRE

Under the special initiative of the District Collector of Kondagaon, Chhattisgarh, to empower the local women by providing employment, the Asha centre was started in collaboration with District Project Livelihood College and District Skill Development Authority.

The main objectives of the initiative are to **improve the employability of women**, **generate awareness about various government schemes** and connect remote areas with the mainstream. The centre focuses on a number of economic activities such as garment stitching training-cum-production unit, handloom weaving, sanitary pads production unit, glass bangles design and LED bulb repair & assembling, and offers employment & training to over 300 women.

Challenges and Way Forward

○ **Strengthening gender-disaggregated data systems:** Absence of gender-disaggregated data sets is a major challenge. It is essential to invest in gender-sensitive data and analysis of disaggregated data to identify gaps and challenges, especially for women and transgender persons. The Support for Statistical Strengthening (SSS) scheme by the Ministry of Statistics and Programme Implementation (MoSPI) provides financial support to the State Governments to reinvent their statistical systems, develop SDG dashboards, and design and implement new and more efficient tools for data collection. The States are actively encouraged to use this scheme to improve gender-sensitive disaggregated data systems. In the context, the number of States with a Gender Budget Cell has increased from 14 in 2015-16 to 23 in 2019-20. This can lead to improved data and evidence-based financial resource allocation.

○ **Improving economic participation of women:** Female labour force participation in India, which currently stands at 17.5 per cent for all ages and 25.3 per cent for the 15-59 age group, has shown a declining trend in recent years. Structural transformation of the economy, gender parity in wages and expanded social protection are the strategies pursued through which more women can take part in economic activities.

○ **Access to resources:** Inequalities continue to exist in women's access to and ownership of land and other assets. In rural India, while 75 per cent of rural women workers are engaged in agriculture, women's operational landholding is only 13.96 per cent. The absence of land ownership limits their access to inputs, such as, seeds, fertilisers, credit, as well as agricultural extension services.

○ **Promoting women's entrepreneurship:** Globally, women-owned businesses and enterprises only benefit from approximately one per cent of all public procurement contracts. This situation calls for gender-responsive and inclusive procurement both in public and private sector. As the economy gets increasingly digitised, and women's access to technology improves, women increasingly find a level playing field and welcome the ambiance for innovation. Initiatives like the Atal Innovation Mission and Women's Entrepreneurship Platform of NITI Aayog, aim to create an ecosystem of innovation, research and entrepreneurship across the country to engage young girls and women.

Photo courtesy of Rakesh Pulapa

Water
ATM

SDG 6

CLEAN WATER AND SANITATION

Ensure availability and sustainable management of water and sanitation for all

India is home to more than 17 per cent of the world's population, which depends on 4 per cent of the planet's freshwater resources. By 2030 water demand in the country is estimated to be twice the available water supply. On the sanitation front, India had been fighting the battle against open defecation for decades. In 2014, less than half of Indian households had access to sanitation facilities and only 30 per cent of the waste water and sewage originating in urban areas were treated. Until five years back, an estimated 0.4 million children under five years of age succumbed to water-borne diseases annually. Since 2014, India has been implementing a well-targeted and time bound strategy to transform the state of sanitation in the country. While significant progress has been achieved in recent years, this is a continuous endeavour.

Safe and Affordable Drinking Water for All

The Government of India is committed to providing safe and adequate drinking water in all habitations by 2022. A new and unified ministry – the Ministry of *Jal Shakti*, has been constituted to ensure effective water governance and comprehensively address water management challenges. As of July 2019, as many as 81.02 per cent rural habitations have been saturated with access to 40 litres of drinking water per capita per day (LPCD) and another 15.71 per cent with partial access. About 96 per cent of households have access to an improved source of drinking water. The country aims to supply every rural household with piped water at the rate of 55 LPCD by 2024 under the recently launched *Jal Jeevan Mission* (Water as Life Mission). This flagship programme aims to reduce the travails of rural women of travelling long distances for water.

Besides ensuring full access to water for all, robust measures are being taken to optimise water resource endowments in the country. The recently launched campaign of *Jal Shakti Abhiyan* aims at improving water conservation, rainwater harvesting, renovation of traditional and other water bodies, reuse of water and recharging of structures, watershed development, and intensive afforestation through broader community mobilisation and participation to achieve a water-secure future for the country. The campaign has undertaken over 3,50,000 water conservation measures in 256 districts, with participation of an estimated 26.4 million people, thereby transforming it into a people's movement.

A new and unified ministry – the Ministry of Jal Shakti, has been constituted to ensure effective water governance and comprehensively address water management challenges.
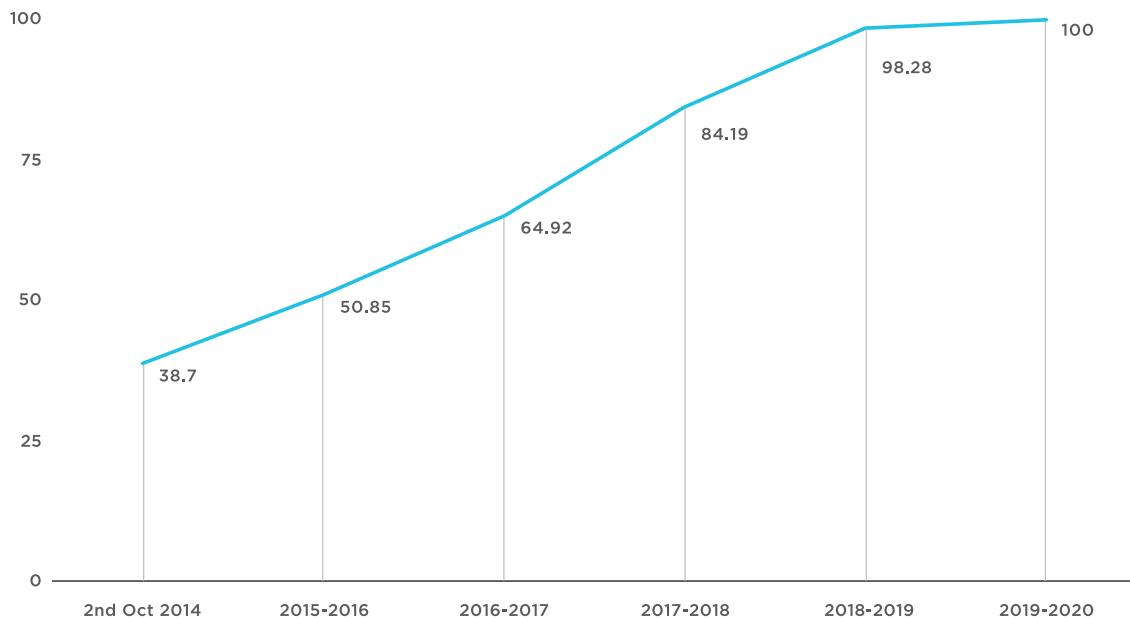
Water Quality

Salinity and contamination are major ground water quality issues. While, water salinity affects 212 districts and the presence of nitrates impact 386 districts, several districts have multiple toxic contaminants in their ground water. Surface water pollution is a challenge as well. Across the country, 351 polluted river stretches have been identified on 323 rivers.

A comprehensive multi-pronged strategy has been implemented to monitor and remedy water quality by the Central Water Commission, which assesses water quality at 552 key locations and covers all major river basins of the country. The Central Ground Water Board monitors the chemical quality of ground water

Graph 8. Overall Coverage Status of Individual Household Toilets (in per cent)

through a network of about 15,000 observation wells located all across the country. Polluting industries are identified and effluents are monitored in conjunction with implementation of control and compliance measures. Several programmes are implemented under the National River Conservation Plan to clean the rivers - a leading one being the *'Namami Gange'*, which is an Integrated Conservation Mission launched to accomplish the twin objectives of effective pollution abatement, and conservation and rejuvenation of the river Ganga.

Sanitation and Hygiene for All

India remains committed to creating healthier communities by increasing access to improved sanitation and hygiene. The flagship initiative of the *Swachh Bharat* Mission (SBM or Clean India Campaign) has successfully achieved the target of making India open-defecation-free (ODF) by constructing over 109 million household and community toilets since October 2, 2014 in 6,03,175 villages in 706 districts across the country. Percentage of rural households with individual household toilets increased from 38.7 in 2014-15 to 100 in 2019. Similarly, percentage

of urban households with individual household toilets rose from 88.8 to 97.22 during the same period. The use of toilets has also dramatically increased over the last five years with 97 per cent of rural households using them, as per independent third-party evaluation surveys. The Clean India Campaign succeeded in effecting a behavioural transformation by creating a nudge which resulted in widespread awareness to shift towards better sanitation and hygiene facilities.

The programme also focused on conversion of unsanitary toilets to pour-flush toilets, municipal solid waste management, raising awareness and nudging positive behavioural change. The improvement in sanitation has had a positive influence on the life and health of women and girls. Increase in proportion of households with toilets has been found to have a positive impact on the safety of women. There are remarkable positive linkages of sanitation with health and nutrition outcomes, and educational attainment of women. As part of SBM, separate toilets for girls have been built in 97.43 per cent schools across the country, which has contributed, among other factors, to improved enrolment and retention of girls in primary education.

Monitoring Progress at the National and Sub-National Levels
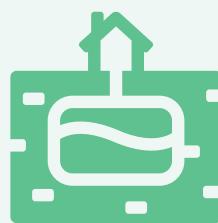
While measuring the country's performance on the SDG India Index and Dashboard, for SDG 6 and its disaggregated seven national indicators, the overall Index Score for the country is 88 and ranges between 69 and 96 for States, and between 61 and 100 for UTs, on a scale 0-100. While the floor of performance is relatively high, there is significant variation across States, pointing to the need for identifying and acting upon the factors responsible for such divergence.

good practices

'TAANKA' TECHNIQUE FOR WATER CONSERVATION: The Aspirational District of Sonbhadra became the first district in Uttar Pradesh to employ the traditional *taanka* technique to propel its efforts for **rainwater harvesting and water conservation,** popular in the water-parched state of Rajasthan. **Sonbhadra** district replicated this practice and is in the process of **building 5,000 *taankas* and 5,521 ponds** across the water-starved district.

Taankas **are underground rainwater storage tanks with**

25,000

litres capacity

This novel practice conserves and stores water which is to be utilised during the lean summer months when the demand is at its peak and supply invariably falls short. This initiative marks a departure from the temporary respite provided by water tankers and is a **crucial step towards sustainable use of water resources** in the district **in** the **long-term**.
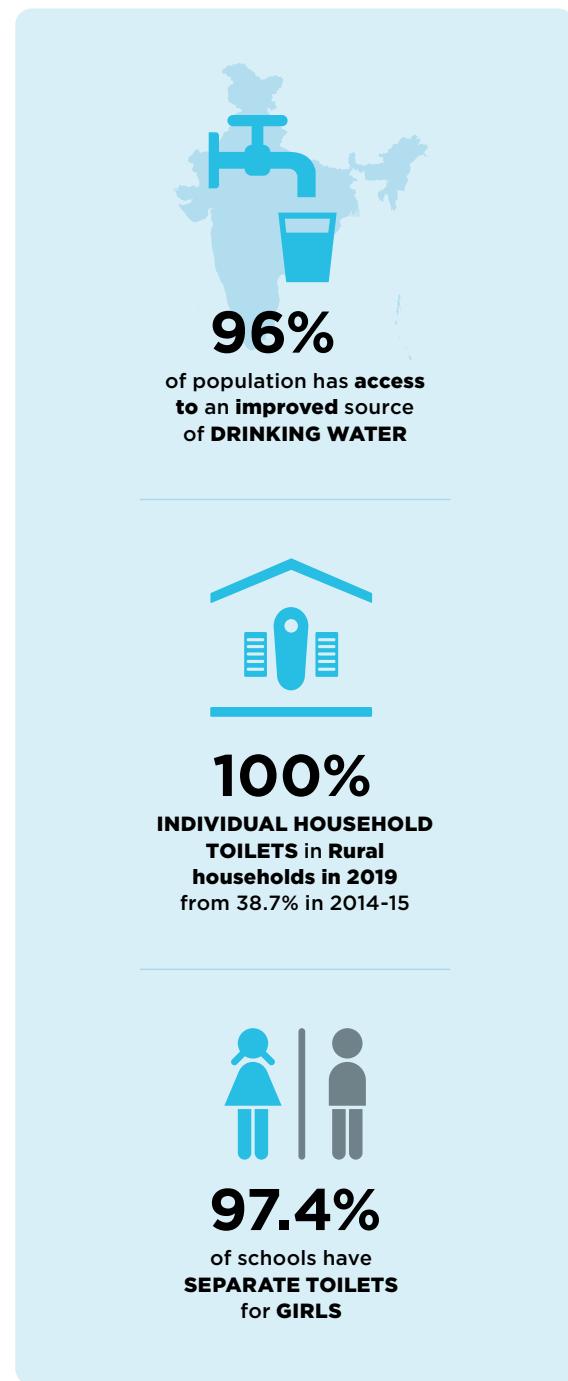
SUBSURFACE DAMS: To address the issue of water shortage, the Aspirational District of Y.S.R Kadappa, Andhra Pradesh, has **constructed sub surface dams** using Z sheet piling technology at six locations on river Papagni. Subsurface dams not only play an effective role in the proper utilisation of groundwater resources but also help in **controlling undesired fluctuations in the groundwater level.** Before implementation of this initiative, the water table in the adjoining areas of the river was very low. After the intervention, water percolation of the surface runoff to the sand layers, and in the adjoining alluvium along the river has increased the water table, **resulting in increased water availability for sustainable irrigation practices.**

Challenges and Way Forward

○ Significant progress towards realising this goal has been made and the country consistently endeavours to overcome the associated challenges. Localised data systems on water, which are characterised by limited coverage and coordination, is one such significant challenge.

○ Entrenched mindsets and practices leading to gendered access to sanitation facilities continue to create hurdles. Paucity of public toilets, maintenance of gender-specific facilities and water scarcity, often modulate and restrict usage by women and girls. Separate toilets in schools, colleges, and workplaces have substantially increased, but in several instances, their usage is constrained by water scarcity and insufficient maintenance.

○ While targeted interventions to improve the conditions of sanitation workers have been escalated, several aspects need further addressal. Re-skilling, workplace improvement and self-employment avenues for sanitation workers have become the areas of policy focus.

○ India has put in place a 10 Year Rural Sanitation Strategy (2019-2029), which focuses on sustaining the sanitation behaviour change, ensuring that no one is left behind, and increasing access to solid and liquid waste management. This strategy lays down a framework to guide local governments, policy makers, implementers, and other relevant stakeholders in their planning for ODF Plus, where everyone uses a toilet, and every village has access to solid and liquid waste management. Improvement in the water and sanitation management systems remains a priority area at the national, subnational and local levels.

96%
of population has **access to** an **improved** source of **DRINKING WATER**

100%
INDIVIDUAL HOUSEHOLD TOILETS in **Rural households in 2019** from 38.7% in 2014-15

97.4%
of schools have **SEPARATE TOILETS** for **GIRLS**

India has put in place a 10 Year Rural Sanitation Strategy (2019-2029), which focuses on sustaining the sanitation behaviour change, ensuring that no one is left behind, and increasing access to solid and liquid waste management.

SDG 7

AFFORDABLE AND CLEAN ENERGY

Ensure access to affordable, reliable, sustainable and modern energy for all

Faster socio-economic development in India, to a great extent, is predicated on universal and equitable access to affordable, reliable and clean energy. India's National Energy Policy endorses the core elements of SDG 7, namely, universalising access to electricity and clean cooking fuel, privileging renewable energy in the energy mix and enhancing energy efficiency. The country's energy mix is being fast diversified by widening the renewable energy choices - solar, wind, hydro and waste-to-energy conversion among others, augmenting installed capacity, and increasing access for everyone. Energy efficiency is sought to be promoted by enforcing standards and labelling of equipment and appliances, energy conservation, building codes for commercial buildings, energy consumption norms for energy intensive industries and strengthening regulatory institutions and infrastructure.

Towards Universal Access to Electricity

With the implementation of a household-focused programme since 2017, the *Pradhan Mantri Sahaj Bijli Har Ghar Yojana - Saubhagya* (which translates to: easy access to power for every house – a good fortune), nearly all households in all of India's 603,175 villages have been electrified. The next milestone is to ensure reliable and round-the-clock power supply to all households in the most affordable manner. Structural reforms have been effectively implemented in which supply codes and performance standards are strictly enforced, and regulation and financial restructuring of power distribution companies are effectively put in place. With supply-side challenges largely resolved, and new capacities, especially based on grid-integrated renewable energy sources, including solar rooftops, being added to the system, achievement of this goal does not appear far-off.

Besides access to electricity at the habitation and household levels, access of entrepreneurs to commercial electricity connection has also substantially improved. A business unit gets an electricity connection in 53 days by completing four procedures. Consequently, India's ranking on the parameter of 'getting electricity' on the World Bank's Ease of Doing Business Index has swiftly climbed from 137 in 2014 to 22 in 2019.
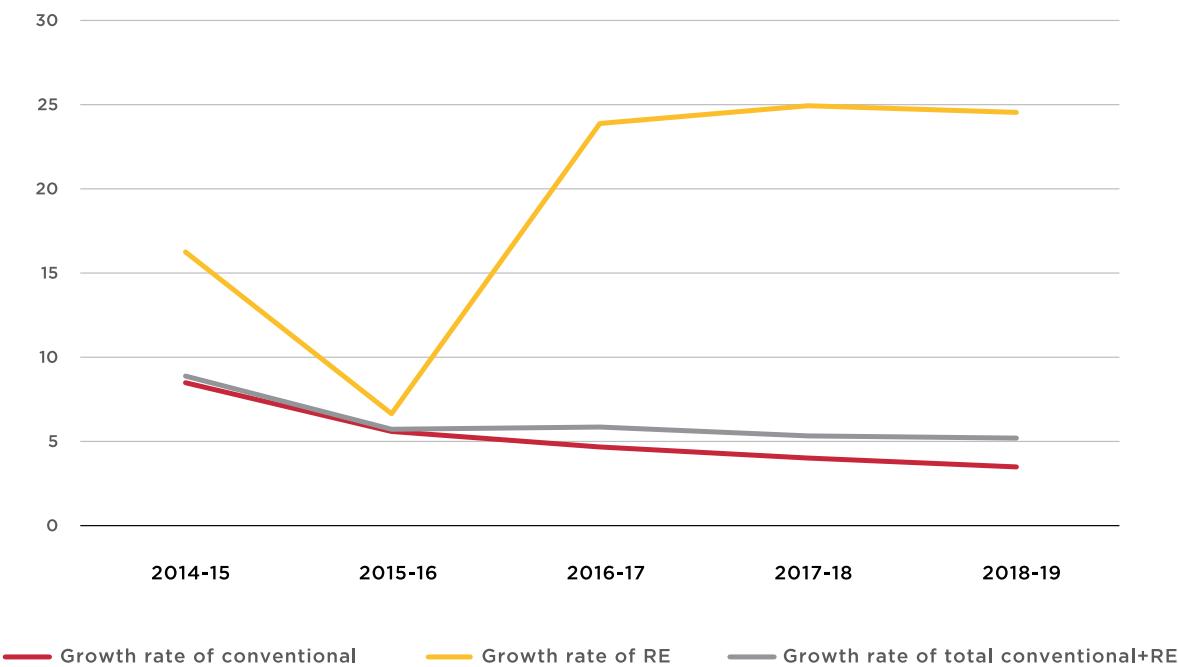
With the implementation of Pradhan Mantri Sahaj Bijli Har Ghar Yojana - Saubhagya since 2017, nearly all households in all of India's 603,175 villages have been electrified.

Focus on Renewable Energy

The country's renewable energy installed capacity has grown to 132 GW as on March 31, 2020, from 75 GW on March 31, 2014, an increase of about 75 per cent. Globally, India stands third in renewable power generation, fourth in wind power and fifth in solar power. At the Climate Action Summit hosted by the UN Secretary General in September 2019, Prime Minister Modi reiterated India's commitment to climate action with a more aggressive renewable energy target of 450 GW by 2030. India has already made the global pledge, as part of its Nationally Determined Contributions, to have 40 per cent of its cumulative electric power installed capacity from non-fossil fuel sources, which currently stands at 35.86 per cent.

Renewable energy tariff in the country has significantly reduced, making it cost-competitive compared to coal-fired generation. India's renewable energy cost has become the lowest in the Asia-Pacific region, as Levelised Cost

Graph 9. Source-wise Growth Rate of Electricity Generation (in per cent)

━━━ Growth rate of conventional   ━━━ Growth rate of RE   ━━━ Growth rate of total conventional+RE

of Electricity (LCOE) using solar photovoltaic (PV) has fallen to about INR 2,850 (USD 38) per megawatt hour (MWh) in 2019 - 14 per cent cheaper than coal-fired power LCOE. India was ranked the third most attractive country in the world in 2019 for renewable energy investment.

The Government of India has also launched various schemes aimed at creating awareness and emphasising accessibility and sustainability of clean energy. For example, the Off-Grid and Decentralised Solar PV Applications Programme was launched with the objective of meeting lighting, electricity requirements for all, promoting commoditization of off-grid decentralised solar applications and encouraging innovation in sustainable business models.

Access to Clean Cooking Energy

With clean cooking fuel reaching over 80 million of the poorest households since 2015, the percentage of households using clean cooking fuel has risen from 63.11 in 2015-16 to 96.22 in 2018-19. A roadmap has been developed to guide deliberations among various stakeholders

and to better coordinate and coalesce various strategies to achieve universal access to clean cooking energy by 2030.

Several programmes are implemented to facilitate access to clean cooking energy. The National Biogas and Manure Management Programme aims at setting up family type biogas plants in rural areas for providing biogas as a clean cooking fuel and a source of lighting. The programme was launched to improve women's health, reduce pressure on forests, improve sanitation and accentuate social benefits. The *Pradhan Mantri Ujjwala Yojana* was launched as a flagship programme in 2015 to combat the dependence on biomass for cooking, improve women's health and empower them with asset ownership. The program has already achieved its target of enabling 80 million households to access LPG for cooking in September 2019, well ahead of time.

The cost of LPG has also been effectively reduced for the economically weaker sections by providing subsidy through direct benefit transfer to poor households. The cost of the

subsidy has been further reduced to the extent of INR 595 billion (USD 7.93 billion) through governance reforms, such as, eliminating 42.3 million inactive and duplicate connections and voluntary surrender of subsidy by 10.4 million better-off consumers.

Improving Energy Efficiency

With the promulgation of the Environmental Conservation Act in 2001, India's long-held concern on energy efficiency took concrete shape. The focus on lowering energy intensity and CO_2 emission received further institutional support with the establishment of the Bureau of Energy Efficiency (BEE) and subsequent initiation of the National Mission for Enhanced Energy Efficiency (NMEEE).
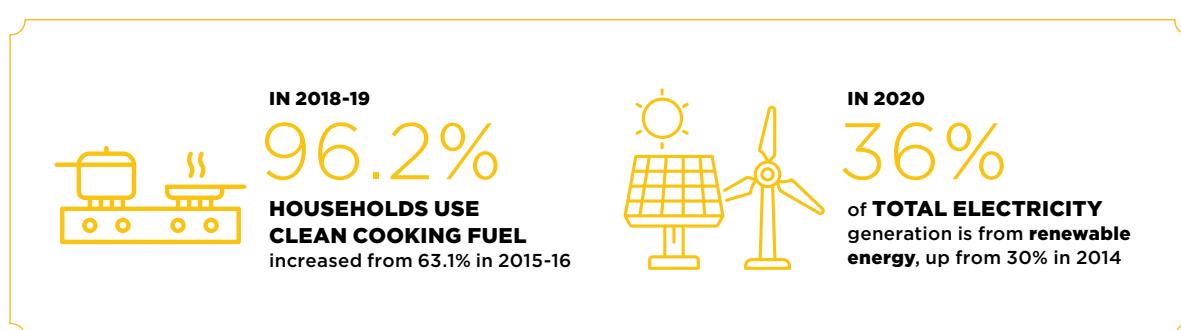
In the residential and commercial sector, enforcing standards and labelling has effectively targeted the household appliances. This has generated widespread consumer awareness and led to successful reduction in household power consumption. BEE's Super-Efficient Equipment Programme (SEEP) targets appliances with efficiency surpassing even the 5-star label. This initiative has ensured production and popularisation of 35W ceiling fans instead of 70W ones. Distribution of 362 million LED appliances under the *UJALA* Scheme across the country has led to saving of 47 billion kWh energy and reduction of CO_2 emission to the tune of 38 million tonne per year. The wide distribution of LPG to low-income households under the *Pradhan Mantri Ujjwala Yojana* too has led to significant reduction in CO_2 emission in millions of households.

With increasing urbanisation and development of smart cities in the country, the potential of energy efficiency in the building sector is sought to be optimised. The application of the Energy Conservation Building Code (ECBC) and the voluntary star-rating programme for buildings developed by the BEE support a transition towards green buildings. Other initiatives like the promotion of energy efficiency in micro, small and medium enterprises, capacity building of Distribution Companies and development of institutional capacity of States widen the compass of energy efficiency.

Strengthening International Cooperation

India has initiated and spearheaded international collaboration on renewable energy and other low-carbon energy pathways. The focus has been on exploring opportunities for exchange of knowledge and experience, and conducting joint research, design, development, demonstration, and manufacture of new and renewable energy systems and devices, while establishing institutional linkages with other countries. India and Germany have signed an agreement on technical cooperation under the Indo-German Energy Programme – Green Energy Corridors (IGEN-GEC). The objective of this programme is to improve and accelerate the sector framework and conditions for grid integration of renewable energy projects with conventional power grids. India has facilitated establishment of the International Solar Alliance (ISA) jointly with France in 2015, which targets to bring clean and affordable energy within the reach of all solar resource-rich nations and to enhance international collaboration towards this objective. The ISA provides a common platform for 121 sunshine countries to work on innovative policies, financial instruments and capacity building measures to undertake more ambitious solar energy programmes. So far, 86 countries have already signed the Framework Agreement.
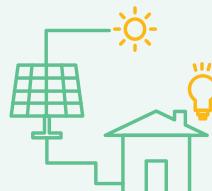
IN 2018-19

96.2%

HOUSEHOLDS USE CLEAN COOKING FUEL increased from 63.1% in 2015-16

IN 2020

36%

of **TOTAL ELECTRICITY** generation is from **renewable energy,** up from 30% in 2014

**Monitoring Progress at the National and Sub-National Levels**
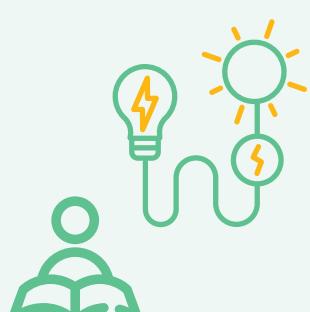
While measuring the country's performance on the SDG India Index and Dashboard, for SDG 7 and its disaggregated two national indicators, the overall Index Score for the country is 70, and ranges between 50 and 97 for the States, and between 43 and 97 for the UTs, on a scale of 0-100 This indicates that the distance to target covered so far by India in Affordable and Clean Energy remains 70, with a significant variation among the sub-national units.

good practices

SURYASHAKTI KISAN YOJANA (SKY): The Government of Gujarat has launched a solar power scheme for **farmers** - *Suryashakti Kisan Yojana* (SKY) enabling them to **generate electricity for** their captive **consumption and to sell the surplus power to the grid for augmenting income**. Farmers with an existing electricity connection will be given solar panels as per their load requirements. The State and Central Governments will provide **60 per cent subsidy on the cost of the project**. The farmer is required to bear 5 per cent of the costs, while 35 per cent will be provided as an affordable loan with interest rates of 4.5 to 6 per cent.

SOLAR PV ELECTRIFICATION: The Chhattisgarh State Renewable Energy Development Agency (CREDA) and the State Health Department have collaborated to **install, operate and maintain solar PV systems in 900 health centres across the state, improving health outcomes.** This is part of a much larger solar PV electrification programme across the state. CREDA received the Ashden International Award for Sustainable Energy and Health Innovation in 2018.

SOLAR *URJA* through Localisation for Sustainability (SoULS) initiative, **a flagship programme of Indian Institute of Technology, Bombay, works on active interventions for providing clean, efficient, affordable and reliable energy access to the last mile households.** The initiative encourages a localised solution involving local communities and ensures the transition from a 'programme-driven model' to 'market-driven model'.

The initiative started in the year 2013, as The Million Solar *Urja* Lamp Program (MSP), which disseminated **one million solar study lamps to rural students**. After the success of the one MSP scheme, the MNRE sanctioned the distribution of seven million solar study lamps. The SoULS initiative has been **successfully rolled out in 346 operational blocks, training over 9,353 people and benefitting more than six million students.**

1million
SOLAR STUDY LAMPS

Challenges and Way Forward

○ Considering that India's Total Primary Energy Demand (TPED) is expected to grow by 63 per cent by 2030 and its share in world's TPED is to rise from 6.4 per cent in 2017 to 9.1 per cent, India's contribution to world's energy-related CO_2 emission is also expected to grow from 6.7 per cent to 10.6 per cent. Therefore, achieving low-carbon energy security is critical for the country's sustainability agenda.

○ In the renewable energy sector, grid parity has been achieved notionally, as competitive auctions have helped substantially reduce prices for solar and wind power projects. However, there is a marked dependency on imports to the tune of more than 85 per cent in the case of solar panels and equipment. Other resources such as battery storage equipment and permanent magnets for electric cars, face similar shortages. Therefore, domestic technology development and manufacturing capacity augmentation are being aggressively pursued.

○ India needs to tide over its capacity and technology constraints. The process of building capacity and physical assets required by 2030 to meet the increasing industrial, residential, and infrastructural demand is a continuous work in progress. Paucity of sufficient human resources, capabilities, technologies and funds, for supporting renewable energy domestic capacity addition and the power sector in general, are major limitations. Expanding supply of electricity at a faster rate to meet existing unmet industry, commerce, and household demand and rising future demand is another allied challenge that the country has to resolve. India remains high on its commitment to overcome these challenges with systematic and structured interventions along with the active engagement of the burgeoning business sector and technology driven startups, to upscale and universalise the access to clean energy systems in affordable ways to its people, while enhancing energy efficiency along the road for power sector transformation.

★ INITIATIVES AND ACHIEVEMENTS ★

450GW
BY 2030
World's largest renewable energy expansion programme

75%
SOLAR POWER TARRIF REDUCED
using plug and play model

3RD
MOST ATTRACTIVE COUNTRY for renewable energy **investment**

36%
RENEWABLE ENERGY
share in total installed generation capacity

The process of building capacity and physical assets required by 2030 to meet the increasing industrial, residential, and infrastructural demand is a continuous work in progress. India remains committed to universalising clean energy with active engagement of the business sector and tech-driven startups.

SDG 8
DECENT WORK AND ECONOMIC GROWTH
Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all

The making of a *Sampanna* and *Samriddha Bharat*, a prosperous and vibrant India, requires accelerated and consistent economic growth, which is not the end but the means to achieving higher levels of development. Sustained high growth is India's principal strategy to create gainful employment, eliminate poverty, and improve prosperity and well-being. India is one of the fastest growing emerging market economies in the present scenario. From 2014-15 to 2019-20, in real terms, India's economy grew at a CAGR of 7.01 per cent. The growth in real GDP during 2019-20 is estimated at 5.0 per cent as compared to the growth rate of 6.8 per cent in 2018-19. The growth rate in Per Capita Income (PCI) is estimated at 4.3 per cent during 2019-20, as against 5.6 per cent in the previous year. From the 2018-19 GDP of USD 2.72 trillion, in current terms, India strives to become a USD 5 trillion economy by 2025 with an inclusive and sustainable growth trajectory.

Given the uncertainty in the global economy, especially following the COVID-19 pandemic, sustaining a high growth trajectory will be a challenge for India, as it will be for all nations across the world. However, the success of the economic growth strategy in the past five years and the learnings from the same will inform India's growth plans for the next ten years, in alignment with the targets of SDG 8.

A key pillar of the economic prosperity strategy has been entrepreneurship. India has the third largest entrepreneurship ecosystem, globally. The recent years have seen commendable growth in entrepreneurial activities. While the number of new firms in the formal sector grew at a cumulative annual growth rate of 3.8 per cent from 2006-2014, the growth from 2014 to 2018 has been at 12.2 per cent. As a result, from about 70,000 new firms created in 2014, the number has grown by about 80 per cent to about 1,24,000 new firms in 2018.
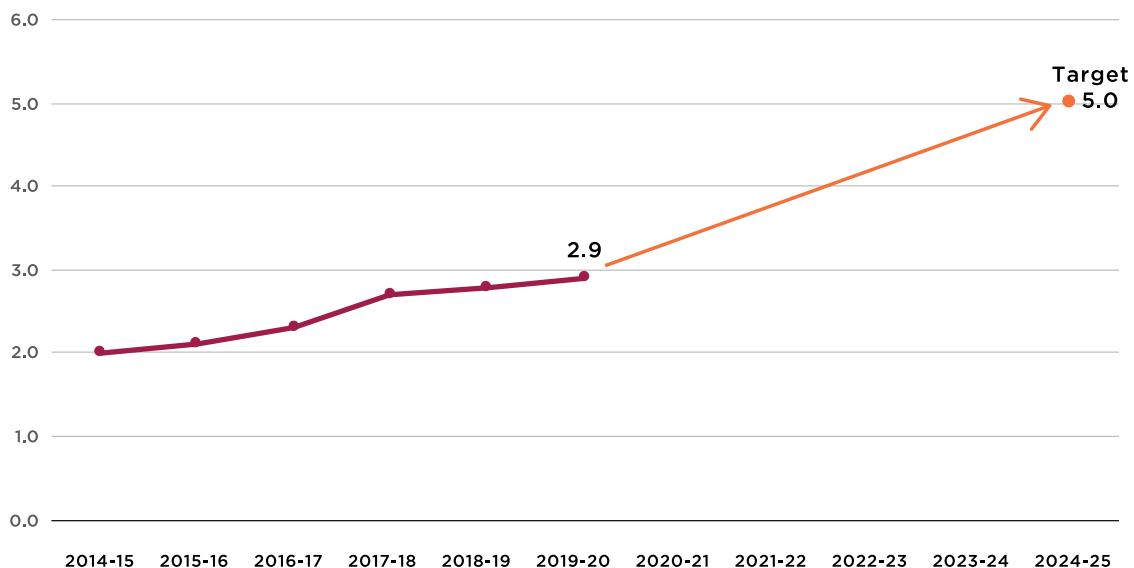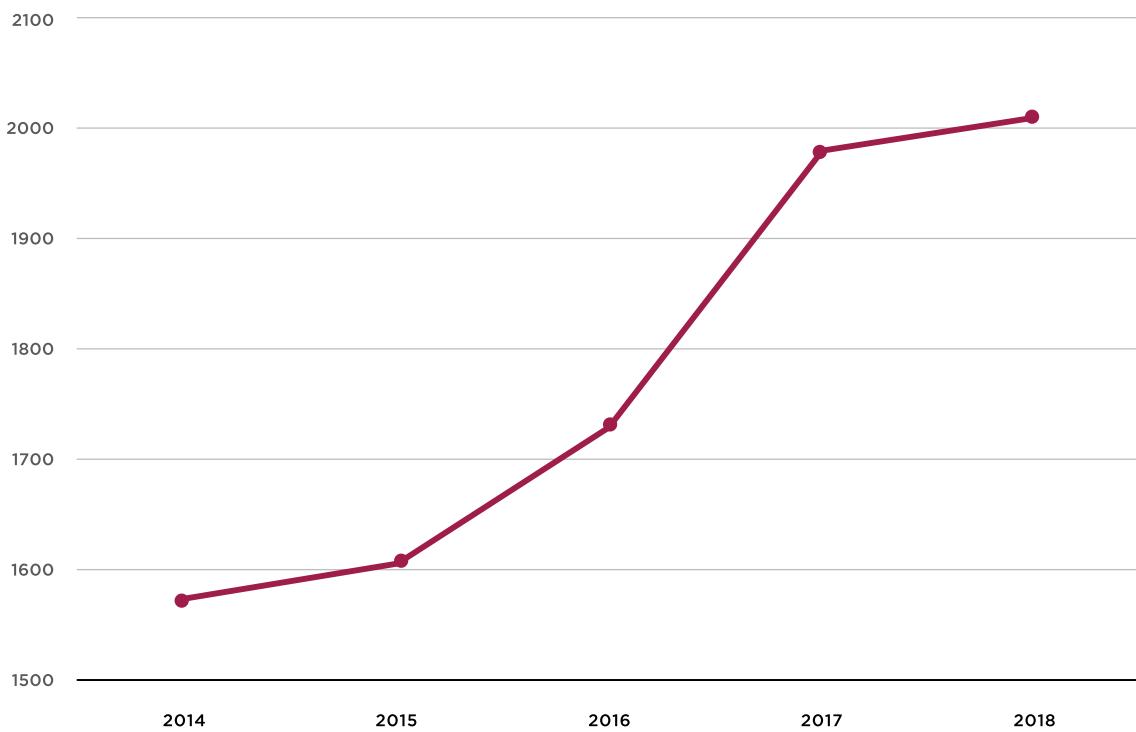
The surge in entrepreneurial activities has had a positive impact on economic growth. Data demonstrates that a 10 per cent increase in registration of new firms per district-year yields a 1.8 per cent increase in Gross District Domestic Product (GDDP). The results emphasise the importance of entrepreneurship as an engine of economic growth and transformation in India.

A key pillar of the economic prosperity strategy has been entrepreneurship. India has the third largest entrepreneurship ecosystem, globally.

Moreover, the factors contributing to the growth of the entrepreneurship ecosystem are higher literacy levels, better physical infrastructure and better connectivity. Investment in these factors in India is fast developing the entrepreneurship ecosystem, leading to faster economic growth.

NEW FIRMS CREATED
80% | **12.2%**
GROWTH | CAGR
70,000 in 2014 to
1,24,000 in 2018

Graph 10. Increasing Size of the Indian Economy (GDP at current USD in trillion)

Graph 11. GDP Per Capita (current USD)
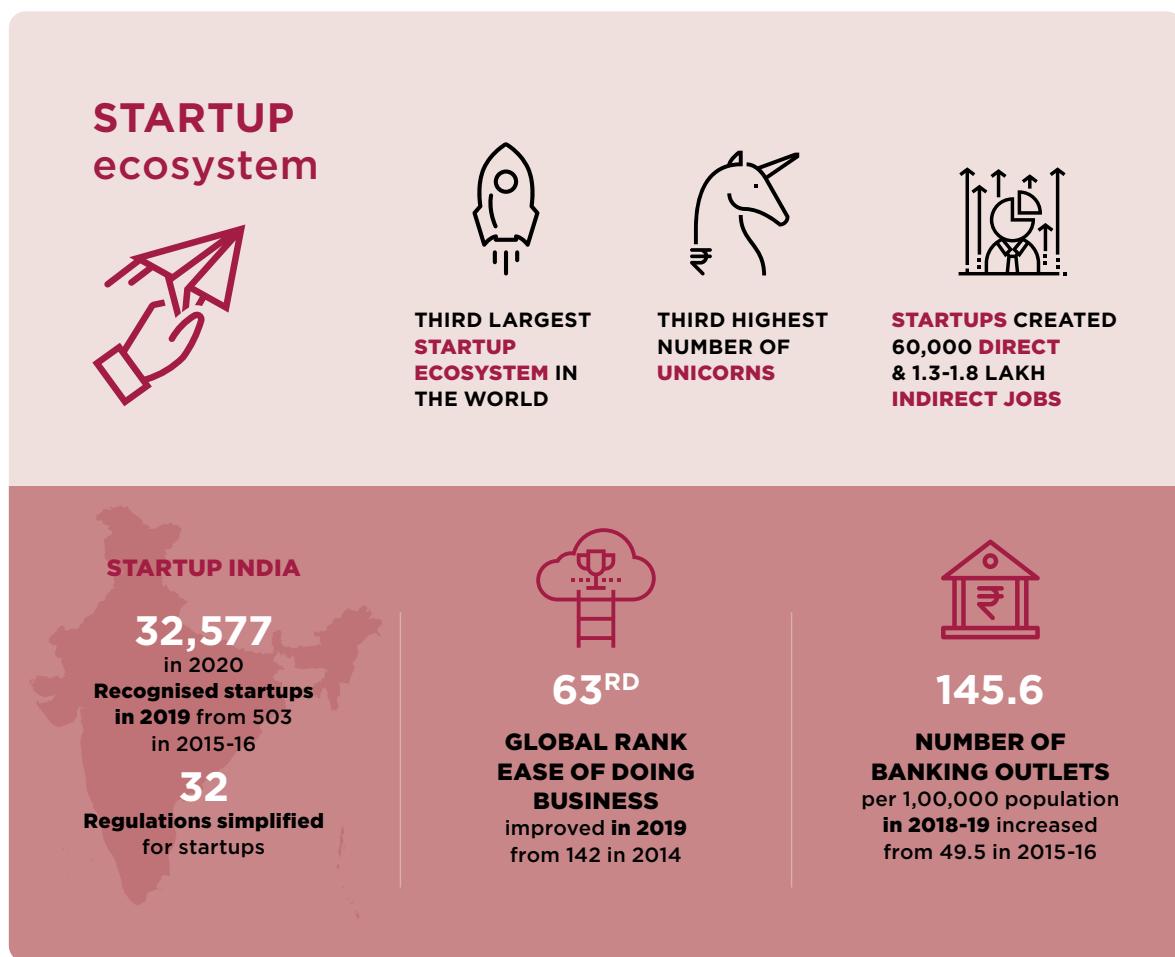
India pursues aggressive reforms to stimulate manufacturing, build infrastructure, spur investments, foster technological innovation and boost entrepreneurship. Major reforms include a single Goods and Services Tax regime, FDI liberalisation, Insolvency and Bankruptcy legislation, Ease of Doing Business Reforms, and flagship programmes like Make In India, Startup India and Skill India.
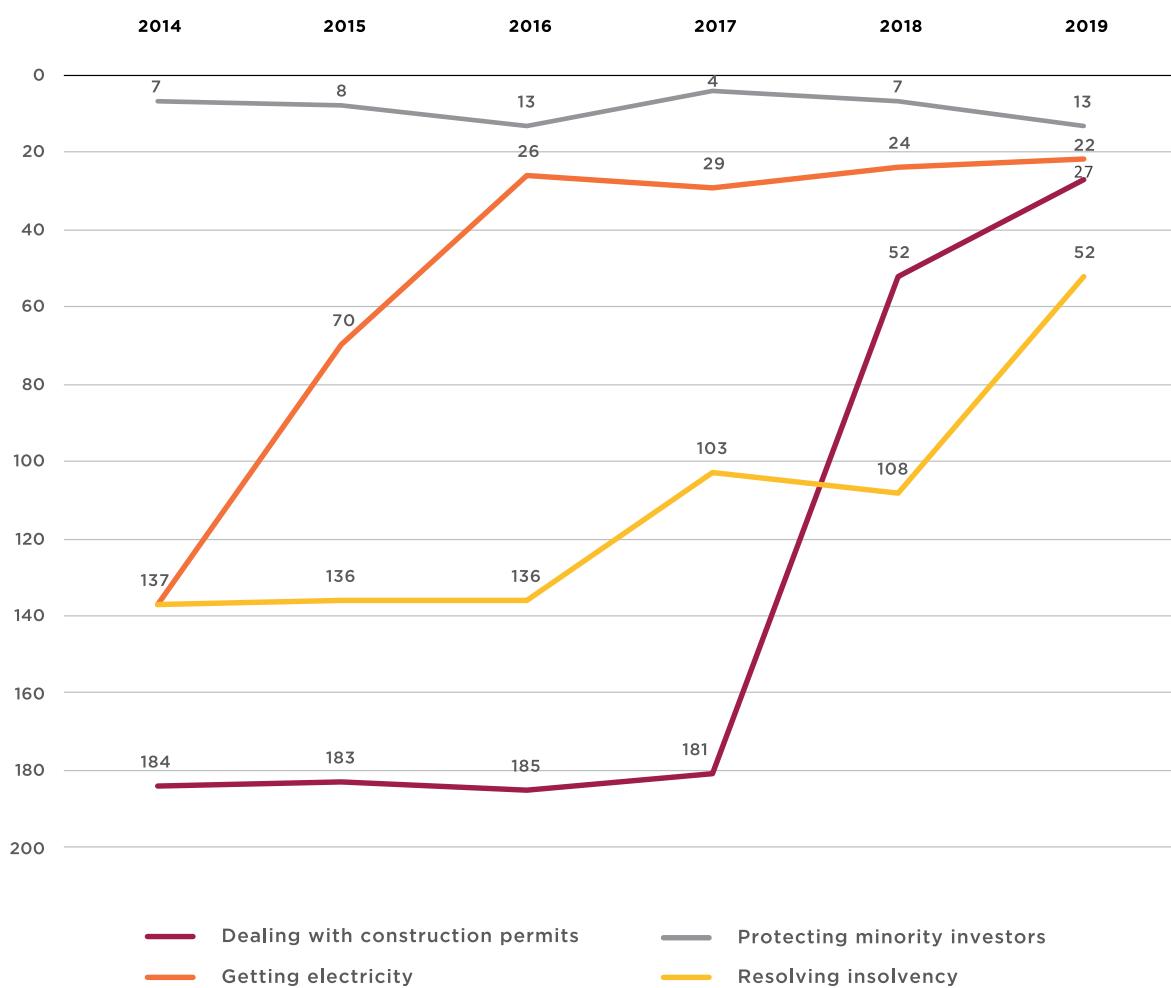
Funding Small Enterprises

Startup India is a flagship scheme of the Government of India, launched to nurture innovation and startups in the country and is aimed at driving economic growth and generating large-scale employment opportunities. Some of the features of this scheme relate to the simplification of procedures and funding support. It is expected to benefit at least quarter of a million borrowers. The number of startups recognized under Startup India increased from 503 in 2015-16 to 32,577 in 2020.

The Micro Units Development and Refinance Agency (MUDRA) scheme provides financial support to the small and micro-enterprise sector up to INR 1 million (USD 13.3 thousand). Launched in 2015, it aims to ease credit constraints by extending institutional finance to such small business entities. Loans amounting to more than INR 11.8 trillion (USD 157.3 billion) have already been disbursed under this programme.

STARTUP ecosystem

THIRD LARGEST **STARTUP ECOSYSTEM** IN THE WORLD

THIRD HIGHEST NUMBER OF **UNICORNS**

STARTUPS CREATED 60,000 **DIRECT** & 1.3-1.8 LAKH **INDIRECT JOBS**

STARTUP INDIA

32,577
in 2020
Recognised startups in 2019 from 503 in 2015-16

32
Regulations simplified for startups

63RD
GLOBAL RANK EASE OF DOING BUSINESS improved **in 2019** from 142 in 2014

145.6
NUMBER OF BANKING OUTLETS per 1,00,000 population **in 2018-19** increased from 49.5 in 2015-16

Graph 12. Movement in Global Ranking in Select Doing Business (DB) Parameters

Structural Reforms

Structural reforms in the economy have been implemented for long-term gains, and will play a key role in ensuring decent jobs and sustained economic growth. The enactment of the Insolvency and Bankruptcy Code, 2016, by the Parliament to simplify procedures related to debt default, and consolidate laws related to insolvency of companies, limited liability entities, unlimited-liability partnerships and individuals, will boost entrepreneurship and credit-availability. Substantial reduction in corporate tax has also been a much-needed measure to boost businesses. In 2017, the Goods and Services Tax Act came into force as a multi-stage, destination-based tax that is levied on

every value-addition and has replaced a large number of indirect taxes at both the Centre and State level. It is expected to reduce the cost for the manufacturer, and thus, the final price for the consumer, in addition to eliminating tax evasion. Its simplified structure also promotes investment activity. In sum, GST has helped in providing a common economic market while improving tax compliance.

Ease of Doing Business Reforms

The Government is committed to ensuring a vibrant business ecosystem for the private sector. Introduced in 2014, the Make in India initiative focuses on transforming India into a design and manufacturing hub by attracting

investments from across the globe. Making regulatory processes simple and more transparent, and eliminating obsolete laws and regulations, it has helped raise India's place in the Ease of Doing Business (EoDB) Index. India's meteoric jump of 79 positions in the World Bank's EoDB Index, from 142 in 2014 to 63 in 2019 among 190 countries, coupled with consistent improvements in ease of starting a business, easy access to power and credit, resolving insolvency and trade across borders have boosted both domestic and foreign investment in the business sector.

Decent Work and Labour Welfare

On the legislative front, there are over 40 Central Acts, and multiple State level Acts, which govern matters related to fair wages, social security, labour welfare, industrial safety and health, industrial relations and employment. Some of them specifically cater to the needs of women and children. These Acts promote labour rights, ensure safe and secure workplaces and procedures for addressing disputes

Skilling Ecosystem

Skilling is a major factor in improving employability of the youth in a country where 27-28 per cent of the population are young. The Skill India programme, launched in 2015, focuses on short-term vocational-education programmes and seeks to create a minimum of 400 million skilled personnel by 2022. Over 10 million students have been trained under the National Skill Development Mission; another 8.7 million have been skilled under the *Pradhan Mantri Kaushal Vikas Yojana* (PMKVY), wherein the youth are provided skill training in taking up industry relevant skills to secure a improved livelihoods.
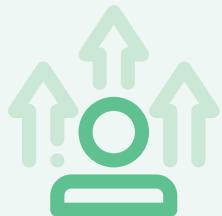
One of the positive outcomes of the host of policy and programme initiatives, has been the improvement in wages. The monthly wages earned in regular/salaried employment by male and female in the quarter July to September 2017 were at INR 16,602 (USD 221) and INR 13,209 (USD 176), respectively, which rose to INR 17,698 (USD 236) and INR 13,890 (USD 185), respectively, during the period April to June 2018.

Monitoring Progress at the National and Sub-National Levels

While measuring the country's performance on the SDG India Index and Dashboard, for SDG 8 and its disaggregated seven national indicators, the overall Index Score for the country is 64, and ranges between 27 and 82 for the States, and between 43 and 64 for the UTs, on a scale of 0-100 This indicates that the distance to target covered so far by India in Decent Work and Economic Growth remains 64, with a significant variation among the subnational units.

good practices

ATAL INCUBATION CENTER (AIC): Atal **Incubation Centers**, an initiative **under** the **Atal Innovation Mission of NITI Aayog, aims to promote the innovation and entrepreneurship ecosystem in the country**. For instance, the AIC-NIFT TEA (National Institute of Fashion Technology - Tirupur Exporters Association) incubation centre for

textiles and apparels is sector specific for creating an ecosystem to foster innovation and knowledge-based entrepreneurship. With India becoming the breeding ground of startups, Atal Incubation Centers across the country **aid creation of numerous jobs** with their scale-ups along with **fostering** the **business and innovation environment**.

LOANS OF UPTO INR
1million

PRADHAN MANTRI MUDRA YOJANA (PMMY): The scheme provides **loans** of up to INR 1 million (USD 13.3 thousand) **to** the **non-corporate/non-farm small/ micro enterprises**. Under the aegis of PMMY, there are three products, *'Shishu', 'Kishore', and 'Tarun'* to signify the stage of growth/ development and funding needs of the beneficiary micro unit/ entrepreneur, and to provide a reference point for the next phase of growth.

Challenges and Way Forward

The various government efforts and initiatives notwithstanding, a few challenges remain:

○   While agriculture employs about half of India's workforce, it contributes less than 20 per cent to GDP. There is thus a pressing need to increase agricultural productivity and create alternative channels of employment.

○   India's literacy rate of 76.9 per cent leaves considerable room for improvement. For two States/UTs, the literacy rate is less than 70 per cent. A population with minimum educational proficiency is necessary to tap into the benefits of increased employment opportunities.

○   Health outcomes also impact productivity. Workers with poor health generate lower output for the same amount of work and earn lower wages. India's life-expectancy, which is at approximately 69, is lower than that of many middle-income nations. The same holds true for other such health indicators like Infant Mortality Rate, and levels of stunting and anaemia, especially among women.

○   Approximately 80 per cent of India's workers are employed in the unorganised sector and more than 90 per cent in informal employment. Such employment is not covered under the majority of labour laws, therefore, these workers lack access to benefits like safety standards and minimum wage.

○   Despite the impressive rate of growth of output, the unemployment rate (15-59 years) in 2017-18 was 8.2 per cent in urban areas and 5.7 per cent in rural areas. The target of promoting job-creation and entrepreneurship is thus yet to be fully realised. Further, stabilisation of the GST regime, reforms in the Insolvency and Bankruptcy Code, stimulating the export and the manufacturing sector to retain a consistent rate of growth, and robust financial and infrastructure sector performance remain some of the persistent issues of focus for achieving the goal of USD 5 trillion economy by 2025.

India's meteoric jump of 79 positions in the World Bank's EoDB Index, from 142 in 2014 to 63 in 2019 among 190 countries, coupled with consistent improvements in ease of starting a business, easy access to power and credit, resolving insolvency and trade across borders have boosted both domestic and foreign investment in the business sector.

●●

Photo courtesy of Rakesh Pulapa

SDG 9
INDUSTRY, INNOVATION AND INFRASTRUCTURE

Build resilient infrastructure, promote inclusive and sustainable industrialisation and foster innovation

India sees industrialisation not as a barrier to the sustainability of our planet and its life, but as a powerful and effective means through which higher prosperity is achieved with minimum impact on the environment. Innovation is the main driver behind all disruptive changes and reforms, across sectors. Modern infrastructure is a key gateway to social and economic progress. These factors put SDG 9 at the core of India's development agenda.

Improvement in a range of indicators capture the progress achieved by India's industry in the recent years. Investments into the economy have been proliferating. During 2019-20 (up to September 2019), the total FDI Equity inflows were USD 26.10 billion as compared to USD 22.66 billion during 2018-19 (up to September 2018). The rate of growth of Gross Capital Formation (GCF) in industry registered a sharp rise from (-)0.7 per cent in 2016-17 to 7.6 per cent in 2017-18, showing upward momentum of investments in the sector. Such sharp rise in FDI, which grew to USD 284 billion during 2014-19, combined with a young population, and burgeoning innovation and business ecosystem makes for a robust engine of economic progress. Further, credit usage by the industry has been showing positive signs. Growth in gross bank credit flow to the industrial sector, on a year-on-year basis, rose to 2.7 per cent in September 2019 as compared to 2.3 per cent in September 2018. A host of such measures have resulted in significantly improving the business ecosystem in India.

Ease of Doing Business Reforms

Government processes in Central Ministries have been simplified to reduce the time and cost burden on businesses. Besides, more than
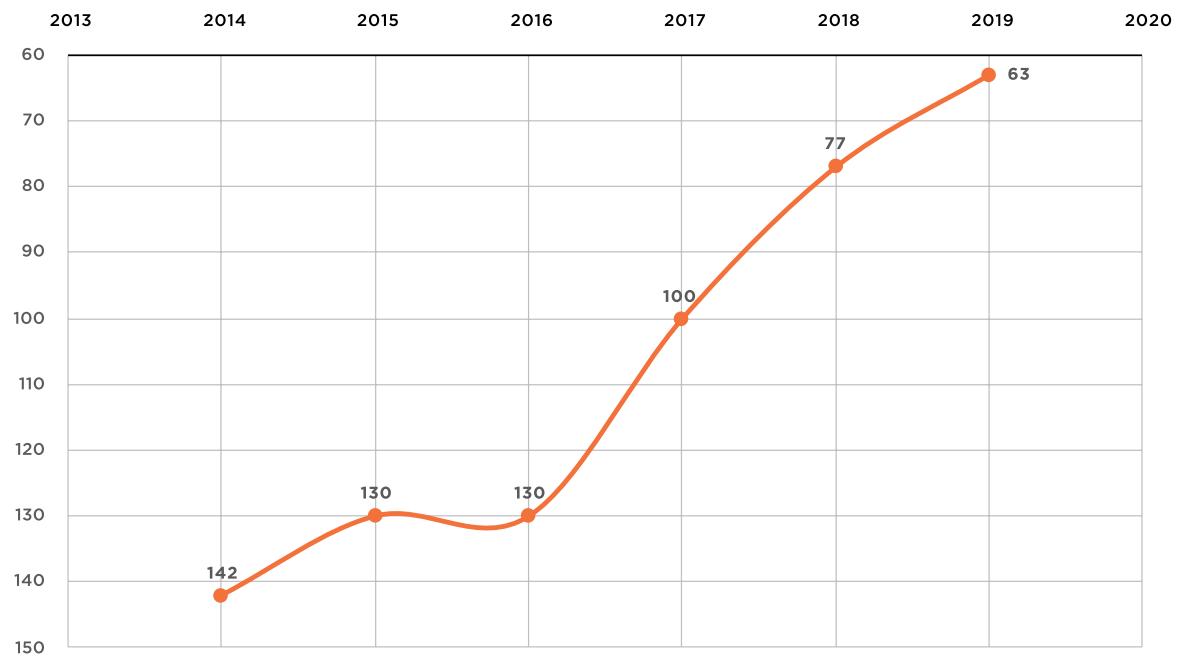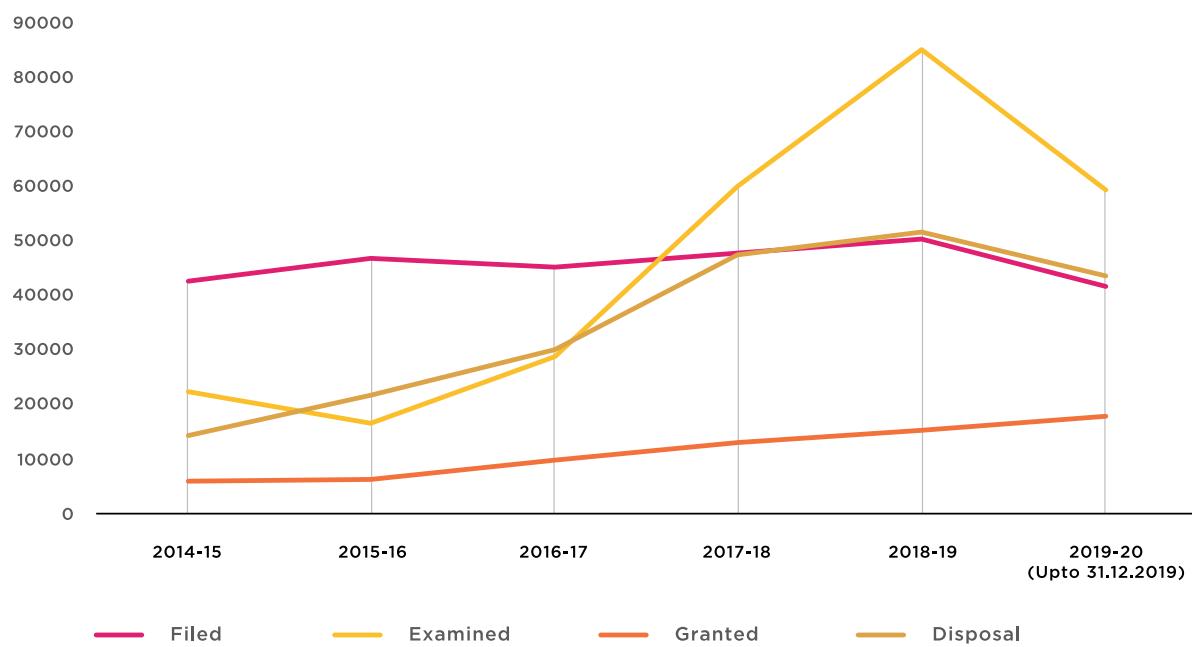
seven thousand reforms were undertaken by subnational Governments to streamline the business regime under State Level Business Reforms Action Plan. These initiatives have started showing results – India has jumped 79 places in the World Bank's Ease of Doing Business ranking of countries, in the past five years – progressing from 142 in 2014 to 63 in 2019. India is the only nation to have made it to the list of top 10 improvers for the third consecutive year. The next immediate milestone is to be one of the top 50 countries in the World Bank rankings, as the country works on the roadmap to become a USD 5 trillion economy by 2025. Classification of States on the implementation of regulatory reforms has started to motivate them to undertake these reforms in earnest.

Government processes in Central Ministries have been simplified to reduce the time and cost burden on businesses. More than seven thousand reforms were undertaken to streamline the business regime in the States under the State Level Business Reforms Action Plan.

Design and Innovation Ecosystem

Research and development should lead to large scale generation of intellectual property rights which can be economically utilised. The share of expenditure on R&D on Intellectual Properties Products to the GDP has increased by 11 per cent, from 3.52 per cent in 2015-16 to 3.91 per cent in 2017-18. India has strengthened the office of Controller General of Patents, Designs and Trade Marks (CGPDTM) by the appointment of a large number of examiners and controllers. This has helped increase examination of designs to 12,661 in 2018-19 from 9,426 in 2015-16; and that of patents to 85,436 in 2018-19 from 16,851 in 2015-16. The registration of designs increased to

Graph 13. India's Ranking in the World Bank Ease of Doing Business (EoDB) Reports

Graph 14. Patents - Filing, Examination, Disposal and Grants

9,512 in 2018-19 from 7,904 in 2015-16. The grant of patents witnessed a spurt during this period, rising to 15,284 in 2018-19 from 6,326 in 2015-16. This will help to bring down total time taken in the grant of IPRs significantly.

In the area of collaboration in science and technology, the scientific ministries and departments of the Government have active international collaborations both at the bilateral and regional level. Today, India is engaged in active R&D cooperation with more than 44 countries across the globe, including advanced, emerging and developing nations.

Startup Ecosystem

Another critical area for stimulating innovation is startups, which work on new and disruptive technologies. Since they deal with unproven technologies, these startups need special attention and support from an ecosystem that understands their particular needs. India has launched the Startup India programme to identify, nurture,

incubate and accelerate new age startups. By the end of 2019, 26,804 startups were recognised under Startup India across 551 districts and INR 31.23 billion (USD 416.4 million) was committed to 47 Alternate Investment Funds (AIFs). India, presently, has the third largest startup ecosystem in the world, with about 50,000 startups in 2018 of which 9,300 are technology led startups. The pace of growth in the startup ecosystem has increased to 15 per cent year-on-year in 2018, while the growth of the number of incubators and accelerators has grown to 11 per cent. Significantly, the number of women entrepreneurs stood at 14 per cent, up from 10 per cent and 11 per cent in the previous two years.

Infrastructure Development

India has made commendable progress in the provision of basic infrastructure designed to spur growth. The *Bharatmala* programme, initiated in 2015, aims at massive development of road infrastructure through corridors, feeder routes, corridor efficiency improvement, and international

Bharatmala

25,000KM

Roads to be developed in Phase I

10,855KM

Construction of National Highways in 2018-19 compared with 4410 km in 2014-15

29.7KM per day

Road construction pace increased in 2018-19 from 17 km per day in 2015-16

INVESTMENT

in sector increased more than **three times** between 2014-15 and 2018-19

Sagarmala

1514

million tonnes

Cargo handling capacity of major ports in 2019 **increased** from 801 million tonnes in 2014-15

2.48

days

Turnaround time of ships improved in 2018-19 from 4.67 days in 2010-11

Vayumarg

0.12

annual seats per capita

Passenger capacity increased in 2018 from 0.07 in 2013

147.1

million

Passengers in scheduled Indian airlines in 2017-18 **increased** from 103.8 million in 2015-16
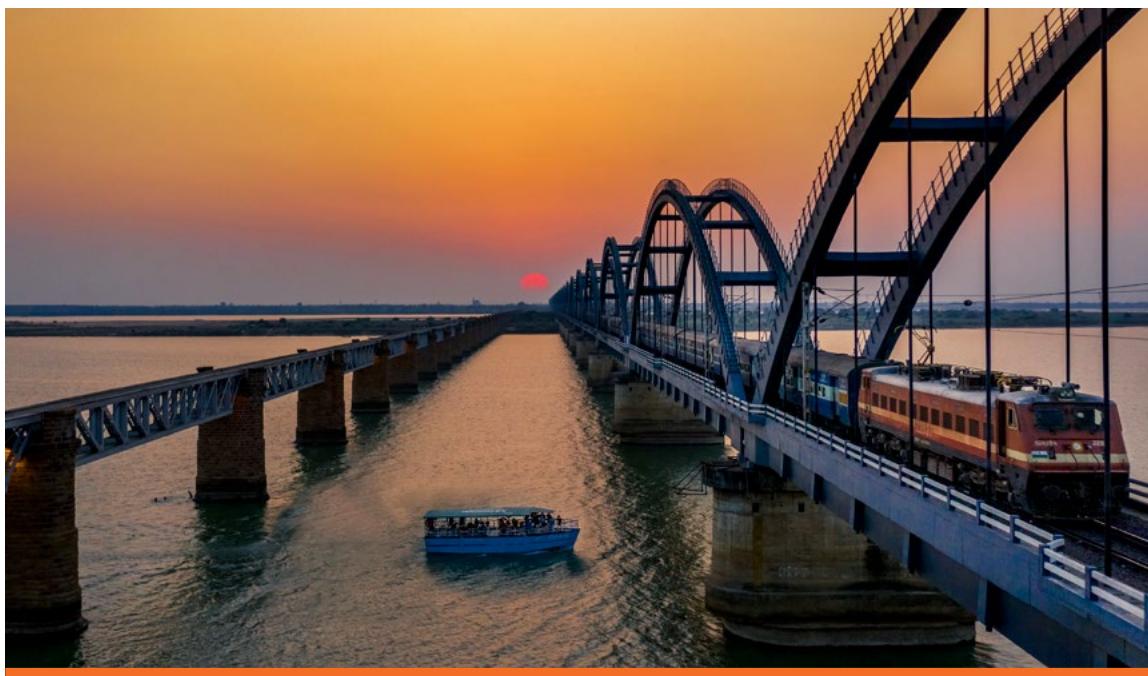
connectivity. Development of nearly 25,000 km is targeted in the first phase. The construction of National Highway roads increased from 4,410 km in 2014-15 to 10,855 km in 2018-19. The pace at which roads have been constructed has grown significantly from 17 kms per day in 2015-16 to 29.7 kms per day in 2018-19, with total investment in the sector increasing by more than three times between 2014-15 and 2018-19.

The *Sagarmala* project, flagged off in 2016, targets reduction in logistics cost for trade through comprehensive development of India's 7,500 km coastline and 14,500 km of potentially navigable waterways. The key components of the project are port modernisation, connectivity enhancement, port-linked industrialisation, coastal community development and inland waterways transport. The 13 major ports have a cargo handling capacity of 1,514.09 million tonnes per annum at the end of March 2019, which has grown by 89 per cent from 801 million tonnes in 2014-15. The turnaround time of ships, which is a key indicator of efficiency of the ports sector, has been reducing consistently, almost halving between 2010-11 and 2018-19 from 4.67 days to 2.48 days. The Average Output Per Ship Berth-day has increased from 15,333 tonnes in 2017-18 to 16,541 tonnes in 2018-19.

India is the third largest domestic market for civil aviation in the world. The airline operators have scaled up their aircraft seat capacity from an estimated 0.07 annual seats per capita in 2013 to 0.12 in 2018. The comparable estimates for China, the second largest domestic market in the world, over this period were 0.33 in 2013 and 0.49 in 2018, while those of the United States of America, the largest domestic market, were 2.59 in 2013 and 2.95 in 2018.

India's industrial corridor is one of the world's largest infrastructure projects, with an estimated investment of USD 90 billion. It is planned as a high-tech industrial zone spread across six states which would act as an industrial hub for trade and commerce and provide industrial heat zones across the nation.

To reach the GDP target of USD 5 trillion by 2025, India needs to spend about USD 1.4 trillion on infrastructure. The National Infrastructure Plan (NIP) is expected to enable well-prepared infrastructure projects which will create jobs, improve ease of living, and provide equitable access to infrastructure for all, thereby making growth more inclusive. NIP also intends to facilitate supply side interventions in infrastructure development to boost short-term as well as potential GDP growth.

Photo courtesy of Rakesh Pulapa
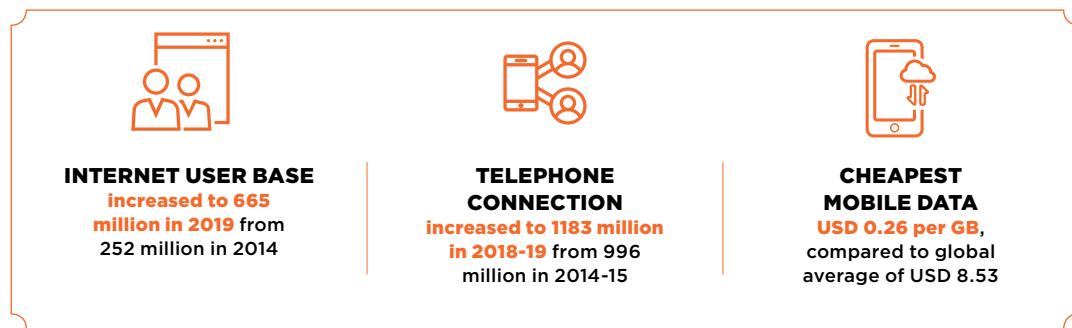
Telecommunications

India has made considerable headways in communication technologies in the recent past. India's internet user base has exceeded 665 million by the end of June 2019, as compared to 252 million in 2014. Total telephone connections in India grew by 18.8 per cent, from 996 million in 2014-15 to 1183 million in 2018-19. These advances provide impetus to the country's efforts to use communication technologies to improve skills and facilitate business activities.

India's performance on several global indices testifies to its steady progress in industry, innovation and infrastructure:

O   Ease of Doing Business (EoDB): India's meteoric jump of 79 positions in the World Bank's EoDB Index, from 142 in 2014 to 63 in 2019 among 190 countries, coupled with consistent improvements in ease of starting business, easy access to power and credit, resolving insolvency and trade across borders, have boosted both domestic and foreign investment in the Indian business sector.

O   In World Economic Forum's Global Competitiveness Index, India's rank has improved from 71 in 2014-15 to 68 in 2019, implying the country's strong performance in pillars such as innovation capacity, financial system and macroeconomic stability, in which India is among the top 50 countries.
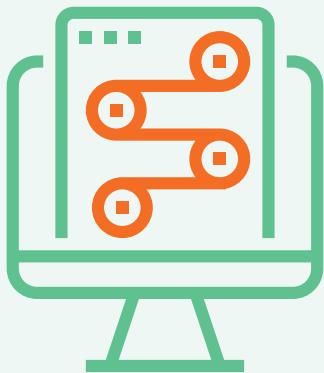
O   The Global Innovation Index by World Intellectual Property Organization (WIPO) saw India achieve remarkable improvement from being ranked 76 in 2014 to 52 in 2019. This is largely attributed to the improvement in pillars such as political environment, education, infrastructure and business sophistication.

O   In World Bank's Logistics Performance Index, India jumped 10 places from 54 in 2014 to 44 in 2018. Among the six key dimensions of the Index, India saw significant improvement in customs, infrastructure, logistics competence, and tracking and tracing.

O   The Travel and Tourism Competitiveness Index, calculated by the World Economic Forum, saw India's position improve from 52 in 2015 to 34 in 2019. The TTCI utilises three sub-indices and their components to represent the overall quality, future potential and long-term sustainability of the tourism sector within each country.

O   In Readiness for the Future of Production Assessment, India was ranked 30 and 44 among 100 countries in terms of structure of production and drivers of production, respectively. In the World Economic Forum's inaugural edition of the assessment in 2018, the country emerged as the fifth best in the world, in terms of demand environment.

INTERNET USER BASE increased to 665 million in 2019 from 252 million in 2014

TELEPHONE CONNECTION increased to 1183 million in 2018-19 from 996 million in 2014-15

CHEAPEST MOBILE DATA USD 0.26 per GB, compared to global average of USD 8.53

Challenges and Way Forward

The various government efforts and initiatives notwithstanding, a few challenges remain:

○ India's Index of Industrial Production (IIP) moderated growth to 3.8 per cent in 2018-19 compared to 4.4 per cent in 2017-18. During 2019-20, from April to November, it grew at 0.6 per cent as compared to 5.0 per cent in the corresponding period of the previous year. The moderation in growth mainly arose from subdued manufacturing activities due to slower credit flow to medium and small industries, reduced lending by NBFCs owing to liquidity crunch, tapering of domestic demand for key sectors such as the automotive sector, pharmaceuticals, and machinery and equipment, volatility in international crude oil prices, and prevailing trade related uncertainties. IIP growth needs to pick for the country to meet its sustainable industrial development targets.

○ India's material intensity is six times that of Germany's. With a refined understanding of the material flow in each sector, it would be possible to judge whether the major issues are around efficiency or technology or are structural in nature.

○ Indian industry generates billions of tonnes of solid and hazardous waste. A huge share of the industry consumes large quantities of water which results in high wastewater discharge. Significant increase in treatment and recycling capacities will contribute to addressing this challenge.

While the COVID-19 pandemic has put forth severe breaks on the momentum of global economic growth, India is fast exploring ways of developing relevant sectors of infrastructure and industry, such as the pharmaceutical and health equipment sector. It is also revisiting existing business models in a post-COVID-19 world by aggressive adoption of Artificial Intelligence and technology based products and services in education, health and financial services, among others. As an emerging economy, the focus is now on Industry 4.0 and next generation infrastructure, with greater automation in industrial sectors, and use of Internet of Things and innovative technologies to maximize the efficiency of infrastructure, while focusing on sustainability.

PATENTS GRANTED

15,284

IN 2018-19

improved from 6326 in 2015-16

India is revisiting existing business models in a post-COVID-19 world by aggressive adoption of Artificial Intelligence and technology based products and services in education, health and financial services, among others.

SDG 10
REDUCED INEQUALITIES
Reduce inequality within and among countries

Inequality takes many forms in a large and diverse country like India. Goal 10 calls for progressively reducing not only income inequalities but also inequalities of outcome by ensuring access to equal opportunities and promoting social, economic, and political inclusion of all, irrespective of age, sex, disability, race, ethnicity, or religion. The Goal also aims to enhance representation and voice for developing countries in decision making in international institutions.

India is firmly committed to championing social, economic and political equality through legislations and well-designed multi-sectoral interventions. The Indian Constitution and the wide range of existing laws and statutes provide a sound armoury to reduce inequality in its various forms and meet the challenges with respect to different targets associated with Goal 10.

Promoting Income Growth

While pursuing economic growth, India has adopted a range of measures to increase incomes of people in vulnerable situations. The Mahatma Gandhi National Rural Employment Guarantee Scheme plays a major role in guaranteeing income for at least 100 days in a year for the rural households. A comprehensive strategy to double the farmers' income by 2022 is being implemented across the country. A direct income transfer scheme, *Pradhan Mantri Kisan Samman Nidhi* (PM-KISAN), specifically supports the small and marginal farmers to the tune of INR 6,000 annually. By enacting the Code on Wages, 2019, India has strengthened the minimum wages and equal remuneration entitlement of workers across formal and informal sectors. Infrastructure development, both in rural and urban areas, complements the

above-mentioned initiatives by expanding the volume of work and wages.

In the wake of the COVID-19 pandemic, India's response includes a USD 279 billion economic package, comprehensive health coverage for front-line workers and direct cash transfers for the most vulnerable, including unemployment protection for job losses, and income support through *Pradhan Mantri Garib Kalyan Yojana.*

The Indian Constitution and the wide range of existing laws and statutes provide a sound armoury to reduce inequality in its various forms and meet the challenges with respect to different targets associated with Goal 10.

Promoting Equality of Opportunities and Outcomes

The Right to Free and Compulsory Education (RTE) Act, 2002 seeks to ensure equality of access to education, one of the key determinants of human development, by entitling all children aged 6 to 14 years the fundamental right to education. The *Samagra Shiksha* programme integrates all aspects of education from pre-primary to higher secondary levels and seeks to materialise all children's right to quality education. There has been significant improvement in enrolment and retention at elementary and secondary levels. Gross Enrolment Ratio currently stands at 91.6 and 79.6 per cent, for elementary and secondary levels, respectively. Dropout rates for the same levels have reduced to 2.72 per cent and 9.74 per cent, respectively, in 2018-19. Gender disparity has appreciably abated, with Gender Parity Index rising to 1.06 at elementary and 1.04 at the secondary level. Special attention has been given to improve educational access and attainment for

social groups in vulnerable situations such as, Scheduled Caste/Tribe communities, minority communities, and children with disabilities through scholarships, improved teaching learning processes, aids, appliances and assistive devices, and special educators.

Various initiatives have been taken to improve employability and access to employment opportunities for the disadvantaged communities. Under the Skill India programme, skilling, apprenticeship and placement support have been provided to SC/ST communities, women and social groups in vulnerable situations. Under the *Pradhan Mantri MUDRA Yojana*, in 2018-19, 22 per cent of the loan accounts belonged to SC/ST entrepreneurs, who accessed 12 per cent of all loans amounting to INR 410 billion (USD 5.5 billion). Entrepreneurs from Other Backward Classes (OBC) had 26 per cent share of all loan accounts and accessed 19 per cent of all loans amounting to INR 606 billion (USD 8 billion). Similarly, 62 per cent of all loan accounts belonged to women who accessed 41 per cent of all loans, amounting to INR 1330 billion (USD 17.7 billion).

Equality of opportunities is also promoted through various modes of affirmative action guaranteed in the Indian Constitution. Representation of socio-economically disadvantaged groups in education, employment and politics has been an effective instrument to promote social inclusion and access to opportunities to groups in vulnerable situation including, women, persons with disabilities, Scheduled Castes, Scheduled Tribes, OBCs and some economically weaker sections.

Designing Specialised Development Programmes

Targeted programmes for social groups in vulnerable situations have been designed and implemented in the sectors of education, health, livelihoods, skills, entrepreneurship and financial inclusion among others. *Beti Bachao Beti Padhao*, Support to Training and Employment Programme for Women (STEP) and Deen Dayal Rehabilitation Scheme (DDRS) for persons with disabilities are some of the initiatives in this category. Other initiatives include educational scholarships, coaching and guidance, livelihood

opportunities and credit facilities to promote entrepreneurship.

Expanding Social Protection Measures

Livelihood support and income assistance to the poor and vulnerable individuals are complemented with a cache of interventions to secure them from unforeseen distress. The National Social Assistance Programme (NSAP) provides pension to the elderly, widows and persons with disabilities. The programme aims at universal coverage and accords special priority to vulnerable groups like, transgender persons, persons affected by leprosy, AIDS, Cancer, TB and other serious ailments, and families affected by natural or other disasters.

With the aim of universal health protection, the *Ayushman Bharat* Scheme provides free and quality healthcare services under an annual insurance cover of USD 6,666.7 to 100 million families (500 million people) from the economically weaker sections. The scheme now covers testing and treatment for COVID-19 as well.

Social security support has been greatly supplemented by three major programmes, i.e. *Pradhan Mantri Jeevan Jyoti Bima Yojana* (PMJJBY) for life insurance, *Pradhan Mantri Suraksha Bima Yojana* (PMSBY) for accident insurance and *Atal Pension Yojana* (APY) for monthly pension for unorganised sector workers. Life and personal accident insurance schemes (PMJJBY and PMSBY together) have now achieved an outreach of 254.5 million subscribers and APY has more than 22.3 million subscribers. Enrolment percentage of women in the unorganised sector with respect to total enrolment under the *Atal Pension Yojana* has seen an increase from 37 to 43 per cent in the last three years.

Empowering through Financial Inclusion

There has been a massive mobilisation of 67 million rural women into 6.1 million entrepreneurship-based Self-Help-Groups. By making banking services accessible to the historically unbanked population on a large scale, the *Pradhan Mantri Jan Dhan Yojana* (PMJDY) has been a potent instrument for financial inclusion. Since its inception, around 382.5 million bank accounts have been opened, with more than
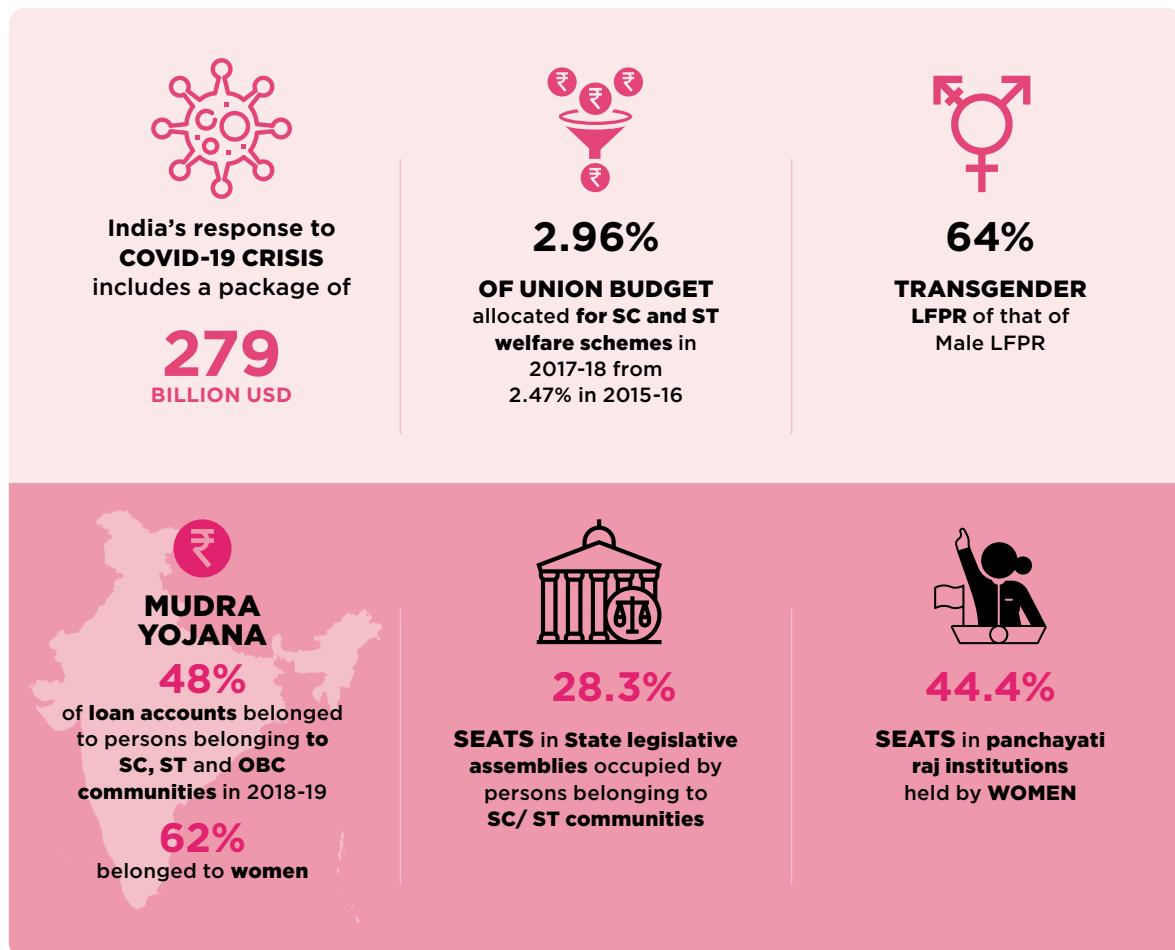
half belonging to women. The *Pradhan Mantri Mudra Yojana* (PMMY) supports entrepreneurs by providing credit to micro and small enterprises. These schemes help break barriers to easy credit and other financial services, thereby empowering the people in vulnerable situations.

Promoting Sustainable Migration and a Migrant-friendly Support System

Migration has always been the result of mismatch between quantitative and qualitative aspects of labour supply and demand. It has often exposed migrants to labour market uncertainties and social security risks. The COVID-19 pandemic-induced lockdown of economic activities has further impacted the situation of migrant labour. Between 2001 and 2011, inter-state labour mobility averaged between 5 and 6 million persons per year. Railway passenger data analysis suggests an annual inter-state migration flow of close to 9 million persons between 2011 and 2016.

The implementation of the Inter-State Migrant Workmen Act is a big step in the right direction for which improved means of implementation are being explored. A database on migration and labour mobility is important to keep a tab on the current situation and take corrective measures. It is also important for development planning to focus on and include initiatives to reduce distress migration and labour trafficking with effective enforcement, employment and social inclusion. Migration can, in fact, be turned into a strong economic opportunity by overcoming its bottlenecks such as migrants' lack of access to healthcare, social entitlements, education for children, lack of improvement in skill profile and employability.

India's response to **COVID-19 CRISIS** includes a package of

279
BILLION USD

2.96%
OF UNION BUDGET allocated **for SC and ST welfare schemes** in 2017-18 from 2.47% in 2015-16

64%
TRANSGENDER LFPR of that of Male LFPR

MUDRA YOJANA
48%
of **loan accounts** belonged to persons belonging **to SC, ST** and **OBC communities** in 2018-19
62%
belonged to **women**

28.3%
SEATS in **State legislative assemblies** occupied by persons belonging to **SC/ ST communities**

44.4%
SEATS in **panchayati raj institutions** held by **WOMEN**

Monitoring Progress at the National and Sub-National Levels

While measuring the country's performance on the SDG India Index and Dashboard, for SDG 10 and its disaggregated nine national indicators, the overall Index Score for the country is 64, and ranges between 19 and 94 for the States, and between 33 and 94 for the UTs, on a scale of 0-100. This indicates that the distance to target covered so far by India in Reduced Inequalities remains 64, with a significant variation among the subnational units.
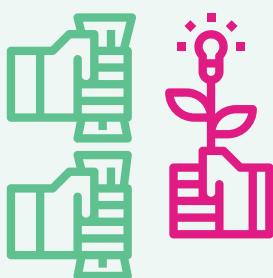
good practices

SWEEKRUTI SCHEME: The scheme was formulated by the Government of Odisha to **provide equal opportunities and protect the rights of the transgender community**. The key strategies of the scheme include surveying and identifying all transgender persons in the State, assisting the parents of transgender children and **providing** pre- and post-matric **scholarships**, **skill upgradation** and **entrepreneurship** development **training** by strengthening self-help groups, providing **support for critical health care** and group insurance support for transgender persons, providing **legal aid**, **counselling** and **guidance** services for transgender persons, organising awareness and sensitisation campaigns on rights of transgender persons, and providing training to staff and volunteers. Under surveying and identification, a multipurpose **SMART Card is provided to all transgender persons, which enables enrolment in schemes and provision of services.** The initiative also assists in monitoring the utilised benefits and identify services which are required by transgender persons.
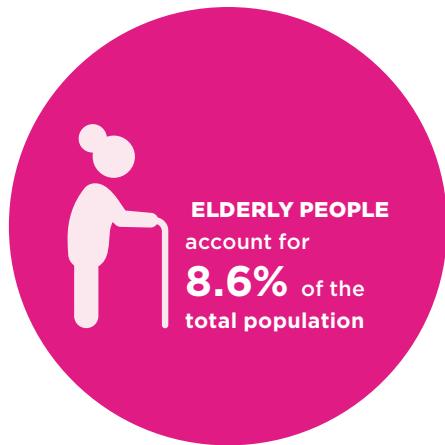
VENTURE CAPITAL FUND is a Social Sector Initiative to be implemented nationally by the Ministry of Social Justice and Empowerment, in order to **promote entrepreneurship among the Scheduled Caste (SC) population in India**. 'Entrepreneurship' relates to entrepreneurs managing businesses which are oriented towards innovation and growth technologies. The spirit of the above mentioned fund is to **support those entrepreneurs who will create wealth and value for the society** and while promoting profitable businesses. Under this scheme, women SC entrepreneurs are given a higher preference.

Challenges and Way Forward

○ Both the geography and demography of inequality and exclusion in India are diverse, posing challenges for identification, monitoring, and effective resolution. The most obvious one is that relating to regular generation of disaggregated data. While over the past decades, different levels of the Government have improved their statistical capacity, and numerous datasets have emerged at the national level, only a few of them are disaggregated by gender, social category, income levels, religion, and region. Ensuring integrity, coherence, comprehensive coverage, and interoperability of such data sets would facilitate adequate analyses of the overlapping vulnerabilities and will lead to the design of befitting strategic as well as programmatic responses.

○ Further, while India remains a young country, the number of elderly people is growing and presently accounts for 8.6 per cent of the total population. This is stepping up demand for a wide variety of social protection and security measures. Besides, addressing this rising demand, there is also a need to explore options for facilitating larger economic participation of the elderly.

○ Despite significant improvement, challenges of implementation persist. Public service delivery, especially to the people in situations of vulnerability, gets impeded due to a range of issues including human resource capacity. Interventions are vital in the direction of more intensive use of technology-driven platforms and capacity building at multiple levels of the Government to equip the officials with the right set of skills and tools to reach out to the right people with right solutions.

○ Rapid urbanisation, and changing settlement and employment patterns interact with existing vulnerabilities to create complex problems. While migrants have become part of the lifeblood of the urban life, their needs in terms of access to basic services, social security as well as better livelihoods must be adequately met. Better-managed urban basic services systems, development of diverse and remunerative livelihoods systems, and wider resource mobilisation are thrust areas of current and upcoming efforts.

ELDERLY PEOPLE account for
8.6% of the total population

Ensuring integrity, coherence, comprehensive coverage and interoperability of data sets would facilitate adequate analysis of the overlapping vulnerabilities and will lead to the design of befitting strategic as well as programmatic responses.

SDG 11
SUSTAINABLE CITIES AND COMMUNITIES
Make cities and human settlements inclusive, safe, resilient and sustainable

Urbanisation has provided new jobs and opportunities to millions of people and has contributed to poverty reduction and is fast becoming the engine for accelerating economic growth. At the same time, rapid urbanisation has added pressure to the resource base and increased the demand for energy, water and sanitation, public services, education and health care. Urban areas are continually evolving as a result of people's mobility, natural population growth, socio-economic development, environmental changes, and local and national policies. India is a fast urbanising country and is witnessing a steady increase in migration from rural areas to urban centres. There were about 377 million people residing in the urban habitats of India in 2011, comprising about 31 per cent of the total population. India's urban population is expected to rise to around 606 million by 2030. This poses stress on the already overburdened infrastructure of the cities, such as housing, services related to transportation, provision of clean water and sewage treatment.

The Government of India through its various schemes, missions, programmes and initiatives that are in tune with SDG 11 promotes inclusive and sustainable urbanisation, as well as aims to develop capacities for participatory, integrated and sustainable human settlement planning and management.

Urban Transformation

Under the Atal Mission for Rejuvenation and Urban Transformation (AMRUT), in 500 cities including all those with a population over 100,000, basic civic amenities such as water supply, sewerage and urban transport are provided to all, with a focus on the economically disadvantaged. Proper waste management is an essential criterion for sustainable cities. As of 2019-20, 96 per cent wards have 100 per cent door to door waste collection as compared to 41 per cent in 2015-16. Waste processing has significantly increased from 17.97 per cent in 2015-16 to 60 per cent in 2019-20.
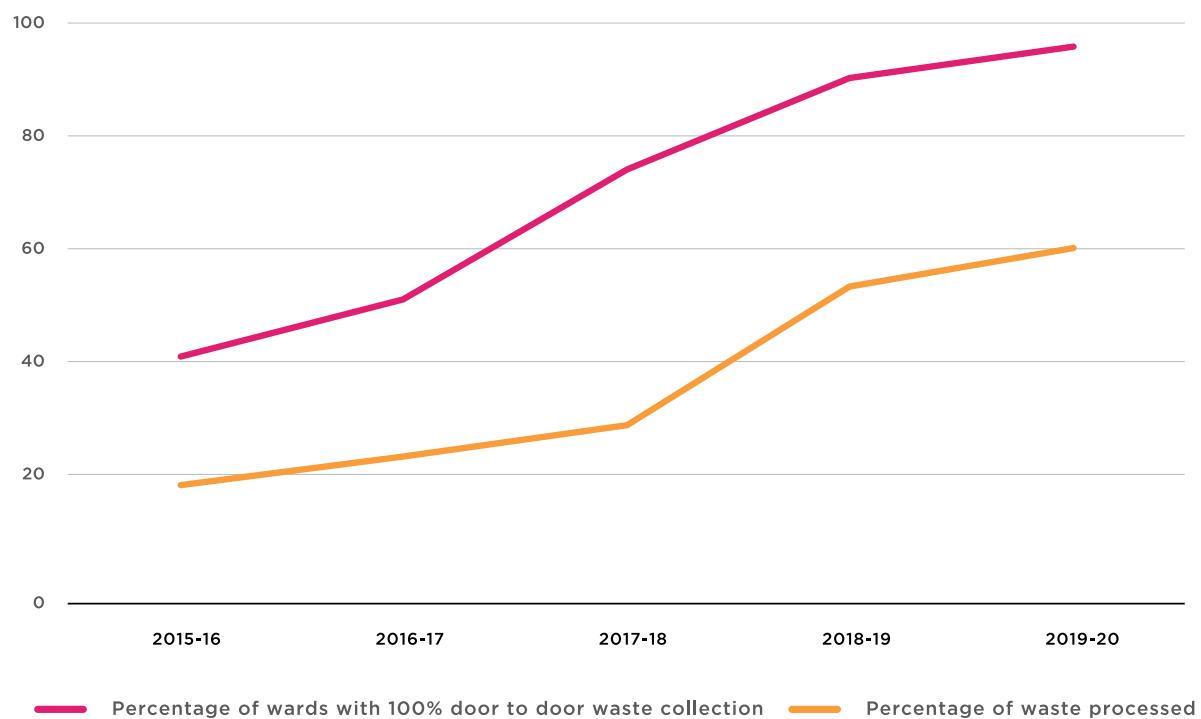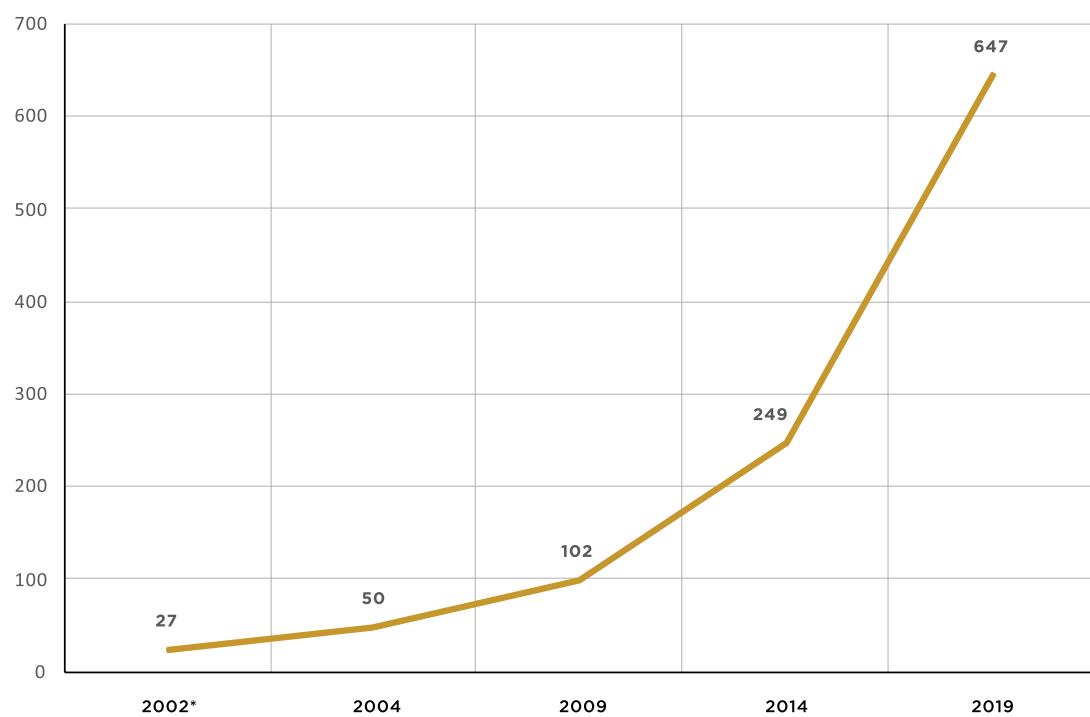
The Government of India through its various schemes, missions, programmes and initiatives that are in tune with SDG 11 promotes inclusive and sustainable urbanisation, as well as aims to develop capacities for participatory, integrated and sustainable human settlement planning and management.

India has a comprehensive Smart Cities Mission (SCM), which has identified 100 cities across the country for focused development. The strategic components of area-based development in the Smart Cities Mission are city improvement (retrofitting), city renewal (redevelopment) and city extension (greenfield development), plus a pan-city initiative in which Smart Solutions are applied covering larger parts of the city. Since the launch of the Mission, 5,151 projects worth more than INR 2 trillion (USD 26.7 billion) are at various stages of implementation.

SCM has launched several new initiatives that will not only ensure integrated development across various aspects of urban development but also catapult the mission to the next stage of development. The first framework for an Ease of Living Index for cities was launched in June 2017 with the objective of framing an index to enable a shift to data driven approach in urban planning and management and promote healthy

Graph 15. Municipal Solid Waste Management (in per cent)

━━ Percentage of wards with 100% door to door waste collection   ━━ Percentage of waste processed

Graph 16. Growth of Metro Rail Line in India (km)

*Before 2002

competition among cities. The Index, launched in 2019, focuses more on outcomes and aims to assess the ease of living of citizens across three pillars - quality of life, economic ability, and sustainability, which are further divided into 14 categories across 50 indicators.

Housing for All

To ensure adequate, safe and affordable housing and basic services for all and upgrade of slums by 2022, India has launched the *Pradhan Mantri Awas Yojana* (PMAY) for urban households. PMAY has four components: in-situ slum redevelopment; credit linked subsidy scheme; affordable housing in partnership with public or private sector; and beneficiary-led individual house construction/enhancements. The government has made it necessary to have at least one woman member registered as the house owner, and preference is given to women in house allotment. Assistance is provided through Urban Local Bodies (ULBs) for in-situ rehabilitation of existing slum dwellers using land as a resource through private sector participation and subsidy for beneficiary-led individual house construction/enhancement. By the end of FY 2019-20, out of 11.2 million housing demand, 3.2 million houses have been completed, with the remaining at different levels of progress.
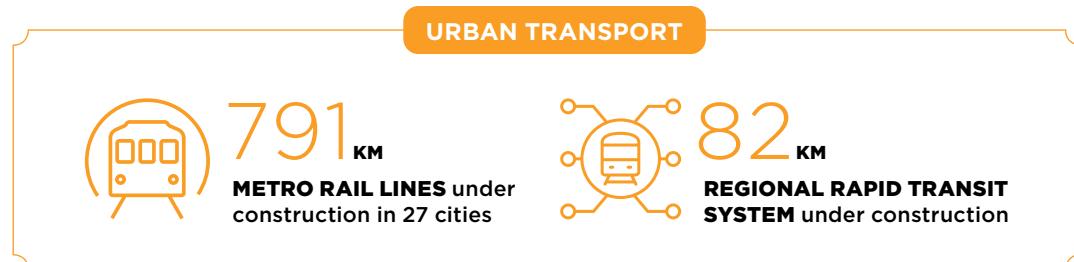
Sustainable Urbanisation and Mobility

The National Urban Transport Policy (NUTP) focuses on environment-friendly sustainable transport along with non-motorised transport innovations. The Sustainable Urban Transport Project (SUTP) is being implemented in select cities to promote effective means of sustainable transport. India is taking crucial steps towards promoting electric mobility. The National Mission on Transformative Mobility and Battery Storage, steered by NITI Aayog, has been set up recently for this purpose.

A comprehensive National Policy on Disaster Management (2009) puts in place a proactive approach to disaster resilience driven by strategies for prevention, mitigation and preparedness. The National Disaster Management Plan expressly integrates the Sendai Framework for Disaster Risk Reduction as well as the SDGs. There is a clear stress on preventing and limiting disaster impact on development and protecting the lives and livelihoods of the people in vulnerable situations. Local governments execute their responsibilities at every stage of disaster management in tandem with other levels of government as well as civil society and other stakeholders.

India launched the Energy Conservation Building Code (ECBC) in 2017, which aims at reducing energy consumption and promote low-carbon growth. ECBC 2017 sets parameters for builders, designers, and architects to integrate renewable energy sources in building design with the inclusion of passive design strategies. The Code aims to optimise energy savings with the comfort levels for occupants, and prefers life-cycle cost effectiveness to achieve energy neutrality in commercial buildings. ECBC is estimated to achieve a 50 per cent reduction in energy use by 2030. This will translate to energy savings of about 300 billion units by 2030 and a peak demand reduction of over 15 GW in a year.

URBAN TRANSPORT

791 KM
METRO RAIL LINES under construction in 27 cities

82 KM
REGIONAL RAPID TRANSIT SYSTEM under construction

101

Monitoring Progress at the National and Sub-National Levels

While measuring the country's performance on the SDG India Index and Dashboard, for SDG 11 and its disaggregated five national indicators, the overall Index Score for the country is 53, and ranges between 22 and 79 for the States, and between 33 and 83 for the UTs, on a scale of 0-100. This indicates that the distance to target covered so far by India in Sustainable Cities and Communities remains 53, with a significant variation among the subnational units.

good practices

MANGROVE BOARDWALK PANAJI, GOA
Panaji Smart City Development Limited, the Smart City SPV of the Government of Goa has **developed** a '**Boardwalk**' i**n the midst of mangroves in Panaji**. The project was executed under the auspices of the AMRUT Mission, one of the thrust areas that aims at **creating ecologically sustainable green spaces** thereby enhancing the amenity value of cities. The boardwalk benefits the tourists visiting the State, as well as the locals by **providing a safe environment to relax and enjoy the mangroves** which are an asset to the ecosystem and biodiversity.

BHUBANESWAR ONE, ODISHA

Implemented by Bhubaneswar Smart City Limited (BSCL), Bhubaneswar One, is an **e-portal that integrates geo-spatial data from all the Government and private organisations for providing easy and hassle-free information to residents and tourists.** It is an integrated GIS-based mapping system for Government agencies to deliver location-based services and information. This e-platform is being used to find locations, ward information, information on public services, tourism and events related information, and updated notifications from various government organisations. The project is increasingly becoming **a one-stop solution for residents of Bhubaneshwar**, for city services and local information.

Challenges and Way Forward

○ Institutional capacity of Urban Local Bodies (ULBs) remains a persistent challenge. Financial autonomy, taxation powers and fund generation capabilities are the areas of concern. Consequently, development plans most often face financial constraints. Some ULBs are looking at alternate sources of financing such as Hybrid Annuity Models, municipal bonds, Infrastructure Investment Trusts etc.

○ Being home to 15 out of the 20 most poll-uted cities in the world, the challenge of pollution, particularly air pollution, demands immediate attention in the country.

○ Some large and wealthy cities may have well-managed resource systems but they also have larger ecological footprints. Climate change impacts increase the vulnerability of cities and put further stress on the adaptive capacities of the poor living in them.

○ To reduce congestion and the interlinked problems that come with it, integrated and spatially distributed urbanisation with an emphasis on small and medium cities and towns, along with promotion of linkages with rural areas, are some of the ways that can be envisioned.

Recognising that the cities are fast becoming growth centres, India has put in place a wide array of strategic interventions, both through legislation and executive action, to address the multifarious issues and challenges that accompany rapid urbansation. Gender concerns need to be integrated in housing, transport and design of public spaces to make cities sustainable and inclusive. The endeavour continues to be to work in collaboration with urban local governments, private sector actors and the community, towards making our cities modern, efficient and sustainable for all population groups residing in the urban and peri-urban areas, with unmatched ease of living for all.

HOUSING FOR ALL

Number of houses completed in urban areas **increased** from 0.727 million in 2015-16 to **3.2 million** in **2019-20**

SMART CITIES MISSION
projects worth **INR 2 trillion, 100 cities, 100 million people** impacted

14 CATEGORIES
50 INDICATORS

EASE OF LIVING INDEX

Assesses **livability of Indian cities** across the pillars of quality of life, economic ability, sustainability and citizen perception

NATIONAL URBAN LIVELIHOODS MISSION

13.6LAKH
SKILLED
in 2018-19 from 1.8 lakh in 2014-15

3.7LAKH
SHGs FORMED
in 2018-19 from 48,000 in 2014-15

5LAKH
LOANS TO SHGs
in 2018-19 from 35,000 in 2014-15

Photo courtesy of Rakesh Pulapa

SDG 12
RESPONSIBLE CONSUMPTION AND PRODUCTION
Ensure sustainable consumption and production patterns

At the heart of sustainable consumption and production lie resource use efficiency, green employment and work force, sustainable infrastructure, equitable access to basic services and better quality of life. By setting the targets to reduce the emissions intensity of GDP by 20 to 25 per cent from its 2005 levels by 2020 and by 33 to 35 per cent by 2030, India has reiterated its commitment to SDG 12.

India supports the 10-Year Framework of Programmes on Sustainable Consumption and Production (10YFP), which is a global commitment to accelerate the shift towards sustainable consumption and production. The country is particularly active in 10YFP programme areas, such as, sustainable buildings and construction, sustainable tourism, sustainable food systems, consumer information, and sustainable lifestyles and education.

Sustainable Food Systems

Sustainable agriculture is fundamental to a sustainable food system. The National Mission on Sustainable Agriculture (NMSA), in tandem with other missions under the National Action Plan on Climate Change, strives to optimise agricultural productivity and mitigate the environmental impacts. Under the Soil Health Management (SHM) initiative launched in 2015, over 224 million Soil Health Cards (SHCs) have been despatched, with the aim of promoting organic manures, bio-fertilizers and low-input sustainable agriculture, by providing crop-wise recommendations of nutrients and fertilisers to improve productivity. While the estimated ideal ratio of primary micronutrients such as, Nitrogen (N), Phosphorus (P) and Potassium (K) provided by fertilizers is 4:2:1, and implies

that the use of Nitrogen fertilizer should not exceed 57 per cent, as of 2018-19, that percentage of nitrogen fertilizer in the country stood at 64.39. Early research has noted important gains from the use of the SHCs in terms of reduction in chemical fertilizer use, rise in use of bio-fertilizers and other micro-nutrients, reduction in costs, increase in crop yields and improvement in income in the range of 30 to 40 per cent.

India supports the 10-Year Framework of Programmes on Sustainable Consumption and Production (10YFP), which is a global commitment to accelerate the shift towards sustainable consumption and production.

In terms of land under organic agriculture, India ranks ninth in the world. India is globally sixth in terms of organic wild collection area. The organic market in the country is growing at the rate of 25 per cent per annum. While agriculture suffers from and contributes to climate change, climate-smart agriculture (CSA) is a part of the solution. Over the last few years, CSA strategies have been developed and promoted with adaptive crop regimes being developed and implemented for various agricultural seasons and agro-climatic zones. Measures for surface and rainwater harvesting are widely practiced across the country with major schemes under the *Jal Jeevan* Mission to promote water harvesting and conservation measures. There has been continuous improvement in water conservation both for agricultural and other purposes through check dams, open wells, and percolation tanks, among others.

Resource Efficiency

India has emerged as the world's second-largest consumer of materials. The demand for consumption of materials has gone up over the years and reached 7.4 billion tonnes in 2017, with resource extraction per unit area rising to the level of 1,579 tonnes/acre.

Augmenting resource efficiency and increasing the use of secondary raw materials is an integral part of the strategy to work towards decoupling growth from adverse environmental impacts. Resource efficiency fetches considerable cost benefits by downsizing extraction of virgin raw materials, import dependency, and energy and process materials.

India strives to control resource extraction rate and improve material productivity. There is an effort to reduce import dependency for the majority of the 'most critical' materials, such as, cobalt, copper and lithium, which are extensively used in the high-end technology industry. Multi-stakeholder efforts are targeted at increasing the extent of recycling in the country, which is currently in the range of 20 to 25 per cent.

Laying down policy in this direction is crucial. NITI Aayog initiated the process with the formulation of the Draft National Resource Efficiency Policy (NREP). The NREP envisions an environmentally sustainable future with resource-secure and equitable economic growth as well as bio-diverse ecosystems with a focus on: a) sustainable consumption of virgin resources b) high material productivity with emphasis on efficient circular approaches c) minimisation of waste and d) creation of employment opportunities and business models conducive to environment protection and conservation.

Sustainable Construction and Buildings

Construction and buildings, both commercial and residential, plays an important role in Indian economy and contribute about nine per cent of the GDP. In view of rapid urbanisation, the increasing number of buildings, rising energy consumption and the resultant carbon emissions have been a cause for concern.

Rising awareness is leading to an upward trend in the adoption of green building and construction principles and parameters in India. According to the US Green Buildings Council, India is witnessing a dramatic increase in sustainable development practices. It ranks third as of December 31, 2018 in the global listing of the top ten countries for Leadership in Energy and Environmental Design (LEED), with more than 899 LEED-certified projects totalling over 24.81 million gross square meters of space.

India's green building footprint has further multiplied to 7.14 billion sqft. with 0.58 million acres of large developments. With the green building footprint expected to surpass the 10 billion sqft. mark by the year 2022, India's green building space is expanding very fast in the construction industry which is expected to grow in value terms at a CAGR of 15.7 per cent.

The pace of sustainable construction is facilitated by several certification systems. The Green Rating for Integrated Habitat Assessment (GRIHA) is a national rating system for green buildings that is adopted while designing and evaluating new buildings. The Indian Bureau of Energy Efficiency (BEE) has established the Energy Conservation Building Code (ECBC) to set energy efficiency standards for design and construction of buildings.

Public Procurement

Public procurement has undergone an overhaul in terms of multi-dimensional consideration of economic, social and environmental aspects. Public sector institutions and government departments are increasingly embedding environmental and energy efficiency criteria in their procurement decisions.

Sustainable Tourism

Tourism accounted for 6.8 per cent of India's GDP in 2019 contributing to 8.1 per cent of all employment. Over the next decade, the sector's direct contribution to GDP is likely to grow by 7.1 per cent per annum. Trends of growth are found in relation to geo-physical and natural attractions, cultural/spiritual heritage, adventure as well as wellness and medical tourism, which are conducive to growth in sustainable tourism. India has operationalised the Comprehensive Sustainable Tourism Criteria for three major industry segments, namely, tour operators, accommodation and beaches, backwaters, lakes and rivers sectors, which promote various eco-friendly measures like installation of Sewage Treatment Plant (STP), rain water harvesting system, waste management system, pollution control, introduction of non-Chlorofluorocarbon (CFC) equipment for refrigeration and air conditioning, measures for energy, and water conservation among others. In addition, the Government is taking enduring measures for integrating tourism with local culture and economic development, promoting community participation, and improving governance and security.

Waste Management

Waste management system in India has adopted a 'sustainable development' framework and is based chiefly on the principles of 'precaution' and 'polluter pays'. Therefore, the municipal institutions and commercial establishments are mandated to act in an environmentally accountable and responsible manner. Under the umbrella

legislation of the Environment Protection Act, 1986 (EPA), separate sets of rules and compliance mechanisms/procedures address specific forms of waste.

With rapid urbanisation, the country is facing massive waste management challenges. Over 377 million urban people live in 7,935 towns and cities and generate 62 million tonnes of municipal solid waste (MSW) per annum. As of August 2017, 91 per cent of MSW generated was collected, of which 23 per cent was treated. There has been major improvement in waste segregation as well - as of January 2020, 74.82 per cent of municipal wards in India have 100 per cent source segregation in Indian cities.

Generation of plastic waste, estimated in 2015 for 60 major cities, was 6.92 per cent of MSW. Plastic waste generated in the country was estimated in 2017 to be 9.5 million tonnes per annum, and per capita plastic consumption was at a low level of 11 kg, which was only a tenth of that of the US and less than one-third of China. Nevertheless, the country has taken strong actions to reduce plastic waste and has resolved to ban single-use plastic by 2022.

It is estimated that India generates nearly 7.17 million tonnes of hazardous waste annually. It has been growing at two to five per cent per annum and constitutes about 10-15 per cent of industrial waste in the country. Of the total, 2.84 million tonnes (39.6 per cent) was disposed and 3.68 million tonnes (51.3 per cent) was recycled. This indicates both the extent of opportunity as well as challenge of managing hazardous waste.

INDIA RANKS 9th in the world in **LAND UNDER ORGANIC AGRICULTURE**

100% **SOURCE SEGREGATION OF WASTE** in 75% of municipal wards

Monitoring Progress at the National and Sub-National Levels

While measuring the country's performance on the SDG India Index and Dashboard, for SDG 12 and its disaggregated seven national indicators, the overall Index Score for the country is 55, and ranges between 30 and 100 for the States, and between 39 and 77 for the UTs, on a scale of 0-100 This indicates that the distance to target covered so far by India in Sustainable Consumption and Production remains 55, with a significant variation among the subnational units.

good practices

WATER MANAGEMENT INTERVENTION IN HARYANA: The Government of Haryana has been working towards recharging ground water supplies by implementing a **compulsory rainwater harvesting system** and **promoting** crop diversification in an effort to move towards **less water-intensive crops.** These efforts have resulted in farmers slowly shifting away from regular rice/wheat crop cycles towards

the adoption of **micro-irrigation techniques**. This has lowered the overall reliance on flood irrigation, saving water in the agricultural sector and improving water use techniques. **645,200 hectares of land** is being **serviced** through micro-irrigation **for agricultural and horticultural** purposes.

DECENTRALISED SOLID WASTE MANAGEMENT ALAPPUZHA, KERALA: The urban local body in coordination with district *Suchitwa* Mission (Cleanliness Mission), implements a project called *'Nirmala Bhavanam Nirmala Nagaram'* (Clean Homes, Clean City). The project **focuses on** decentralised solid waste management through **segregation and treatment of wet waste at the source.**

The **households with a backyard are encouraged to set up** portable or fixed **biogas plants** and those without enough space are given the option of piped composting. The municipality offers subsidies to promote the acceptance of these mini personal plants; it also formed a team of two to three trained women in every ward for maintenance. The project has **received global recognition from the UNEP and the city has been recognised as one of the five top model cities in the world for sustainable management of solid waste.**

Challenges and Way Forward

While the strategies and initiatives discussed above address various dimensions of the Goal, several challenges require attention:

O   It is crucial to retain focus on operating a sustainable supply chain, involving everyone - from producers to the final consumer. This would involve improvement of sustainability by strengthening cooperation among all producers and simultaneously raising awareness and consciousness among consumers about sustainable consumption choices.

O   There is a simultaneous expansion and crowding of urban spaces. Currently hovering slightly above 30 per cent, the urban population is estimated to surpass the halfway mark by 2050. Among other challenges of fast urban growth, those of solid waste management demand a sustained response.

O   According to the FAO, up to 40 per cent of the food produced in India is wasted, virtually frittering away a lot of water, fertilizers, and other resources that go into producing food. Complicating matters, disposal of food in landfills drives climate change by producing methane, a greenhouse gas 28 times more potent than carbon dioxide. India remains committed to promoting sustainable consumption and production with increasing focus on long-term resource efficiency, which is socially, economically and intergenerationally equitable, and which optimises well-being of all stakeholders.

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MILLION

SOIL HEALTH CARDS DISTRIBUTED

It is crucial to retain focus on operating a sustainable supply chain, involving everyone - from producers to the final consumer.

Photo courtesy of Rakesh Pulapa

SDG 13
CLIMATE ACTION
Take urgent action to combat climate change and its impacts

India's unique geography and geology combined with vast climatic diversity, make it vulnerable to a range of climate-induced natural disasters. The threats from global warming to India's climate stability are more complex and severe as compared to many other countries. According to the special report of the Intergovernmental Panel on Climate Change (IPCC), agricultural economies like India would suffer the most from the repercussions of global warming in terms of intense heatwaves, floods and droughts, water stress and reduced food output. India recognises its challenges and pursues a multi-faceted strategy to address them and achieve the ambitious targets of the 2030 Agenda. It also values its role as a responsible global actor while taking forward necessary interventions at national, subnational and local levels. India is ranked among the top ten countries in the Climate Change Performance Index 2020 on account of low levels of per capita emissions and energy use, and 'well-below-2°C' renewable energy targets. Taking forward its Nationally Determined Contributions (NDCs) under the UNFCCC, India's climate action strategies emphasise clean and efficient energy systems, resilient urban infrastructure, and planned eco-restoration among others.

Climate Action in Policies, Strategies and Planning

India adopted the National Action Plan on Climate Change (NAPCC) in 2008, which embodied India's vision of ecologically sustainable development and integrated climate action strategies in several sectors, such as energy, industry, agriculture, water, forests, urban spaces and the fragile mountain ecosystems. The NAPCC comprises eight National Missions, which inter alia, aim to promote solar energy; improve energy efficiency of domestic, commercial and industrial sectors; encourage sustainable urban planning; ensure sustainable water supply; promote sustainable, remunerative and climate-resilient agriculture; address climate change impacts in the Himalayas; manage forests from the perspectives of climate change; and create a comprehensive knowledge system that informs and supports climate change action in India. At the subnational level, as many as 32 States/UTs have developed their State Action Plan for Climate Change (SAPCC) in line with the NAPCC.

India is ranked among the top ten countries in the Climate Change Performance Index 2020 on account of low levels of per capita emissions and energy use, and 'well-below-2°C' renewable energy targets

India and Global Responsibilities

On the global front, India provides principled leadership in climate action. India actively participates in the United Nations Framework Convention on Climate Change (UNFCCC), provides technical expertise and assists in the analysis and review of climate change information and implementation of the Kyoto mechanism. India strongly supported the Paris Agreement in 2015 and proclaimed its bold nationally determined contributions (NDCs) which are to be achieve by 2030: reduced emissions intensity of GDP by 33-35 per cent from 2005 level; about 40 per cent cumulative electric power installed capacity from non-fossil fuel based energy resources; and an additional carbon sink of 2.5 to 3 billion tonnes of CO_2 equivalent through additional forest and tree cover.

India continued its reasoned championship of climate action at the 25th Conference of Parties (COP 25). While maintaining focus on principles of equity, and Common but Differentiated Responsibilities and Respective Capabilities (CBDR-RC), India highlighted the need for enhancing important means of implementation, such as, climate finance, technology transfer at affordable costs and capacity building support from high-income to middle- and lower-income countries.

Jointly with France, India spearheaded the International Solar Alliance (ISA), the grouping of countries lying fully or partially between the Tropic of Cancer and Tropic of Capricorn. The Alliance aims at harnessing the vast potential of solar energy and in reducing the cost of technology and financing. Further, India has launched two more initiatives to facilitate global climate action: a) Coalition for Disaster Resilient Infrastructure - a platform to generate and exchange knowledge and build capacity on various aspects of climate and disaster resilient infrastructure and b) 'Leadership Group for Industry Transition' – a platform launched together with Sweden for collaboration between governments and the private sector in different countries on areas related to low-carbon growth.

Generating Clean Energy

India is well ahead on the path of a clean energy revolution. Against the ambitious target of 450 GW of renewable energy generation capacity by 2030, 132 GW (34.62 GW from solar, 37.69 GW from wind, 10 GW from biomass, 4.68 GW from Small Hydro Power, and 45.7 GW from Large Hydro Power), has been already installed as on March 31, 2020 - a 75 per cent increase since 2014. Globally, India stands third in renewable power generation, fourth in wind power, and fifth in solar power.

India is promoting solar energy through various fiscal and promotional incentives such as capital and interest subsidies, generation-based incentives and viability gap funding. There is a green cess levied on domestic and imported coal from 2010 onwards. The cess went up from INR 50 (USD 0.66) per tonne in 2010-11 to INR 400 (USD 5.3) per tonne in 2016-17. The coal cess accrues to the National Clean Energy and Environment

Fund (NCEEF), which is used to finance and promote clean energy initiatives including clean energy research.

Besides the coal cess, there are several other mitigation instruments implemented in India: a) Perform, Achieve and Trade (PAT) scheme, which enhances the cost effectiveness in improving industrial energy efficiency by trading energy efficiency certificates b) Renewable Energy Certificate (REC) trading scheme for which there is a country-wide market and dedicated institutional infrastructure and c) sectoral incentives like feed-in tariffs (FiT), generation-based incentives (GBI) and accelerated depreciation (AD) for solar and wind electricity. The numerous sectoral incentives for renewable energy, from energy efficient appliances to low-carbon vehicles are building up a robust path to a low carbon economy.

The principle of energy efficiency has also been sought to be integrated in the Goods and Services Tax (GST) regime. Five per cent of GST is now levied on electric cars as compared to 28 per cent tax on conventional cars.

The Green Energy Corridor Project was launched to synchronize electricity produced from all renewable energy sources with conventional power stations in the grid. For large scale renewable energy, Intra State Transmission systems are implemented by the respective State Transmission Utilities (STUs) in the states of Tamil Nadu, Rajasthan, Karnataka, Andhra Pradesh, Maharashtra, Gujrat, Himachal Pradesh and Madhya Pradesh.

The high dependency on biomass for cooking, especially in rural areas is being corrected through the *Pradhan Mantri Ujjwala Yojana*, under which 80.3 million LPG connections have so far been provided. Similarly, several programmes are implemented to increase energy efficiency in industry, business, households and construction.

Reducing Emission Intensity

By the end of 2019, India was able to bring the emission intensity of GDP down by 21 per cent. The National Electricity Policy, 2018, forecasts a decline in fossil fuel capacity from 67 per cent of the total installed capacity in 2017 to
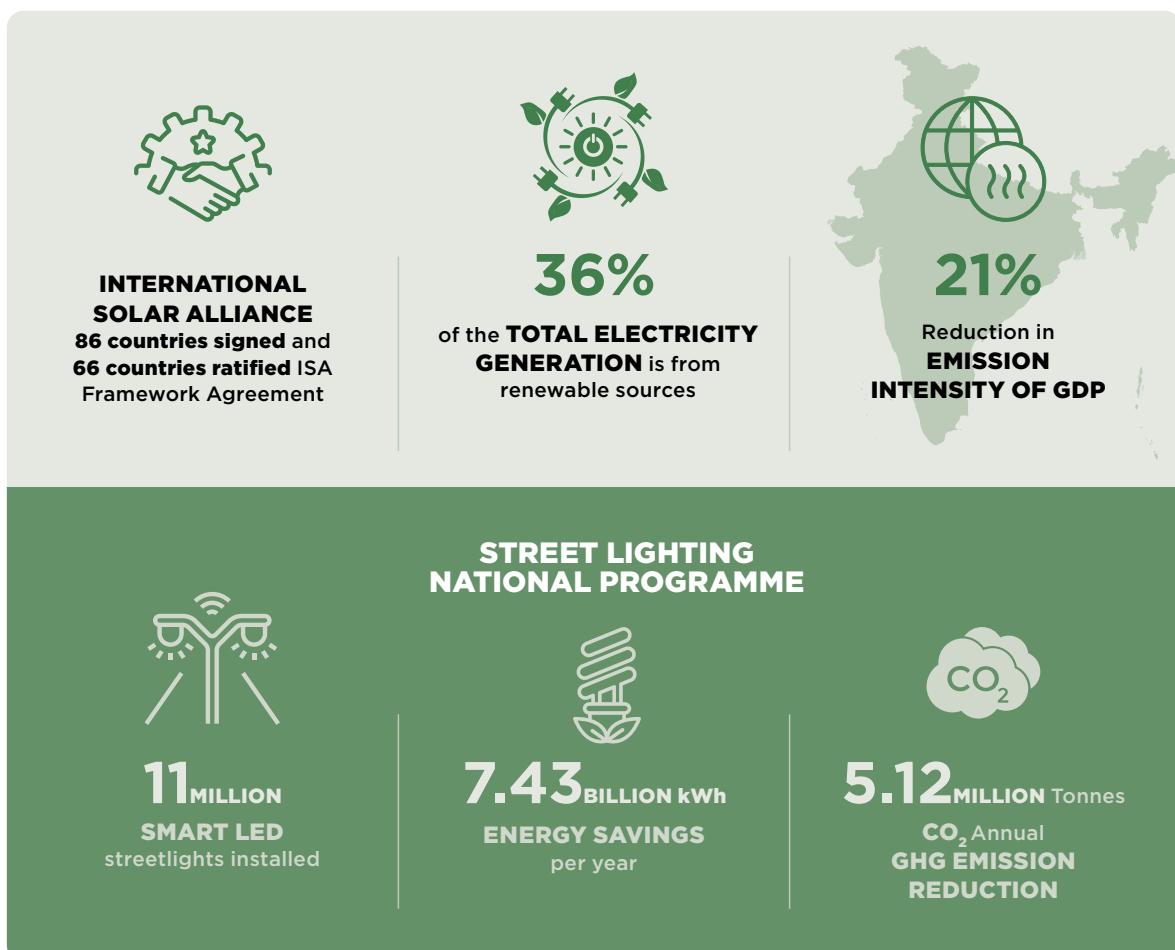
43 per cent, by 2027. Solar installed capacity in India has increased by about 13 times from 2.63 GW to 34.62 GW between March 2014 and March 2020. The share of non-fossil sources in installed capacity of electricity generation increased from 30 per cent in March 2014 to 36 per cent in March 2020.

The country has leapfrogged from Bharat Standard IV to Bharat Standard VI for vehicle emission norms. There is also a strong push for the use of zero-emission vehicles by introducing multiple policy interventions and incentives. India has already operated a commercial flight fully on biofuel; blending of 20 per cent ethanol in petrol is targeted by 2030.

Improving Disaster Risk Reduction and Preparedness

India's fifth rank in the Global Climate Risk Index 2020 indicates its high vulnerability to extreme weather events. As much as 85 per cent of the landmass in the country is vulnerable to climate-induced natural disasters which affect the poor disproportionately. The National Policy on Disaster Management (2009) and the National Disaster Management Pan (2016), focus on disaster resilience and integrate the Sendai Framework for Disaster Risk Reduction as well as the SDGs. Several Government programmes have been implemented to improve natural disaster resilience, such as the National Cyclone Risk Mitigation Project, schemes for strengthening State and Disaster Management Authorities, and strengthening disaster response force. Further, India has recently launched the International Coalition for Disaster Resilient Infrastructure (CDRI), a joint initiative involving 12 partner countries to generate and exchange knowledge and resources to improve protective infrastructure across the world.

INTERNATIONAL SOLAR ALLIANCE
86 countries signed and **66 countries ratified** ISA Framework Agreement

36%
of the **TOTAL ELECTRICITY GENERATION** is from renewable sources

21%
Reduction in **EMISSION INTENSITY OF GDP**

**STREET LIGHTING NATIONAL PROGRAMME**

11MILLION
SMART LED streetlights installed

7.43BILLION kWh
ENERGY SAVINGS per year

5.12MILLION Tonnes
CO_2 Annual **GHG EMISSION REDUCTION**

Monitoring Progress at the National and Sub-National Levels

While measuring the country's performance on the SDG India Index and Dashboard, for SDG 13 and its disaggregated four national indicators, the overall Index Score for the country is 60, and ranges between 27 and 71 for the States, and between 30 and 100 for the UTs, on a scale of 0-100. This indicates that the distance to target covered so far by India in Climate Action remains 60, with a significant variation among the subnational units.

good practices

INDIA COOLING ACTION PLAN (ICAP): Cooling requirement is cross-sectoral, an **essential part of economic growth, and is required across different sectors** of the economy such as residential and commercial buildings, cold-chain, refrigeration, transport, and industries.

Launched in March this year, India is one of the first countries in the world to develop a comprehensive **Cooling Action Plan to address requirements across sectors** and lists out actions to reduce the cooling demand. The overarching goal is to **provide sustainable cooling and thermal comfort for all while securing environmental and socio-economic benefits for the society.**

Challenges and Way Forward

India's approach to climate action is proactive, ambitious and forward-looking. It is intimately linked to parallel multilateral efforts, based on the principle of Common but Differentiated Responsibility and Respective Capabilities (CBDR-RC), which would enable middle- and low-income countries to elicit international financial support and technology transfers to accelerate their progress towards a future of renewable and clean energy, and equitable climate governance. While India acts to achieve its ambitious targets domestically, it is also committed to work for an international Climate Change regime buoyed on responsible burden sharing among nations. India will continue its progress on all fronts and address emerging challenges including the following:

○ **Improving Disaster Resilience:** The diverse nature of disasters require varied capacity and responses in a timely manner. While the country is on the right track with regard to policy and capacity building interventions, there is a growing need for technology-driven response systems as well as resilient infrastructure – power and telecom, rural connectivity and transport, and housing and storage. There is a need for vast investment towards safeguarding the lives of millions already impacted due to poverty and associated vulnerabilities. Further, gender mainstreaming in the State Action Plan for Climate Change (SAPCC) needs further expansion, especially in the climate adaptation programmes.

○ **Accessing Green Technologies:** Climate change demands that technologies be more resource-frugal, less wasteful and more productive. The new wave of industrialisation with focus on digitalisation and automation, operated with smart and autonomous systems, and fueled by data and machine learning, provide possible solutions. It would need new ways of inculcating learning and skills, and organising manufacturing systems and investments. While moving towards these technological frontiers, emergent issues of ethics, equity and inclusivity would also have to be addressed.

○ **Meeting Energy Needs:** Although the progress towards sustainable energy is impressive, it is nonetheless challenging to meet the increasing demand of economic growth, widen access for all sections of society and stem the rise in costs. The challenge multiplies as India gears up to reduce its dependence on coal for electricity generation, when electricity demand is expected to triple by 2030, and coal sources account for about 57 per cent of electricity generation.

COALITION FOR DISASTER RESILIENT INFRASTRUCTURE

Over 35 countries consulted on developing resilience in ecological infrastructure

The diverse nature of disasters require varied capacity and responses in a timely manner. While the country is on the right track with regard to policy and capacity building interventions, there is a growing need for technology-driven response systems as well as resilient infrastructure.
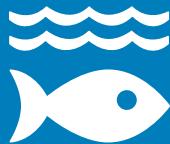
SDG 14

LIFE BELOW WATER

Conserve and sustainably use the oceans, seas and marine resources for sustainable development

India is the 16th largest maritime country and the second largest producer of fish in the world. Close to 95 per cent of India's trade by volume and 70 per cent in value terms moves through its maritime channels. Located along most major shipping highways and with a coastline of 7,517 km and 2.02 million sq. km of Exclusive Economic Zone (EEZ), India has a substantial blue economy. Indian marine fisheries have an annual harvestable potential of 4.414 million metric tonnes and provide livelihood to about four million people. Marine fisheries contribute INR 650 billion (about USD 8.6 billion) to the economy every year in terms of value. India's share in global fish production, both marine and riverine, amounts to 6.3 per cent of the global fish production. The marine sector contributes to 1.1 per cent of the GDP and 6.58 per cent of the agricultural GDP.

Containing Marine Pollution

As a signatory to MARPOL (International Convention on Prevention of Marine Pollution), India regularly monitors possible pollution by oil, sea cargo, sewage and garbage, as well as air pollution by ships. Levels of marine pollution and the impact on coastal ocean processes are monitored along the country's coastline through the Coastal Ocean Monitoring and Prediction System. Online Oil Spill Advisory System, an online mechanism for predicting the movement of oil spills, was launched in 2015. Besides, the revised National Oil Spill Disaster Contingency Plan, 2014 is implemented to combat oil pollution in various maritime zones.

Ocean dumping of about 0.6 million tonnes of plastic waste annually is a fast-growing concern for India. A Marine Litter and Micro plastics

research programme is in place to assess the situation and act towards framing the National Marine Litter Policy. The Marine Observation System Along the Indian Coast (MOSAIC) has been set up to monitor the coastal water quality in real time and assess the health of the coastal ecosystem.

India regularly monitors possible pollution by oil, sea cargo, sewage and garbage, as well as air pollution by ships.

Protecting Marine and Coastal Ecosystems

Identifying and administering Marine Protected Areas (MPA) is a major strategy for protecting marine resources, conserving biodiversity and ensuring the well-being of people dependent on them for livelihood. India has 25 MPAs in the peninsular region and 106 in islands, collectively spanning about 10,000 sq.km. Several steps have been taken to conserve substantial portions of the coastal and marine areas. The coastal and marine ecosystems of peninsular India have been surveyed in detail and 106 sites prioritised, which are managed as Important Coastal and Marine Biodiversity Areas (ICMBAs).

Conserving Mangroves and Coral Reefs

The mangrove ecosystem interfaces between terrestrial forests and aquatic marine ecosystems and is a critical part of the coastal environment. The mangrove cover of India stretches up to 4,975 sq.km, which amounts to nearly 3.3 per cent of the world's mangrove vegetation. India is home to around 4,580 faunal and 920 floral mangrove species.

Photo courtesy of Rakesh Pulapa

Several programmatic measures are under implementation for conservation of mangroves under the Green India Mission, which is a major initiative to counter climate change. Under Mangrove For the Future (MFF), a partnership initiative with IUCN, UNDP and several countries, India has prepared a National Strategy and Action Plan to sustainably manage the mangrove and the coastal ecosystem. Various conservation measures have led to an increase of the area under mangroves from 4,740 sq.km in 2015 to 4,975 sq.km in 2019.
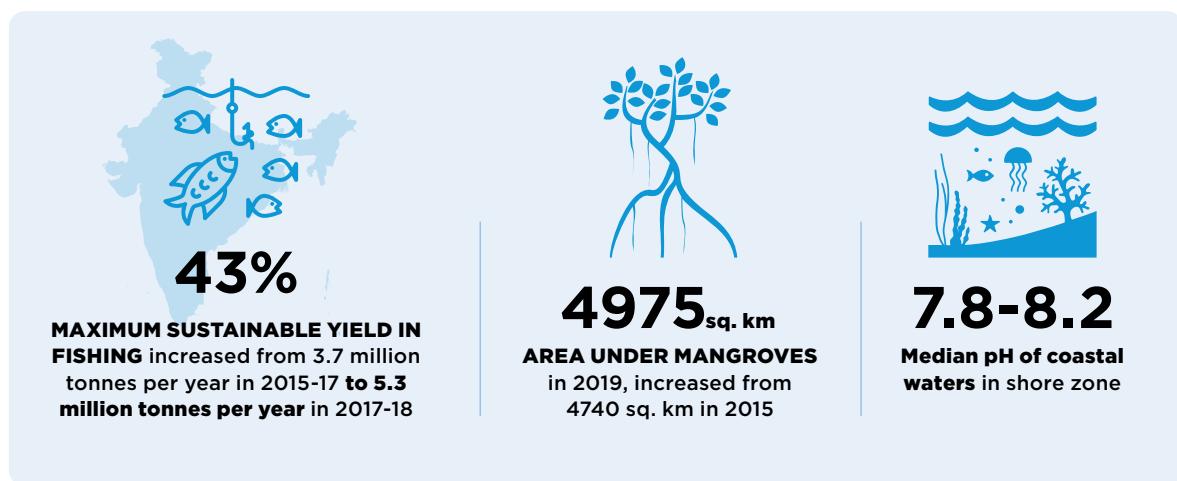
Coral reefs in India are estimated to cover an area of 5,790 sq.km. The protection of coral reef has been provided for under Wildlife Protection Act, 1972, Environmental Protection Act, 1986 and Coastal Regulation Zone (CRZ). Issues related to the destruction of coral reef are also taken up under the Integrated Coastal and Marine Area Management (ICMAM). Indian National Centre for Ocean Information Services (INCOIS) has been operating the Coral Bleaching Alert System (CBAS) since 2011. The mangroves and coral reef areas are categorised as ecologically sensitive areas where no new constructions are permitted except projects of national importance.

Promoting Sustainable Marine Fishing

Marine fish diversity is in an ever-increasing danger of steady depletion. Out of the known 2443 marine fish species from India, 50 species are threatened and 45 near-threatened. Regular assessment of exploited fishery resources is conducted by estimating marine fish landings, all along the Indian coast.
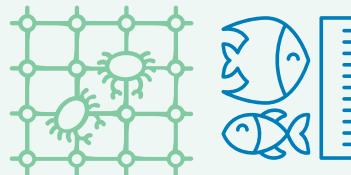
For sustainable fishing, several measures are taken by the Government including the establishment of a Potential Fishing Zone Advisory programme, modernisation and upgrade of fishing centers as well as banning of mechanised fishing in certain areas. Several methods of sustainable fishing have been demonstrated and promoted such as banning fishing activities during the breeding season of the fish species, mesh size restrictions for nets, customisation of fishing gear etc. Overfishing is also addressed by improving sustainable livelihoods for the fisherfolk. The Integrated National Fisheries Action Plan connects 15 million beneficiaries for livelihood opportunities through various interventions. In 2017, the National Marine Fisheries Policy was notified for the first time, highlighting the challenges of overfishing and climate change and laying greater emphasis on monitoring and control of coastal fishing. In June 2019, the Government of India created an independent Ministry for Fisheries, Animal Husbandry and Dairying. This structural change is expected to lead to better investment, expeditious clearance of development projects, and better management and governance practices.

43%

MAXIMUM SUSTAINABLE YIELD IN FISHING increased from 3.7 million tonnes per year in 2015-17 **to 5.3 million tonnes per year** in 2017-18

4975sq. km

**AREA UNDER MANGROVES** in 2019, increased from 4740 sq. km in 2015

7.8-8.2

Median pH of coastal waters in shore zone

Monitoring Progress at the National and Sub-National Levels

While measuring the country's performance on the SDG India Index and Dashboard, for SDG 14 and its disaggregated five national indicators, the Index Score for the nine coastal States ranges between 23 and 65, on a scale of 0-100.

good practices

The **SINDHUDURG MAINSTREAMING PROJECT** in Maharashtra has invested heavily in a multi-pronged approach to **improve the sustainability of fisheries**, **protect the rights** of access of artisanal fishers, act against illegal fishing activities, and build sectoral partnerships to diversify and **improve** the **livelihoods of coastal communities**. In this project, the Government Departments of Forestry and Fisheries are working with the fishing communities to adopt better sustainable practices and fishing gear that reduce bycatch, keep off-takes within safe ecological limits, and protect sensitive habitats that are crucial for breeding successes of threatened species. The project is also working to **reduce fishing pressure by creating new opportunities for sustainable livelihoods**, especially for women and youth. These **include value-addition** to fisheries operations, production activities such as small-scale farming of mangrove crabs and oysters, and a range of activities linked to **responsible eco-tourism**.

ECO-LABELLING initiatives are being promoted for sustainably managing marine fisheries. An eco-labelling intervention in Kerala **seeks to harness consumer power to bring about positive change in the fisheries sector.** After the Marine Stewardship Council (MSC) granted certification to Ashtamudi short neck clam fishery in Kerala, for the first time in 2014, **10 types of fisheries** (blue swimming crab, shrimp, red ring shrimp, squid, whelk, flower shrimp, cuttlefish, lobster, skipjack tuna and Japanese threadfin bream) **are being targeted for getting the MSC certification**.

Challenges and Way Forward

○ India is the fourth biggest seafood exporter. The market demand for Indian marine fisheries will grow substantially with rising consumer demand and declining global supply. On the other hand, as the Living Planet Report 2018 points out, the oceans around India are experiencing high fishing intensity; there is the possibility of declining catch faced by the fisherfolk across the shoreline. Therefore, the key future objective is to improve sustainability in the sector.

○ There is increasing awareness of new sustainability practices in fishing around the Indian coast but the same needs scaling up. Key interventions would include regularly enforcing fishing bans during peak breeding seasons, regulating bycatch, and monitoring the use and disposal of fishing gear. Innovative practices developed by the Central Marine Fisheries Research Institute (CMFRI) among others need to be popularised, customised and adopted.

○ Sustainability certification of fishing practices is a new area in which substantial breakthrough is needed. It provides the opportunity of increasing market access at the international level and of improving long-term sustainability in fishing operations. Since a major stumbling block is the prohibitive cost, building up domestic institutional capacity for auditing, certification and labelling, which can considerably bring down the costs, is now a focus area.

○ Given the diversity of needs and challenges the sector faces, it is critical to identify additional and new ways of enhanced and timely finances. The role and relevance of private sector funding and resources raised through civil society groups need to be fully assessed in India.

○ The graduation from artisanal vessels to mechanised boats has not led to sustained enhanced earnings, or better working conditions or greater control over the market dynamics, leading to higher levels of indebtedness. There is a need to address these problems on a priority basis.
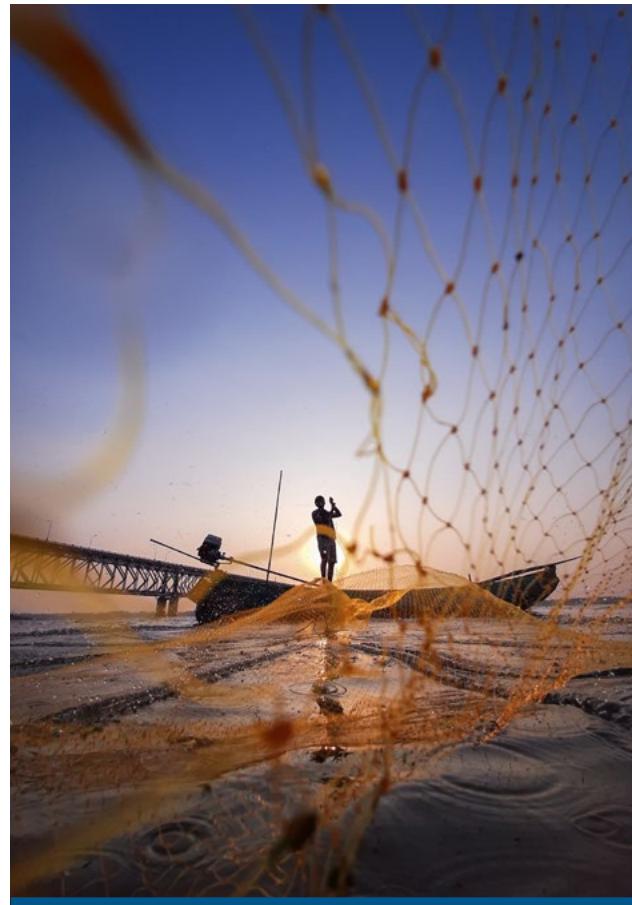

Photo courtesy of Rakesh Pulapa

India is the fourth biggest seafood exporter. The market demand for Indian marine fisheries will grow substantially with rising consumer demand and declining global supply.

● ●

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Photo courtesy of Rakesh Pulapa

SDG 15
LIFE ON LAND
Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss

As one of 17 mega-biodiverse countries in the world, India has only 2.4 per cent of the earth's land area. The country hosts around eight per cent of the world's biodiversity, which includes many rare species. India has made sustainable management of the terrain ecosystem a priority, while working steadfastly towards protecting, restoring and promoting terrestrial ecosystems, including restoration of 26 million hectares (Mha) of degraded land by 2030.

Managing Forests

In the course of the last decade, around 3 Mha of forest and tree cover has been added, which has enhanced the combined forest and tree cover to 24.56 per cent (21.67 per cent forest cover and 2.89 per cent tree cover) of the total geographical area of the country.

The Government has primarily adopted three strategies for conservation, development and management of forests – afforestation through natural and artificial regeneration, protection and management. Three major schemes focus on development of forest areas. The National Afforestation Programme (NAP) takes care of afforestation of degraded forest lands, with a focus on sustainability and improvement in livelihoods of the forest-fringe communities, especially the poor. Until 2018-19, under the NAP, 2.1 Mha of forest area has been covered. Second, the National Mission for a Green India (GIM) aims at improving the quality and spread of forest areas. Third, Forest Fire Prevention and Management Scheme (FFPM) targets prevention and management of forest fire, which is responsible for significant damage to forest

cover. Approximately five per cent of the country's total land mass has been designated as Protected Area, where human occupation and exploitation of resources is limited.

India has adopted a multi-stakeholder-oriented and participatory approach to forest management. With 275 million people living within forests, the country has adopted the Joint Forest Management (JFM) approach for better protection and management of forest and improved livelihoods of forest-dependent people.

The Government has primarily adopted three strategies for conservation, development and management of forests – afforestation through natural and artificial regeneration, protection and management.

The Scheduled Tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 recognises the rights to hold and live in the forest land under individual or common occupation for habitation or self-cultivation for livelihood. The Act also grants several other rights, which, inter-alia, include right of ownership, access to collect, use and dispose of minor forest produce, community rights over forest produce for domestic use, habitat rights for primitive tribal groups and pre-agricultural communities etc.

Conserving Wetlands and Water bodies

India's wetlands occupy 4.63 per cent of its total geographical area, and have diverse eco-climatic conditions and varying topography. 37 of them,

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including 10, which were added as recently as in 2019, are recognized under the Ramsar Convention - the international treaty concerned with the protection and management of important wetlands.

India has a robust system of legislations for the protection and conservation of wetlands. For instance the Forest Act, 1972; the Forest (Conservation) Act, 1980; the Wildlife (Protection) Act, 1972; the Water (Prevention and Control of Pollution) Act, 1974; the Water (Prevention and Control of Pollution) Cess Act, 1977; and the Umbrella provisions of the Environment (Protection) Act, 1986. The Ministry of Environment, Forests and Climate

Change (MoEFCC) has notified new Wetland (Conservation and Management) Rules 2017, to prohibit a range of activities in wetlands, such as setting up and expansion of industries, waste dumping and discharge of effluents. Detailed guidelines have been circulated to States and UTs for implementation of the Wetlands Rules.

Conservation of rivers, lakes and wetlands is taken care by the Centrally Sponsored Schemes of National River Conservation Plan (NRCP) and National Plan for Conservation of Aquatic Ecosystems (NPCA). In addition, the '*Namami Gange*' programme focused on conservation and rejuvenation of the river Ganga, also conserves the wetlands in the Ganga river basin.

Photo courtesy of Rakesh Pulapa

Protecting Wildlife

Setting up protected areas is a key strategy for protecting wild life. Between 2015 and 2020, the number of Protected Areas has increased from 759 to 903, with the total area going up to 165,012.59 Sq. kms, which amounts to 5.02 per cent of the total geographical area of the country. The number of Community Reserves has increased from 44 to 163 in the last five years, improving the scope for community participation in wildlife protection.

India has achieved a significant milestone in wildlife protection: the number of tigers in the wild, which stood at 2,226 in 2014, had climbed to 2,969 by 2018, indicating an increase by 33 per cent.

Combating Desertification

About 28 per cent of India's land is degraded or facing desertification. The Indian economy is impacted to the extent of 2.5 per cent of GDP on account of such degradation and desertification. A signatory to the United Nations Convention to Combat Desertification in 1994, India aims to restore 26 million hectares of degraded and deforested land, and achieve land-degradation neutrality by 2030.

Major initiatives to combat desertification include the Integrated Watershed Management Programme, the National Afforestation Programme and the National Mission for Green India.

Conserving Biodiversity

India is a global leader in establishing a comprehensive institutional and legal system to realise the objectives of the Convention on Biological Diversity (CBD). The National Biodiversity Authority operationalises the access and benefit-sharing provisions of the CBD through a national network of Biodiversity Management Committees and People Biodiversity Registers. It is mandatory for BMCs to have one-third representation of women and 18 per cent from Scheduled Caste and Scheduled Tribes.

Having covered over 20 per cent of its total geographical area under the CBD, India has exceeded the terrestrial component of 17 per cent of Aichi target 11, and 20 per cent of corresponding NBT relating to areas under biodiversity management. Only 0.08 per cent of the species recorded in India are critically endangered as against 0.3 per cent of all species recorded globally. Programmes are also implemented to safeguard genetic diversity of cultivated plants, livestock and their wild relatives.
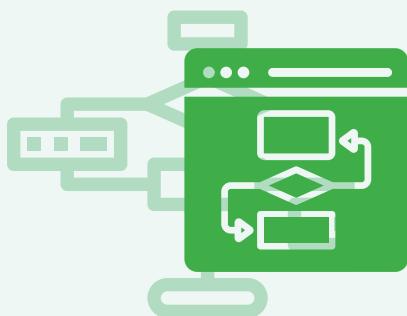
7,12,249sq km
UNDER FOREST COVER
Over one-fifth of India's **total geographical area**

1.69million ha
Area covered under different **afforestation schemes** in 2017-18, increased from 1.38 million ha in 2015-16

27.8%
Proportion of degraded land. 26 million ha land to be restored by 2030 and achieve degradation neutrality

Monitoring Progress at the National and Sub-National Levels

While measuring the country's performance on the SDG India Index and Dashboard, for SDG 15 and its disaggregated five national indicators, the overall Index Score for the country is 66, and ranges between 40 and 100 for the States, and between 37 and 100 for the UTs, on a scale of 0-100. This indicates that the distance to target covered so far by India in Life on Land remains 66, with a significant variation among the subnational units.

good practices

SUSTAINABLE HIGHWAYS: With the aim of **striking a balance between highway development and environmental conservation**, the Green Highways Policy was initiated in 2015. The initiative **involves all stakeholders**, including local communities and civil society **in planting of trees** and shrubs **along India's** rapidly expanding **highway network**. The objective is to transform the National Highways into a natural sink for air pollutants and arrest soil erosion at the embankment slopes.

PARIVESH is a web based, **role-based workflow** application which has been developed **for online submission and monitoring of proposals** submitted for **seeking** Environment, Forest, Wildlife, and CRZ **Clearances** from Central, State, and district authorities. In addition to automating the entire process of tracking proposals, it allows for online submission of a new proposal, editing/updating of details, and displays the **status of the proposals at each stage of the workflow**.

Challenges and Way Forward

Ecosystem degradation is emerging as one of the biggest environmental threats in the world confronting all efforts on SDG 15. A combination of developmental, social and anthropogenic pressure has inflicted considerable damage on all types of ecosystems. India is very much part of this global predicament and faces several challenges despite initiatives by the government as well as the civil society.

O   While pursuit of industrial growth is essential to future growth agenda, problems of chemical contamination and pollution, plastic invasion and rapid extraction of natural resources must be met by sustainable industrialisation strategies. On several fronts, such as, low-emission and high resource efficiency production strategies, India has already been making substantive breakthroughs. However, increased technology alternatives, infrastructure development and efficient resource mobilisation need to be rolled out to sufficiently advance green industrialisation choices.

O   While considerable gains have been seen in afforestation programmes, there is a need to move towards more comprehensive ecological restoration approaches. Challenges remain in terms of development of necessary knowledge and skills, preparation/adoption of norms and protocols for various geo-ecological zones and establishment of long-term programme horizons beyond short-term plantation schedules.

O   As many as 57 of India's faunal species are critically endangered, and many more belong to the endangered and vulnerable categories. In several cases, the available time horizon may be shortening very fast. Effective strategies are required that can be forged by combining strong enforcement approaches with softer community management options.

SDG 16

PEACE, JUSTICE AND STRONG INSTITUTIONS

Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels

India, the world's largest democracy, enshrines the principles of justice, liberty and equality in its Constitution. There is a strong framework of institutions at the national, state and local levels that are transparent, accountable and effective. To ensure that citizens not only have access to fundamental rights but also can effectively exercise them, various national initiatives have been introduced in the form of legislation, policies, schemes and programmes. These help in upholding justice and ensuring accountability and transparency at local, subnational and national levels. In addressing Goal 16, some of the key highlights in the Indian polity are enumerated here.

Reducing Violence

Over the years, India has built up a sound legal framework for addressing violence against all sections of the population. A vibrant civil society and proactive media with country-wide presence complement the Government's efforts.

The overall crime rate per lakh population has come down from 388.6 in 2017 to 383.5 in 2018, though there has been an increase in the rate of crime under some heads. The registration of cases has increased by 1.3 per cent during the same period. If one takes the period between 2015 and 2018, the crime rate per lakh population has dropped by 34 per cent. Incidence of murder and culpable homicide dropped by 3 per cent between 2016 and 2018.

India has long ratified the UN Convention on the Rights of the Child (CRC). The country has several policies and laws addressing various categories and age-groups of children. While the National Policy for Children lays down

priorities across broad areas of survival, health and nutrition, education and development, and protection and participation; the laws deal with specific issues pertaining to the rights of children, such as, provision of care and protection, right to education, prevention of violence and abuse, child labour and trafficking, and sexual exploitation.

Access to Justice

Working on the principle of '*Sabka Saath, Sabka Vikas, Sabka Vishwas*', which translates to 'together with all, development for all, the trust of all', India has made sustained efforts to end discrimination and exclusion of people belonging to different socio-economic strata. Initiatives have been launched for other groups in vulnerable situations as well. The Rights of Persons with Disabilities Act, 2016, lays down a concrete legal framework and provides higher visibility and entitlement to persons with disabilities.

To ensure that citizens not only have access to fundamental rights but can also effectively exercise them, various national initiatives have been been introduced in the form of legislation, policies, schemes and programmes.

Accountable and Transparent Institutions

Being a vibrant parliamentary democracy, the Union (Federal) Government is fully accountable and answerable to the Parliament. An independent judiciary stretching from the district to the national level, the Comptroller and Auditor General (CAG) of India, the quasi-judicial authorities of the *Lokpals* (at the central level) and *Lokayuktas* (at the subnational level) are

other critical parts of the institutional bulwark of accountability in the country.

The Right to Information Act, 2005, has strengthened the accountability and transparency of public institutions. The RTI is an oft-used instrument across the country to seek information from public authorities and to hold them accountable. There is a clear downward trend in the rejection of RTI queries - the year 2018-19 registered the lowest, at 4.7 per cent, since 2005-06.

Technology-driven initiatives, such as the Digital India campaign (focused on providing e-governance solutions for citizen-centric projects) and the *PRAGATI* platform (an IT-based grievance redressal and monitoring system extending to the district/sub-district level) have been effectively improving participatory governance.

Ethics in Governance
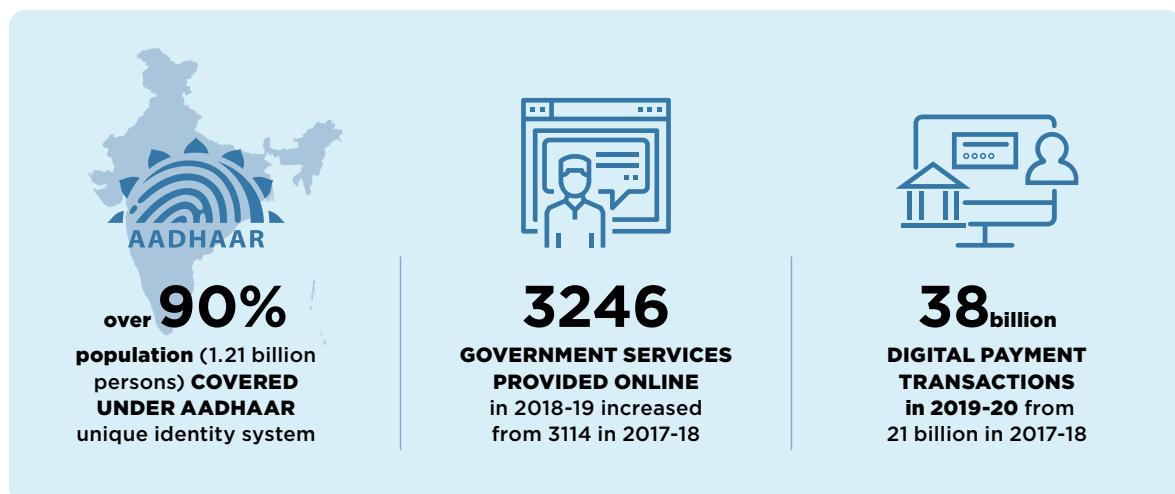
Both the legislative and enforcement apparatus have been strengthened to tackle corruption and bring in ethical governance. Complementing statutes like the Prevention of Corruption Act, the *Lok Pal* and *Lok Ayukta Act*, the Whistle blowers Protection Act, and Prevention of Money Laundering Act, and several other enabling legislations have been enacted. The promulgation of

the Fugitive Economic Offenders Act, 2018, and the Black Money (Undisclosed Foreign Income and Assets) and Imposition of Tax Act in 2015, has led to significant disclosure of concealed assets and income and tax compliance. These Acts have significantly deterred unlawful acquisition of assets.

Legal Identity for All

Legal identity for all is fundamental to inclusive development and governance. *Aadhaar*, the unique identity system, which covers over 90 per cent of the population, has ensured efficient, transparent and targeted delivery of benefits and services to people, and has effectively plugged leakages. Combined with access to bank accounts and mobile telephony, *Aadhaar*-based identity has enabled 380 million beneficiaries to access benefits under various Government schemes and programmes. During 2014-20, total direct benefit transfers amounted to over INR 11 trillion (USD 149 billion) and accounted for cumulative savings of INR 1.7 trillion (USD 23 billion).
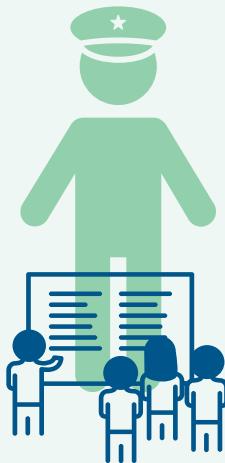
Lack of legal identity of children had been a persistent concern, which has been successfully addressed in the recent years. As of 2017, the level of registration of births was 84.9 per cent at the national level with 12 States/UTs achieving 100 per cent birth registration.

AADHAAR

over **90%**
population (1.21 billion persons) **COVERED UNDER AADHAAR** unique identity system

3246
GOVERNMENT SERVICES PROVIDED ONLINE in 2018-19 increased from 3114 in 2017-18

38billion
DIGITAL PAYMENT TRANSACTIONS in 2019-20 from 21 billion in 2017-18

Monitoring Progress at the National and Sub-National Levels

While measuring the country's performance on the SDG India Index and Dashboard, for SDG 16 and its disaggregated eight national indicators, the overall Index Score for the country is 72, and ranges between 52 and 86 for the States, and between 64 and 94 for the UTs, on a scale of 0-100 This indicates that the distance to target covered so far by India in Peace, Justice and Strong Institutions remains 72, with a significant variation among the subnational units.

good practices

POLICE UNCLE TUTORIAL

Launched in 2019, Police Uncle Tutorial is a one of a kind initiative by the Police Department in the Aspirational District of Simdega in Jharkhand. **This unique concept targets dropouts and academically weak students of Grade X**, in the left wing extremism affected areas of the district, where children are more susceptible to crime. **There are 16 such centres, each with around 50 children, spread over the ten blocks of the district.**

The children are identified through the Police Department's *Janta Durbars* (Public Meetings) organised in vulnerable areas. **Teachers of government schools, elders, social workers and volunteers have been roped in as resource persons for teaching the students.** There are over 120 such dedicated teachers, who render their services to help the students matriculate. Each centre has a coordinator who prepares the routine and assigns classes to the teachers. The programme has seen active participation from a large section of community members.

Challenges and Way Forward

Goal 16 is essentially about ensuring good governance focused on justice, which requires the Government to take proactive steps to optimise people's participation, foster transparency and accountability, and build resilient institutions to sustain those steps. While taking very far-reaching measures in this direction, several challenges need to be addressed.

O   One of the biggest challenges besetting most of the targets of SDG 16 is the inadequacy of comprehensive and disaggregated data. Adequate reporting of cases of violence, and instances of violation of rights, must be ensured. Though the extent of reporting has improved in recent years, it is essential to invest in improving the availability of comprehensive and updated data on various types of offences, and reports on crimes against women, children and other groups in vulnerable situations.

O   Significant headway has been achieved in taking forward digital governance, for instance, in digitising the economy, providing a number of value-added public services, improving education and learning etc. However, inspite of deep penetration of mobile telephony, challenges remain, as internet access and digital literacy need further improvement. Programmes to promote wider awareness and skill building as well as dissemination of digital technology on a larger scale are steps in the right direction.

O   Under the near-universal coverage of *Aadhaar*, citizens of the country have been provided with a legal identity, but there remain concerns about data privacy and security.

OVERALL CRIME RATE HAS FALLEN from 388.6 in 2017 to 383.5 in 2018 - per lakh population

Working on the principle of *'Sabka Saath, Sabka Vikas, Sabka Vishwas'*, which translates to 'together with all, development for all, the trust of all', India has made sustained efforts to end discrimination and exclusion of people belonging to different socio-economic strata.

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SDG 17
PARTNERSHIPS FOR THE GOALS
Strengthen the means of implementation and revitalise the Global Partnership for Sustainable Development

In the last decade, India's role in global development cooperation and partnership has undergone notable transformation. India has actively contributed to crafting of policy coalitions such as ISA (International Solar Alliance), CDRI (Coalition for Disaster Resilience Infrastructure), BRICS (Brazil, Russia, India, China, South Africa) and its New Development Bank, IBSA (India, Brazil, South Africa), India-Africa Forum Summit, India-PSIDS, India-CARICOM, the Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC) etc., which offer a forum and platform for countries of the Global South as well as the North for cooperation on multiple fronts. Working towards global partnership has, therefore, assumed considerable importance as a policy imperative for the country.

Augmenting Domestic Resource Mobilisation

India has improved its tax-to-GDP ratio in the last six years, to 17-17.5 per cent (after including the Centre and States' tax revenue). India has been undertaking significant tax reforms as well as measures to ensure compliance and to improve taxation including that of the resident and non-resident taxpayers.

Over the last few years, the Government of India and many State Governments have implemented policy reforms and process simplification with a view to improving predictability, fairness and automation. This has helped bring about India's surge to the top 100 in the World Bank's Ease of Doing Business (EoDB) rankings in recent years. The Goods and Services Tax (GST) reform was implemented to ease the complex indirect tax regime. It has replaced all indirect taxes levied on goods and services by the Central and State Governments.

Illicit financial flows has been a major challenge to taxation efforts. These illicit flows cannot be stemmed without the collaborative effort of both developing and developed countries, for which India has consistently advocated. Expeditious progress on the Multilateral Convention on Mutual Administrative Assistance in Tax Matters (MCMAATM) and allied initiatives for information sharing and other cooperation among countries will be very useful all countries, particularly the developing ones.

Improving Public Expenditure Efficiency

Major expenditure reforms have been introduced over the last few years. Besides simplification of appraisal and approval processes, structural changes in the process of budget making itself have been brought about (e.g. removal of Plan/Non-plan distinction). Consequently, the cost-centres are being managed in an integrated manner, within the statutory revenue capital framework. This has facilitated the initiation of a monitorable Output-Outcome Monitoring framework (OOMF) in 2017-18. The OOMF puts together the outputs and outcomes of all schemes/programmes along with the financial outlays. These outlays, outputs and outcomes are being presented to the Parliament in measurable terms, which ensures greater accountability of the agencies involved in the execution of government schemes/projects.

Over the last few years, the Government of India and many State Governments have implemented policy reforms and process simplification with a view to improving predictability, fairness and automation.

The technology-driven Public Finance Management System (PFMS) has empowered the system by improving accountability, responsiveness and transparency. Continuous improvement is pursued in the field of payments, receipts, accounting and internal audit by effective use of digital technologies. Fiscal reporting protocol is improved as part of Government Integrated Financial Management System (GIFMIS) for effective fiscal management. This efficiency has been responsible for ensuring Direct Benefit Transfers (DBT) to a large number of beneficiaries while eliminating leakages worth INR 1.7 trillion (USD 23 billion). Such efficiency in spending will go a long way in mobilising resources for SDGs.

Promoting Entrepreneurship and the Private Sector

India has been one of the fastest growing economies of the world. India's current growth slowdown mirrors the challenges faced by developing economies around the world. With carefully designed sustained focus on key business reforms over the last few years for improving business environment, India has registered a steady improvement across indicators in the Ease of Doing Business index. Government has also implemented several initiatives that improved the efficiency of cross-border trade, reducing border and documentary compliance time for both exports and imports.

A dynamic startup ecosystem has been built up. India is the third largest startup hub in the world. The startups attracted an investment of USD 12 billion in 2019, which is expected to grow further. The legal environment has been streamlined by amending the Patent Rules, 2003 and Trade Mark Rules, 2017 to make them more user-friendly. Under the Startups Intellectual Property Protection (SIPP) scheme, 80 per cent rebate for patent filing fees and 50 per cent for trademark filing is provided to startups.

For driving economic growth in the country, foreign direct investment (FDI) is a major source of non-debt financial resource for the private sector. In this regard, the government has embarked on a comprehensive set of reforms to attract FDI, including opening up several key sectors to such investment – defence, railways, coal mining, digital sectors, insurance intermediaries etc. Increased private investment is a key to securing high growth, employment and improved productive efficiency. FDI equity inflows in India stood at USD 456.79 billion during the period from April 2000 to December 2019, indicating that government's effort to improve ease of doing business and relaxation in FDI norms is yielding results. India was among the top 10 recipients of FDI in 2019, attracting USD 49 billion in inflows, a 16 per cent increase from the previous year. While the FDI story is encouraging, India faces a challenge that requires international action. Subjective assessments of the Indian policy and regulatory environment by global financial institutions and rating agencies raise the costs of private financial flows to India by positing a subjective 'regulatory risk premium'. This affects long-term finance for infrastructure and other investments that are crucial for achieving the SDGs. It would be helpful to the cause of the Indian and global SDGs achievement, if this impediment to the means of implementation were to be addressed through global action.

India is one of the countries with a growing younger working-age population and a 'demographic dividend' that can power growth. This demographic dividend is expected to peak by 2047, and has prompted government to invest in crucial areas such as education, health, skilling and decent jobs especially for young people. Government has also taken key measures to boost rural incomes, including cash transfers to farmers and is working towards doubling farmers' incomes by 2022 and overall revival of rural economy.

India has embarked on a comprehensive set of reforms to increase FDI inflows, including opening up of defence, railways, coal mining, digital sectors, and insurance intermediaries to FDI.

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Strengthening South-South Cooperation

India remains steadfast in its commitment to regional and global cooperation for mutual learning, capacity building and progress. India has acted with a deep and abiding commitment to South-South Cooperation which it views as development partnership to distinguish it from traditional donor-donee relationships. Government of India's capacity building efforts, through the Indian Technical & Economic Cooperation (ITEC) programme, reach 160 countries across the developing world, especially the small-island developing countries (SIDS) and the least developed countries (LDCs). Under this programme which has an allocation of USD 30 million, fully-sponsored training programmes are offered to more than 14000 professionals annually.

India has extended more than 300 Lines of Credit (LoC) totalling USD 30.66 billion to 64 countries so far. In addition to concessional financing to its African partners, a grant assistance fund of USD 600 million was established including USD 100 million for the India-Africa Development Fund, USD 10 million for the India-Africa Health Fund and financial arrangements for 50,000 scholarships for training African students.

India has launched technological upgrade and extension of erstwhile Pan Africa e-Network Project in the field of tele-education and tele-medicine. The upgraded project has been renamed as *e-VidyaBharati* and *AarogyaBharati* Network Project (e-VBAB). Under the e-VBAB, tele-education and tele-medicine services are offered by linking educational institutions and hospitals in India to those from participating countries in Africa through web based platforms. The project provides 15000 scholarships to African students over 5 years for pursuing higher studies in various disciplines. e-VBAB also provides free Continuing Medical Education (1000 every year) to African doctors/nurses/para-medical staff and free tele-consultations for African doctors from partner institutions in African countries.

The South Asian satellite launched by India in 2017 provides granular data for weather monitoring and farmers in the sub region stand to benefit from better weather forecasting, better communication and improved disaster links. In the spirit of South-South Cooperation, under the India-UN Development Partnership Fund, India supports projects in developing countries, which are also aimed at realisation of SDGs. India has committed a total of USD 150 million over a decade to the India-UN Development Partnership Fund. The Fund established at the United Nations has 33 active projects implemented by seven UN agencies to support the implementation of SDGs in small-island developing states (SIDS), least developed countries (LDCs) and land-locked developing countries (LLDCs) across varied thematic areas ranging from climate resilience, environmental sustainability, gender equality, renewable energy, livelihoods and infrastructure.

The IBSA Fund for the Alleviation of Poverty and Hunger was set up 15 years ago. With a cumulative contribution of USD 38 million, IBSA Fund has 20 partner countries from the Global South for implementing 32 projects over the last decade. About 66 per cent of the IBSA Fund has been devoted to LDCs.

Coalition Based Approach

India continues to take new and innovative measures as it walks alongside its development partners. These steps include the recent launch of the Coalition for Disaster Resilient Infrastructure (CDRI) and the International Solar Alliance (ISA). CDRI will serve as a platform where knowledge is generated and exchanged on different aspects of disaster and climate resilience of infrastructure. It will bring together technical expertise from a multitude of stakeholders to create a mechanism to assist developing countries to upgrade their capacities with regard to infrastructure development in accordance with their risk context and economic needs. The International Solar Alliance (ISA), which India founded together with France, aims to help nations address key common challenges in the scaling up of solar energy. 86 countries have joined the alliance. Government of India has approved support of USD 70 million to CDRI and USD 26 million to the ISA, among other resources.

COVID-19 and India's Global Response

The COVID-19 pandemic has seen a coordinated response involving several branches of government and multiple private sector pharma companies in India. India has supplied large volumes of essential drugs to over 80 countries of the world. Humanitarian relief including deployment of Rapid Response Teams, supply of essential lifesaving drugs, antibiotics, medical consumables, and other laboratory and hospital equipment have also been provided to a number of countries. A COVID-19 Emergency Fund has been created based on voluntary contributions of the SAARC countries, wherein India has contributed USD 10 million. India has utilized its strengths in the digital and information technology space to develop a 'SAARC COVID-19 Information Exchange Platform (COINEX)' for use by all SAARC countries. India has activated its e-ITEC network to deliver medical expertise content for training of healthcare personnel to countries in the neighbourhood.

Revisiting ODA Commitments and Performance

While domestic resource mobilisation is becoming increasingly important, high-income nations that are a part of the Development Assistance Committee (DAC) need to honour their commitments of providing 0.7 per cent of GNI as ODA. Although new donors are emerging, a lot is expected from the members of DAC, who remain the largest providers of aid that is critical to provision of global public goods such as climate change mitigation, conservation of ecosystems and biodiversity as well as management of pandemics like the COVID-19. It is a cause of concern that net ODA flows slid down by 4.3 per cent in 2018, with a dwindling share going to countries that needed it most. Further, against the commitment of raising USD 100 billion of additional resources annually by 2020 through the Green Climate Fund for meeting the pressing climate mitigation and adaptation needs of developing countries, only USD 10.3 billion equivalent in pledges had been raised by February 2020.

Current levels of ODA do not match the collective ambition of the 2030 Agenda for Sustainable Development or the international commitments set out in the Addis Ababa Action Agenda. While the share of DAC members fell to 50 per cent in 2018, only seven countries (Denmark, Luxemburg, Norway, Sweden, Turkey, UK and UAE) met the ODA/GNI target of 0.7 per cent. However, development cooperation needs to be stronger than ever if the SDGs are to be achieved. Therefore, India supports the global call for change of course for making good the ODA commitments.

While the call for reforms in ODA architecture gets louder, it is important to acknowledge the need to set unambiguous eligibility standards and ensure greater transparency in accounting for aid. There is also a need for putting in place robust monitoring systems for following up on aid commitments made by donor countries.

Improving Data, Monitoring and Accountability

With vast number of targets and indicators, the 2030 Agenda offers considerable challenge in terms of monitoring and measuring progress. The challenge is all the more formidable for India on account of its vast geographical, economic, demographic and social diversity. However, India has taken significant strides in this direction. The National Indicator Framework (NIF) has been adopted with 297 indicators, which is the key monitoring instrument at the national level to monitor the progress on SDGs and associated targets.

NITI Aayog has developed a statistical tool, the SDG India Index, to measure and rank the performance of States and Union Territories on each, as well as all SDGs in a composite manner. Indicators from the NIF are used to compute the Index. The SDG India Index Report, released annually since 2018, provides a comparative perspective on progress on SDGs and builds up a competitive ethos among the States and UTs for better performance as well as wider generation of data along an increasing number of indicators.

In view of the range of diversities and differences across the country, it is important to customise the indicators at subnational levels. Therefore, NITI Aayog and MoSPI are working closely with the States/UTs for developing specific State and District Indicator Frameworks (S/DIF).

The S/DIFs will enable compilation of data and reporting of progress thereby spurring wide-spread competition among the States, on the one hand and among the districts, on the other. This competition will lead to better performance both in terms of implementation of SDGs as well as compilation of data and reporting of progress. SDG dashboards also are being developed and used at the national and State/UT levels. Furthermore, in engagements with the civil society, the need of citizen-generated data is being pursued. Efforts are underway to explore the possibilities of using them in monitoring the progress towards SDGs.

Challenges and Way Forward

SDG 17 and associated targets are critical to the achievement of all SDGs. But since much of the work and the sphere of control with regard to most of the targets spreads beyond the purview of any single country and across the international community, active collaboration amongst countries provides the most important lever of action. However, every country would face its own challenges in course of forging global partnerships.
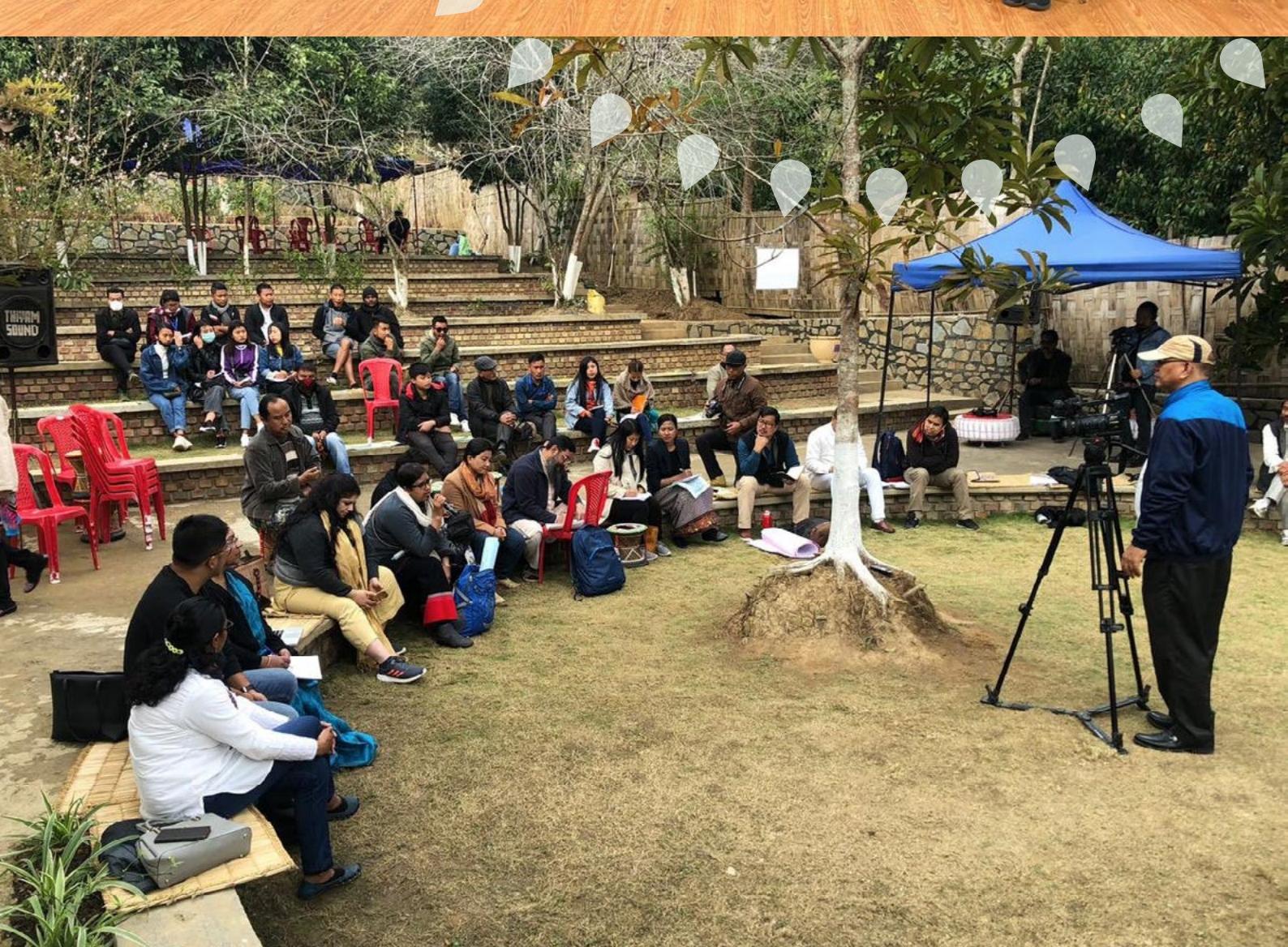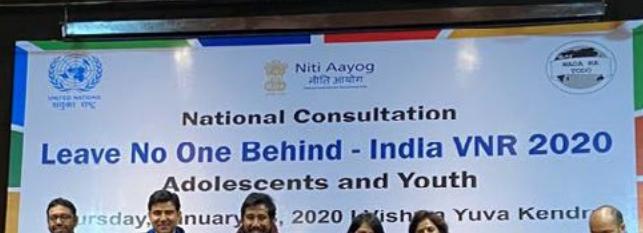
India reiterates that the developed countries have an intrinsic obligation to provide financial assistance to the developing countries, especially for global public goods such as climate change mitigation and control of pandemics, such as COVID-19, so that they can fully achieve the SDGs. India also highlights the need for international cooperation for curbing illicit financial flows, defining aid unambiguously and establishing robust systems for monitoring commitments made by donor countries.

As the world recovers from the impact of inequality in wealth, and aspires to 'leave no one behind' by 2030, it is virtually on the precipice of a technological revolution. Frontier technologies are sweeping and causing huge disruptions. Just to cite a few examples: artificial intelligence and machine learning are not only churning up the landscape of manufacturing and services sectors, but also are transforming all aspects of life and work; synthetic biology is slowly, but surely undermining the markets of high-value agricultural commodities of developing countries, which could erase livelihoods of multitude of small farmers. Therefore, urgent attention is needed to realise the aspiration of the technology facilitation mechanism (TFM) for horizon scanning, early warning and technology assessment. It is important to understand the potential impacts of new technologies, which can best be done by facilitating direct participation of those who are actually or potentially affected. Such awareness will be crucial to designing interventions to build capacities of governments, institutions and other stakeholders for proper governance of frontier technologies.

As the world recovers from the impact of inequality in wealth, and aspires to 'leave no one behind' by 2030, it is virtually on the precipice of a technological revolution.

LEAVING NO ONE BEHIND: VOICES FROM THE COMMUNITY

6

THE MOST COMPELLING VISION OF THE 2030 AGENDA, EPITOMISING THE WELL-BEING OF ALL, IS POISED ON THE PRINCIPLE OF 'LEAVING NO ONE BEHIND'.

The principle mirrors the motto of the Government of India, '*Sabka Saath Sabka Vikaas*' (Collective Efforts for Inclusive Growth), which not only resonates deeply with the philosophy of Mahatma Gandhi, the Father of the Nation, but is also enshrined in the Constitution of the country. The Indian philosophy towards life and development, which further exalts the principle, is aptly captured by the ancient phrase-'*Vasudhaiva Kutumbakam*' (The whole world is one family). Therefore, the consciousness of reaching out to those at risk of being left behind has been integral to the idea of development in the country from the very outset, which has been further accentuated in the SDG era.

People at risk of being left behind, especially from the socio-economic and political mainstreams, experience various forms of social exclusion. One historical aspect of this exclusion has been the lack of access to basic services like health, water and sanitation, education. Other factors such as lack of ownership of assets like land, skills and competencies and such others, restrict their economic participation to full potential and thereby wealth creation; and distance from governance and decision-making systems further weakens their influence in society. These aspects of exclusion often overlap, with one leading to another. The government, through multi-pronged strategies and versatile measures, is committed to overcome them.

Starting with the Constitution, which envisaged an egalitarian society, India has a well-endowed arsenal of laws and statutes and a robust tradition of jurisprudence to protect the rights and entitlements of those at risk of being left behind. A host of legal institutions have matured to protect the specific communities against violation of their rights – National Human Rights Commission; National Commission for Women; National Commissions for Scheduled Castes, Scheduled Tribes and Minorities; National Commission for Protection of Child Rights; etc. In addition, legal as well as policy instruments (e.g. the Protection of Children from Sexual Offences Act, 2012, the Transgender Persons Act, 2019, etc.), have been institutionalised to address infringement of rights and entitlement of various social groups. The mandate of the legal entities and effective implementation of these policies and laws are directly boosted by the Constitutional provision against any discriminatory practice based on caste, religion, race, sex and place of birth (Article 15, Constitution of India), with the exception of initiatives for affirmative action.

The Indian philosophy towards life and development, which further exalts the principle of leaving no one behind, is aptly captured by the ancient phrase - '*Vasudhaiva Kutumbakam*' (The whole world is one family).

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Sanctioned by the Constitution, the principle and practice of affirmative action holds an important role for ensuring social inclusion. It provides representation to historically, as well as currently socio-economically disadvantaged groups in education, employment and politics. Reservation quotas are primarily accorded to three categories of social groups: Scheduled Castes (SCs), Scheduled Tribes (STs) and Other Backward Classes (OBCs). In 2019, by way of the 124th Constitutional Amendment, an additional quota was provided to the economically weaker sections from the previously unreserved category.

There have been sustained awareness development campaigns and information, education and communication (IEC) processes run both by the government and civil society, for rights-holders as well as duty-bearer institutions and their functionaries. It has led to significant increase in awareness about the communities in situations of vulnerability and institutionalisation of a range of forums and networks that support these communities to address their challenges. Free legal aid schemes and services have also been created at National and State levels for the economically weak and marginalised communities.

The government has sought to safeguard and engender the interests of these groups through a whole gamut of social development and welfare schemes, which have proved to be largely effective. There are schemes which directly provide income either as wage support (e.g. through MGNREGA) or through improved access to employment (e.g. through schemes providing skill development, credit and marketing support for entrepreneurship, etc.). Another category of programmes focusses on basic service delivery (e.g. PDS for food security; SBM for toilets, *Ayushman Bharat* for health services, etc.). A third category of interventions includes targeted schemes (e.g. ICDS, maternity benefits, various social pensions, etc.) for specific population groups, such as women, children, elderly, people with disabilities etc. There are also targeted special component plans for SC/ST communities (e.g. Scheduled Caste Sub-Plan and Tribal Sub-Plan). Further, enabling assistance is provided to students from disadvantaged communities (e.g. scholarships to students from SC, ST and minority communities, grants to institutions for

education of such students, etc.). Over the years, conceptual strength and implementation efficiency of these programmes and schemes have been significantly improved in terms of effective targeting and full accrual of intended benefits.

Across the board, the development governance system has undergone substantive transformation with the application of the JAM trinity (the combination of access to bank accounts under the *Jan-Dhan Yojana*, bio-metric identity of *Aadhaar* and mobile telephony), which has ensured accurate direct benefit transfers and leak-proofing of service delivery. It has fostered precise planning of intended support. For instance, the *PM-KISAN* scheme was able to quickly provide much needed succour to small and marginal farmers in 2019 and thereafter, the *PM Garib Kalyan Yojana* during the COVID-19 pandemic.

As illustrated above, the approaches and interventions to 'leave no one behind' are crucial to India's implementation of SDGs. Recognising this, the country has consciously adopted a paradigm shift from a 'whole of government' to 'a whole of society' approach by engaging all key stakeholders: subnational and local Governments, CSOs, volunteers, communities at the grassroots and the private sector in a collaborative process of adoption, implementation and evaluation of the SDG agenda, thereby making it a genuinely inclusive process. India's second VNR stands as a true testament to this whole-of-society paradigm for it embraces the analysis by multiple levels of government along with insights from over a thousand civil society organisations and community organisations from across the country.

The process for the formulation of the country's second VNR has been extremely participatory and democratic, with the engagement of over a thousand Civil Society Organisations (CSOs) led by NITI Aayog and United Nations in India. The consultations saw the active participation of a whole range of population groups and communities identified as vulnerable or at-risk, in a series of 14 national and several other regional consultations, organised across the country. This chapter draws from the rich body of data, knowledge and analysis which emerged from these community-centric consultations and presents a summary of the recommendations voiced by the

Children

Of India's population, 39 per cent is under the age of 18 years and 165 million of them are in the 0-6 years age group. A large part of them are vulnerable due to various forms of exogenous and endogenous social, environmental and political factors. Almost 10.1 million children in the age group 5-14 years are engaged in labour either as a 'main' or 'marginal worker' and the rate of crime committed against children per 100,000 children stands at 31.8, which marks a year on year increase. Child nutrition in terms of stunting, underweight and wasting among children between 0-4 years of age still stands at 34.7 per cent, 33.4 per cent and 17 per cent, respectively, though there has been a constant decline on this parameter over the years. School attendance is a critical factor, with 38 per cent of out-of-school children (aged 5-9 years) being stunted as compared to 20 per cent of those attending school. To address nutritional outcomes among children, the National Nutritional Mission, a convergence of multi-ministerial and multi-stakeholder efforts, was launched in 2018 with the aim of reducing stunting, under-nutrition, anaemia (among young children, women and adolescent girls) and low birth weight. Among other reforms, the Right to Education Act, 2009 has universalised primary education by making free school education compulsory for the 6-14 age group.

Challenges

While education, health, standard of living, gender and disability related vulnerabilities are well recognised within the child rights discourse, the VNR consultations highlighted specific groups of children at higher risk of marginalisation, such as those involved in hazardous or forced labour, with illnesses, living in conflict-affected zones, from refugee communities, who are victims of trafficking and sexual abuse, with vulnerable parents, such as migrants or HIV-infected, among others. Ensuring that the aforesaid at-risk groups are not excluded during enumerations and surveys is a major challenge. Constraints in the availability of disaggregated data limits policy makers, administrators, CSOs and NGOs in implementing response measures for these specific groups. In this context, creating a space and process for feedback from children is very important. While formation of children's committees has been made mandatory under the Integrated Child Protection Scheme, providing an enabling environment for substantive representation and meaningful dialogue at the Village Level Child Protection Committees and Village Education Committees remains a challenge.

Recommendations

Addressing data gaps in the domain of child protection and the need for augmenting the granularity of present data sets echoed across all stakeholders engaged in child rights and issues. A renewed focus on expansion of capacity of institutions such as Child Protection bodies at the state, district and village level and other child-focused institutions like Juvenile Justice Boards are needed for getting systemic feedback from children and effective monitoring of at-risk groups. The need for substantive child participation in policy groups and decision-making bodies involved in building child friendly physical and social infrastructure has also been highlighted.

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🌀 Scheduled Tribes and Adivasis

Administratively, Adivasis are termed as Scheduled Tribes (ST) which is a legal and constitutional construct. The term, however, is broadly used to signify many indigenous and tribal communities in the country. There are 705 individual ethnic tribes or groups which are classified as Scheduled Tribes as per Census 2011. Among them, 75 tribes are classified as Particularly Vulnerable Tribal Groups (PVTG) on account of their exacerbated vulnerabilities. At 104 million, Scheduled Tribe communities constitute 8.6 per cent of the country's total population with nearly 90 per cent of them residing in rural areas. The vulnerabilities associated with STs are recognised through various legal provisions of affirmative action in the Indian Constitution, such as prohibition of discrimination, equality of opportunity in matters of public employment, political representation and promotion of educational and economic interests. Apart from dedicated institutional structures at the Central and State level, budgetary provisions and specific schemes for multi-sectoral tribal development define the mainframe of state action towards tribal welfare.

Challenges

Accelerating education and health outcomes and expansion of livelihood opportunities have been voiced as the areas of concerns by the stakeholders. In key health indicators such as stunting, immunisation, institutional deliveries and anaemia among women, the outcomes remain lower than the national average. While the proportion of the budget allocated for welfare of STs has progressively increased from 1.01 per cent in 2015-16 to 1.16 per cent in 2017-18, effective utilisation of this corpus needs further strengthening. Insufficient awareness within the community of rights associated with the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 (FRA) and Provisions of the *Panchayats* (Extension to the Scheduled Areas) Act, 1996 (PESA) emerged as a critical issue to be addressed.

Recommendations

While the evaluation of health and education related physical infrastructure is recognised as important, capacity building of the human resources engaged in tribal areas emerged as a prerequisite for accelerating programme outcomes. To deter trafficking from the fifth schedule areas, community awareness, sensitisation and vigilance in conjunction with monitoring, adequate reporting and prompt action emerged as a concerted approach that needs to be adopted for close collaboration between the state and the civil society. Allowing for customisation of national and state scheme-related activities to suit the hyper-local socioeconomic and geographic realities of the diverse ST populace was recommended as a tool for realising desired outcomes.

The approaches and interventions to 'leave no one behind' are crucial to India's implementation of SDGs. Recognising this, the country has consciously adopted a paradigm shift from a 'whole of government' to 'a whole of society' approach by engaging all key stakeholders.

🎗 PLHIV

An estimated 2.14 million people were living with HIV (PLHIV) in India in 2017. The HIV/AIDS incidence per 1000 uninfected population has declined form 0.64 in 1995 to 0.07 in 2017. Enhancing access to and scaling-up of Anti-Retroviral Therapy (ART) programmes, viral load testing to monitor ART and measures to minimise mother-to-child transmission have played a key role in the decline of HIV incidence and AIDS-related deaths which peaked in 2005 and declined by 71 per cent by 2017. The regional variance in HIV incidence per 1000 uninfected population in the country ranges from 1.32 in Mizoram to 0.01 in Himachal Pradesh and also varies within the High-Risk Groups (HRG), being highest among Injecting Drug Users (IDU). In the context of securing individual rights of the PLHIV, the HIV and AIDS (Prevention and Control) Act, 2017 was a milestone as it prohibited discrimination in the domain of employment, education, healthcare services, segregation, residence, movement, and public office, among others.

Challenges

The scaling-up of the national ART programme has resulted in 71 per cent decline in deaths from AIDS-related causes since its peak, compared to

the global decline of 48 per cent. The representatives from the CSOs elicited the success of the programme while highlighting the issues pertaining to limited availability of ART drugs and viral load test equipment at the district level, which has made effective monitoring of patients and HIV-care challenging. Insufficient awareness of various Government schemes among the PLHIV has been a major impediment. The urgent need for addressing co-infection related to Hepatitis C and Tuberculosis (TB) in the treatment protocols and the need to increase retention of persons who are undergoing ART was voiced. Inadequate awareness and sensitisation with respect to the HIV/AIDS (Prevention and Control) Act, 2017 at the state, society and market interface is a challenge that requires attention.

Recommendations

The global target of 90 per cent diagnosis of PLHIVs, 90 per cent treatment and 90 per cent viral suppression will require enhanced testing for detection of new cases, increased coverage of ART and monitoring and retention of patients on ART. The consultations recognised the need for PLHIV networks to support government initiatives aimed at achieving the 90-90-90 targets, especially in community-based screening of vulnerable populations and linking them to a comprehensive package of prevention, detection and treatment services. Expansion of HIV treatment capacity is essential in treating co-infections and in mitigating and preventing drug stock-outs.

Persons with Disabilities

Persons with Disabilities (PwDs) constitute 2.21 per cent of the population or 26.8 million, with 69.5 per cent residing in rural areas, with a wide variation in type and incidence of disability. At the all India level, 36.34 per cent of the total disabled population are reported as 'workers'; only 54.52 per cent of the PwDs are literate against a national average of 74.04 per cent (Census 2011). Recognising the multitude of vulnerabilities that PwDs are exposed to, the Rights of Persons with Disabilities (RPwD) Act, 2016, became a milestone with emphasis on non-discrimination, full and effective participation and inclusion in society, respect for difference and acceptance of disabilities as part of human diversity and humanity.

Challenges

The Accessible India Campaign or *Sugamya Bharat Abhiyan* has brought focus on accessibility in the context of built environment, transportation and information and communication systems for this group. While recognising the impetus given to access and disability rights by the RPwD legislation and subsequent government campaigns, amongst the key challenges highlighted by stakeholders was scant availability of disaggregated data on PwDs in official statistical systems. This constraint impacts policy making, monitoring and evaluation of effective outcomes of various rules and regulations which are built into government initiatives in education, health, employment opportunities, financial inclusion and housing. While the discourse around built environment has moved towards accessibility, challenges remain in the job market.

Recommendations

Building a disability well-being index to gauge progress in representation and quality of participation of PwDs to inform adaptive policy making and implementation can be a viable method. Creation of disability cells in all ministries and departments at the national and subnational level was an approach that was recommended to ensure that discourse and action on disability rights and accessibility do not remain engaged in silos. Capacity building and outreach on key disability concepts of accessibility, universal design and reasonable accommodations, among others, require renewed focus.

LGBTQIA+

The term LGBTQIA+ is intended to emphasise diversity of sexuality and gender identity-based cultures. To protect the interests of the community, the Supreme Court of India decriminalised homosexuality in 2018 by striking down Section 377 of the Indian Penal Code with respect to consensual homosexual sex between adults. In addition to this, the Transgender Persons (Protection of Rights) Act was passed in 2019 with the objective of protecting the rights of transgender people, promoting their welfare and other related matters. The Act aims at reducing stigma and discrimination faced by the transgender community in India and will aid in making them self-sufficient.

Challenges

The recent legislations in relation to the LGBTQIA+ community in India have no doubt been pivotal in addressing the exclusion issues of the community, yet, how the recognition of these rights are harmonised in different public systems, including data collection and enumeration, remains to be seen and will determine the way forward. Multifarious social challenges including and not limited to discrimination and stigma will not only require interventions by the state but also active involvement of the civil society and markets.

Recommendations

Ensuring early gender sensitisation with respect to the community, by making it part of the school and college curriculum and strict measures to prevent bullying and harassment, will be crucial in building an enabling environment for the community. Transformative workplace policies which promote diversity, prohibiting conversion therapies, state assistance in and uniform guidelines for gender reaffirmation, state supported shelter and helpline for addressing distress and a focus on mental health and well-being are some of the recommendations which emanated from the consultation.

Migrants and Urban Poor

Urban population in India grew from 286.1 million in 2001 to 377.1 million in 2011 which constitutes 31.14 per cent of the total population residing in 53 urban agglomerations with more than a million people. Nearly 14 per cent of this urban population was estimated to be living below the poverty line in 2011-12 with 65.5 million living in slums. Burgeoning economic growth and capital and labour mobility in urban areas have also led to significant growth in migration. The magnitude of inter-state migration in India accelerated from five to six million annually between 2001-11 to nine million annually between 2011-16. A significant proportion of migrants and the poor in cities are employed in the informal economy which makes them vulnerable, especially in times such as the COVID-19 crisis. Unorganised Workers' Social Security Act, Contract Labour (Abolition & Regulation) Act and Workers' Welfare Boards are some of the legislative measures which exist

to address the challenges associated with informality. To make housing accessible, construction of affordable housing in urban areas has been scaled up since 2015 under the *Pradhan Mantri Awas Yojana* and similar state government dovetailed schemes.

Challenges

The recent COVID-19 crisis has compounded the vulnerabilities faced by the migrants and the urban poor, leading to the announcement of a well-designed economic package and relief for both labour and SMEs by the Government of India and various State Governments. Inter-state migrants face challenges in accessing social sector schemes where place of origin, as defined by State governments, play a crucial role in determining eligible beneficiaries. The key legislation governing inter-state migrants in India is the Inter-State Migrant Workmen (Regulation of Employment and Conditions of Service) Act, 1979 which provides for several safeguards and fair and decent conditions of employment for the migrant labour. Labour welfare legislations which focus on safeguarding the livelihoods of those in the informal economy, require renewed impetus in urban centres. Variegated interpretation or implementation of the formation and functioning of Ward Committees in urban areas, as prescribed under the 74th amendment, has also been emphasised.

Recommendations

The recently promulgated One Nation, One Ration Card scheme is critical for enabling access to subsidised food grains across the country, irrespective of the place of origin of migrants. This interoperability has the potential of becoming a conduit for delivery of other public services too. Homeless shelters built under the National Urban Livelihood Mission is part of urban infrastructure, which is vital during biological and environmental shocks, as seen during the COVID-19 outbreak. Issuance of guiding principles for urban decongestion on account of rapid growth of urban agglomerations also need consideration.

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Forced Labour and Human Trafficking

Forced labour is characterised by demanding labour as a means of repayment for a loan and entrapment into working for very little or no pay. Forced labour is prohibited under Articles 21 and 23 of the Indian Constitution and the Bonded Labour System (Abolition) Act, 1976, which discharged forced labourers from any obligation to render labour under bondage. The Indian Penal Code (IPC); the Immoral Traffic (Prevention) Act, 1956; Child Labour (Prohibition and Regulation) Act, 1986; Juvenile Justice (Care and Protection) Act, 2000; and the Protection of Children from Sexual Offences Act, 2012, oversee the prohibition.

Challenges

Though human trafficking per million population declined from 5.48 in 2015 to 1.86 in 2018, conviction rates in reported cases remained a challenge. Stakeholders in the consultation felt that awareness gaps in terms of nature of exploitation in potential job opportunities puts vulnerable groups at risk of trafficking and even re-trafficking after rehabilitation. Lack of comprehensive data which identifies and enumerates such labourers was a key challenge which was further exacerbated by the dynamic nature of unsafe migration perpetrated by illegal agents.

Recommendation

Integration of various counts of the IPC which presently govern human trafficking crimes under one comprehensive legislation, to strengthen prosecution and rescue operations, along with holistic rehabilitation measures which address entrapment in future, is necessary. Effective rehabilitation of victims in addition to financial assistance and relocation to origin and establishment of a national system for registering migrants at origin and destination were some of the other propositions for mitigating vulnerability.

De-notified, Nomadic and Semi-Nomadic Tribes

The term De-notified Tribes (DNTs) refers to communities which were considered criminal under the purview of the colonial laws, such as the Criminal Tribes Act of 1871. The Indian Government repealed these laws in 1952 thereby 'de-notifying' these communities. Apart from DNTs, several other nomadic (NT) and semi-nomadic tribes (SNT) were also affected by colonial era policies and nomenclature which aggravated social conflict. Several commissions constituted in the interest of these communities, unanimously agreed DNTs, NTs and SNTs were the poorest among poor and marginalised.

Challenges

Access to caste certificates, domicile certificates, BPL cards and other documents which determine beneficiary status, remains a major challenge for the community. Classification of certain communities differed among states, while issuance of different community certificates for different generations of the same community within the same state, compounded this issue. Classification related challenges and the mobility associated with the livelihood of some of these communities were some of the major impediments to access social protection schemes especially in health, nutrition and education.

Recommendations

The stakeholders echoed the need for uniformity in classification and issuance of caste certificates throughout the Union of India. Enumeration of DNTs, NTs and SNTs in official statistical systems which captured the socioeconomic status of these communities was strongly recommended for the purpose of informing policy. Raising public awareness through effective campaigns akin to the *Swachh Bharat* Mission and other schemes and inclusion of awareness material in school textbooks, were some of the suggested ways of sensitisation.

Youth and Adolescents

India is currently witnessing a demographic transition. According to the National Youth Policy 2014, India's youth in the age group of 15 to 29 years comprises 27.5 per cent of the total population. This population group is prone to exigencies related to education, employment opportunities, physical and mental health, substance use and social exclusion, among others. Adolescents, in the age group of 10 to 19 years, remain in a transitional stage of physical, physiological and psychological development. Health outcomes within this group is gendered, with higher proportion of adolescent females experiencing anaemia, lower BMI-for-age and folate, vitamin B12 and zinc deficiencies in comparison to their male counterparts.

Challenges

The overall unemployment rate (usual status) in India is 6.5 per cent (15-59 years), while it is 17.8 per cent for the youth (15-29 years). Similarly, proportion of employed persons in this age group, as captured by the worker population ratio, is 31.4 per cent. Apart from challenges in employment, skilling and educational outcomes, the issues around mental, and sexual and reproductive health must be addressed. While government action with respect to adolescent health initiatives was acknowledged, the challenge of identifying and addressing emerging issues related to the prevailing norms of parenthood or schooling remain.

Recommendations

Preparation of periodic reports on the status and progress of youth, which takes a bottom-up approach in identifying priority areas, can be part of the way forward. Adequate budgetary allocation and expenditure on psycho-social programming within the present schemes for sensitising and supporting adolescents in domains beyond the present purview of schools can be a crucial enabler for empowerment.

Women

Women, in India, as in many parts of the world, experience various socio-economic-political challenges, which are influenced and modulated by their location, ascribed identity and other factors. Female Labour Force Participation Rate (usual status, 15 to 59 age group) is 25.3 per cent in comparison to 80.2 per cent for men; and average wages among regular wages/ salaried women and women engaged in casual labour (non-public works) is around 80 per cent and 63 per cent of that of men, respectively. Of the total operational land holdings, 13.96 per cent are attributed to women. The proportion of crimes against women and sexual crimes against girl children saw an increase with one in every three women experiencing some form of spousal violence in 2015-16.

In terms of political representation in the national government, 14.36 per cent of the elected representatives in the Lok Sabha are women. Several legislations and schemes have been put in place with the aim of safeguarding the interests of women and to foster gender equality, including Gender Budget Cells (GBC) initiated in 57 central government ministries and 23 states for focused policy interventions.

Challenges

While many schemes address nutrition and health related challenges pertaining to pregnant women, lactating mothers, adolescent girls and women in general; access to these services for elderly and single women, women living with HIV, female sex workers and other specific vulnerable groups is a cause for concern. Recognition of the importance of gender responsive city spaces, of structural barriers to asset ownership including housing and inadequate access to safe and inclusive transport and streets, are some of the focus areas of urban policy and governance. The stakeholders also highlighted the need to suitably address the various forms of discrimination faced by women, especially those from marginalised communities.

Recommendations

Application of a gender lens and social inclusion framework to all government policies, schemes and legislations, as well as adoption of the National Policy for Women, were perceived as critical.

The development of state-specific comprehensive policies for rehabilitation and reintegration of violence survivors was underscored. Along with bottom-up consultations and feedback to ensure gender responsive urban policies, active technological interventions are also required to engender safety in public places and transport systems. Intensifying awareness and sensitisation campaigns will be crucial for women's access to sexual and reproductive health services. Finally, evaluation of government programmes with the objective of ensuring gender equality at state, central and local level is essential in making policies adaptive and responsive to change.

Farmers

The term farmer refers to operational holders, cultivators, agricultural labourers, sharecroppers and persons engaged in various farming related occupations, among others. The share of agriculture and allied sectors in the Gross Value Added (GVA) of the country at current prices has declined from 18.2 per cent in 2014-15 to 16.5 per cent in 2019-20. In rural areas, 55 per cent of male workers and 73.2 per cent of female workers were engaged in the agricultural sector while 37.8 per cent and 12.1 per cent of households cited their major source of income as self-employment in agriculture and casual labour in agriculture, respectively. Climate change, productivity issues and extreme weather-related factors associated with farming make this group vulnerable.

Challenges

Climate change, extreme weather conditions, deteriorating water availability, deforestation, deteriorating soil health due to excessive usage of fertilizers and pesticides, and market volatility were identified as major challenges. Responding to these challenges with adaptive and compatible policies required disaggregated data on the status of various categories of farmers. There are major challenges associated with women farmers due to lack of land titles and a patriarchal agrarian system.

Recommendations

Contextualised policy interventions, which address the specific issues pertaining to rain-fed,

tenant, landless, livestock and adivasi farmers and pastoralists, are recommended. Promoting agroecology practices, natural farming and innovative technology to optimise resource use hold the key to mitigating the impact of climate change. Linking production to processing, promotion of producers' alliances and value chains are some key areas for action.

Elderly

India is home to over 103.9 million people aged 60 and above who constitute 8.6 per cent of the total population. By 2026, this population segment is expected to increase to 173.2 million or 12.4 per cent of the population, with consequent increase in the dependency ratio. The literacy rate among elderly females and males is 28.5 per cent and 59 per cent, respectively. Locomotor disability and visual disability are most prevalent among the elderly. Higher morbidity and greater burden of ailments makes this group vulnerable to health shocks as seen during the COVID-19 outbreak.

Challenges

Health and nutrition surveys in the country focus on children, adolescents and on adult men and women below 60 years of age. Awareness among the elderly about government schemes on geriatric care, pension and access to aids and assistive living devices remains a challenge, and is compounded by low levels of literacy. Addressing issues of mental health along with those of higher morbidity is another major challenge for this population group.

Recommendations

There is a need to expand the definition of geriatric care, maintenance and welfare; remove the celling on the maintenance amount; make registration of care homes and service agencies mandatory; and set minimum standards for care homes. Assignment of dedicated law enforcement personnel is especially important to safeguard the interests of elderly women who are more vulnerable. Constructing an index can be useful to determine the status of the elderly, their extent and quality of access to various services and benefits and benchmarking state performance at the national and subnational levels.

✋ Scheduled Castes

Scheduled Castes (SCs) comprise 16.6 per cent of the total population of the country, of which over 154 million reside in rural areas and 48 million in urban areas. The Global Multidimensional Poverty Index (MPI) developed by OPHI and UNDP, which is constructed taking deprivations in education, health and standard of living into account, pegged the incidence of multidimensional poverty among SCs at 32.9 per cent. While the incidence decreased from 65 per cent to 32.9 per cent between 2005 and 2016 for SCs, it overall decreased from 54.7 per cent to 27.5 per cent at the country level. The vulnerabilities associated with SCs are recognised through various Constitutional provisions to protect their interests through affirmative action.

Challenges

Schemes pertaining to student scholarships, hostels and national fellowships for pursuing higher education have been operationalised to facilitate access to education. Challenges pertaining to affirmative action-based vacancies in employment in the public sector and universities, access to credit and opportunities for entrepreneurship need accelerated addressal. Availability of data on sub-groups in present statistical frameworks posed an impediment to a comprehensive evaluation of the status of Scheduled Castes, especially women, in domains such as education, employment, nutrition, disability and credit access among others.

Recommendations

Focused interventions to support Scheduled Caste women and their access to education, employment and justice; and effective utilisation of SC sub plan component of the budget are crucial for meeting the intended objectives of the programmes. Implementation of sensitisation and awareness programme modules, which leverage technology, in various domains such as education, employment, health and public life are of relevance.

Way Forward

The VNR stakeholder consultations with CSOs, NGOs and community networks, provided a platform for engagement and feedback on India's progress towards the Sustainable Development Goals. This platform was widely acknowledged among the participants as a conduit for institutionalised dialogue in the future. We live in a world where public policy and governance challenges are dynamic. This has been further reaffirmed by the COVID-19 pandemic. For state and market action to keep up with the myriad manifestations of these challenges, the nature of engagement with policy making will have to be adaptive, iterative and based on feedback, which institutionalised dialogue can provide. Additionally, for policy to be evidence-based, addressing data gaps pertaining to these groups will be of paramount importance. With the decade of action upon us, leveraging technology for policy scoping and interventions will be instrumental in ensuring that no one is left behind.

BUSINESS INTEGRATION IN THE IMPLEMENTATION OF SDGs

EVER SINCE THE INTRODUCTION OF THE NEW INDUSTRIAL POLICY IN 1991, BUSINESSES IN INDIA HAVE BEEN CONTRIBUTING TO INDIA'S GROWTH BY CREATING EMPLOYMENT OPPORTUNITIES, DRIVING TECHNOLOGICAL ADVANCEMENT AND INFRASTRUCTURE DEVELOPMENT, AND TODAY, FORM A VITAL PART OF INDIA'S SUSTAINABLE DEVELOPMENT JOURNEY.

Increasingly, business sector has played an important role in diversifying, expanding and strengthening the country's economic position. In the year 2017-18, the private sector's gross capital formation accounted for about 22.4 per cent of India's GDP. Proportionately, the sector's responsibility to help create a just and secure world for the future generations has increased. In India, the private sector includes MNCs with local operations, companies serving the domestic market at various tiers, exporters, micro, small and medium enterprises and startups, of which many companies have overlapping presence. Further, the size of enterprises varies significantly under each category. The scope of engagement with SDGs is modulated by the size, annual turnover and geographical spread of these enterprises.

India is one of the fastest-growing economies, with real GDP growth moderated at a rate of 6.1 per cent between FY 2017-18 and FY 2018-19 and is poised to become the third-largest consumer market in the world by 2030. Inclusive and low-footprint growth - the key characteristics of sustainable development, will ensure that the purchasing power of Indian consumers grows steadily, creating a positive feedback loop, which ultimately leads to general economic prosperity. Therefore, by investing in pursuing the SDGs the Indian private sector will ensure its own long-term prosperity.

External stimulus has also been crucial in determining the strategic direction of the businesses. In recent years, governments and consumers have taken cognizance of the importance of sustainable production and consumption. It is expected of businesses, especially brands and corporates, to play a greater role in ensuring sustainability both within and outside their value chains. The government is already committed to sustainable development, as evident from its initiatives in the field of renewable and clean energy. Above all, India has set ambitious targets to reduce greenhouse gas emissions. Wholehearted participation from the private sector to complement the efforts made by the government will go a long way in the future, in ensuring that India stays on track to achieve its targets under the SDGs. There is sufficient evidence to suggest that businesses are increasingly looking at stretching their mandate of value creation beyond customers or shareholders to cover a wider and more diverse set of stakeholders along their value chain. The private sector through innovative business models for

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developmental challenges, replication of good practices, influencing supply chains and participation in multi-stakeholder initiatives will be a strong ally in the achievement of the SDGs in India.

Institutionalised Business Responsibility Frameworks in India

Business responsibility frameworks play a key role in providing an enabling environment for improved integration of the society as stakeholders, corporate transparency and strengthened risk management. Several initiatives have been taken by the government to mainstream sustainability and responsibility to this effect, even before the adoption of the SDGs in 2015. Efforts for developing a comprehensive national framework with respect to businesses, began in 2011 with the development of the National Voluntary Guidelines (NVGs) on Social, Economic and Environmental Responsibilities of Business. This was followed by the inclusion of a provision on Corporate Social

Responsibility (Section 135) in the Companies Act, 2013 and the subsequent enactment of the CSR Rules 2014.

The adoption of the SDGs provided considerable fillip to further strengthen the commitments embedded in these frameworks. Consequently, to align the NVGs with the SDGs and the UN Guiding Principles on Business and Human Rights (UNGPs), the process of revising NVGs commenced in 2015, which led to the development of the National Guidelines on Responsible Business Conduct (NGRBC) in 2018. Simultaneously, Business Responsibility Reports (BRR) were made mandatory for top 1,000 listed companies by the Securities & Exchanges Board of India (SEBI) in November 2019. The characteristics of such disclosures entail that companies report their actions towards adoption of responsible business practices, drawing from the principles of NGRBC. Further, the Government of India initiated the process of developing the National

Action Plan (NAP) on Business and Human Rights in 2018. There is considerable alignment between the NAP and the SDGs. A Zero Draft of the NAP was developed in February 2019 and the development of India's National Action Plan is presently underway, being led by the Ministry of Corporate Affairs (MCA).

An important guiding framework for the private sector with respect to sustainable development is also provided by Section 135 of the Companies Act, 2013, which directs organisations with either a net worth exceeding INR 5 billion (USD 67 million), turnover of more than INR 10 billion (USD 133.33 million) or a net profit of INR 50 million (USD 667 thousand) or more, to spend two per cent of their average net profits in the preceding three years on Corporate Social Responsibility (CSR). The Act lists the activities which can be carried out as part of the company's CSR strategy. These activities include poverty reduction, gender empowerment, rural development and environmental sustainability among others. Of the INR 119.61 billion (USD 1.6 billion) that was spent on CSR activities by National Stock Exchange (NSE) listed companies in 2018-19, around 65 per cent was towards poverty alleviation, nutrition, healthcare, education and skilling.

Institutionalised voluntary sustainability and responsibility frameworks will play a vital role in the next decade in terms of informing both producer and consumer behaviour. The Bombay Stock Exchange's (BSE) Environmental, Social and Governance (ESG) guidelines for voluntary reporting is a step in this direction. Similarly, adoption of Voluntary Sustainability Standard (VSS) will promulgate the commitment of businesses towards SDGs in terms of their operations, sourcing, production and trade. The success of voluntary guidelines, principles and standards will in turn be influenced by the impact of these disclosures on consumer choice.

Businesses in the Decade of Action

Apart from business responsibility and employment opportunities, Indian businesses have been an active partner in government led interventions in critical cross-cutting areas. Financial inclusion has been one such area where businesses have facilitated in scaling-up the interventions in conjunction with responding to government

signalling in digital finance. Businesses have undertaken or are exploring several initiatives under frameworks such as resource efficiency, circular economy, climate change mitigation and clean technology and therefore will play an instrumental role in achieving the larger goal of 175 GW clean energy by 2022 and the long term target of 450 GW by 2030.

Education, skilling and training as a domain has seen significant investments by businesses. Numerous vocational education and skilling programmes at the national and state level have business entities as active partners. Decent work conditions, gender empowerment, water, sanitation and hygiene (WASH), health and telemedicine and adoption of emerging technology for public infrastructure projects are the other notable areas where collaborative efforts among the state, markets and society can be seen.

While the frameworks and initiatives discussed above have been successful in mainstreaming sustainability, business responsibility and the overall SDG agenda among businesses in India, the next decade will require further escalation of efforts including improvement in quality of businesses engagement. CSR initiatives, while being impactful, have concentrated around industrial regions of the country, which incidentally also are the places where the firms are registered. Diversification and inclusion of other areas of investment in the CSR ecosystem would ensure that attention is given to regions and groups which are relatively worse off. This has been successfully experimented in the relatively backward 112 Aspirational Districts across the country, wherein critical gaps in social impact projects have been plugged through partnership with businesses and their CSR activities. In terms of disclosure, reforms in BRR formats and other disclosures will not only augment the quality but also the level of engagement for enterprises.

Mainstreaming the SDG agenda among smaller business entities remains a challenge and therefore supply chain interventions in the sector is pivotal. These would involve cross-connected workflows in various industrial domains and address multiple goals of the 2030 Agenda and consequentially, encourage participation of businesses of all sizes.

Photo courtesy of Rakesh Pulapa

STRENGTHENING MEANS OF IMPLEMENTATION

8

SCIENCE, TECHNOLOGY AND INNOVATION IS A POWERFUL ENABLER, WHICH NEEDS TO BE LEVERAGED TO ACCELERATE PROGRESS ON THE THREE DIMENSIONS OF SUSTAINABLE DEVELOPMENT. COSTING AND FINANCING TOOLS ARE CRITICAL TO IDENTIFY GAPS AND RE-BALANCE RESOURCE ALLOCATION TO MEET THE GOALS.

I.   Leveraging Science, Technology, and Innovation for SDGs

The 2030 Agenda is an ambitious framework of global transformation for sustainable development. It calls for well-defined goals and targets to be achieved in globally agreed timeframes. Meeting these targets demands transformative changes in the spheres of policy, implementation and monitoring: impeding policies should be reversed and recent advances that promote sustainable development must be rapidly scaled up. However, recent experiences indicate that several dimensions under the agenda are not moving in the right direction. Four areas stand out in this regard, according to the Global Sustainable Development Report 2019 – climate change, rising inequalities, biodiversity and increasing amount of waste from human activity.

Science, Technology and Innovation (STI) can play an instrumental role in this environment for realising transformative, if not disruptive, changes. The science-policy interface can gather modern evidence-based solutions and channel them into public policy for problem solving. STI can make significant contributions in many areas, among which two are particularly critical. One, STI can help break the pattern of intensive resource use; and second, it can fully appreciate the interlinkages among the three dimensions of sustainable development – social, economic and environmental; and arrive at multidimensional solutions. Experiences around the world

and in India show that STI is a critical driver of economic growth, employment generation and inclusive development. STI can contribute to inclusiveness by catalysing income growth and serving the special needs of lower-income and excluded groups by ensuring their participation in governance processes and by providing novel forms of delivering missing public goods, while offering climate adaptive solutions. In conjunction with new technologies, creative business models and nuanced systems of service delivery, science and technology-based innovations have a vast potential to fast-track the achievement of SDGs in a manner that is cost-effective.

India has rich experience and expertise in generating, harnessing and multiplying the impact of STI, as well as nurturing innovation ecosystems for solution driven problem solving across the country.

Science, Technology and Innovation (STI) can play an instrumental role in this environment for realising transformative, if not disruptive, changes. The science-policy interface can gather modern evidence-based solutions and channel them into public policy for problem solving.

An early example is the Green Revolution that took place in the 1960s when Indian agriculture widely adopted technologies such as high yield varieties of wheat and mechanised equipment in the food production chain resulting in significant gains in production of food grains and rise in farmer incomes. In more recent decades, India's emergence as an IT services powerhouse and a harbinger for startups have created jobs, solved large-scale problems and further strengthened the country's technology and innovation ecosystem.

The SDG framework presents another opportunity for the country to leverage its STI strengths. Twenty-first century challenges call for germane solutions that are technology and innovation based. The government and the private sector have been vigorously pursuing the adoption of STI in a variety of fields - a lot of which directly fall under the SDG framework, such as digital and financial inclusion, communication technologies, health sector surveillance and tele-medicine.

Recent STI Initiatives

A range of STI initiatives in the public and private sectors emerged in the recent past which show promising results and pave the way ahead for large-scale development and adoption of STI applications. A few examples are cited below.

Public Sector

O   India turned to the power of technology when it came face to face with the COVID-19 pandemic. The *Arogya Setu* mobile app, developed in the wake of pandemic crisis, has become one of the key tools in the fight against the spread of the disease. The app enables people to assess the risk of exposure to COVID-19 infection based on their interaction with others, using algorithms powered by Bluetooth and Artificial Intelligence technologies. *Arogya Setu* quickly became one of the world's most popular mobile applications, with over 100 million installations in a span of a few weeks. The app was later upgraded to include online telemedicine and medical consultations.

O   Waste management is a challenge which majorly urban areas grapple with and is a target area under SDG 11. Civic bodies across India are raising awareness about waste disposal and are looking at unique methods to tackle this issue. The Urban Local Body (ULB) of NOIDA, in the state of Uttar Pradesh, has recently turned to using plastic waste to construct roads. This technology allows for more durability of the road at a reduced cost. This system also creates more incentives for the ULB to collect and segregate plastic waste efficiently.

O   The state of Andhra Pradesh uses Blockchain in land pooling. The technology allows for security and greater transparency in the process and increases the trust of people in the governance procedure. Employing this system to track land ownership almost diminishes the probability of property theft and fraud. These improvements contribute to progress under SDG 16.

O   The state of Telangana has declared 2020 as the 'Year of AI' and has set a blockchain district in the city of Hyderabad. Launched in association with various partners and stakeholders including industry and academia, it creates a resource pool of entrepreneurs, experts, investors and trained technicians in Artificial Intelligence. This initiative will help remove several obstacles for research and development activities, which is a key agenda under SDG 9.

O   The *Samagra Shiksha* scheme aims at treating school education holistically from pre-nursery to Class 12. One of its major emphasis is on promoting digital education. This is being done by enhancing the use of digital technology in education through smart classrooms, digital boards and DTH channels and by strengthening digital initiatives like 'DIKSHA' and *Shala Kosh, Shagun, Shaala Saarthi*. DIKSHA, which is a digital portal for teachers to upgrade skills, aims to standardise the quality of education across the country. It contains lessons in all subjects broken down into efficient parts and is available in eight languages. These interventions are expected to contribute significantly to learning outcomes and quality of education, which SDG 4 seeks to improve.

O   National Repository of Open Educational Resources (NROER) is an initiative to bring together digital resources across all stages of school education and teacher training. States and UTs are encouraged to contribute to the

resources on NROER and create their own OERs.

○ The Atal Innovation Mission (AIM), driven by NITI Aayog, is radically transforming the innovation and entrepreneurship landscape in India. Atal Tinkering Labs (ATL) operating in schools are galvanizing design mindset, computational thinking, adaptive learning and physical computing across various themes. AIM has operationalised 5,441 ATLs at the school level, selected over 100 Atal Incubators at the university level and has launched 24 Atal New India Challenges for stimulating product innovation. A 'National Mentors of Change - Mentor India Network' has been established with over 3,500 mentors attached to AIM's initiatives. These initiatives are catalysing a huge innovation movement in India's schools and colleges.

Private Sector

○ The COVID-19 crisis was an opportune moment for the start-up players to rise to the challenge and offer low cost, scalable, effective and quick solutions to address the pandemic. *AgVa* accelerated the development of ventilators which are low-cost, mobile, low on power consumption and form factor and require minimal training for operators. *Biodesign* developed a robotic product called ResperAid, which enables mechanised use of manual ventilators. *Kaaenaat* developed portable ventilators which can be used to serve two patients simultaneously and has built-in battery, oxygen concentrator and a steriliser cabinet.

○ The products of a few non-ventilator start-ups too came to the aid of the COVID-19 fighting machinery. The AI-enabled analysis of chest X-Rays developed by *Qure.ai* enables large-scale screening to identify potential COVID-19 positive cases. GIS and geo-fencing technologies by *Dronamaps* enabled information cluster strategies for hotspots. AI-powered online doctor consultation and telemedicine platform by *Mfine* connects diagnostics labs and pharmacies with doctors and patients. The AI-enabled thermal imaging camera developed by *Staqu* facilitated large-scale screening at low cost.

○ *AgriMarket* is a mobile application developed with an aim to keep farmers abreast with crop prices and consequently, discourage them from carrying out distress sales. The application automatically captures the location of the farmer using mobile GPS and fetches the market price of crops which fall within the range of 50 km. The availability of the app in Hindi opens it to a significant customer base.

○ *Gramin Healthcare* describes itself as an 'institutionalised primary healthcare service provider with the aim of strengthening last mile delivery in rural areas.'A typical patient undergoes a physical examination by a health personnel who subsequently create an Electronic Health Record (EHR) of the patient. The patient's EHR is accessed by a doctor who then provides tele consultation for medicines or diagnostic tests, if required. This model encourages the creation of a patient ailment history and enables timely access to doctor consultations.

○ *Forus Health* employs Artificial Intelligence to diagnose preventable blindness. Its products screen the retina and develop an image which is run through an algorithm to determines visual health. The AI system can analyse the images to a high degree of detail in real time. Patients who test positive, are referred to an ophthalmologist, thereby leading to early detection of the disease.

○ *MIMO (Minimum Investment Maximum Outcome)* Technologies aims to connect rural India efficiently with the rest of the world. This start-up helps make it easier for companies and individuals to take their products and ideas to rural India. It operates an Android application, MIMO, where organisations can connect with employees from rural areas and hire them for different tasks and contracts. The app also functions as a mobile wallet for agents to collect money and offers a number of utility services like prepaid recharge, bill payments, buying movie tickets etc.

○ *Stellapps Technologies* is involved in digitisation of the dairy supply chain in India. By digitising and optimising milk production, milk procurement and cold chain management, it aims to maximise profits for farmers and co-operatives. Sensors across the production chain are used to monitor the quality of milk at each stage.

The Way Forward

Science, Technology and Innovation will be a critical tool in India's accelerated progress towards achieving the SDGs. In the social sector, a major focus area will be designing and implementing actions based on science to eliminate deprivations and build resilience. Promoting STEM education can contribute to empowering people and equipping them to bring about change.

Energy is another key area of application of STI. Electricity generation, heat production and transport together account for 70 per cent of greenhouse gas emissions globally. Improvements in smart-grid management and long-term electricity storage are needed for India to meet its long term energy demands sustainably.

Ensuring that these technologies reach everyone becomes essential to achieve the comprehensive SDG agenda. There is an immediate need for the government, academia, private sector and civil society to join hands in developing and taking these technologies to the masses. Better multi-stakeholder engagement to identify issues, engineering specific solutions and incentivising innovation are the needs of the hour.

II. Costing and Financing of SDGs

Achieving the global goals and targets requires huge financial investments. While philanthropic and donor funds add up to billions of dollars, it is estimated that globally, a funding gap of USD 2.5 trillion annually must be closed to achieve the SDGs. Public financing and private capital are equally important in meeting this gap.

Given this context, NITI Aayog and the Ministry of Finance have collaborated with the International Monetary Fund (IMF) to undertake a study on SDG costing for select sectors. The sectors covered are education, health, electricity, roads and water and sanitation. The study methodology quantifies the annual cost of achieving high performance across these five areas. For each sector, performance is considered as a function of a set of input variables. The median level of inputs for countries that perform well today is identified, with performance being measured by SDG index scores. For each country, spending in 2030 is calculated by assigning these input levels and controlling for other factors such as demographics and the level of GDP per capita projected in 2030.

The study has estimated that making significant progress in these SDG sectors would require an additional annual spending of 6.2 percentage points of GDP by 2030. Relative to emerging economies, additional spending is higher in health care and roads and lower in education. Overall, in terms of additional spending, India is above the median emerging economies globally and in the middle, amongst the emerging economies in Asia.

Education

Literacy rate has steadily increased and enrolment rates for the population aged 6 to 14 years is nearly universal. Expenditure on education as a share of GDP is at par with peer countries and higher than countries with higher SDG 4 index scores; yet outcomes need improvement. It has been estimated that India could deliver superior outcomes in education by spending more efficiently and reallocating resources.

A key factor that can help keep India's spending in education in check relates to demographic dynamics: the student-age population is expected to shrink from the current 38 per cent to 32 per cent of the total population by 2030, which will reduce the pressure on educational services.

The portfolio between private and public spending in education would need to be rebalanced. In the case of peer countries with a strong sectoral record, the overwhelming share of resources for education emanates from the public sector, with only five per cent reliance on private spending. In contrast, private spending contributes 27 per cent of over-all spending in India.

Health

India's health outcomes require further improvement, especially in terms of infant mortality, life expectancy and vulnerability to out-of-pocket payments. Relative to peers, total healthcare spending is at 3.7 per cent of GDP. Overall, the study estimates that the total health care spending would have to gradually increase to deliver superior healthcare outcomes.

The country needs to expand the number of medical service providers. The number of doctors and other health personnel per 1,000 population - 0.7 and 2.9, respectively - needs to approximately double to meet the needs for vital health services and to be more closely in line with the high performers among India's peers.

The private and public resource flows to support health outcomes could be rebalanced. The country relies on private outlays – 67 per cent of total health spending, which stands in stark contrast to the strong performers among India's peer group, whose median private share of spending is 38 per cent. This rebalancing can be achieved if the government takes a leading role in carrying out the large additional expenditures needed in the sector.

Electricity

Electricity consumption per capita in India is commensurate with the level of GDP per capita. The challenge is to increase electricity capacity in line with the expected demand; as by 2030, the population is expected to grow by about 150 million and GDP per capita is expected to nearly double. The study estimates that keeping up with this demand will require annual investments, which should be accompanied by the planned shift toward renewable energy, to bring substantial environmental and climate change related advantages.

Photo courtesy of Rakesh Pulapa

India has embarked on an ambitious programme to shift its power mix to increase the share of renewable energy. According to the National Electricity Plan, renewable energy sources will increase from 23 per cent in 2019 to 44 per cent of total installed capacity in 2027. The major renewable energy sources include solar and wind, both of which will require investment in battery storage of 136 GWh. The cost per kW of the target energy mix is projected to increase, but the positive externality emanating from this would effectuate large environmental gains.

Roads

Gradually raising access to rural areas by road to 90 per cent by 2030, will require about 2.4 million additional kilometres of all-weather roads, i.e., about 220 thousand kilometres per year. To improve rural access, India needs to keep the pace of growth in rural and urban roads development observed in the past 10 years.

The private sector has emerged as a key player in the development of road infrastructure. The government's policy to increase private sector participation has proved to be a boon for the infrastructure industry, with many private players entering the business through the public-private partnership model. In addition, the National Infrastructure and Investment Fund (NIIF) was formed to facilitate international and domestic funding in infrastructure and attract equity capital from both international and domestic sources for infrastructure investments in commercially viable projects. Likewise, the latest budget for 2018-2019 highlights the use of innovative monetising structures like Toll-Operate-Transfer (TOT) and Infrastructure Investment Trusts (InvITs) to monetise public-sector assets, including roads.

Subnational, institutional and technical capacity requires augmentation to cope with road network expansion. About 90 per cent of the road budget is administered at the subnational level. Adding almost 220 thousand kilometres of roads per year represents - besides the financial constraints - a significant technical challenge of doubling the current level of construction, i.e., many more project managers, engineers, landscape planners, technicians, machine operators and workers. Central road agencies are well equipped and staffed. State and local level administrations, however, need to increase institutional and technical capacity to cope with road network expansion.

Water and sanitation

Preliminary estimates suggest that ensuring universal coverage of safe and potable water and sanitation facilities for all rural and urban households will require an aggregate of USD 106 billion over 2020-2030.

Areas for improvement in this sector include enhancing the management of tariffs - as unsystematic application of tariffs could strain the finances of local governments; improving the mapping of the existing network, which can help bring efficiency gains; and facilitating maintenance and network expansion. In addition, efforts should continue to improve wastewater treatment and application of climate resilient solutions.

Improving institutional capacities

Beyond resources, institutional and capacity constraints need to be addressed. The estimates assume that India would be able to combine different inputs efficiently to deliver across the analysed sectors. This would require important reforms. For example, in education, extending enrolment to pre-primary and tertiary levels as well as reducing class sizes would require increasing the number of qualified teachers. In health, in addition to raising the quantity and quality of inputs - for instance, health workers and facilities, it is critical to address the financial vulnerability to health care shocks, such as the recent COVID-19 pandemic. In infrastructure, raising institutional and technical capacity remains crucial, particularly in rural areas.

Potential strategies for SDG financing

A range of strategies are being explored to fill the gap between current and required spending on SDG priorities. Improving national tax systems, reducing illicit financial flows, infrastructure finance and capital market development, and Foreign Direct Investment promotion are some of the international best practices which have been successful across the world and which are presently being implemented in India.

India has embarked on an ambitious programme to shift its power mix to increase the share of renewable energy.

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CHALLENGES AND WAY FORWARD

9

INDIA HAS IDENTIFIED THE KEY CHALLENGES IN THE WAY OF FULLY ACHIEVING THE SDGs AND HAS CHARTED THE WAY FORWARD TO ADDRESS THE ROADBLOCKS AND ACHIEVE THE GOALS AND TARGETS ON TIME.

Since Agenda 2030 came into effect in 2016, India has adopted a variety of institutional, policy-level, programme-oriented, and monitoring initiatives to drive the SDGs at the national and local levels. As a result of these focused efforts, assignment of responsibility and leadership, and review mechanisms have been set up at various levels. The National Development Agenda has been designed in alignment with the SDGs, priority areas and enablers have been identified and outcome-based actions have been undertaken, and monitoring systems and tools have been set up at the national level which are vigorously pursued at the local level. These have placed India at the forefront of nations in SDG localisation.

While India is proud of its achievements in the past five years in adopting, implementing, and monitoring the Agenda 2030, there is still a long way to go. India's size and diversity presupposes unique challenges in any development initiative and the same is true for SDGs as well. The country has identified the key challenges in the way of fully implementing the SDGs and has charted the way forward to address the roadblocks and achieve the goals and targets on time. The four crucial areas of action identified are – improvement of the statistical system; monitoring at the local level; capacity building of all stakeholders; and SDG financing.

Improvement of the Statistical System

What gets measured gets done – this cannot be truer in the case of SDGs. The realisation of the 2030 Agenda calls for state-of-the-art reporting and monitoring tools to measure progress under the framework and enable course-correction. Twentieth century approach and solutions cannot effectively address twenty-first century challenges. As SDGs is a time-bound framework, periodic monitoring of progress, covering all aspects of the nationally adopted SDG framework is critical. This calls for a major upgrade of the statistical systems, both at the national and subnational levels.

What gets measured gets done - this cannot be truer in the case of SDGs. Institution and strengthening of SDG monitoring frameworks and statistical systems, both at the national and sub-national levels is, thus, imperative to the 2030 Agenda.

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A platform to institution-
alise multi-stakeholder
engagement

Training and capacity
building for stakeholders at
various levels

All 17 SDGs,
more targets
and indicators

1

**Multi-stakeholder
engagement**

6

**Capacity
building**

2

**SDG India
Index 3.0**

**INDIA
VNR 2020 -
THE WAY
FORWARD**

**Improve
statistical
systems**

**SIF, DIF &
dashboards
in all States**

5

**Identifying
means of
financing**

3

4

Data collection for additional
indicators, improved frequency
and data disaggregation

States to monitor SDG
progress at State
and District levels

To follow up on the
SDG costing exercise by
determining the means

WHAT GETS MEASURED GETS DONE

The National Indicator Framework (NIF), and the SDG India Index and Dashboard which are already in place, is a commendable and vital first step in SDG monitoring. The next steps in upgrading the NIF are as follows:

○ **Addition of indicators for targets which are presently not covered:** The NIF currently does not include indicators for 36 out of the 169 SDG targets. This is due to the fact that the statistical system, historically, has not been collecting data which correspond to some of the new challenges put forward by the SDG framework, e.g., data on responsible consumption and production, and partnerships. For some indicators, a suitable methodology does not exist. To ensure that the NIF is a comprehensive tool to monitor the whole of SDGs, the missing indicators will be identified or designed, following a consultative process, and added to the NIF.

○ **Improving the frequency of data collection:** It is strenuous to collect data on a wide array of themes across a large country such as India, in short intervals. Consequently, SDG reporting so far had to depend on data sources such as the National Family Health Survey (NFHS), which used to take place once in 8-10 years, though its periodicity has reduced to four years now. Considering the timelines of SDGs and the need to monitor progress across the board periodically, the surveys which feed data into the SDG monitoring systems must happen at shorter intervals. As a step in this direction, the fifth round of NFHS is being conducted in 2019-20, within four years of the fourth round. Considering that the third and fourth round of the survey were separated by ten years, this is a significant step in the right direction. Following this approach, the other surveys, on which SDG monitoring depends for data inputs, shall be conducted at shorter intervals.

○ **Data disaggregation:** While the NIF is a close-to-comprehensive set of indicators which reports on national-level data, a sizable number of indicators do not present data at the State level. This is a challenge to the SDG localisation model adopted by India. In the spirit of cooperative and competitive federalism, NITI Aayog promotes healthy competition among the States in SDGs, primarily through the SDG India Index and Dashboard, for which data on indicators at the State-level is mandatory, and also desirable at the district-level for greater granularity. It is also essential to collect and present data disaggregated by gender, social category, income groups, among others for sharper SDG monitoring which will lead to focused policy advice.

○ **Data quality:** With data in large quantity emanating from a variety of sources on a myriad of themes, it is imperative to focus on data quality. India already uses third-party independent surveys for data validation of some of its flagship schemes; the same approach shall be used for SDG data as well. Another strategy for improved data quality is the usage of modern tools and technologies of data collection such as tablets, mobile phones, and geospatial data. This approach will get rid of pen and paper surveys which are more time and resource consuming and makes data cross-checking a cumbersome task. Some States have already started employing these, and MoSPI too has started using these in select surveys. The next step in this area is to scale it to the national level. A third strategy is to consider making use of citizen-generated data. India already has reputed citizen-related data collection and reporting initiatives, such as the Annual Status of Education Report (ASER) by *Pratham*, a non-profit organisation. Issues around methodology and sampling have to be addressed before mainstreaming citizen-generated data and using them as inputs in the SDG monitoring system.

The realisation of the 2030 Agenda calls for state-of-the-art reporting and monitoring tools to measure progress under the framework and enable course-correction. Twentieth century approach and solutions cannot effectively address twenty-first century challenges.

Monitoring at the Local Level: State and District Indicator Frameworks

SDG localisation is the principal approach to achieve the 2030 Agenda in a time-bound manner in India. In this regard, it is essential that the States and UTs set up their own SDG monitoring systems, complementing the monitoring efforts by NITI Aayog at the national level, supported by MoSPI and the line ministries. While a State Indicator Framework serves as the foundation of the State-level SDG monitoring system, with indicators relevant to the State, the District Indicator Framework (DIF) for each State facilitates competition among the districts. This also ensures that schemes and other initiatives for which the States are responsible, are adequately monitored under the SDG framework. This will further strengthen the ownership of the SDGs among the States. NITI Aayog at the national level will continue to monitor the performance of the States on national SDG priorities and promote competition among them.

States have already set up their own SIFs, a few have developed DIFs as well. A key challenge has been the development of SIFs and DIFs for every State and UT. In the spirit of leaving no one behind, a few leading States driving the SDG agenda is not adequate; the country requires every State and UT to drive the SDGs and put in place robust monitoring systems with the SIFs and DIFs as the foundation. To complement these frameworks, quality citizen-generated datasets can be put together to promulgate a 'Leave No One Behind Indicator Framework'.

It is an interesting idea to take SDGs to the *Gram Panchayat* (GP), the lowest level of the local self-government system in India. The guidelines for Gram Panchayat Development Plan (GPDP) have been revised, integrating the SDGs. The resources available at the GP level need to be channelled appropriately to realise its mandate of driving local-level planning and development, in alignment with the SDG framework.

SDG monitoring at the Urban Local Body (ULB) level is an exciting prospective. The national policy to develop 100 Smart Cities in the country with focus on sustainability and ease of living is an opportunity to create sustainable urban spaces. In this environment, SDG monitoring of ULBs shall ensure that India's new state-of-the-art cities embed the principles of sustainability and inclusion.

Online dashboards have been effective in filtering and playing back key messages from complex and large frameworks in a user-friendly manner. For a large country such as India, with 37 subnational entities, to monitor a comprehensive and large framework such as the SDGs, with 17 goals and 169 targets, a dashboard is instrumental. NITI Aayog has developed an online dashboard with interactive visualisations for the SDG India Index. MoSPI has put in place a dashboard for the NIF. To take SDG localisation to the next logical level, all States and UTs will develop their own SDG monitoring dashboards, where the progress under their respective SIF and DIF can be easily visualised. Such a tool is beneficial not only to the administrative leadership for decision making, it is equally useful for students, researchers, think tanks, and the general public to track SDG progress at the local level. As a rule, all such dashboards shall be placed in the public domain. In this manner, India aims to raise its bar from frequent and periodic monitoring to real-time monitoring by anyone.

Capacity Building of All Stakeholders

Capacity building is an indispensable component of any development framework. However, in the case of SDGs, this requires more attention, owing to two major reasons. First, it is a large framework spanning across many development areas, involving the government, civil society, private sector, and citizens, at both local and national levels. Everyone has an important role to play in the journey towards achieving the 2030 Agenda. It is crucial to educate every stakeholder of their unique role and responsibility. Second, the SDGs are not merely MDGs version 2.0. 'Sustainable' implies a paradigm shift in the concept of development envisioned for the future under the SDG framework. The principles of sustainability are embedded in all the Goals, with targets set, to achieve them in their true sense. All stakeholders must be made aware of these Goals and targets and exposed to the nuances of achieving them. These two factors make it necessary to undertake extensive capacity building initiatives for the stakeholders at various levels. The preparations of training modules for stakeholders at different levels is underway.

CHALLENGES AND WAY FORWARD

SDG Financing

The ambitious goals and targets set under the SDG framework must be supported with adequate financial resources. NITI Aayog has partnered with the IMF to undertake a study on costing for key SDGs for India. The study has made preliminary estimates that India needs to increase its SDG spending by an additional 6.2 per cent of its GDP until 2030. The ways and means for this additional financing needs to be identified. At the same time, it is crucial to make sure that the budget allocations align with SDG priorities.

Follow up after VNR in 2020

India's VNR report is drafted to present a review of its SDG initiatives in the past five years, and to act as a guiding document for years to come, especially as the world moves into the 'Decade of Action'. In other words, the report is about what has happened so far, and what must happen in the coming years to meet India's commitments to the Agenda 2030. The highlights of the report, and the report itself, will be shared with the States and UTs, and other partners to develop consensus on the follow-up actions at various levels.

While the progress achieved in adopting, implementing, and monitoring SDGs at both the national and local levels in the last five years has been commendable, there are several milestones yet to be reached in the journey to achieving the targets. The progress of the country, according to its SDG India Index, from 57 in 2018 to 60 in 2019, on a scale of 0 to 100, is a testament to this achievement. The country is conscious of the present and future challenges and also well positioned to tackle them, as it accelerates its pace in its journey towards achieving the Goals and targets, well on time.

India is moving forward, faster than ever, in its development journey. This Report presents the gist of the recent milestones and targets ahead. The principles of sustainability have moved from the periphery of India's approach to its core.

India's new development agenda is inspired by the principles and targets of the SDG framework. Taking cognisance of the consensus that the global success of the SDGs it closely tied to India's achievements in meeting the targets, the country has put in place a multi-stakeholder engagement mechanism along with a robust monitoring and reporting system at the national and sub-national levels. This Voluntary National Review Report is an additional reporting mechanism to periodically review and report progress at the international level. On the occasion of this second VNR, India renews its commitment to the principles of sustainability and targets under the SDG framework. India has joined hands with its fellow nations in this endeavour. Together with its partners, government and non-government, regional and global, India will continue to place the prosperous and sustainable future of people and planet at the core of its development vision and action.

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