

The New India-Pre and Post Modi

In May, 2014, the Narendra Modi government came to power with a historic mandate and promising good days.

India has a way of confounding expectations. Analysts agreed that, months after Prime Minister Narendra Modi's ill-fated decision to withdraw 86 percent of currency from circulation overnight, growth would bounce back. Economists polled by Bloomberg expected growth in the April to June quarter to be 6.5 percent; other estimates were even higher. So when the government's official statisticians released the real number last week -- 5.7 percent over the equivalent quarter of the previous year -- there was general surprise, even shock.

From the outside, it may seem puzzling that Indian growth is stuttering, given the benign macroeconomic environment: easy money flowing in, global growth reviving, solid government revenues and deep foreign exchange reserves, oil that's still not too pricey, and decent monsoons that have kept food prices and thus overall inflation low. This is a very different scenario than India faced the last time growth began to stutter, when the government had to deal with high oil prices sending inflation, fuel subsidies and the import bill through the roof, not to mention 2013's so-called taper tantrum.

There are four Pivotal aspects of Indian infrastructure:

- Urbanisation
- Infrastructure
- Economic Growth
- Poverty Line

We are going to have discussion on each of the aspects.

Urbanisation

What is urbanization and how India is dealing with it: Urbanization in India began to accelerate after independence, due to the country's adoption of a mixed economy, which gave rise to the development of the private sector. Urbanisation is taking place at a faster rate in India. Population residing in urban areas in India, according to 1901 census, was 11.4%. This count increased to 28.53% according to 2001 census, and crossing 30% as per 2011 census, standing at 31.16%. According to a survey by UN State of the World Population report in 2007, by 2030, 40.76% of country's population is expected to reside in urban areas. As per World Bank, India, along with China, Indonesia, Nigeria, and the United States, will lead the world's urban population surge by 2050. According to McKinsey India's urban population will grow from 340 million in 2008 to 590 million in 2030.

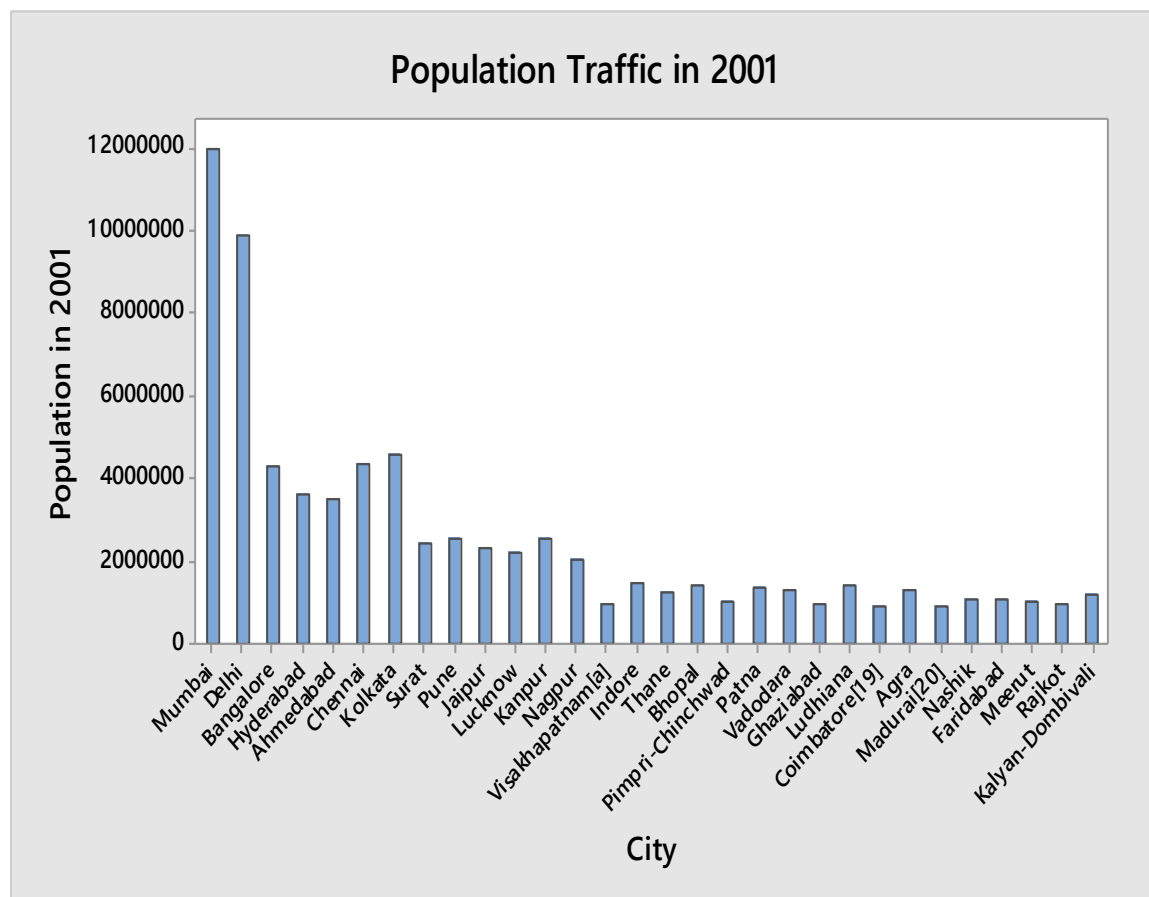


Figure 1

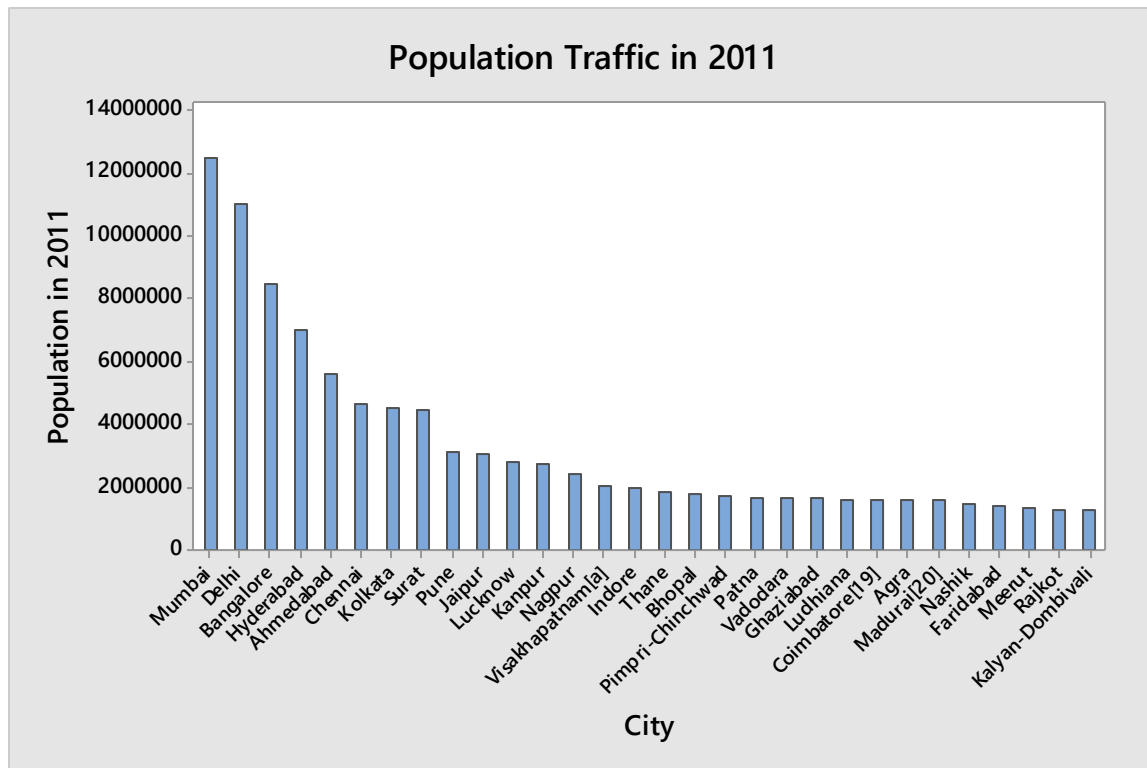


Figure 2

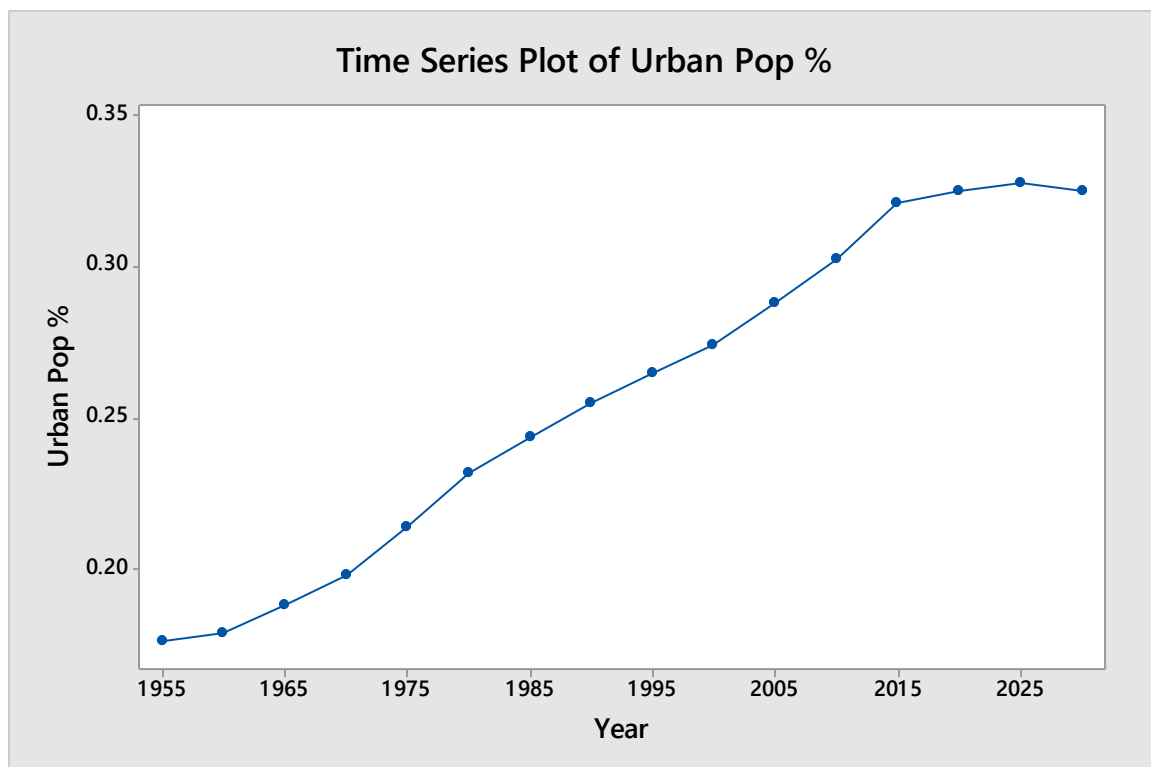


Figure 3

After analyzing the time series data of urban population of India starting from 1955 to 2025; it is clear the population percentage (calculated as total urban population/total population) has increased rapidly YOY. (year over year). Data shows us during the years 2005-2015 it reached a certain percentage proportion and growth became slower. We had data till Year 2018 and thereby we predicted for the year 2025.

Economic growth

The considerable parameter for Economic growth is GDP and GVA. Real GDP or Gross Domestic Product (GDP) at constant (2011-12) prices in the year 2016-17 is likely to attain a level of 121.65 lakh crore INR, with growth rate of 7.1 percent over the GDP for the year 2015-16 of 113.58 lakh crore INR. Nominal GDP or GDP at current prices in the year 2016-17 is projected at Rs. 152.51 lakh crore, with growth rate of 11.5 percent against Rs. 136.75 lakh crore for 2015-16. At constant prices GVA (Gross Value Added), GNI (Gross National Income) and NNI (Net National Income) of India is estimated at 111.68 lakh crore, 120.28 lakh crore, and 106.67 lakh crore, respectively. At current prices, these figures are 137.51 lakh crore, 150.83 lakh crore, and 134.86 lakh crore.

According to International Monetary Fund World Economic Outlook (October-2016), GDP (nominal) of India in 2016 at current prices is \$2,251 billion. India contributes 2.99% of total world's GDP in exchange rate basis. India shares 17.5 percent of the total world population and 2.4 percent of the world surface area. India is now 7th largest economy of the world. India is behind by only \$237 and \$399 bill. From 6th and 5th ranked France and United Kingdom, respectively. It is projected that India will be 6th largest economy of world in 2019 by overtaking France and will become 5th largest in 2019 by overtaking United Kingdom with GDP (Nominal) of \$3,297.

India is at 3rd position after China and Japan among Asian Countries. India shares 8.50% of total Asia's GDP (nominal). On the basis of PPP, economy of India stands at 8,720.5 billion international dollar, 3rd largest economy of the world after United States and China. India contributes 7.32% of total world's gdp (ppp). India shares 15.98% of total Asia's GDP (PPP). Gross domestic product (GDP) of India at purchasing power parity (PPP) is 3.87 times more than GDP at nominal.

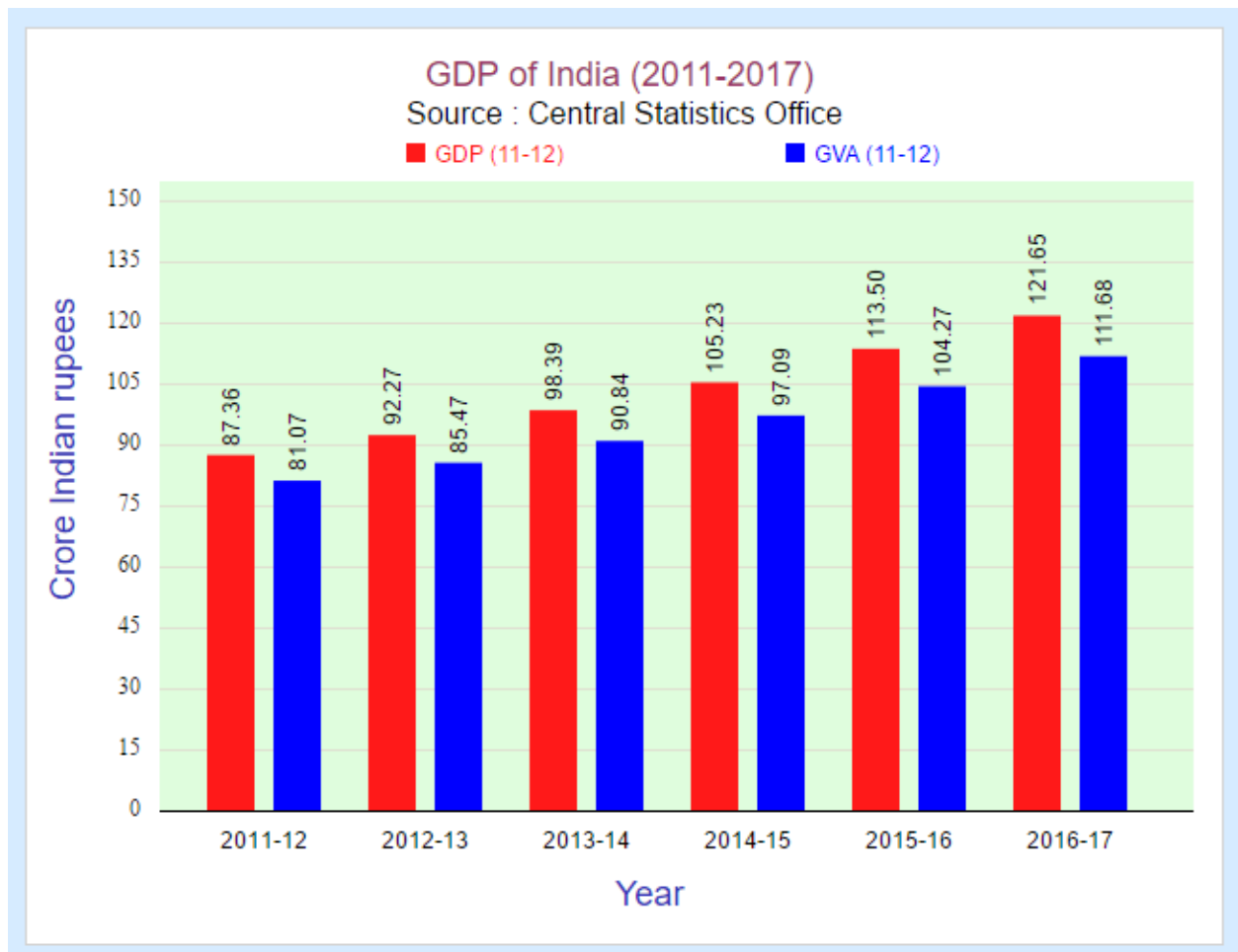


Figure 1

Analysing data of GDP of India YOY from 2011 to 2017 figure 1 shows rise in GDP and GVA. we consider our benchmark year 2014 and hereby we can see growth in GDP is drastically risen from 2014 to 2017.

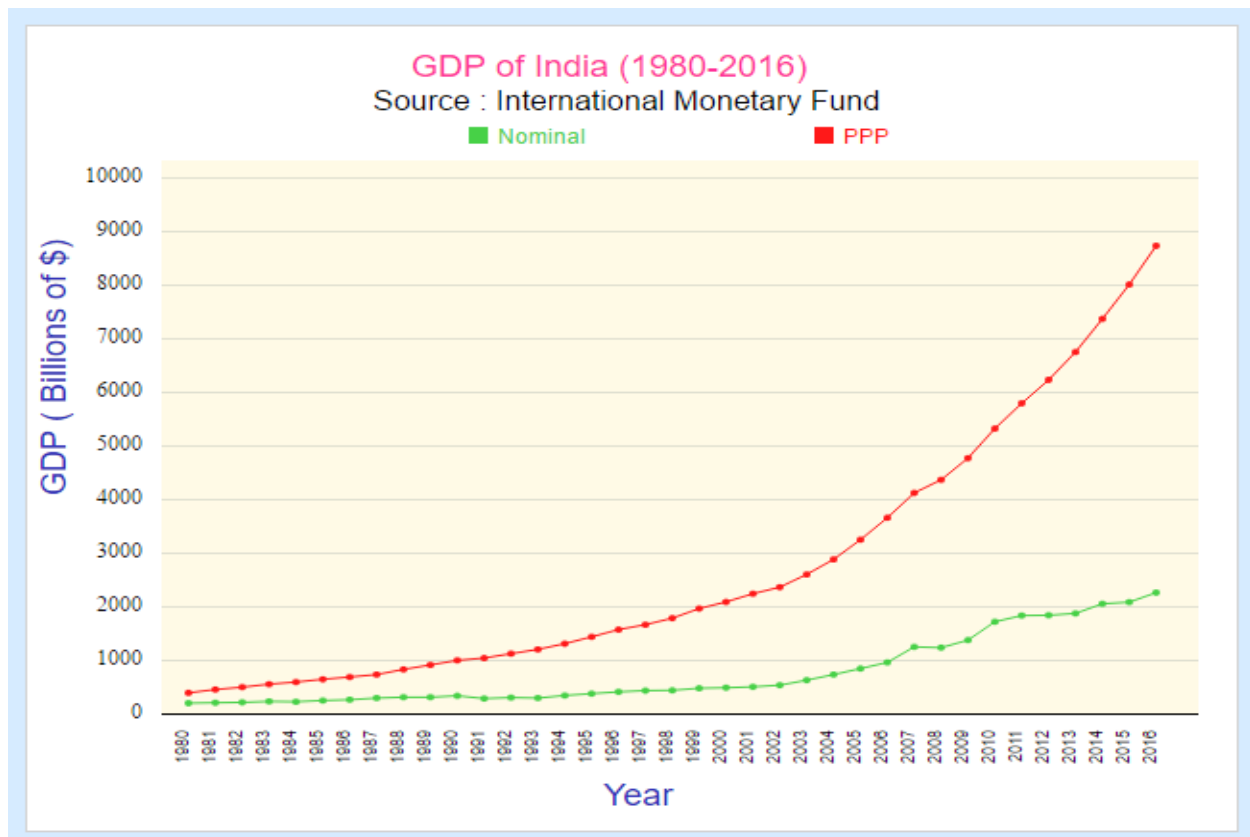


Figure 2

A basic understanding of Nominal GDP and PPP: Nominal GDP estimates are commonly used to determine the economic performance of a whole country or region, and to make international comparisons. It is the original concept of GDP. In Nominal method, market exchange rates are used for conversion. It does not take into account differences in the cost of living in different countries. Fluctuations in the exchange rates of the country's currency may change a country's ranking from one year to the next, even though they often make little or no difference to the standard of living of its population.

PPP(Purchasing Power Parity) basis arguably more useful when comparing differences in living standards between nations. A haircut in New York is more expensive than in Lima; the price of a taxi ride of the same distance is higher in Paris than in Tunis; and a ticket to a cricket game costs more in London than in Lahore. PPP is an exchange rate at which the currency of one country is converted into that of the second country in order to purchase the same volume of goods and services in both countries. If a hamburger is selling in London for £2 and in New York for \$4, this would imply a PPP exchange rate of 1 pound to 2 U.S. dollars. PPP exchange rates are relatively stable over time. Drawbacks of PPP is that PPP is harder to measure than nominal.

According to figure 2 PPP has risen remarkably high from year 2008-2016. PPP curve becomes steeper from 2014-2016.

Real GDP growth or Gross Domestic Product (GDP) growth of India at constant (2011-12) prices in the year 2016-17 is estimated at 7.11 percent as compared to the growth rate of 7.93 percent in 2015-16. Quarterly GDP growth rates are : Q1 (7.2%), Q2 (7.4%), Q3 (7.0%).

GVA growth rates of Agriculture & allied, Industry, and Services sector are 4.37%, 5.77%, and 7.87%, respectively. Manufacturing growth is at 7.7%. India has registered highest growth of 11.2% in 'Public Administration, defence and other services' sector and lowest 1.3% in 'Mining & quarrying' sector.

At current prices, GDP growth rates for year 2016-17 is 11.52%. Growth for Q1, Q2, Q3 are 10.8%, 11.8%, 10.6%, respectively. GVA growth rates of Agriculture & allied, Industry, and Services sector are 9.64%, 8.32%, and 11.87%, respectively.

At constant prices GVA (Gross Value Added), GNI (Gross National Income), NNI (Net National Income) growth of India is estimated at 6.67%, 7.17% and 7.24%, respectively. At current prices these figures are 10.43%, 11.60% and 11.61%.

Data from 1950-51 to 2011-12 is from 2004-05 series and 2011-12 to 2014-15 is from 2011-12 series.

According to IMF World Economic Outlook (October-2016), GDP growth rate of India in 2016 is 7.6% and India is 4th fastest growing nation of the world. Average growth rate from 1980 to 2016 stands at 6.32%, reaching an all time high of 10.26% in 2010 and a record low of 1.06% in the 1991.

In previous methodology, Average growth rate from 1951 to 2014 stands at 4.96%, reaching an all time high of 10.16% in 1988-89 and a record low of -5.2% in the 1979-80. In 4 years, Growth was negative

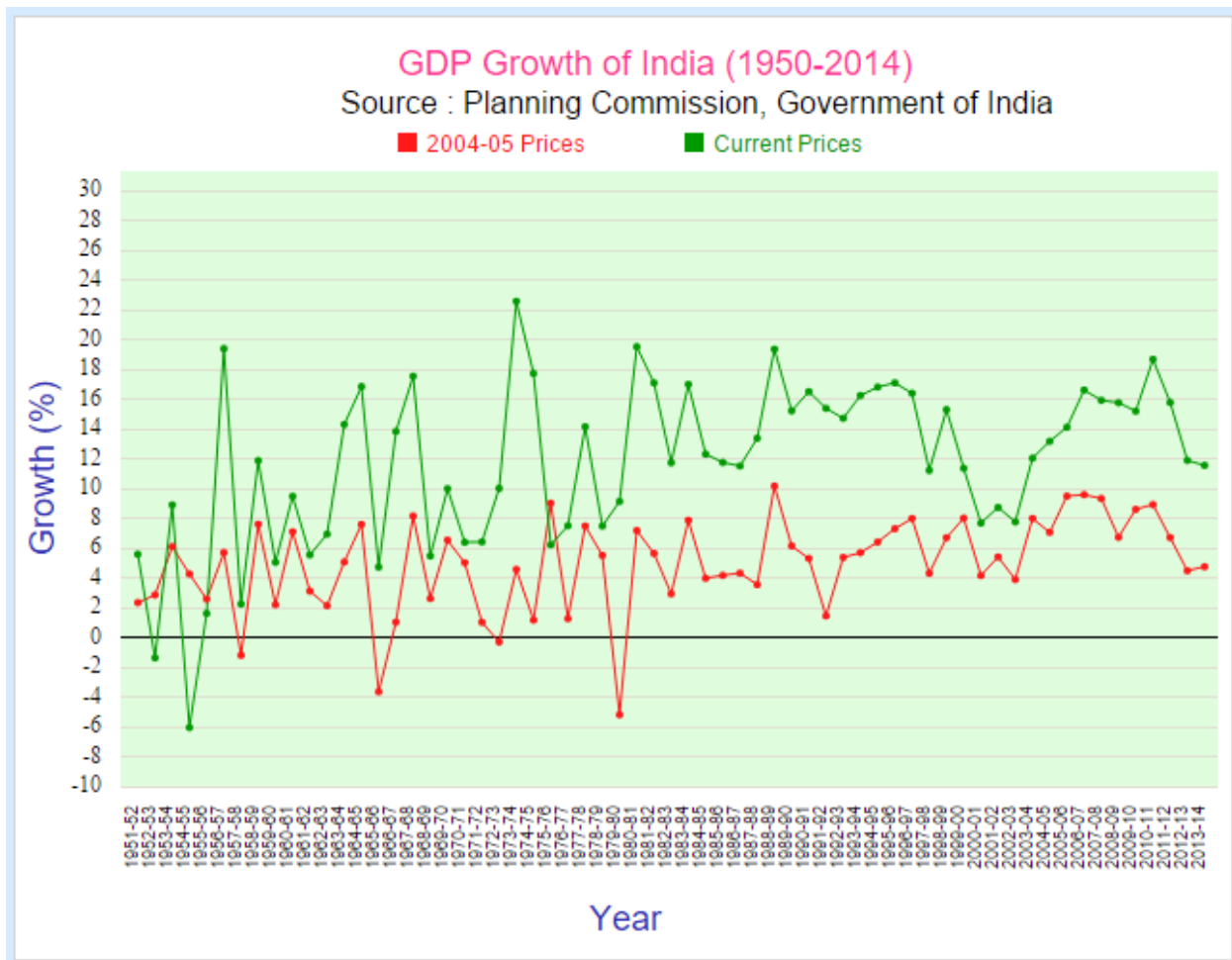


Figure 3

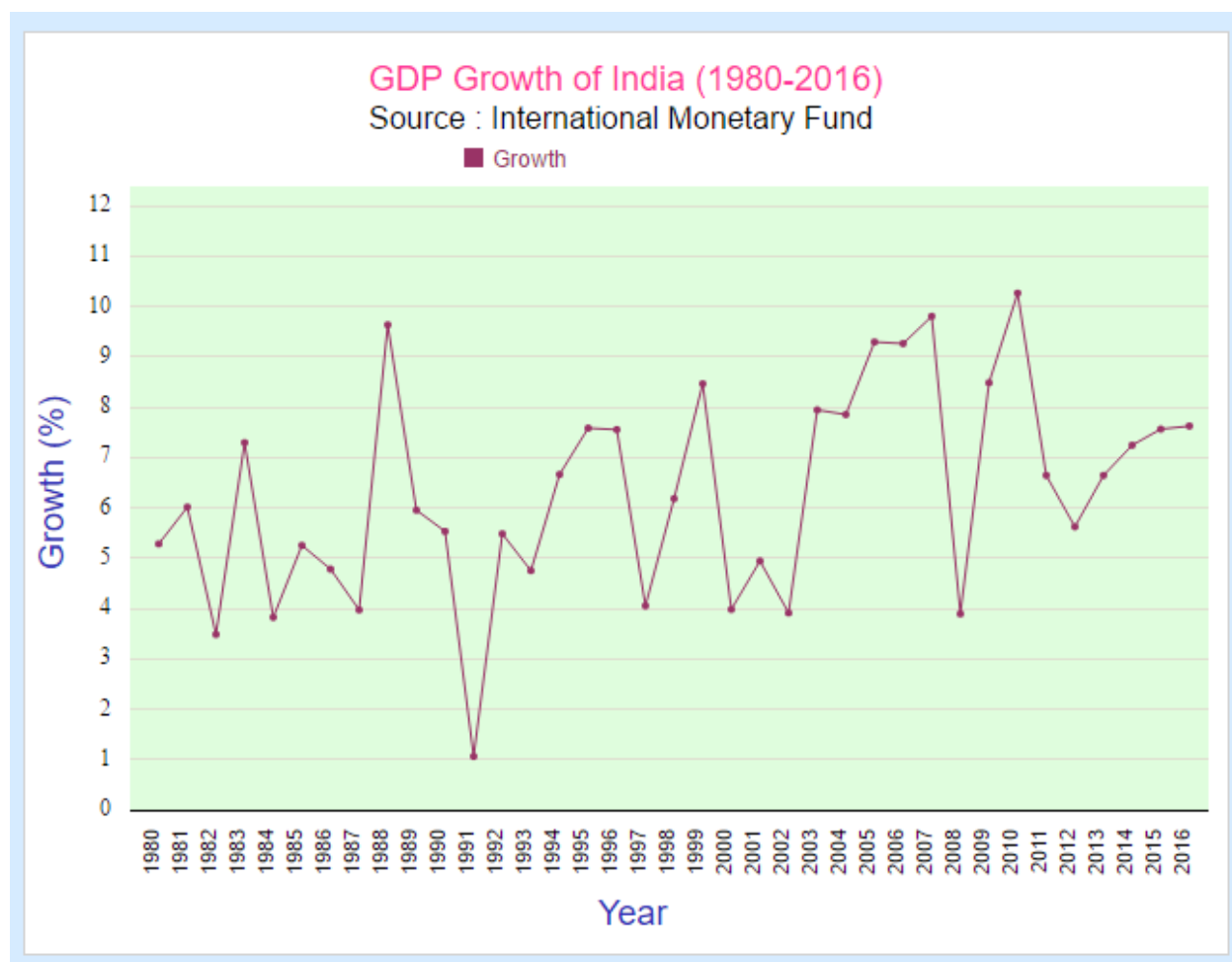


Figure 4

The per capita net national income (NNI) of India at current prices during 2014-15 is estimated at 87,748 indian rupees as compared to 80,388 INR for the year 2013-14, showing a rise of 9.2 percent. The per capita income in real terms (at 2011 -12 prices) during 2014-15 is estimated to have attained a level of Rs. 74,104 showing a rise of 5.9 per cent as compared to Rs. 69,959 during 2013-14.

As of 2013-14, GDP per capita at current and 2011-12 prices are 98,983 and 84,009 INR, respectively.

In earlier estimates released on 9th February 2015, per capita income of country at constant and current prices was 74,193 and 88,533 INR, respectively.

The Ministry of Statistics & Programme Implementation has released the new series of national accounts, revising the base year from 2004-05 to 2011-12. NNI for the base year 2011-12 is estimated at 64,316 Indian rupees. Data from 1950-51 to 2011-12 is from 2004-05 series and 2011-12 to 2014-15 is from 2011-12 series.

According to International Monetary Fund World Economic Outlook (April-2015), GDP (nominal) per capita of India in 2014 at current prices is \$1,627 compare to \$1,508 in 2013. India is the ninth largest economy of the world. But, due to its huge population of more than 1.26 billion, India is at 145th position in term of GDP (nominal) per capita. Per capita income of India is 6.69 times lower than world's average around of \$10,880. This figure is 68.66 times lower than richest country of world and 6.5 times greater than poorest country of the world. India is at 34th position in the list of Asian countries.

On the basis of PPP, GDP per capita of India stands at 5,855 International Dollor in 2014. GDP (ppp) per capita of world is 15,189 Int. \$. World rank of india is 125 and Asian rank is 30.

By 2017, Rank of India was 141th and 124th with per capita income of about \$1,808 and \$6,266 in nominal and ppp method, respectively.

Infrastructure

Infrastructure output in India increased 4 percent year-on-year in December of 2017, following an upwardly revised 7.4 percent rise in the previous month. The production grew at a slower pace for: refinery products (6.6 percent compared to 8.2 percent), electricity (3.3 percent compared to 3.9 percent), steel (2.6 percent compared to 17.1 percent) and natural gas (1 percent compared to 2.4 percent). Also, there was a decline in the output of: coal (-0.1 percent compared to 0 percent) and crude oil (-2.1 percent compared to 0.2 percent). In contrast, cement production went up 19.6 percent (18.4 percent in November) and fertilizers jumped 3 percent (0.3 percent in November). From April to December 2017, infrastructure output went up 4 percent compared with the same period last fiscal year. Construction Output in India averaged 4.76 percent from 2005 until 2017, reaching an all time high of 11.66 percent in January of 2010 and a record low of -1 percent in October of 2013.

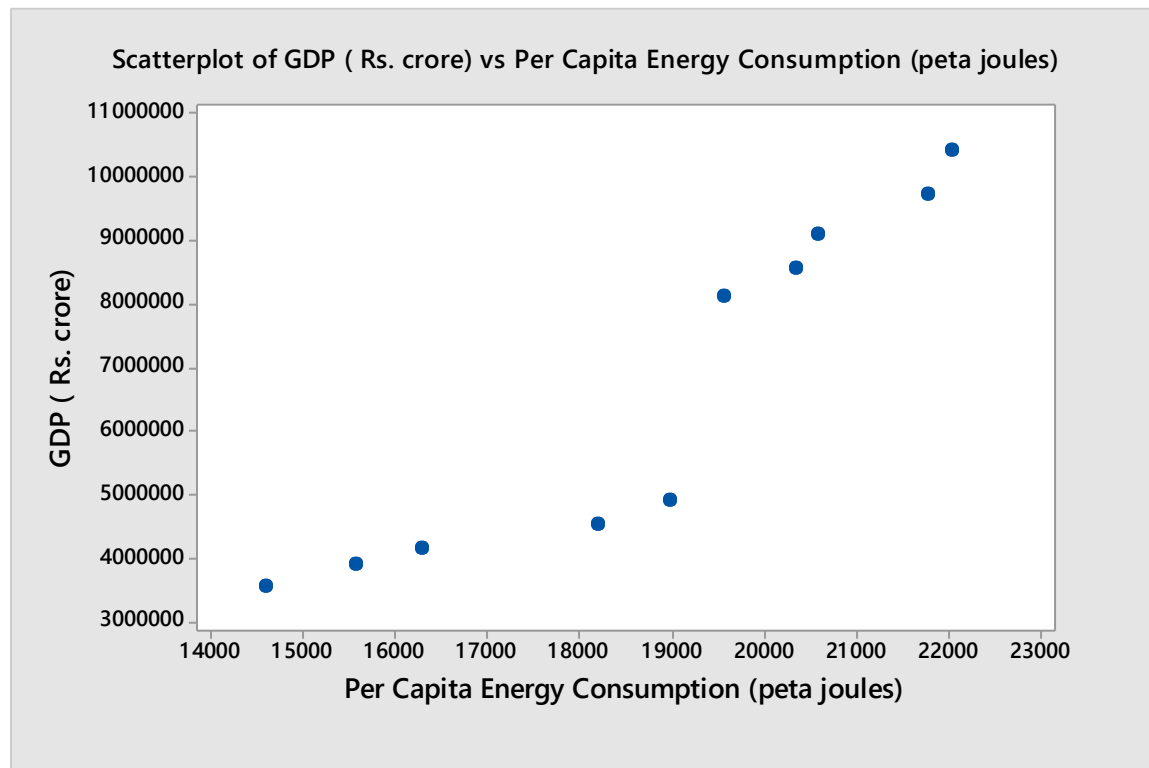


Figure 1

Figure 1 shows positive association between Per capita energy Consumption and Gdp of India.

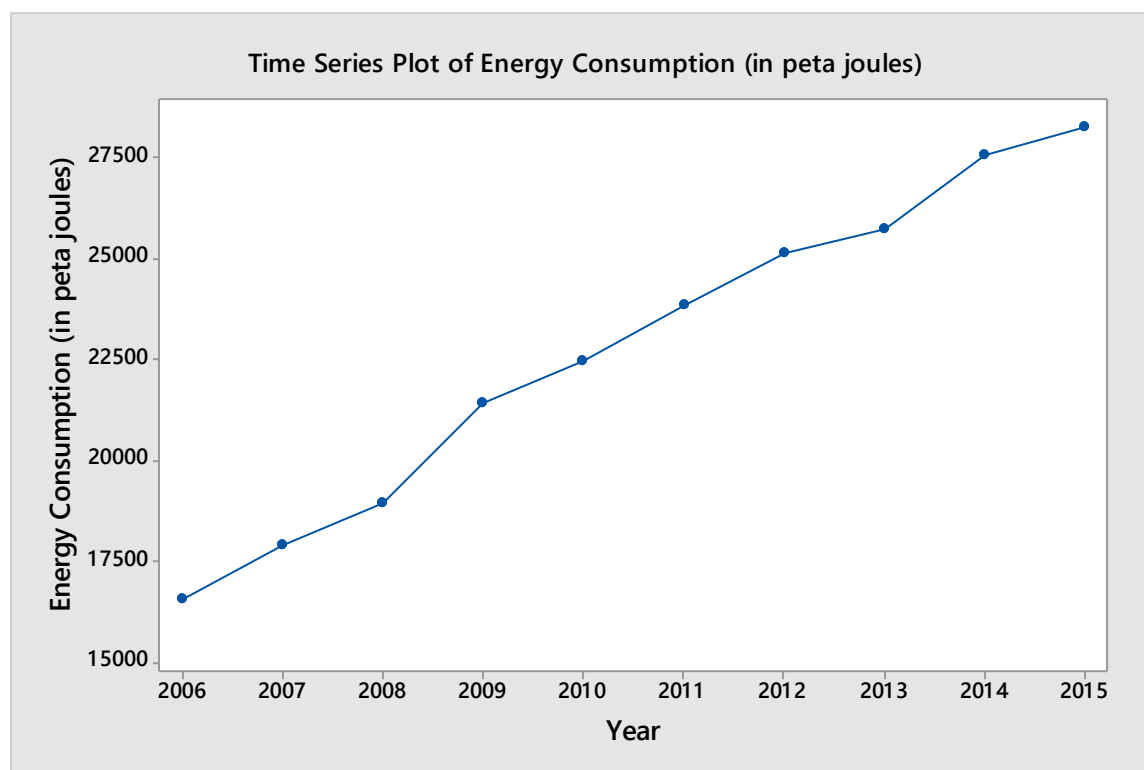


Figure 2

Figure 2 shows remarkable growth of energy consumption YOY. The difference between energy consumption of the year 2010 and 2015 is significantly high. Whereas energy consumption of the year 2010 is 22,500 peta joules, it has risen to 27,500 peta joules in year 2015.

Figure 3 portrays increase in per capita energy consumption signifies infrastructural growth in India.

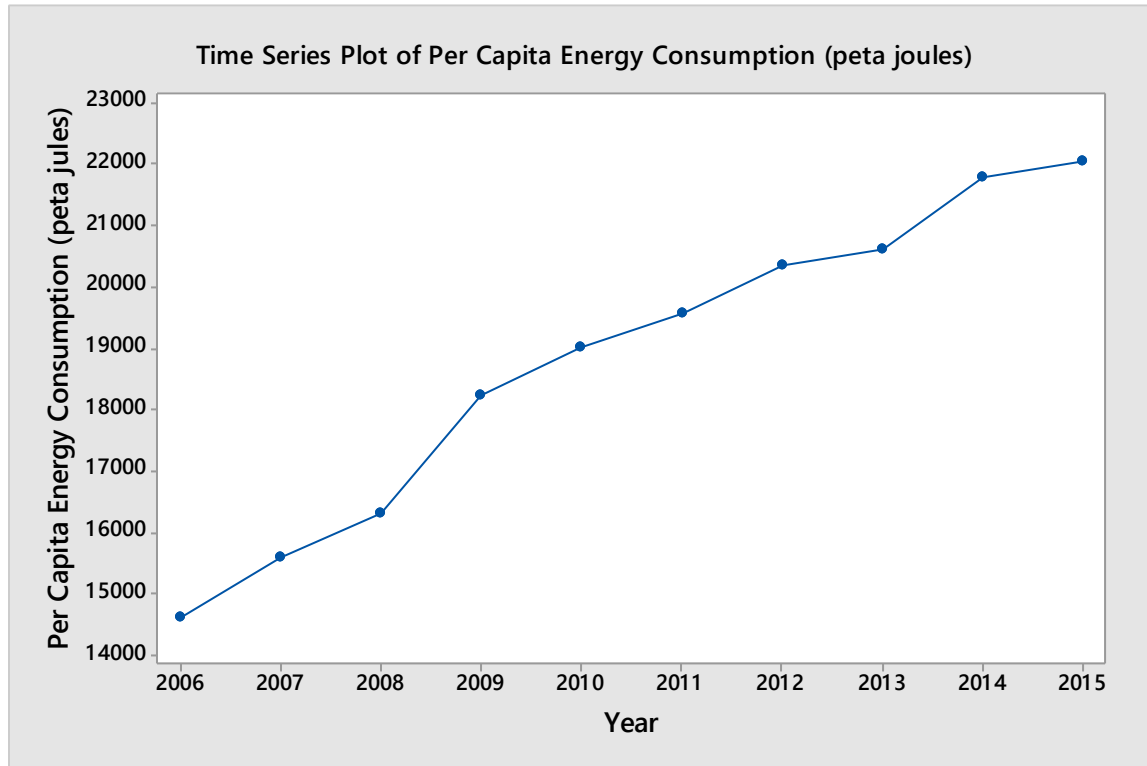


Figure 3

The Planning Commission of India has planned extensive expansion in the roads and highways, ports, civil aviation and airports, and power infrastructure segments – all of which provide substantial opportunities for E&C companies. Roads and highways India's roads are already congested, and getting more so. Annual growth is projected at over 12% for passenger traffic and over 15% for cargo traffic. The Indian Government estimates around US\$90 billion plus investment is required over FY07-FY12 to improve the country's road infrastructure. Plans announced by the Government to increase investments in road infrastructure would increase funds from around US\$15 billion per year to over US\$23 billion in 2011-12 . The quantum of

funds invested as part of these programmes will significantly exceed that invested in recent history. Such programmes would be funded via a mix of public and private initiatives . The Indian Government, via the National Highway Development Program (NHDP), is planning more than 200 projects in NHDP Phase III and V to be bid out, representing around 13,000km of roads. The average project size is expected to US\$150 million-US\$200 million. Larger projects are likely to reach the US\$700 millionUS\$800 million range. About 53 projects with aggregate length of 3000km and an estimated cost of around US\$8 billion are already at the pre-qualification stage. The procurement process favours players with good experience and sound financial strength. The opportunities do not stop there. More than 10 states are also actively planning the development of their highways. While the average size of these projects is smaller than the NHDP projects, most will still be substantial, in the US\$100 millionUS\$125 million range. All told, more than 4,500 km of state highways are likely to be awarded by the end of 2010.

Poverty

Poverty is a significant issue in India, despite having one of the fastest-growing economies in the world, clocked at a growth rate of 7.6% in 2015, and a sizable consumer economy. The World Bank reviewed and proposed revisions in May 2014, to its poverty calculation methodology and purchasing power parity basis for measuring poverty worldwide, including India. According to this revised methodology, the world had 872.3 million people below the new poverty line, of which 179.6 million people lived in India. In other words, India with 17.5% of total world's population, had 20.6% share of world's poorest in 2011. As of 2014, 58% of the total population were living on less than \$3.10 per day. According to the *Modified Mixed Reference Period (MMRP)* concept proposed by World Bank in 2015, India's poverty rate for period 2011-12 stood at 12.4% of the total population, or about 172 million people; taking the revised poverty line as \$1.90.

The different definitions and different underlying small sample surveys used to determine poverty in India, have resulted in widely different estimates of poverty from 1950s to 2010s. In 2012, the Indian government stated 22% of its population is below its official poverty limit.^[9] The World Bank, in 2011 based on 2005's PPPs International Comparison Program,^[10] estimated 23.6% of Indian population, or about 276 million people, lived below \$1.25 per day on purchasing power parity. According to United Nation's Millennium Development Goals (MDG) programme 270 millions or 21.9% people out of 1.2 billion of Indians lived below poverty line of \$1.25 in 2011-2012.

From late 19th century through early 20th century, under British colonial rule, poverty in India intensified, peaking in the 1920s. Famines and diseases killed millions each time. After India gained its independence in 1947, mass deaths from famines were prevented. Rapid economic growth since 1991, has led to sharp reductions in extreme poverties in India.^{[17][18]} However, those above poverty line live a fragile economic life.

As per the methodology of the Suresh Tendulkar Committee report, that the population below the poverty line in India in 2009-2010 was 354 million (29.6% of the population) and that in 2011-2012 was 269 million (21.9% of the population). The Rangarajan Committee said in 2014 that the population below the poverty line in 2009-2010 was 454 million (38.2% of the population) and that in 2011-2012 was 363 million (29.5% of the population). Deutsche Bank Research estimated that there are nearly 300 million people who are middle class. If former trends continue, India's share of world GDP will significantly increase from 7.3% in 2016 to 8.5% by 2020. In 2015, around 170 million people, or 12.4%, lived in poverty (defined as \$1.90 (Rs 123.5)), a reduction from 29.8% in 2009.

The Asian Development Bank estimates India's population to be at 1.28 billion with an average growth rate, from 2010-2015, at 1.3%. In 2014, 49.9% of the population aged 15 years and above were employed. However, there are still 21.9% of the population who live below the national poverty line. The World Poverty Clock shows real-time poverty trends in India, which are based on the latest data, of the World Bank, among others.

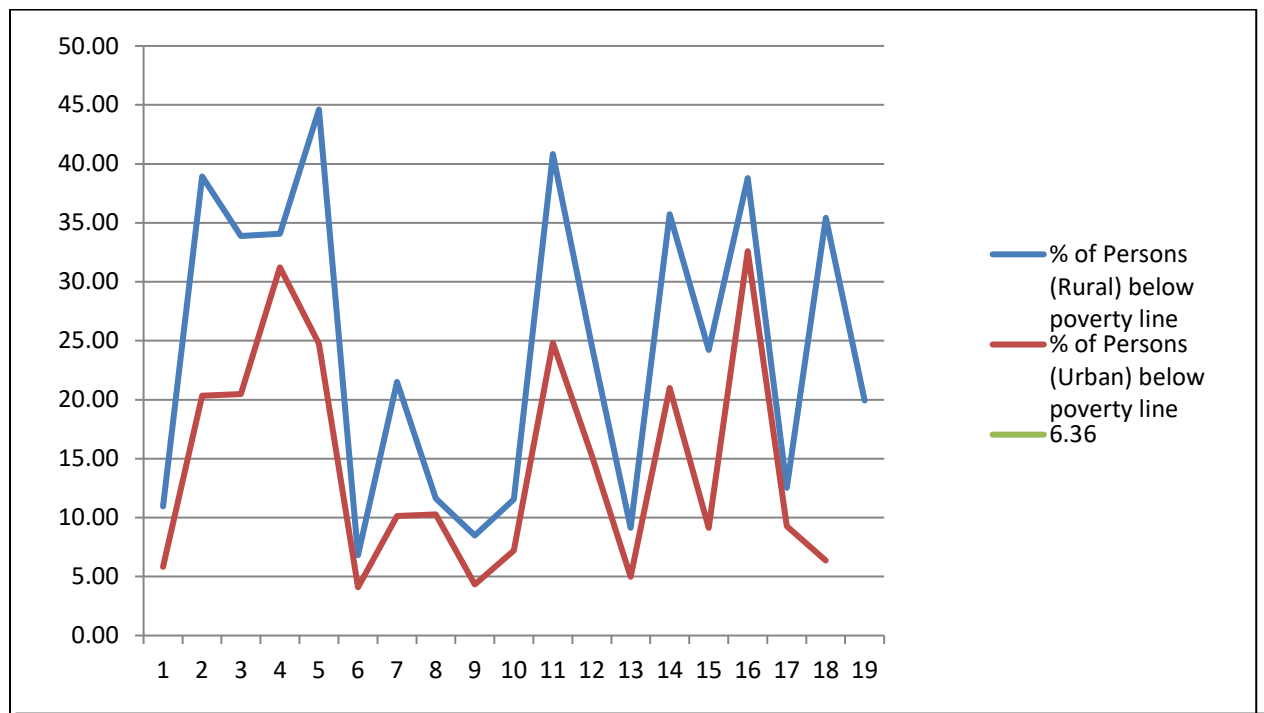


Figure 1

The changes in trend in data is same in percentage of population BPL in Rural and Urban. But percentage of people in urban areas is consistently less than percentage of people BPL in rural areas.

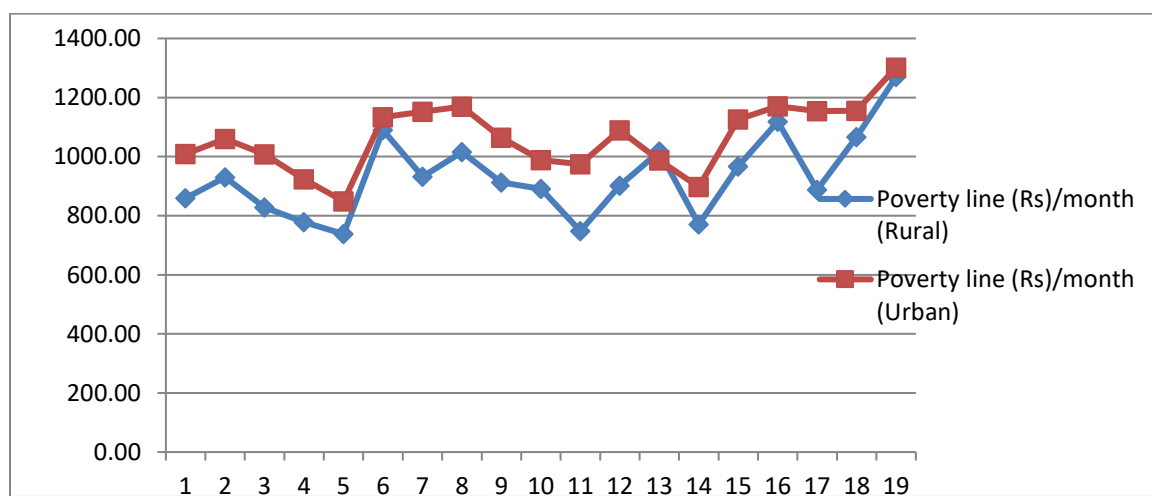


Figure 2

Figure 2 shows Poverty line in rural and urban areas. Poverty line in urban areas has been consistently greater than that of rural areas.

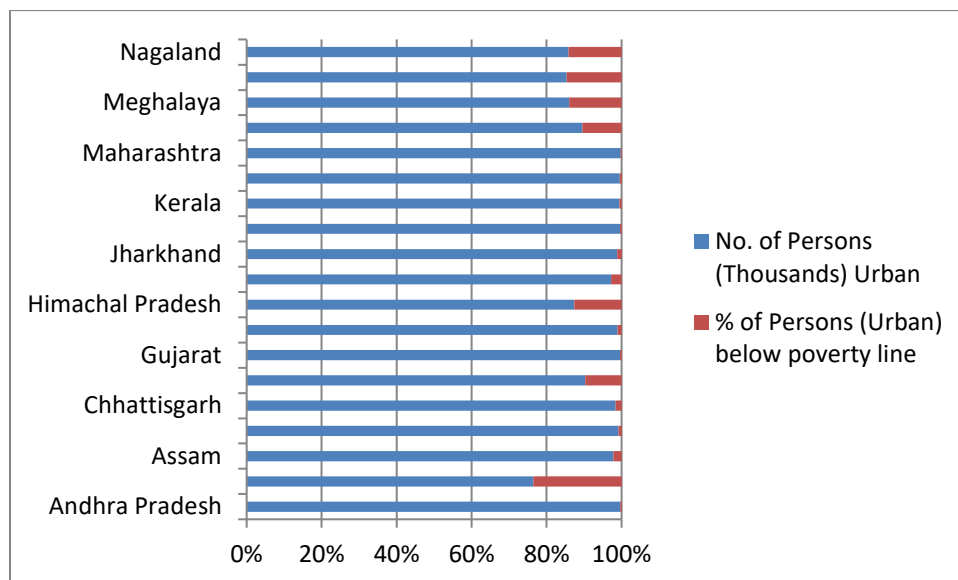


Figure 3

This figure shows the percentage share of population proportion BPL of urban areas of various states in India.

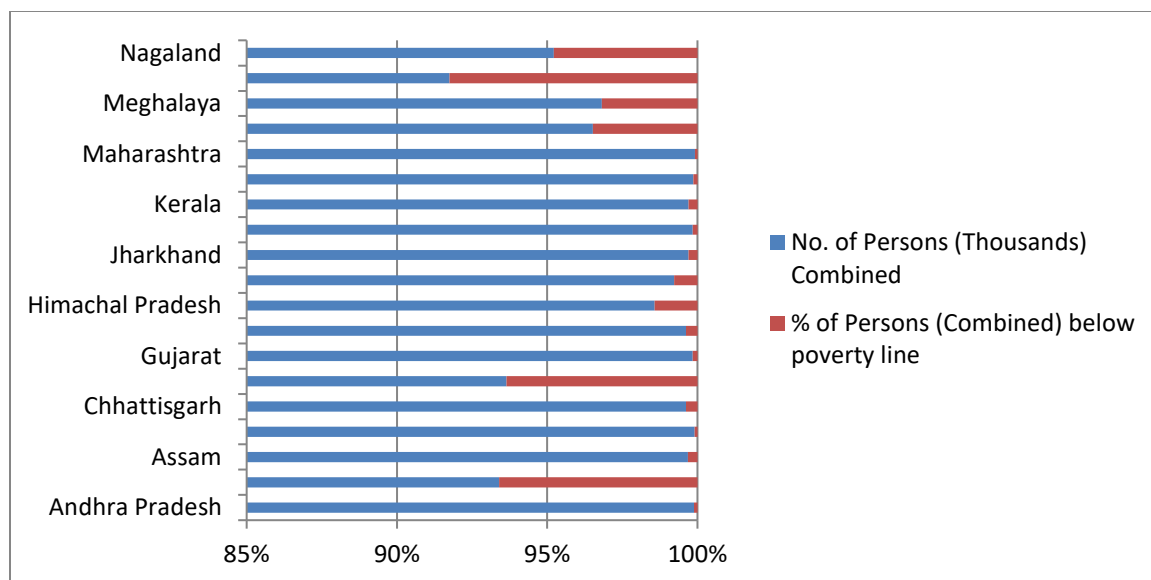


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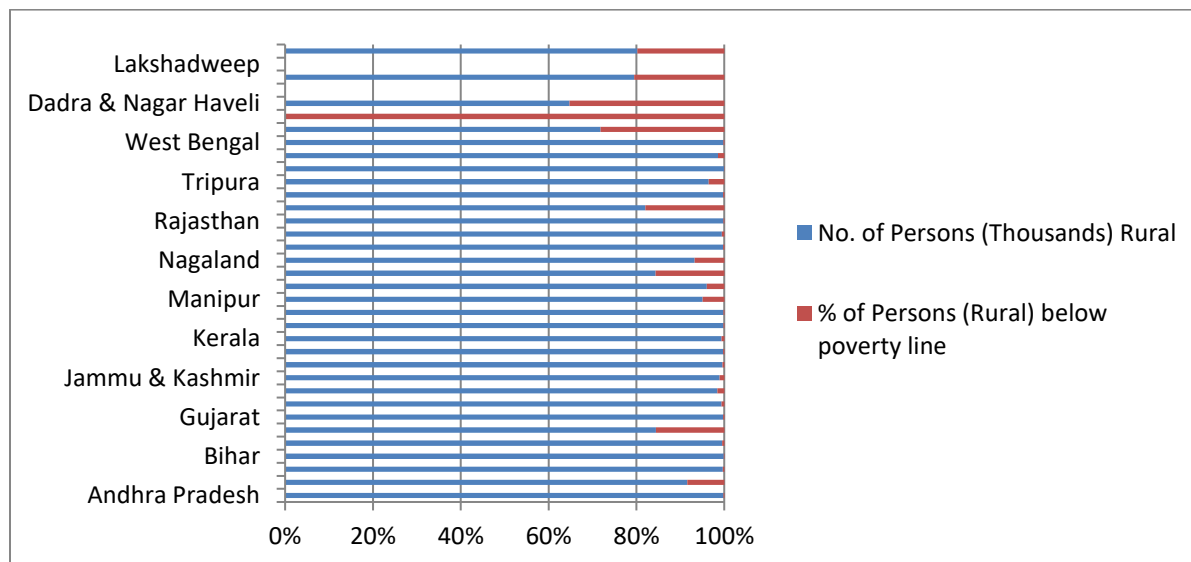


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