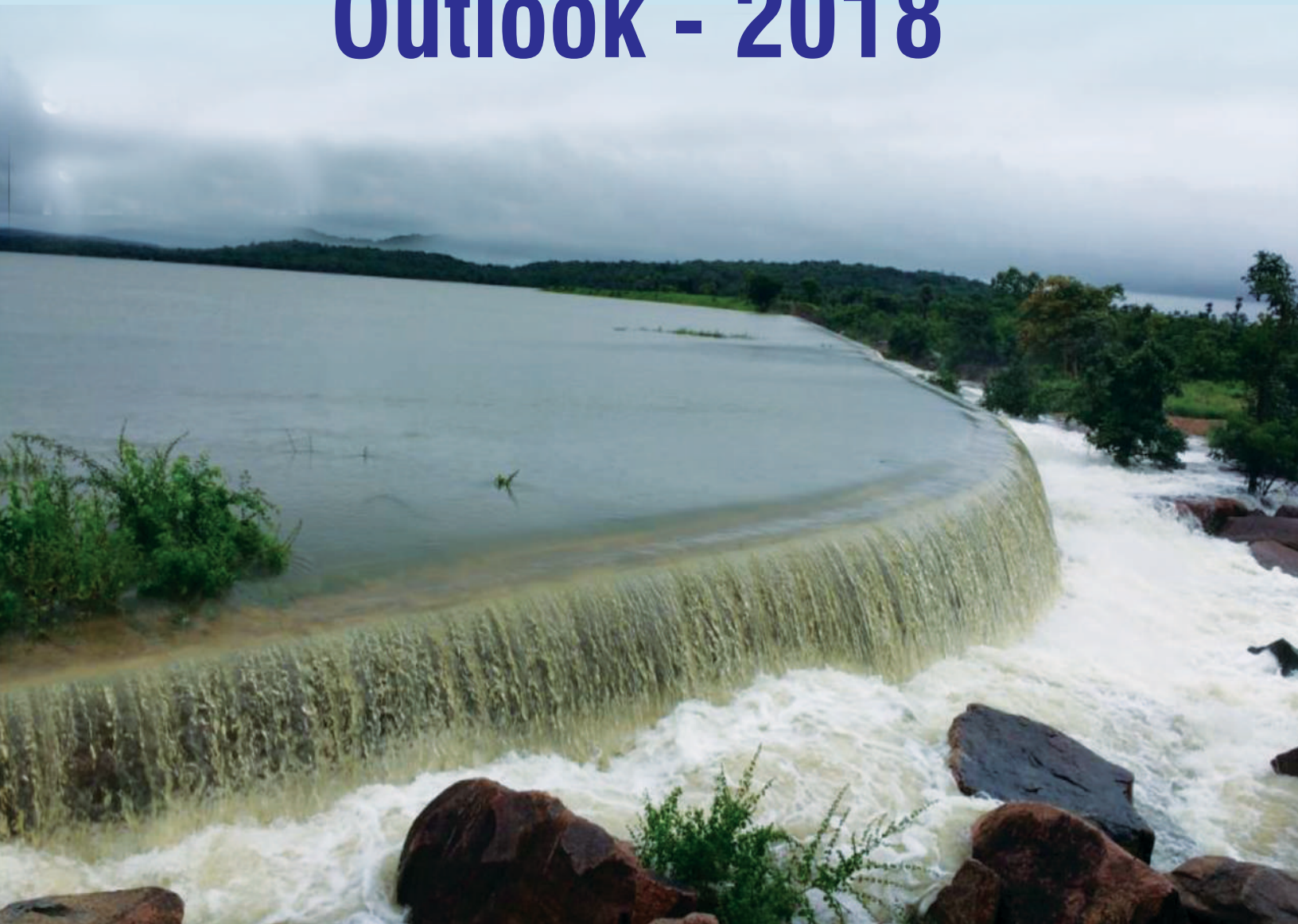
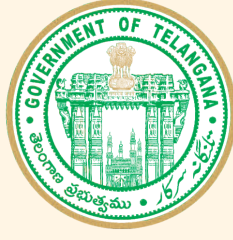




Government of Telangana
Planning Department

Socio Economic Outlook - 2018





Government of Telangana

**SOCIO ECONOMIC OUTLOOK
2018**

PLANNING DEPARTMENT

SOCIO ECONOMIC OUTLOOK - 2018

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Overview

“Your tomorrow depends entirely on what you do today.”

— Mahatma Gandhi

The socio-economic progress of Telangana continues to firm-up in the last three and a half years of its journey. The State has made remarkable achievements in some of the key sectors by grounding path-breaking initiatives to reconstruct and revive the State economy and to achieve the goal of ‘Bangaru Telangana’ (Golden Telangana).

Telangana State, with its inception, inherited a lopsided and a precarious economy, growing at a dismal 3 - 5% rate with some of the key sectors such as manufacturing reeling under negative growth. There were acute shortage of power to the agriculture, industry and domestic segments. Agriculture sector was utterly neglected in the combined State. With the absence of public-funded canal irrigation, farmers were heavily dependent on well irrigation, which resulted in mounting debt burden. The State also fared low on critical social indicators such as adult literacy and healthcare before its formation.

Although the State started its journey with this background, it has been an eventful and progressive three and a half years so far. The key tenet of ‘Bangaru Telangana’ is to achieve a sustainable development path focusing on faster economic growth coupled with a strong focus on social inclusiveness. Towards this end, the State has undertaken pro-poor growth policies targeted towards rural communities, farmers, and weaker sections and put in concerted efforts to make the State business friendly in the country. There is a significant increase in public spending on irrigation, energy, drinking water, roads etc., resulting in a complete turnaround in these sectors. There has been a surge in growth momentum with initiatives in health and education showing signs of encouragement. Social security schemes initiated by the State have also provided much-needed social safety nets to the poor, vulnerable, and marginalised sections.

1.1. Revival of Rural Economy

About 60% of the state's population resides in rural areas. Their livelihood depends on farming, animal husbandry, dairy, fisheries, and other occupational trades. The recovery of the farm and non-farm sectors, therefore, becomes critical for revival of the rural economy.

1.2. Boost to Agriculture Sector

Agriculture provides livelihood to more than half of the state's workforce and is crucial for restoring rural economy. However, agriculture sector in the State is prone to frequent droughts, resulting in distress among farming community. Having understood that drought proofing of agriculture is critical to mitigate the natural curse on agriculture sector, the state adopted a strategy of large-scale public investment along with direct support to farmers through various interventions.

The state has unveiled a comprehensive irrigation development strategy to provide irrigation facilities to at least one crore acres. Works of Kaleshwaram lift irrigation, Palamuru lift irrigation and Seetharama lift irrigation projects are progressing at high speed. The government has also taken up several measures for fast-track completion of all other projects. As a result, 16.64 lakh acres of new irrigation potential and 8.97 lakh acres ayacut was stabilised in the last three and a half years. The benefits of restoration of age-old tanks, under Mission Kakatiya, have started percolating to rural communities through their multiplier effects.

Several direct support initiatives to farmers like farm loan waiver, subsidisation of farm mechanisation and micro irrigation, uninterrupted free power supply to agricultural pump-sets, input subsidy and making them available at the doorstep of farmers, etc., have helped increase farm productivity.

The state has given special focus on the "Doubling of Farmers' Income" initiative of the Government of India. In this regard, the government has initiated measures to reduce cost of cultivation and increase farm returns. The government is conducting soil tests to provide technical advice on the kind of crops suited to grow on their lands and usage of inputs. The farmers are being encouraged to cultivate high-value and horticultural crops by providing subsidy on greenhouse/polyhouses. Extension services are being made available to all the agricultural clusters. Rythu Vedikas are being constructed in every cluster to facilitate interactions among farmers and to undertake regular training programmes to create awareness on new, modern scientific techniques of cultivation.

Keeping in view that investment in agriculture is paramount for its growth, the Government has been taking several measures such as increased loans to farmers under Vaddileni Runalu and Pavala Vaddi schemes. The government undertook the Land Records upgradation drive to rectify and cleanse land records in the state, with an intention to provide a permanent solution to land related litigations and to ensure that the farm centric initiatives reach the needy and eligible beneficiaries. Further, the government has established Rythu Samanvaya Samithis at the village, mandal and district levels to revive the cooperative-spirit in agriculture sector. There has been a substantial increase in storage facilities for agricultural produce in the State.

1.3. Renewed Focus on Non-farm Sector

Allied activities widen the income base of rural communities and provide income throughout the year. It is also estimated that about 40% of the farmers' income is secured through allied activities. There has been an increase in demand for allied products such as milk and meat, with increased income levels. To meet the increase in demand, the government has adopted a comprehensive approach by developing dairy sector,

distribution of sheep and fish seedlings, and enhancing fodder availability, etc. A massive sheep distribution programme has been launched in the year 2017-18. Additionally, supply of fish seedlings, development of marketing infrastructure, and a slew of other steps were also initiated for fisheries development.

1.4. Promoting Entrepreneurship

Youth are aspiring to become entrepreneurs, resulting in a gradual shift of workforce from agriculture to industry and to services sectors. Creation of a business-friendly atmosphere and encouraging start-ups is therefore crucial for encouraging entrepreneurship. In this direction, the government has enacted the 'Telangana State Industrial Project Approval and Self-certification System' (TS-iPASS) for ease of doing business and established T-HUB for incubating startups. The TS-iPASS has been successful in attracting investments from within and outside the country.

The government has identified 14 as key sectors for promoting industrialisation in the state, which include, life sciences, automobiles, plastics, food processing, leather, textiles and apparels, transportation & logistics, IT hardware, etc., and provided sector specific incentives. Now, the state is the epicentre for pharmaceutical industry in the country. Leveraging on this advantage, the government is setting up a medical devices park and a pharma city in the state. Many initiatives are being undertaken to spread industries to the interior districts. Initiatives are on to set up nine leather parks, Autonagars and textile parks in different parts of the State.

The IT and ITeS sectors have been the key engines of the state economy and employ skilled labour on a large scale. The government launched the overall IT Policy Framework providing incentives to set up IT related units in the state. 10 sectoral IT policies were announced over the years with a focus to attract investment in the sunrise IT sectors. These policies include Data Centres Policy, Open Data Policy, Cyber Security Policy, Data Analytics Policy, Internet of Things Policy and e-Waste Policy.

Various measures are being taken up to establish IT units in tier-II cities and towns and to spread IT industry to rural areas. The new IT incubation hubs are being established in Warangal, Karimnagar, Nizamabad and Khammam. The Rural Technology Policy incentivises the large IT companies to set up their Technology and BPO centres in rural areas. This policy is expected to generate IT related jobs in rural areas, thereby retaining skilled workforce in rural areas. Various promotional incentives including exemption from Panchayat/Municipal taxes, reimbursement of stamp duty, transfer duty, registration fee, and internet and telephone charges are being offered for such units.

1.5. Thrust on Infrastructure

The higher growth momentum of the state is also strengthened by backward and forward linkages of infrastructural facilities. Several infrastructural facilities such as improvement in power supply, expansion of road network, ensuring availability of drinking water, construction of irrigation projects, rejuvenation of tanks, etc., are not only having a direct impact on growth but have also started impacting the social well-being of people. While many of these initiatives are in pipeline, unveiling of the full potential would boost the economy further and also have an enormous positive impact on social development.

There has been a sea change in the energy scenario since the state formation. There was an acute power shortage when the state was formed. But due to the concerted short-run and long-run measures, the sector has now seen a complete turnaround. 24x7 quality power is now being supplied to all segments of consumers.

Further, the financial position of the DISCOMs has also improved with the implementation of the UDAY Scheme.

Systematic development of the transportation network is one of the important pre-requisites for development and acceleration of socio-economic growth. Roads are one of the basic modes of transportation and an important priority sector of infrastructure. Various initiatives to widen the important road networks are being undertaken. The Hyderabad Metro Rail Project, the World's largest public-private partnership project in the metro sector, has already commenced its operations.

The Mission Bhagiratha project aimed at providing adequate, safe, sustainable and potable drinking water to all households in the state is at the advanced stage of completion. 95% of physical works under the project have been completed, ahead of the schedule. Under the Mission, about 5,500 rural habitations and 12 urban local bodies are provided with bulk water supply and about 2,500 habitations provided with household water supply. A significant thrust is laid on improving the sanitation situation in the State by constructing individual and community latrines. Some of these measures have already made a significant and visible difference on social outcomes.

1.6. Steps towards Human Resource Development: Emphasis on Health and Education

The government has set in motion a series of initiatives towards human development by improving access to quality education to children and healthcare services.

The initiatives in the field of education are targeted to unleash the creative potential of human resources by providing quality education right from primary education to tertiary level. The government laid special emphasis on the education of scheduled castes, scheduled tribes, backward classes and minority communities. Towards this end, a number of new residential schools have been established. The government has also launched several interventions to upgrade skills to make the workforce employable and productive.

The government undertook range of interventions towards improvising healthcare facilities, which include measures to improve infant and maternal health care and expansion of health infrastructure in the state. The 'KCR KIT' scheme, launched during the year 2017-18, has increased the institutional deliveries in public institutions by manifold. Initiatives such as establishing Maternal and Child Health blocks in all districts, introduction of '102 Service' to transport pregnant women for antenatal check-up, deliveries, and immunisation, and the launch of 'Telangana New-born Action Plan', have helped in reducing infant and maternal mortality rates.

1.7. Managing urbanisation

There is an increase in the population living in cities and towns in the state. This necessitates the state to create an adequate infrastructure and other civic amenities. The City of Hyderabad is an important growth hub and has become a centre for national and international education and research institutions. The government is taking special efforts to make it the best city by augmenting adequate infrastructure and civic amenities.

The Government has taken up several initiatives to develop tier-II cities and towns in the state. The Greater Warangal Municipal Corporation was formed with Warangal, Hanmakonda and Kazipet. Cities like Karimnagar, Nizamabad and Khammam are being developed by promoting economic linkages with their surrounding areas. Initiatives are on to develop master plans for all towns and cities in the state to promote orderly development of urban areas in the years to come.

1.8. Inclusive Growth with Strong Social Support

Economic growth alone cannot take care of everyone, especially the poor, aged, physically challenged and marginalised. To put it in the words of the Hon'ble Chief Minister of Telangana "The major challenge before the State Government is not only to regain the growth momentum but also make it inclusive. I firmly believe that growth has no meaning and even legitimacy if the deprived sections of the society are left behind". Inclusive growth and upliftment of SCs, STs, BCs, minorities, and women has been the central objective of several initiatives of the government. While some of the initiatives are intended to provide social support, some are targeted towards making them part of the growth process.

One of the key initiatives to safeguard the interests of SCs and STs is the enactment of Scheduled Castes and Scheduled Tribes Special Development Fund Act, 2017. This Act enables the state to earmark funds and utilise them for the welfare of SC/ST households and their habitations. The Act also provides for carry-forward of unspent balances to the next financial year when funds are not utilised. Various direct support initiatives such as 100% subsidy for micro irrigation, encouraging entrepreneurship through T-PRIDE, improving livelihood opportunities through 'economic support scheme' have enhanced self-employment and entrepreneurship opportunities among the SC and ST youth.

Significant portion of budget is being spent on cash transfer to the SC, ST, BC, and minorities in the form of pensions, scholarships and other welfare programmes. The Kalyana Lakshmi/ Shaadi Mubarak schemes have been helping the poor families by providing much needed financial support at the time of marriage. The Scheme has also reduced child marriages, as benefits under the scheme are available only to the girls in the age of 18 years and above.

Aasara Pensions were introduced to provide a secure life with dignity for all the deserving poor. The scheme provides enhanced financial assistance to the vulnerable sections of the society such as the old and infirm, disabled persons, people with HIV-AIDS, widows, incapacitated weavers and toddy tappers. Financial assistance is being provided to the poor beedi workers and single women. About 11% of the total state population (i.e., 38.87 lakh people) are benefited under the Aasara Pension Scheme.

1.9. Good Governance initiatives

One of the key good governance initiatives of the state was reorganisation of the erstwhile 10 districts into 31 districts. This has proved to be beneficial not only to help in the outreach of government nearer to people, but also for effective implementation of government programmes. The smaller districts have also provided an opportunity to innovate and launch local solutions to the local challenges. A number of districts have undertaken localised good-governance initiatives to overhaul the functioning of government run hospitals, schools, anganwadi centres and other public utility centres. There is a healthy competition among the districts to achieve Open Defecation Free status with a few districts have already attained it within a short span. There has been a significant improvement in law and order situation. Creation of the new districts has helped in spreading growth centres across the state. With the unveiling of full potential of government initiatives, the district headquarters are expected to become growth centres for the respective district and promote balanced development across the state.

The socio-economic performance of the new state in a short span of three and a half years has been fulfilling. With the proactive measures of the government, the state economy has moved decisively to a higher growth path in a short span of time. The strong macroeconomic fundamentals along with high

economic growth have led to higher buoyancy in state own taxes, providing leverage for undertaking a gigantic development agenda and other welfare measures. The state's efforts over the years have not only disproved the doomsayers' predictions that the new state would imperil its economy by lowering its industry base and deteriorating its tax revenues on becoming a separation state, but also risen to the top on number of key socio-economic parameters. Several flagship programmes of the state, targeted to rebuild the state into a Bangaru Telangana, are first of its kind in the entire country and have been acclaimed by the Centre and State Governments for their conception and pace of implementation.

1.10. The Layout

The Socio-Economic Outlook – 2018 consists of 11 chapters. While the present chapter presented an overview of State's initiatives, performance and outlook in general, the subsequent chapters provide details on structure, policy initiatives and prospects on: State economy, agriculture and allied sector, forestry, industrial sector, services sector, urbanisation, infrastructure, health, education and welfare.

Macroeconomic Trends

CHAPTER 2

*“When learning is purposeful, creativity blossoms.
When creativity blossoms, thinking emanates.
When thinking emanates, knowledge is fully lit.
When knowledge is lit, economy flourishes.”*

- A.P.J. Abdul Kalam

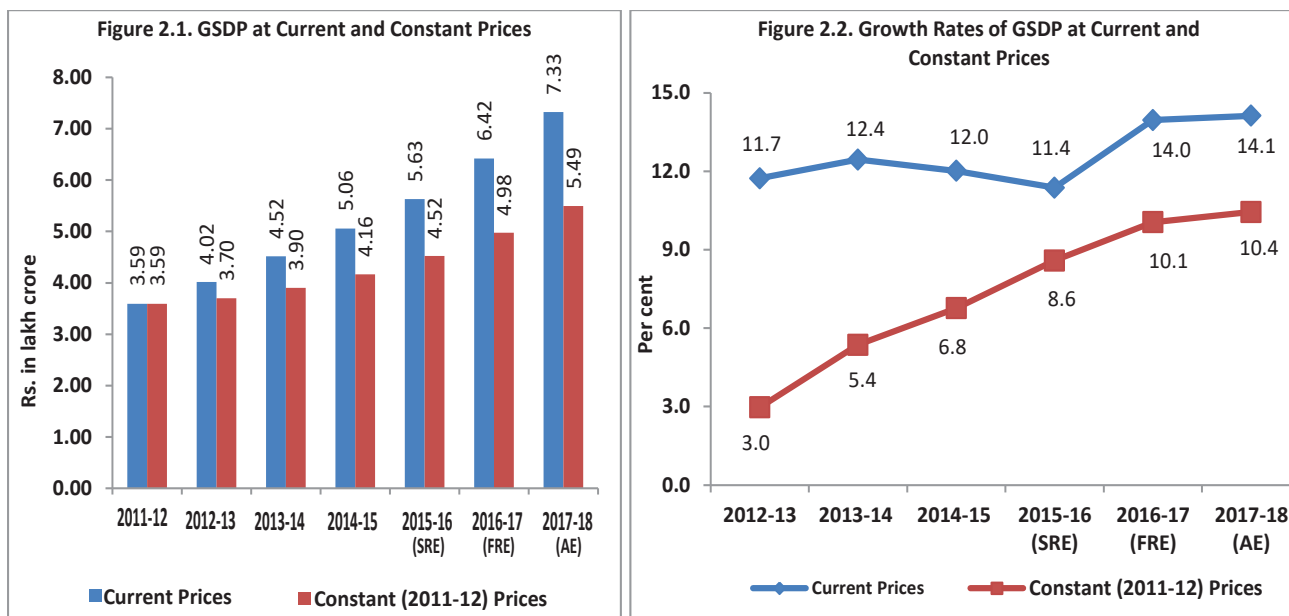
The State Gross Domestic Product (GSDP) is an estimate representing the value of all final goods and services produced within the geographical boundaries of the state, counted without duplication during a specified period of time, usually a year. These estimates of economy, over a period of time, reveal the extent and direction of changes in the level of economic development and also the performance exhibited by various sectors towards the overall economy. In a nutshell, these State Domestic Product estimates provide a broader picture of outcomes achieved because of various interventions, investments made and opportunities opened-up in the state towards economic development. The growth rate of State Domestic Product is said to be the performance level and magnitude of the state economy, over a period of time.

2.1. Gross State Domestic Product – An outlook for 2017-18

According to the Advance Estimates released by the Directorate of Economics and Statistics, Government of Telangana, the Gross State Domestic Product at current prices for the year 2017-18 is estimated to be Rs. 7.33 lakh crore, as against Rs. 6.42 lakh crore in the year 2016-17, exhibiting an impressive growth rate of 14.1 percent. In the very first year of the formation, the state has registered a growth of 12.0 percent at current prices and continued to be the pioneer in subsequent years, and registered an impressive growth of 14.1 percent in 2017-18. The economic growth trajectory of the state has surpassed the national growth of 11.0 percent in the year 2014-15 and maintained the same pace till date.

As per the Advance Estimates, the Gross State Domestic Product at constant (2011-12) prices for the year 2017-18 is estimated at Rs. 5.49 lakh crore, as against Rs. 4.98 lakh crore in the year 2016-17, exhibiting a

growth rate of 10.4 percent, which is highest since formation of the state. The high growth is because of good performance exhibited by most of the sectors of the economy. The year wise details are shown in figure 2.1 and 2.2.



The GSDP estimates at current prices are arrived by evaluating the value of all final goods and services produced in a particular year within the state with the current year prices. These current price estimates do not reveal the factual economic growth, due to the combined impact of the changes in prices of goods and services and the changes in volume of goods produced. In order to overcome this limitation, GSDP at constant prices or real GSDP is calculated. The GSDP evaluated with the base year prices is termed as estimates at constant (base year) prices or real State Domestic Product. This is said to be the anticipated real growth arrived at by adjusting the price inflation and scale of production.

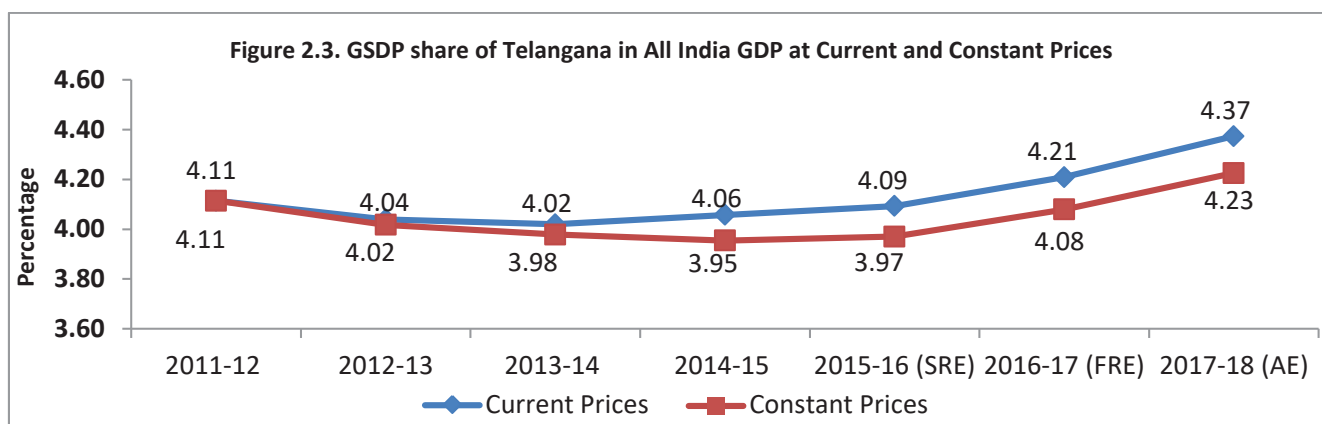
2.2. Economy performance: Telangana vis-a-vis All India

One way of gauging the performance of the state economy is to compare the state economy's growth rate with that of All-India growth and other states. The temporal trend in State GSDP share in All India is also measures the state's performance. The growth rate of GSDP denotes the performance of economy and changes in the magnitude and composition of the State economy, over time. The growth rates of the sectors, over the years, imply the sectoral growth trajectory of the economy.

Telangana's GSDP was Rs. 3,59,434 crore in 2011-12 (at current prices), increased to Rs. 5,05,849 crore in 2014-15, further it increased to Rs. 7,32,657 crore in 2017-18. All-India GDP was Rs. 87,36,329 crore in 2011-12, increased to Rs. 1,24,67,959 crore in 2014-15 and further to Rs. 1,67,51,688 crore in 2017-18.

2.3. Share of Telangana in All-India

The share of the State GSDP in All-India GDP was 4.11% in the year 2011-12, which decreased to 4.02% in 2013-14. However, the state's share has been on increasing trend since 2014-15 onwards from 4.06% to 4.37% in 2017-18. The share of the state in All India GDP has increased by about 35 points within a short span of about 3 years (Figure 2.3). It is noted that steep increase in state share is due to the fact that State's growth rate has been higher than that of All-India growth rate.



2.4. Growth Performance of Telangana Vis-à-vis All-India

The state has been one of the fastest growing states in the Country. The State economy grew at an annual average rate of 9.0 percent per annum in the post-formation era (during 2014-15 to 2017-18), which is significantly higher than the annual average growth of 4.2 percent achieved during 2012-13 to 2013-14. The growth rate of the state before its formation was much lower than the All-India average annual growth rate of 5.9 percent (figure 2.4). However, on account of the growth-oriented measures initiated by the government, the state economy has taken a turnaround and grew at a higher trajectory of 9.0 percent in comparison to All India growth rate of 7.3 percent (figure 2.5).

Figure 2.4. Telangana Vs. All India: Growth rate in pre and post formation

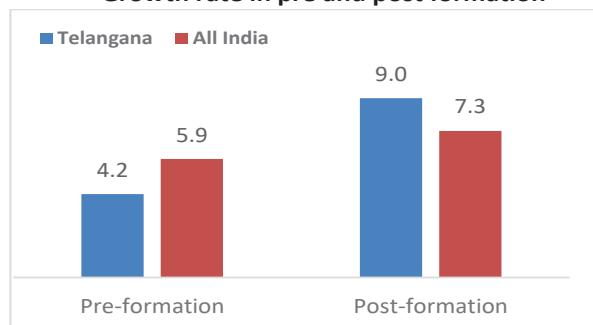


Figure 2.5. Telangana vs. All India: Growth rate comparison

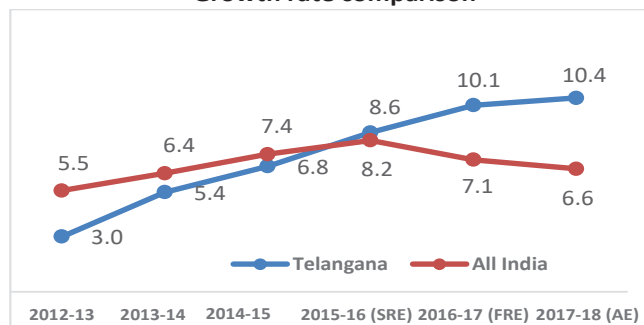


Table 2.1. Comparison of Growth Rates of Telangana vis-a-vis All India

(Rs. crore)

Year	Current Prices					Constant Prices				
	Telangana		All India		Share of TS	Telangana		All India		Share of TS
	GSDP	Gr. Rate	GDP	Gr. Rate		GSDP	Gr. Rate	GDP	Gr. Rate	
2011-12	3,59,434	-	87,36,329	-	4.11	3,59,434	-	87,36,329	-	4.11
2012-13	4,01,594	11.7	99,44,013	13.8	4.04	3,70,113	3.0	92,13,017	5.5	4.02
2013-14	4,51,580	12.4	1,12,33,522	13.0	4.02	3,89,957	5.4	98,01,370	6.4	3.98
2014-15	5,05,849	12.0	1,24,67,959	11.0	4.06	4,16,332	6.8	1,05,27,674	7.4	3.95
2015-16 (SRE)	5,63,356	11.4	1,37,64,037	10.4	4.09	4,52,075	8.6	1,13,86,145	8.2	3.97
2016-17 (FRE)	6,41,985	14.0	1,52,53,714	10.8	4.21	4,97,513	10.1	1,21,96,006	7.1	4.08
2017-18 (AE)	7,32,657	14.1	1,67,51,688	9.8	4.37	5,49,479	10.4	1,30,03,897	6.6	4.23

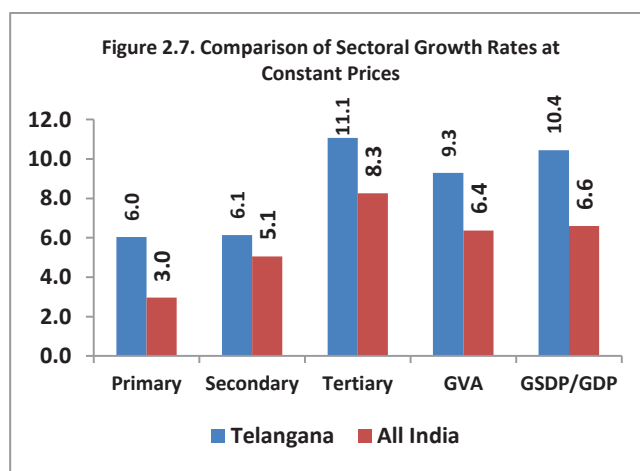
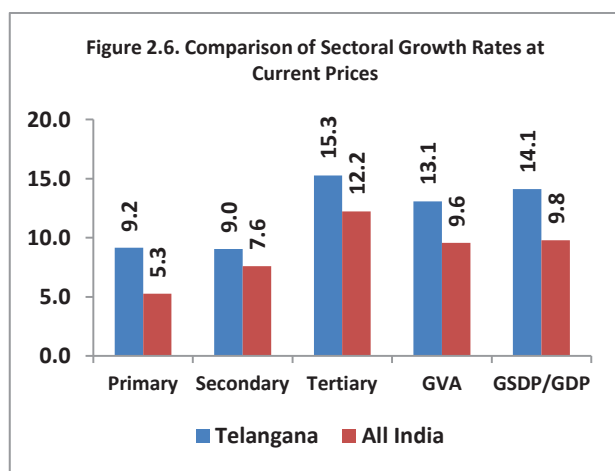
This high growth of the State economy was due to unleashing of developmental oriented programmes by the government in last three years. The growth frontier of the state economy has expanded because of pro-growth policies and programmes such as enactment of entrepreneur-friendly industrial policy (TS-iPASS), creating an business friendly environment, ensuring 24x7 uninterrupted and quality power supply to industry and agriculture sectors, quantum jump in public investment in various welfare projects such as Mission Bhagiratha, major and minor irrigation projects, road sector, Mission Kakatiya, unveiling of sector specific policies in IT and ITeS sectors, etc.

2.5. Sectoral Growth Trajectory

The economy is classified into three broad sectors, viz., Primary, Secondary and Tertiary. The growth rates of each of these sectors will be measured in terms of GVA at basic prices. The basic price can be understood that it is producer's price. The constituent of these sectors are as detailed below: (i) The Primary Sector: This sector consists of sectors like Crops; Livestock; Forestry and Logging; Fisheries; and Mining and Quarrying. (ii) The Secondary Sector: This sector constitutes the sectors such as Manufacturing; Electricity, Gas, Water Supply and Other Utility Services; and Construction. (iii) The Tertiary Sector: This sector include sectors, namely, Trade and Repair Services; Hotels and Restaurants; Transport, including Railways, Road, Water, Air and Services incidental to Transport; Storages; Communication and Services relating to Broadcasting; Financial services; Real Estate, Ownership of Dwellings & Professional Services; Public Administration; and Other Services.

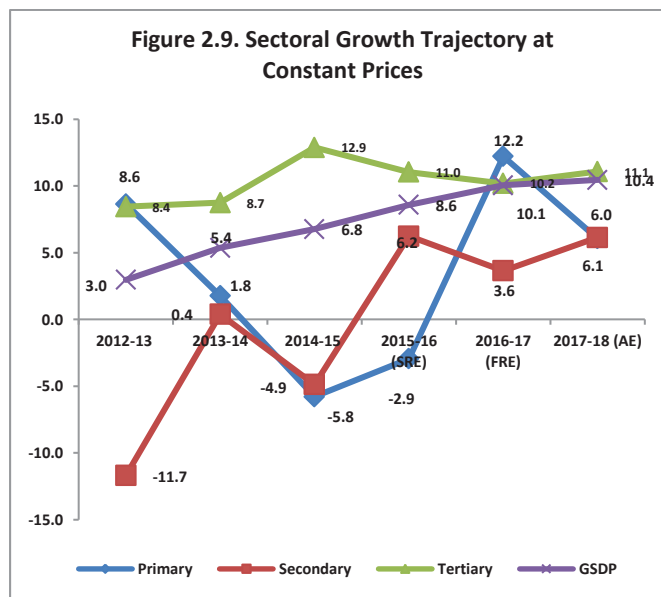
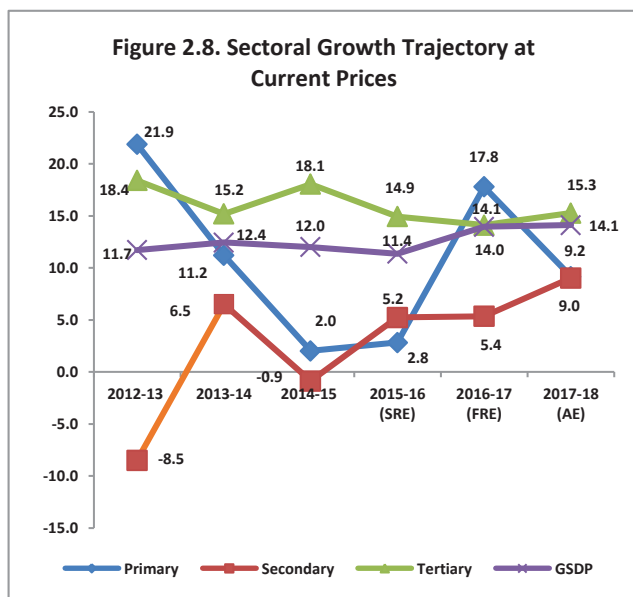
As per advance estimates for the year 2017-18, the Gross Value Added from the primary sector is likely to grow at a pace of 9.2 percent at current prices, as against 5.3 percent anticipated growth of All India. This growth is expected to realize because of the prevailing seasonal conditions and initiatives of the government in irrigation and power supply sectors.

The GVA from secondary sector is expected to register a growth rate of 9.0 percent, as against the All-India growth rate of 7.6 percent. Similarly, the GVA from tertiary sector is anticipated to register an impressive growth of 15.3 percent at current prices, in comparison to the All India growth rate of 12.2 percent. The total GVA comprising all three broad sectors is likely to register an impressive growth of 13.1 percent, which is 3.5 percent higher than that of All India GVA growth. The broad sectoral growth rates of the state economy in 2017-18 are depicted in Figure 2.6 and 2.7.



The Gross Value Added of Telangana from the primary sector is likely to grow at a rate of 6.0 percent at constant (2011-12) prices, as against 3.0 percent of All India. Similarly, the GVA from secondary sector is expected to register a growth rate of 6.1 percent, as against at 5.1 percent at All India. Likewise, the GVA

from Tertiary sector is anticipated to register an impressive growth of 11.1 percent, but the expected growth at All India is 8.3 percent. The total GVA of the state, including all three broad sectors is likely to register an impressive growth of 9.3 percent, which is about 3.0 percent higher than the All India GVA growth. The trends in broad sectoral growth rates in comparison with the GSDP from years 2012-13 to 2017-18 are exhibited in Figures 2.8 and 2.9.



From the above figures, it is noted that there was a high fluctuation in the growth of primary sector and secondary sectors both in current and constant prices, while the tertiary sector showed relatively stable growth. The growth in primary sector was in the range of -5.8 percent to 12.2 percent in constant prices. Similar fluctuations were observed in current prices as well. However, the Tertiary sector has exhibited consistent growth trends similar to that of GSDP both at current and constant prices, over the years.

2.6. Sub-sectoral Growth Trajectory

The primary sector, consisting of agriculture & allied and mining & quarrying sectors, is expected to grow at 6.0 percent at constant (2011-12) prices during 2017-18, which is higher over the years 2013-14 to 2015-16, but low when compared to that of last year. Agriculture and allied sectors viz., crops, fishing & aquaculture, and livestock sectors are expected to register significantly a high growth during 2017-18. However, forestry and logging sector is estimated to grow at a nominal growth of 0.1 percent.

The secondary sector is expected to grow at a pace of 6.1 percent, which is significantly high against the growth rate of 3.6 over previous year. Manufacturing sector is the major contributor for this growth. The tertiary sector is expected to register a robust growth rate of 11.1 percent, the second highest during 2012-13 to 2017-18. Major contributors for this high growth in this sector are trade, repair services, hotels and restaurants; transport, storage, communication and services related to broadcasting; financial services; real estate; ownership of dwelling and professional services; public administration; and other services, the details are shown in table 2.2.

Table 2.2. Sector wise growth rate during 2012-13 to 2017-18 at (constant prices)

Sl. No.	Sector	2012-13	2013-14	2014-15	2015-16 (SRE)	2016-17 (FRE)	2017-18 (AE)
1.	Agriculture, Livestock, Forestry and Fishing	8.8	4.0	-9.7	-6.2	10.9	6.9
1.1	Crops	9.8	4.8	-20.6	-15.7	18.1	3.7
1.2	Livestock	8.0	2.3	8.1	6.3	6.6	10.4
1.3	Forestry and Logging	-0.6	-2.5	-7.7	-1.9	-2.9	0.1
1.4	Fishing and Aquaculture	10.4	14.4	8.5	-11.0	-17.6	16.6
2.	Mining and Quarrying	7.8	-9.2	16.4	11.5	17.0	3.0
	Primary	8.6	1.8	-5.8	-2.9	12.2	6.0
3.	Manufacturing	-15.4	-0.8	-7.5	6.4	7.4	7.6
4.	Electricity, Gas, Water supply and Other Utility Services	-21.1	40.6	-23.8	4.0	-28.9	4.4
5.	Construction	1.6	-7.7	9.2	6.5	4.9	3.4
	Secondary	-11.7	0.4	-4.9	6.2	3.6	6.1
6.	Trade, Repair, Hotels and Restaurants	7.4	8.2	19.9	15.8	12.4	12.3
6.1	Trade and Repair Services	8.1	14.9	22.3	16.3	12.9	12.7
6.2	Hotels and Restaurants	4.4	-22.0	3.9	11.5	8.5	9.4
7.	Transport, Storage, Communication and Services related to Broadcasting	10.2	4.0	7.1	9.3	11.8	11.6
7.1	Railways	4.1	7.4	-3.1	-2.2	3.1	0.9
7.2	Road Transport	9.4	5.6	4.8	9.0	11.7	11.4
7.3	Water Transport						
7.4	Air Transport	73.6	-24.3	79.3	75.7	17.0	17.9
7.5	Services incidental to Transport	21.9	-12.5	9.4	-1.3	9.4	7.9
7.6	Storage	-20.8	4.9	-0.3	3.8	16.9	21.8
7.7	Communication and Services related to Broadcasting	3.7	14.8	11.9	14.7	14.8	15.2
8.	Financial Services	9.7	10.0	11.9	7.7	9.8	6.2
9.	Real Estate, Ownership of Dwelling & Professional Services	12.8	11.6	12.3	9.2	10.8	12.0
10.	Public Administration	1.9	5.2	14.4	15.6	5.3	12.0
11.	Other Services	1.0	8.2	9.7	10.5	6.1	10.0
	Tertiary	8.4	8.7	12.9	11.0	10.2	11.1
12.	Total GVA at Basic Prices	2.9	5.3	5.2	7.6	9.2	9.3
13.	Gross State Domestic Product	3.0	5.4	6.8	8.6	10.1	10.4

Box: 2.1 Growth in Agriculture, Industry and Services

In the common parlance, economy is classified into agriculture and allied, industry and services sectors. Agriculture and allied Sector consist of crops, livestock, forestry and fishing sectors. This sector is predominantly labour oriented and majority of rural people are eking their livelihood from these sectors. The performance of these sectors has direct impact on standard of living of rural residents, especially those depending on these sectors. Agriculture and allied sector also influences the performance of other sectors manufacturing, trade & repair services, transport, hotels & restaurants, communication, banking, real estate, etc. The growth rate of the sector is ranging from around 4.0 percent to 11.0 percent. During the year 2017-18, the growth of this sector is anticipated at 6.9 percent, as against 10.9 percent last year. This comparatively low performance is due to the seasonal conditions that prevailed and pest attack in certain packets of the state.

Industry sector comprises of sectors like mining & quarrying, manufacturing, electricity and construction sectors. Various mining and quarrying sector, manufacturing of pharmaceuticals, cotton & textiles, non-metallic mineral products, machinery, electrical equipment; TS GENCO and TS TRANSCO are key contributors for the industrial sector in the State. The growth rates of industrial sector have significantly improved in recent times due to enactment of TS-iPASS industrial policy and unavailability of quality power supply. Particularly, this sector has started yield positive growth from 2015-16 onwards and expected to register a growth rate of 5.6 percent during 2017-18.

Services sector includes sectors like trade, repair, hotels and restaurants; transport, storage, communication and services related to broadcasting; financial services; real estate; ownership of dwelling and professional services; public administration; and other services. The growth rates registered under this sector are moving upwards almost every year, except in 2014-15, anticipated to register growth of 11.1 percent during 2017-18. Major contributors in this sector in terms of value include trade, real estate, other services, public administration, communication, etc. The broad sectoral growth rates in the year 2017-18 is shown in the Table 2.3.

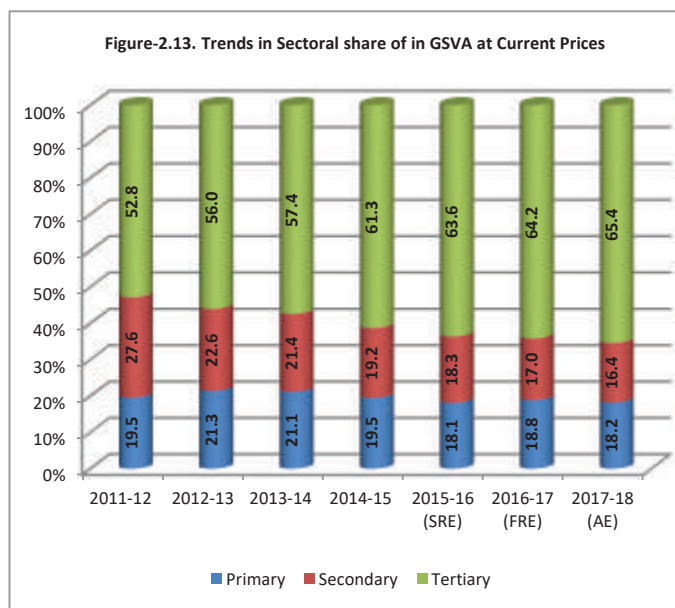
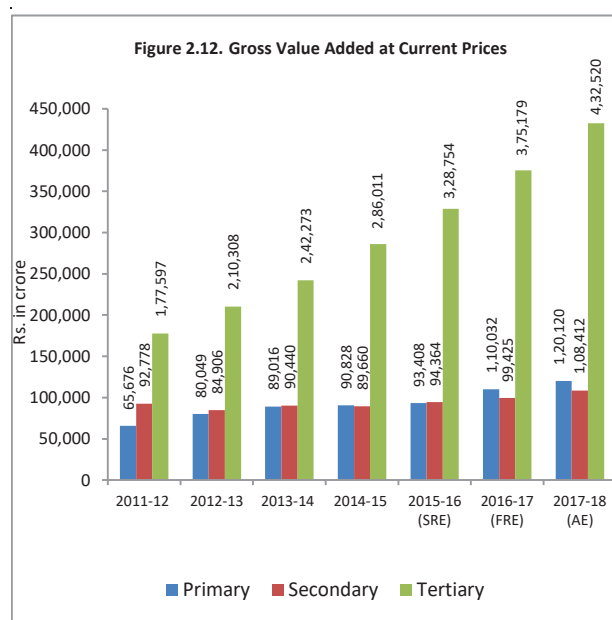
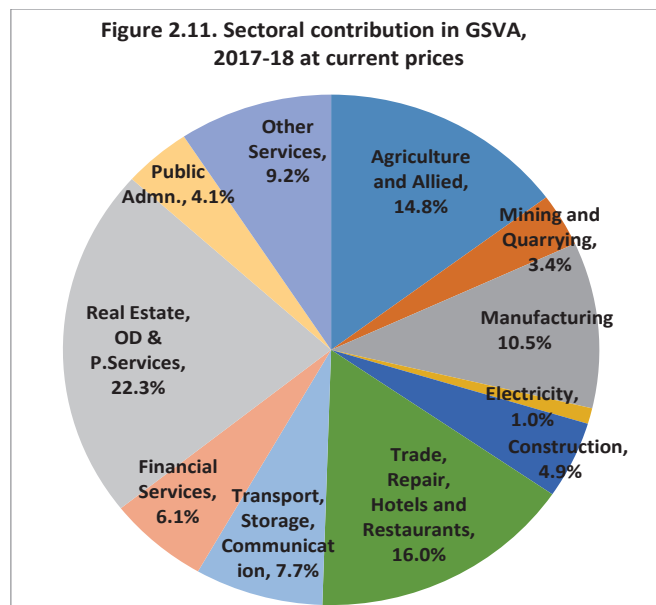
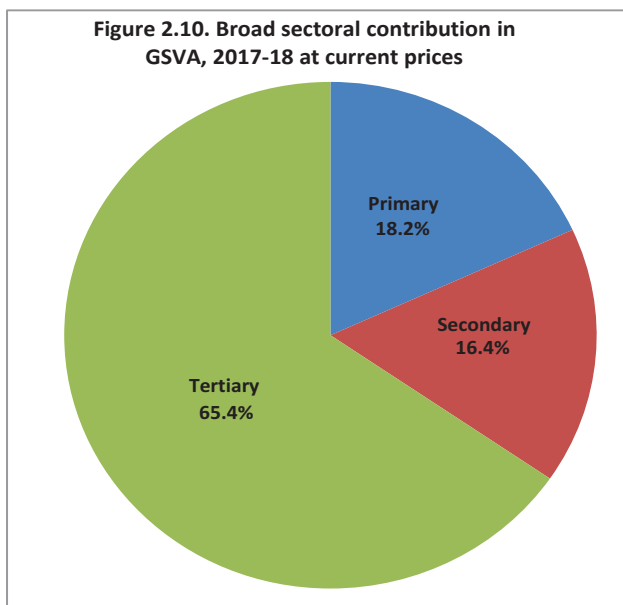
Table 2.3. Sectoral growth rates in 2017-18 at Constant (2011-12) Prices

Sl. No.	Sector	2017-18
1	Agriculture and Allied	6.9
2	Industry	5.6
3	Services	11.1
4	Gross State Domestic Product	10.4

2.7. Sectoral Contribution

The sectoral contribution implies the constituent share of each of the sectors in the GSVA. It gives an insight of each of the sector in terms of its share in the overall economy. The broad sectoral and sectoral contribution in 2017-18 are depicted in Figure 2.10 and 2.11. According to the advance estimates, the contribution of primary sector is ranging from 18 to 21 percent in the total GSVA, of which mining and quarrying contribution is around 3.0 percent and remaining is contributed by the agriculture and allied sectors.

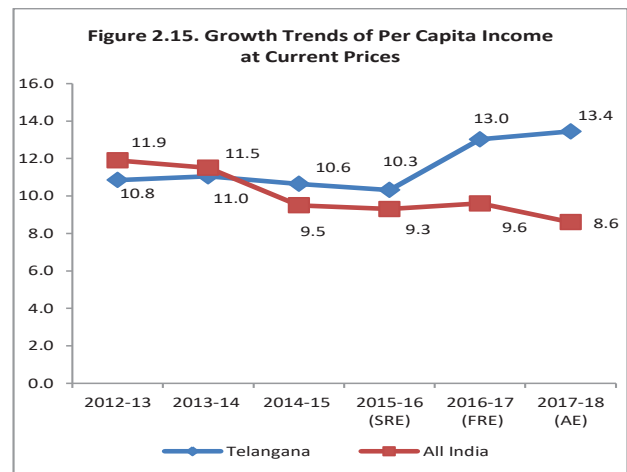
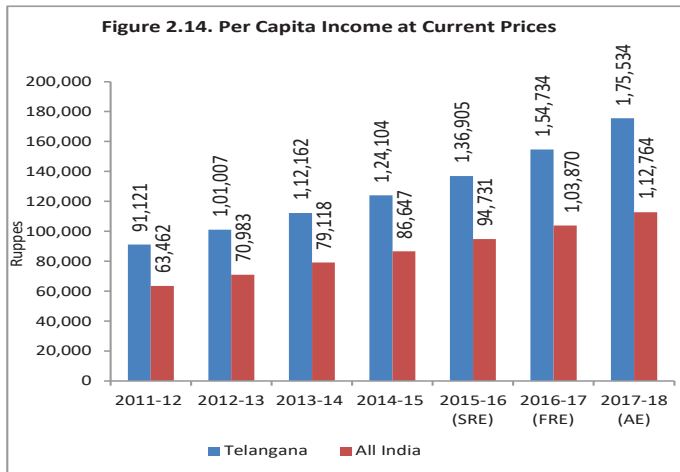
The secondary sector's contribution is in the range of 16 to 28 percent over the years. Manufacturing sector is the major contributor to this broad sector with around 10 to 18 percent share. The lion's share of the GSVA is accrued from the tertiary sector, which is around 53 to 65 percent. The contribution of tertiary sector has been on rise. The broad sector wise Gross State Value Added and sectoral contribution from 2011-12 to 2017-18, at current prices is shown in Figures 2.12 and 2.13, respectively.



2.8. Per Capita Income

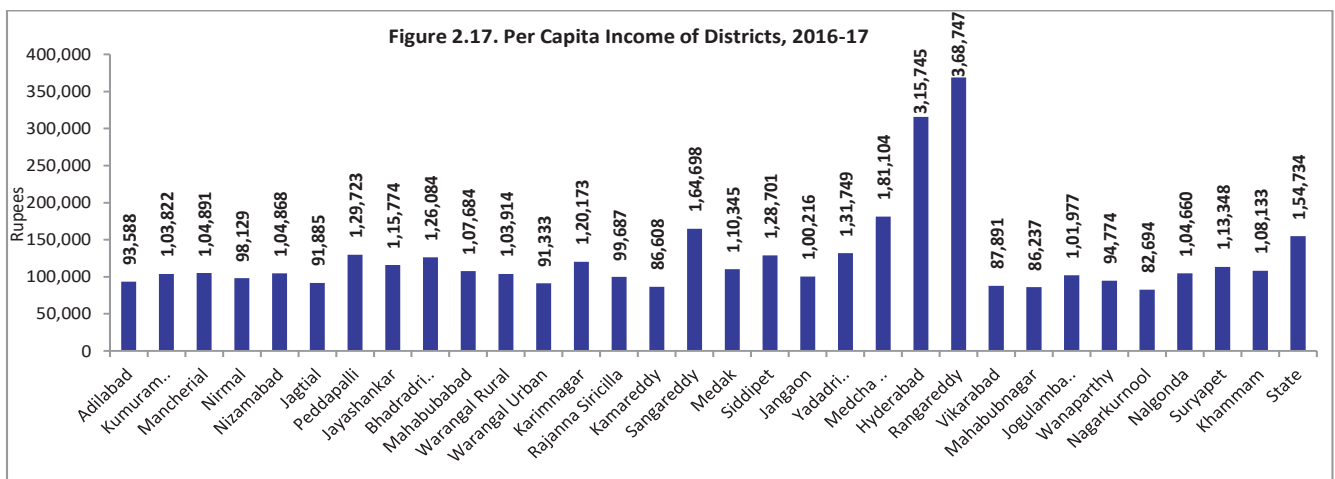
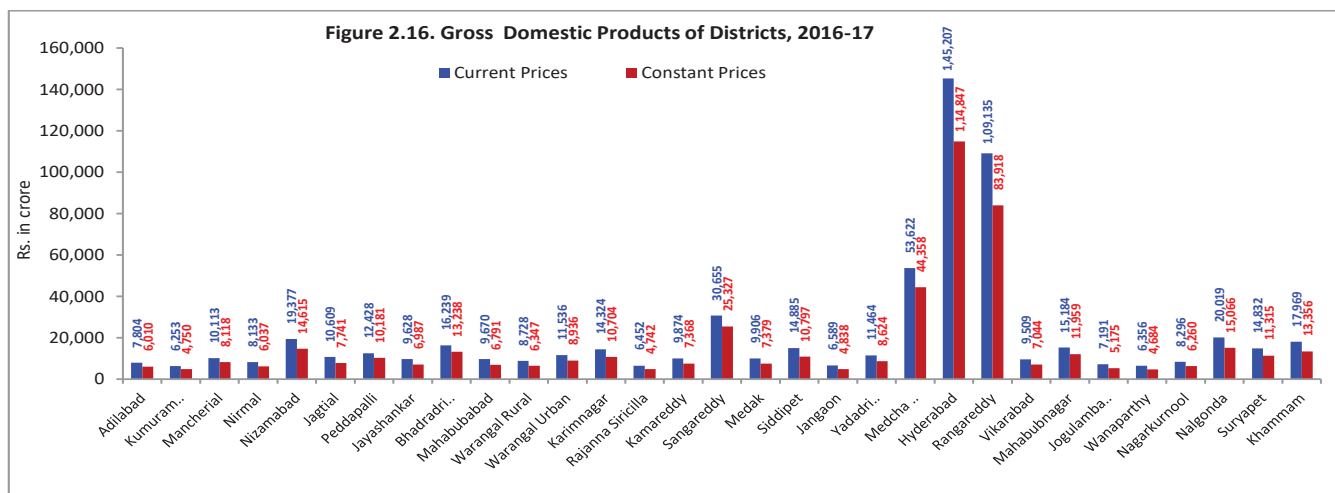
The State Domestic Product estimates, when studied in relation to the total population of the State, they indicate the level of per capita net output of goods and services available. The Per capita income (PCI) is obtained by dividing the Net State Domestic Product by midyear population of the state in the respective year.

The Per Capita Income of Telangana is much higher than the All India over the years. There is a steep rise in the PCI of the State from Rs. 91,121 in the year 2011-12 to Rs. 1,75,534 in the year 2017-18, registering a growth rate of 93 percent over 2011-12. Whereas the PCI of All India was Rs. 63,462 in the year 2011-12, and increased to Rs. 1,12,764 in the year 2017-18, registering a growth of 78 percent over 2011-12. This implies that the PCI of the State grew much faster than the All-India PCI. The per capita income of Telangana vis-à-vis All India and their growth trends at current prices are illustrated in Figures 2.14 and 2.15, respectively.



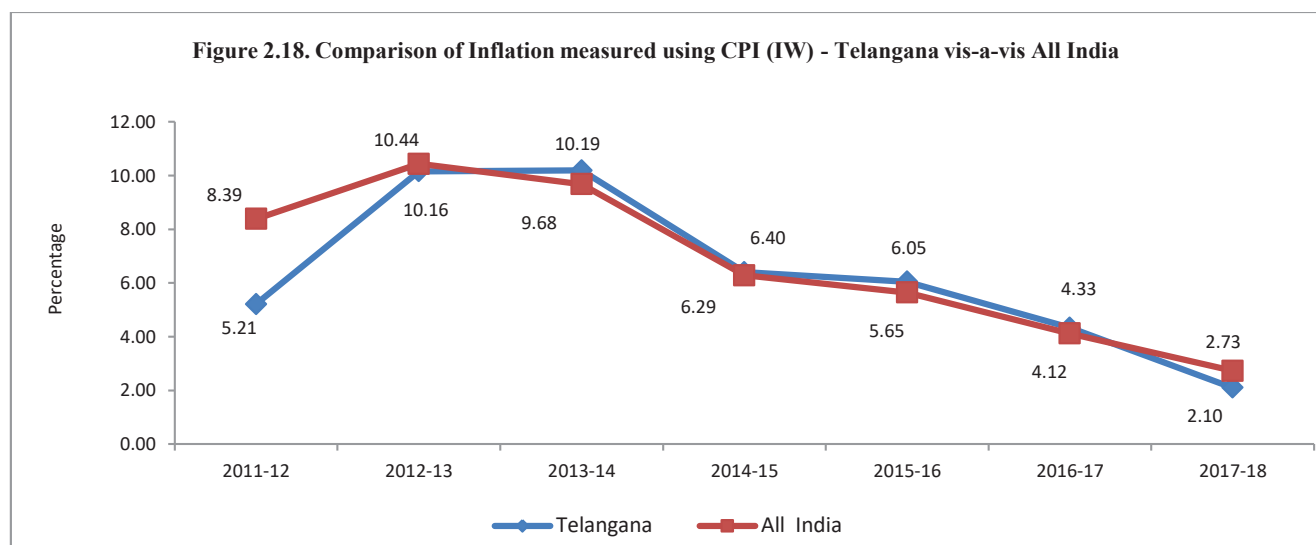
2.9. District Domestic Product

District Domestic Product (DDP) is the sum of the economic value of all final goods and services produced within the geographical boundaries of the district, counted without duplication during a specified period of time, usually a year. DDP is one of the most important indicators to measure the economic growth/development of a district vis-à-vis others. The GDDP estimates presented here are based on Advance Estimates may undergo change based on availability of sectoral data. District wise DDP and per capita income is shown in the Figures 2.16 and 2.17, respectively.



2.10. Trends in Inflation

Inflation is being measured using various methods depending on the target group, usually by Wholesale Prices Index (WPI) and Consumer Prices Index (CPI). The Consumer Prices Index for Industrial Workers is being compiled by the Telangana state over the year. The inflation as measured by CPI (IW) for the years 2011-12 to 2017-18 for Telangana vis-a-vis All India is given in the Figure 2.18.



The inflation in the State was high during the period 2011-12 to 2013-14, which is also in line with the All-India trend. However, there has been a continuous decline in inflation since 2014-15. Lowest inflation of 2.1 percent, as against the all India average of 2.73 percent, has been observed in the year 2017-18.

2.11. Outlook

With the proactive measures of the government, the state economy has moved decisively to a higher growth trajectory in a short span of time. The growth rate picked up from a low annual average growth of 4.2 per cent in pre-formation era to an elevated annual average growth of 9 per cent in post-formation.

The demonetisation of high value currency and implementation of the Goods and Services Tax have had dampening impact on the country's economic growth. As a result, the annual growth rate of All-India during 2016-17 and 2017-18 registered a modest growth of 7.1 percent and 6.6 percent respectively, as against the growth rate of 8.2 percent in 2015-16. Despite of these hurdles, there has been a surge in Telangana's economic growth. It is encouraging to note that Telangana has achieved a double-digit growth, in real terms, during the last two consecutive years, indicating increased growth frontiers of the new state.

The upward shift in growth frontiers is due to the pro-growth initiatives by the state. Some of them include, revival of rural economy with focus on both farm and non-farm sectors, focus on construction of irrigation projects, promoting industrialisation with the enactment of the TS-iPASS, unveiling of sectoral IT policies to tap the potentials of sunrise sectors, establishment of T-HUB for making Telangana a place for incubating start-ups, augmenting infrastructural facilities, etc. A slew of welfare schemes targeted towards the poor and the marginalised sections have also helped in achieving a more inclusive-growth. Unveiling of potentials from the government initiatives and strong economic foundations are promising better growth prospects for the state in times to come.

Agriculture and Allied Activities

CHAPTER 3

*“Agriculture is our wisest pursuit, because it will in the end contribute
most to real wealth, good morals and happiness”*

- Thomas Jefferson

Telangana State is endowed with bountiful resources having fertile soils, diversified cropping pattern and major irrigation systems fed by rivers such as the Godavari and the Krishna. Agriculture is a way of life, a tradition that has shaped the culture and economic life of the people of Telangana. As 55% of the total workforce in the state is depending on agriculture for their livelihood, higher growth in agriculture assumes great importance to achieve sustained economic growth and overall wellbeing of state's population. Recognizing the importance of agriculture, the government has emphasized the need to achieve higher growth rate and increased returns on investment to the farmers through improved technology, effective extension reach, efficient input delivery, mechanization, marketing, adequate credit and crop insurance.

3.1. Land use pattern in Telangana

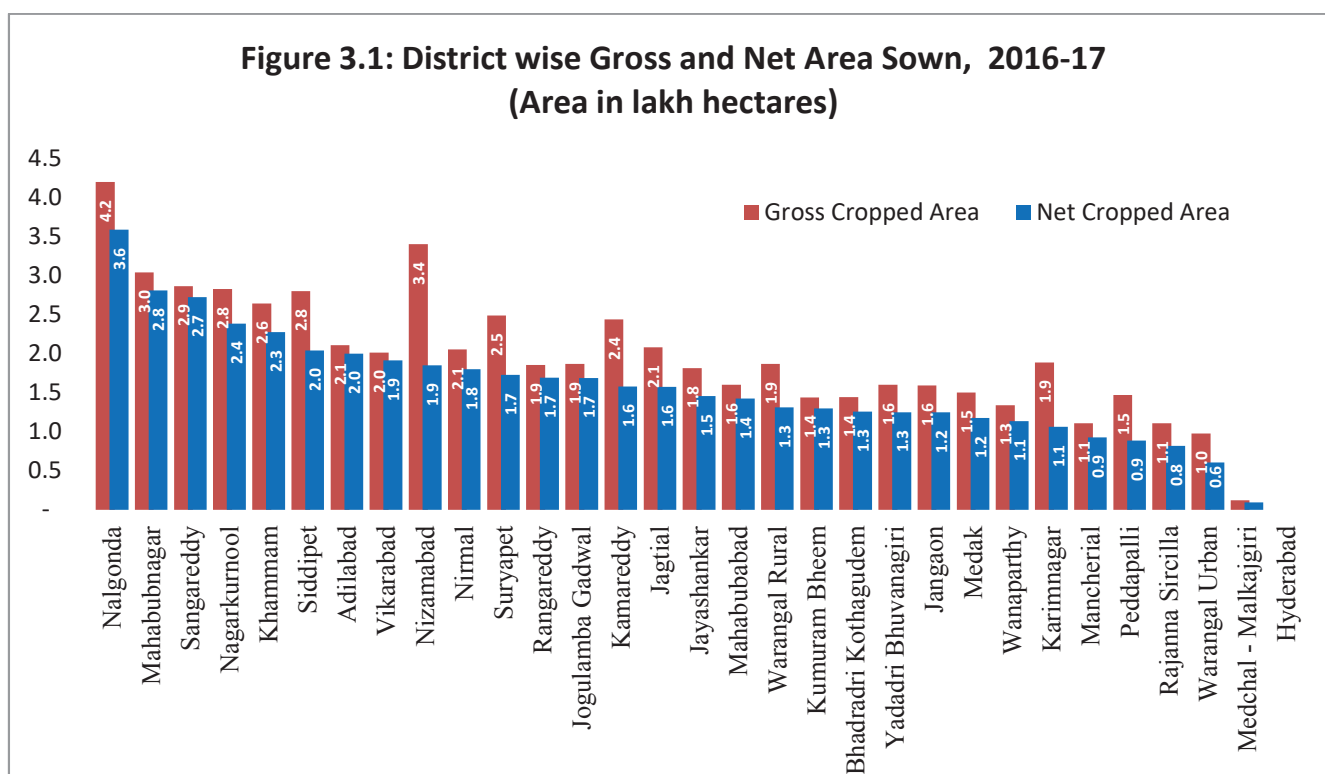
Telangana is the 12th largest state in India in terms of geographical area with 112.08 lakh hectares, of which about 60% of it is arable. In the agricultural year 2016-17, about 47.74 lakh hectares area was under net area sown and the gross cropped area is about 59.70 lakh hectares. Forest occupies 26.98 lakh hectares, accounting for 24.07% of the total geographical area of the State. About 8.52 lakh hectares land put to non-agricultural uses and fallow lands (including current fallow and other fallow land) was spread over 15.03% of the total geographical area in the State (Table 3.1).

Table 3.1: Land use pattern in 2016-17

Sl. No.	Pattern of Land Utilization	Area (in Lakh hectares)	% share in total geographical area
1	Forest	26.98	24.07
2	Barren and Uncultivable Land	6.07	5.42
3	Land put to Non-Agricultural Uses	8.52	7.60
4	Culturable Waste	1.82	1.62
5	Permanent Pastures and Other Grazing Lands	2.99	2.67
6	Land under Misc. Tree crops and Groves	1.12	1.00
7	Other Fallow Lands	6.69	5.97
8	Current Fallow Lands	10.15	9.06
9	Net Area Sown (Including Fish Culture)	47.74	42.59
	Total	112.08	100

3.1.1. Net and Gross Area Sown

The net area sown represents the total area sown with crops and orchards, i.e., area sown more than once in the same year is counted only once. In contrast, gross area sown represents the total area sown once and/or more than once in a particular year, i.e., the area is counted as many times as there are sowings in a year. This total area sown is also known as total cropped area or gross area sown. District-wise distribution of gross and net area sown are indicated in Figure 3.1. The highest net area sown in 2016-17 was reported in Nalgonda District with 3.6 lakh hectares, followed by Mahabubnagar district with 2.8 lakh hectares. It is observed from the Figure 3.1 that the largest 10 districts account for almost 50% of the total net area sown. Apart from Nalgonda and Mahabubnagar, five other districts, viz., Sangareddy, Nagarkurnool, Khammam, Siddipet, and Adilabad reported having more than 2 lakh hectare net area sown during 2016-17. Nine districts, viz., Vikarabad, Nizamabad, Nirmal, Suryapet, Rangareddy, Jogulamba Gadwal, Kamareddy, Jagtial, and Jayashankar reported net area sown in the range between 1.5 – 2 lakh hectares. Nine districts viz., Mahabubabad, Warangal Rural, Kumuram Bheem, Bhadradi Kothagudem, Yadadri Bhuvanagiri, Jangaon, Medak, Wanaparthy, and Karimnagar are having net area sown between 1 - 1.5 lakh hectares during the same period. Hyderabad being an urban district, does not have any agricultural area. Five districts, viz., Mancherial, Peddapalli, Rajanna Sircilla, Warangal Urban and Medchal-Malkajgiri have a net area sown less than 1 lakh hectares.

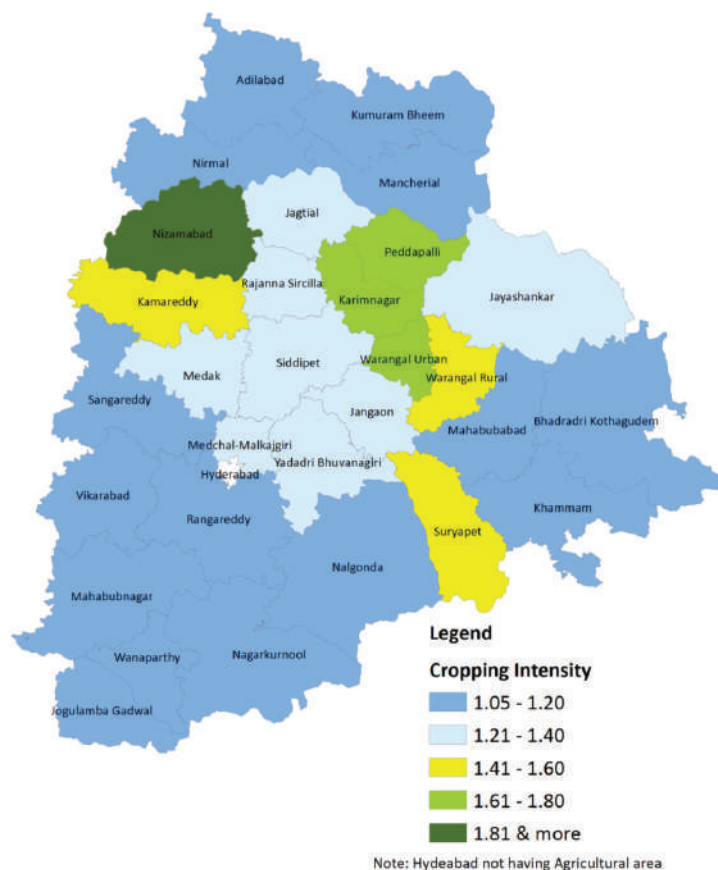


3.1.2. Crop intensity

Cropping intensity is the ratio of Total Cropped Area to Net Area Sown. Therefore, increasing cropping intensity is an important factor to indicate increased agricultural production in the state. Average cropping intensity in Telangana was about 1.25 during 2016-17. However, there is a considerable variation in cropping intensity across 30 districts (excluding Hyderabad) in the state. It is observed from the Map 3.1 that in 15

districts cropping intensity is less than the state average of 1.25. Low cropping intensity of 1.05 is observed in three districts viz., Adilabad, Vikarabad, and Sangareddy. The highest cropping intensity was reported in Nizamabad district at 1.84, followed by Karimnagar with 1.77.

Map 3.1: District wise cropping intensity in Telangana



3.2. Cropping Pattern in Telangana

Crops grown in the State broadly consist of cereals, pulses, millets, oil seeds, cotton, plantation crops, fruits and vegetables.

3.2.1. Area under food and non-food crops in Telangana

Crops are broadly divided into food and non-food crops. Food crops broadly consist of cereals, millets, pulses and non-food crops consist of cotton, oil-seeds, flowers, etc. A detailed classification of food and non-food crops in the state is provided in the Chart 3.1.

Food crops account for major share in total cropped area in the state. The share of food and non-food crops in total cropped area was 66.4% and 33.6% respectively in the year 2016-17. Trend in cropping pattern shows there has been a gradual decline in food crops, from 70.8% in 2001-02 to 53.5% in 2015-16, mainly on account of decline in coarse cereals. However, a good rainfall in the year 2016-17 resulted in increase in the food crops, especially due to surge in paddy grown area (Figure 3.2).

Figure 3.2: Trends in the share of food and non-food crops in Telangana

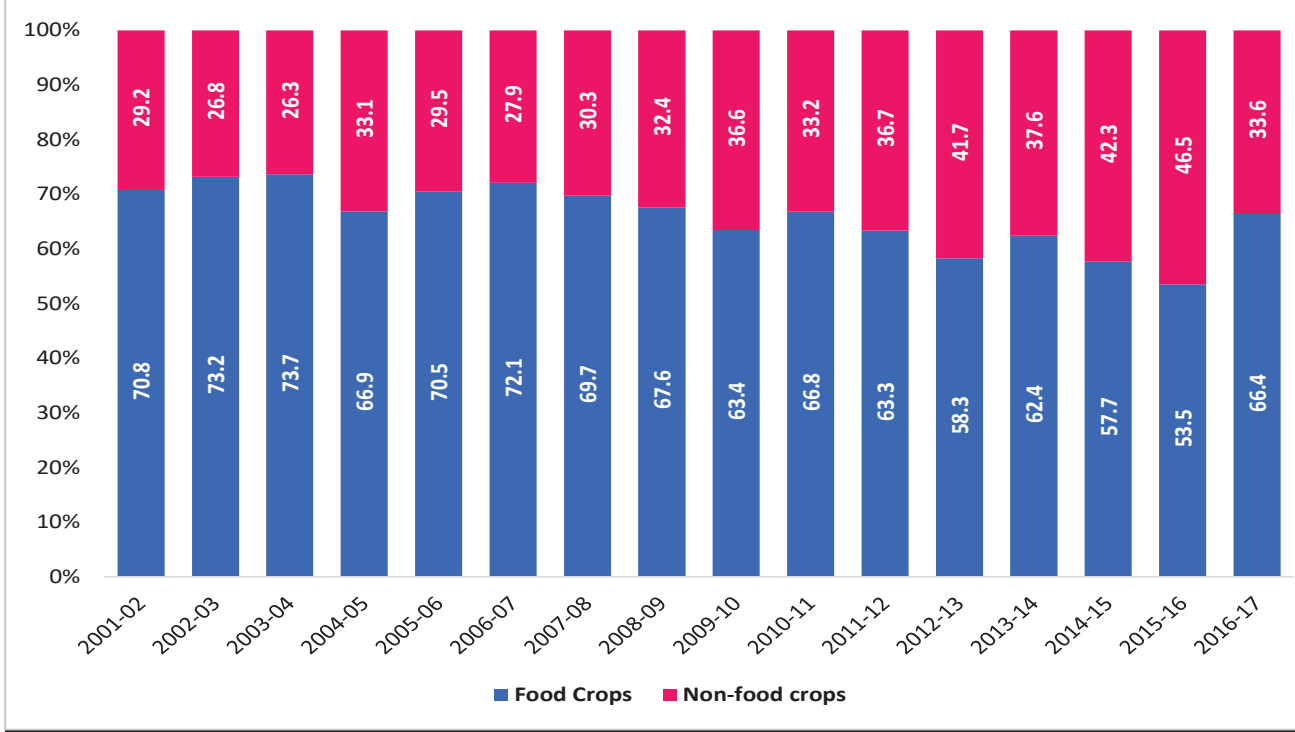
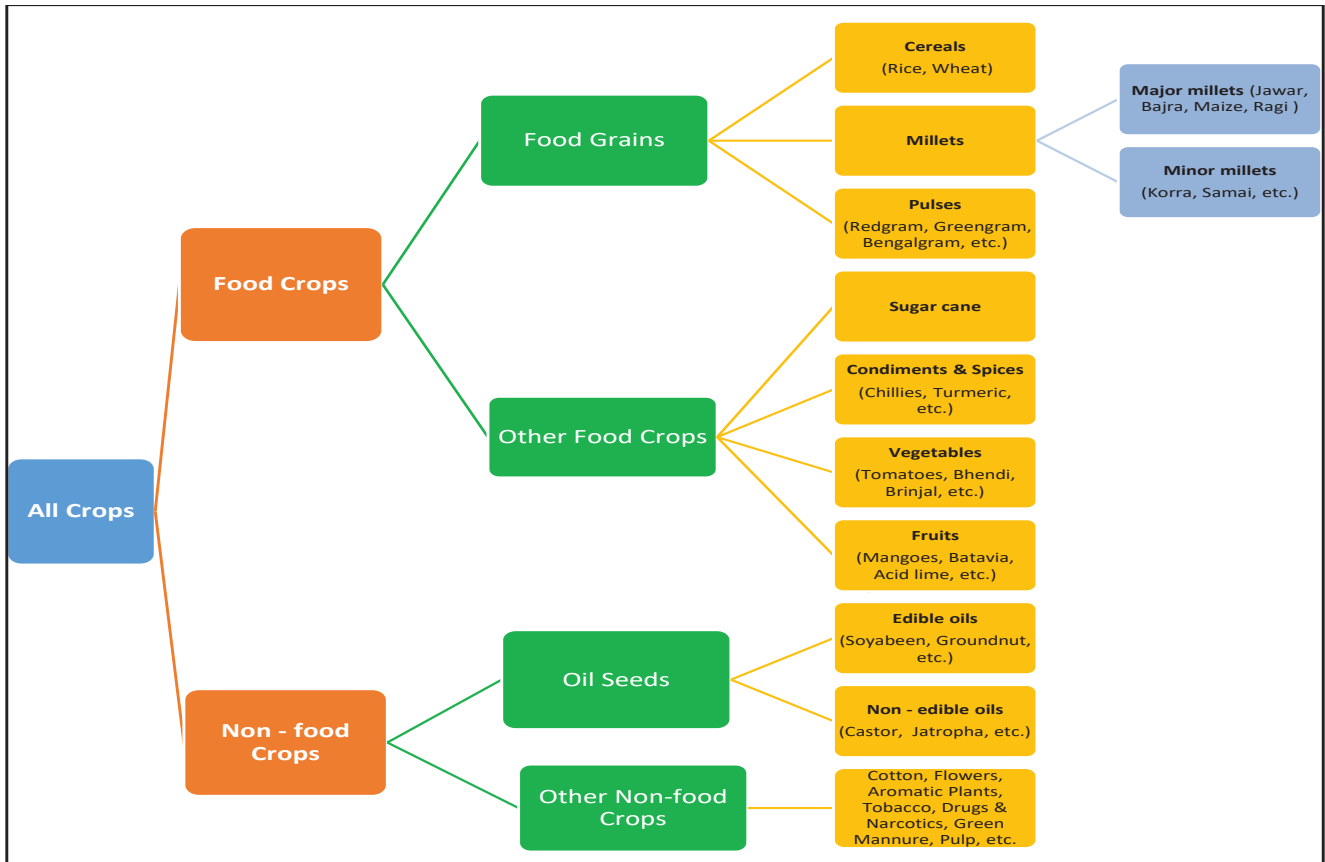
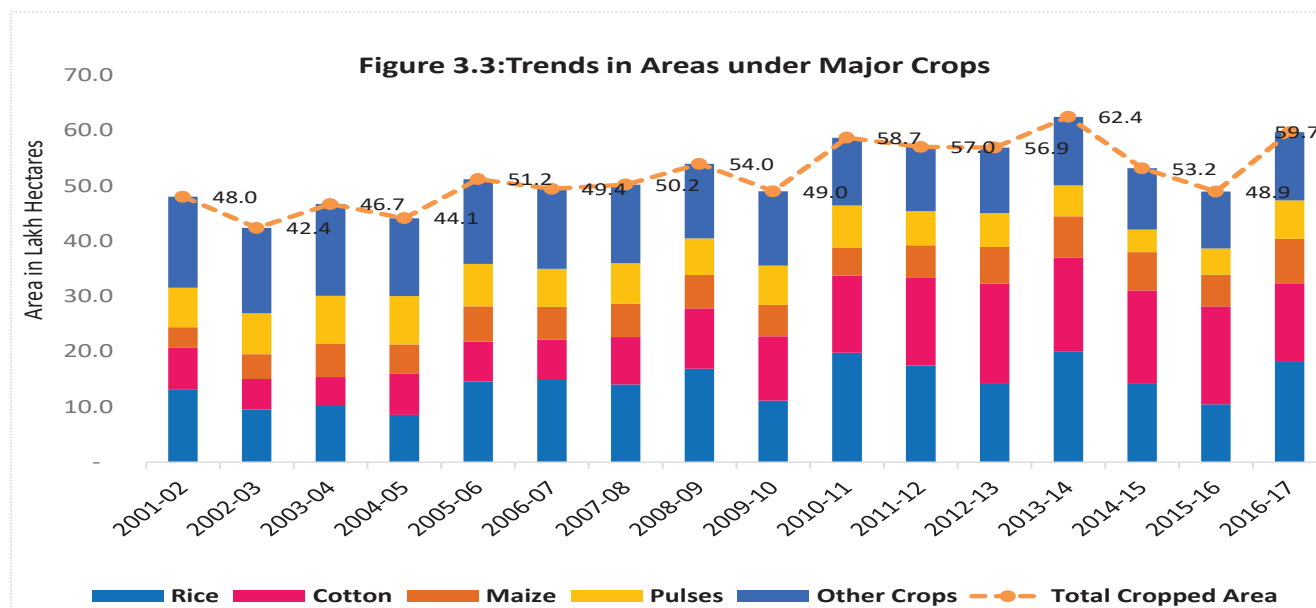


Chart 3.1: Classification of food and non-food crops in Telangana



A temporal glimpse of the gross area sown reveals that paddy, cotton, maize have been the important crops in the state. These three crops in the state alone constituted nearly 70% of the total cropped area in the state. Two observations from the Figure 3.3 are: (i) area under cotton is on rise in recent years, and (ii) area under paddy varied with rainfall received, a good monsoon year has generally been correlated with higher paddy cultivation.



3.2.2. Season-wise area under food and non-food crops in 2016-17

Of the 43.8 lakh hectares area cultivated in Kharif season in 2016-17, about 59% was under food crops and about 41% was under non-food crops. However, the share of food-crops was 87.4 per cent during the Rabi season with a cultivated area of 13.87 lakh hectares. The total area cultivated during Rabi season was 15.87 lakh hectares (Table 3.2).

Table 3.2: Area under Food and Non-Food Crops 2016-17

Sl. No.	Crops	Area (in Lakh Hectares)			Share		
		Kharif	Rabi	Total	Kharif	Rabi	Total
1	Food crops	25.78	13.87	39.65	58.8	87.4	66.4
2	Non-food crops	18.05	2.00	20.05	41.2	12.6	33.6
	Gross Area sown	43.83	15.87	59.70	100	100	100

3.2.3. Area under Food Crops in 2016-17

Cereals and millets, pulses, fruits, vegetables, spices are some of the important food crops grown in the state. A total of 39.65 lakh hectares was sown under the food crops in the year 2016-17, of which 25.78 lakh hectares were cultivated in the Kharif and 13.87 lakh hectares in the Rabi seasons (Table 3.3).

Table 3.3: Area under Food crops in 2016-17

(Area in Hectares)

Sl. No.	Crops	Kharif	Rabi	Total
1	Cereals & Millets	15,92,524	11,51,717	27,44,241
2	Rice	8,89,351	9,39,223	18,28,574
3	Maize	6,36,407	1,65,415	8,01,822
4	Jowar	61,943	27,810	89,753

Sl. No.	Crops	Kharif	Rabi	Total
2	Pulses	5,63,789	1,31,290	6,95,079
	<i>Redgram</i>	3,86,156	1,289	3,87,445
	<i>Greengram</i>	1,34,700	11,023	1,45,723
3	Sugarcane	29,357	23,869	53,226
4	Condiments & Spices	1,63,930	18,162	1,82,092
	<i>Chillies</i>	1,09,671	14,653	1,24,324
	<i>Turmeric</i>	50,566	9	50,575
5	Vegetables	63,737	58,858	1,22,595
6	Fruits	1,64,946	3,192	1,68,138
	Total Food Crops	25,78,283	13,87,088	39,65,371

(Note: Crop names in Italics are major principle crops in that group)

Cereals and millets account for significant share in area under food crops both in Kharif and Rabi seasons. It is also observed from Table 3.4 that share of cereals and millets is higher in Rabi season than in Kharif season. Higher share of cereals and millets is due to predominance of paddy crop in both the seasons. Paddy alone accounted for 34.5% of the total food crop cultivated in Kharif and 67.7% in Rabi season, indicating its prominence for farmers in the State. Maize crop account for 24.7% and 11.9% of the total food cropped area grown during Kharif and Rabi seasons, respectively. Jowar was another significant crop in the cereals and millets category accounting for about 2.4% in Kharif and 2% of the total food cropped area in Rabi season.

Variety of pulses are grown in the state which include redgram, greengram, bengalgram, blackgram, cowgram, horsegram, etc. Important of them are redgram and greengram. In the year 2016-17, area under pulses account for about 21.9% of food crop in Kharif and 9.5% in Rabi seasons. Redgram alone accounted for 15% of total food crops and greengram accounted for 5.2% in Kharif season. As both these crops are rainfed crops, their presence in Rabi was negligible. Similarly cowgram and horsegram, which require less water, occupy prominence during the Rabi season.

Table 3.4: Area under Food Crops in 2016-17

(As a % share in total Food Cropped Area)

Sl. No.	Crops	Kharif	Rabi	Total
I	Cereals & Millets	61.8	83.0	69.2
	<i>Rice</i>	34.5	67.7	46.1
	<i>Maize</i>	24.7	11.9	20.2
	<i>Jowar</i>	2.4	2.0	2.3
II	Pulses	21.9	9.5	17.5
	<i>Redgram</i>	15.0	0.1	9.8
	<i>Greengram</i>	5.2	0.8	3.7
III	Sugarcane	1.1	1.7	1.4
IV	Condiments & Spices	6.3	1.3	4.6
	<i>Chillies</i>	4.3	1.1	3.1
	<i>Turmeric</i>	2.0	0.0	1.3
V	Vegetables	2.5	4.3	3.1
VI	Fruits	6.4	0.2	4.2
	Total Food Crops	100	100	100

(Note: Crop names in Italics are major principle crops in that group)

Chillies and turmeric are the important crops under the ‘condiments and spices’ group in Telangana. Chillies accounted for 4.30% of the total food cropped area during the Kharif season and 1.1% during Rabi season. On the other hand, Turmeric accounted for about 2% of the total food crops during the Kharif season. Another important category of food crops in the state is fruits and vegetables, which account for about 6.4% and 2.5% of total food crops during the Kharif season. Areas under vegetable crops was significant during the Rabi season in the state. (Table 3.4)

3.2.4. Area under Non-Food Crops

Non-food crops were cultivated in 20.05 lakh hectares during the year 2016-17. Important non-food crops grown in the state include cotton, oil seeds, flowers and aromatic plants, tobacco and fodder (Table 3.5).

Table 3.5: Area under Non-Food Crops in 2016-17 (Area in Hectares)

Sl.No.	Crop	Kharif	Rabi	Total
1	Cotton	14,08,760	0	14,08,760
2	Edible Oil seeds	3,17,565	1,70,308	4,87,873
	<i>Soyabean</i>	2,76,543	33	2,76,576
	<i>Groundnut</i>	26,674	1,40,417	1,67,091
	<i>Sesamum</i>	3,268	17,626	20,894
3	Non-Edible Oil seeds	44,487	472	44,959
	<i>Castor</i>	44,442	466	44,908
4	Timber & Pulp	24,314	8	24,322
5	Tobacco, Drugs & Narcotics	2,767	4,005	6,772
6	Fodder & Green manure crops	4,585	23,815	28,400
7	Flowers & Aromatic Plants	2,207	770	2,977
8	Mulberry & other Non-food crops	510	1	511
	Total Non-food Crops	18,05,221	1,99,385	20,04,606

(Note: Crop names in *Italics* are major principle crops in that group)

Cotton is a prominent non-food crop grown during the Kharif season, which is grown mostly under unirrigated conditions. Total 14.09 lakh hectares area was sown under cotton crop, which is about 78% of total non-food crops grown during Kharif 2016-17. Oil seed, consisting of both edible and non-edible oil is another major non-food crops grown in the state, with 3.17 lakh hectares area under the edible-oil and 44,487 hectares area under the non-edible-oil was reported during the Kharif season in 2016-17. Important edible-oil crops grown are soyabean, groundnut and sesamum, of which Soyabean has been extensively grown, especially in northern Telangana districts in recent past (Table 3.6).

Table 3.6: Area under Non-Food Crops in 2016-17

(As a % share in total Non-Food Cropped Area)

Sl. No.	Crop	Kharif	Rabi	Total
I	Cotton	78.0	0.0	70.3
II	Edible Oil Seeds	17.6	85.4	24.4
	<i>Soyabean</i>	15.3	0.0	13.8
	<i>Groundnut</i>	1.5	70.4	8.3
	<i>Sesamum</i>	0.2	8.8	1.0
III	Non-Edible Oil Seeds	2.5	0.2	2.2
	<i>Castor</i>	2.5	0.2	2.2

Sl. No.	Crop	Kharif	Rabi	Total
IV	Timber & Pulp	1.3	0.0	1.2
V	Tobacco, Drugs & Narcotics	0.2	2.0	0.3
VI	Fodder & Green manure crops	0.3	12.0	1.4
VII	Flowers & Aromatic Plants	0.1	0.4	0.2
VIII	Mulberry & other Non-food crops	0.0	0.0	0.0
Total Non-food Crops		100.0	100.0	100.0

(Note: Crop names in *Italics* are major principle crops in that group)

Fodder and green manure is another important non-food crop grown during the Rabi season and a total of 23,815 hectares area was cultivated under fodder crops, accounting for about 12% of total non-food crops during the Rabi season, 2016-17.

3.2.5. Production of food Crops in 2016-17

A total of 157.84 lakh tonnes was produced from food crops in the state during 2016-17, of which, cereals and millets accounted for the highest with 95.93 lakh tonnes. Rice accounted for the highest share in the total production of food crops, followed by maize, vegetables and fruits (Table 3.7).

Table 3.7: Production of Food Crops in 2016-17

(In Tonnes)

Sl. No.	Crops	Kharif	Rabi	Total
1	Cereals & Millets	48,44,517	47,48,777	95,93,294
	<i>Rice</i>	<i>30,28,634</i>	<i>35,70,445</i>	<i>65,99,079</i>
	<i>Maize</i>	<i>17,56,790</i>	<i>11,25,685</i>	<i>28,82,475</i>
	<i>Jowar</i>	<i>54,600</i>	<i>33,101</i>	<i>87,701</i>
2	Pulses	3,77,885	1,57,852	5,35,737
	<i>Redgram</i>	<i>2,61,118</i>	<i>1,118</i>	<i>2,62,236</i>
	<i>Greengram</i>	<i>82,101</i>	<i>9,955</i>	<i>92,056</i>
3	Sugarcane	20,61,312	-	20,61,312
4	Condiments & Spices	7,23,324	85,547	8,08,871
	<i>Chillies</i>	<i>4,01,648</i>	<i>81,224</i>	<i>4,82,872</i>
	<i>Turmeric</i>	<i>3,05,043</i>	<i>54</i>	<i>3,05,097</i>
5	Vegetables	6,97,945	8,95,130	15,93,075
6	Fruits	11,38,610	53,204	11,91,814
Total		98,43,593	59,40,510	1,57,84,103

(Note: Crop names in *Italics* are major principle crops in that group)

3.2.6. Production under Non-Food crops in 2016-17

Among the non-food crops, cotton production was highest with 34.44 lakh bales (a bale consist of 170 kg.) during Kharif Season. Oil seeds, consisting of both edible and non-edible oil is another major non-food crop in the state. The production of edible and non-edible oils was 9.10 lakh tonnes and 26,481 tonnes, respectively in 2016-17 (Table 3.8).

Table 3.8: Production of Non-Food Crops in 2016-17

(in Tonnes)

Sl. No.	Crop	Kharif	Rabi	Total
1	Cotton (Lint)*	34,44,408	-	34,44,408
2	Edible Oil	5,88,770	3,21,124	9,09,894
	<i>Soybean</i>	<i>3,22,395</i>	<i>32</i>	<i>3,22,427</i>
	<i>Groundnut</i>	<i>51,597</i>	<i>2,90,379</i>	<i>3,41,976</i>
	<i>Sesamum</i>	<i>438</i>	<i>14,161</i>	<i>14,599</i>

Sl. No.	Crop	Kharif	Rabi	Total
3	Non-Edible Oil	26,207	274	26,481
	<i>Castor</i>	26,207	272	26,479
4	Tobacco, Drugs & Narcotics	7,080	11,833	18,913
5	Flowers & Aromatic Plants	9,037	2,091	11,128

* Production in bales; (Note: Crop names in *Italics* are major principle crops in that group)

3.2.7. Area and Production in 2017-18

As per the 2nd Advance Estimates for the year 2017-18 released in January, 2018, the total area under food-grains was estimated at 31.87 lakh hectares, as against 34.39 lakh hectares in 2016-17, indicating a decrease of 7.33 % over the previous year. The production of food-grains including cereals & millets and pulses, has been estimated at about 95.01 lakh tonnes in the current agricultural year (2017-18), as against 101.29 lakh tonnes last year. The Oil seeds production was estimated to be 5.77 lakh tonnes, as against 7.22 lakh tonnes in the previous year. Area under cotton was estimated to be 19.03 lakh hectares in 2017-18, as against 14.09 lakh hectares in the year 2016-17, showing an increase of 35.06% over the previous year. The production of cotton has been estimated to be 43.32 lakh bales, which is higher by 8.88 lakh bales over the previous year production of 34.44 lakh bales, indicating an increase of 25.78% (Table 3.9).

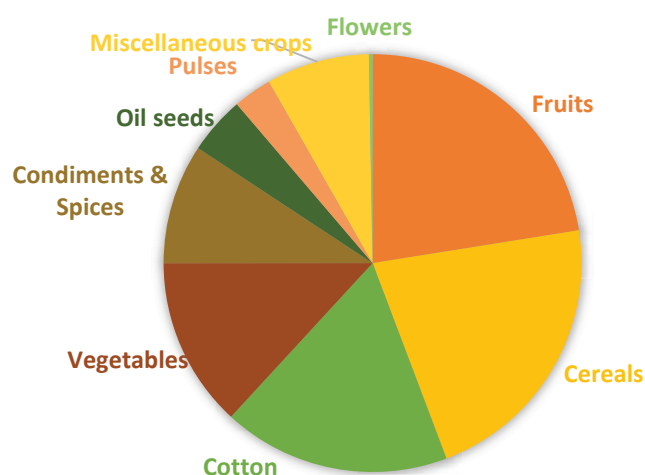
Table 3.9: Area and Production in 2017-18

Sl. No.	Crops	Area (in lakh hectare)	Production (in lakh tonnes)
1	Rice	19.72	65.58
2	Maize	6.06	23.55
3	Cereals & millets	26.53	89.88
4	Redgram	2.95	2.84
5	Pulses	5.34	5.13
6	Food grains	31.87	95.01
7	Groundnut	1.59	3.02
8	Soyabean	1.52	2.4
9	Oil seeds	3.63	5.77
10	Sugarcane	0.35	22.17
11	Cotton (Lint)*	19.03	43.32

Source: 2nd Advanced Estimates 2017-18, DES. Note: * Production in bales

3.2.8. Gross Value Added from different crops (GVA)

Figure 3.4: Contribution of Gross Value Added by different crop groups in 2015-16



In terms of the Gross Value Added (GVA) from the crops to the State Gross Value Added during 2015-16, three major crop groups viz., cereals, fruits, and cotton account for lion's share. Other important groups include vegetables, spices, oil seeds and pulses (Figure 3.4).

3.3. Operational Landholdings

The Census of Landholdings is being conducted by the Government of India once in every 5 years in order to obtain key information regarding operational agricultural landholding. This Census enumerates total number of 'operational landholdings' under different categories viz., marginal, small, semi-medium, medium and large depending on the area of operational holding.

Table 3.10: Average size of different category of landholdings in Telangana

Size Group	Census of Landholdings 2005-06 (Hectares)	Census of Landholdings 2010-11 (Hectares)	% variation of 2010-11 over 2005-06
Marginal	0.5	0.5	0
Small	1.4	1.4	0
Semi-medium	2.7	2.6	-1.51
Medium	5.7	5.5	-2.21
Large	15.9	15.6	-2.12
All Size Groups	1.3	1.1	-14.49

The average size of the operational landholding in the state is 1.1 hectares (2.7 acres) in 2010-11, declined from 1.3 hectares in 2005-06. It is noted from Table 3.10 that the operational landholding size of marginal and small farmers, who constitute about 80% of the total operational holdings in the state, remained the same. However, there had been a decline in landholding size of semi-medium, medium and large categories in the year 2010-11, when compared with 2005-06.

Table 3.11: Average Landholding size in Telangana Vs All-India

Year	Telangana	All India
1970-71	3.09	2.28
1976-77	2.79	2.00
1980-81	2.22	1.84
1985-86	1.99	1.69
1990-91	1.75	1.55
1995-96	1.49	1.41
2000-01	1.37	1.33
2005-06	1.30	1.23
2010-11	1.12	1.15

A glance at the temporal trend in average landholding size in Telangana reveals that, there has been a steady decline in the average landholding size from 3.09 hectares in 1970-71 to 2.22 hectares in 1980-81, further to 1.75 hectares in 1990-91 and to 1.37 hectares in 2000-01. The decline of average landholding has been slowed down from 2000-01 onwards (Table 3.11).

3.4. Agro-Climatic Zones of Telangana

Telangana State has been divided into three agro-climatic zones based on the geographical characteristics such as rainfall, nature of soils, climate, etc.: i) Northern Telangana Zone, ii) Central Telangana Zone, and iii) Southern Telangana Zone (Table 3.12) & (Map 3.2).

Table 3.12: Agro-Climatic Zones of Telangana

Sl. No.	Name of the zone	Districts
1	Northern Telangana Zone	Adilabad, Nirmal, Kumuram Bheem, Jagtial, Mancherial, Peddapalli, Karimnagar, Rajanna Sircilla, Nizamabad and Kamareddy.
2	Central Telangana Zone	Sangareddy, Medak, Siddipet, Jangaon, Warangal Urban and Rural, Mahabubabad, Bhadradri Kothagudem, Khammam and Jayashankar.
3	Southern Telangana Zone	Vikarabad, Hyderabad, Yadadri Bhuvanagiri, Mahabubnagar, Wanaparthi, Jogulamba Gadwal, Nagarkurnool, Nalgonda, Suryapet, Medchal-Malkagiri and Rangareddy.

(i) Northern Telangana Zone: This zone comprises of districts Adilabad, Nirmal, Kumuram Bheem, Jagtial, Mancherial, Peddapalli, Karimnagar, Rajanna Sircilla, Nizamabad, and Kamareddy. The annual rainfall in this zone ranges from 900 mm to 1150 mm, received mostly from the south-west monsoon. Red soils are predominant in this zone, which includes chalkas, red sands and deep red loams along with very deep black cotton soils. The important crops grown in this zone are rice, maize, soyabean, cotton, redgram, turmeric, etc.

(ii) Central Telangana Zone: This zone comprises of districts Sangareddy, Medak, Siddipet, Jangaon, Warangal Urban and Rural, Mahabubabad, Bhadradri Kothagudem, Khammam and Jayashankar and receives an average annual rainfall between 800 mm and 1150 mm. Minimum and maximum temperatures during south west monsoon ranges between 21°C - 25°C and 22°C - 37°C, respectively. Red soils are predominant which includes chalkas, red sands and deep red loams along with very deep black cotton soils. The important crops grown in this zone include cotton, rice, maize, greengram, mango, chillies, etc.

(iii) Southern Telangana Zone: This zone comprises the districts Vikarabad, Hyderabad, Yadadri Bhuvanagiri, Mahabubnagar, Wanaparthi, Jogulamba Gadwal, Nagarkurnool, Nalgonda, Suryapet, Medchal-Malkagiri and Rangareddy and the average annual rainfall ranges between 600 mm and 780 mm. The minimum and maximum temperatures during south west monsoon period range between 22°C - 23°C and 28°C - 34°C, respectively. This zone is predominantly a red soil track having red with loamy sub-soil, i.e., chalkas. The important crops grown in the zone are cotton, rice, redgram, maize, greengram, etc.

Map 3.2. Agro Climatic Zones in Telangana



3.5. Rainfall Scenario

As Telangana located in the semi-arid regions of the Deccan Plateau, rainfall plays a crucial role for agriculture growth in the State. The normal rainfall of state is 905.3 mm as against India’s normal rainfall of 1083 mm (Table 3.13).

Table 3.13: Rainfall Status in Agricultural Year 2016-17

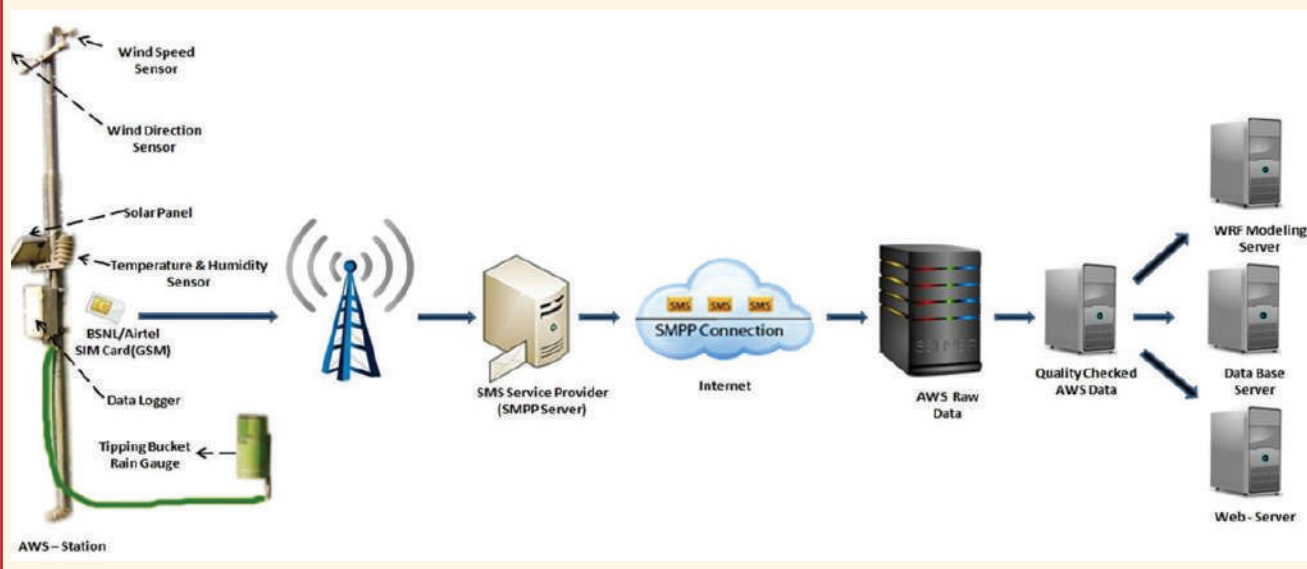
Sl. No.	Season	Normal	Actual	% Dev. over Normal	Status
1	South-West Monsoon (June to September)	713.5	912.0	27.8	Excess
2	North-East Monsoon (October to December)	129.5	70.9	-45.2	Deficient
3	Winter Period (January to February)	11.5	0	-100.0	No Rain
4	Hot Weather period (March to May)	50.8	35.6	-29.9	Deficient
Total		905.3	1018.5	12.5	Normal

The total rainfall scenario during the year 2016-17 was positive. The rainfall received during south-west monsoon was excess by 28% over the normal rainfall. However, rainfall during the North-East monsoon and the hot weather period was much lesser than the normal and no rain is received during winter period. Rainfall received during South -West monsoon 2017 is 645.6mm against the normal of 715.8mm and the rainfall in North-East monsoon is 129.1mm against the normal 127.0mm In total the rainfall received is normal in 2017-18.

Box 3.1: AWS Locations in Telangana

The Automatic Weather Station (AWS) is a meteorological station, where weather characteristics are recorded and transmitted automatically. AWS captures weather parameters such as temperature, humidity, wind speed/direction, pressure and rainfall and provide hourly data in real-time to central computer server through GSM communication technology. This data retrieved after quality control in real time is summarized and disseminated to various users through web service (www.tsdp.telangana.gov.in), email and SMS. The analyzed daily reports and GIS based spatial maps of weather parameters such as rainfall, temperature and humidity maps are disseminated to all state officials, district collectors, and other users for their real time operational use.

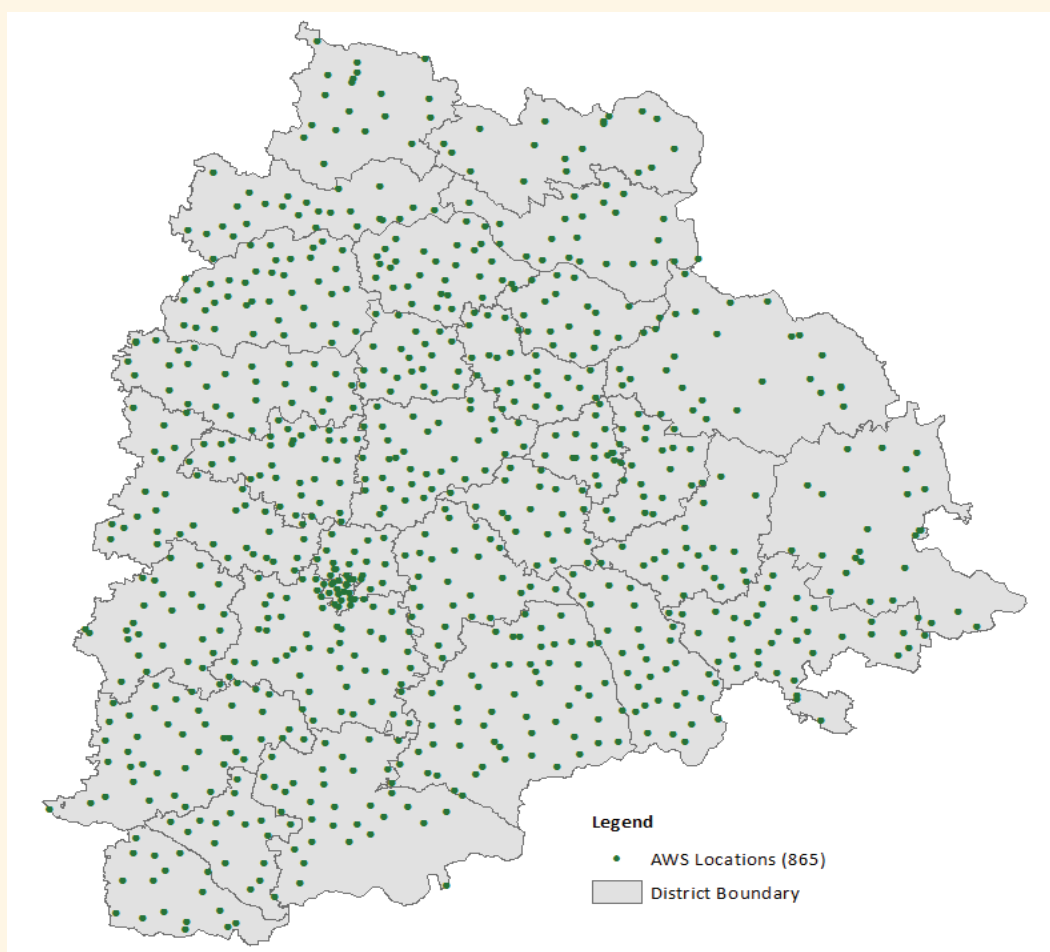
Weather data collection and transmission through AWS



In addition to the AWS data monitoring, 3-day weather forecast is of cold wave, heat wave, heavy rainfall and dry or wet spells is forecasted on real time basis and uploaded on the official website regularly. A Mandal representative ‘single daily rainfall data’, which is used for rainfall monitoring and drought management, is being prepared by integrating the data received from 865 AWSs of Telangana State Development Planning Society (TSDPS), 459 manual rain gauges of the Directorate of Economics and Statistics and 11 manual rainfall and 55 AWS of Indian Meteorological Department (Map 3.3).

This data being used by various departments such as Agriculture Department for crop management and planning, Agriculture Insurance Companies for weather based crop insurance (WBCIS), Agriculture University for calculation of Moisture Aridity Index (MAI), GHMC & HMDA for Urban Flood Monitoring and Traffic Management, Irrigation Department for Rainfall and River Management, Disaster Management for heavy rainfall alert, etc.

Map 3.3. AWS Locations in Telangana



3.6. Agricultural Credit

Agricultural credit is the base for investment in this sector. While agricultural credit is secured from various sources, the State Government has placed a thorough emphasis on increasing formal credit through banks and cooperatives. As a result, there has been a quantum jump in the credit allocated for the crop sector in recent years.

Table 3.14: Telangana State Credit Plan Achievements from 2015-16 to 2017-18

(Rs. crore)

Sl. No.	Segments	Disbursal during 2015-16	Disbursal during 2016-17	2017-18	
				Target	Achievement (Upto 30.09.2017)
1	Crops Loans	23,366	28,661	23,851	21,026
2	Agricultural Term Loans	8,746	6,143	10,715	3,516
3	Allied Agricultural Activities	1,945	2,608	3,731	1,664
4	Total Agricultural (1+2+3)	34,057	37,413	38,298	26,206
5	Micro & Small Enterprises	16,571	20,221	16,465	16,280
6	Other Priority (education, housing and others)	5,005	4,735	10,167	2,862
7	Total Priority Sector (4+5+6)	55,637	62,432	64,929	45,373
8	Non-Priority Sector	79,033	78,958	33,523	53,976
Total Advances (7+8)		1,34,670	1,41,390	98,543	99,349

Source: Annual Credit Plan of Telangana, 2017-18 (2nd Quarter, September, 2017).

As per the Annual Credit Plan prepared by the State Level Bankers' Committee of Telangana, the total annual credit plan for the year 2017-18 was Rs. 98,542.7 crore. Out of the total projected credit plan, Rs. 38,298 crore credit is targeted towards agriculture and allied activities, which is about 39 % of total credit plan, showing 2.7% increase over previous year achievement (Table 3.14). As on 30.09.2017, about 68% of the targeted agricultural credit has been disbursed with. Of the total credit planned for agriculture sector, about 24 percent of total credit plan is earmarked towards crop loans.

Table 3.15: Major Crop wise loans under the Annual Credit Plan for the Year 2017-18

(Rs. crore)

Sl. No.	Crops	Amount Target		Beneficiary Target	
		Amount	% share	Number of Loanies	% share
1	Paddy	16,690	42.0	19,18,424	38.8
2	Other oilseeds	1,247	3.1	1,36,960	2.8
3	Jower/Bajra	2,053	5.2	3,53,961	7.2
4	Soya/Ragi	378	1.0	89,948	1.8
5	Maize	2,312	5.8	5,50,466	11.1
6	Chillies	1,152	2.9	93,635	1.9
7	Groundnut	1,457	3.7	2,91,483	5.9
8	Turmeric	350	0.9	35,001	0.7
9	Pulses	1,770	4.5	2,10,764	4.3
10	Cotton	6,810	17.1	7,48,294	15.2
11	Sunflower	174	0.4	28,996	0.6
12	Sugarcane	989	2.5	69,182	1.4
13	Vegetable cultivation	1,381	3.5	2,12,441	4.3

Source: Annual Credit Plan of Telangana, 2017-18

Targeted crop-wise loans disbursal during 2017-18 indicates that agricultural credit is targeted towards two major crops, viz., paddy and cotton. Paddy alone account for about 42% of the total crop loan amount. Paddy along with cotton accounts for about 60% of the total crops loans, followed by maize, and jowar/bajra. It is also noted from the Table 3.15 that about 39% of total number of loans are provided to paddy cultivation, followed by cotton (15%) and maize (11%). 49.38 lakh beneficiaries are projected to be sanctioned during 2017-18.

Table 3.16: District wise targets for agricultural credit, 2017-18

Sl. No.	District	Agricultural Credit Target (Rs. crore)	% share in total credit
1	Nizamabad	3,610	6.7
2	Mahabubnagar	3,126	5.8
3	Nalgonda	3,071	5.7
4	Khammam	2,694	5.0
5	Rangareddy	2,658	4.9
6	Sangareddy	2,291	4.2
7	Kamareddy	2,206	4.1
8	Bhadradi Kothagudem	2,168	4.0
9	Nagarkurnool	2,124	3.9
10	Siddipet	2,095	3.9
11	Vikarabad	1,952	3.6
12	Jayashankar	1,770	3.3
13	Jagtial	1,717	3.2
14	Karimnagar	1,660	3.1
15	Adilabad	1,632	3.0
16	Mancherial	1,617	3.0
17	Nirmal	1,611	3.0
18	Suryapet	1,601	3.0
19	Jogulamba Gadwal	1,583	2.9
20	Mahabubabad	1,459	2.7
21	Jangaon	1,443	2.7
22	Wanaparthi	1,383	2.6
23	Peddapalli	1,310	2.4
24	Medak	1,309	2.4
25	Yadadri Bhuvanagiri	1,304	2.4
26	Warangal Urban	1,194	2.2
27	Warangal Rural	1,088	2
28	Kumuram Bheem	1,073	2
29	Rajana Sircilla	998	1.8
30	Medchal-Malkajgiri	453	0.8
31	Hyderabad	-	-

Source: Annual Credit Plan of Telangana, 2017-18

The district wise disbursal target of agricultural credit is provided in the Table 3.16. Out of total agricultural credit, 6.7% is targeted for Nizamabad district, followed by Mahabubnagar, Nalgonda, Khamman, Rangareddy with targets of 5.8%, 5.7%, 5%, and 4.9%, respectively.

In addition to expanding the Annual Credit Plan for ensuring credit to agricultural sector from the formal sector, Government of Telangana has been taking number of initiatives to augment credit to farmers, some of the key initiatives are mentioned in following section.

Box 3.2: Telangana State Co-operative Apex Bank Ltd.

Telangana State Co-operative Apex Bank Limited (TSCAB), commenced its business from April 2015, provides leadership to District Co-operative Central Banks and Primary Agriculture Co-operative Credit Societies (PACS), to fulfil the objective of ensuring timely and adequate credit facilities to the farmers and other rural population of the state.

There are nine DCCBs, located in Adilabad, Hyderabad, Karimnagar, Khammam, Mahabubnagar, Medak, Nalgonda, Nizamabad and Warangal, covering all 31 districts of the state. Primary Agriculture Co-operative Credit Societies (PACS) are located in all Mandal headquarters and major villages in the state. At present, there are 798 PACS having 36.72 lakh members, of which 12.50 lakh are borrowing members.

As an Apex Bank, TSCAB acts as a balancing center for the resources of the Co-operatives in the State and also investment agency for DCCBs. The TSCAB is the nodal agency for channelization of funds from NABARD to farmers through DCCBs and PACS. The TSCAB provides support to the DCCBs in their business operations and in implementation of various programmes of the Government of Telangana.

The loan portfolio of TSCAB covers crop loans, medium term loans, long term loans for agricultural purposes and short term credit limit for marketing of crops against negotiable warehouse receipts as post harvesting finance. It also provides financial support to the government sponsored schemes, loans to weavers' cooperative societies, employees' cooperative credit societies and other cooperative societies.

Since inception of the Bank almost all the key financial indicators show an increasing trend, and the Net NPAs of TSCAB are being maintained constantly at 0%. Further, the Bank has doubled its profit from 31.03.2016 to 31.03.2017. The total disbursements by TSCAB under crop loans is Rs. 1,486.61 crore and Rs.1,103.90 crore under short-term (others) up to 31-12-2017 during the year 2017-18.

TSCAB has also taken prompt initiative for timely paddy procurement from the farmers through PACS. Out of 798 PACS, 470 PACS have taken up procurement of Paddy as an agent of Civil Supplies Corporation Ltd., Government of Telangana.

3.7. Major initiatives targeted towards agriculture sector

3.7.1. Initiatives towards increase irrigated area through major, medium and minor irrigation projects

Irrigation is a critical input of increasing crop production and mitigating crop-failure risk. Since formation of Telangana, the government has been providing highest priority to augment irrigation capacity in the state through construction of major and medium irrigation projects, apart from the rejuvenation of existing minor irrigation tanks through Mission Kakatiya.

The objective of the government with respect to irrigation is to create assured irrigation facility to at least one crore acres. Apart from creating new irrigation potential, the government has adopted a comprehensive

approach to use the State's water resources through more efficient, equitable, and sustainable methods. Key initiatives towards this are briefed below:

- (i) **Significant budgetary allocation to irrigation sector:** Considering its immense potential of irrigation for the State development, the government has been allocating significant amount of budget to the irrigation projects, i.e., Rs.25,000 crores were allotted for irrigation purposes during last two consecutive years.
- (ii) **Re-Engineering of Irrigation Projects:** In order to expeditiously complete various irrigation projects as per specific requirements, re-engineering and modification has been taken up for certain ongoing projects to suit the requirements of the state for optimum utilization of water.
- (iii) **Modernization of existing major and medium irrigation to increase potentials:** Modernization of existing major and medium irrigation projects were taken up to fill up gap ayacut in the projects by restoring canal systems to their original standards which were in dilapidated condition. The government has taken up various existing irrigation projects for modernisation.
- (iv) **Interstate Negotiations for resolving long pending issues:** Sharing of water between the states remained unresolved for long period during the era of combined state. For instance, Inchampally Multipurpose project on the Godavari River and the Penganga Project on the river Penganga could not be constructed because of interstate disputes among the riparian states in spite of signing of interstate agreements way back in 1975. Successive governments of combined state did not initiate discussions to resolve interstate issues and realize the long pending projects. Since formation of the state, the government has taken a decision to dispense with the policy of confrontation and adopt a policy of 'give and take' in order to resolve the long pending issues constructively.
- (v) **Mission Kakatiya for renovating the age-old tanks in the state:** Minor Irrigation is a key resource of Telangana benefitting various communities. The government undertook "Mission Kakatiya" for restoration and revival of the entire age-old tank system in the state. Most of these restored and revived tanks are being linked with the major projects. About 46,500 minor irrigation tanks have been proposed to be comprehensively restored under Mission Kakatiya in 5 phases. A detailed description of irrigation projects is provided in the Infrastructure Chapter.

3.7.2. 24x7 power supply to farm sector: The Government of Telangana has improved power supply to the agriculture sector since formation of the State. 9 hours of power supply to agriculture sector was initiated from 1.04.2016 onwards. Subsequently, 24 hours power supply was extended to the agriculture consumers on an experimental basis in three erstwhile districts namely Medak, Nalgonda and Karimnagar from July, 2017. Going a step ahead, Telangana has created a new record of supplying quality power free of cost for 24 hours to the agriculture sector. For the first time in the history, 24 hours power is being supplied from 01.01.2018 onwards to 23 lakh agriculture pump sets in the state. Telangana has become the only state in the country to achieve this rare distinction in the power sector to end the despair of farmers.

3.7.3. Land Record Purification Programme: Survey, settlement and bundobust of the agricultural lands in the state was conducted during Nizam period during 1932-34. Recording of Khata wise details were carried out and Khasra Pahanis were prepared in erstwhile Hyderabad state in 1954, subsequent to this no serious attempts were made to update the land records in the state. This lackadaisical approach had resulted in creating huge gaps between lands records on paper and ground reality, which had, in turn, led to court litigations and disputes.

In order to ameliorate the woes of farmers related to land records, the government has taken up the ambitious Land Record Purification Programme to redress the grievances of farmers. The mammoth exercise was

conducted from 15.09.2017 to 31.12.2017. A total of 1,507 teams and about 3,500 revenue officers were deployed for the survey in about 10,823 Villages. The entire exercise was conducted in 2 phases: (i) Part-A the Land Records which are clear are completed in the above mentioned period, and (ii) Part-B Residual Land Records which are covered by disputes are bound to be tackled in due course. As per the action plan, the part-A exercise is completed as on 31.12.2017. Details are provided in Table 3.17.

Table 3.17: Details of Land records Purification programme (Area in acres and guntas)

Total Extent Verified	2,55,98,091.19
Total extent clear	2,38,08,650.04 (93%)
Total extent not clear	17,89,595.18 (7%)
Total Khatas clear	71,75,096 (92%)
Details of Land Cleared during drive	
a. Agricultural Land	1,42,12,826.17
b. Non Agricultural Land in Patta Lands	11,95,889.10
c. Government assets	13,82,384.39
d. Government Land with original assignees	20,01,512.12
e. Government Vacant Land	7,21,694.11
f. Forest Lands	41,74,652.03
g. Endowment Lands	74,128.07
h. Waqf Lands	45,564.06
Total	2,38,08,650.04

As an outcome, high security enabled e-Pattadar Passbook cum title deeds are proposed to be issued to all clear Khatas i.e., 71 Lakh, very shortly. All future land transactions will be processed through a full-fledged, dynamic and real-time online Land Records Management System called “Dharani” in due course.

Box 3.3: Sadabainama initiative for registration and mutation of land records

In order to resolve all the disputes related to land and rectify the land records, the government initiated several reforms in registration and mutations of land records through “Sadabainama initiative”. Under this initiative, government permitted regularization of the unregistered sale transactions or plain paper transactions pertaining to agricultural lands as one time settlement at free of cost (below 5 acres in rural areas). This was done from 3rd Jun to 22nd June, 2016 and the period was extended for some more time. A total of 11.19 lakh Sadabainamas were registered. Mutations of lands acquired as hereditary was done within ten days and mutations of all the lands that are registered was done within 15 days. The land that was occupied illegally has been restored to the eligible. 6.18 lakh have obtained pattas. 2.99 lakh were rejected as on 30.06.2017.

Further, the government extended the Sadabainama to five Mandals of Sangareddy District (within HMDA) and 15 Mandals of KUDA area to benefit 64,740 farmers. In addition, the government permitted process of regularization of Sadabainama in case of large farmers (more than 5 acres) who have applied within stipulated time.

3.7.4. Farm mechanization: The government, with a view to promote farm mechanization in a big way has been providing increased allocation of budget every year since formation of the state. The objective is to reduce cost of cultivation and drudgery in farm operations and ensure timely farm operations. The

government is providing various farm implements, farm machinery at 100% subsidy to SC, ST farmers and 50% subsidy for others. For benefit of the farmers, tax on tractors is exempted for the companies who manufacture and supply in Telangana. About Rs. 415 crores worth farm implements and machinery have been supplied to over 4.08 lakh farmers since formation in the state.

3.7.5. Vaddi Leni Panta Runalu and Pavala Vaddi: To mitigate the financial burden of the farmers and to encourage them in availing institutional credit and to inculcate the practice of timely repayment of crop loans, the loans are made available to the farmers at no or less interest rates. The government is implementing interest free crop loans to all the farmers up to Rs. 1 lakh and Pavala Vaddi for crop loans from Rs. 1 - 3 lakh, if loan is repaid within a period of one year. The interest burden is shared between the State Government and the Central Government (4% from State Government and 3% from Central Government). The farmers availing the crop loans from Rs.1 Lakh to 3 Lakh have to pay only Pavala Vaddi, the remaining interest burden will be borne by the State Government and Government of India, accordingly.

3.7.6. Debt Waiver Scheme 2014-15: During 2014-15, the government has announced loan waiver to all the farmers up to Rs 1 lakh out of the outstanding loan amount as on 31.3.2014. Under the scheme, all crop loans and agricultural gold loans used for crops were considered for loan waiver. Government has released funds for the crop loan waiver in four equal instalments i.e., 2014-15, 2015-16, 2016-17 and 2017-18 and waived off Rs.16,124.37 crore for 35.30 lakh farmers of their outstanding crop loans.

3.7.7. Distribution of agricultural inputs: The government is taking all measures to supply seed, fertilizer, and pesticides to the farmers on time at the village level through the Primary Agriculture Cooperative Societies. Stocking up is being done to ensure enough supplies of seeds and fertilizers so that farmers do not face scarcity of the essential inputs.

The government has initiated the following initiatives for ensuring adequate seed supply to farmers.

(i) Strengthening of seed chain: The government established 27 state-of-art seed processing plants and constructions of 18 seed storage godowns. Public seed organizations produced 38 lakh qtls., of high volume crops like paddy, soyabean, groundnut, bengalgram, and pulses, etc., as against a quantity of 32 lakh qtls produced previously in the combined state. Efforts are on to make Telangana State a Global Seed Hub.

(ii) Seed Subsidy: Various crop seed have been supplied on subsidy to the small and marginal farmers. A quantity of 16.01 lakh quintals of seed of different crops have been distributed to 21.33 lakh farmers since inception of the state. The farmers are being supplied 3.41 lakh qtls., of seed in Kharif and 5.83 lakh qtls., of seed in Rabi season, 2017-18.

(iii) Seed village scheme: Seed village scheme is being implemented to produce good quality seed and for providing the farmers at cheaper rates. The main strategy of this scheme is to self-sustain the farmers by producing the required quality seed at farmer's field and also to supply quality seed to the neighbouring farmers.

(iv) Telangana emerging as the seed bowl of India: Availability of diverse agro-climatic regions with cool and dry weather conditions round the year made Telangana a congenial place for cultivating crops for production of quality seed. These are facilitating the state in reaping the opportunities and it is on the way to become the 'Seed Bowl of the Country'.

(v) Online License Management System (OLMS): In order to smoothen the licensing process for input dealers, the government has computerised the entire process of licensing of input dealers through Online License Management System (OLMS). This enables the dealers to submit the application online for obtaining dealership certificate of registration for sale of fertilizers, seeds and pesticides.

Box 3.4: Telangana State Seed & Organic Certification Authority

Seed is the basic and most critical input for assured agriculture output. Investments made on all other inputs will go waste if the seed is not of good quality, thus, the quality seed is of paramount importance for sustainable growth of agricultural production and productivity. The quality control system in India began with the establishment of National Seeds Corporation and enactment of Indian Seeds Act, 1966. The Telangana State Seed & Organic Certification Authority (TSSCA) works towards maintaining and ensuring availability of high quality seeds and issues seed certification. The major crops under this certification programme are Paddy, Groundnut, Soyabean, Pulses, Maize, Bajra, Jowar and Vegetables. Notable Achievements of the TSSCA are :

- Increase in Area covered: A total area of 1.89 lakh acres was under the seed certification programme during 2014-15, further gone up to 2.28 lakh acres during 2016-17.
- 32nd ISTA Congress: The 32nd ISTA Congress is going to be held during June, 2019 in Hyderabad and this prestigious event is being held for the first time in the country as well as in the Asia.
- Online Seed Certification Process: In order to increase transparency, accountability and fast delivery of services to the seed producers, Online Seed Certification Process was introduced from 2016. This is also one of the first of its kind in the Country.
- International (OECD) Seed Certification: About 17,000 qtls of Hybrid Paddy and Sorghum seed were exported to Egypt, Sudan and Philippines, which is a remarkable progress in the country. Telangana is the first state in the Country to facilitate export of Sorghum to Sudan and Egypt through International Seed Certification, the Organisation for Economic Co-operation and Development (OECD) with Orange Certificate.

(vi) Establishment of new fertilizer control order labs: The government has sanctioned for establishment of two more Fertilizer Control Order Labs at Adilabad and Karimnagar, in addition to already existing labs in Warangal and Rangareddy, thereby strengthening the facilities for testing of fertilizer samples to assure quality fertilizers to the farmers.

(vii) PD Act on supply of spurious seeds and pesticides: Government has been keeping a strict vigil on those involved in supply of spurious seeds and pesticides. Persons involved in such acts are being punished under the PD Act.

(viii) Release of Input Subsidy: After the formation of the state, an amount of Rs. 1,302.29 crore has been released towards input subsidy for various calamities.

3.7.8. Pradhan Mantri Fasal Bhima Yojana: The Government of India launched Pradhan Manthri Fasal Bhima Yojana (PMFBY) from Kharif 2016 onwards with an objective of providing financial support to the famers suffering crop loss/ damage arising out of unforeseen events. PMFBY has following three components: (1) Pradhan Mantri Fasal Bhima Yojana (PMFBY) for standing crop based on area approach, (2) Restructured Weather Based Crop Insurance Scheme (RWBCIS) under which weather parameters such as deficit or excessive rainfall, high or low temperature, relative humidity and wind speed are used as proxy parameters to assess the yield losses, and (3) Unified Package Insurance Scheme (UPIS) under which farmers are covered for accident insurance, life insurance, dwelling insurance, agriculture pump set insurance, tractor insurance, etc.

PMFBY covers all farmers including sharecroppers and tenant farmers growing the notified crops in notified areas. It is compulsory for farmers availing seasonal agricultural operations loans from financial institutions,

(Loanee farmers for the notified crops) but it is optional for non-loanee farmers. Coverage of crops are (i) food crops (cereals, millets and pulses), oilseeds, and other annual commercial and annual horticultural crops. Risks covered under PMFBY are (i) prevented sowing, (ii) standing crop, (iii) post-harvest losses, and (iv) localized calamities (Table 3.18).

Table 3.18: Maximum Insurance Premium under PMFBY

Sl. No	Crops	Season	Premium rates
1	Food grains and Oil seeds	Kharif	2% of Sum Insured or actuarial rates
		Rabi	1.5% of Sum Insured or actuarial rates
2	Annual Commercial and Horticultural crops	Kharif and Rabi	5% of Sum Insured or actuarial rates

A total of 8.38 lakh farmers enrolled under the Scheme during Kharif 2017 as against the coverage of 7.11 lakh farmers in Kharif 2016 and 2.67 lakh farmers in Rabi 2016.

3.7.9. National Mission on Oil seeds and Oil-palm (NMOOP): The National Mission on Oil seeds and Oil-Palm (NMOOP) is a centrally sponsored scheme launched with an objective to increase in production of vegetable oils sourced from oil seeds, oil palm and tree borne oil seeds. The Mission is proposed to be implemented three Mini Missions i.e., with specific target to increase the production of oil seeds, oil palm and tree borne oil seeds. Under the Mini-Mission-I Oil seed: Various initiatives have been initiated to increase the production of oil seeds, especially soyabean and groundnut, through increasing seed replacement ratio, increasing irrigation coverage, focus on low productivity and high potential districts, and encouraging inter-cropping of oilseeds with cereals/ pulses.

Box: 3.5: Initiatives in Oil Palm in Telangana

Oil Palm plantation is covered in 3 districts viz., Bhadradri Kothagudem, Khammam and Suryapeta. The highest oil-palm plantation is in Bhadradri Kothagudem with about 10,193 hectares, followed by Khammam with about 3,000 hectares and Suryapet with 103 hectares. There is much scope for oil palm area expansion, particularly in Khammam and Bhadradri Kothagudem districts. It is expected that in coming years it will expand to around 4,000 Ha every year.

In order to encourage oil palm cultivation, TSOILFED (Telangana State Co-Operative Oilseeds Growers Federation Limited) has developed a centralized nursery at Ashwaraopet and providing required imported oil palm seedlings to the farmers. This year the Federation has grown around 1.11 lakh seedlings that can cover an area of 750 Ha. Government has also taken initiatives to increase the capacity of Oil Palm Processing unit at Ashwaraopet from 15 Tonnes Per Hour (TPH) to 30 TPH. In 2017, new Oilpalm Processing unit is established at Apparaopet village in Dammamet Mandal in Bhadradri Kothagudem District with Malaysian Technology from 30 TPH to 60 TPH. In order to encourage farmers, a subsidy of Rs. 12,000 per hectare towards plant material and Rs. 20,000 per hectare towards cultivation subsidy is given for oil-palm grower under the National Mission on Oil-seeds and Oil Palm (NMOOP).

3.7.10. Soil Testing: Judicious and economical use of fertilizers based on the actual nutrient status and health of the soils is critical to increase farm productivity. This is possible only through analysis of soil samples and generation of soil health cards, based on the analytical data. In collaboration with the Government of India, the government has established 44 soil testing labs in the state and working towards issuing Soil Health Cards to all the farmers over a period of two years. The government has also launched three new mobile soil testing labs in Medak, Warangal and Adilabad districts and are functioning in close coordination with the farmers.

Box. 3.6: Mridaparikshaks / Mini Soil Testing Labs

- Department of Agriculture, has procured 2,050 Mridaparikshaks in order to accomplish the targets under “Soil health Card” scheme and to analyze the soil samples for all the 12 parameters and at the same time, to facilitate the analysis of 55 lakh soil samples.
- These Minilabs are established at each cluster level in the districts and are being operated by the Agriculture Extension Officers.
- Mridaparikshak is a digital mobile quantitative soil test kit to provide soil testing service at farmer’s doorstep and also can send the fertility status to the farmers through SMS.
- Each Minilab is capable of analyzing 100 soil samples by the reagent kit provided along with Minilab.
- As on date against a target of 3,07,500 samples allocated to the districts 1,91,618 of soil samples were analyzed under Minilabs.

3.7.11. Rythu Samanvaya Samithis: While government has taken several initiatives for the benefit of the farmers, there is a need ensure these benefits are reaching, farmers. In order to achieve this, the government decided to organize Rythu Samanvaya Samithis (Farmers’ Coordination Committees) at Village, Mandal, District and State levels. The Samithis will play an active role in transforming agriculture into a profitable business by undertaking activities like procurement, storage, processing and marketing of agriculture and horticultural crops and their products. The Samithis will also facilitate timely supply of quality seed and fertilizers, sensitizing farmers to go for crop colonies, creating awareness on latest crop production technologies, coordinating with traders and officers to ensure remunerative price, etc. Until now Village, Mandal and District level coordination committees have been formed. So far 1,61,000 farmers across the state have been nominated in the Village, Mandal and District level Rythu Samanvaya Samithis. Rythu Vedikas are being constructed in each Agricultural Extension, which would facilitate interactions among the farmers.

Box. 3.7: Objectives of Rythu Samanvaya Samithis

- To ensure minimum support price / remunerative price to the farmers by intervening as and when necessary which will improve over all income of the farmers.
- To promote the availability of clean and safe (un-adulterated) agricultural food products directly to the people for their daily consumption.
- To work in consultation and in coordination with departments of Horticulture, Agriculture and other allied departments, MGNREGS, Marketing, and corporations like MARKFED, AGROSO, SWC, OILFED, TSSDC, etc., and other related and relevant government organizations.
- To take up the Post-Harvest interventions like godowns, pack houses, cold storages and total supply chain management from the farmer to the final consumer.
- The Corporation shall explore the possibilities of collaboration with private industries and existing food parks in PPP mode.
- Aim at export of agriculture products to neighbouring states and other countries.
- Take up the promotion of its own outlets, if necessary.
- Promote Agriculture produce by taking up value addition activities such as Grading, Processing, Packing, Marketing of the finished commodities particularly by establishing a special brand of its own.
- Organize and promote Farmers Producer Organizations/Farmer Producer Companies to strengthen the pre-harvesting and post- harvesting interventions.
- Market led extension facilitating development of appropriate market intelligence, capacity building and supply chain management.

3.7.12. Rythu Vedikas: In order to have regular interactive meetings of farmers in the villages to discuss various issues and to increase awareness on government programs in agriculture, horticulture, marketing and other allied activities, government has decided to construct “Rythu Vedikas” (designed with a meeting hall, small storage space for inputs, mini soil testing lab) in every Agricultural Extension Officer’s cluster. About a half acre land is being provided by the government or donated by philanthropists for this purpose. The construction of “Rythu Vedikas” will be taken by the Agriculture department from the year 2018-19.

3.7.13. Strengthening of Extension System: Government took a major decision to fill up all the posts of Agricultural Extension Officers and Mandal Agricultural Officers. The government also created 1,526 additional posts of AEOs to provide one AEO for every 5,000 acres for effective extension work apart from filling up all existing vacancies. Government undertook training of Mandal Agricultural Offices as Agronomist from 2016-17 at Professor Jayashankar Telangana State Agricultural University.

3.8. Horticulture

The climate and soil characteristics of the state enables to grow a large variety of horticultural crops – fruits, vegetables, flowers, spices, aromatic and medicinal plants, plantation crops, etc. Telangana is one of the major producers and exporters of fruits in the country. Horticulture has been identified as one of the focus sector for development and is a significant contributor to the economy by generating employment to the unskilled and semi-skilled rural poor. Horticulture crops are grown in an area of 12.14 lakh acres with a total production of 38.70 lakh MTs. Telangana ranked 3rd in area and 8th in production of fruits, and ranked 1st in turmeric cultivation in the country. This sector is likely to grow rapidly because of internal demands and export opportunities. Crop wise details are given in Table 3.19.

Table 3.19: Area and Production of horticultural crops in Telangana 2016-17

Sl. No.	Name of the Crop	Area		Production (lakh MTs)
		Lakh Hectares	Lakh Acres	
1	Fruits	1.68	4.15	12.00
2	Vegetables	1.24	3.07	15.94
3	Spices	1.84	4.55	8.51
4	Plantations	0.12	0.30	2.15
5	Flowers	0.03	0.07	0.10
Total		4.91	12.14	38.70






Major thrust in horticulture is to increase the production and productivity by using pandals, crop colonies, green houses or poly houses, shade net houses, micro irrigation with mulching and proper grading, processing and value addition.

3.8.1. Major programmes in Horticulture

Government has been undertaking number of initiatives to promote horticultural crops, important of them are as follows:

3.8.2. Micro Irrigation Project: Micro irrigation has multiple advantages, it saves time, power, labour, and improves fertilizer efficiency among others. Micro irrigation scheme aims at promoting micro-irrigation by providing 100% subsidy to the SC and ST farmers, 90% small and marginal BC farmers and 80% to other farmers up to 5 hectares. This Scheme has the components viz., (i) Drip Irrigation for wide spaced crops (online); (ii) Drip Irrigation for closed spaced crops (inline); (iii) Mini and micro sprinklers; and (iv) Portable, semi-permanent and rain guns sprinklers. After formation of the state, an area of 4.43 lakh acres has been brought under Micro Irrigation through this scheme. Geo-tagging of each field by taking Global Positioning System (GPS) coordinates in all corners of the field has been introduced in TS-MIP for effective monitoring of the scheme.

Success Story: Micro Irrigation Project

Drip Irrigation-Turmeric		Poly house-Chrysanthemum																																																																																																										
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3.8.3. Establishment of greenhouses: Establishment of green / polyhouses is a flagship programme of government launched during 2014-15 and is being implemented to promote cultivation of high valued horticulture crops, vegetables and flowers, to enhance productivity per unit area. Subsidy of 95% for construction of polyhouses to SC & ST farmers and 75% to other farmers is being provided. Since inception of the scheme, an area of 800 acres has been brought under polyhouses across the state out of the 1,150 acres sanctioned.

3.8.4. Centre of Excellence: Two Centres of Excellence have been established at Jeedimetla, Rangareddy district for vegetables and flowers and another at Mulugu of Siddipet district for fruits to demonstrate latest technologies to the farmers.

Box 3.8: Centre of Excellence for Flowers, Vegetables and Fruits

Telangana has established two Centres of Excellence (CoE) for promoting horticultural crops in the state viz., (i) CoE for flowers and vegetables at Jeedimetla in Rangareddy district, and (ii) CoE for fruits at Mulugu in Siddipet district. The CoE for vegetables and flowers at Jeedimetla has hi-tech vegetable nurseries with complete ecosystem that required for horticulture development, having facilities from pre-harvesting techniques of cultivation to post-harvest, then packaging. The Centre raises seedling crops in polyhouse with controlled temperature and nutrients where quality seedlings of horticulture crops are provided on subsidy to farmers. Vegetables like tomatoes, capsicum and flowers like Gerbera,

etc., are cultivated with micro irrigation and Fermi compost to control water and nutrients for healthy crops. This centre can act as a model training centre cum demonstration unit for entire state.

The CoE for fruits at Mulugu established as Indo-Israel project where fruits like mango, Pomegranate, Custard Apple, etc., are cultivated under plug type nursery (polyhouse/ multi level shade) with micro irrigation. This centre has farm pond and provide quality seeds to the farmers.



CoE for Vegetables and Fruits at Jeedimetla



Multi-level shadenet house at CoE, Mulugu



Gerbera under polyhouse



Packaging of Capsicum

3.8.5. Other initiatives in horticulture

- (i) Government has been developing crop colonies to make the state self-sufficient in production of fruits, vegetables and spices for comprehensive development of farmers in cluster mode.
- (ii) Introduction of High Yield and High curcumin containing varieties of Turmeric through FLDs to fetch remunerative price to the farmers in the future;
- (iii) The Telangana State Horticulture Development Corporation Limited was established to promote the availability of genuine and safer (un-adulterated) food products like chilli powder, turmeric powder, ginger-garlic paste, etc., directly to the consumers for their daily consumption.

Box 3.9: Telangana State Horticulture Development Corporation Limited

“The Telangana State Horticulture Development Corporation Limited” was established to promote procurement, storage, processing and marketing of good quality horticulture crops and their products. TSHDC facilitates implementation of water saving technologies like micro irrigation, modern machinery, etc. Marketing of the products shall be done under the brand name of “Kakateeya Foods”.

Objectives of Horticulture Corporation:

- To enhance overall income of the farmers by intervening in promotion of Agriculture & Horticulture i.e., processing of fruits, vegetables, flowers and spices at various levels of crop production and processing.
- To promote the availability of clean and safer (un-adulterated) food products like chilli powder, turmeric powder, ginger-garlic paste, etc., directly to the people for their daily consumption.
- To take up the Post-Harvest Interventions viz., Cold Chain System and procurement, Pre-cooling chambers, Pack Houses, Cold storage centers and total Supply Chain Management from the farmer to the final consumer.
- To promote farmers producer organization to strengthen the Pre-harvesting and post harvesting interventions & link up with the outlets in towns and cities so that the quality products are made available at the door steps of the people.

Box 3.10: Sericulture in Telangana

Sericulture is a promising area of high-value agriculture. It is a highly labour-intensive activity, providing employment opportunities throughout the year, apart from fetching higher and periodical income to the rural farm families. The involvement of women in sericulture is more than 60%. It is an environmental friendly activity because the silkworm food plants are perennial crops protecting the soil from erosion. Sericulture is a sustainable farm based economic enterprise positively favouring the rural poor in the unorganized sector because of its relatively low requirement of fixed capital, and higher returns at frequent intervals with relatively lower investment, and less gestation period.

The climate, rainfall, and lands in the state are very congenial for sustainable development of sericulture. Though the state is non-traditional sericulture practicing state, it is bestowed with Mulberry and Tasar silk production. Mulberry is practiced in about 8,535 acres in all the erstwhile districts of the state (except Hyderabad), while Tasar is practiced in the erstwhile districts of Adilabad, Karimnagar, Warangal and Khammam by nearly 2,500 families, most of them are tribals. During the year 2017-18, an area of 1,435 acres were brought under mulberry cultivation up to December 2017.



Cocoon market



Silk reeling unit at Jangaon

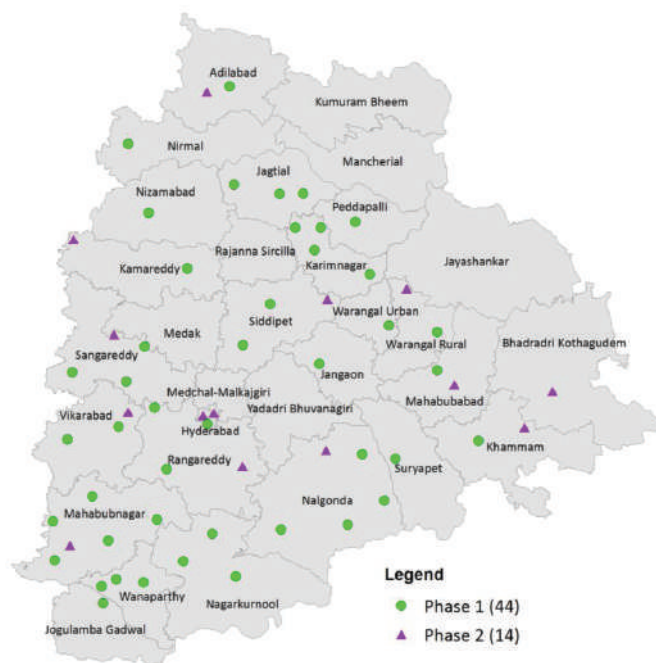
3.9. Agricultural Marketing and Storage

The NAM electronic trading platform which offers a “plug-in” to any market yard existing in a state (whether regulated or private). The special software developed for NAM is being offered to each mandi which agrees to join the national network, free of cost and necessary customization will be undertaken to conform to the regulations of each state Mandi Act.

There are three basic criteria for a state to propose mandis for “Plug-In” to NAM: (i) The state APMC Act must have a specific provision for electronic trading, (ii) The state APMC act must provide for issue of licenses to any one in India to trade through the NAM in the local mandies, (iii) There must be one single license for each state to facilitate trading in all the mandies of that state and a single point levy of transaction fee. The department of Agricultural Marketing amended the Markets Act to smoothen its implementation. NAM is envisaged as a win-win solution for all stakeholders. It benefits the farmers by opening more options for sale at nearest mandi and the local trader benefit through access a larger national market for secondary trading. Bulk buyers, processors and exporters benefit from being able to participate directly in trading at the local mandi level through the NAM platform, thereby reducing their intermediation costs.

Till date, 44 Agricultural Market Committees have been selected for implementation of NAM in the state with 14 more AMCs enrolled for implementation of e-NAM in 2nd Phase (Map 3.4). The government has established electronic weighing bridges, online gate entry system and internet leased lines for facilitating e-NAM implementation in selected markets. Total trade quantity is 21,37,210 Tonnes and amounting to Rs. 8,105 crore trade value is traded up to 17.01.2018 in 44 AMCs.

Map 3.4: e-NAM markets in Telangana



3.10. Storage Capacity for agricultural produce

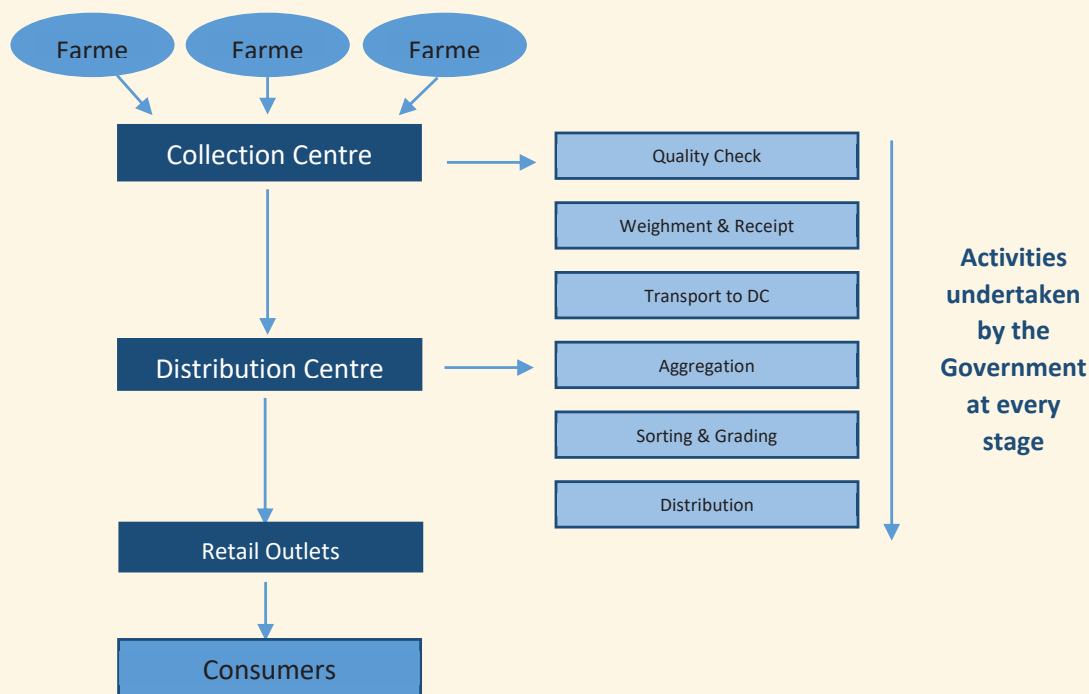
At the time of formation, the state had 176 small godowns with 4.17 lakh metric tonnes capacity spread across 10 districts. The capacity was found to be meagre to cater to the storage needs of various agricultural produce. Therefore, the government has proposed for creation of scientific storage facilities (godowns) with the financial assistance from NABARD. 364 centers have been identified with a storage capacity of

18.30 lakh metric tonnes. These godowns are designed in three compartments such that one compartment can be used for Rythu Bandhu Padhakam, for MSP (Minimum Support Price) operations and for stabilization of prices; one compartment can be used for Public Distribution System (PDS Rice) operations and the remaining for storing fertilizers. So far, 304 godowns have been completed with a storage capacity of 14.90 lakh metric tonnes.

3.10.1. Storage Capacity of Primary Agriculture Co-operative Credit Societies (PACS): In addition, the Cooperation Department has taken up the construction of godowns to facilitate the farmers to store their agricultural produce, also to enhance the storage capacity for MSP operations and inputs. Construction of four godowns @ one each in Karimnagar, Wanaparthy, Medak and Kamareddy districts with a capacity of 500 MTs each has been completed under “Mana Vooru-Mana Pranalika”. In addition, Government of India is funding the state to construct 47 godowns with a storage capacity of 15,610 MTs under RKVY. The construction work of all the 47 godowns is expected to be completed by 2017-18.

Box 3.11: Mana Kuragayalu Programme for Marketing Vegetables

Mana Kuragayalu is an alternative marketing channel that aims to improve farmer’s income along with the competitiveness of the existing marketing channels and systems. The program links distant farmer to the markets for selling their produce with a shortened supply chain. Department of Agricultural Marketing has set up collection centers close to horticulture farms, from where the produce sold by farmers are transported to government run retail outlets. MKP targets to provide price security and price stabilization by facilitating remunerative prices for the farmers while providing fresh produce at affordable prices to the urban consumers. Thus, Mana Kuragayalu performs the role of middle men and retailers to increase transparency in the system and provide fairer prices to both farmers and consumers. It is a three tier structure with activities divided as the collection centers at the field level, aggregation centers acting as a distribution centers, and retail outlets as presented below:



Collection Centers have been established for collecting the vegetables from the farmers at source locations where Farmer Interests Groups (FIGs) / Farmer Producer Organizations (FPOs) and Societies in the production clusters have been formed. One Aggregation Centre has been established at AMC Vegetable Market Yard, Bowenpally to handle approximately 27,000 MTs of fresh fruits and vegetables per annum. The facilities established in the Distribution Centres are cold rooms, mechanical sorting and grading, dry storage, crate store and a 'Cash & Carry Store'. 49 retails outlets have been established in Hyderabad city with high quality standards and equipped with digital weighing machines, online payment and air conditioners. The produce is neatly sorted into categories and packed in plastic bags for the ease of consumers.

MKP program has positively affected many farmers and consumers in the state. Rs. 17.02 crore has been credited to about 75,000 farmers till December 2017. Payment transactions through online banking system directly into farmers account have improved transparency. 25-64% increase has been observed in farmer's share of income as the government has provided remunerative prices even during a distress sale period and has taken up market charges i.e., commission and hamalis (workers who unload and load trucks with produce bags) and transportation. Farmers have hugely benefited by saving up on these marketing related costs and by having access to these assured collection centers.

3.11. Animal Husbandry

Animal husbandry and dairy sub-sector plays an important role in the overall economy and in social development of the state. The contribution of the sub-sector is about 46% of the gross value added of agriculture and allied sector. The sector has been playing a significant role in supplementing family incomes and generating employment opportunities in the rural sector, particularly among the land-less, small and marginal farmers and women besides providing nutritious food.

Telangana is blessed with rich livestock resources, especially cattle and sheep population accounting to 5.52% of country's population. The state stands 10th in livestock population, 2nd in sheep population, 13th in goat population, 4th in poultry, 13th in bovine population and 15th in pig population, in the country as per the Livestock Census, 2012.

The state is performing well in the production of milk, meat and eggs and produced 46.81 lakh tonnes of milk, 5.91 lakh tonnes of meat and 1,181.86 crore eggs during 2016-17 and stood at 13th, 5th and 3rd position respectively at the National levels. The production of milk, eggs and meat is as shown in below Table 3.20.

Table 3.20: Production of milk, eggs and meat in Telangana

Item	Unit	2015-2016	2016-2017	2017-18 (Up to Oct-2017)
Milk	000 Tonnes	4442	4681	2894
Eggs	Cr. Nos.	1121	1181.86	718.31
Meat	000 Tonnes	542	591	379

3.11.1. Initiatives in Animal Husbandry

a. Sheep Rearing Development Programme

Government has launched a massive sheep distribution scheme with a budget outlay of Rs. 5,000 crore to procure and distribute 84 lakh sheep to 4 lakh families dependent on sheep rearing. The objective of the scheme is to provide financial support to these skilled families of rearing sheep. The scheme will not only

facilitate economic development of the sheep rearing communities but also augment production of meat and meat products to meet the growing demand and also wool production which is used for manufacturing of woollen garments in the State (Table 3.21).

Box 3.12: Sheep Rearing Development Programme: Objectives, Mission and Goals

Objective of the Scheme:

- To increase the rural economy through sheep rearing.
- To make the state self sufficient in meat production and export of meat to other states and countries.
- To strengthen the Primary Sheep Breeders Cooperative Societies (PSBCS).

Mission:

- To enrol all eligible members of the traditional shepherd community in the existing societies.
- Registration of new societies in all the villages where the societies are not yet registered.
- Distribution of sheep units (20+1) to 4 lakh members of the PSBCSs on 75% subsidy.
- Cultivation of required fodder in forest lands, orchards, individual lands and government lands (waste lands, barren lands, fallow lands, etc.)

Goals:

- To provide subsidiary income to the 4 lakh members.
- To increase the population of the sheep by procuring 84,00,000 of breeding sheep from other states.
- To create Rs. 20,000 crore worth of sheep population in 2 years.
- To make State as self-sufficient in meat production.

The government provides one unit of sheep, which consists of 21 sheep comprising one male and 20 females, to two lakh families this year and another two lakh families next year. Each unit costs Rs 1.25 lakh, of which 75% is borne by the government and 25% is contributed by the beneficiary. The unit cost includes purchase, transportation of sheep, and insurance premium. The beneficiaries have to be the members of the sheep rearers' societies and every society has to follow the cooperative law rules during membership enrolment. Priority is given to the beneficiaries who do not have sheep as on date.

Table 3.21: Details of Sheep distribution programme

Sl. No.	Particulars	
1	Type of Sheep	Sheep Breeds i.e., Nellore Brown, Jodipi, Deccani and Madras Red
2	Unit Size	20 Ewes and 1 Ram
3	Unit Cost	Rs 1,25,000 (includes cost of ewes, ram, transportation, insurance premium and related expenditure on logistics)
4	Subsidy (75%)	Rs. 93,750/-
5	Beneficiary Contribution (25%)	Rs. 31,250/-
6	Period of Scheme	2 Years (2017-18 and 2018-19)

Telangana State Sheep and Goat Development Cooperative Federation Limited is responsible for policy formulation and oversee the implementation of the scheme, while district administration is responsible for enrolment of new members in existing societies, formation of new societies, selection of beneficiary, etc. The government has adopted a bottom-up approach with selection of beneficiaries at gram sabhas, verification and survey are done by mandal committees with the team of Tahsildar, MPDO and VAS to increase transparency and plug the loopholes.

Sheep are being purchased from Karnataka, Tamilnadu, Maharashtra, Rajasthan, Andhra Pradesh and Madhya Pradesh. A toll-free mobile veterinary clinic has also been launched for meeting health needs. To meet the demand of fodder, additional land is being planted with grass to ensure adequate fodder. The government has also accorded permission for grazing in the forest area.

b. Mass Free Sheep and Goat Deworming Programme 2017-18: The Telangana state has about 2.1 crore sheep and goat population (including 35 lakh newly inducted Sheep under Sheep Rearing Development Scheme during the year 2017-18). Mass Free Sheep and Goat Deworming is taken up thrice a year to reduce worm burden and to increase the production status in sheep and goat depending upon the area and situation. A total of 1,316 teams have been formed to cover 1.9 crore sheep and goat population in the state during the sheep and goat deworming programme 2017-18. Deworming Programme benefited the farmers by increased body weights of each sheep and goat in the flock by 1-1.5 Kg. As the programme is covering entire sheep and goat population, there will be an approximate increased production of 1.7 crore kg. meat in the state. Deworming also reduces morbidity and increases lambing rate.

c. Animal Health Services: Government has taken up various initiatives to strengthen the existing institutions to improve quality of animal health services by providing facilities for surgery, disease investigation and treatment. District headquarters has a district veterinary hospital and every mandal is provided with a veterinary graduate and para-veterinaries to effectively render animal health services and for prevention and control of livestock diseases.

The Animal Husbandry Department has developed an online Veterinary Hospital Management System to make it more transparency in delivering the services provided by the Veterinary Institutions. Accordingly, all the District Veterinary Hospitals were equipped and put into the Veterinary Hospital Management System and proposed to bring all the Area Veterinary Hospitals, Primary Veterinary Dispensaries and Mobile Veterinary Clinics under the system in phased manner. Under this programme, Pashu Bazar application has been developed to facilitate the farmers to sell and purchase animals through online.

d. Mobile Veterinary Clinics: The government has launched 100 Mobile Veterinary Clinics (MVC's) to provide emergency services and other veterinary services to the remote areas where the farmers are unable to bring their animals to the veterinary institutions. The government has procured specially designed and fully equipped Mobile Veterinary Clinic vehicles and put into render services at constituency level as its head quarters. The MVCs provide all the veterinary services like attending emergency services, diagnostic services, extension, inputs and other specialized veterinary services. The services can be accessed by calling toll free number – 1962.

e. Supply of Fodder Seed: The government is supplying fodder seed at 75% subsidy. An area of 65,000 acres of land has been brought under cultivation which will yield approximately 2.6 lakh metric tonnes of dry fodder. Advance action is being taken to meet any shortage as part of contingency plan.

f. Incentives to Milk Producers of Vijaya Dairy: The government is providing an incentive of Rs.4 per liter for the milk procured by Telangana State Dairy Development Corporation Federation Limited (TSDDCF) with effect from 01.11.2014 to benefit the rural dairy farmers. The scheme is extended to Nalgonda and

Rangareddy Milk Producers Mutually Aided Cooperative Union Limited, Rangareddy, Karimnagar Milk Producers Company Limited, Karimnagar and Mulukanoor Women's Mutually Aided Milk Producers Cooperative Union Limited, Mulukanoor w.e.f. 24.09.2017.

3.12. Fisheries

Fisheries is one of the fast growing sectors generating income and employment. It is contributing about 2.8 per cent in gross value added of agriculture and allied sectors during 2017-18. It also plays an important role in the overall socio-economic development of fishermen families by providing nutrition, food and livelihood security. The state is ranked 3rd in terms of inland fishery resources after Karnataka and Tamilnadu and ranked 7th in terms of fish production.

The government aims at increasing the fish production and productivity by providing backward and forward linkages, enhancing livelihoods of fishermen, achieving self-sufficiency in production of fish seed, ensuring availability of fish to the consumers at an affordable price and in hygienic condition by improving the marketing infrastructure.

The government proposed to utilize the excellent water resources available by seeding the reservoirs, tanks and ponds every year, regularly by government at free of cost besides taking up conservancy measures so as to maintain the stock. Growing visibility of fisheries sector due to enhanced water resources on construction and completion of irrigation projects is expected to lay a strong foundation for aquaculture in the canal fed areas besides emerging as an attractive investment option and a lucrative business activity. The state has vast and diverse resources in the form of tanks and ponds (both seasonal and perennial), reservoirs, rivers and canals. There are 24,189 water bodies with 5.72 lakh hectares of water spread area, details of the which are provided in Table 3.22:

Table 3.22: Water resources for fisheries in Telangana

Sl. No.	Description	No. of Tanks	Total Water Spread Area (in Ha.)
1	Reservoirs	77	1,67,914
2	Tanks:		
a	Departmental Tanks	4,647	3,04,160.27
b	Gram Panchayat	19,465	1,00,093.63
	Total	24,189	5,72,167.90

In addition to the above irrigation sources, there are 474 aquaculture ponds covering 781 hectares and 4,818 kms, long canals and rivers. The fishermen and women are organized into fisheries cooperative societies for better wellbeing and benefit. There are 3,980 fishermen societies with 2.8 lakh members spread across the state. There are 28 fish seed farms functioning in the state, of which 6 farms are fish seed production and rearing farms having hatcheries for spawn production and others are fish seed rearing farms. There are 11 fish seed production and rearing farms in private sector in the State.

3.12.1. Major initiatives towards development of fisheries: The government has undertaken a number of initiatives with an objective to improve productivity, reduce post harvest losses, increase livelihood support and welfare of fishermen in capture and culture fisheries.

i. Supply of fish seed on 100% grant: Supply of fish seed on 100% grant is one of the components under “Development of Fisheries” scheme. Major objectives of the scheme are to stock fish seed in all the reservoirs and tanks, based on water spread area for the enhancement of livelihood of fishermen; to boost up fish production; and to control the involvement of intermediaries and to transfer all benefits to the fishermen. About 51 crore fish seed were stocked in 11,067 water bodies and 108.97 lakh prawn juveniles were stocked in 12 reservoirs, during the year 2017-18.

ii. Cage culture: Cage culture is being practiced in the state with the assistance of Government of India. The State government has proposed to install 670 cages with a unit cost of Rs. 30 lakhs per battery of 10 cages. So far, 330 such cages have been installed in different water bodies of Nalgonda, Khammam, Karimnagar, Mahabubnagar, Nizamabad, Sangareddy and Suryapet Districts.



3.13. Outlook

The government has adopted a multipronged strategy to rejuvenate both the agriculture and allied activities in the state. The major focus in agriculture sector is to increase the production through augmenting irrigation facilities and bridging the yield gaps in major crops. In order to mitigate drought risk, government has taken up construction of irrigation projects on top priority. Creation of irrigation facilities to at least one crore acres will drought-proof the agriculture and will have positive trickledown effect on rural economy by way of assuring regular income for farmers. Increased canal irrigation will also reduce dependence on well irrigation. An impact study conducted by the NABARD Consultancy team has indicated that revival of tank irrigation through the Mission Kakatiya has resulted in increase of groundwater levels, which would help farmers to increase productivity.

The renewed focus on agricultural technology through farm mechanisation and drip irrigation resulted in reducing the drudgery of farmers and increasing the farm production. The government has taken number of initiative to promote horticultural and high value crops in the state, which will fetch remunerative income to farmers. The government has also initiated a holistic approach to support farmers in ensuring investment in the sector.

The government undertook a massive drive of 'Land Records Updation Project' to update land records. This initiative is expected to benefit farmers in freely accessing land records and reducing land litigations. This will also help in effective grounding of welfare programmes undertaken by the government.

About 40% of farmers' income comes from allied activities, especially from animal husbandry and fisheries sectors. Two major landmark initiatives viz., distribution of fish seedlings and distribution of 84 lakh sheep would not only create a 'moving bank' of these assets but would also have a multiplier effect in enhancing income of the dependent families engaged in sheep rearing and fisheries.

The rural economy is expected to get a fillip in next few years due to increased thrust provided by government on both farm and non-farm activities.

Forestry and Environment

“If conservation of natural resources goes wrong, nothing else will go right.”

- M. S. Swaminathan
Father of Indian Green Revolution

Natural resources, viz. forest, wildlife, biodiversity and environment, play an important role in the survival and wellbeing of people, livelihoods of the poor and economic prosperity and aesthetics of the state. Usually, the poor and the vulnerable group are more directly dependent on natural resources, most affected by the status and quality of the natural resources. The advent and acceleration of climate change has been compelling planners, policy makers and other stakeholders, around the world, to focus on conservation and sustainable development of the natural resources. Other things held constant, restoration and sustainable development of natural resources is often considered as the best anti-poverty strategy.

After formation of the state, the government has initiated several measures to improve both the quality as well as sustainable development of the natural resources. In this endeavour, the government has initiated an ambitious programme – ‘TelanganaKu Haritha Haram, to plant about 230 crore seedlings and to increase the green cover from the present 24 per cent to 33 per cent of the total geographical area of the State. As such, the focus of the Forest Department has now shifted from obtaining commercial returns to providing environmental services. To this effect, state institutions, namely the Telangana State Biodiversity Board and Pollution Control Board have been galvanized to protect the biodiversity and environment, respectively in the state.

4.1. Forests

Forests play an important role in supporting livelihood activities of the rural poor, contributing to the economy of State, mitigating the threat of climate change, besides conserving the fertile top soil and vulnerable wildlife. Forests act as carbon sinks, providing environmental services, besides also being a repository of biodiversity, endowing them with added recognition as an important environmental factor.

Forest types in Telangana, as per the widely accepted classification of Champion and Seth (1968) include Tropical moist deciduous forests, Southern dry deciduous forests, Northern mixed dry deciduous forests,

Dry savannah forests and Tropical dry evergreen scrub. Telangana State is situated in the central stretch of the eastern seaboard of the Indian Peninsula. The area is divided into two main regions, the Eastern Ghats and the plains. A total of plants 1945 taxa (including 163 cultivated taxa) spread over 1891 species belonging to 794 genera and 147 families occur in Telangana state.

The total forest area in the state is 27,291.99 sq. kms, which is equal to 24.04 per cent of the total geographical area. The state is bestowed with dense Teak forest along the banks of the river Godavari, right from the erstwhile district of Nizamabad through Adilabad, Karimnagar, Warangal, and up to Khammam districts. These forests are home to several deciduous species like Nallamaddi, Yegisa, Rose wood, Narepa, Bamboo in addition to Teak. *Boswellia serrata*, *Butea monosperma*, *Cochlospermum religiosum*, *Diospyros melanoxylon*, *Gardenia latifolia*, *Givotia rottleriformis*, *Gyrocarpus americanus*, *Lanea coromandelica*, *Sterculia urens*, *Strychnos potatorum*, *Ziziphus xylopyrus*, *Terminalia* spp., *Chloroxylon swietenia*, *Pterocarpus marsupium*, *Albizia odoratissima*, *Haldina cordifolia*, *Cassia fistula*, *Diospyros melanoxylon*, etc., are some of the other typical trees occurring in the state. The Forest area is asymmetrically distributed across the districts in the State. About one-third of the total forest area is present in two districts viz., Jayashankar and Bhadradi Kothagudem. Four districts, viz., Jayashankar, Bhadradi Kothagudem, Nagarkurnool and Kumuram Bhem together account for more than 50 per cent of the total forest area. On the other hand, the bottom 16 districts taken together have less than 10 percent of total forest area in the State. Though over 24 per cent area is under the management of the State Forest Department, only about 15 percent area has good forest cover. Dense forest areas are also mostly confined to the districts with larger forest areas.

As per the revised 2002 State Forest Policy, Vision 2020, the State Forest Department has been implementing various development schemes to protect and develop existing forests, to improve its productivity and economic value. The major objectives include enriching existing low density forests and alleviating rural and forest dwellers' poverty. The scope of the programmes include Community Forest Management, National Afforestation Programme (NAP) (Centrally Sponsored), RIDF Projects, Soil & Moisture Conservation, Peripheral Trenches, Contour Trenches, Check dams, Rocks fill dams, Percolation tanks, etc., in forest areas, Social Forestry, Wildlife Management and Human Resource Development..

Keeping in view the recent trends, the Forest Department has laid special emphasis on Forest Research to conduct experiments, improve nursery and plantation techniques, vegetative propagation, seed production and various silvi-cultural practices. Monitoring of vegetation (Forest Canopy) cover density, Forest fire risk zonation mapping, in addition to mapping all the forest areas with site suitability, re-locating & demarcating forest boundaries and inventory of forest resources are some of the major and important activities taken up by the department using latest Information Technology (IT) based tools such as the Geographic Information Systems (GIS) tools. Most of the programmes/schemes undertaken by the Forest Department are being implemented through participation of local people, Vana Samrakshna Samithis (VSS) and Eco-Development Committees (EDCs) in Protected Areas and through Watershed Development Committees in the Watershed areas.

The major sources of revenue from the forest areas in the State are – Beedi leaf, Timber, Poles, Long Bamboos, and Bamboo Industrial Cuts. In recent years, the conservation focus has increased with forests and being looked upon as sources of “Green Capital” and not as raw material commodities for use by industries. The Forest Department has proposed to reduce auction of Beedi Leaf units from 292 in the year 2017 to 256 in the year 2018. The Department has revoked auctions for 39 Beedi units, located in Wildlife Sanctuary areas and core areas of Tiger Reserve. The Forest Department has also stopped supplies of raw materials to large wood based industries and other large scale commercial purposes in the State with a view

to promote conservation. Industrial requirements are instead being met from other sources such as imported pulp, agricultural wastage and plantations raised by farmers with buy-back arrangements.

Implementation of Forest Rights Act, 2006

The Government of India enacted “The Scheduled Tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006” and the “Scheduled Tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) Rules, 2008”. As per the Act, Forest rights have to be given to the tribal populations, if they are in possession of any forest land in the capacity of individuals or as a community as on 13-12-2005. Other Traditional Forest Dwellers can also be given rights if they are in possession of the lands for the last 75 years. In accordance with the Act, title certificates were issued to 93,494 individuals, involving 3,00,092 acres, likewise 721 Community Titles were also distributed involving 4,54,055 acres, in the State.

4.2. Haritha Haram

Despite various forest protection and development measures such as compensatory afforestation, national afforestation plan, soil and moisture conservation, etc., the forest area and forest/ tree cover in the state has remained almost constant for decades. However, with the launching of the TelanganaKu Haritha Haram (TKHH), one of the flagship programs of the State Government in recent years, the green cover in the state got a big boost. Under the TKHH programmes, it is aimed to plant 230 crore seedlings inside and outside the forest area, during four year period, from 2015-16 to 2018-19, with a view to increase green cover from the present 24 per cent to 33 per cent of the total geographic area of the state. The strategies to achieve this are of twofold. (i) taking up extensive plantation outside the notified forest areas such as roadsides, barren hills, tank foreshore and bunds, canal bunds, institutional premises, housing colonies, farm bunds, community lands and homestead, and (ii) increasing the canopy density and productivity, inside notified forests, especially in the degraded ones, by taking up large-scale plantations and assisting in natural regeneration of the forests coupled with intensive water harvesting structures.



4.2.1. Achievement under TKHH programme

The Forest and other Government Departments together have established 4,213 nurseries, in which 38.63 crore seedlings were raised during the year 2014-15. Additionally, 33,720 teak beds were also raised to produce stumps for planting. Originally it was planned to plant about 40.00 crores of seedlings during the year 2015-16, however due to poor rainfall, only 15.86 crores of seedlings were planted by all the departments and general public across the state. Against the target of planting about 46.00 crores of seedlings, 31.67 crores of seedlings were planted during 2016 planting season. Similarly, 34.07 crores seedlings have been planted during 2017 planting season. All together, 81.61 crore seedlings were planted during the first three years of the Haritha Haram programme. Out of these, 70.75 crore seedlings were planted outside the forest areas and 10.86 crore seedlings were planted inside the forest areas. However, considerable amount of green cover has been raised in the forest areas through variety of forest management techniques such as seed dibbling, broadcasting of seed balls/ bombs, tending of established saplings, coppicing of crooked stumps, etc. Increased greenery along the roads, canals, in the institutional areas, etc. is now conspicuously visible in the state as a result of undertaking the programme. Similar increase in the forest areas is also visible. According

to State of Forest Report, 2017, “A net increase of 565 sq. kms has been observed in the State compared to the previous assessment (in 2015), the reason for which can be attributed to expansion of tree cover mostly outside recorded forest area. The decrease in Forest Cover in Adilabad and Khammam districts is due to the rotational felling of commercial plantations”.

Plantation along the road sides

During 2017-18, as against the target of planting about 40.00 crore of seedlings, 34.07 crore seedlings have been planted in the state, out of which 30.81 crores have been geo-tagged. Geo-tagging is an important tool for effective online monitoring the progress of the government programmes. District wise targets and actual plantings are shown at Table 11.1. The overall achievement across state has been observed to be about 85 per cent. Warangal Urban and Medchal-Malkajigiri districts have planted beyond the contemplated target, while Rangareddy, Mahabubnagar and Vikarabad have achieved 42 per cent, 57 per cent and 58 per cent, respectively.



Table 4.1: District wise plantation targets and achievements as on 17-01-2018 under Haritha Haram
(No. in Lakhs)

Sl. No.	District/HMDA/GHMC	Target	Achievement	% Achievement
1	Adilabad	105	100.330	95.5
2	Kumuram Bheem	110	97.867	88.9
3	Mancherial	95	96.014	101.0
4	Nirmal	100	59.581	59.5
5	Nizamabad	185	185.561	100.3
6	Jagtial	135	137.327	101.7
7	Peddapalli	100	91.621	91.6
8	Jayashankar	115	87.633	76.2
9	Bhadradi Kothagudem	160	171.274	107.0
10	Mahabubabad	115	93.923	81.6
11	Warangal Rural	110	112.549	102.3
12	Warangal Urban	55	64.622	117.4
13	Karimnagar	110	79.712	72.4
14	Rajanna Sircilla	80	81.975	102.4
15	Kamareddy	135	136.990	101.4
16	Sangareddy	200	150.000	75.0
17	Medak	130	115.327	88.7
18	Siddipet	200	157.367	78.6
19	Jangoan	85	81.798	96.2
20	Yadadri Bhuvanagiri	130	114.952	88.4
21	Medchal-Malkajigiri	40	46.911	117.2
22	Rangareddy	170	71.041	41.7
23	Vikarabad	125	72.458	57.9
24	Mahabubnagar	200	114.028	57.0
25	Jogulamba Gadwal	80	68.202	85.2
26	Wanaparthy	80	61.635	77.0
27	Nagarkurnool	125	116.969	93.5

Sl. No.	District/HMDA/GHMC	Target	Achievement	% Achievement
28	Nalgonda	200	178.471	89.2
29	Suryapet	130	103.466	79.5
30	Khammam	185	191.142	103.3
31	HMDA	110	90.307	82.0
32	GHMC	100	76.883	76.8
	Total	4,000	3,407.935	85.1

It is proposed to plant about 40 crore seedlings during the year 2018-19 both inside and outside the forest areas under TKHH programme. Accordingly, sufficient number of seedlings are being raised in the Nurseries by the Forest and Other Departments during this year.

Community participation and seed-ball program at Jangoan district under TKHH



Besides this, the 'Green Brigades' are being formed all over the State during this season of Haritha Haram, with students, women and employees at every place. Senior officials or elected representatives will be the Brigadiers. Planting of the saplings, setting-up tree guards, watering the plants during the periods moisture stress, arranging water tankers for planting and watering purposes, etc., would be the major functions proposed to be undertaken by the Green Brigades. So far, 30,808 teams of Green Brigades with 4,81,948 members have been constituted in the state.

During the British period, the government imposed strict control raising, harvesting and marketing of trees and wood products of forest species. After independence, the same law was adopted by all states with more pervasive regulations. Various research studies have pointed out that these regulations have been dissuading farmers and households from raising trees on their fields and other vacant lands. Further, it was also found that farmers and local communities have systematically cut down the standing trees on their fields and other lands, to avoid government scrutiny, control and potential takeovers. This reason was, therefore, attribute to

trees ceasing to be a part the farming systems in India. From time to time, a number of research studies and some official reports have recommended for the repeal of this British era legislation and associated rules/guidelines. For example, the national policy on agro-forestry (2014) suggested the removal of restrictions on tree growing, harvesting and marketing. Telangana is perhaps the first, if not the only State to remove such restrictions on 44 species of trees (Environment, Forest, Science & Technology (FOR.I) Department: G.O. Ms. No. 31, dated 06.09.2017 & as amended subsequently).



4.2.2. Urban Forestry

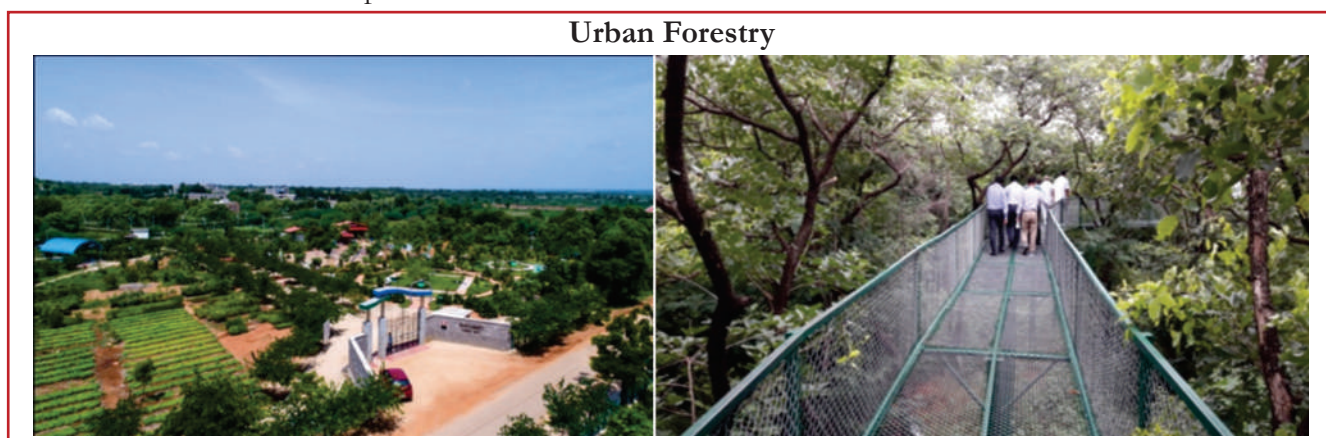
Major emphasis has been given to the development of the forest blocks in and around cities/urban areas to be developed into Urban Forest Parks (UFP) under the flagship programme of TKHH. These Urban Forest Parks are proposed not only to provide a wholesome healthy living environment but also contribute to the growth of smart, clean, green, sustainable and healthy cities in the State.

Main focus is given to develop all the Forest blocks in and around Hyderabad within HMDA limits into Urban Forest Parks. There are 186 Forest Blocks with an area of nearly 66,947 hectares within the HMDA and GHMC limits, in the State. So far, 16 Nos. of Forest blocks have been taken up for developing into Urban Forest Parks in and around Hyderabad, out of which 6 Urban Forest Parks have been opened for public. However, 36 forest blocks with an area of 17,410 hectares have been taken up for development into Urban Forest Parks in the State so far.

In order to develop a Forest block into Urban Forest Park, the following sequential activities are taken up by the Forest Department

Providing complete protection to the Forest block through boundary wall, see-through wall, fencing or peripheral trench as the case may be.

- Developing the forests/greenery inside the park through plantations or other cultural operations under Assisted Natural Regeneration.
- Developing inspection paths, walking trail, cycle trail, fire lines, etc.
- Creation of watch tower, canopy walk, Deer Park, aviary, etc.
- Promotion of adventurous sports activities, etc.
- Creation of minimum public amenities.



4.3. Ecotourism

While focusing on the conservation aspects of the forests and their ecological services, the Forest Departments under Telangana State Forest Development Corporation (TSFDC) is developing ecotourism, to boost the local economies and to provide the glimpses of the pristine nature to the people. During 2017-18, the Forest Development Corporation has significantly improved the Botanical Garden at Hyderabad, developed the Pala Pitta Cycling Park, and is also in the process of developing two more ecotourism projects- one in the vicinity of the Kawal Tiger Reserve and another in Vizag Colony, Nalgonda, on the backwaters of Nagarjuna Sagar Project in the vicinity of the Amrabad Tiger Reserve. On completion, these projects would, in addition to furthering the cause of conservation of nature, would ameliorate the life of local people by providing local employment as well as boosting the growth of Ecotourism sector in the state.

Box 4.1: Telangana State Forest Development Corporation

The Telangana State Forest Development Corporation Limited (TSFDC) was registered on 14.05.2015, under the Indian Companies Act, 2013.

Objectives of TSFDC

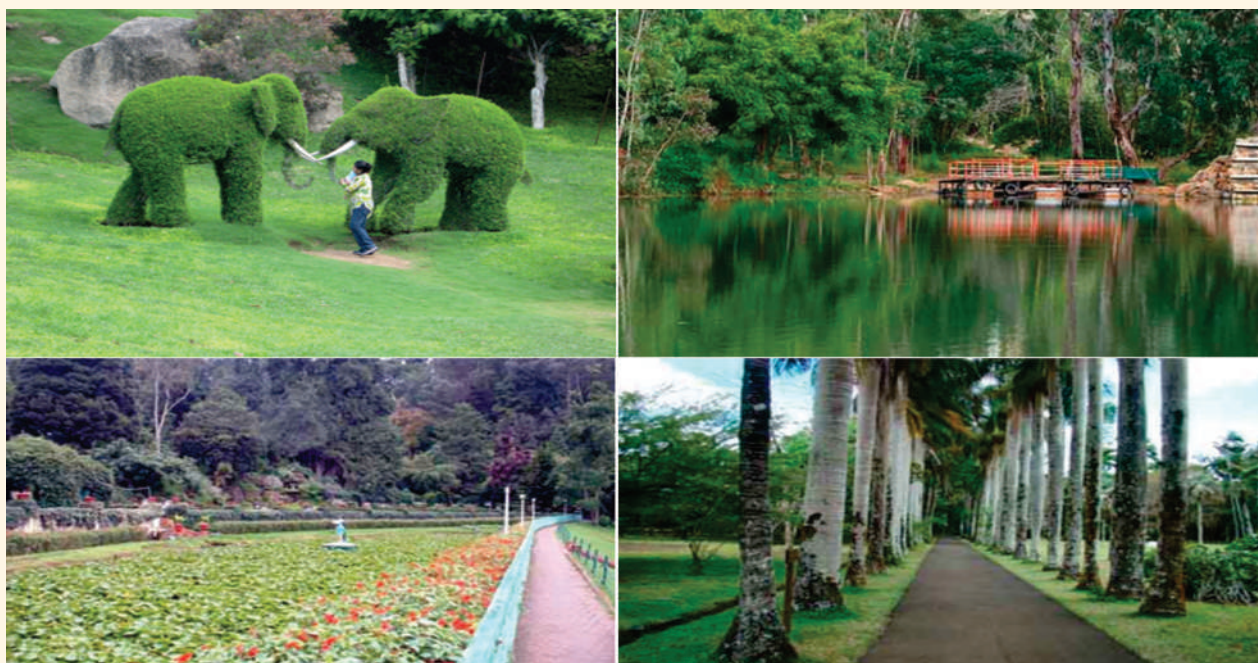
- To generate employment to the landless poor, mostly in remote and agency areas. Every year approximately 5 lakh man-days of employment is created by TSFDC to the villagers by harvesting of Eucalyptus and Bamboo Plantations, raising of Eucalyptus & Bamboo Plantations and also raising of nurseries.
- To provide green cover in the state by raising plantations which would act as Carbon Sink and help in Carbon sequestration; with an aim of mitigating the ill effects of Green House Gas emissions and in the process to provide small timber to meet the needs of the public and also provide raw material to industries (wood upon attaining maturity).
- To aid and act as agent of climate change with an effort to moderate the surrounding atmosphere and ameliorate the environment.
- To promote use of naturally grown products by manufacturing value added products of Minor Forest Produce and encourage use of naturally grown products.
- To provide financial support to the Telangana State Forest Department for collection and purchase of Beedi leaf through rural poor comprising mostly SC and ST population carrying out Beedi Leaf related works through them.
- To provide support to Telangana State Forest Department for meeting the financial needs relating to forestry projects.
- To create environmental awareness among the public by taking up Eco - Tourism Projects either on its own or through PPP mode.
- To promote the cause of forestry and environment and to carry out studies relating to any forestry related matters.
- To raise nurseries for raising plantations by the Corporation and for public use with the sole aim of providing larger green cover to the State.

The TSFDC has taken over degraded forests and raised plantations with species like Eucalyptus (Seed origin), Eucalyptus (Clonal), Cashew, Bamboo, Teak, Medicinal plants and other Misc., species in a total area of 33,743.11 hectares.

The Botanical Garden in Hyderabad was given a facelift with the development of beautiful lawns, planting of rare plant species and flowering plants, construction of yoga hall, cafeteria, logo hut, electronic gate, boating facility, etc. The Forest Department and the Tourism Department together have successfully made it as a major tourist attraction, where nature lovers can visit and observe the various preserved species of flora as well as appreciate the grandeur of the gardens. More details about the Garden can be seen at Box 4.2.

Box 4.2: Botanical Garden

The Hyderabad Botanical Gardens also known as KotlaVijayabhaskara Reddy Botanical Garden is located in the forest of Kothaguda, spreading over 120 acres of land. Botanical Garden is situated in Madhapur near the Hi-tech City which is almost 16 km away from centre of the city. The garden is consisted of 19 Vanams or sectors. In the beginning, it was opened with five sectors constituting of various kinds of flora such as medicinal plants, ornamental plants, fruit and timber trees, bamboos, palm trees along with wide variety of aquatic plants. Botanical garden boasts of more than 600 varied species of plants. The garden is bestowed with dense flora with a few sparsely grown areas for visitors' walking. Along with its vast flora variety, it also attracts many birds and insects, which further enhances the natural charm of this garden. The park has been designed beautifully with water bodies complementing the lush greenery of the place. This garden was created with the objective of generating awareness among masses about the varied species of flora along with offering an ideal place to relax and enjoy the bliss of naturally beautiful surroundings. The Garden not only consists of medicinal plants, ornamental trees or aquatic plants but also has marvelous rocks, water reservoirs and awe-inspiring meadows. It is a perfect place to spend few refreshing moments away from the pollution and chaos of the cities. It also act as stock-house for plants which are later used for researches and other scientific purposes. Bamboo sector is the major attraction of the garden. All the bamboo trees have specific signboard with the scientific name and generic name of the trees. Another popular sector of the Botanical Garden is the Palm sector. Variety of flowers such as yellow and purple, blue salvia, red roselia and many more makes the place all the more attractive and picturesque. Along with meadows, it was created with ample of space for water bodies and natural rock formations as well.



Glimpses of Botanical Garden, Hyderabad.

4.3.1. Pala Pitta Cycling Park

Pala Pitta Cycling Park (PPCP) is a wonderful example of urban green infrastructure developed for the benefit of residents and visitors of Cyberabad. Named after the State Bird of Telangana “Pala Pitta” (Blue Jay), this piece of Reserved Forest is dedicated solely for cycling based health and recreational activities. It is situated opposite to the Botanical Garden at Kothaguda. The park was inaugurated on 20 November 2017. Over 7,000 plants of more than 40 forest species were planted under the TKHH programme. Cycle shed and toilets have also been constructed in the Bird Park area. The Park is intended to provide safe, healthy, and joyful cycling experiences to the residents and visitors. It has a well-designed cycling track running up to 3 kms right in the middle of a sprawling urban forest. Visitors and members can either bring along their own cycle or rent one right at the park. There are many additional cycling related facilities provided to enhance the cycling experience in the park. The Pala Pitta Cycle Park which has caught the attention of many has been well published in all major newspapers and has scored 4.6 approval rating in Google. More than 11,000 cyclists have visited the Park during two months from the date of inauguration i.e., 20.11.2017.



4.4. Wildlife protection and conservation

The nature has endowed the state with rich variety of Flora, Fauna and Ecosystems. The state has 1945 flora and fauna including 40 mammal species, 365 bird species, 52 insect species, 153 butterfly species, 30 spider species, 15 amphibian species and 48 reptile species, in addition to large number of invertebrate species. In order to protect the rich biodiversity, the Government has declared a network of 12 Protected Areas which includes nine Wildlife Sanctuaries and three National Parks covering an area of 5,692.48 sq kms. The network of Protected Areas includes important wetlands such as the Manjeera Wildlife Sanctuary and Siwaram Wildlife Sanctuary, home to the endangered Marsh Crocodile also called Mugger. The Manjeera Wildlife Sanctuary also attracts thousands of migratory birds such as the Painted Stork, Open Billed Stork,

Hérons, Ibis, Ducks, Geese, etc. Details of Wildlife Sanctuaries and National Parks in Telangana are provided in Table 4.2.

Table 4.2: Wildlife Sanctuaries in Telangana

Sl. No.	Name	District	Area (in Sq. Kms.)
1	Kawal WLS (Core area of KTR)	Mancherial and Nirmal	892.23
2	Pranahita WLS	Mancherial	136.02
3	Siwaram WLS	Mancherial	29.81
4	Eturunagaram WLS	Jayashankar	803.00
5	Pakhal WLS	Mahabubabad	860.20
6	Kinnerasani WLS	Bhadradi Kothagudem	635.40
7	Manjira WLS	Sangareddy	20.00
8	Pocharam WLS	Medak	129.84
9	Amrabad Tiger Reserve	Nagarkarnool and Nalgonda	2,166.37

4.4.1. Project Tiger

The state of Telangana has two Tiger Reserves to protect and conserve this endangered Big Cat. Both the Tiger Reserves are intensively managed to ensure survival and propagation of Tiger in the state in perpetuity.

4.4.2. Amrabad Tiger Reserve

The Amrabad Tiger Reserve is located in the Nallamala hill tracts and spreads over Mahabubnagar and Nalgonda districts with a core area of 2166.28 Sq. Kms., and buffer of 445.02 Sq. Kms. This Tiger Reserve supports over 15 Tigers. The Tiger population which had gone down to single digits in 2006 is now being revived with proper management and protection, to support not less than 30 Tigers. The Reserve is also one of the rich biodiversity hot spots in the State having a contiguous landscape of a good forest eco-system, which is the catchment of the Krishna River.

The Eco-Tourism project being implemented at Mannanur, Farhabad, Mallelatheertham and Domalapenta with the involvement of local communities is running successfully, benefiting more than 50 families of local primitive tribes such as the Chenchus and other communities.

4.4.3. Kawal Tiger Reserve

Kawal Tiger Reserve covers a core area of 892.13 Sq. Kms., and buffer area of 1123.0 Sq. Kms. The Kawal Tiger Reserve has forest areas which are contiguous to Tadoba Andheri Tiger Reserve in Maharashtra and Indravathi Tiger Reserve in Chattisgarh. Tigers are known to migrate between Kawal and the other two Tiger Reserves. Hence, development of corridors linking the three Tiger Reserves through Mancherial, Bellampalli and Kagaznagar Divisions are considered vital for the conservation of the endangered Tiger species. Four Tigers have been reported in the Buffer area and two in the Core area of Kawal Tiger Reserve in recent times. One Tiger with four cubs was captured on camera in the Kagaznagar Division.

4.4.4. National Parks in Hyderabad City

Hyderabad is the only city in the country with three notified National Parks to conserve the native flora and fauna in the Urban Landscape. The three National Parks viz., KBR (Kasu Brahmananda Reddy) National Park, Mahaveer Harina Vanasthali National Park and Mrugavani National Park at Chilkur have a combined area of over 5000 acres (Table 11.3) of forest landscape solely for the purpose of conserving the flora, fauna and the rock formations which are the pride of the Deccan Plateau Region. All the three National Parks are well protected and are managed with least disturbance to the ecological system. Two more nature Parks have been added to Hyderabad i.e., Bhagyanagar Nandana Vanam at Narepally and Sanjeevini Smrithi Vanam at Gurranguda. All these parks attract thousands of visitors every day, who came to enjoy the natural beauty and pollution free environment.

Table 4.3: National Parks (NPs) in Telangana

Sl. No.	Name	District	Area (in sq. kms)
1	Kasu Brahmananda Reddy NP	Hyderabad	1.42
2	Mrugavani NP	Rangareddy	3.60
3	Mahavir Harina Vanasthali NP	Rangareddy	14.59

4.4.5. Ex-situ Conservation

The State is also at the forefront of ex-situ conservation for breeding of endangered species and their rehabilitation in the natural habitat. For this purpose the State has set up two zoos, viz., Nehru Zoological Park (NZN), Hyderabad and Vana Vignana Kendra, Warangal. Endangered species such as the Vulture, Mouse-deer, etc., are being bred in NZN, Hyderabad.

4.4.6. Nehru Zoological Park, Hyderabad

The Nehru Zoological Park, Hyderabad which is spread over 380 acres is among the best Zoos in the country attracting over 30.00 lakh visitors every year. More than 1640 animals belonging to 162 species are on display. A part from large variety of animals procured from all over the country and abroad, the Zoo Park provides dense vegetation consisting of large number of trees, shrubs and flowering plants which adds to the natural ambience of the zoo.



The state has set up Deer Parks for Conservation Breeding of Herbivores such as the Black Buck, Sambhar, Chousingh, Spotted Deer, etc., at Kinnerasani, JLTTC Shameerpet, LMD Karimnagar, Pillalmarri Mahabubnagar (Table 4.4). Apart from these, there are also a few private Deer Parks in the State.

Table 4.4: Deer Parks in Telangana

Sl.No.	Name of the Deer Park	District	Area (in Ha.)
1	Jawaharlal Nehru Tourist Complex	Medchal-Malkajgiri	26.00
2	Pillalamarri Deer Park	Mahabubnagar	5.80
3	Kinnerasani Deer Park	Bhadradri Kothagudem	14.50
4	Lower Manair Dam Deer Park	Karimnagar	12.50
Total			58.80

4.4.7. Biodiversity conservation in Telangana State under the Biological Diversity Act, 2002

- a) As per the Section 37 of the Biological Diversity Act, 2002, the Government of Telangana declared the Ameenpur Lake as a Biodiversity Heritage Site, situated in Ameenpur Mandal, Sangareddy district, covering an area of 93.15 Acres. The Ameenpur Lake has been considered a “birding paradise” since long because of the number of migratory birds and native birds visiting the site every year. It is also one of the few urban water bodies left in the state of Telangana. It is the most sought –after haunt for bird watchers as a variety of 223 avian species, including migratory and resident bird species visit the lake. This Lake supports fisheries as well.
- b) Successful Access and Benefit Sharing mechanism: Under the UNEP-GEF-MoEFCC-ABS Project, the Board nominated the Indian Institute of Oilseeds Research (IIOR)-ICAR for UNDP Biodiversity Awards during January, 2016 and after three rounds and field visits by the Jury members, the IIOR got selected for UNDP Biodiversity Award, 2016 under Successful Mechanisms/ Models for Access and Benefit Sharing Category: Efforts resulting in equitable sharing of benefits (monetary and/ or non-monetary) arising from the utilisation of bio-resources and associated traditional knowledge and practices and developing eco-friendly and non-toxic bio-pesticides that only attacks its target insect, pest or disease without harming any other biological species. These bio-pesticides are also available at an affordable price.
- c) **Registration of Plant varieties under PPVFRA (Protection of Plant Varieties & Farmer’s Rights Authority) India**

The plant varieties registered under PPVFRA which are being preserved by the local tribal communities of erstwhile Adilabad district include:

- Pigeon pea (Erra Macha Kandi) (*Cajanus cajan*) on the name of Biodiversity Management Committee (BMC), Jhari, Kerameri Mandal.
- Sorghum species Pelala jonna on the name of Gourapur BMC, Indravelly Mandal.

- Sorghum species Vayunowka jonna on the name of Goyagoan BMC, Kerameri Mandal.
- Registration of “Balinta Pesallu”, a variety of green gram is in the process.

These activities are being taken up in collaboration with National Bureau of Plant Genetic Resources (NBPGR), Regional Station, Hyderabad.



- The Telangana State Biodiversity Board has constituted more than 3000 Biodiversity Management Committees for the conservation of Biodiversity at local level and prepared more than 100 People’s Biodiversity Registers (PBRs) in Telangana State. It has identified a list of Rare, Endangered and Threatened species which includes 25 plant species, 23 mammal, 27 bird species, 9 reptiles, 1 amphibian, 12 fish species.
- Identified the rare domestic germplasm called “Mannanur Cattle” and registration is under process.
- Telangana State is home to 166 species of fishes and the State declared korrameenu (motta Chepa) as the State fish of Telangana.

4.5. Outlook

The Government has initiated many innovative schemes for conservation and sustainable development and uses of the natural resources. The results of these initiatives are already visible. A net increase of 565 sq. kms. has been observed in the State compared to the previous assessment (2015), the reason for which can be attributed to expansion of tree cover mostly outside recorded forest area. Numerous research studies suggest involvement of the primary stakeholders in the management of the natural resources is essential for the effective management and optimum utilization of the resources. These include ecological and social services provided by the natural resources. The Government has realized the potential benefits of the involvement of primary stakeholders in the flagship TKHH programme and constitution of Green Brigades highlights the point. The Biodiversity Development Board has also assigned a prominent role to the local communities in its activities. Additionally, the Government is exploring the possibilities to enhance the role of primary stakeholders in the management and operations of water structures, especially tanks and also in the management of forest and wildlife areas, including ecotourism projects.

In the years to come, the Government has also set goals to diversify and increase the plant species covered under the TKHH programme. Varieties of fruit trees, medicinal plants including creepers, shrubs and herbs are proposed to be included. In addition, the Government also proposes to create greater public awareness about the nutritional and medicinal values and uses of different species planted under the flagship TKHH programme.

“It is not the strongest of the species that survives, not the most intelligent that survives. It is the one that is the most adaptable to change.”

- Charles Darwin

Industrial development requires large-scale private sector participation, with the government playing the role of a facilitator as well as a catalyst. The key drivers of present-day industrial development are innovation, technology and ensuring fair competition to provide level-playing fields to all types of investors. Since the formation of Telangana, the government has been undertaking a slew of reforms for promoting entrepreneurial spirit and making the state a preferred place for investments for local, domestic and international investors. A range of policy initiatives have been brought in towards this end: providing a hassle-free environment, effective single window mechanism for project approvals by enactment of novel industrial policy, comprehensive provision for infrastructure, including water and power, abundant industrial land bank, sector specific industrial incentives, a package of attractive incentives and special support measures for entrepreneurship development of marginalised sections.

5.1. Organized Manufacturing Sector in Telangana

The Annual Survey of Industries (ASI) provides comprehensive data relating to organised manufacturing units in the State with two years lag. The survey covers factories registered under Sections 2(m)(i) and 2(m)(ii) of the Factories Act, 1948. These factories employ 10 or more workers using power, and 20 or more workers but not using power. The latest ASI data for the State pertains to the year 2014-15.

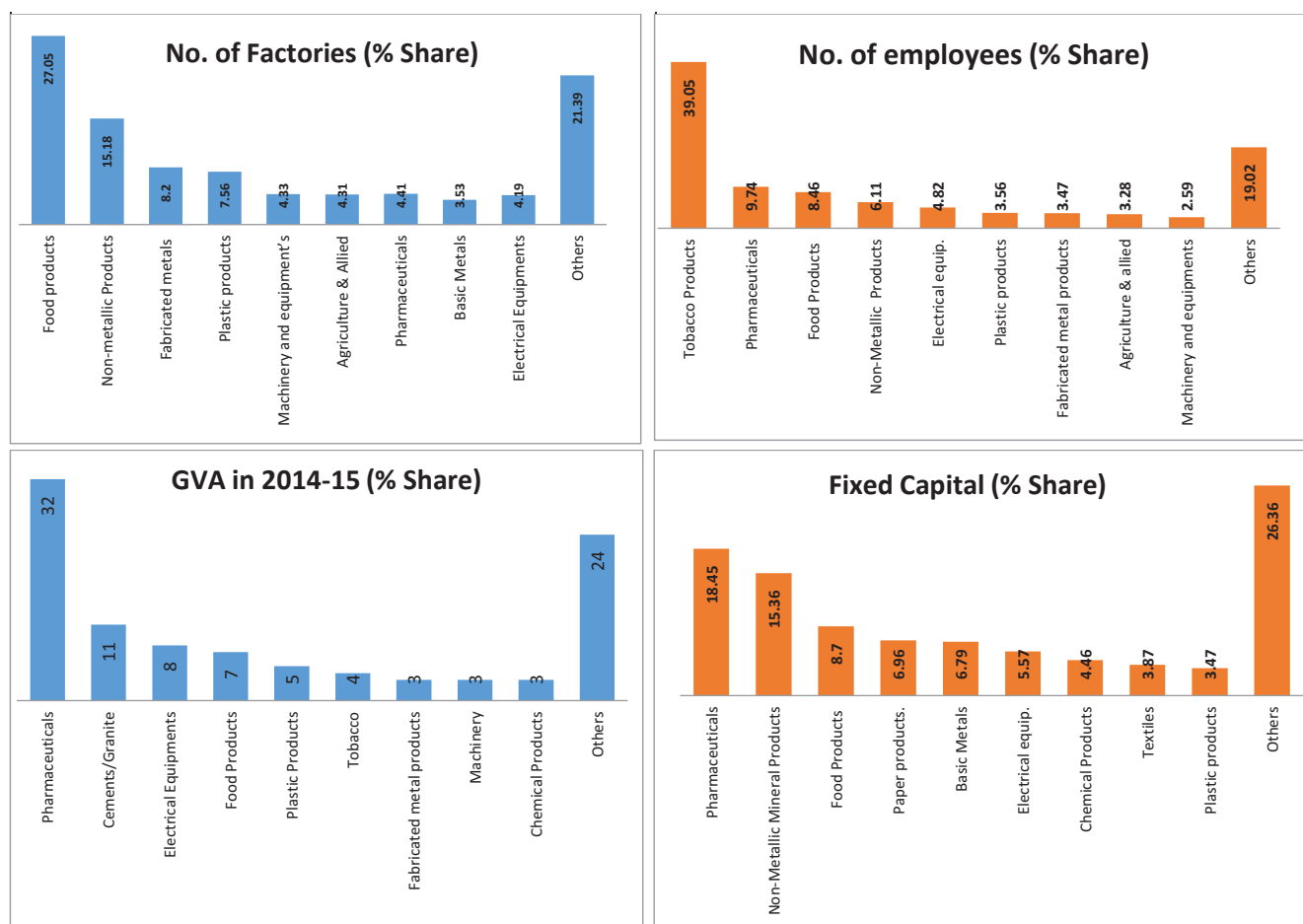
As per the latest ASI data (2014-15), there has been a significant growth in the registration of new units in Telangana. As per the latest available ASI, the total number of working manufacturing units in the state as of 2014-15 increased to 11,995 from 7,729 in 2009-10, registering a growth rate of 55%. Similarly,

production also increased by more than 40% during the same period. The Total Gross Value Added (GVA) of manufacturing units in the State was Rs. 24,373 crore in 2009-10, which had increased to Rs. 34,322 crore in the year 2014-15, indicating a growth of about 40%.

5.1.1. Composition of manufacturing units in Telangana

The composition of manufacturing sector in terms of important variables such as number of units, employees, fixed capital and output reveals that the major manufacturing units in the state are pharmaceuticals, food products, non-metallic mineral products, plastics, fabricated metals, and electrical equipment etc. (see Figure 5.1).

Figures 5.1: Organised Manufacturing sectors in Telangana as per ASI, 2014-15



Source: Annual Survey of Industries, 2014-15.

5.1.2. Major Manufacturing sub-sectors (ASI, 2014-15)

- (i) **Pharmaceutical Industry:** The pharmaceutical sector is a key contributor to the GVA and fixed capital in the State. This sector alone contributed Rs.10,930 crore GVA in 2014-15, accounting for about 32% of the total industrial GVA of the State. Though the share of the sector was only 4.4% of the total number of units operated, it contributed a lions' share in terms of fixed capital and number of employees.

Pharmaceuticals and life sciences sectors are the fastest developing sectors in India. Noting this, the government has taken various proactive initiatives to strengthen the existing pharmaceuticals base

in the State. As a result, Telangana has emerged as a leading player in certain niche segments such as bulk drugs, vaccines and formulations in the entire country. With the new 'Life Sciences Policy of Telangana' in place, which has emphasised the growth of five key sub-sectors viz., Pharmaceuticals, Biotechnology, Medical Devices, Bio-Services and Nutraceuticals, the State is able to attract large investments in these sectors.

- (ii) **Non-Metallic Mineral Products:** Availability of mineral resources helped the growth of non-metallic mineral products from the State. Important sub-sectors of the non-metallic mineral sector in Telangana include cement, RCC bricks and asbestos, granite, glass products, ceramic products, etc., as per ASI, 2014-15(see Table 5.1), about 11.14% of total GVA and 15.36% of fixed capital is contributed by this sector.

Table 5.1: Non-Metallic Mineral Sector in 2014-15

Sl. No	Sub-sectors of Non-Metallic Mineral Products	No. of Factories	GVA (Rs. Crore)	% of Share in GVA
1	Cement	55	2,073	6.04
2	RCC Bricks & Asbestos	202	910	2.65
3	Granites / Polishing	1306	368	1.07
4	Glass Products	28	281	0.82
5	Ceramic Products	149	144	0.42
6	Others	81	47	0.14
Total		1,821	3,823	11.14

Source: Annual Survey of Industries, 2014-15.

- (iii) **Electrical Equipment industry:** Electric transformers, fibre optical cables, wires, domestic appliances, wiring appliances, batteries, etc., are the important sub-sectors in the electrical equipment industry. As per ASI 2014-15(see Table 5.2), GVA by this sector alone was Rs. 2,734 crore, which is 7.97% of the total GVA of all industries in the State.

Telangana has continuously been at the forefront of electronics manufacturing in the country. Over time, a physical ecosystem has evolved with respect to electronics and associated industries in and around Hyderabad. Additionally, the high quality of technical education and skilled graduates from engineering colleges across the state has served as a critical growth factor. With the new sector specific policy on electronics, 'Telangana Electronics Policy 2016', the capital city of the State, Hyderabad, is marching towards establishing itself as one of the leading electronic hubs globally.

Table 5.2: Electrical Equipment sector in 2014-15

Sl. No.	Sub-Sectors in Electrical Equipment	No. of Factories	GVA (Rs. crore)	% Share of GVA
1	Electric transformers	169	2,043	5.95
2	Fibre optical cables, wires	45	243	0.71
3	Domestic appliances	141	140	0.41
4	Wiring appliances	31	93	0.27
5	Batteries	29	82	0.24
6	Others	88	133	0.39
Total		503	2,734	7.97

Source: Annual Survey of Industries, 2014-15.

(iv) **Food Processing:** Food processing industry is a sunrise sector in the state. Major sub sectors in food processing industry comprise of rice mills, dairy meat products, oil mills, chocolates, bakery products, sugar, animal feed, preservation of fruits/vegetables, papad and chillies powder. As per the ASI 2014-15, there were 3,245 food processing factories in the State with total GVA of Rs. 2,412 crore. Highest number of units in this sector were reported under the category 'rice mills'. Detailed on food processing sector provided in the Table 5.3.

Table 5.3: Food Processing Sector in 2014-15

Sl. No.	Key Sub-Sectors in Food Processing Sector	No. of Factories	GVA (Rs. crore)	% Share of GVA
1	Rice Mills	2,481	1,032	3.01
2	Dairy	84	258	0.75
3	Meat products	6	323	0.94
4	Oil Mills	254	111	0.32
5	Chocolates	70	97	0.28
6	Bakery products	104	94	0.27
7	Sugar	14	79	0.23
8	Animal feed	58	75	0.22
9	Preservation of Fruits/Vegetables	45	57	0.17
10	Papads, Chillies powder	4	32	0.09
11	Others	187	254	0.74
Total		3,245	2,412	7.03

Source: Annual Survey of Industries, 2014-15.

(v) **Other major sectors:** Plastic, rubber and fabricated metal were some other important sub-sectors in manufacturing sector. As per ASI 2014-15, there were about 983 fabricated metal factories in the state, which accounted for about 3.5% of the total industrial GVA of the State.

Beedi making industry is one of the key manufacturing sectors in terms of employment generation, spreading across the northern districts of Telangana. As per ASI 2014-15, GVA contribution of beedi sector was to the tune of Rs. 987.09 crore. About 39% of the total employees in organised manufacturing sector covered by the ASI in the State were in beedi industry alone.

5.2. MSME Sector in Telangana

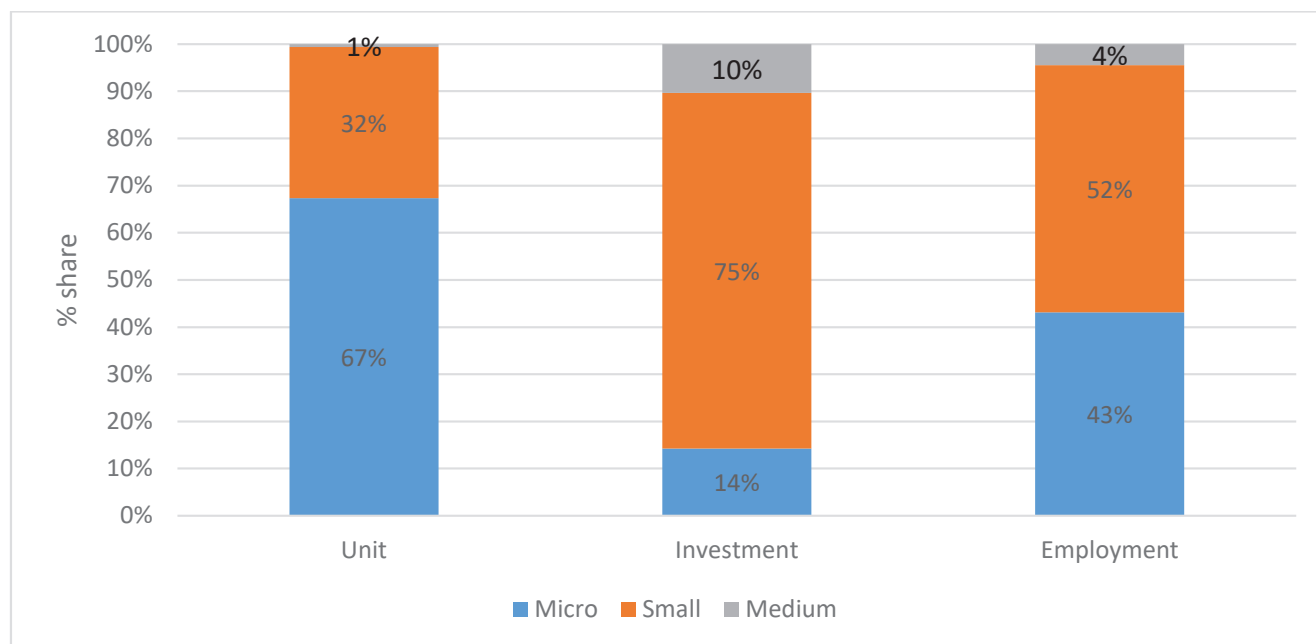
Micro, Small and Medium Enterprises (MSME) sector has emerged as a highly vibrant and dynamic sector of the economy over the years. The MSME sector plays a crucial role in providing employment opportunities to those who are low skilled at comparatively lower capital cost apart from helping in rural industrialization. It provides complementary products to large industries as ancillary units and contributes enormously to inclusive growth and regionally balanced development of the State.

There has been a steady growth in the number of MSME registrations in the state. As many as 13,671 MSME units have commenced their operations since formation of the State, with an investment of Rs. 7,130 crore by providing additional employment opportunities to about 1.45 lakh persons (see Table 5.4).

Table 5.4: MSME units commenced operation from June, 2014

Sl. No.	Category	No. of Units	Investment (Rs. crore)	Employment Generated (in Numbers)
1	Micro	9,210	1,018	62,733
2	Small	4,371	5,374	76,286
3	Medium	90	738	6,493
Total		13,671	7,130	1,45,512

Figure 5.2: Units, investment and employment creation in MSME sector in Telangana (commenced since June,2014 to october,2017).



Compositional analysis of MSME sector for the period June 2014 to October 2017 as provided in the Figure 5.2, reveals that while micro industries occupies the highest share in number of units, accounting for about 67% of total units, but its share in the other two parameters, (i.e., investment (14%) and employment creation (43%)), is comparatively less. Small units have highest investment base, with about 75 % and employment creation share of 52%. On the other hand, medium units have scored low on all the parameters in MSME category.

5.2.1. District wise distribution of MSMEs in Telangana

District wise information on MSMEs is available for the time period September 2015 to October 2017 (Table 5.5). It is observed that the MSME sector in the State is concentrated in the districts of Rangareddy, Karimnagar, Hyderabad, Nalgonda, Medchal-Malkajgiri and Medak. Rangareddy tops the list with the highest number of manufacturing units, investment and employment, etc., followed by Karimnagar and Hyderabad.

Table 5.5: MSME Units commenced from September 2015 to October 2017

Sl. No.	District	No. of Units	Investment (Rs. crore)	Employment (in Numbers)
1	Rangareddy	3,488	2,230.1	33,961
2	Karimnagar	1,571	1,406.7	19,480
3	Hyderabad	1,494	941.7	14,380
4	Nalgonda	960	690.2	8,425
5	Medchal-Malkajgiri	928	516.2	8,019
6	Medak	732	981.1	10,565
7	Mahabubnagar	437	399.6	3,862
8	Nizamabad	429	429.8	4,076
9	Khammam	397	357.5	4,011
10	Adilabad	384	359.8	4,607
11	Sangareddy	278	296	3,422
12	Rajanna Sircilla	248	80	2,058
13	Yadadri Bhuvanagiri	164	154.9	1,377
14	Warangal Urban	123	143.7	1,642
15	Siddipet	113	160.3	1,015
16	Suryapet	84	55.1	670
17	Peddapalli	60	26.6	791
18	Jagtial	55	13.5	255
19	Warangal Rural	47	67.1	509
20	Wanaparthy	44	17.2	279
21	Mancherial	39	29.3	347
22	Badradi Kothagudem	32	14.6	246
23	Nagarkurnool	32	13.2	189
24	Vikarabad	29	32.4	380
25	Jogulamba Gadwal	28	10.3	202
26	Kumuram Bheem	24	29.2	249
27	Jayashankar	22	23.7	247
28	Mahabubabad	15	12.1	202
29	Jangaon	13	25.9	148
30	Kamareddy	13	15.2	103
31	Nirmal	11	21.7	144
Total		12,294	9,554.4	1,25,861

5.2.2. Credit to Micro and Small Enterprises under Annual Credit Plan 2017-18

The State Government has been making continuous efforts on the growth of MSME sector through means of providing adequate credit to the sector. As per the Annual Credit Plan 2017-18(see Table 5.6) of State Level Bankers Committee (SLBC), an amount of Rs. 16,465 crore is targeted towards micro and small enterprises in the annual credit plan.

Table 5.6: Annual Credit Plan, MSME Activity wise, 2017-18

Sl. No.	Micro & Small Enterprises	Amount Target		Beneficiary Target	
		Amount (Rs. crore)	% share	Number of Loanies	% share
1	Micro Enterprises	3,167	19	5,75,876	80
2	Small Enterprises	5,039	31	1,26,052	17
3	Khadi and Village Industries	1,911	12	3,360	0.5
4	Others	6,348	39	15,956	2
Total Micro & Small Enterprises		16,465	100	7,21,244	100

Source: Annual Credit Plan of Telangana, SLBC, 2017-18

5.3. Merchandise Exports from Telangana

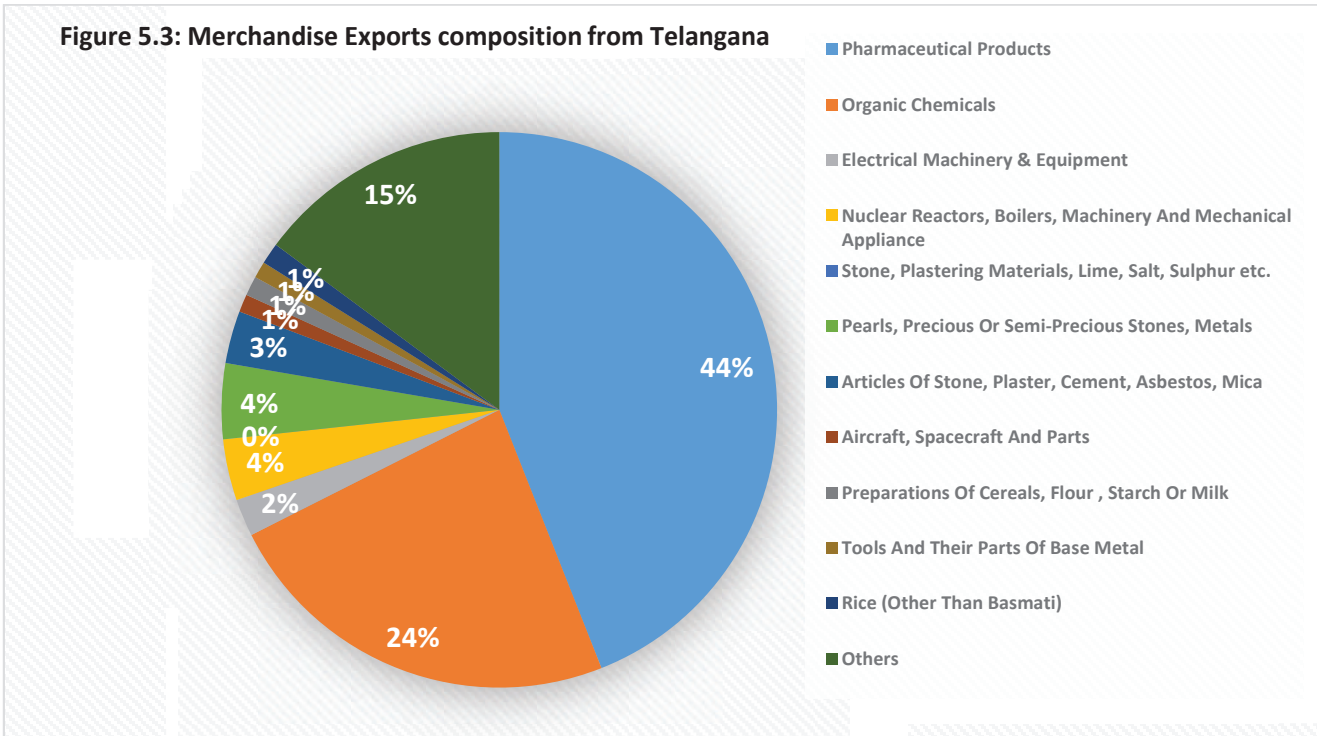
Telangana is steadily emerging as one of the leading states for merchandise exports in the country with a buoyant export growth rate. Merchandise exports worth Rs. 40,322 crore were exported from the State in the year 2016-17 as compared to Rs. 35,444 crore in the year 2015-16, thus registering a growth rate of 13.8% year on year. The sector-wise analysis of merchandise exports reveals that the lion's share in Telangana's exports earnings consists of pharma and chemical products. Pharmaceutical products earned the highest income from exports during 2016-17, valued at Rs. 17,744 crore, accounting for about 44% of the total merchandise exports from the state. Further, the exports from pharmaceuticals also grew at a robust growth rate of 38.2% in the year 2016-17 over 2015-16 (See Table 5.7).

Table 5.7: Sector wise merchandise exports from Telangana during 2015-16 to 2016-17

Sl. No.	Sector	2015-16 (Rs. crore)	2016-17 (Rs. crore)	Growth over last year
1	Pharmaceutical Products	12,837	17,744	38.2
2	Organic Chemicals	11,776	9,497	-19.4
3	Electrical Machinery & Equipment	1,465	877	-40.1
4	Nuclear Reactors, Boilers, Machinery and Mechanical Appliance	1,359	1,439	5.9
5	Stone, Plastering Materials, Lime, Salt, Sulphur etc.	699	-	-
6	Pearls, Precious or Semi-Precious Stones, Metals	622	1,774	185.2
7	Articles of Stone, Plaster, Cement, Asbestos, Mica	545	1,232	126.1
8	Aircraft, Spacecraft And Parts	503	418	-16.9
9	Preparations of Cereals, Flour, Starch or Milk	442	458	3.6
10	Tools and their Parts of Base Metal	423	389	-8.0
11	Rice (Other Than Basmati)	-	499	-
12	Others	4,774	5,996	25.6
Total Exports		35,444	40,322	13.8

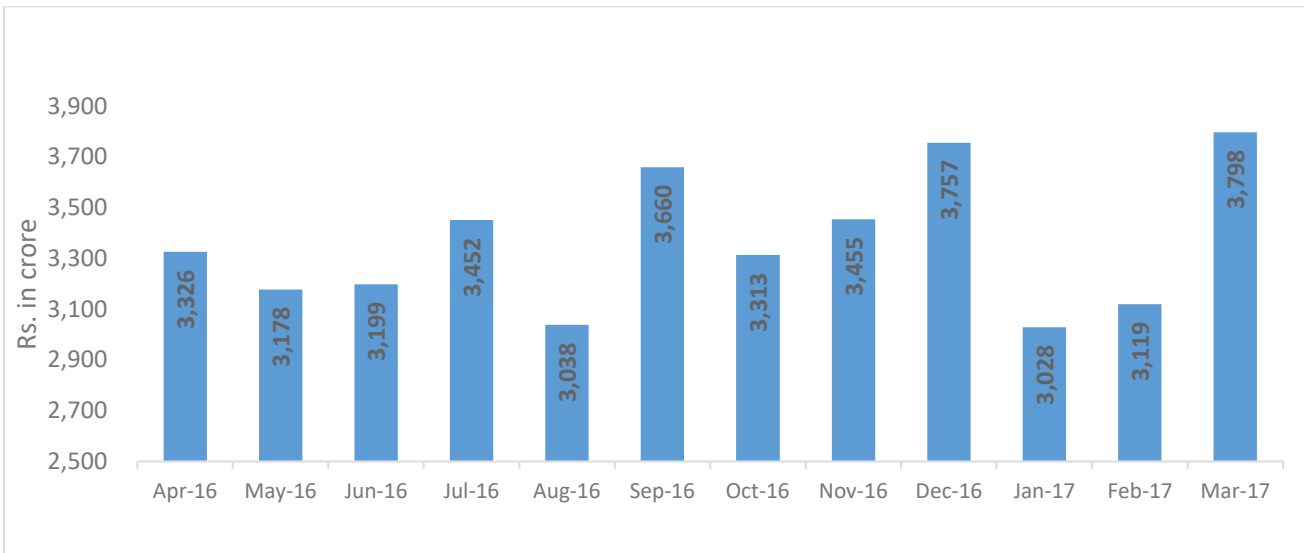
Export earnings from organic chemicals was Rs. 9,497 crore, accounting for about 24% of the total exports from the state. Pearl and Precious stones also registered high earnings, accounting for 4.4% from exports in comparison to last year, from the state.

Figure 5.3: Merchandise Exports composition from Telangana



Analysis of State wise merchandise exports in 2016-17 as shown in the Figure 5.3, reveal that exports from Telangana amounted to Rs. 40,322 crore, accounting for about 2.18 percent of all India exports. It is observed that there has been a 13.7% increase in the value of exports from the State over the previous year.

Figure 5.4: Month wise merchandise exports from Telangana 2016-17.



Month wise merchandise exports from the State reveals that there has been a steady increase in exports from the State across all months. Month wise export earnings are provided in Figure 5.4.

5.4. State initiatives for industrial development

(i) **TS-iPASS:** The Government of Telangana has enacted the Telangana State Industrial Project Approval and Self-Certification System (TS-iPASS) Act, 2014, for speedy processing of applications for setting up of industries in the State. The salient features of TS-iPASS are provided in the Box 5.1.

Box 5.1: Salient Features of TS-iPASS:

- Telangana is the only state in the country that has made it a right to get industrial clearances.
- Approvals based on Self-certification by the applicant.
- 30 clearances pertain to 23 departments are included in TS-iPASS.
- A Combined Application form is designed to cater the requirements of all departments.
- Number of attachments were reduced to 10 from 110, which are common for all departments.
- Timelines were notified for all clearances.
- Clearances are given within the set time limit varying from one day to a maximum of 30 days depending upon on the complexity of the approval, failing which the approval is said to be deemed.
- For Mega projects i.e., the projects with investment more than Rs. 200 crore provisional clearances will be issued within 15 days, based on the self-certificate furnished by the applicant. Formal approvals/clearances will be issued before the unit commences its operations. The T-SWIFT Board, headed by the Chief Secretary, will monitor it.
- An Industry Chasing Cell is created in the office of the Chief Minister, which is headed by a Principal Secretary, to monitor the implantation of major projects and inter-departmental coordination.
- All clearances under TS-iPASS will be provided through an end-to-end online system where an investor will be guided in each step, can upload the required documents, make online payment, track status of approvals, view and download the issued approvals.
- Model documents to be attached are provided on the web-portal.
- The portal provides for online pre-scrutiny of applications within 72 hours. This ensures that the applicant is informed of any shortfalls before making payment.
- Applicant can pay the scrutiny/ processing/ approval/ licensing fee for all departments through a single payment gateway.
- Clearances are issued online which can be downloaded by the applicant and verified by the any third party.
- The applicant is entitled to know the reasons for delay in getting the clearance within time limits.
- Effective grievance redressal mechanism.
- The Act envisages provision for imposing penalties to the officers who failed to accord clearance within time limits. At present the penalty is @Rs.1,000 per day.
- TS-iPASS obviates the need to meet any official and gives all approvals in a time bound manner. Thus, it is a graft free industrial approval process.

With the enactment and the whole-hearted implementation of the TS-iPASS, the State has been ranked as No. 1 in the Ease of Doing Business (EODB) in the country with a score of 98.78%, paving its way to become the epicentre for investment in the country (see Box 5.2).

Box 5.2: 'Telangana Stands No.1 in 'Ease of Doing Business'

Telangana secured 1st Rank in 'Ease of Doing Business-2016' with a score of 98.78% by the Government of India and the World Bank. For the year 2016, Department of Industrial Policy and Promotion (DIPP), Ministry of Commerce and Industry, Government of India has communicated a 340-point Business Reform Action Plan. Out of 340 reforms counted for calculating Ease of Doing Business, 324 reform initiatives approved while 12 reforms were not applicable to the state.

For the year 2017, DIPP has communicated 372 point Business Reform Action Plan. Government of Telangana has taken all measures to comply with all the reforms and retain the top position for the year 2017 also. The documentation pertaining to reforms implemented have been uploaded onto the DIPP portal and evaluation is under process.

Table 5.8: Investment under TS-iPASS: Implementation status up to 25.01.2018

Sl. No.	Progress	No. of Industries	Investment (Rs. crore)	Employment generation (in numbers)
1	Commenced Operations	3,551	32,558	1,58,406
2	Advanced Stage	479	12,496	79,425
3	Initial Stage	517	29,324	83,999
4	Yet to Start Construction	1,570	43,664	1,21,132
	Total	6,117	1,18,041	4,42,962

The details concerning new investment proposals and phases of commencement is provided in the Table 5.8. It is noted that since the enactment of TS-iPASS, the State has received 6,117 new investment proposals with an investment outlay of Rs. 1.18 lakh crore and creation of potential employment opportunities for 4.43 lakh individuals. Of the total proposals received, 3,551 units have commenced their operations with an investment outlay of Rs. 32,558 crore and creating employment opportunities for 1.58 lakh people.

Table 5.9: Sector wise investment under TS-iPASS

Sl. No.	Major Sector	No. of Industries	Investment (Rs. crore)	Employment (in Numbers)
1	Engineering	1,181	2,034	21,756
2	Food Processing	911	3,645	63,766
3	Agro based industries incl Cold Storages	594	1,188	11,035
4	Granite and Stone Crushing	572	2,988	11,646
5	Plastic and Rubber	531	1,733	15,566
6	Cement, Cement & Concrete Products, Fly Ash Bricks	471	789	6,321
7	Pharmaceuticals and Chemicals	456	6,667	41,774
8	Paper and Printing	240	1,776	6,041
9	Beverages	216	1,792	6,861
10	Solar and Other Renewable Energy	168	15,503	5,309

Sl. No.	Major Sector	No. of Industries	Investment (Rs. crore)	Employment (in Numbers)
11	Textiles	166	672	4,587
12	Electrical and Electronic Products	158	1,387	12,279
13	R&D	122	2,207	15,803
14	Others	109	1,629	13,107
15	Wood and Leather	70	54	1,365
16	Fertilizers Organic and Inorganic, Pesticides, Insecticides, and Other Related	53	3,311	2,681
17	Real Estate, Industrial Parks and IT Buildings	52	9,994	1,63,428
18	Automobile	21	1,347	3,140
19	Thermal Power Plant	13	56,202	13,022
20	Aerospace and Defence	7	209	775
21	IT Services	5	2,647	22,300
22	Defence Equipment	1	268	400
Total		6,117	1,18,041	4,42,962

A cursory analysis of the sector wise distribution of investments under TS-iPASS as provided in the Table 5.9, indicates that the engineering sector has received the highest number of proposals, followed by food processing, agro-based industries including cold storage, granite and stone crushing, plastic and rubber, so and so on. However, the highest amount of investment was received in thermal power plants sector with about 50% of total investment, followed by solar and other renewable energy, pharmaceuticals and chemical sectors, respectively. Employment generation was higher in real estate and building of industrial parks, followed by food processing and pharmaceuticals and chemical sectors, respectively. Analysis of district wise distribution of investments under the TS-iPASS reveals that Medchal-Malkajgiri, Rangareddy and Sangareddy have attracted more investments. Detailed Electronic policy of Telangana provided in the Box 5.3.

Box 5.3: Electronics Policy of Telangana

Telangana has continuously been in the forefront of electronics manufacturing in the country. The traditional entrepreneurial spirit of the locals, coupled with the access to skilled workforce and inherent supply chain advantages of the location have resulted in tremendous growth of the electronic industry over the last two decades. Over time, a physical ecosystem has evolved with the electronics and associated industries in and around Hyderabad. At present Hyderabad houses number of electronics and ancillary industrial units both large and small that employ more than 50,000 professionals. The state government launched the Telangana Electronics Policy 2016 to promote the industry and create Hyderabad as a global hub for electronics industry. The policy provides following incentives and infrastructure support for electronic sector.

- Single window clearance with the help of TS-iPASS.
- Power subsidy under the industrial power tariff category.
- New Electronic Companies will be allowed 100% exemption on electricity duty for a period of 5 years
- Exemption of registration, transfer and stamp duty
- 50 percent of cost filing patents will be reimbursed to companies
- 50 percent subsidy limited to Rs.2 lakhs for quality certificate expenses
- For first 7 years of production, 100 percent reimbursement on VAT/CST/SGST

- Transport subsidy for first five years on imports of parts i.e., 1st year – 60%, 2nd year – 50%, 3rd year – 40%, 4th year – 30% and 5th – 20%.
- The State will provide assistance in training the number of candidates according to requirement of industry.
- Investment subsidy (Up to Rs. 2 crores) for first 25 eligible companies in all categories (small, large and mega), and Rs. 50 lakhs for first 50 eligible companies in micro and small category. Additional 10% investment subsidy for women entrepreneurs
- 25 percent subsidy on lease rentals to the eligible companies
- Mobile manufacturing units will get above-mentioned incentives and in addition to interest subsidy of 5.25% per annum on term loans for 5 years.

(ii) T-IDEA Scheme: The T-IDEA is an important initiative of the state to encourage industrial entrepreneurship. Detail on incentives under T-IDEA scheme provided in the Box 5.4.

Box 5.4: Incentives under T-IDEA Scheme

- 100% reimbursement of Stamp duty and transfer duty paid by the industry on purchase of land meant for industrial use/ for lease of land/shed/ buildings and also mortgages and hypothecations.
- 25% rebate in land cost limited to Rs.10 lakhs in Industrial Estates or Industrial Parks.
- 25% land conversion charges for industrial use limited to Rs.10 lakhs.
- Fixed power cost reimbursement @ Rs.1.00 per energy unit for 5 years from date of commencement of production (DCP).
- Investment subsidy @ 15% on fixed capital investment subject to a maximum of Rs.20.00 lakhs for micro & small enterprises
- Reimbursement of 100% net VAT/CST/SGST for a period of 5 years from DCP, for micro & small enterprises or up to realization of 100% fixed capital investment, whichever is earlier
- Reimbursement of net VAT/CST/SGST @ of 75% for a period of 7 years from DCP, for medium scale enterprises or up to realization of 100% fixed capital investment, whichever is earlier
- Reimbursement of net VAT/CST/SGST @ 50% for a period of 7 years for large scale industries or up to realization of 100% fixed capital investment, whichever is earlier
- Seed capital assistance to First Generation Entrepreneurs to set-up micro enterprises @10% of the machinery cost.
- 50% reimbursement of cost involved in skill upgradation and training the local manpower limited to Rs.2000 per person.
- 25% subsidy on specific cleaner production measures limited to Rs.5 lakhs
- Interest subsidy under Pavala Vaddi Scheme for micro and small enterprises on term loan in excess of 3% per annum (p.a.) subject to a maximum reimbursement of 9% p.a. for a period of 5 years from DCP.
- Additional benefits for infrastructure assistance by contributing 50% of the cost of infrastructure from Industrial Infrastructure Development Fund (IIDF) with a ceiling of Rs.1.00 Crore to medium and large industries.
- Additional 10% investment subsidy (max.of Rs. 10 lakhs) to women owned MSE's.
- 27% of incentive amount shall be earmarked for B.Cs and 12% for minorities.
- Tailor-made benefits to Mega Projects (Capital investment of Rs.200 crore and above) on case to case basis.
- Rs.100 crores of budget every year for promotion of quality under IIDF Scheme.
 - Reservation of 30-40% of the land for MSMEs in the upcoming I.Es of TSIIC
 - Allocation of 10% of number of plots to Women Entrepreneurs in the new Industrial Estates.

A brief of financial incentives provided by the government as part of the T-IDEA scheme is detailed in the Table 5.10.

Table 5.10: Incentives provided under T-IDEA in 2016-17

Sl. No.	Nature of Subsidy	No. of cases	Amount sanctioned (Rs. Crore)
1	Investment Subsidy	202	36.88
2	Sales Tax	301	169.08
3	Stamp Duty	50	2.53
4	Land Cost	19	1.48
5	Land Conversion	10	0.03
6	Mortgage Duty	8	0.27
7	Skill upgd / Training / Qlty cert	2	0.02
8	Power Cost Reimbursement	1,207	116.48
9	Pavala Vaddi	1,149	81.70
Total		2,948	408.47

(iii) T-PRIDE Scheme: In order to encourage entrepreneurship among the Scheduled Castes (SCs) and Scheduled Tribes (STs), government has launched a special incentives package scheme under T-PRIDE (Telangana State Program for Rapid Incubation of Dalit Entrepreneurs) in the year 2014 (see Box 5.5). During the year 2016-17, about 3,612 units of SC entrepreneurs and 1,303 units of ST entrepreneurs have been provided with financial incentives under the T-PRIDE scheme.

Box 5.5: Incentives offered under the T-PRIDE Scheme

- Investment subsidy @ 35% on Fixed Capital Investment (FCI) subject to a maximum of Rs.75 lakhs for Micro & Small Enterprises.
- Additional 5% investment subsidy for units set up in Scheduled Areas by ST entrepreneurs with a maximum limit per unit Rs. 75 lakhs
- 100% reimbursement of Stamp duty and transfer duty paid by the industry on purchase of land meant for industrial use/ for lease of land/shed/ buildings and also mortgages and hypothecations.
- 50% reimbursement on land cost in industrial estates/ industrial parks, if not availed rebate from the Telangana State Industrial Infrastructure Corporation (TSIIC).
- 25% land conversion charges for industrial use limited to Rs.10 lakhs.
- 25% subsidy on specific cleaner production measures limited to Rs.5 lakhs.
- Power cost reimbursement @ Rs.1.50 per Energy unit for 5 years from date of commencement of production (DCP).
- Reimbursement of 100% net VAT/CST/SGST for a period of 5 years from DCP, for micro & small enterprises up to realization of 100% fixed capital investment, whichever is earlier
- Reimbursement of net VAT/CST/SGST @ of 75% for a period of 7 years from DCP, for medium scale enterprises or up to realization of 100% fixed capital investment, whichever is earlier

- Reimbursement of net VAT/CST/SGST @ 50% for a period of 7 years for large scale industries or up to realization of 100% fixed capital investment, whichever is earlier
- Interest subsidy under Pavala Vaddi Scheme for micro & small enterprises on term loan in excess of 3% per annum subject to a maximum reimbursement of 9% p.a. for a period of 5 years from DCP.

(iv) Industrial Health Clinic: Industrial sickness lead to problems such as unemployment, revenue loss to the State and Central Governments, reduced flow of institutional finance, increase in non-productive assets, etc. Hence, it is considered desirable to take effective steps by the Government and other agencies concerned for timely detection of sickness at its initial stage. Towards this objective, Government has established the “Telangana Industrial Health Clinic Limited” (TIHCL). The TIHCL is the first of its kind organization in the country to resolve and prevent the sick and incipient sickness challenges of the enterprises in the State. The detailed objectives of TIHCL provided in the Box 5.6.

Box 5.6: Objectives of Telangana Industrial Health Clinic Limited

Telangana Industrial Health Clinic (TIHCL), the newly formed organisation by the Telangana government for reviving and restructuring micro, small and medium enterprises (MSMEs). TIHCL is the first of its kind co-financing and also first state sponsored non-bank financial institution (NBFC) for reviving MSMEs. The state has contributed Rs 10 crore to the proposed Rs 100 crore corpus of the fund, the rest would be funded by banks and financial institutions (FIs). TIHCL will identify industrial sick units and provide financial products such as rediscounting facility and soft loans. Telangana Industrial Health Clinic Limited is established with the following objectives:

- Help the MSEs in revival and rehabilitation through effective guidance and timely supplementation of financial resources
- Identify the strategic partnership firms for creating a comfort zone to the banks to revive the MSEs so that the units come out of NPA status
- Promoting a Comprehensive Financial Service Team with Accredited Consultants
- Providing diagnostic assistance of identifying industrial sickness
- Consulting services in finance, marketing branding, co-branding, technology
- Helps manufacturing start-ups in the MSE sector and incubation centres
- Expand the financing channel available to MSEs to resolve issues relating to working capital
- Help conducting Techno-Economic Valuation studies when the viability of the functioning of the MSE faces the threat.

(v) Measures to promote exports from the state: The government, under the aegis of the Department of Commerce & Export Promotion, undertook various initiatives for creating an enabling environment and infrastructure for accelerated growth of exports and trade. Key initiatives are briefed below:

(a) State’s Participation in India International Trade Fair: The India International Trade Fair (IITF) has been organised in New Delhi by the Ministry of Commerce, Government of India to promote marketing opportunities to products made in the country. Nearly one million general and business visitors come to witness this trade fair both from within and across the countries. Since the formation, the State has been

participating in the trade fair to display various products made by artisans, Self-Help Groups and MSME sector. Products such as Cheriyal paintings, Nirmal arts and crafts, Batik and Deccan paintings, Dokra castings and crafts, Warangal durries, Pochampally products, lac ware bangles, Pembarthi brass ware, bidiri ware, Katamaraju folk dolls, Banjara embroidery, Karimnagar silver filigree, wood carvings, Hyderabad pearls and artificial jewellery and other handlooms and handicrafts have received tremendous response from the visitors.

The state also Participated in the “Global Exhibition on Services 2017” organised in New Delhi, as this event is an ideal platform for the state to enhance its service exports and to attract foreign direct investments in the services sectors.

(b) Interactive Meetings with Export Promotion bodies: The state government has been organising regular review and interactive meetings with various export promotion councils and trade associations to increase awareness on international exports and to understand issues encountered by the stakeholder from the State.

Box 5.7: Hyderabad hosted the Eighth Annual Global Entrepreneurship Summit

Hyderabad city hosted the prestigious Eighth Annual Global Entrepreneurship Summit (GES) during November 28-30, 2017. GES is the preeminent annual entrepreneurship gathering that convenes emerging entrepreneurs, investors and supporters from around the world. The Summit serves as a vital link between governments and the private sector, and convenes global participants to showcase projects, exchange ideas, and champion new opportunities for investment.

Since inception of GES in 2010, it has travelled across the world from Washington D.C. to Istanbul, Dubai, Marrakech, Nairobi, Kuala Lumpur, Silicon Valley, and finally in Hyderabad. This was the first time GES hosted in South Asia, and the event highlighted India’s enabling environment for innovation and entrepreneurship. Summit theme was “Women First, Prosperity for All” to celebrate entrepreneurial spirit in all its strength, diversity, entirety and intended to inspire innovative initiatives, forge new collaborations across countries, and increase economic opportunities, particularly amongst women.

Hyderabad, the capital of Telangana state, has hosted due to strong presence of major U.S. tech firms, a robust startup ecosystem, premier academic institutions, top-notch talent, and supportive government policies in place. Hyderabad, also home to T-Hub - India’s largest startup incubator, has all the ingredients to be India’s next startup capital. GES 2017 in Hyderabad highlighted India’s entrepreneurial spirit and enabled the entrepreneurs to witness the talent, solution and opportunities that exist globally. The summit was addressed by the Hon’ble Prime Minister of India, Hon’ble Chief Minister of Telangana, Ms. Ivanka Trump, Advisor to President Trump, US, and many more luminaries from the world of innovation and entrepreneurship.

During the summit, India focused on four innovative, high-growth industries: healthcare and life sciences, digital economy and financial technology, energy and infrastructure, media and entertainment. The summit also laid special emphasis on empowering young and women entrepreneurs and the role they play in making communities more prosperous and secure through enterprise. The summit was attended by over 1500 attendees, including entrepreneurs, investors, educators, government officials, and business representatives represented the full measure of entrepreneurial talent from diverse backgrounds across our nation and the world.

5.5. Handloom Industry in Telangana

Handloom Industry is the largest cottage industry in the country with a position next only to agriculture in providing massive rural employment. Handloom Industry in the state occupies unique place in the country for its exclusive art and artifacts of handloom weavers. Ethnic handloom designs of Telangana promoting the cultural glory of Indian heritage and culture. The design patterns of Pochampally Ikkat's, Gadwala Cotton, Silk and Sico Sarees, Narayanpet Cotton, Silk Sarees, Warangal Durries, Karimnagar Bed sheets & Furnishings shows the outstanding skills of handloom weavers.

5.5.1. Handloom sector

There are 627 Handloom Weaver Cooperative Societies in the state with total membership of 82,438. The detailed are provided in the Table 5.11.

Table 5.11: Handloom Weaver Cooperative Societies in Telangana

Sl. No.	Particulars	
1	No. of Handloom Weaver Cooperative Societies	627
2	No. of weaver members	82,438
3	No. of working Handlooms Geo-tagged	16,879
4	No. of Powerlooms existing.	49,112

In order to resolve the problems faced by Handloom Weavers and for the socio-economic development of Handloom Weavers in the state, several schemes are being implemented by the state.

- (i) **Credit Support:** The District Cooperative Central Banks sanctioned cash credit limit for of Rs. 61.28 crore during the year 2016-17 in respect of 290 societies.
- (ii) **Pavala Vaddi Scheme:** Pavala Vaddi scheme is being implemented to reduce the burden of interest on Handloom Weavers Cooperative Societies, APEX Society, Individual weavers covered under Artisan Credit Cards and Weavers SHGs. An amount of Rs.1.77 crore has been sanctioned towards settlement the Pavala vaddi claims during 2016-17.
- (iii) **Telangana Handloom Weavers Thrift Fund Saving and Security Scheme:** The Government of Telangana has increased its share in the thrift fund scheme from existing 8% to 16% under the Telangana Handloom Weavers Thrift Fund Saving and Security Scheme (TFSSS) – Nethanna Ku Cheyutha. The new Thrift fund Scheme was launched on 24.06.2017 at Pochampally in Yadadri Bhuvanagiri district. Unlike the old Thrift fund scheme, the new Thrift fund scheme is thrown open to all those involved in weaving job viz., Weavers, Designers, Dyers, Warpers, winders, etc., both within and outside the Cooperative fold. An amount of Rs. 60.00 crore have been allotted under this scheme during the year 2017-18.
- (iv) **Old Age Pensions:** The Government has enhanced the pensions to old age and handloom weavers from Rs. 200/- to 1000/- per month with effect from 10.12.2014 under Aasara Pension Scheme.

Box 5.8: Geographical Indication for Telangana Handloom products

Pochampally Ikkat, Gadwal Sarees, Siddipet Gollabama Sarees, Narayanpet Sarees have been registered from the State of Telangana under Geographical Indication Act 1999.

- (v) **Payment of ex-gratia to the families of suicidal weavers:** Government has been providing sigh of relief to the bereived families of suicidal weavers.
- (vi) **Netha Bazaars:** Five Netha Bazars at Sircilla, Karimnagar, Khammam, Mahabubnagar and Adilabad have been constructed to enable the weavers to sell their products.
- (vii) **Samisthti:** A new marketing initiative under the banner “Samishti Handloom Sales Emporia” has been taken up to expand the marketing of handloom products of the PWCSs. Six Samishti Sales Emporia have been constructed at Vemulawada, Jagtial, Shilparamam, Narketpally, Rajoli and Bhupalapally.

Apart from these initiatives, Government has also been implementing Centrally Sponsored Schemes (CSS) for the development of handloom industry in the State. Major CSS schemes include: (i) upgradation of technology, skills and infrastructure is being done through National Handloom Development Programme, (ii) skill upgration of handloom and textile workforce through Integrated Skill Development Scheme, (iii) credit assistance under Pradhanmantri Weavers Mudra Scheme, (iv) health insurance to handloom weavers under the Health Insurance Scheme, etc.

5.5.2. Powerloom Industry

There are 49,112 powerlooms in the state, out of which majority (about 36,000) of the powerlooms are located in Sircilla town. Most of the powerlooms in use are low end varieties, having consumption of only 5 HP and designed to produce textiles of upto 56 width. The powerloom industry is also spread in the erstwhile districts of Karimnagar, Warangal, Khammam, Nalgonda, Rangareddy and Mahabubnagar. Important schemes initiated by the government towards welfare of powerloom industry are:

- (i) **Up-gradation of Plain Powerlooms:** As the powerlooms in Sircilla are outdated, the government of India selected Sircilla area under pilot project scheme of In-Situ up-gradation of plain powerlooms. Under the scheme per loom unit cost is Rs. 30,000 with a maximum of 8 looms allowed per unit. Under the scheme, the government of India provides Rs. 15,000 as its share, share and Rs. 10,000 would be the state share and beneficiary contribution is Rs. 5,000. 5393 looms have been identified for upliftment under the scheme.
- (ii) **50% Power tariff concession to powerloom weavers:** The state government has been providing 50% power subsidy to powerloom weavers in the State for the powerloom unit upto 5HP. 10,000 Powerloom units have benefitted under the scheme.
- (iii) **Loan Waiver Scheme to Powerloom Weavers:** The government has announced loan waiver to powerloom weavers and workers upto Rs. 1 lakh. 1,325 powerloom weavers/workers to be benefitted under the scheme.
- (iv) **Textile and Handloom Parks:** Sircilla also has a modern Textile park spread over 75 acres in which 1,600 Rapier looms are available. A Common Facilities Centre is being established in the Textile Park, which will look after the entire range of pre-loom and post-loom activities like warping, sizing, dyeing, and processing. In addition, an apparel park is being developed on about 100 acres. The Sircilla Apparel Park will provide immediate value addition to the fabric produced by the power looms in Sircilla. The state also has a number of operational private textile parks in Sircilla, Medak, Nalgonda and Warangal (see Box 5.9); Handloom parks in Gadwal and Pochampally; and Apparel Export Park in Gundlapochampally. Detailed policy on Textile and Apparel is provided in the Box 5.10.

Box 5.9: Mega Textiles Park at Warangal

The government has fast tracked development of Kakatiya Integrated Mega Textile Park at Shayampet and Chintalapalli villages in Warangal (Rural) District. The Mega Park, spread over an area of 2000 acre to be developed in phases, will have best quality infrastructure and house domestic and international units in spinning, weaving, processing, machinery manufacturing and fashion designing / apparel as well as Technical Textile and man-made fibre based units. The Mega Textile Park will be equipped with state of the art infrastructure and amenities:

- India's largest integrated Textile Park
- 1200 acres in the first phase
- High quality infrastructure like water, power, and connectivity at doorstep
- 21 MLD Common Effluent Treatment Plant (CETP)
- Common facilities like workers' dormitories, warehouses, testing labs
- Dedicated technical training centre – MOU with PSG Institute
- Skill building in spinning, weaving and garmenting
- Will include cotton, synthetics, man-made fibres, and technical textiles units
- Ready to use plug and play infrastructure specifically for garmenting units

Box 5.10: Textile and Apparel Policy of Telangana

Telangana is the third largest producers of long staple cotton with production of around 60 lakh bales per annum. The State is known for skilled textile workers but due to absence of industry, they migrated to other states for their livelihood. There are 33 spinning mills with capacity of 10 lakh spindles, which consumes only about 20% of the cotton grown in the State while the rest 80% go to other states for spinning. Very little downstream activities such as weaving, processing and garmenting happen in the state. This is a huge gap as well as an opportunity of the state to develop a holistic textile value chain and surrounding ecosystem in the state. Telangana is well known for skilled workers, lakhs of textile workers employed in well-established clusters in the country like Surat, Bhivandi, Sholapur and Ichalkaranji are natives of Telangana, and have 3-4 decades of experience of working in this sector.

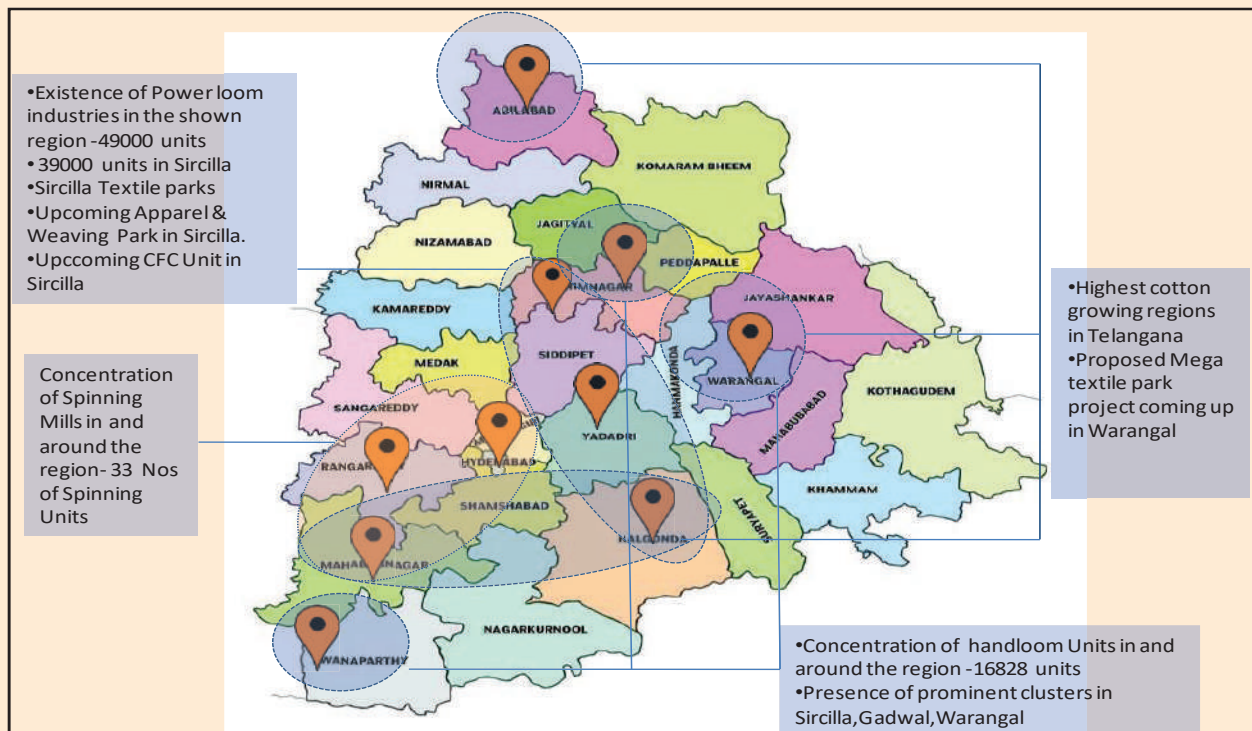
The state government has also launched the Telangana Textile and Apparel Policy (T-TAP) in August 2017 to attract leading national and international textile and apparel companies to the state. T-TAP envisages creation of a thriving textile value chain through targeted intervention keeping in mind the strengths and weaknesses of Telangana in textile sector.

Objectives of T-TAP:

- Emerge as one of the key investment destinations for textile and apparel sector both domestically and globally.
- Encourage investments across the value chain including spinning, weaving, processing and garmenting Utilize entire cotton produced in the state by developing backward and forward linkages from fiber to finished products.
- Making textile sector more productive and remunerative to the existing weavers by technology and skill upgradation.
- Enable additional employment opportunities in the sector and to facilitate homecoming of all Telangana-origin workforce back to the state.

- Support creation of a pool of skilled workforce for the industry.
- Support and encourage industry that provides a fair and decent livelihood to the workers and passes on the benefits given by the State to the employees.
- Make the artistic weaves from the state highly valued in the world for their designs and quality.
- Create a market-conducive environment for the sector, thereby contributing substantially to the state's GSDP.
- The state will strive to achieve the following targets within the next 5 years through the operation of the policy.
- Creation of 5 new Textile/Apparel Parks.
- Attract at least 5 new international and 50 domestic investments in the sector.
- Generate additional employment opportunity for 3 lakh persons, of which at least 60% will be women.
- Ensure that every handloom weaver increases his monthly earnings by 50%.
- Ensure that every power loom in the state is modernized, and the income of each power loom worker increases by 30%.
- Achieve textile and clothing exports from the state equivalent to at least 20% of the total value of textile and clothing produced within the state.

Presence of Textile value chain in Telangana



Incentive support under T-TAP:

- Capital Assistance – 25% subsidy (35% for Technical Textiles)
- Operating Assistance –
- Interest Subsidy – 8% per annum
- Power Subsidy – Rs. 1-2 per unit

- SGST Reimbursement – 100% reimbursement
- Transport Subsidy – 25%-75% for 5 years
- Infrastructure Assistance
- Land Price Rebate – 50% up to 20 lac / acre (30 lac for Technical Textiles)
- Rental subsidy for built up space – 25% for 5 years
- Land rebate for workers dormitory – up to 30 lac per acre
- Assistance for capability building and skill development
- Government to train all required manpower at its own cost
- One time assistance of Rs 3000 – Rs 5000 per person as training subsidy
- Fibre to fabric incentive
- Additional 5% subsidy on capital and power on integrated units
- Customized incentives for Mega Projects (A5 category – Min Rs. 200 crore investment or employment generation of 1000)

Since the launch of T-TAP in Aug 2017, more than 22 MOUs have been signed totalling to investment to the tune Rs 3,400 crore committed by leading local, national and international textile and apparel companies in Telangana.

5.6. Sugar Industry

There are eleven sugar factories in the State, of which only seven sugar mills, all under private sector are functioning with an installed capacity of 34,450 Tonnes Crushing per Day (TCD), co-gen capacity of 129 MW and a distillery capacity of 260 KLPD. The minimum sugarcane required is 50 lakh MTs for 130 days of crushing. These seven operational sugar mills have a potential of 3.25 lakh MTs of sugar production by crushing of 32.22 lakh MTs sugarcane, which requires an area of 43,000 hectares as against the state requirement of 7.11 lakh MTs of sugar. Sugar industry is a labour intensive industry which provides direct employment to more than 28,500 persons in a crushing season. Initiatives for the welfare of sugar cane cultivators in the State are:

- (i) **Purchase Tax Incentive:** The Government has been passing on the entire purchase tax as incentive to the cane growers, which is to be collected from sugar factories @ Rs.60/- per MT to stabilise the cane area in the state.
- (ii) **Cane Development Councils:** The Cane Development Councils (CDC) were established by the Sugarcane department for taking up developmental activities in this respective factory zone. The funds for CDC's contributed by the cane suppliers and factory each @ Rs.4/- per MT. The funds are utilised for supplying inputs from planting to harvesting on subsidy.
- (iii) Due to failure of NDSL managements to pay the cane price to the cane suppliers on par with the neighbouring sugar factories, the Telangana Government supported the cane growers by providing additional bonus.

5.7. Mineral Based Industries

The mining sector is one of the important sectors of the State's economy due to its backward and forward linkages. The State is a house for various minerals and therefore has high potential for various mineral based industries (see Box 5.11).

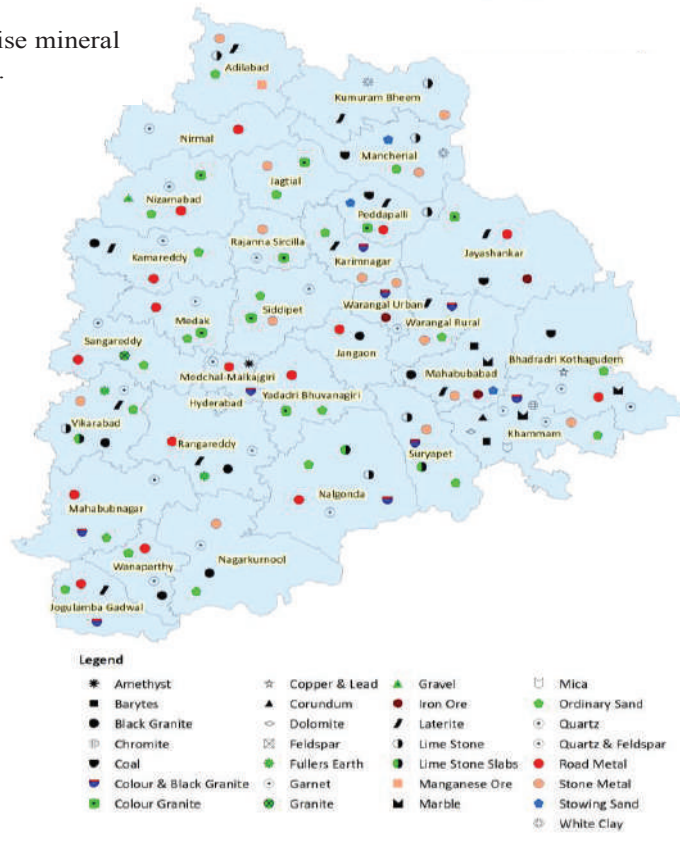
Box 5.11: Mineral Resources & Status

- **Coal:** Telangana is the only State in the entire Southern India containing vast deposits of Coal and is being mined by M/s Singareni Collieries Company Ltd., a State Public Sector unit.
- **Iron Ore:** The State is also endowed with a number of scattered medium grade Iron Ore deposits in Bayyaram Reserve Forest and Float Iron Ore deposits in Revenue and Patta Lands of Mahabubabad, Jayashankar, Jagityal and Warangal Urban Districts and proposed to establish a steel plant by SAIL under infrastructure as per the Section 93 of the APR Act, 2014.
- **Uranium:** An estimated reserves of 18,550 MTs in Lambapur, Pulicherla, Nammapuram and Yellapuram Villages of Nalgonda District. M/s Uranium Corporation of India Ltd. (UCIL) filed Application for grant of Mining Lease over an extent of 542 Ha. It is yet to be considered for grant. MoEF, GoI granted EC for this project. UCIL is acquiring the lands for the said project.
- **Limestone:** The State is endowed with extensive Limestone deposits in Adilabad, Peddapally, Mahabubnagar, Nalgonda, Suryapet, Vikarabad, Mancherial Districts with total resources around 7,519 Million Tonnes. Limestone is being consumed in the manufacture of cement by 21 cement plants (10 Major and 11 Minor plants) with a capacity of 29.50 MTPA.
- **Manganese Ore:** Economically significant deposits found in Jamdapur, Guda, Kotkuri, Pipalkoti, Pipalgoan, Gunjala etc. areas of Adilabad Dist with a total reserves of 1.85 Mil. tonnes with 25%-40% Mn content. Minor occurrences with low grade Ores found in Ratampet and Kandali, Nizamabad Dist.
- **Granite:** Good variety of Granite is available in the districts of Karimnagar, Peddapally, Jagityal, Warangal Urban & Rural, Mahabubabad, Khammam and Kamareddy. Brown Porphyry, Red Rose, Blue Brown and Tan Brown are varieties found in Karimnagar, Peddapally, Jagityal; Black and Sapphire Brown are the varieties of Warangal Urban & Rural, Mahabubabad, Khammam; Indian Aurora is found in Kamareddy District.
- **Limestone Slabs:** The Tandur Blue Limestone Slab (Shahbad Stone) useful for flooring is famous in entire South India available in Vikarabad District.

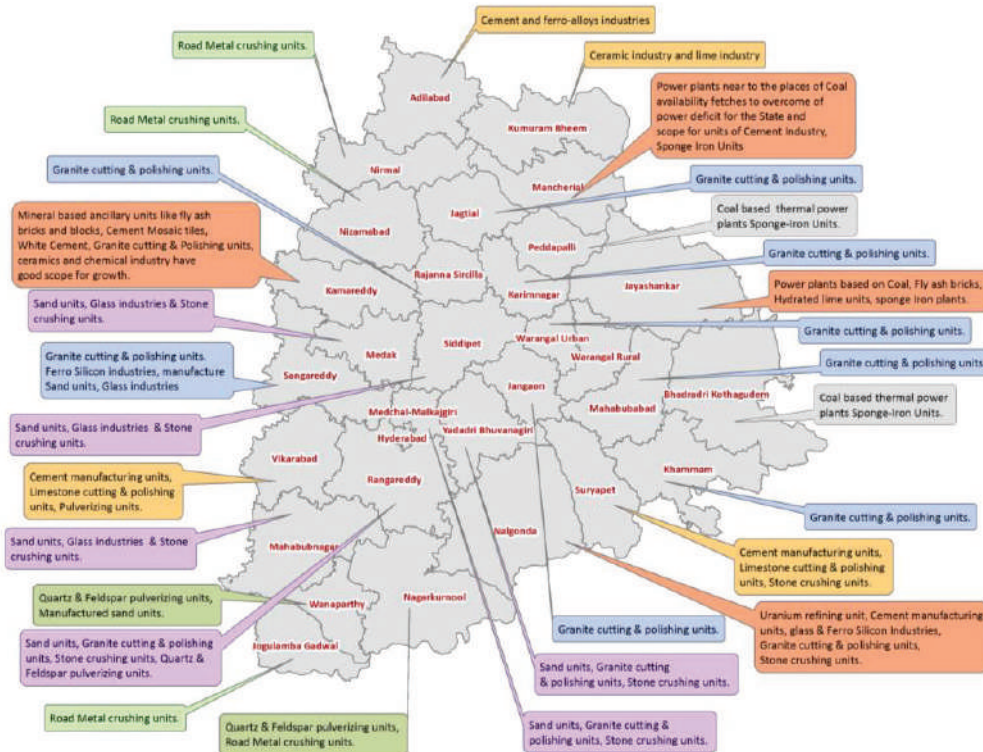
Mining for coal, limestone is categorized under the large scale mechanized sector, while mining for granite, dolomite, quartz, feldspar, clays and barytes, etc., is categorized under the semi mechanized medium sector and rest of the other minerals being categorized under the semi mechanized small sector. Nearly 90% of the mines are categorized under the small sector with the remaining 10% categorized under the medium and large sectors.

5.7.1. Mineral-Based Industries: Mining Sector is identified as one of the growth engines for the State's economy. Certain minerals such as coal, iron ore, diamond, dolomite, uranium, garnet, limestone have been identified as focus minerals for establishment of cement, thermal plants, granite cutting & faceting, steel & sponge iron industries for the overall growth and development of mining sector in the State. Details on mineral resources and its establishment in the state shown in Map 5.1 and Map 5.2.

Map 5.1: District wise mineral resources.



Map 5.2: District wise mineral establishments.



Production of Major and Minor Minerals

Minerals are categorized into major, minor and other minerals. Major minerals consist of coal, garnet, graphite, iron ore, limestone, manganese ore, stowing sand and minor minerals consist of amethyst, barytes, dolomite, feldspar, fire clay, laterite, mica, quartz, silica sand, shale, white clay, yellow ochre. Black granite, colour granite, gravel/earth, fuller's earth, lime stone slabs, limekankar, mosaic chips, marble, road metal, ordinary sand etc. comes under other mineral groups. The consumption of minerals is increasing due to promotion of various mineral-based products industries. State produces about 30 million tons of industrial minerals, 50 to 55 million tons of coal and 58 million cubic meters of dimensional stones and building material.

5.7.2. Leases and Mining

The details of prospecting licenses, mining leases for major minerals, quarry leases for minor minerals in the state and their extent as detailed Table 5.12.

Table 5.12: Mining license/lease details

Sl.No.	License/Lease	No. of leases	Extent in Ha.
1	Prospecting licenses	9	549
2	Mining Leases	135	85,644
3	Quarry Leases	3,162	9,909
Total		3,306	96,102

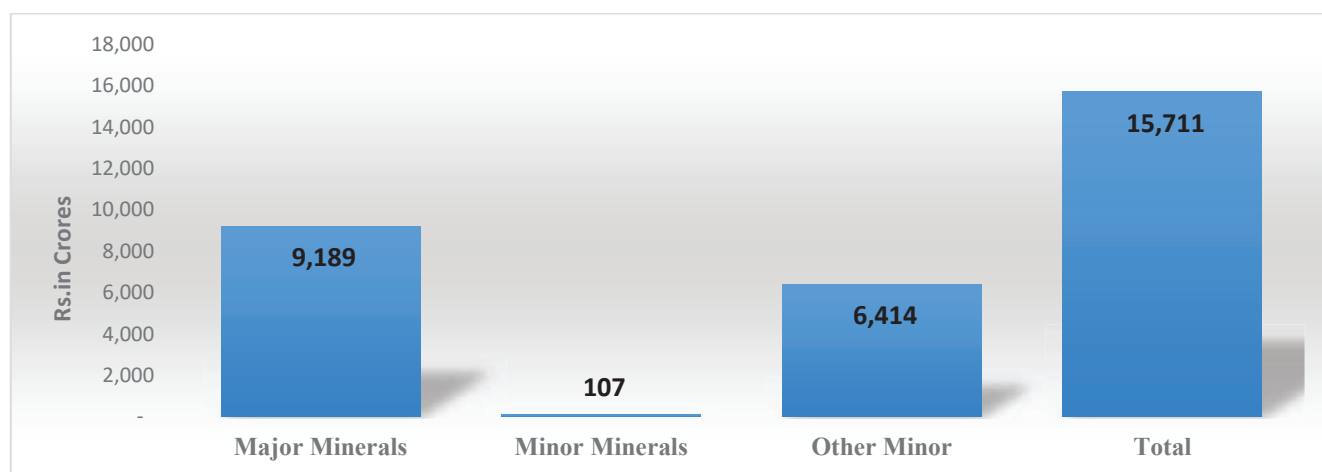
5.7.3. Mineral Based units: There are 1,904 mineral-based industries in the State. Highest number of mineral industries are registered in granite cutting and polishing sector followed by stone crushing sector. Other important mineral based industries are cement, steel, sponge iron, ferro-alloys, glass, ceramics, refractories, chemicals, marble and limestone cutting, slate cutting units, gem cutting & faceting units, granite monuments manufacturing units, pulverizing units, stone crushers, mosaic & ceramic tile units, lime kilns and manufactured sand units etc. Details on mineral based industries provided in Table 5.13.

Table 5.13: Mineral Based industries in Telangana

Sl. No.	Industries	No. of Industries
1	Granite cutting & Polishing units	723
2	Stone Crushing Units	463
3	Brick Klins	234
4	Napaslab Units	183
5	Quartz Pulverizing Units	79
6	Fullers earth processing units	55
7	Manufacture sand units	44
8	Ready Mix Concrete Units	34
9	Clay & Ceramic Units	29
10	Cement Plants	21
11	Mosaic Chips Units	16
12	Sponge Iron Plants	15
13	Thermal Power Plants	3
14	Ferro alloys units	2
15	Laterite Beneficiation Plants	2
16	Barytes Processing units	1
Total		1,904

5.7.4. Value of Production: As indicated in the Figure 5.5, out of the total value of Rs. 15,711 crore mineral production, major minerals contributed the highest with Rs. 9,189 crores, followed by ‘other minerals’ which contributed Rs. 6,414 crores. Minor minerals contributed to production value of Rs. 107 crore.

Figure 5.5: Value of mineral production in 2017-18 (Rs. Crore) (April – November 2017).



5.7.5. Revenue from Minerals

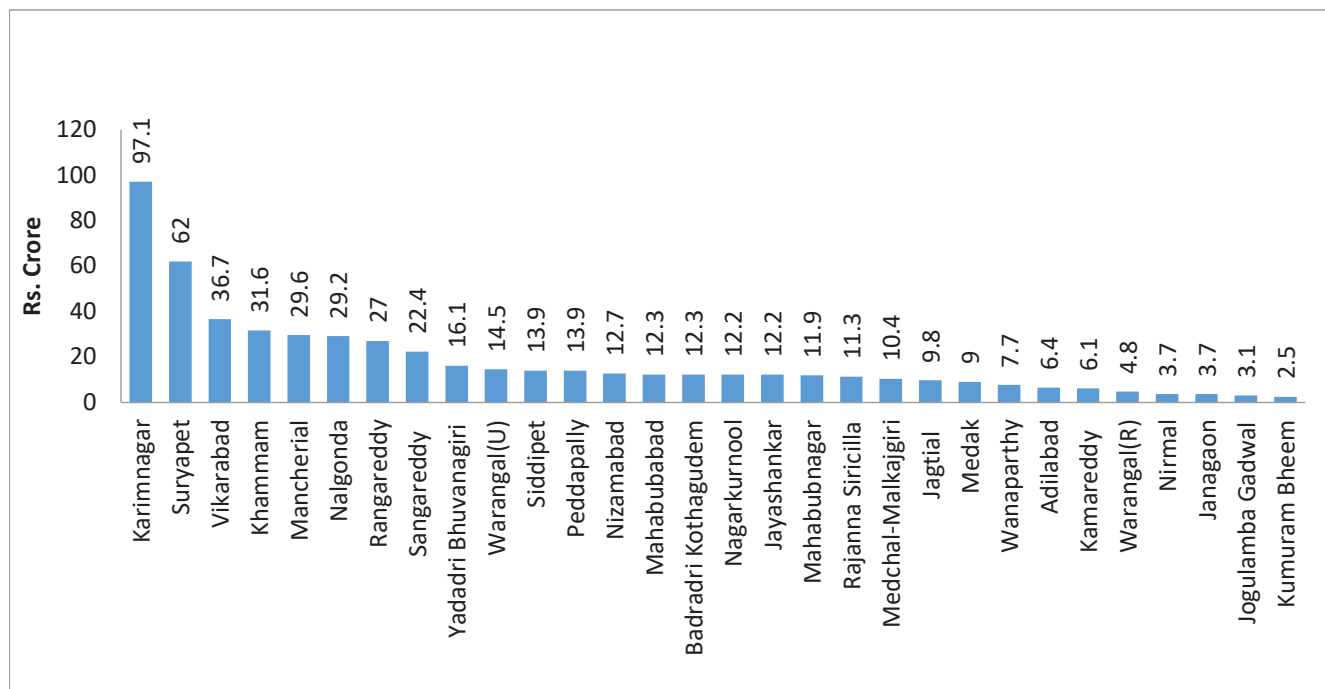
There has been a continues growth in the revenue from minerals. While the revenue collection was of Rs. 1,207.82 crore in the year 2010-11, it reached to Rs. 1,806.99 crore in 2013-14. After the formation of the State, revenue collection from minerals increased significantly to Rs. 3,169.70 crore in the year 2016-17, which is almost double the revenue collected in the year 2013-14. Therefore, the growth in revenue collection especially after the formation of the State has been very robust (Table 5.14). Target for the year 2017-18 slated to be Rs. 3,500 crore, out of which Rs.1158.78 crore has already been achieved as of December, 2017.

Table 5.14: State’s revenue from mines and mineral (Rs. in crore)

Year	Achievement	Growth
2010-11	1,207.82	--
2011-12	1,361.56	12.73
2012-13	1,780.88	30.80
2013-14	1,806.99	1.47
2014-15	1,968.27	8.93
2015-16	2,369.72	20.00
2016-17	3,169.70	34.00
2017-18 (upto Dec’17)	1,158.78	17.00

District-wise revenue: The district-wise revenue collection of minerals produced in the State, for the time period October, 2016 to March, 2017 is shown in the Figure 5.6. It is observed that all the districts, except Hyderabad, have realised revenues from mineral resources with varying degree. Highest revenue was realised in Karimnagar district with Rs. 97.1 crore, followed by Suryapet district with Rs. 62.1 crore.

Figure 5.6: District wise revenue collection during Oct'16-Mar'17 (Rs. crore)



5.7.6. New Initiatives in Mining Sector

Government has taken up number of initiatives to increase boost the growth of mining sector in the State. Key initiatives are mentioned below:

- (i) **Incentives to Granite Industry:** Considering recession in the domestic and international market and with an overall view to encourage granite industry in the State, the government has announced a concession in levy of seigniorage fee with respect to granite cutting, polishing units and limestone slabs polishing units in the State for a further period of one year with effect from 26.09.2017.
- (ii) **Online Mineral e-payment & e-permit System:** State Government introduced 'Online Mineral e-payment & e-permit System' to facilitate payments of statutory amounts, filing, processing, issue of dispatch permits and generation of transit forms (way bills) by leaseholders through user friendly online services totally avoiding manual interface.
- (iii) **Sand Mining Policy:** The State Government introduced the new Sand Mining Policy in 2014. The policy ensures proper regulation of sand activity in the State by entrusting sand extraction to Telangana State Mineral Development Corporation (TSMDC). The policy also helps in avoiding the over exploitation of sand and conduct of operations through systematic extraction keeping in view, environmental considerations at a price fixed by the Government.
- (iv) **State Mineral Exploration Trust (SMET):** As per the Mines and Minerals (Development and Regulation) Act, 1957, the State Government established the State Mineral Exploration Trust (SMET) as a non-profit body. SMET has been established to take-up mineral prospecting and exploration of minor minerals in the State.

Box 5.12: District Mineral Foundation

As per the guidelines from the Central Government, the State Government has constituted the District Mineral Foundation Trust (DMF) as a non-profitable organisation, which came into effect from January 2015. The object of the DMF is to work for the interest and benefit of persons, and areas affected by mining related operations. The rate of contribution to DMF as follows: (i) 10% of royalty in respect of mining leases granted on or after 12.1.2015, and (ii) 30% of royalty in respect of mining leases granted before 12.1.2015. Funds available under the scheme are being used for undertaking welfare measures in the mining or mining related areas, including, drinking water supply, health care, education, welfare of women, children, aged and disabled people, and other priority plans such as physical infrastructure and renewable energy. Rs. 1,328.25 crore is collected under DMF upto December 2017.

5.8. Outlook

The initiatives of the Government for promoting the industrial base in over a period of four years has led to green-shoots across the spectrum of manufacturing sector in the State. With its business-friendly initiatives, Telangana State has been ranked as no.1 in the country, in terms of 'Ease of Doing Business' for the year 2017, conducted by the Government of India in collaboration with the World Bank.

There has been a significant growth in the number of investment proposals received by the State. It is also positive to note that substantial number of the proposals have commenced their operations. Significant growth of merchandise exports from the State also indicates the strengthening of competitiveness of State industries in a number of areas.

In order to realize the natural strategic advantages enjoyed by the State, the Government has identified 14 thrust areas and core sectors and launched sector specific incentives to provide impetus. These sector include: life sciences, IT hardware, precision engineering, food processing, automobiles, textiles, plastics, FMCG, engineering goods, gems & jewellery, waste management & green technology, renewable energy & solar parks, mineral & wood-based industries, and transportation. The Life Sciences Policy is aimed at building upon the existing advantages and emerges as the leading State in the country by optimally utilizing all the new opportunities. The Electronic Policy has provided incentives to strengthen the entrenched electronic sector in the State with its high quality of technically qualified workforce.

State has put in place, various initiatives to disperse the industrial base to all the districts. Efforts are on to set up auto-related industries in Kamareddy, Mancherial, Karimnagar and Ramagundam. Leather parks at Ghanpur, Karimnagar, Mahabubnagar, Nalgonda, Warangal, Nizamabad, Armoor and other places are being developed to revive leather sector using local resources. The textile sector has been provided renewed strength through an integrated approach. The textile park at Sircilla, Medak, Nalgonda, and Gundlapochampally and the Mega Textile Park in Warangal is expected to develop whole chain of textile and ancillary industries in Telangana.

Incentive scheme through T-IDEA have been helping in promoting entrepreneurship in rural areas as well. Sector specific industrial incentives, a package of attractive incentives and special support measures for entrepreneurship development of marginalised sections. Government has providing land for industrial development along with the provisioning of infrastructure facilities especially in hitherto neglected areas. Earmarking of water from the major irrigation projects and uninterrupted power supply are expected to fuel further industrial growth in the State.

Infrastructure

*“Of all the works of civilization that interfere with the natural water distribution system,
Irrigation has been by far the most pervasive and powerful ”*

-Al Gore
Noble Laureate

Infrastructure is a vital component for the state aspiring to excel in growth and development. The role of infrastructure can never be discounted, as it contributes both directly and indirectly to the economy and welfare of the state. An economy's transition from the developing category to the developed depends on availability of infrastructure, as it has multiplier effect on all the three sectors – primary, secondary and tertiary. Infrastructure is an umbrella term that covers both economic and social infrastructure. Economic (physical) infrastructure consists of irrigation, power projects, roads, water supply, railways, airports, etc., and social infrastructure comprise of schools, universities, hospitals, dispensaries, etc. Economic infrastructure contributes towards 'growth' and social infrastructure contributes towards the 'development' of the country.

The state of Telangana has assigned greater emphasis on the creation and development of infrastructure in partnership with the central government and private entities. The state government has taken up various projects in key infrastructure sectors such as irrigation, drinking water, power and roads, etc. Some of them are: mission mode completion of irrigation projects, large scale drinking water project, restoration of minor irrigation tanks under Mission Kakatiya, widening of roads, augmenting the power supply, expanding the housing for weaker sections by constructing double bed room houses, etc. No state in the country has achieved the feat of providing free 24x7 power to agriculture sector and supply of drinking water to all households in such a short span of time. The present chapter discusses the initiatives in the key areas of physical infrastructure in the state.

6.1. Irrigation in Telangana

The government has accorded highest priority to increase irrigation infrastructure for improving the economic conditions of the farmer. This is because of two reasons: first, the state is geographically located in a rain-shadow area, resulting in frequent droughts; and second, the state was deprived of its due share of river waters for a long time in the combined state. This led to lower crop yields and income for the farmers, plunging them into poverty. Addressing issues related to water use was of paramount importance

and indispensable in the endeavour to evolve Bangaru Telangana. Given its importance, the Government of Telangana has initiated several steps to augment water resources for the development of the state. The following objectives guide the initiatives of the government: (i) providing timely and assured water to the farming sector in particular, commensurate with the crop requirements, (ii) providing potable drinking water to all the inhabitants, and (iii) providing water required for industrial development.

The state government has been implementing various irrigation projects to transform the goal of providing irrigation to at least one crore acres of land. In this direction, efforts are targeted towards (i) completing all long-pending major and medium irrigation projects, (ii) bridging the gap in irrigation potential by renovation of existing irrigation infrastructure, and (iii) restoration and renovation of age-old irrigation tanks that are the lifeline for the rural economy.

6.1.1. Fast-tracking of major and medium irrigation projects

Projects with a command area of more than 10,000 hectares are categorised as major irrigation projects and projects with a command area less than 10,000 hectares but more than 2000 hectares are categorised as medium irrigation projects.

The major rivers passing through the state are the Krishna, the Godavari and their tributaries such as the Musi, the Manjira, etc. For harnessing the river waters, the government has undertaken 36 irrigation projects, consisting of 21 major irrigation projects, 12 medium irrigation projects, one flood bank, and two modernisations of existing projects. It is proposed to create 72 lakh acres of Irrigation Potential (IP) with these irrigation projects.

To achieve the objective of providing irrigation facilities to one crore acres, the government has initiated several steps. Details of these initiatives are described below:

- i. Re-engineering of projects to enhance the utility of the projects, duly ensuring water availability and wider coverage, wherever necessary to suit to the needs of the state. These include (a) Pranahita Chevella Project (taken up as the Pranahita and Kaleshwaram Projects), (b) J. Chokka Rao Devadula Lift Irrigation Scheme, (c) Sitarama LIS (integration of two improperly planned projects), and (d) Flood Flow Canal from Sri Ram Sagar Project (SRSP).
- ii. Modernisation and restoration of existing irrigation systems to bring the contemplated ayacut under irrigation, viz., Nagarjunasagar, Nizamsagar, Kadam, SRSP (Punarjeevana Pathakam), Rajolibanda Diversion Scheme (RDS), Ghanpur Anicut, Sadarmatt Anicut, Musi, Satnala, Chelimelavagu, Swarna, NTR Sagar, Palair Old Canal, etc.,
- iii. Grounding projects contemplated prior to state formation, i.e., Palamuru - Rangareddy LIS and Dindi LIS.
- iv. Signing of landmark agreements with Maharashtra state, facilitating the expeditious completion of Pranahita, Kaleshwaram, Chanaka-Korata and Lendi projects in Godavari Basin.
- v. Giving enhanced budget support for expeditious project completion. Apart from state funding, the government is also seeking financial assistance for the completion of major, medium and minor irrigation projects from the Government of India under Prime Minister Krishi Sinchayee Yojana (PMKSY), Dam Rehabilitation and Improvement Project (DRIP), Repair, Renovation and Restoration (RRR), and National Bank for Agriculture and Rural Development (NABARD), etc.
- vi. Adopting a new approach to land acquisition, resettlement and rehabilitation.

- vii. Increasing the use of sustainable methods of irrigation, such as plantations in project areas, along canals and foreshores of reservoirs, construction of check dams to arrest silt in streams, etc.

Since formation of the state, a number of projects were partially commissioned resulting in creation of 16.64 lakh acres of new irrigation potential, while 8.97 lakh acres ayacut was stabilised under the 36 ongoing projects (Box 6.1).

Box 6.1: Important Ongoing Major Irrigation Projects in the State

A. Godavari Basin

(i) Kaleshwaram Project is One of the important ongoing multi-purpose irrigation projects in the state and envisages construction of one barrage across the river Godavari at Medigadda, and two more barrages between the Medigadda and Sripada-Yellampally Projects at Annaram and Sundilla. It will convey waters from Sripada-Yellampally Project to the command area spread over 13 districts through components such as canals, tunnels, lift systems, reservoirs, and distributary network.

This project envisages irrigating an ayacut of 18,25,700 acres. Further, it proposes stabilising the existing ayacut in other major projects to an extent of 18,82,970 acres. Besides irrigation, the project will also supply 30 TMC drinking water to the twin cities of Hyderabad and Secunderabad, as well as 10 TMC of water to villages en route. It is proposed utilising 16 TMC water for industrial use from this project. Once the project is completed, a total of 1.19 crore acres of land will be brought under irrigation in the state.

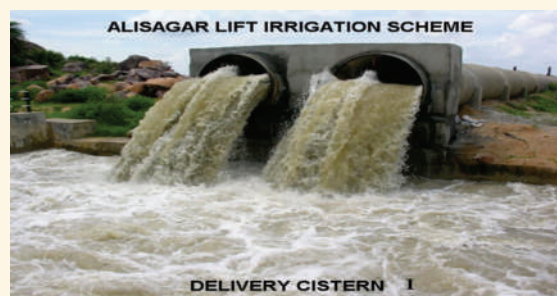


Annaram Barrage under construction



Medigadda Barrage under construction

(ii) Alisagar Lift Irrigation Scheme: The Alisagar Lift Irrigation Scheme is intended to supplement irrigation facilities to the gap ayacut of the Nizamsagar Project in Navipet, Renjal, Yedapally, Nizamabad, Dichpally and Makloor Mandals of Nizamabad District to the extent of 53,793 acres. The scheme proposes lifting 720 cusecs of water from right bank of Godavari River near Kosli Village.



(iii) Argula Rajaram Guthpa Lift Irrigation Scheme: The Arugula Rajaram Guthpa Lift Irrigation Scheme is intended to supplement the irrigation facilities to the gap ayacut of the Nizamsagar Project in Nizamabad District to the extent of 38,792 acres lying under the distributaries D74 to D82 of the Nizamsagar Project. The scheme proposes lifting 540 cusecs of water from the right bank of Godavari

River near Ummeda Village to supplement the tail-end ayacut of the Nizamsagar Project. Lifting of water is proposed in two stages, with a discharge of 540 cusecs.

(iv) Choutpally Hanmanth Reddy Lift Irrigation Scheme: The Choutpally Hanmanth Reddy Lift Irrigation Scheme is proposed on the Shetpally tank, which is fed by Distributary D4 of Sri Ramasagar Project – Laxmi Canal, is taken up to provide irrigation facility to an ayacut of 11,625 acres in 18 villages of Kammarpally and Morthad mandals in Nizamabad District by lifting 180 cusecs of water.

(v) Lendi Interstate Project: This is an interstate major irrigation project between Telangana and Maharashtra. The headworks are located in Nanded District of Maharashtra. This project proposes to irrigate 49,000 acres, out of which the irrigation potential would be 22,000 acres in Telangana and 27,000 acres in Maharashtra. As per the terms and conditions of the interstate agreement, the water and expenditure on the entire project is to be shared in the ratio of 38:62 by Telangana and Maharashtra States respectively. The total length of the Right Bank Main Canal is 25.14 kms, in which 25.14 kms of earthworks have been completed. The CC lining of the Right Bank Main Canal and CM&CD works are in progress. About 48 per cent works are completed.

(vi) M. Baga Reddy Singur Project: The Singur Project has been constructed across River Manjira, a tributary of the River Godavari near Singur village, Pulkal Mandal, Sangareddy District of Telangana, with a gross capacity of 29.91 TMC. The government has accorded permission for utilisation of about 2 TMC of water from the Singur Project for irrigating 40,000 acres of ID in the Kharif season in Andole and Sangareddy (M) of Sangareddy District



(vii) J. Chokka Rao Devadula Lift Irrigation Scheme: The J. Chokka Rao Devadula Lift Irrigation Scheme contemplates for lifting of water from Godavari River near Gangaram (V), Eturunagaram (M), Jayashankar District to irrigate 6.21 lakh acres in upland drought-prone areas of Warangal Urban,



Warangal Rural, Karimnagar, Jayashankar, Jangaon, Yadadri Bhuvanagiri, Suryapet and Siddipet Districts from an elevation of +71 m to +540 m by utilising 60.00 TMC of water. In addition, the project also meets the drinking water needs of Greater Warangal Municipal Corporation and many other villages. The project was modified further. The formation of Nawabpet Tank was completed in 2017 and water was released to drought-prone areas of Devarupputla, Lingalaghanpur and Gundala Mandals.

(viii) Lower Penganga Project: The Lower Penganga Project is a joint project between the states of Maharashtra and Telangana on the River Penganga, which is a tributary of the River Godavari. The head works are located near Tadsaoli Village in Ghatanji Taluk of Yavathmal District of the Vidharbha Region in Maharashtra State. The net available yield is estimated to be 42.67 TMC and shared in the ratio of 88:12. It is proposed to utilise 37.55 TMC of water to create an irrigation potential of

3,95,185 acres in Maharashtra and 5.12 TMC of water to create an irrigation potential of 47,486 acres in Telangana under the right canal which runs for a length of about 90 kms in the lands of tribal and backward areas situated in 71 villages of Adilabad District.

B. Krishna Basin

(i) Mahatma Gandhi Kalwakurthy Lift Irrigation Project: The Mahatma Gandhi Kalwakurthy Lift Irrigation Project is proposed to provide irrigation facilities to an extent of 4.10 lakh acres and to supply drinking water to chronically drought-prone upland areas in the erstwhile Mahabubnagar District. Forty TMC of water is proposed to be lifted in three stages from the foreshore of Srisailem Reservoir. The work is divided into six packages. The Stage-I works at Yellur village is completed. Already two pumps each in Stage II and Stage III have been commissioned and 17.7 TMC of water has been supplied to irrigate an ayacut of 2.50 lakh acres and 280 tanks supplemented for the first time.



(ii) Rajiv Bhima Lift Irrigation Scheme: The scheme envisages lifting of water from the Krishna River at two different places: one at Panchadevpad, the foreshore of the Jurala Project and another at the foreshore of the Ookachettyvagu Project at Ramanpad for irrigation in the chronically drought-affected upland areas in part of Makthal, Maganur, Atmakur, Narva, Chinnachintakunta, Devarakadra, Addakula, Kothakota, Peddamandadi, Wanaparthi, Pebbair, Pangal,

Kodair, Weepangandla and Kollapur mandals and to provide drinking water to the en route 196 villages of Mahabubnagar district. The pumps at Stage I and II of Lift I and II have been commissioned and 10.41 TMC of water has been released for an ayacut of 79,837 lakh acres in 2017-18. The Project is to be completed in 2018-19.

(iii) Jawahar Nettekpadu Lift Irrigation Scheme: The Jawahar Nettekpadu Lift Irrigation Scheme (JNLIS) envisages the lifting of 21.425 TMC of water from the foreshore of PJP Reservoir to provide irrigation facilities to 2 lakh acres in the drought-prone upland areas of Gadwal and Alampur constituencies, covering about 148 number of villages in eight mandals. Besides, the project will also provide drinking-water facilities en route the canal in Jogulamba Gadwal District. The JNLIS comprises two stages. All the pumps in the projects have been



commissioned and 6.382 TMC of water has been released for an ayacut of 1.5 lakh acres in 2017-18. The project is proposed to be completed in 2018-19.

(iv) Priyadarshini Jurala Project: The project has been commissioned and 4.709 TMC of water has been released for an ayacut of 1 lakh acres in 2017-18. The Priyadarshini Jurala project is a multipurpose project across the River Krishna, near Revulapally village in Jogulamba Gadwal district, which is 18 kms downstream of the Telangana-Karnataka border with FRL/MWL of +318.52 m. The project is intended to irrigate an ayacut of 1.02 lakh acres under the left main canal (NTR Canal) and Right main canal (NallaSomanadri canal) in drought prone mandals of Atmakur, Kothakota, Pebbair of Wanapathy district, Weepangandla and Kollapur of Nagarkurnool (under NTR Canal) and Gadwal, Dharur, Itikyal and Manopad (under NS Canal) of Mahabubnagar district. A provision of 5.66 Mcum



(0.20 TMC) has been made for drinking-water supply to the villages en route in the command area of the above mandals. Irrigation potential was successfully created for 1,02,200 acres.

(v) Rajoli Banda Diversion Scheme: The Rajoli Banda Diversion Scheme is an interstate project of Karnataka and Telangana States, consisting of an anicut built across Tungabhadra river in Raichur District, Karnataka. The scheme was sanctioned during the erstwhile Nizam State. The construction of anicut was started in 1946 and completed by 1958. The water was supplied to the 143-km-long RDS Canal to benefit a drought area of 15 villages in Manvi Taluk of Karnataka, and eight villages in Gadwal Taluk, 67 villages of Alampur Taluk in erstwhile Mahabubnagar District, and 4 villages in Kurnool District in Andhra Pradesh. A total of 75 villages are under RDS command in Telangana.

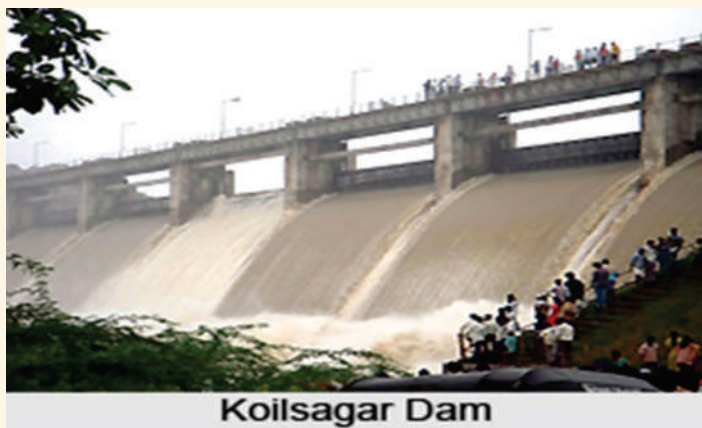


(vi) Modernisation of RDS Canal: Based on the report of a committee on the measures to be taken to improve the realisation of water in RDS Canal, the government has taken up modernisation of the RDS Project. To supplement and stabilise the ayacut of RDS to the tune of 55,600 acres, a lift scheme is contemplated from Sunkesula

backwaters on the Tungabhadra River. The scheme is located at Thumella Village, Waddepalli (M) of Jogulamba Gadwal District. Stage-I works commenced in September 2017 and are proposed to be completed in 2018-19.

(vii) Koilsagar Lift Irrigation Scheme:

Koilsagar Project was constructed in 1955 to irrigate an ayacut of 12,000 acres in Amarchintha constituency in Mahabubnagar District. Due to failure of the monsoon in



Koilsagar Dam

the catchment area in the past several years, only 4500 acres is being irrigated under this project. In view of the prevailing situation, the government has proposed to stabilise the total ayacut of 12,000 acres under the Koilsagar Project, apart from irrigating a new ayacut of 38,250 acres, which all together 50,250 acres, including implementation of sprinkler irrigation system for ID crops.

(viii) Palamuru-Rangareddy Lift Irrigation Scheme: The Palamuru-Rangareddy Lift Irrigation Scheme envisages irrigating an ayacut of 12,30,000 acres in upland areas of Nagarkurnool (1 lakh acres), Mahabubnagar (4.14 lakh acres), Rangareddy (3.64 lakh acres), Vikarabad (3.22 lakh acres) and Nalgonda (0.30 lakh acres) districts and drinking water requirement to en-route villages, GHMC and industrial water requirements by lifting 90 TMC of water in 60 days from the foreshore of Srisaïlam Reservoir during flood season. The main conduct works up to Uddandapur Reservoir are under process.

(ix) Ghattu Lift Irrigation Scheme: Gattu Lift Irrigation Scheme envisages irrigating an ayacut of 28,000 acres in upland areas of Ghattu, Dharur and K.T. Doddi mandals of Jogulamba Gadwal District. The new ayacut is 25,000 acres and 3,000 acres is stabilized under 41 existing tanks in 15 villages of Ghattu, Dharur and K.T. Doddi mandals. A total of 2.80 TMC of water is proposed to be lifted from Relampadu Balancing Reservoir.

(x) Dindi Lift Irrigation Scheme: The upland areas of Nalgonda District are endemically drought prone besides large areas are in grip of fluoride. The only source of water that can be brought to this area to mitigate the above problems is the river Krishna.

The Dindi Lift Irrigation Scheme envisages providing irrigation facilities to 3.61 lakh acres and drinking water to the areas most severely affected by fluoride and the drought-prone areas in four districts, i.e., Nagarkurnool, Nalgonda, Yadadri Bhuvanagiri and Rangareddy. It is proposed to lift 30 TMC of flood water from the foreshore of Srisaïlam Reservoir to Ulpara Barrage at 0.50 TMC per day for 60 days. The survey has been conducted WAPCOS Limited and the alignment is under finalisation.

(xi) AMRP/NSPLLC/Udayasamudram

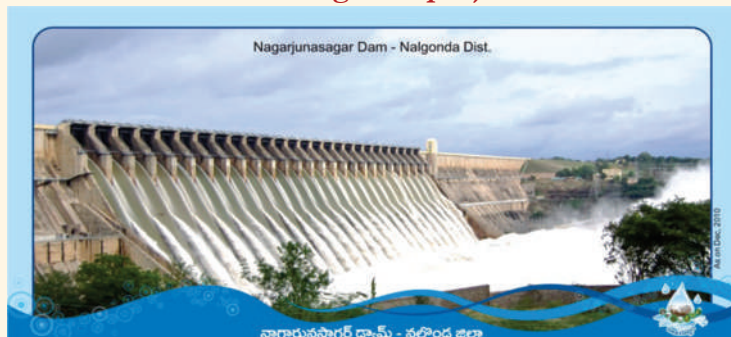
AMRP SLBC: The Alimineti Madhava Reddy Srisaïlam Left Bank Canal Project (AMRP) was started in 1983 to provide irrigation facilities for 2.80 lakh acres in the drought-prone areas of Nalgonda District.



Udaya Samudram LIS

The scheme envisages lifting of 6.70 TMC of water from the foreshore of Udayasamudram Balancing Reservoir of AMR SLBC Project for irrigating 1 lakh acres of ayacut in chronically drought-affected upland areas of Nakrekal, Nalgonda, Mungode, Thungathurthy Assembly constituencies of Nalgonda District.

C. Modernisation of irrigation projects



(i) Modernisation of Nagarjuna Sagar Project: The multipurpose Nagarjuna Sagar Project on the Krishna River is constructed near Nandikonda Village, Peddavoora Mandal, Nalgonda District. This is the largest and Highest Masonry dam of height 409 ft in the world. The installed capacity for power generation at main powerhouse at the dam is 810

MW. There is power generation of 150 MW at the head regulators of Nagarjuna Sagar's main canals, namely Jawahar Canal and Lalbahadur Canal, taking off from the reservoir on the right and left sides respectively. Currently, modernisation work is ongoing with the World Bank assistance under Water Sector Improvement Project.

(ii) Modernisation of Main Canal and Distributary System of Nizamsagar Project:

The Nizamsagar project was constructed by the Nizam government during 1923-31 across the Manjira River with a storage capacity of 29.72 TMC to irrigate 2,75,000 acres with a utilisable yield of 58 TMC. This was the first reservoir on the Manjira River, constructed with a dependable yield of 113.71 TMC. The hydrological surveys conducted in the year 1972 revealed that the reservoir capacity is only 11.79 TMC against the contemplated storage capacity of 29.72 TMC. The silt accumulation worked out to 17.91



TMC. The ayacut under the project is re-localised to 2,31,339 acres. As a remedial measure, the project was remodelled during 1975, raising the full reservoir level (FRL) from +1400.50 ft to +1405.00 ft and brought the capacity to 17.80 TMC from 11.79 TMC. The inflows into Nizamsagar since 1992-93 to 2005-06 were very precarious and received only 8 TMC per year during the past several monsoon seasons.

(iii) Modernisation of Shanigaram Project: The Shanigaram project is an existing medium irrigation project across Seddipetavagu, near Shanigaram Village, Koheda Mandal, Siddipet District. The project was constructed in the year 1653 and restored to irrigation standards in the year 1891 to irrigate an ayacut of 5,100 acres. The modernisation of Shanigaram project was undertaken to repair the FOF weir, to arrest leakages through the body wall and bund sections and also to repair the distributary network system. The work is under progress.

(iv) Modernisation of Ghanpur Anicut: The Ghanpur Anicut is an existing anicut which was constructed in the year 1905 across the Manjira River in Medak District. It has two canals, namely Mahabubnagar and Fathenagar canals. The total length of Mahabubnagar is 42.80 kms with an ayacut of 11,425 acres. The length of Fathenagar canal is 12.80 km with an ayacut of 10,200 acres.



(v) Modernisation of Nallavagu Project: The Nallavagu Project is an existing medium irrigation project, constructed across the Nallavagu River in Medak district. The project was commissioned in the year 1967 to irrigate an ayacut of 6,030 acres. The project benefits Kalher Mandal in Sangareddy District and Pitlam Mandal in Kamareddy district. The government has undertaken modernisation of Nallavagu project and the work is under progress.



6.1.2. Mission Kakatiya

A Flagship programme for revival of tank irrigation

The topography and rainfall pattern in Telangana has made tank irrigation an ideal means of irrigation, storing and regulating water flow for agricultural use. Tanks have been the lifeline of Telangana owing to the state's geographical terrain. There are about 46,531 tanks and water bodies in the state, spread across all 31 districts. The topography and rainfall pattern in the state, have made tank irrigation as the most ideal mode by storing and regulating water flow for agricultural use. Though tanks are mainly used for irrigation purposes, they are also used for fish culture, as common grazing land, as a source of clay for pottery, etc. Thus, the small tanks are the core of the rural ecosystem. The tank system is also critical for the growth of agriculture, contributing to soil and water conservation, flood control, drought mitigation, livestock and domestic uses, recharge of groundwater, improvement of microclimate and protection of environment.

Construction of tanks in Telangana has been an age-old activity, since the pre-Satavahana era. During the Kakatiya era, the construction of tanks was carried out with amazing technical expertise and ingenuity. Tanks, such as Ramappa, Pakhala, Laknavaram, Ghanapuram, Bayyaram, which were built by Kakatiyas, resemble seas and they greatly helped agriculture. This vision and legacy of Kakatiyas were carried forward by Qutubshahis and Asafjahis who ruled this region for centuries. Hundreds of big and small tanks were built in Telangana region during their rule. However, after Independence, the successive governments have neglected the maintenance and development of these tanks and left them to face extinction by way of siltation, breaches, encroachments, etc. With the deterioration of tank systems, many of the self-sufficient villages of Telangana have become vulnerable to frequent drought.

Upholding the vision of Kakatiyas, the state government has launched a flagship programme 'Mission

Kakatiya', also known as Mana Ooru - Mana Cheruvu. The mission aims at retrieving the lost role and importance of minor irrigation in the state with community participation, for ensuring sustainable water security. Further recharging and sustaining ground water resources would also be a major benefit of this activity. The main objective of Mission Kakatiya is to enhance agriculture-based income for small and marginal farmers by accelerating the development of minor irrigation infrastructure, strengthening community-based irrigation management and restoring tanks to their full potential.

The government has prioritised restoration of minor irrigation tanks so they can again store water to the extent of their original capacity and in order to effectively utilise 255 TMC of water allocated for the minor irrigation sector under the Godavari and Krishna River basins. The minimum ayacut that can be irrigated with the allocated water could be about 20 lakh acres. However, as per the statistics, the ayacut now being irrigated under minor irrigation tanks is only about 9-10 lakh acres. Mission Kakatiya aims at bridging the gap ayacut of about 10 lakh acres by adopting following works: (i) de-silting the tank beds to restore the original water storage capacity of tanks, (ii) repairing dilapidated sluices, weirs, etc., (iii) strengthening the tank bunds to its original standards, (iv) repairing the feeder channels to standards for getting water freely into tanks, (v) re-sectioning of irrigation channels to standards, and (vi) repairing CM & CD works for smooth distribution of water to fields according to their requirement.

Table 6.1: Implementation of Mission Kakatiya in Phases I to IV

Item	Phase I (2014-15)		Phase II (2015-16)		Phase III (2016-17)		Phase IV (2017-18)		Total
	No. of Tanks	Share in Total	No. of Tanks	Share in Total	No. of Tanks	Share in Total	No. of Tanks	Share in Total	
Total no. of tanks programmed	9,306	20%	9,306	20%	9,306	20%	9,306	20%	37,224
Total no. of tanks taken up for comprehensive restoration	8,078	17.36%	9,003	19.42%	6,152	13.22%	3,069	6.60%	26,302
Ayacut in acres	7,16,314		6,87,094		4,07,115		1,98,093		20,08,616

The irrigation department plans to restore all the 46,531 minor irrigation sources in five years, aiming to take up 20 per cent (9,306) of the tanks each year in Four Phases as given in the Table 6.1. Under Phase I of Mission Kakatiya, 8,078 tanks were taken up for comprehensive restoration; under Phase II of the programme, 9,003 tanks were taken up for restoration; under Phase III, 6,152 tanks were taken up and under Phase IV, 3,069 tanks were taken up for restoration. So far, an ayacut to the extent of 5.62 lakh acres has been stabilised by bridging the gap. Further an extent of 2.24 lakh acres of gap-ayacut stabilisation is programmed for realisation during 2017-18 under Phase III. A detailed impact assessment study of Mission Kakatiya carried out by NABCON given in the Box 6.2.

Box 6.2: Impact Assessment Study of Mission Kakatiya by NABCON

The NABARD Consultancy Services (NABCON) has carried out an impact assessment study of the Mission Kakatiya. The study was conducted by surveying 12,000 households, spread over 400 tanks, in the erstwhile districts of Adilabad, Karimnagar, Medak and Nalgonda to assess the impact of the programme in 2016-17 compared to the baseline year 2013-14. Followings are the major findings of the NABCON assessment study:

Profile of the study area: The benefits have mostly accrued to the small and medium farmers, as 90

per cent of households in the tank ayacut area have less than 2 acres of landholdings. The programme benefits have also flowed significantly to the weaker sections, as 87.6 per cent of the sample households belong to SC/ST/OBC.

Impact on irrigated area and change in cropping pattern: There was an overall increase of 51.5 per cent in the gross irrigated area. Crop intensity has increased by 45.6 per cent over the baseline year due to improved water retention capacity of the tanks. With more availability of water in the tanks, the area under paddy cultivation had increased by 11.1 per cent in the Kharif and 23.7 per cent in the Rabi seasons over the baseline year and cotton has decreased by 9.7 per cent over the base year. This shows that due to availability and retention of water in the tanks, cropping patterns have changed and crop yields increased.

Use of silt from tanks: Application of the tank silt on farms resulted in significant reduction in expenditure on fertilisers by 27.6 per cent, a decrease in the consumption of fertilisers by 35-50 per cent, depending on the crop, saving is around Rs.1,500 to Rs. 3,000 per acre per season. Further the tank silt application contributed to increase in crop yields, reduction of soil erosion and increase in soil moisture retention.

Farmers' income and ground water level: The household agriculture income witnessed an increase of 78.5 per cent at current prices in the tank ayacut area due to increased irrigated area and yield improvement. There is a substantial increase in the ground water table by 9.02 mm in the impact year compared to 6.91 mm of the baseline year.

Fisheries and fodder: Increased and longer periods of storage in the tanks resulted in improved fish weight/yield and value of fish production in the tank has increased by 62 per cent compared to the baseline year. It has also resulted in the increase of availability of crop residues as fodder of about 1qtl/acre for paddy. The community has a positive perception towards Mission Kakatiya projects.

The study reports also suggest the following interventions through convergence of government programmes:

- (i) change cropping pattern to suit a tank ecosystem;
- (ii) provide better pricing and procurement and other support for non-paddy crops;
- (iii) ensure and supporting institutional mechanisms to promote users' interest in O&M, water management, etc.;
- (iv) extend support for micro-irrigation to ayacut farmers;
- (v) promote participatory ground-water management in the tank ayacut and influence zone;
- (vi) introduce and support MI Jankar (paraworker) to maintain a robust tank-level database; and
- (vii) make a few changes in management of tank-based irrigation systems at various levels, which can have the potential to substantially enhance the results on a longer term.

6.2. Energy

Telangana has made remarkable progress in improving the power situation in the state. On the day of formation of the Telangana State, there was a peak demand shortage of 2,700 MW and four to eight hours of load relief to domestic and other consumers and 2-day power holiday to industries. At present, there has been a substantial improvement in the power situation in the state due to the measures taken by the new state

in areas such as reducing transmission and distribution (T&D) losses, staggering of loads to 24 hours of the day, increase in generation by TSGENCO plants, entering into short-term power purchase agreements and purchase from exchange. As a result, there is no load relief from 20 November 2014 in the State to any category of consumers and there is marked improvement in the quality of power being supplied to all the consumers.

6.2.1. Generation

The contracted capacity of Telangana State, including Generation Corporation of Telangana Limited (TSGENCO) and other Plants, as on 31 December 2017 is given in the Table 6.2. The total installed capacity of power generation in the state was 14,913 MW, as on 31 December 2017. The contracted capacity of the private sector was 7,279 MW, the state sector was 5,295 MW and the central sector was 2,238 MW.

Table 6.2: Installed capacity in different sectors

Sl. No.	Sector	Installed capacity in MW (as on 31.12.2017)
1	State sector	5,295
2	Interstate	76
3	Joint sector	25
4	Private sector	7,279
5	Central sector	2,238
	Total installed capacity	14,913

Installed capacity of TSGENCO

TSGENCO is the largest power-generating company of Telangana State, with installed capacity of 5,295.26 MW as (on 31 December 2017), comprising thermal (2,882.50 MW), hydel (2,411.76 MW) and solar (1 MW). Station-wise power installed capacity is given in the Figure 6.1 and Table 6.3.

Figure 6.1: Installed capacity of TSGENCO as on 31st December 2017

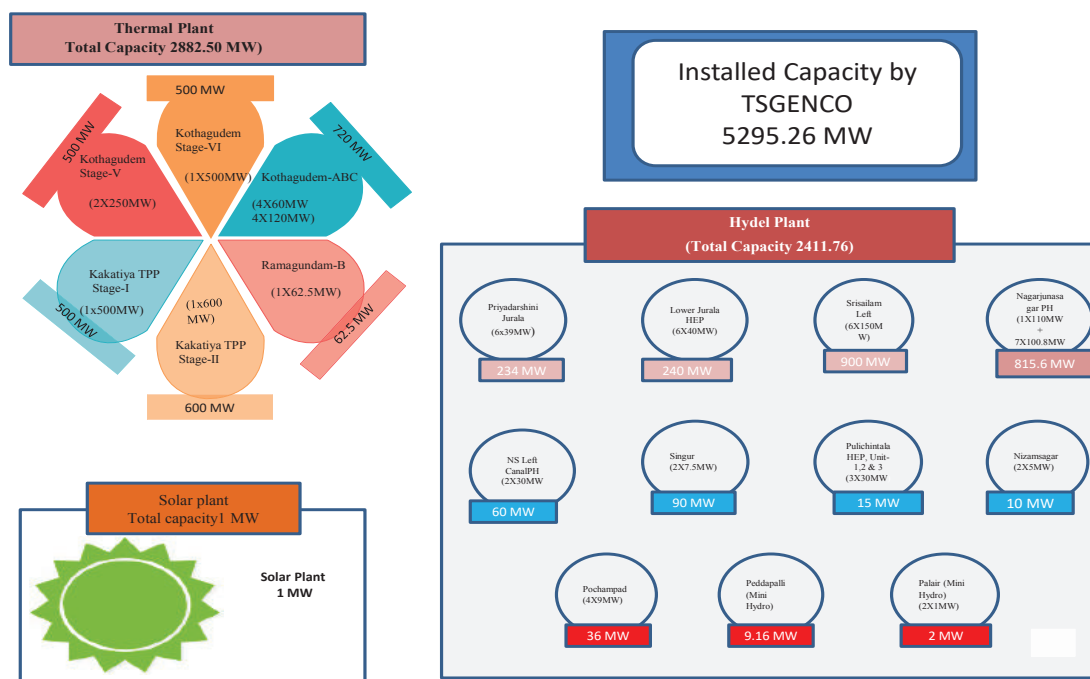


Table 6.3: Installed capacity of TSGENCO as on 31st December 2017

Sl. No.	Name of the scheme (Station)	Capacity (MW)
A.	Thermal	
1	Kothagudem-ABC (4X60 MW+4X120 MW)	720.0
2	Kothagudem Stage-V (2X250 MW)	500.0
3	Kothagudem Stage-VI (1X500 MW)	500.0
4	Kakatiya TPP Stage-I (1x500 MW)	500.0
5	Kakatiya TPP Stage-II (1x600 MW)	600.0
6	Ramagundam-B (1X62.5MW)	62.5
	Total Thermal	2,882.50
B.	Hydel	
1	Priyadarshini Jurala (6x39 MW)	234.0
2	Lower Jurala HEP (6X40 MW)	240.0
3	Srisailem Left (6X150 MW)	900.0
4	Nagarjuna Sagar PH (1X110 MW+7X100.8 MW)	815.6
5	NS Left Canal PH (2X30 MW)	60.0
6	Pulichintala HEP, Unit-1, 2 & 3 (3X30 MW) *	90.0
7	Singur (2X7.5 MW)	15.0
8	Nizamsagar (2X5 MW)	10.0
9	Pochampad (4X9 MW)	36.0
10	Peddapalli (Mini Hydro)	9.16
11	Palair (Mini Hydro) (2X1MW)	2.0
	Total Hydro	2,411.76
C.	Solar	1.0
	Total TSGENCO (A+B+C)	5,295.26

Since the formation of the state, TSGENCO has commissioned one thermal project, Kakatiya TPP Stage – II, with the installed capacity of 600 MW on 5th May 2016 and 9 hydel units with the total installed capacity of 330 to augment power in the State.

Capacity Addition Programme by TSGENCO: Keeping in view the growing demand for power in Telangana State, TSGENCO has undertaken a capacity addition programme by establishing three new thermal power projects of 5,880 MW as given in the Table 6.4. The new projects are Kothagudem Thermal Power Station Stage-VII (1x800 MW), Bhadradri Thermal Power Station (4x270 MW) and Yadadri Thermal Power Station (5x800 MW), and are planned to be commissioned in next three to four years.

Table 6.4: New Thermal Power Projects

Sl.No.	Name of the project	Capacity in MW
1	Kothagudem Thermal Power Station – VII (1x800 MW), Bhadradri Kothagudem District	800
2	Bhadradri Thermal Power Station (4x270 MW), Manuguru Mandal, Bhadradri Kothagudem District	1,080
3	Yadadri Thermal Power Station (5x800 MW), Dameracherla Mandal, Nalgonda District	4,000
	Total	5,880



Works at Kothagudem Thermal Power Station – VII (1X800 MW)

6.2.2. Transmission and Distribution

After formation of the state, the Telangana State Transmission Corporation Limited (TSTRANSCO) was constituted to take care of transmission and distribution needs of the state.

Table 6.5: Category wise services

Sl. No.	Name of the sector	Total as on 31 December 2017	Added during 2017-18	Total as on 31 December 2017
1	Domestic	96,87,784	2,35,509	99,23,293
2	Non-domestic	11,94,099	44,796	12,38,895
3	Industrial	91,609	1,099	92,708
4	Cottage industries	17,039	219	17,258
5	Agricultural	22,15,350	48,715	22,64,065
6	Public lighting	1,18,746	1,974	1,20,720
7	General purpose	53,291	695	53,986
8	Temporary	715	104	819
9	HT Total	10,501	586	11,087
	Total Services	133,89,134	3,33,697	137,22,831

As on 31 December 2017, there were a total of 1.37 crore service connections in the state. This consist of domestic connections (99.23 lakh), agricultural connections (22.64 lakh), non-domestic connections (12.39 lakh). It is also observed from above Table 6.5 that about 2.36 lakh of domestic connections and 0.49 Lakh agricultural connections were added during the financial year 2017-18 up to December 2017. The current energy scenario in the state is provided in the Box 6.3

Box 6.3: Improvement in power supply scenario in Telangana

- The total installed capacity of erstwhile Andhra Pradesh was divided between the new states in the ratio of 53.89 per cent (to Telangana) and 46.11 per cent (to Andhra Pradesh).
- The contracted capacity as on the date of formation of the state was 7778 MW. The contracted capacity of Telangana state as on 31st December 2017 was 14,913 MW which included state, central and private sectors.
- Further 13,183 MW projects are under various stages of development and execution with an aim to

have a capacity of 28,000 MW in the coming three to four years to meet the growing lift irrigation load of about 10,000 MW and to cater to industrial and other categories, and to make Telangana State a power surplus state.

- The state grid met a peak demand of 9,921 MW and saw a record consumption of 200.6 MU on 21st February 2018, and utilities are fully geared up to meet loads up to 11,000 MW. The total number of consumers served in Telangana State stand at 1.37 crore as on 31 December 2017, including 22.64 lakh agricultural consumers.
- To make the state self-sufficient in power, TSGENCO has grounded projects totaling to 5880 MW at Manuguru (4x270 MW), Kothagudem (1x800 MW) and Damerachela (5x800 MW), with an investment of Rs 37,938 crore. As mandated in the State Reorganisation Act, NTPC is adding 4000 MW (5x800 MW), out of which works have already commenced for 1600 MW (2x800 MW) in Phase-I.
- The strengthening of the transmission and distribution (T&D) network is also being planned and executed in line with capacity addition and load growth.

6.2.3. The State's Flagship Programmes in the Energy Sector

(i) 24-hour power supply to agriculture sector: In order to end the sufferings of farmers from lack of continuous power, the state government launched the supply of 24-hour quality power supply to the agriculture sector. Since 1st January 2018, 24-hour power supply is being provided to around 23 lakh agriculture pump sets in Telangana state.

(ii) Encouragement to green power: Telangana State has taken initiatives to promote green power and pollution-free power. The state has already unveiled the Telangana State Solar Policy 2015 and prepared a draft Wind Power Policy. These policies not only provide fiscal incentives for investments in green energy but also develop a supporting environment for such industries in the state.

(a) Telangana State Solar Policy 2015: The state government has launched the 'Telangana State Solar Policy 2015', providing various incentives to prospective solar power developers. As a result, solar capacity in the state increased from a mere 74 MW at the time of formation to the highest installed solar capacity of 3090 MW. With this, the state stands number one in the country in terms of solar power generation.

Telangana has implemented 'distributed generation model' for adding solar capacity. The advantages of this model are: (i) avoidance of investment of Rs 533 crore at EHT level in the transmission network, and (ii) saving of energy of 122 MU, amounting to an annual saving of Rs 49 crore, as generation is closer to the demand. This model has proved to be a success and now the same is being adopted by other states.

(b) Wind Power Policy: Telangana State has notified a 'Draft Wind Power Policy 2016' in order to encourage wind-based power generation in the state. The following facilities are proposed for improving the ease of doing business: (i) facilitation of expeditious approvals through single-window clearance, (ii) deemed conversion to non-agricultural land status, (iii) exemption from the Land Ceiling Act, and (iv) waiver of transmission and distribution charges for wheeling of power for captive purpose.

(iii) 24X7 Power for All (PFA) Scheme: Telangana has been selected as one of the pilot states in the country for implementation of the prestigious Power for All (PFA) flagship programme of the Government of India. This programme will be implemented by the Government of India and the state government, with the Central Electricity Authority of India functioning as the nodal agency. As part of this scheme, it

is proposed to add 17 - 400kV, 35 - 220 kV and 92 -132 kV sub-stations, along with associated lines, at an estimated cost of Rs.17,803 crore. Of these, 05 - 400kV, 22 - 220 kV and 41 - 132-kV sub-stations have been commissioned as on 31st December 2017. TS DISCOMs have planned an investment of Rs. 23,817 crore for providing Power for All by the financial year 2018-19.

(iv) UDAY Scheme: The Ujwal DISCOM Assurance Yojana or UDAY scheme was launched by the central government in partnership with the state governments to help in financial turnaround and revival of DISCOMs and to provide a sustainable and permanent solution to mounting financial losses being made by them. Telangana State signed the MoU with the Government of India on 4th January 2017. The total debt of DISCOMs was Rs.11,897 crore, as on 30th September 2015. The state government took over 75 per cent of the total debt, i.e., Rs. 8,923 crore, as per the scheme and the remaining 25 per cent share of the debt, i.e., Rs 2,974.31 crore, was retained by the DISCOMs.

(v) Telangana State Rural High Voltage Distribution System Project: The high voltage distribution system (HVDS) aims at reduction of losses, through replacement of low-voltage networks with high-voltage networks and installation of a large number of smaller-capacity distribution transformers, viz., 16 KVA/ 25 KVA DTRs in place of higher capacity DTRs viz., 100 KVA/63 KVA for supply to agriculture consumers. This system is best suited to meet the scattered low-density loads observed in rural areas. This project is being undertaken in collaboration with the Japan International Cooperative Agency (JICA). As on 31 December 2017, about 4.99 lakh agricultural services are covered with HVDS.

6.3. Road Infrastructure

Roads are one of the basic modes of transportation and an important priority sector of infrastructure. Systematic development of road networks is one of the important pre-requisites for development and acceleration of socio-economic growth. Among the different modes of domestic transportation systems, road transport carries more than 80 per cent of the goods and passenger traffic. The productivity and efficiency of road transport is directly linked with the availability and quality of road networks. The network of roads, particularly from rural to urban, facilitates speedy movement of goods and services and promotes social integrity, economic growth and overall wellbeing of the society.

Two departments, i.e., Roads and Buildings (R&B) and Panchayat Raj Engineering Department (PRED) are responsible for laying and maintaining the road infrastructure in the State. The details of these departments are discussed below.

6.3.1. National Highways, State Highways and District Roads

The R&B Department maintains major corridors consisting of national highways, state highways, major district roads and other district roads with a road network of 27,599 km. Details of the roads under the R&B Department are provided in the Table 6.6:

Table 6.6: Details of the roads maintained by the R&B Department (figures in kms)

Sl. No.	Classification of Road	Four-lane & above	Double lane	Intermediate lane	Single lane	Total
1	National highways	1,051	2,310	291	210	3862
2	State highways	279	1,901	88	203	2471
3	Major district roads	210	4,065	135	7,695	12,105
4	Other district roads	24	620	60	8,457	9,161
	Total	1,564	8,896	574	16,565	27,599

Of the total length of 27,599 kms roads under the R&B Department, the highest road length is of major district roads with 12,105 kms, followed by other districts road with 9,161 kms, national highways with 3,862 kms and state highways with 2,471 kms. Lane-wise distribution of roads maintained by R&B Department indicates a road length of 16,565 kms are single-lane and 8,896 kms are double-lane and 1,564 kms in four-lane and above and rest is intermediate lane.

National highways: There are 23 national highways in the state, covering a length of 3,862 kms criss-crossing the state. Out of this, 1,072 kms are with the National Highways Authority of India (NHAI) for development under the National Highways Development Project (NHDP). The density of notified national highways in Telangana is 3.44 km/100 sq kms against the national average of 3.02 km/100 sq km. thirteen state roads were identified for declaration as new national highways, with a length of 1767 kms.

The R&B Department has taken the following initiatives to strengthen road infrastructure under its scope:

(i) Widening of single-lane roads to double-lane: The government aims to widen the important road networks in the state to cater to increased traffic needs. It has taken up the widening of the following types roads.

(a) Major district roads/state highways/core road network: To cater to the increased traffic needs, some of the major districts roads, other district roads and core road network are being widened from single lane road to double lane road. In this regard, 257 works were taken up covering a length of 2,733 kms, of which, work on 950 kms has been completed.

(b) Roads connecting mandal headquarters with district headquarters: 139 roads were sanctioned for widening from single lane to double lane connecting mandal headquarters to district headquarters for 1,970 kms., of which, 680 kms length of roads has been completed.

(ii) Construction of bridges: The R&B Department has undertaken 315 works related to construction of bridges on the Godavari and Krishna rivers and their tributaries in place of dilapidated bridges and un-bridged crossings.

6.3.2. Rural Roads

The Panchayat Raj Engineering Department is responsible for the construction of all-weather roads and upgrading of existing roads to BT/CC standards and construction of en-route culverts and bridges, in order to provide all-weather connectivity to rural habitations. It takes up the periodic maintenance of roads under the MRR grant, apart from routine maintenance as per requirement. At the time the State was formed, the total length of the rural roads under PRED was 64,044 kms, which had increased to 69,500 kms by 1st April 2017 as given in the Table 6.7. During the three-years period, 1,738 kms of rural roads were transferred to the R&B department and transfer proposals for another 1,708 kms are under process.

Table 6.7: Comparison of road length under PRED in 2014 and 2017:

Sl. No.	Type of Road Surface	Length in kms as on 02.06.2014	Length in kms as on 01.04.2017
1	Cement concrete	1,717	3,003
2	Bituminous	18,564	22,086
3	WBM	14,146	11,751
4	Gravel Roads	14,734	13,714
5	Earthen Roads	14,884	18,946
	Total	64,044	69,500

Note: Figures were rounded off.

Status of rural road connectivity to Gram Panchayats and habitations: There are 24,085 habitations existing in Telangana, viz., 8,684 Gram Panchayats and 15,401 habitations (excluding Gram Panchayats). Of these, 7,928 GPs were connected by all-weather roads at the time of state formation and another 389 GPs since the formation of the State. Out of the total 15,401 habitations (excluding Gram Panchayats), 7,882 habitations were connected by all-weather roads by 2nd June 2014 and another 1,898 such habitations after formation of the State.

Construction of Bridges/Causeways on Rural Roads: As on date of formation of Telangana State there were 1,655 Bridges required to be taken up on existing rural Roads. After formation of State 546 Bridges are taken up and 276 Bridges are completed till date. Balance 270 Bridges are under execution.

6.4. Housing

The government has launched a two-bedroom housing scheme in the state to provide 560 Sft. plinth area house to the houseless BPL families in a phased manner. Each house will have two bedrooms, a kitchen, a hall and two bath-cum-toilets (one attached and one common) in rural and urban areas. Independent houses are being built in plot areas of 125 sq yards each, in rural areas. In urban areas, due to scarcity of land, ground+1/2/3-storey structures for 2-BHK flats are permitted in towns and up to G+9 in the Greater Hyderabad Municipal Corporation (GHMC) area.

The 2-BHK houses in rural areas are constructed at a unit cost of Rs. 6.29 lakh (Rs. 5.04 lakh for the house and Rs. 1.25 lakh for infrastructure). In urban areas, the unit cost of 2-BHK houses is Rs. 6.05 lakh (Rs. 5.30 lakh for the house and Rs 0.75 lakh for infrastructure). The cost of 2-BHK units in buildings up to G+3 in GHMC is Rs 7.75 lakh (Rs 7 lakh for the house and 0.75 lakh for infrastructure); in the case of C+S+9 the unit cost is Rs. 8.65 lakh (Rs. 7.9 lakh for the house and Rs. 0.75 lakh for infrastructure). Works related to the building of 2-BHK houses are in various stages of progress, as provided in the Table 6.8. The New initiatives carried by the department given in the Box 6.4.

Table 6.8: Status of 2BHK programme as on 31 January 2018

Sl. No.	Details	Total No. of Houses
1	Houses sanctioned	2,72,763
2	Administrative sanction accorded	2,40,153
3	Grounded	1,38,795
4	Completed	5,824

Box 6.4: New initiatives by housing department

The government has adopted a number of innovative methods to cut down the cost of construction under the 2BHK Houses Scheme. Some of them are listed below:

1. The government has negotiated and finalised the cost of cement to be supplied to 2BHK houses at Rs 230 per bag as against the market rate of Rs 320 per bag. The MoU was entered with the cement companies at district level and this rate is applicable for next three years (i.e., up to October 2019).
2. The government has negotiated and finalised the cost of steel to be supplied to 2BHK houses at Rs 37,000 + 18 per cent GST, i.e., Rs 43,660 per MT (excluding transportation, unloading charges), which is valid up to 15 April 2018.
3. Under the 2 BHK housing scheme, the basic cost and seignorage on sand is exempted.

4. Of the two toilets in the type design, it was decided that one toilet is covered under Swachh Bharat Abhiyan.
5. Free transportation of fly-ash bricks up to 100 kms and at 50 per cent of transportation cost for 100-300 kms.
6. Service Tax of 6 per cent is exempted, treating 2BHK as part of Housing for All (HFA), as the programme is being implemented for BPL houseless families.
7. The EMD amount is reduced from 2.5 per cent to 1 per cent and FSD is reduced from 7.5 per cent to 2 per cent, to reduce the burden on the contractor.
8. The defective liability period is reduced to one year.
9. Bid capacity (2AN-B) reduced to 25 per cent of ECV with respect to second call of tenders, in order to encourage more contractors to participate in tenders on the e-procurement platform.
10. Registration of private builders has been allowed for registration in the appropriate class of contract with the concerned Superintending Engineer of the Executing Department in the districts, based on the certificate of turnover issued by a chartered accountant.
11. In the GHMC area, administrative sanction, tender approval, execution of programme and project monitoring and quality control is being done by the Commissioner, Greater Hyderabad Municipal Corporation, duly following the established procedures in GHMC and by seeking the orders from MA&UD wherever required.
12. For better monitoring of 2BHK housing, a software package – Project Management System (PMS) – has been developed and incorporated in the 2BHK website, facilitating all the District Collectors and the Commissioner, GHMC, in monitoring the physical and financial progress, including payments to the Executing Agencies at district level. Further, this package is well suited for placing requisitions for funds, forwarding UCs, receipt and tracking of funds from the state office, online in real-time basis.



6.5. Drinking Water Supply

The government is determined to solve the drinking water problem in the state with delivery of adequate, safe, sustainable and potable water to all rural people. In this direction, the Government of Telangana took up a flagship programme named 'Mission Bhagiratha' under the Telangana Drinking Water Supply Project, with a commitment to provide safe, adequate, sustainable and treated drinking water to households in the entire rural and urban areas, except Hyderabad urban agglomeration inside the Outer Ring Road (ORR). However, the areas inside ORR are being provided water supply by the Hyderabad Metropolitan Water Supply and Sewerage Board (HMWSSB).

The Mission Bhagiratha Project was undertaken with an outlay of Rs 43,791 crore. All existing water supply schemes and ongoing drinking water projects in rural and urban areas are integrated within this project. The project is divided into 26 segments, based on the topography, command ability, proximity and ease of connectivity to various dependable sources. The project plans to draw about 59.94 TMC of water by 2018 (and 86.11 TMC by year 2048) from the rivers Krishna and Godavari and major reservoirs fed by these rivers. The Salient features of Mission Bhagiratha given in the Table 6.9.

Table 6.9: Salient features of Mission Bhagiratha

1	No. of segments	26
2	No. of Assembly Constituencies	99
3	No. of ULBs	63 (outside ORR)+ 2 by PHED
4	No. of habitations	24,225 (outside ORR)
5	Population (lakhs)	272.36
6	Household connections (lakhs)	65.3
7	Rural households (lakhs)	52.47
8	Urban households (lakhs)	12.83
	Infrastructure (including existing)	
9	Intake structures	67 (including existing 48)
10	Water treatment plants	153 (including existing 103)
11	Major structures(OHBRs/GLBRs/Sumps)	1645 (including existing 505)
12	Pipeline network	1,69,705 kms (including existing 75,325 kms)
13	Village OHSRs	35,514 (incl existing 16,988)
14	Power required	235 MW

The project envisages providing treated drinking water to every household at their doorstep at the rate of 100 LPCD in rural areas, 135 LPCD in municipalities and nagar panchayats and 150 LPCD in municipal corporations. Ten per cent of total water is earmarked to meet the industrial needs, which in turn will create employment and catalyse economic growth. The project is aimed at supplying treated surface water to all habitations in rural areas and urban local bodies, excluding Greater Hyderabad Municipal Corporation (GHMC) area. The remaining seven ULBs and 183 rural habitations which are inside the ORR are covered by the Hyderabad Metropolitan Water Supply and Sewerage Board (HMWSSB).

Works under the project is being completed in a mission mode. Out of 19 intake structures, construction of all 19 is completed. Out of 50 water treatment plants (WTPs), 47 are completed and three are nearing completion. Out of 425 sumps envisaged under the project, construction of 413 sumps is completed. Out of 149 GLBRs, 146 are completed. Of a total 566 planned overhead service reservoirs (OHBRs), 525

are completed. And 95 per cent transmission pipelines are completed. As of now, 95 per cent of physical progress of works is completed and remaining work is in the brisk progress. Till date, about 5,500 rural habitations and 12 Urban Local Bodies (ULBs) are covered for bulk water supply and about 2,500 habitations are covered for household supply. Two segments, i.e., Gajwel and Suryapet, were commissioned on 7th August 2016 and 12th October 2017, respectively.



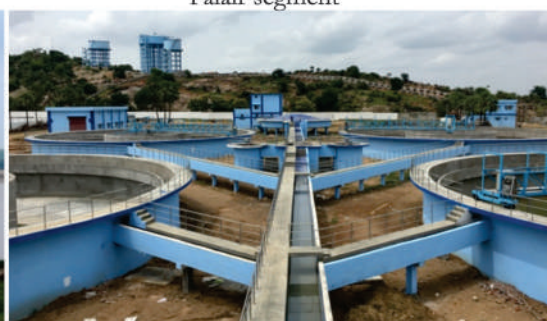
1500-mm-diameter PCCP pipeline
Godavari Dummu-gudem segment



200 KL OHBR at Seetharampur
Palair segment



8-m-diameter Intake at Godavari Pusuru (Wazeedu Mandal) –
Pusuru sub-segment – Khammam District



90 MLD WTP at Jeellacheruvu – Palair segment

6.6. Sanitation

The State Government has provided high thrust on improving the sanitation infrastructure by building individual household latrines (IHHL) and community latrines by dovetailing with the centrally sponsored schemes Swachh Bharat Gramin and Swachh Bharat Urban. The aims of the sanitation programme is to eradicate the problem of open defecation by constructing toilets for individual households and communities, to do away with manual scavenging and to adapt better solid waste management techniques. The two components, i.e., urban and rural sanitation, are discussed separately.

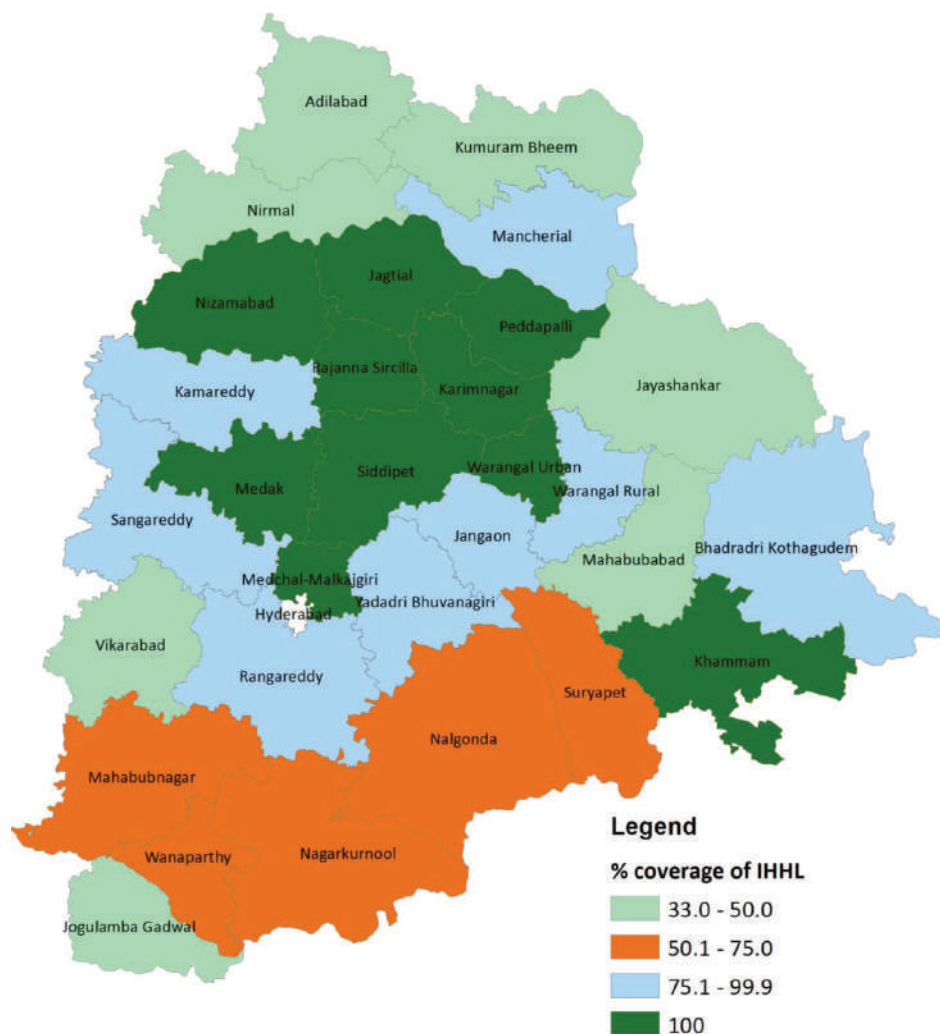
6.6.1. Urban Sanitation: The Government of India launched the flagship programme Swachh Bharat Abhiyan with the vision of ensuring hygiene, waste management and sanitation across the nation. The Government of Telangana, in partnership with the Central Government, is committed to make all the cities and towns open defecation free, under the Swachh Bharat-Swachh Telangana Programme.

So far, 73 towns have been declared open defecation free (ODF). As of now, 56 Urban Local Bodies have

achieved ODF status. They are: Bellampally, Bhupalpally, the Greater Warangal Municipal Corporation (GWMC), the Greater Hyderabad Municipal Corporation (GHMC), Jangaon, Kodada, Mancherial, Mandamarri, Nalgonda, Parakala, Peerjadiguda, Sangareddy, Sadasivapet, Vikarabad, Zaheerabad, Badepally, Bodhan, Jammikunta, Armoor, Peddapalli, Nizamabad, Medak, Yellandu, Husnabad, Nagarkurnool, Karimnagar, Achampet, Suryapet, Huzurnagar, Bhongir, Madhira, Huzurabad, Boduppal, Gajwel, Narsampet, Siddipet, Ibrahimpatnam, Sircilla, Bhainsa, Sattupalli, Jagtial, Shadnagar, Badangpet, Metpalli, Jalpally, Kalwakurthy, Meerpet, Korutla, Vemulavada, Pedda Amberpet, Medchal, Devarakonda, Kollapur, Dubbaka, Adilabad and Miryalaguda. Out of 2012 wards in the urban local bodies of the state, 2012 Wards have been declared as open defecation free wards. The coverage of IHHL in urban areas of Telangana stands at 97 per cent.

6.6.2. Rural Sanitation: Rural sanitation is of the utmost importance for the state government, as absence of this may lead to poor quality of life. The state, since its formation, has been making sincere efforts in building individual household latrines (IHHL) for all, in partnership with the central government. At the time of the formation of the state, the sanitation coverage in the state was a mere 31.44 per cent. With efforts put in by the state, sanitation coverage in rural areas in Telangana has increased to 82.38 per cent.

Map 6.1: District wise IHHL coverage in rural areas



Building up of individual household latrines (IHHL) are being undertaken in a mission mode at the district level. As shown in the Map 6.1, in rural areas, 10 districts out of 30 districts have achieved 100 per cent IHHL. Districts that have achieved 100 per cent ODF are Nizamabad, Jagtial, Peddapalli, Rajanna Sircilla, Karimangar, Medak, Siddipet, Warangal Urban, Medchal-Malkajgiri and Khammam. Another eight districts have achieved 75-99 per cent IHHL and planning to declare ODF by March, 2018, viz. Mancherla, Bhadrachalam, Kothagudem, Kamareddy, Sangareddy, Jangoan, Warangal Rural, Yadadri-Bhuvanagiri and Rangareddy. Five districts have achieved IHHL in the range of 50-75 per cent, i.e., Mahabubnagar, Wanaparthy, Nagarkurnool, Nalgonda and Suryapet. Districts with less IHHL are Adilabad, Nirmal, Kumuram Bheem, Jayashankar, Mahabubabad, Vikarabad and Jogulamba Gadwal. The district administration has put sincere efforts in not only making their districts ODF, but also launched a massive social awareness campaigns for using them for leading a healthy life.

6.7. Hyderabad Metro Rail Project

Hyderabad Metro Rail Project aims at to address the increasing traffic congestion and pollution levels in Hyderabad city. With a population of about 1 crore, this historic city is a hub of economic activity, especially in the pharma, and IT & ITeS industries. Phase I of the project covers three traffic corridors in the city, spanning over 72 kms with 66 stations. It is the world's largest mass transit project being built in public-private partnership (PPP) mode. The Hyderabad Metro Rail project has been designed in an innovative way to make it financially viable, as very few urban transit projects are financially successful. Property development and commercial exploitation of air space over the parking and circulation areas at metro stations and in the metro depots will enable the system earn substantial revenues. The financial model envisages generation of about 50 per cent of revenue from passenger fares, 45 per cent from property development and 5 per cent from advertisements and other miscellaneous sources. The concession period of the project is 35 years (including a five-year construction period), which can be extended by another 25 years.

The project is designed as an entirely elevated transit system, to be financially viable and to reduce carbon footprint in the city. Inter-modal integration with main rail, bus depots, feeder buses in traffic catchment areas, sky-walks below the elevated viaduct with landings into nearby residential/commercial complexes, bicycle tracks and other modes of non-motorised transport (NMT), pedestrian facilities, street furniture, etc., are part of the project. The elevated stations are being designed as green buildings with emphasis on aesthetics. The project is thus not just a simple mass transit system, but is being used as an opportunity to redesign and rejuvenate Hyderabad as a people-friendly green city and make it a major destination for global business and investment.

Box 6.5: Hyderabad Metro Rail Project

Salient features of the project

- (a) Elevated Metro Rail on piers (pillars) with two-metre ground footprint at about 30-metre spacing.
- (b) 10-meter flyover-like elevated guideway accommodating two rail lines (up and down)
- (c) Stations at an average distance of 1 km – total 65 stations at 63 locations (3 interchange stations)
- (d) **Corridor-I:** Miyapur – LB Nagar (29 km; 27 stations)
Corridor-II: Jubilee Bus Station – Falaknuma (15 km; 15 stations)
Corridor-III: Nagole – Raidurg (28 km; 23 stations)
- (e) State-of-the-art signalling system to ensure high safety standards – CBTC (Communication Based Train Control) technology being introduced for the first time in India

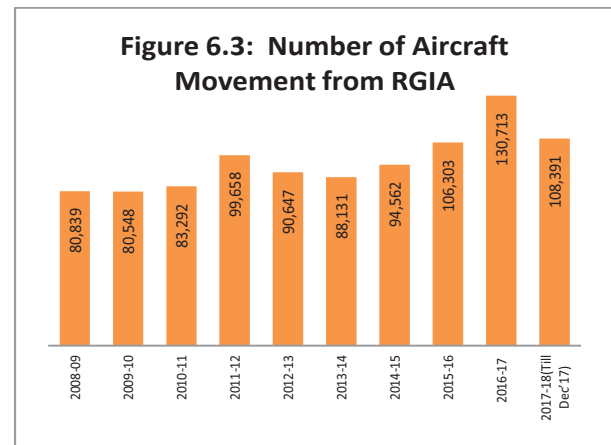
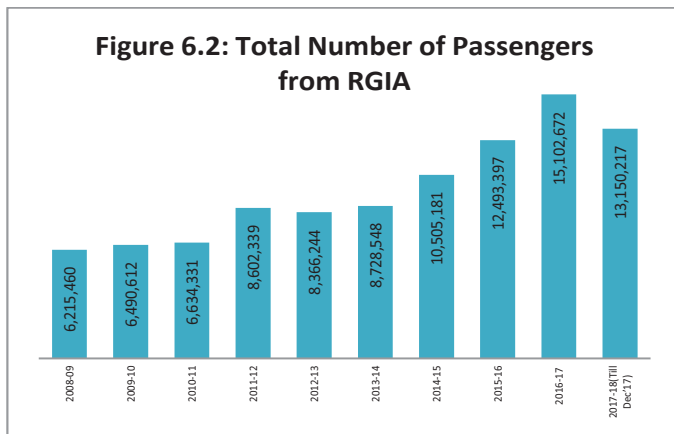
- (f) Video cameras in coaches and CCTVs in stations for better security
- (g) Elegant, lightweight and air-conditioned coaches with automatic door movement with the doors opening only at platforms
- (h) Sophisticated entry and exit gates – access through contactless smart cards.

The Hyderabad Metro Rail Project works started in June 2012. Out of the 72 kms in Phase-I, so far, 64 kms of foundations, 63 kms of pillars and 61 kms of viaducts have been completed. Overall, 85% of the metro project has been completed and all the 57 trains have arrived. Two stretches of a length of about 30 kms, viz., Miyapur-Ameerpet (13 kms) and Ameerpet-Nagole (17 kms) were inaugurated by Hon'ble Prime Minister of India on 28 November 2017 and commercial operations commenced from 29th November 2017. These two opened stretches of 30 kms are doing very well with an average of about one lakh passengers per day.



6.8. Hyderabad International Airport

The Rajiv Gandhi International Airport (RGIA), Hyderabad, is a joint venture company promoted by GMR Group (63 per cent) with Malaysia Airports Holding Berhad (MAHB) (11 per cent), Government of Telangana (13 per cent), and the Airports Authority of India (13 per cent) as the other consortium partners. The RGIA is an integrated domestic and international terminal, equipped with 12 contact-boarding bridges, 30 remote stands, Common User Terminal Equipment (CUTE), self-check-in kiosks (Common User Self Service – CUSS) and 39 immigration counters. Currently, there are 18 foreign and 10 domestic passenger airlines operating from Hyderabad, which fly to around 50 destinations. In addition, Lufthansa, Cathay, Qatar, Turkish and Blue Dart operate cargo freighter services. Currently serving 18 international destinations and 36 domestic destinations, RGIA has become a preferred aviation gateway to South Central India. RGIA in effort to produce green energy, it has installed Solar power plant, detailed given in the Box 6.6.



In the year 2016-17, RGIA handled 15.1 million passengers. Growth in domestic passenger segment was around 27 per cent in 2016-17, whereas international passenger traffic has grown by 6.7 per cent. Overall, the passenger traffic has shown a growth of 22 per cent in 2016-17. For the year 2017-18 (April–December 2017) the airport handled 13.15 million passengers, registering a growth of 21.5 per cent, while international passengers had grown by 7.2 per cent. As far as cargo growth is concerned, RIGA handled 124,087 tonnes of cargo in 2016-17. Domestic cargo handling grew at a rate of 4.9 per cent, while international cargo grew by 13.8 per cent in 2016-17, overall, the cargo has shown a growth of 9.8 per cent. For the year 2017-18 (April–December 2017) domestic cargo a growth is around 5 per cent, while international cargo volume has grown by 17 per cent, overall, the cargo has shown a growth of 11.8 per cent. In the same period, the airport handled 103,120 tonnes of cargo. Total number of passengers and aircraft movement from RGIA are shown in the Figure 6.2 & Figure 6.3,

Box 6.6: Solar Power Plant at RGIA

In an effort towards producing green power, RIGA is generating solar power for its consumption. The first phase of Hyderabad Airport's captive solar power plant has a capacity of 5 MW. The plant became operational in the year 2015 and meets 15-20 per cent of the airport's electricity demand, saving 7100 MT of carbon emissions annually. Presently, a project is underway to expand this facility with an addition of further 5 MW solar power generation capacity.

6.9. Outlook

Since formation of the state, infrastructure development has been the highest priority of the state government. Even while the poor and downtrodden are taken care of by various welfare schemes, the initiatives of the state towards development of infrastructure will provide a launching pad for the same sections of people to be part of the economic growth of the state. The government is not only providing a large part of the state resources, but also facilitating infrastructure development by creating an enabling environment. The state initiatives in the fast-tracking of major and medium irrigation projects, Mission Bhagiratha, drive for rural sanitation, providing quality power supply, etc., are targeted towards rejuvenation of the rural economy.

Irrigation initiatives have started bearing fruit with the unveiling of irrigation projects in a phased manner. After formation of the state, the government had announced a comprehensive water utilisation programme. The government is marching forward with the sole aim of giving water to one crore acres in the state. The

government has allocated Rs 25,000 crore for fast completion of ongoing irrigation projects and the Mission Kakatiya works in 2016-17 and 2017-2018. It was the first time, ever since, such a huge budget was allocated to irrigation by any state in the country.

The Bhakta Ramdas project was completed within 11 months from the date of laying the foundation stone and has set a precedent. The government has accelerated the completing of projects like Kaleswaram and Sri Sitarama Lift Irrigation projects, which are based on assured waters. The government approach of 'give and take' for settling pending issues has paved the way for settling issues relating to RDS with Karnataka and to Tummidihetti, Medigadda, and Chanaka-Korata Barrages with Maharashtra. In spite of the odds, Telangana has got clearances for making use of forest land for the Kaleswaram project.

Within a short period, the new State of Telangana has transformed itself in the power sector, from a power-deficit state to power-sufficient state by augmenting power supply. There are no power holidays to industrial units in the state. This has encouraged the manufacturing units, improving their competitiveness and helping the sector thrive. Providing nine hours power supply was a daydream during the time of the combined state, but now the state has been providing 24x7 power supply to the farming sector. In efforts to increase its installed capacity in the power sector, the state increased the commissioning of new projects and is augmenting additional power from green and renewable sources. The state ranks no.1 in terms of solar power generation in the entire country.

The Mission Bhagiratha project is an innovative infrastructure project in the drinking water sector, widely appreciated by various national and international agencies. Works under this project are at an advanced stage of completion. Over 95 per cent of physical works are completed and as of now, over 5,500 habitations and 12 ULBs are covered by bulk water supply. The Phase-I of the Hyderabad Metro Rail services connecting Nagole station to the Miyapur station, covering a 30 kms stretch was commenced on 29th November 2017. Thanks to the thrust provided by the state, the outlook for the infrastructure sector is highly positive.

Services Sector

“Remember the race is for the skilled and the strong, we cannot hope to succeed if we continue to work with antiquated tools and follow old fashion business methods.”

- Sir Mokshagundam Visvesvaraya
India's eminent Engineer & Statesman

The services sector has been the largest contributor to Gross State Domestic Product in the state. The services sector consists of a wide and varied range of sub-sectors, all of which are unique and invaluable to the economy, such as trade, tourism and hospitality, transport, storage, communications, information technology and related services, repair services, financial services, real estate, education and health services, social and personal services, public administration, etc. Of these, the topmost and best-thriving subsectors in Telangana have been information technology (IT), IT-enabled services (ITeS), tourism, real estate, education and health. The state holds a leading position in IT and ITeS in the country in terms of production and exports. Rapid changes in technology in the IT sector gave rise to new opportunities, especially in big-data analytics, cyber security, cloud computing, animation and gaming, etc.

Tourism is fast growing in the state. It is a sunrise economic sector with immense potential for growth and employment generation. The potential of the tourism industry has been increased with the increase in income levels of the people. However, tapping of potential in this sector depends on facilitating tourist arrivals and augmenting tourism-related amenities. Telangana is endowed with a rich heritage of tourist destinations of varied kinds. The state has turned into a very attractive destination for medical tourism and business tourism, apart from heritage tourism. The government has initiated measures to tap the potential of new areas such as city tourism, eco-tourism, tribal tourism and educational tourism. The present chapter delineates performance in the tourism and IT/ITeS sectors and the changes in policy framework in these two sectors.

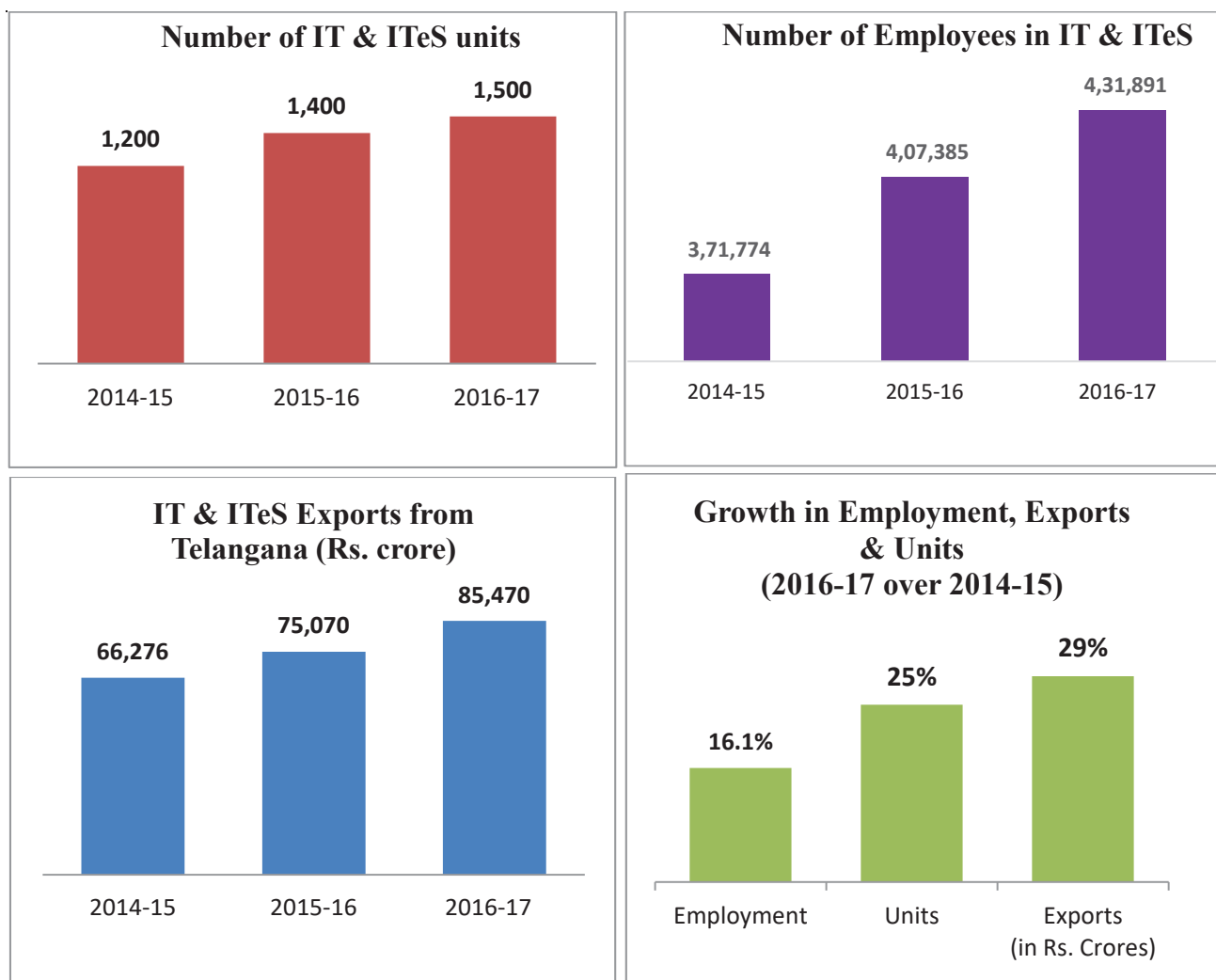
7.1. IT and ITeS sector

Hyderabad, the capital of Telangana, is now recognised as one of the leading IT hubs globally. It houses over 1500 IT/ITeS companies, both large and small, which together employ over 4.3 lakh professionals, besides providing indirect employment to over 7 lakh people. There has been robust growth in the performance of the IT/ITeS sector in the state since 2014-15.

7.1.1. Growth of IT and ITeS

There has been sharp increase in the number of IT/ITeS units in the state from 1200 in the financial year 2014-15 to 1500 in 2016-17, thus registering a growth of 25 per cent over a period of two years. Growth rate in employment generation from the sector was as high as 16 per cent from 2014-15 to 2016-17 (see Figures 7.1).

Figure 7.1: Performance of IT and ITeS sector in Telangana



Exports from the IT sector are growing rapidly; the year-on-year growth in IT exports registered a rise of 13 per cent, which is 3 percentage points higher than the national average growth rate. Telangana State's share is over 10 per cent in the country's IT exports and Hyderabad ranks second in terms of total revenues from the IT sector in the country. The IT sector exports from the state contribute to over 50 per cent of total exports from all other sectors in the state. In 2016-17, the total value of software and IT product exports accounted for Rs. 85,470 crore (over US \$ 13 billion).

7.1.2. State's IT Policy Framework

The Government of Telangana has launched the ICT Policy to augment growth in the IT/ITeS sector and to attract new investments and employment generation. The objective of the ICT policy is to make Telangana

the most preferred technology investment destination in the country and to attract niche segments, which are fast emerging and evolving new verticals in technology sectors. Apart from the ICT Policy, Government of Telangana brought out the IMAGE Policy and the Innovation and Rural Technology Centre Policy to augment the growth in these sectors. Further, it has also launched sector-specific policies (see Box 7.1.) such as Data Centres Policy, Open Data Policy, Cyber Security Policy, Data Analytics Policy, IoT Policy and e-Waste Policy to extend policy support to this sector (see Figure 7.2.).

Figure 7.2: New IT Policy Initiatives of Telangana



ICT Policy 2016: The state aims at doubling its exports and employment from IT and related sectors over a period of five years. The state seeks to achieve these ambitious targets by providing a congenial industry-friendly climate for IT companies, by building/developing an industry-ready employment force, encouraging innovation, SMAC (social, mobile, analytics and cloud) - driven disruption and entrepreneurship within the state, spreading IT to Tier-II locations, and finally leveraging IT as a tool for the socio-economic development of the region.

The Vision of ICT Policy of Telangana

- To position the state as the most preferred destination for IT companies
- To make the state a leader in key emerging technologies
- Use of IT tools to improve processes and citizen service delivery
- To empower citizens to make the best use of the opportunities emerging in an increasingly digital world
- To become a leading global hub for technology entrepreneurship and innovation in the country

Focus areas and the key themes

- Expansion of IT/ITeS units:** The policy provides attractive incentives to encourage all existing IT/ITeS companies to expand and grow within the state, and also motivate and incentivise new companies

to come and establish their units in the state. While Hyderabad will remain the centre of product development and R&D activities, companies, particularly ITeS companies, are encouraged to locate themselves in Tier-II cities like Warangal, Karimnagar, Khammam, Nizamabad, etc.

- (ii) **Electronics:** The policy envisages making Hyderabad a global hub for electronics and design industry by providing infrastructure support, by creating a larger pool of skilled workforce, by offering a supportive policy environment, and by providing a pleasant tax and fiscal regime. Two EMCs (Electronic Manufacturing Clusters) are being set up at e-City and Maheshwaram Science Park.
- (iii) **Entrepreneurship:** The policy provides impetus to young entrepreneurs and kick-starts next-generation innovation by providing access to critical capital and state-of-the-art physical infrastructure. The state government has established the largest innovation and start-up ecosystem in the country, the T-Hub, in partnership with private players and academic institutions. The government has been encouraging both private and public institutions to set up incubators, accelerators, seed funds, etc., to provide critical support to early-stage entrepreneurs.
- (iv) **Skilling:** The policy strengthens the skill ecosystem in the state by giving equal importance to augmenting a skilled workforce to cater to the needs of growing sectors. The Telangana Academy for Skills and Knowledge (TASK) has been entrusted with the responsibility of augmenting a pool of skilled labour for companies to get easy access to a rich skill-base in the state. With customised training programmes, developed through constant industry feedback, complementing prestigious educational institutions that exist in the state, the state shall ensure the fulfilment of human resource needs of IT companies across all sub-verticals.
- (v) **Procurement of IT products and services by the government:** The government will interact with technology developers including large companies, SMEs and start-ups to identify innovative technology solutions that can be used to modernise public sector initiatives.
- (vi) **New initiatives:** The policy vision is to make Telangana a leader in all emerging technologies by creating a conducive environment that encourages product development companies, R& D institutions, SMEs and start-ups to choose Telangana for their units. The state has brought out first-of-its-kind sectoral policies in key sectors such as gaming and animation, smart technologies, data analytics, data centres, open data, cyber security, etc.
- (vii) **E-governance and m-governance:** The policy provides guidance to use IT services for public service delivery. The government strives to be a leader in e-governance and increase the electronically delivered services. The government intends to develop a portfolio of mobile applications for delivery of citizen services through phone.
- (viii) **Digital Telangana:** Through the Digital Telangana programme, the government aims to transform the state into a truly digitised region by connecting every household through broadband, and by providing Wi-Fi in major municipal corporations and by ensuring 100 per cent digital literacy.
- (ix) **Promotions:** The government shall participate in international and domestic trade shows, conferences and seminars to highlight the advantages the state offers for the IT/ITeS, electronics and related sectors and consolidate its position as the preferred investment destination.
- (x) **Enhanced quality of living:** The overall aim of the policy is to build excellent infrastructure and regulatory framework for companies, the local talent used for propelling the growth of the economy.

Box 7.1: IT Sectoral Policies

(i) Telangana Image Policy 2016

Animation, gaming, VFX, entertainment and allied industries are the emerging verticals in the ICT sector. Globally, these verticals have been in focus in the recent past and are believed to have a significant share in the ICT and entertainment industry in the future. Animation is a way of making a film by using a series of drawings, computer graphics, or photographs of two- and three-dimensional objects that are slightly different from one another and when viewed quickly one after another create the appearance of movement. Visual effects are the processes by which imagery is created and/ or manipulated outside the context of a live action shot. Presently, Hyderabad hosts many units engaged in this sector. Building on this, the state government brought the IMAGE Policy 2016 to make Hyderabad the 'most favoured' destination for investment in animation, visual effects and allied sectors. It seeks to attract global majors and R&D companies in the sectors into the state.

Vision of IMAGE Policy 2016

1. Make Hyderabad the most favoured destination for investment in animation, visual effects, gaming and comics sector
2. Encourage and support appropriate manpower development, infrastructure development and business development
3. Spread awareness and create employment in the animation, visual effects, gaming and comics sector
4. Bridge the demand–supply gap in human resources through various skill development programmes
5. Attract global majors and R&D companies in gaming, serious gaming, animation and serious animation into Telangana
6. Strive towards a larger share of the outsourcing opportunity in the global animation, visual effects, gaming and comics markets
7. Facilitate a legal framework for 'IP' creation and its protection
8. Promote growth of indigenous 'digital content' education and entertainment for the masses
9. Set up a 'Centre of Excellence', i.e. Telangana Animation and Gaming, IMAGE City, with state-of-the-art facilities to act as a catalyst for the animation, visual effects, gaming and comics sector.

The government is setting up Telangana Animation and Gaming (IMAGE) City as a world-class animation and gaming city and an incubation centre to provide the ideal environment for businesses in animation, visual effects, gaming and comics industry. The state government announced a host of incentives to support the gaming and animation industry in the state.

(ii) Policy On Rural Technology Centres 2016

The IT sector is transforming rapidly with the growth of sub-sectors such as data analytics, gaming and animation, social media, etc. Support services for these sectors require lesser infrastructure and skills, which can be outsourced to rural areas. Given the scope of tasks, the policy encourages companies to set up Rural Technology Centres (RTCs) in either mandals or villages.

Vision of the policy:

- The centre should be setup either in a mandal or village

- The population of the mandal or village must be less than 50,000
- The location of the IT centre should be at a distance of atleast 50 kms from the nearest city.

Goals under the policy:

- Develop one Rural Technology Centre in each district
- Provide employment to at least 2,500 people through RTCs
- Train 10,000 rural youth through TASK in the skills required by RTCs

Government has announced various fiscal and non-fiscal incentives for setting up of Rural Technology Centres.

(iii) Telangana Innovation Policy

Innovation has been a major change-driver globally—intervening to provide accessible and affordable solutions to cater to dynamic consumer needs. India, today, is marching towards establishing itself as a top global innovator for high-technology products and services. Telangana, the new state of India, has been a hotbed of technology innovation owing to its rapid growth as a leader in the information technology (IT) sector. With the success of T-Hub, Telangana with capital Hyderabad is on the global innovation map. To further nurture and strengthen the innovation ecosystem in the state, the government has launched the Telangana Innovation Policy, the salient features of which are:

- Developing physical infrastructure and programme management capabilities,
- Focus on creating sustainable funding models for innovations,
- Develop human capital, by creating the right environment and support systems for learning, experimentation and innovation from the early phases of education,
- Proactive engagement with industry to continuously promote and identify innovation,
- Encourage start-ups in the rural and social enterprise space by providing additional incentives.

(iv) Open Data Policy of Telangana

The Government of Telangana has introduced a new ‘open data’ policy, which will catalyse data-based decision-making in government. Presently various arms of government are involved in collection, generation of data on multiple issues. Under the policy, information from various government departments is set to become easily available online. This will encourage transparency in government functioning. Telangana is the second such state to come up with an Open Data Policy in India, after Sikkim. The Open Data Policy, 2016 is meant to:

- Spell out the need for building information systems for interoperability and greater information accessibility,
- Assist various departments/institutions of the government to proactively share their data in both human-readable and machine-readable formats, using open standards, and under open license,
- Spell out the need for creating a data inventory within every ministry/department,
- Lay down the process of public listing of certain data sets that are not part of the negative list,
- Define a process to engage with data users (citizen and others) for better outcomes,
- Address all privacy and confidentiality concerns while sharing data.

(v) Data Analytics Policy

Data analytics or big data is a broad term for large or complex data sets for which a traditional data processing application is inadequate. Apart from search, storage, transfer, visualisation and privacy of data, data analytics is useful in capturing and processing of data using predictive analysis methods to extract useful value. To facilitate research and product development in this area, the Government of Telangana brought out the Data Analytics Policy 2016. The policy facilitates in creating a data-centric ecosystem. The policy provides various fiscal and non-fiscal incentives to attract data analytics units to strengthen smart governance initiatives, encourage data-driven decision-making, and nurture the requisite talent pool to meet the future demand. The following milestones are envisaged in its policy:

- Develop state-of-the-art infrastructure to create a vibrant atmosphere for businesses and entrepreneurs alike,
- Build a pool of data analytics resources and in-house expertise,
- Provide unrestricted access to large amounts of data generated by the government and develop a mechanism to ensure its sharing and interoperability,
- Position itself as a preferred destination for the best data analytics firms from across the world,
- Create an environment conducive to transforming breathtaking ideas into products,
- Leverage the power of analytics to provide its citizens with smart solutions.

(vi) Telangana Data Centres Policy

The world is moving towards more and more digital processes and transformations. Increasing amount of data is generated, thereby increasing the data storage capacity required. Additionally, the growth of big data in the recent past is forcing every player, private or public, to focus on data collection for analysis. By catering to all the specific requirements of data centres and providing them with an attractive business environment, Telangana wishes to tap growth and attract investments in this area. Further, the investments will also promote the allied activities in the state, such as stack manufacturing, cyber security, power, etc. Hyderabad already has a thriving data centre ecosystem. On the geographic location front, Hyderabad is located in one of the least seismically active zones and is far away from the coast, thereby having low susceptibility to other natural hazards. The government has offered various incentives to data centres through this policy, which is an added advantage.

(vii) Cyber Security Policy

Cyber security is among the emerging and important areas of digital world. Telangana become the only state in the country with a dedicated policy framework on cyber security. The policy provides for creating and sustaining a safe and resilient cyber infrastructure, and creation of wealth through investment and growth in this sector. The Cyber Security Policy Framework holds several other frameworks that are intended to provide a holistic and complete solution to the cyber security threat. The four pillars that hold up the State Cyber Security Policy Framework are: (i) legal and regulatory, (ii) compliance and enforcement, (iii) compliance building and cyber secure culture, and (iv) business development. The vision of the Cyber Security Policy of Telangana is:

- Build awareness about cyber security and safe cyber practices among citizens,
- Establish requisite institutions and legal framework to counter cyber crime,

- Build capacity and protect our critical information infrastructure,
- Equip professionals with requisite cyber security skills and knowledge and establish a pool of ‘Cyber Warriors’ to work with the state,
- Promote the state as an ideal destination for cyber security firms and start-ups to develop cyber security products,
- Encourage state–state and inter-institutional partnerships to promote data sharing and collaborative research efforts.

(viii) IoT policy of Telangana

Sophisticated technologies help us use our devices in newer ways and help us navigate everyday life processes in an efficient and superior manner. The Internet of Things (IoT) is the interconnections of computing devices via the Internet with electronics/sensors/software, which enables these devices to connect and exchange data. Internet of Things will soon encompass a new dimension and become Internet of Everything. The focus of the state government as part of its IoT policy would be on medical, smart city solutions, health, logistics and agriculture technology spaces. The state government has formulated a policy on IoT declaring its intent to pursue a five-pillared approach, viz.,

- Development of world-class infrastructure to promote development of IoT products,
- Promote manufacturing and procurement of IoT based solutions,
- Provide support to start-ups in raising capital,
- Create a ready-to-employ talent pool in the state, and
- Enter into partnerships and tie-ups to develop know-how.

(ix) E-Waste Policy of Telangana

E-waste generation in India is rising at an alarming rate of 25 per cent per annum. Hyderabad alone produces e-waste of 25,000 MT per annum, the sixth-largest generator in the country. In order to tackle this e-waste, government has launched an E-Waste Management Policy to protect the environment and create awareness in managing e-waste by segregating and channelising end-of-life products to the right avenues. The policy also speaks about promoting management of e-waste through collaborations with bulk consumers of electronic products and major industry organisations. The policy lays more emphasis on creating awareness in society. Through this policy, the state envisages to assist the unorganised sector to transit into an organised sector, creating an e-waste refurbishing and recycling ecosystem.

As per the policy, the state will earmark industrial space for e-waste dismantling and recycling in existing and upcoming industrial parks, estates and clusters. A mandatory registration process will be notified for workers involved in dismantling and recycling. To boost refurbishing and recycling, the government will offer a subsidy of Rs. 1 crore for a minimum capital investment of Rs. 5 crores for the first five recyclers and refurbishers. For dismantlers and collection centres, Rs. 30 lakh will be provided as subsidy for a minimum capital investment of Rs. 1 crore. Apart from this, the policy offers various other incentives to e-waste management units.

7.1.3. Initiatives in the IT Sector

- (i) **Promotion of IT in Tier-II cities:** The Government of Telangana aspires to transform the state into a knowledge society and spread of growth of IT sector to the last mile of the state. To achieve this, the government has been promoting IT and ITeS units in Tier-II cities and rural areas that will not only provide gainful employment but also ensure overall socio-economic development of the state. Details of these initiatives are provided below.
- (a) **Warangal:** The IT Incubation Centre (Phase-I) in Warangal is operational since 19 February 2016. It was built on an area of 2 acres with a total built-up area of 15,000 sqft to enable start-ups, micro, small and medium IT companies to operate in a 'plug and play' hassle-free environment. The Warangal IT Incubation Centre will provide direct and indirect IT employment to 1000 educated youth. The Phase-II of the IT Incubation Centre comprising 15,000 sqft built-up space is under construction and is expected to be ready by 2018.
- (b) **IT Incubation Centre in Khammam:** In order to make Khammam an attractive IT destination for the IT companies to establish their IT/ITeS operations, the government is setting up a IT Incubation Centre in Khammam, in a 50,000 sqft area in two phases, with an investment of Rs. 25 crore. This will enable start-ups, micro, small and medium IT companies to operate in 'plug and play' facilities. The centre is expected to create employment for more than 2000 software professionals. Eight companies have expressed their willingness to be a part of Khammam IT Incubation Centre and establish their software development centre.
- (c) **IT Incubation Centres in Karimnagar and Nizamabad:** The IT Incubation Centres in Karimnagar and Nizamabad are being built in an area of 50,000 sqft in two phases with an investment of Rs. 25 crore.
- (ii) **Rural Technology Units in Tier-II Cities:** In order to promote IT-related units in rural areas, the government unveiled the Rural Technology Policy, incentivising large IT companies to set up technology and BPO centres in rural areas. This policy is expected to generate IT-related jobs in rural areas, and thereby retain skilled workforce in rural areas. In this regard, the Government of Telangana, along with Sandbox, has established 'Kakatiya Sandbox for Social Entrepreneurship' to nurture innovation and entrepreneurship in Medak, Karimnagar and Nizamabad districts to implement technology skill development programmes in the field of health care, education and agriculture. Through this programme, 10 initiatives will be incubated in the first year, scaling to 25 in the second year and is expected to provide livelihood opportunities to more than one lakh people.
- (iii) **T-Hub:** The T-Hub is India's largest incubator for start-ups and a unique public-private partnership between the Government of Telangana, IIIT-Hyderabad, ISB and NALSAR on one the hand and the private sector on the other. The T-Hub is not just an incubator that supports start-ups, it nurtures a start-up ecosystem in Hyderabad to make the city the start-ups capital of India. After achieving phenomenal success in the establishment of T-Hub, the Government of Telangana has embarked on a plan to develop the T-Hub Phase-II.
- The T-Hub Phase-II is being constructed on 3 acres of land with a total built up space of 3.5 lakh sqft, providing IT incubation space for 4,000 IT entrepreneurs /professionals. The T-Hub Phase-II will be operational by 2018.
- (iv) **IMAGE Incubation Centre:** The Government of Telangana has identified AVCG (animation, VFX, and comics and gaming) as one of the key growth drivers in terms of investments and employment and launched a separate policy for facilitating growth in this sector. Hyderabad has a large presence of

animation, VFX, Comics and gaming companies. Over 75 companies, including VFX studios, 2D/3D animation and gaming companies are based in Hyderabad, employing over 30,000 professional in this segment. In view of the large potential in this sector, the Government of Telangana, in association with Software Technology Park of India (STPI), has developed a state-of-the-art incubation facility 'IMAGE' in the heart of IT district. This incubation facility is specially designed to support start-ups and small and medium enterprises working in gaming, animation, multimedia and entertainment industry.

- (v) **IMAGE Tower:** In order to promote AVGC companies in the state and to encourage training academies and universities of international repute to set up their operations in the state, government is establishing the IMAGE Tower for creating an industry-dedicated work place. IMAGE Tower is being developed at Hyderabad Knowledge City. This will be one of the world's best facilities, offering state-of-the-art infrastructure and services for development of games, animation and VFX content. The tower will have options of warm shell and plug and play office spaces. It will also include built to suite studios, motion capture studios, green mat studios, digital intermediate suite, editing labs, data management labs, dubbing suite, render farms, data centre, auditorium, screen theatre, academy, business centre and other basic amenities. The IMAGE Tower will be fully operational in three years.
- (vi) **New IT clusters at Budvel:** Over the last few months, a number of global IT companies expressed their interest in establishing or expanding their presence in Hyderabad. In order to facilitate new such investments, the government has initiated a new corridor outside of Madapur and Gachibowli. Budvel and surrounding villages in Rajendranagar Mandal have been identified for developing new IT clusters.
- (vii) **Telangana Academy for Skill and Knowledge (TASK):** One of the reasons for Hyderabad becoming the IT and related industry is the availability of a large pool of skilled workforce. In order to give it further fillip, the Government of Telangana has created a unique institution called Telangana Academy of Skills and Knowledge (TASK) to develop a skilled work force in IT and ITeS, life sciences, healthcare, aerospace, banking and financial services. It is set up as a non-profit organisation in partnership with academia and industry.

TASK strengthens the quality of graduates coming out of degree and engineering colleges by imparting industry-ready skills, both technical and non-technical (soft skills). It has made a continuous effort to provide suitable tailor-made skilling programmes through various interventions such as internships, finishing schools, etc., TASK has collaborated with various private industries for meeting their requirements directly. So far, TASK has skilled over one lakh plus youth and faculty across 31 districts. The detailed given in the Table 7.1.

Table 7.1: Snapshot of TASK

Sl. No.	Item	Details
1	Registered colleges	588
2	Registered students	1,15,524
3	Students trained	1,24,771
4	Faculty trained	3,390
5	Sectors covered	(i) IT-ITeS, (ii) Life sciences, (iii) Healthcare, (iv) Aerospace and (v) Banking and financial services

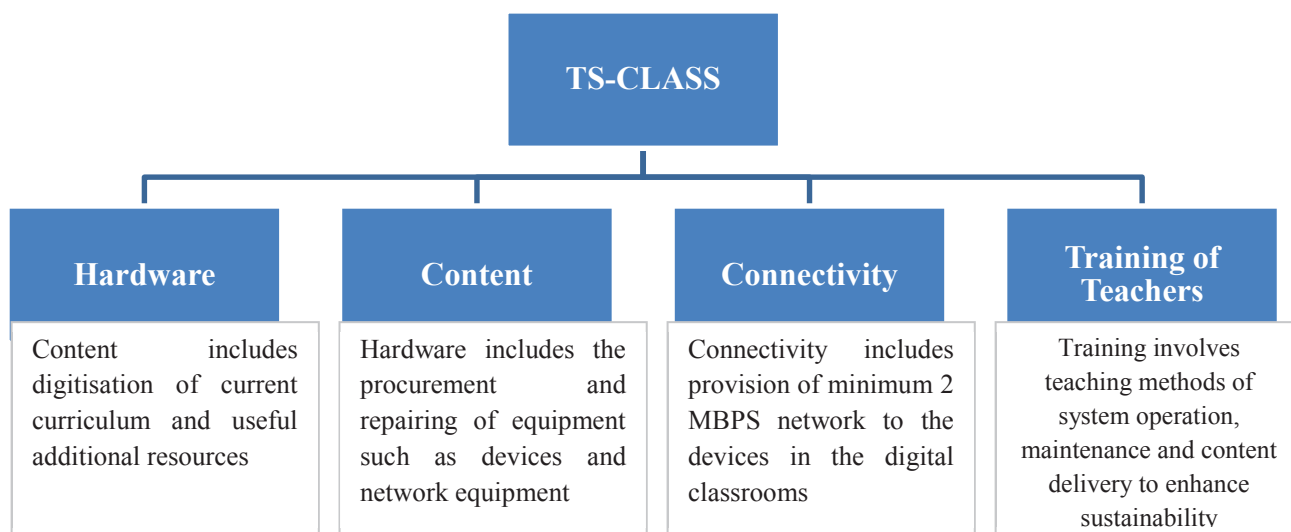
(viii) Digital Telangana: Digital Telangana stands on two pillars, representing supply and demand respectively. On the supply side, the main aim is to ensure that digital facilities become available to every person in the state. This is being made possible through:

- Laying OFC (optic fibre cable) to each household using the water grid trenches,
- Providing 4G services in the entire state,
- Wi-Fi in major cities and towns,
- e-Panchayat scheme under which a one-stop shop kiosk will be available in each gram panchayat.

Key initiatives under Digital Telangana

- (a) Telangana Fibre Grid (T-Fibre):** Telangana Fibre Grid (T-Fibre) is a scalable, high-quality, long-lasting, resilient and secure state-of-the-art digital network infrastructure. It aims at providing affordable high-speed broadband connectivity to the entire state. T-Fibre piggy backs on the Mission Bhagiratha project, thereby achieving right of way (RoW) across the whole state while saving costs of digging and trenching.
- (b) Hyderabad City Wi-Fi Project:** Hy-Fi or the Hyderabad City Wi-Fi Project is a massive project that aims to provide free Wi-Fi hotspots at 3000 public locations in the city. Currently, around 1000 locations are covered and it is expected to cover all 3000 locations by mid-2018. On an average, roughly 40 TB of data is being transferred through these hotspots each month. This project is now being expanded to five district headquarters.
- (c) TS-CLASS:** The TS-CLASS programme aims to develop digital classrooms and digital laboratories in every high school (classes VI-X) in the state. This will promote digital literacy among our children, enhance the learning experience for the students using digital content, and provide a hands-on experience for students in operating a computer. The programme is structured as below (see Figure 7.3).

Figure 7.3: The structure of TS-CLASS programme



As of now, over 3,000 government high schools are covered through this programme and content is delivered to these schools mainly through MANA TV, the government-owned channel.

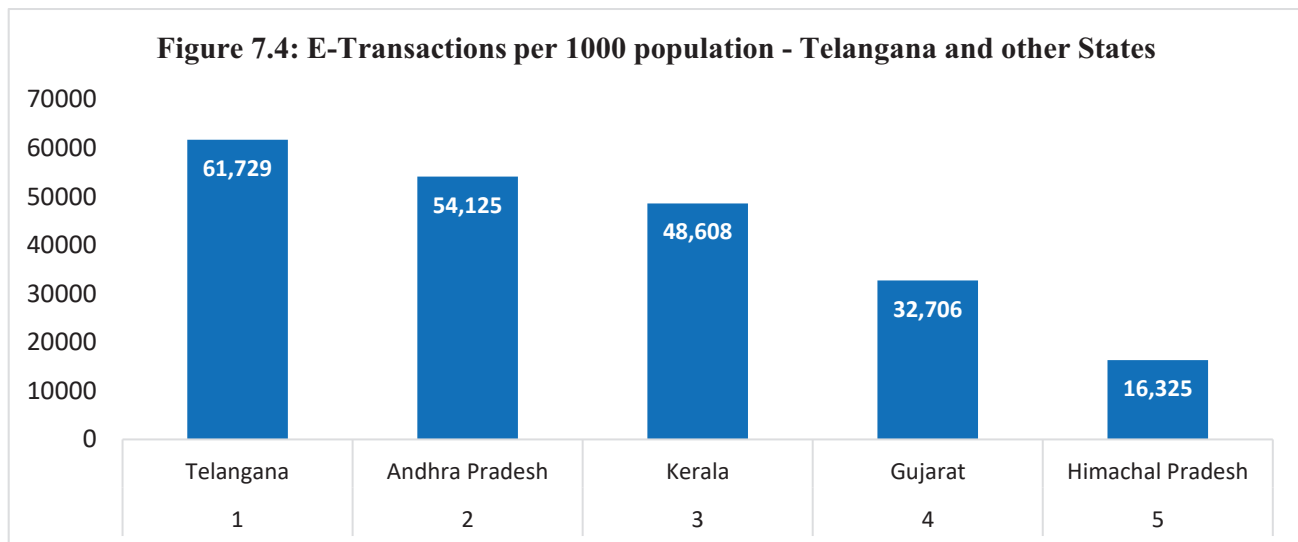
Initiative in IT Sector

<p>Promotion of IT in Tier-II cities: IT incubation centres in Warangal, Khammam, Karimnagar and Nizamabad</p>		<p>IMAGE Incubation Centre: State in association with Software Technology Park of India (STPI) has developed a state-of-the-art incubation facility "IMAGE" in the heart of IT district</p>		<p>TS-CLASS: Aims to develop Digital Classrooms and Digital Laboratories in each and every high school</p>
<p>Rural Technology Units in Tier-II Cities: RTC units in Medak, Karimnagar, Nizamabad</p>	<p>T-Hub: India's largest incubator for startups and made on a unique public-private partnership</p>	<p>IMAGE Tower: Promote AVGC companies and to encourage training academies/ universities of international repute to set up their operations.</p>	<p>Digital Telangana: To provide digital facilities both on supply and demand side.</p>	<p>Telangana Fiber Grid (T-Fiber): a scalable, high quality, long lasting, resilient & secure state-of-the-art digital network infrastructure</p>
	<p>New It Cluster: Developing new IT corridor in Badvel.</p>		<p>Telangana Academy for Skill and Knowledge (TASK): To develop skilled work force according to the industry requirement.</p>	

7.1.4. Use of IT Solutions in Governance

The government has been implementing various e-governance initiatives with an objective to provide smart, citizen-centric, efficient and effective governance. Currently 589 services are being provided through e-governance channels from 34 departments. These channels include 4,527 MeeSeva centres and the MeeSeva web-portal. Details of key e-governance initiatives of the state are provided below:

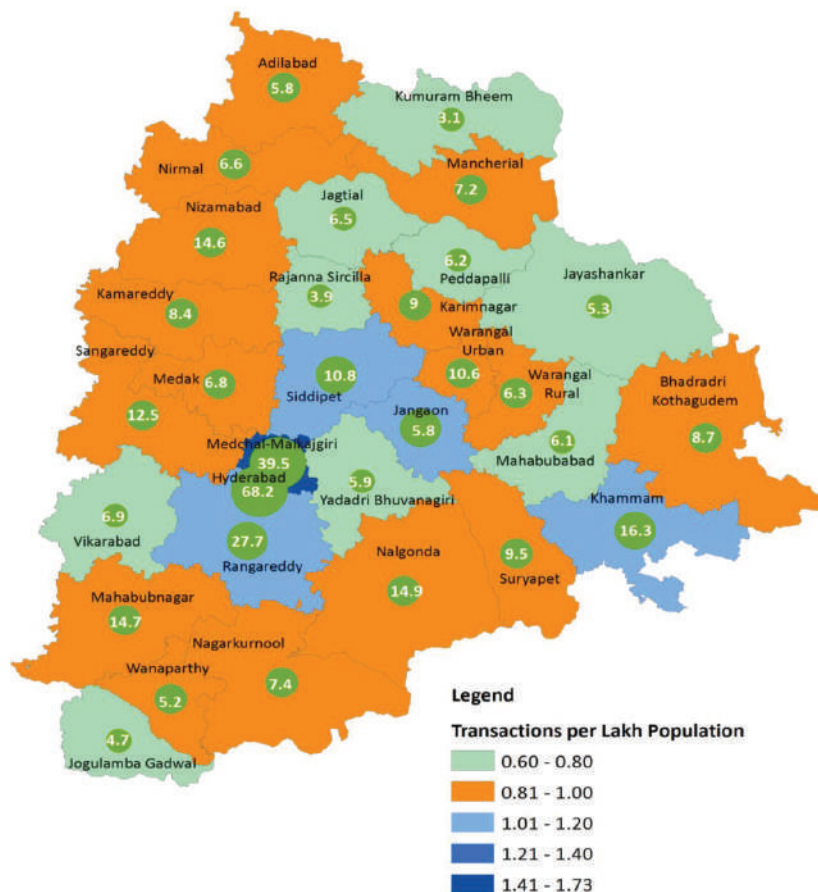
(i) **MeeSeva 2.0:** MeeSeva is among the most prominent e-governance initiatives in the country. Since its inception, MeeSeva has been instrumental in driving digital delivery of citizen services in the state. With significant contribution from MeeSeva, Telangana has the highest number of e-transactions per capita across the country (see Figure 7.4.), during the period 2 June 2014 to 1st January 2018 (as per Electronic Transaction Aggregation & Analysis Layer (eTaal) website).



The electronic service delivery channel is accessed by about 1.5 lakh citizens every day in the state. Transactions worth Rs. 10-12 crore are carried out every day, making it the largest such platform in the country.

The Government of Telangana has been proactive in identifying the scope of improvements in the current MeeSeva system. With the advancements in technology, the government envisages a complete overhaul of the MeeSeva system to further strengthen the current system and improve the quality of service delivery. Major objectives of MeeSeva 2.0 are: (i) ensuring the electronic delivery of services to citizens through a single-entry portal for the entire range of government services, and (ii) providing any mode of government service anywhere and anytime, especially to those citizens who either do not have access to digital infrastructure or are not digitally literate yet.

Map 7.1: District-wise usage of Mee-seva services in Telangana



(ii) T Wallet: T-Wallet is the official digital wallet of Telangana State, launched on 1 July 2017, in order to encourage digital transactions in the state. It is the first digital wallet owned by any state government in India. It helps the citizens in making effortless cashless payments while availing both government and private services. T-Wallet services can be accessed on Android and iOS mobile devices, or on the laptop or desktop through a browser.

(iii) T-App Folio: In order to take citizen service delivery to the next level using m-governance, the state government prepared the T-App Folio, a comprehensive m-governance solution for anytime, anywhere, anyhow delivery of G2C, VAS and B2C services through one access point, one URL, one app and one short code. All the government departments can leverage T-Folio to ensure consistent and high-quality service deliveries to citizens on mobile phones in an efficient and cost-effective manner.

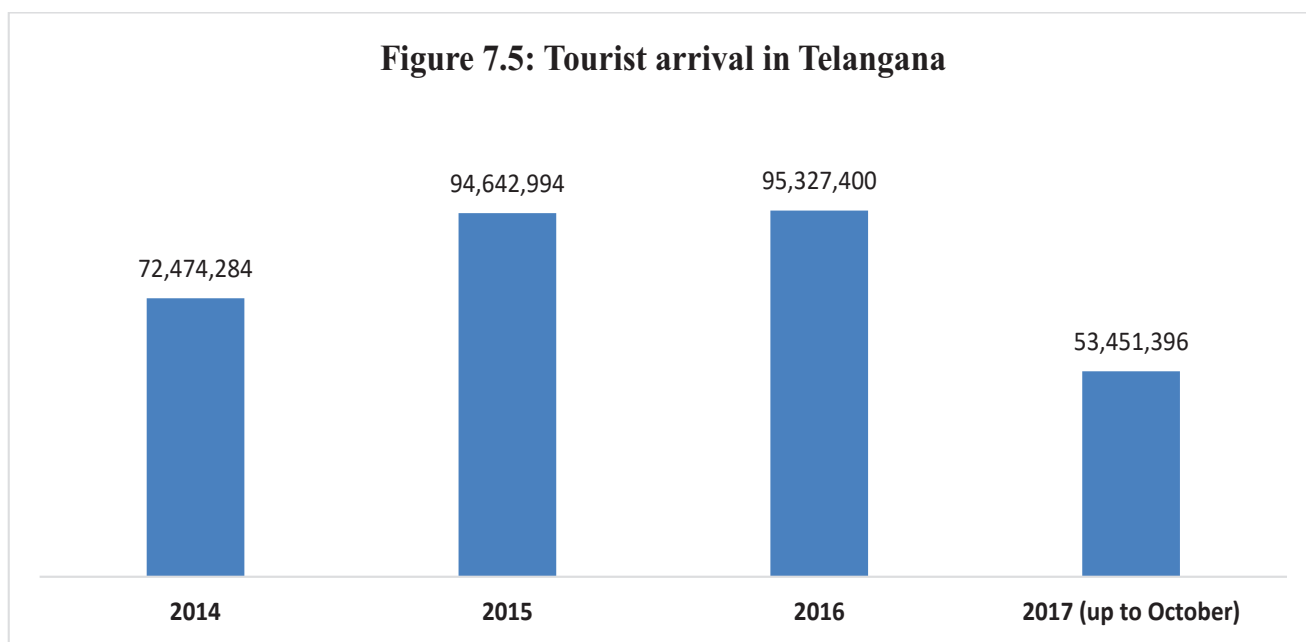
(iv) **Integrated People Information Hub–Citizen 360°:** The Department of IT, Electronics and Communications, in collaboration with the Commissioner of Police, Hyderabad, developed the Integrated People Information Hub (IPIH) citizen 360°, which captures a 360° view of a citizen and uses the same for better governance.

7.2. Tourism Sector

The tourism sector is un-disputably the forerunner in providing employment and securing accelerated economic development round the globe. Developmental experience the world over reveals that the tourism industry has become a key growth engine for many countries to enhance their national income and employment generation. Indian states such Goa and Kerala are transforming their economies using their tourism potential. With increased disposable income and availability of leisure time, people now have the means and opportunity to travel and explore different places, which provides high potential for growth for the state.

Telangana is fast becoming a multi-tourism destination for both domestic and foreign tourists. The state became a place of tourist attraction not just due to its wealth of historical monuments, but also for medical (see Box 7.2.) and education tourism, eco-tourism, rural and tribal tourism and as a leading place for meetings, conferences, and events. Within a short span of time, Telangana has left its mark in displaying its tourism potential to the world. Reputed national and international events such as the Global Entrepreneurship Summit (GES) and Asian Regional Comprehensive Economic Partnership (RCEP) meetings were held in Hyderabad in 2017. The state has been promoting medical tourism, business tourism, Meetings, Incentives, Conventions, and Events (MICE) tourism, city tourism, etc.

There has been a gradual increase in the number of tourists to Telangana. About 7.24 lakh tourists, domestic and foreign, visited Telangana in 2014, whereas 9.46 crore tourists visited in 2015, showing an increase of 30 per cent. The number of visitors to the state increased to 9.53 crore in 2016. In the year 2017 (as on October) about 5.34 crore domestic and foreign tourists have visited Telangana (see Figure 7.5.).



Due to its efforts, Telangana was recognised as one of the Best Tourist Destination State (see Box 7.3.) by Travel + Leisure magazine in the year 2016. In order to consolidate its present position and further promote tourism in the state on a sustainable basis, the government has been taking following initiatives: (i) connect,

develop and promote the existing tourist destinations, (ii) upgrade existing infrastructure, and (iii) develop new tourist destinations in the state.

Box 7.2: Medical Tourism

Telangana has emerged as one of the most attractive destinations for medical tourism, with the availability of low-cost and highest quality of medical services, especially in Hyderabad. The medical institutions in Hyderabad are providing a wide variety of medical treatments of excellent quality at about one-tenth the cost of developed countries. Further, medical tourism in the state got a boost when the Government of India removed visa restrictions on tourist visas that required a two-month gap between consecutive visits for visitors from the Gulf countries.

Hyderabad is most popular for the medical treatments such as: joint replacements (knee, hip, shoulder), heart surgeries (simple and complex), brain and spine surgeries (including for stroke patients), cancer treatment with latest technology, bone marrow transplants, liver transplants, heart transplants, cornea transplants, kidney transplants, cochlear transplants, robotic surgeries in urology and gynaecology, bariatric surgeries, plastic surgeries, podiatric surgeries, vascular surgeries, dental and ENT surgeries, surgical gastroenterology, etc.

7.2.1. Initiatives of the government

- (i) **Augmentation of infrastructure facilities:** The Government of Telangana has taken up the following infrastructural measures for facilitating tourists: (i) Erection of directional signages on the state and national highways; (ii) Establishment of tourist information counters at Telangana Bhavan, New Delhi, and Kachiguda Railway Station, Hyderabad; (iii) Development of tourist infrastructure facilities at Ananthasagar in Sangareddy and Irkode in Siddipet and Sri Venkateswara Swamy temple in Thallapusalpy in Warangal; and (iv) Installation of touch screen kiosks at various locations in the twin cities, for the benefit of visiting tourists.
- (ii) **Documentation:** Tourist places of Telangana are being documented for wider publicity. Documents prepared so far include 'Ancient Temples of Telangana', 'Rock Art Sites in Telangana', 'Raaga Chitramala', district brochures of Telangana, Hyderabad maps, Telangana maps, etc. The department has identified 477 tourist destinations to be covered under projects for development of tourism in districts and is formulating plans to bring in funds from various sources.
- (iii) **Capacity building and awareness programmes:** The government has been conducting various programmes for capacity building and awareness. Some such initiatives include: (i) Conducting heritage walks every second Saturday, Sunday and on demand to generate awareness about the importance of historical monuments and rich cultural heritage of the state; (ii) Online tourism promotion and generating awareness through social media and touchscreen kiosks; (iii) Conducting capacity-building training programmes for tourism guides; (iv) Facilitating and liaising with tourism stakeholders; and (iv) Posting guards from the Tourist Facilitation Security Organization (TFSO) at identified locations in Golconda Fort on pilot basis.
- (iv) **Tourism Clubs:** With the aim to promote younger generation participation in tourism development activities, the government has created tourism clubs to develop awareness on tourism, to open employment avenues for the educated youth.

Box 7.3: Achievements of Telangana in the tourism sector

1. Telangana State Tourism secured three prestigious awards as part of the National Tourism Awards 2014-15. The coffee table book Ancient Temples of Telangana has been adjudged the 'Best Tourism Promotion Publicity Material'. Warangal has been declared as the 'Best Heritage City' and the Hyderabad International Convention Centre secured the award for the 'Best Standalone Convention Centre'.
2. Telangana – Emerging International Film Destination won the best Tourism Film award at the ART & TUR Festival, 2016, Portugal, on 21 October 2016.
3. Telangana State Tourism has won the 'Best Tourism Destination State' honour from the readers of Travel + Leisure India & South Asia. The readers voted Telangana Tourism for the category of 'Best State in the readers' poll on digital platforms (website and tablet edition). Telangana Tourism has won with a record number of reader responses for the award.

- (v) **Museum on Wheels:** The state government is running mobile Museum on Wheels coaches for promotion of Telangana tourism. The Museum on Wheels is envisaged as the means to provide an all-round view of Telangana.

Telangana-Museum On Wheels



Helicopter Joy Ride

The helicopter joy ride events are organised to coincide with some important events / festivals, in which the tourists can enjoy an aerial view of Hyderabad City from over 1500 feet with a 10-minute helicopter ride. It is organised on special occasions, such as Republic Day, State Formation Day, Ramzan, summer vacations, etc.



Box 7.4: Important festivals during 2017-18

(i) Bathukamma festival: Bathukamma Celebrations 2017 was organised at People's Plaza, Necklace Road, Hyderabad, from 24 to 27 September 2017 by involving women from different walks of life and displayed Bathukammas, beautiful floral stacks made by women, at various tourist information counters. Bathukamma brochures were given to the district tourism offices and classified hotels to distribute among the visitors and tourists for the promotion of Telangana culture.



(ii) The 3rd Telangana International Kite Festival, 2018: The tradition of flying kites during the Sankranti festival period has been honoured with enthusiasm for many decades in Telangana. During the event, the sky appears to blossom with colours, a delightful sight. The state government organised the 3rd Telangana International Kite Festival, 2018 in association with the Ministry of Tourism, Government of India, from 13 to 15 January 2018 at Parade Grounds, Secunderabad, which showcased the rich heritage and culture of the State. The festival had participants from 12 countries, a total of 50 national and 40 international kite flyers, and a special night-flying team. The countries which participated were China, France, Indonesia, Malaysia, South Korea, South Africa, Sri Lanka, Singapore, Thailand, Turkey and Vietnam. The festival also attracted people of all the ages from Hyderabad city. Night kite-flying was also organised during the three days of the event. Various cultural programmes promoting the local culture of the state were organised during the three-day event.

The festival is committed to the social cause of raising awareness of the importance of education and empowerment of girl children and also brings a general social message 'Fly for a cause (Service for the cause is service to the Nation)'. The slogan for this year's festival was: 'Educate the girl and she will change the world.' Ms. Malavath Purna, Indian mountaineer, was the face of the festival to inspire the youth.

Apart from the kite flying at the Kite Festival, food courts with various cuisines of Telangana, handicrafts and handlooms stalls were also displayed during the event. Further, the International Sweets Festival had also been organised at the same time, where a treasure-trove of sweets of different states were showcased during the festival: there were more than 1000 varieties of sweets, for the first time in the world. The festival attracted people from all age groups and around eight lakh visitors attended the three-day event.



(iii) World Telugu Conference: The Government of Telangana, in association with the Telangana Literature Academy, organised the World Telugu Conference from 15 to 19 December 2017 at LB Stadium in Hyderabad. The conference was organised with an objective to herald the Telugu language, literature and culture worldwide. It was publicised by placing hoardings of 60 prominent Telugu poets at 200 different crossroads in the city. During the conference, programmes such as literary and poets' conferences, cultural events and other activities were organised, where Telugu poets, authors and others were participated. Telugu film industry dignitaries were also invited and honoured by the state.

The conference was attended by nearly 8,000 delegates from various parts of the world that included 200 delegates from 42 countries, nearly 1,300 delegates from different states and the remaining delegates from Telangana. The state invited 102 poets, authors and prominent persons from other countries and 52 persons from other states as guests. The state has specially invited and honoured three Gnanapith awardees, prominent authors from other languages and Telugu persons who received Sahitya Academy Awards.

7.3. Outlook

At the time of the bifurcation, it was predicted that, the growth of IT sector would dwindle in the new state of Telangana. Contrary to this, the state has achieved tremendous growth in terms of export, firms set up, employment and revenue generation from 2014 to 2107. At present, the services sector is the largest and fastest-growing sector of the state, and IT and ITeS units have been key drivers in it.

Telangana is endowed with a pool of skilled workforce, especially in IT and related fields. The presence of world-class technical educational institutions, research institutions and multinational companies has been an advantage to the state. As a result, the state has emerged as one of the leading states in terms of output and exports. Consolidating its position, the state government has formulated the overall ICT framework policy for incentivising investments in IT sector. The main objective of the policy is to double the value of IT exports and employment in the IT sector in Telangana in a period of five years. The government has also initiated a number of measures to disperse the IT sector to Tier-II cities and rural areas by providing various fiscal and non-fiscal incentives.

Subsequently, the state has come up with sector-specific policies such as Data Centres Policy, Open Data Policy, Cyber Security Policy, Data Analytics Policy, IoT Policy and e-Waste Policy to cater to the sector-specific needs and to reap the potential of the upcoming sectors. Many of these policy initiatives are the first of their kind in the whole country and providing a direction to the emergence of new growth sectors. These initiatives are opening up many more new job opportunities to the skilled workforce, which is the need of the hour.

Tourism is another key sector, which provides job opportunities to a diverse workforce, from highly skilled workers to unskilled labour. States such as Goa and Kerala have transformed their economies using their tourism potentials. The newborn state of Telangana has recognised tourism as a high-potential sector for growth and employment. In a short period, the state has proved its mettle by winning various recognitions at national and international level for promoting its rich heritage.

Urbanisation in Telangana

CHAPTER

8

Making Hyderabad a Global City

“Urbanization is a driving force as well as a source of development. It has the power to change and improve the lives. Urban areas are at the heart of many great challenges, opportunities and promise.”

-Mr. Ban Ki-Moon,

Former Secretary General of the UN.

Urbanisation has been an engine of inclusive economic growth. Urban agglomerations propel economic growth by bringing together interrelated industries in one geographical area, promoting positive externalities and reducing transaction costs, leading to new vistas of opportunities, especially for rural migrates. Growth in high-technology sectors depends heavily on inter-sectoral support, which is possible only through urban agglomerations. Urbanisation and economic development have a strong positive correlation, which is indicated by the fact that a state or a country with a high per capita income is also likely to have a high degree of urbanisation.

The state of Telangana is one of the fast-urbanising states in the country, along with the rapid economic transformation. The urban centres have become epicentres for industrial and services oriented business activity, robust transportation, civic facilities and availability of skilled workforce. Hyderabad alone accounts for a lion's share of the state's urban population which has become a growth centre for the state. The city Hyderabad is being recognised as a true cosmopolitan city for being an accommodating city despite the existence of varied cultures. This greatness has resulted in the city hosting number of national and international events. In addition, cities like Warangal, Nizamabad and Karimnagar are fast changing the urban landscape of the state.

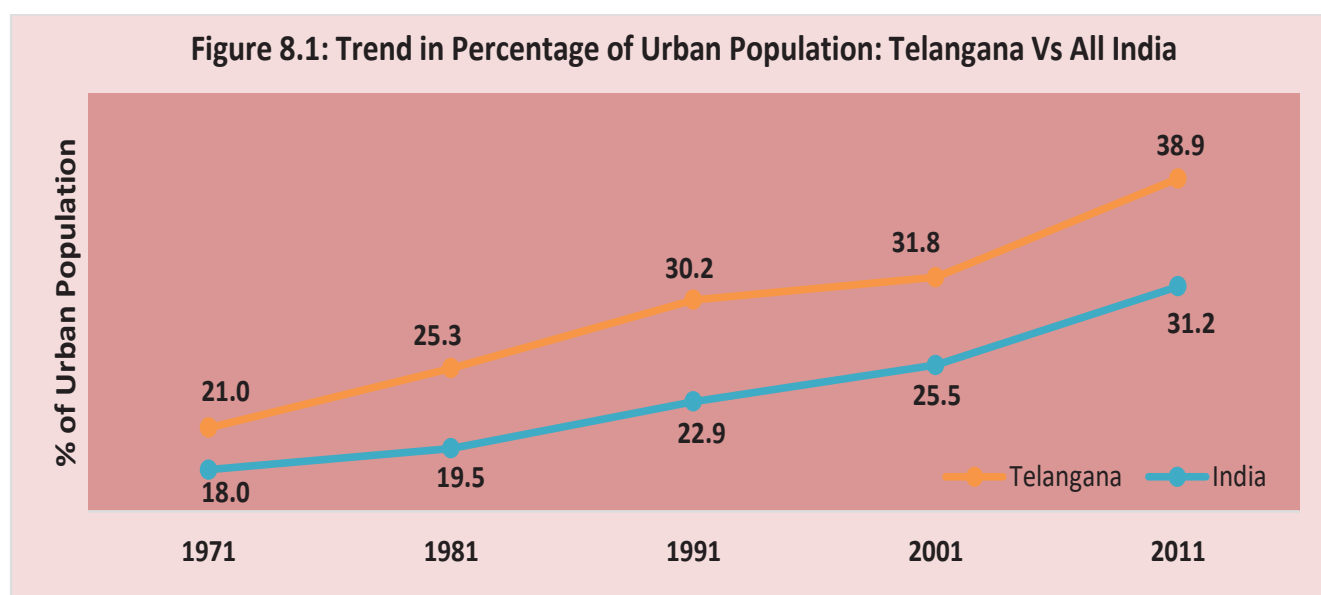
However, development experience the world over shows that urbanisation is also a challenge as much as it is an opportunity. The sustainable development of urban areas largely depends upon their physical, social and institutional infrastructure. The new State of Telangana showed commendable foresight on the importance of urbanisation and its trickle-down effects: it initiated a wide range of reforms in the physical, institutional

and social spectrum of the urban realm, to support the growth and development of urban areas. These components basically aimed to provide better quality of life to urban dwellers by ensuring accessibility and availability of physical infrastructure such as transport systems, roads, sewerage systems, garbage handling systems, etc.; social infrastructure like provision of safety and security; and institutional infrastructure like governance, regulators, etc.

8.1. Trends in Urbanisation in Telangana

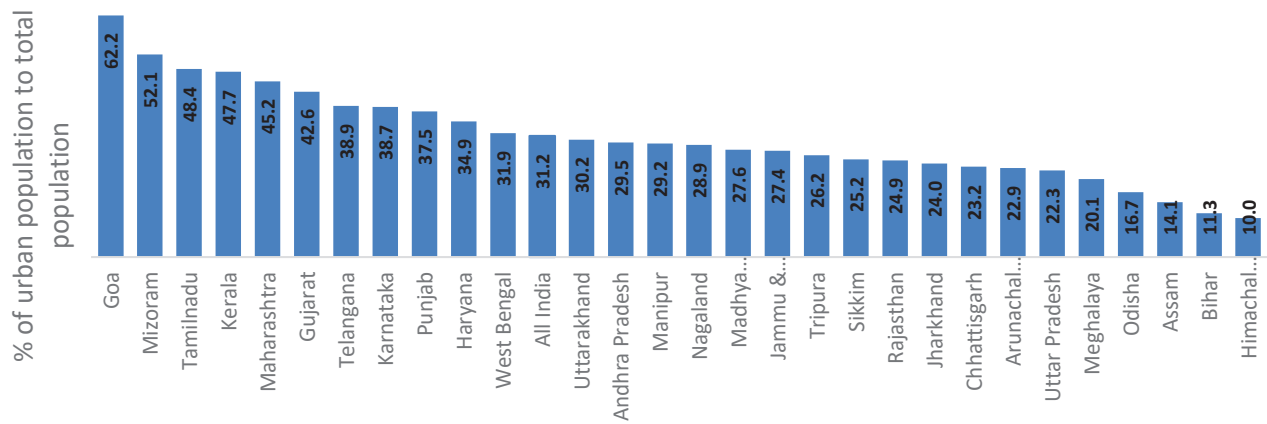
Though there are different ways to measure the urbanisation process, the Census, which is conducted once in every 10 years by the Register General & Census Commissioner of India, provides comprehensive information on urban areas. As per the Census, urban areas are identified by the following criteria: (1) All places with a municipality, corporation, cantonment board or notified town area committee, etc. This category of urban units is known as Statutory Towns. (2) All other places which satisfy the following criteria: (i) A minimum population of 5,000; (ii) At least 75 per cent of the male main working population engaged in non-agricultural pursuits; and (iii) A density of population at least 400 persons per sq km.

As per Census 2011, 1.36 crore, i.e., 38.9 per cent of the state's total population of 3.5 crore, lives in urban areas. Temporal analysis of urbanisation in Telangana reveals that there has been continuous increase in the proportion of urban population in India. About 21 per cent of the state's population was in urban areas in 1971, as against the national urban population of 18 per cent. However, there was a steep rise in urban population by 1981 to 25.3 per cent mainly due to the increase in population in Hyderabad. Further, there has been a substantial jump in urban population during the period 2001 to 2011, from 31.8 per cent to 38.9 per cent (see Figure 8.1). Thus, the growth in urban population in the state is much higher than All-India.



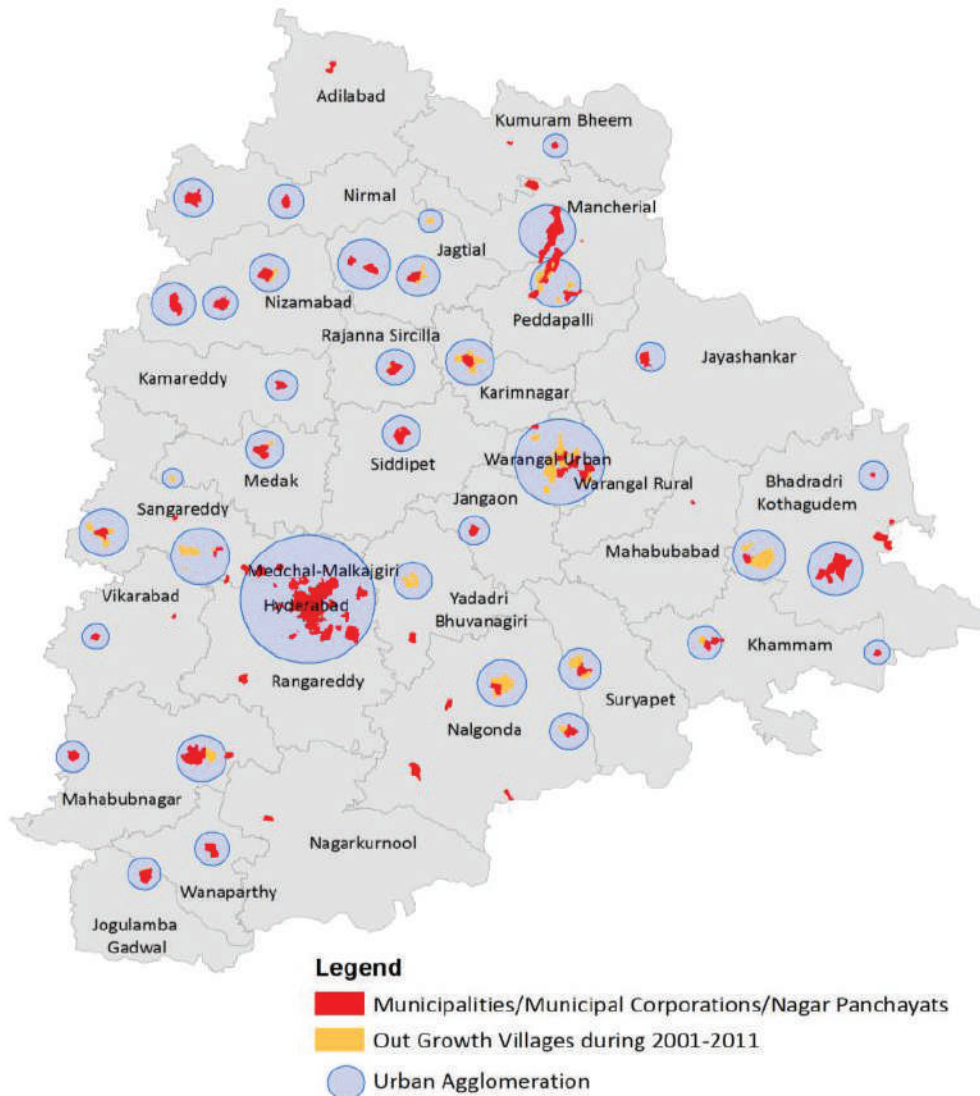
According to Census 2011, about 31.2 per cent of total India's population lives in urban areas. State wise comparison of urban population in India reveals that, out of 29 states, 11 states have urban population higher than the national average of 31.2 per cent. Telangana, with 38.9 per cent urban population, stands seventh in terms of urbanisation in India. Four states, i.e., Odisha (16.7per cent), Assam (14.1per cent), Bihar (11.3per cent) and Himachal Pradesh (10per cent) have low urbanisation in the country (See Figure 8.2).

Figure 8.2: State-wise percentage of Urban Population - 2011



Source: Census of India, 2011

Map 8.1: District wise growth in urban agglomerations in Telangana



Distribution of urban population across the Telangana (see Map 7.1.) reveals that, about 20 per cent of the state population is concentrated in the Greater Hyderabad Municipal Corporation area. The Greater Warangal Municipal Corporation (GWMC) has been another fast-urbanising geographical area in the state. At present, GWMC accounts for about 2 per cent of the state's total population. Warangal being a historical city and located in a central point, well-connected by rail network and other transportation means, the city and its adjoining urban agglomeration is growing fast, with increased economic activities.

Another emerging urban agglomeration has been around the Ramagundam Municipal Corporation. The region has vast deposits of coal. Mineral-based and ancillary industries are coming up in and around Ramagundam, Godavarikhani and Mancherial. Public sector undertakings of the state and centre viz., Singareni Collieries Company Ltd., and National Thermal Power Corporation, are located in this area and provide added advantages for industrial development in this region. Definition of Urban Areas as per the Census given in the Box 8.1.

Box 8.1: Definition of Urban Areas as per the Census

Urban Agglomeration (UA): An urban agglomeration is a continuous urban spread constituting a town and its adjoining outgrowths, or two or more physically contiguous towns. An urban agglomeration must consist of at least a statutory town and its total population (i.e., all the constituents put together) should not be less than 20,000 as per the 2001 Census.

Out Growth (OG): An outgrowth is a viable unit such as a village or a hamlet or an enumeration block, which is outside the statutory limits of the town with identifiable location. Outgrowths possess urban features in terms of infrastructure and amenities such as pucca roads, electricity, taps, drainage system for disposal of wastewater, educational institutions, post offices, medical facilities, banks, etc. Each such town, together with its outgrowth, is designated as an 'urban agglomeration'.

8.1.1. Urban Local Bodies in Telangana

There are 73 urban local bodies in Telangana, consisting of 6 municipal corporations, 42 municipalities and 25 nagar panchayats. The six municipal corporations are: Greater Hyderabad Municipal Corporation, Greater Warangal Municipal Corporation, Nizamabad Municipal Corporation, Ramagundam Municipal Corporation, Karimnagar Municipal Corporation and Khammam Municipal Corporation. Further, the list of municipalities and nagar panchayats in the state are given in Table 8.1.

Table 8.1: District wise Urban Local Bodies in the state

Sl. No.	District	Urban Local Bodies (ULBs)
1	Hyderabad	Greater Hyderabad Municipal Corporation
2	Adilabad	Adilabad
3	Jayashankar	Bhupalpally
4	Jogulamba Gadwal	Gadwal, Eija
5	Jagtial	Jagtial, Koratla, Metpalli
6	Jangaon	Jangaon
7	Kumuram Bheem	Kagaznagar
8	Karimnagar	Karimnagar, Jammikunta, Huzurabad
9	Kamareddy	Kamareddy
10	Khammam	Khammam, Madhira, Sattupalli
11	Bhadradri Kothagudem	Kothagudem, Palwancha, Manuguru, Yellandu
12	Mahabubabad	Mahabubabad

Sl. No.	District	Urban Local Bodies (ULBs)
13	Mancherial	Bellampally, Mandamarri, Mancherial
14	Medak	Medak
15	Mahabubnagar	Mahabubnagar, Badepally, Narayanpet
16	Medchal-Malkajgiri	Medchal, Boduppal, Peerzadiguda
17	Nirmal	Nirmal, Bhainsa
18	Nagarkurnool	Nagarkurnool, Kalwakurthi, Achampet, Kollapur
19	Nalgonda	Nalgonda, Miryalaguda, Devarakonda
20	Nizamabad	Nizamabad, Bodhan, Armoor
21	Peddapalli	Ramagundam, Peddapalli
22	Rangareddy	Shadnagar, Ibrahimpatnam, Pedda Amberpet, Badangpet, Jalpally, Meerpet, Jillelguda
23	Rajanna Sircilla	Sircilla, Vemulawada
24	Siddipet	Siddipet, Dubbaka, Gajwel, Husnabad
25	Sangareddy	Sangareddy, Zaheerabad, Andole-Jogipet, Sadasivpet
26	Suryapet	Suryapet, Huzurnagar, Kodada
27	Vikarabad	Vikarabad, Tandur
28	Warangal Urban	Warangal
29	Warangal Rural	Parakala, Narsampet
30	Wanaparthy	Wanaparthy
31	Yadadri Bhuvanagiri	Bhongir

The Directorate of Municipal Administration (DMA) is the apex authority, which provides guidance to municipal corporations and municipalities in performing their day-to-day activities. The main function of DMA includes: (i) coordinating between state and urban local bodies regarding taxation, revenue sharing, funding for schemes, etc. (ii) supervising and monitoring authority in implementation of various developmental schemes like Smart Cities - Smart Wards, waste energy plants, liquid waste management, AMRUT, IHHL, etc., and (iii) strengthening own revenue resources of ULBs.

The Government of Telangana has undertaken various initiatives for strengthening the infrastructure and to make cities and towns more inclusive. While some initiatives are discussed in the respective sectoral chapters, key schemes are mentioned below.

- (i) The state government has initiated the 'Telangana Municipal Development Project' (TMDP) with an objective of preparing the Master Plan for 20 Urban Local Bodies (ULBs) with the financial assistance of the World Bank. The preparation of GIS Base Maps for 37 ULBs in Phase-I and 22 ULBs in Phase-II are in process.
- (ii) The government has initiated the Support to Urban Street Vendors (SUSV) scheme for identification, issue of ID cards, vending certificates, financial inclusion, and social security for street vendors. Until now, 67,294 street vendors have been identified, out of whom 63,361 have been issued identity cards. The survey has been completed in 66 ULBs.
- (iii) With an objective to provide shelters for the urban homeless, the government initiated the Shelter for Urban Homeless programme. Till now, 25 shelters are functioning in the state providing accommodation to 1,163 homeless people. It is proposed to construct such shelters in 50 government hospitals for patient attendants and recovering patients.

- (iv) The Mission for Elimination of Poverty in Municipal Areas (MEPMA) has been actively involved in implementation of poverty alleviation programmes through programmes like Deendayal Antyodaya Yojana – National Urban Livelihood Mission (DAY-NULM), employment through skills training and placement, self-employment programmes, Vaddi Leni Runalu, etc. Until 2017 end, 1.46 lakh SHGs were formed in urban areas under the aegis of MEPMA. During the year 2017-18, Rs. 716.41 crore were provided to 18,132 SHGs.
- (v) In order to ensure that cities and towns in Telangana become totally clean, sanitised, healthy and livable for all citizens, Swachh Telangana Varostavam was observed from 25 September to 2 October, 2014. The special focus of the campaign was on hygienic and affordable sanitation for the urban poor and women. One of the key initiatives of the Government of Telangana is to achieve 100 per cent sanitation in urban areas. Massive public awareness through an intensive campaign on cleanliness was conducted during the Swachh Telangana Varostavam.

Box 8.2: Vemulawada Temple Area Development Authority

The Government has constituted Vemulawada Temple Area Development Authority for ensuring orderly growth and giving impetus for historic, religious and cultural development of the Vemulawada Temple Complex and its surrounding areas. They consist of six villages, namely Tippapur, Sankepalli, Nampalli, Chandragiri, Marupaka, Shatrajpalli, and the Vemulawada Nagar Panchayat. Developmental activities are taking place as per the masterplan. It is proposed to undertake the following developmental activities in Vemulawada Temple and its surrounding areas:

- Construction of a bus station, choultries, a pilgrim facilitation centre, an administrative block and an Annadanam complex
- Construction of Veda Patashala, Natya Kalasala, Raja Rajeswara Swamy Maha Mandapam and Rama Kalyana Mandapam
- Construction of bathing ghats towards Gudi Cheruvu, Pushkarani (Gyana Gundam), Kalyanna Katta and prasadam counters
- Construction of four gopurams and Parakaram around the temple complex
- Development of Baddi Pochamma Temple and Sri Narasimha Swamy Temple, Nampally Gutta.

Vemulawada Temple Development



Second Prakaram design at temple



Sri Vari Kalyana Mandapam design

8.1.2. Some welfare initiatives of GHMC

- (i) **Annapurna Meals:** To provide hygienic and safe food to the poor and the downtrodden, the GHMC started an Annapurna Meals scheme. Under the scheme, a meal with a menu consisting of 400 gr. rice, 100 gr. dal, 100 gr. curry and one spoonful of pickle is provided at Rs. 5. At present 150 such Annapurna Meals centres have been identified and shortlisted from high-density labour addas and urban poor locations. Presently, about 40,000 persons are getting meals once a day – about 9,65,000 persons in a month – for which the GHMC collects Rs. 5 from each beneficiary and Rs. 24.25 is borne by the GHMC. The scheme is in partnership with the Hare Krishna Mission Charitable Foundation.
- (ii) **Rehabilitation of Beggars:** It is a Joint Action Team formed with the Traffic Police Department, UCD staff and the volunteers of Amma Nanna Ananda Ashramam, where 42 child beggars and 59 adult beggars have been rescued and sheltered at Amma Nanna Anada Ashramam, Chowtuppal for about a month and reunited with their families. From 13 December 2017 till date, 1,204 female and 2,317 male, altogether 3,521 beggars, have been rescued and 3,260 persons are reunited with their families and 261 persons are being sheltered at Ananda Ashramam.
- (iii) **Swachh Dooths:** The SHG members with good communication skills have been designated as Swachh Dooths and positioned to spread awareness about Swachh Hyderabad through door-to-door visit towards effective implementation of solid waste management. Till 12 December 2017 the Swachh Dooths facilitated 9,32,520 households towards segregation of waste at the doorstep. Detailed Initiatives taken under Swachh Bharat – Swachh Telangana given in the Box 8.3.

Box 8.3: Initiatives taken under Swachh Bharat – Swachh Telangana

The following activities and new policy initiatives have been taken up for Swachh Telangana under the Swachh Bharat Mission:

1. Distribution of 44.04 lakh twin bins to 22 lakh households (blue and green for dry and wet Garbage)
2. The total Garbage Vulnerable Points (GVPs) eliminated and sustained since March 2016 are 1116
3. To encourage the staff, best practices day is being observed on every first Saturday, where the best employees in the field of sanitation and solid waste handling are felicitated.
4. Launch of 'Parichayam', an initiative of the Municipal Corporation to build a strong public relationship and ensure accountability among functionaries. Contact details of the sanitation workers are displayed in the local streets.
5. Modern electronic SHE toilets (toilets exclusively for women) are being provided at prominent locations, especially at locations of high footfall of women. The funds for installation are being raised through Corporate Social Responsibility from various organisations. So far, 32 SHE toilets have been installed and 19 are open to the public for use. Up to the present, 35,000 women have utilised the services of She toilets. Also, there is a proposal to install 100 such modern toilets.
6. Fuel station and hotel owners were persuaded through Gandhigiri to allow public use their toilets. About 257 fuel stations and 259 hotels and restaurants have given consent for the public to use their toilets. Signage has been erected to this purpose
7. With an aim to sensitise and create awareness, thematic drives are being carried out based on the thematic drive schedule notified by the Swachh Bharat Mission, Ministry of Urban Development.

8. Wall paintings were done to beautify the city and discourage citizens from defacing public and private properties.
9. A Swachh Dhooth application was developed for promoting source segregation of garbage at household level, providing an incentive scheme by awarding Rs. 1,00,000 for home-makers who are practising source segregation (dry and wet) at home.
10. Caller tunes songs on waste segregation have been adopted by GHMC employees
11. Attained Open Defecation Free status for the city of Hyderabad and updated on the Swachh Bharat Mission portal on 3 January 2018
12. The 'Laati-Seeti' programme has been adopted by GHMC for arresting open urination and defecation in public places.
13. Several awareness campaigns with the slogan 'Manam Marudam – Mana Nagaranni Swachh Nagaranga Maruddam' are being taken up for sensitising the citizens and creating awareness on SwachhSurvekshan, 2018.
14. Awareness programmes on 'Say no to Plastic' are being taken up. Further, banners are erected at meat shops for carrying meat in tiffin boxes or jute bags
15. Zone-wise Swachh rankings also have been awarded for hotels, hospitals, schools, RWAs (Residential Welfare Associations) and markets based on their self-assessments.
16. House-to-house pamphlets on the method of segregation of garbage, along with bins, distributed to all households.
17. Propagated the slogan of -Unite the Family – Divide the Waste- by which it will impress the importance of segregation of waste and unity of families among citizens.
18. Also, a Swachh Kavitha Sammelanam was conducted and the winners awarded with mementos.

Swachh Telangana awareness to the households on waste segregation



Campaign on Say No to Plastic



Before lifting of garbage



After lifting of garbage



Garbage Vulnerable Point

(iv) Aasara: The GHMC has taken up a new initiative named Aasara, a welfare programme for senior citizens, with a view to extend services, to facilitate forming sustainable organisations to meet their needs, to face challenges and to create a platform. The senior citizens are provided with aids and appliances, medical camps are organised and day care centres are established to meet their recreational needs.

(v) Vikasam: The GHMC has established a separate cell called Vikasam to provide support and welfare to persons with disabilities (PWDs) through distributing aids and appliances, free surgery camps and supporting the PWDs to form SHGs and to avail financial benefits through banks towards better livelihoods and better standards of living.

8.2. Hyderabad as a Global City

The city of Hyderabad, founded in the year 1591 by Mohammed Quli Qutub Shah, offers a fascinating panorama of the past, with a rich mix of cultural and historical traditions spanning over 400 years. It is one of the fastest-growing cities of India and emerged as a strong industrial, commercial and technology centre, and at the same time it gives glimpses of past splendour and the legacy of its old history.

The history of Hyderabad begins with the establishment of the Qutb Shahi dynasty. Quli Qutb Shah seized the reins of power from the Bahamani kingdom in 1512 and established the fortress city of Golconda. Inadequacy of water and frequent epidemics of plague and cholera persuaded Mohammed Quli Qutub Shah to venture outward to establish a new city with the Charminar at its centre and with four great roads fanning out in the four cardinal directions. Hyderabad's fame, strategic location and Golconda's legendary wealth attracted Aurangzeb, who captured Golconda after a long siege in 1687. After this defeat, the importance of Hyderabad declined and the city fell into partial ruin. As the Moghul Empire decayed and began to disintegrate, the Viceroy Asaf Jah I proclaimed himself the Nizam and established independent rule of the Deccan. Hyderabad once again became a major capital city, ruled by successive Nizams of the Asaf Jahi dynasty until the state was merged into Indian Union in 1948. Thereafter, an area north of what is now the Hussain Sagar was established as a cantonment. The area was named Secunderabad after the then Nizam, Sikander Jah.

Hyderabad is also known as the City of Pearls and one of the IT power hubs of the country. The city is known for world-class educational institutions, hospitals, a highly skilled workforce, historical monuments, ancient religious places, museums, art galleries, cinema halls, concert venues, convention centres, restaurants, shopping centres, sports facilities, amusement facilities, organised events, parks, green areas, etc. Hyderabad has now become one of the global IT centres in the world, with the presence of a large number of MNCs such as Google, Microsoft, TCS, etc., and is emerging as the pharma capital of India. The city is also known as an educational and medical hub, with presence of reputed institutions, engineering colleges and affordable hospital networks.

This paradigm of development has opened up investment, employment and livelihood opportunities to people across the country. This city has an efficient and reliable physical infrastructure with strong public transport network like the Hyderabad Metro, ORR and a large fleet of Green Buses. The growth and development of Hyderabad as a global city is contributing significantly to the prosperity of State and to the overall economy of the country.

Hyderabad is the land where multi-religious peoples have coexisted with peace for years, with an opulent heritage and a wide array of religious places, monuments and historical places, food and arts. Very few cities in India have such cultural hybridisation as one can see in Hyderabad. The State, with its determination to make Hyderabad a truly global and cosmopolitan city, has initiated varied projects and reforms to support the growth of the city. Over the last few years, Hyderabad has emerged as a start-up city with the establishment

of the T-Hub, which is India's fastest growing start-up engine and the country's largest start-up incubator. In recent times, city has hosted national and international events such as GES-2017, World Telugu Congress, etc., which drew great applause from various quarters. Some key national and international events that took place in Hyderabad are listed in the Table 8.2.

Table 8.2: Important national and international events in Hyderabad in the last three years

Sl. No.	Events
During 2015	
1	National Conference of the Indian Psychiatric Society, 2015
2	National Cardiovascular and Thoracic Surgery Conference
3	India Geospatial Development, 2015
4	Oncology Meet, 2015
5	International Parallel & Distributed Processing Symposium, 2015
6	National Conference on Pain and Palliative Care
7	Bio Asia Summit
8	International Conference on Materials
9	Big Data Summit Analytics – NASSCOM
10	Musculoskeletal Society India
11	CII – Green Cementech
12	Rotary Foundation Day
13	NASSCOM – Product Conclave
14	19th International Children's Film Festival
15	India Economic Association Conference, 2015
16	Indo-Global Healthcare Summit & Expo, 2015
17	Annual Conference of the International Federation for Theatre Research
18	Indo Global Pharma Expo & Summit, 2015
19	International Congress on Infectious Diseases
During 2016	
1	International Conference on Infectious Diseases
2	International Baccalaureate
3	Cardiological Society of India Conference
4	Indian Society of Neuro-Oncology Conference, 2016
5	NASSCOM GIC
6	Cardiovascular Update, 2016
7	Indian Society of Ultrasonography in Obstetrics & Gynaecology, 2016
8	IBSAF World Snooker Championship– India Open
9	Harvard Model United Nations
10	WHO-RNTCP Consultants Review Meeting and Programme Review
11	Refractive Surgery 360
12	ICOG FOGSI National Conference on Fertility Regulation, 2016
13	Telangana Ophthalmology Society Conference
14	Indian Association of Statistics in Clinical Trials–ConsPic, 2016

Sl. No.	Events
15	Institute of Chartered Accountants of India Conference
16	Asian Science Park Association
17	World Stroke Congress
18	Cybersecurity Council Meet
19	NASSCOM Gamers and Developers Conference
20	44th Annual Scientific meeting of the Research Society of Study of Diabetes – RSSDI, 2016
21	Internet Corporation of Assigned Names and Numbers (ICANN) Global Meeting
22	High Performance Computing Conference
23	ICSI 1st Global Congruence
24	20th International Children’s Film Festival
25	Annual Conference of The Urological Society of India
26	15th Annual Conference of Indian Academy of Paediatrics –PEDICON, 2016
27	71st Annual Conference of The Association of Physicians of India – APICON, 2016
28	MIT Global Start-up Workshop
During 2017	
1	Clean India Technology Week Conference, 2017
2	Global Summit on Telecom, ICT &IoT, 2017
3	RenewX, a UBM event, 2017
4	International Higher Education Fair, 2017
5	CBRE Prop international Fair, 2017
6	iPHEX International Exhibition for Pharma, 2017
7	IIOO Expo –Empowering Vision – national event, 2017
8	Pharma Lytica International Trade Fair, 2017
9	Digital India 6th Cable Net Expo Vision, 2017
10	Agritex India International Trade Fair and Conference
11	IndExpo National Trade Fair, 2017
12	International Conference on Traffic Infra Tech Expo
13	India Lab Expo International Trade Fair, 2017
14	COWE’s 10th International Lifestyle Expo, 2017
15	Poultry India 2017, A Global Seminar, 2017
16	Hyderabad International Auto Show, 2017
17	Chem Tech South World Expo – International partnership programme
18	Global Entrepreneurship Summit, Nov, 2017
19	High Energy Materials Conference, Nov, 2017

There are two government organisations working towards strengthening of existing infrastructure and expanding to its outgrowths, viz., (GHMC) and Hyderabad Metropolitan Development Authority (HMDA). Greater Hyderabad Municipal Corporation was formed in 2007 by merging the surrounding 12 municipalities with the existing Municipal Corporation of Hyderabad area. Presently, GHMC is spread over an area of 625 sq. kms and spread over in four districts, i.e., Hyderabad, Rangareddy, Medchal-Malkajgiri and a part of Sangareddy. The HMDA was formed in 2008 and it has an area of 7,257 sq km under its purview. The HMDA’s

jurisdiction covers seven districts, 70 mandals and 1,032 villages, including Greater Hyderabad Municipal Corporation consisting of 175 villages and 12 municipalities / nagar panchayats consisting of 31 villages, and the remaining 826 villages under jurisdiction of the HMDA. The Hyderabad Metropolitan Development Authority was set up for the purpose of planning, co-ordination, supervising, promoting and securing the planned development of the Hyderabad Metropolitan Region. It coordinates the developmental activities of the municipal corporations, municipalities and other local authorities, the Hyderabad Metropolitan Water Supply and Sewerage Board, the Telangana Transmission Corporation, the Telangana Industrial Infrastructure Corporation, the Telangana State Road Transport Corporation, and other such bodies.

8.2.1. Key projects targeted towards Hyderabad city infrastructure

(1). Strategic Road Development Plan (SRDP): To provide excellent transport facilities, the Strategic Road Development Plan (SRDP) has been taken up as high-priority project, which comprises skyways, major corridors, major roads and grade separators/flyovers, at a cost of Rs. 25,000 crore. For providing continuous traffic movement, the SRDP provides a conflict-free road network which minimises travel time, increases the average journey speed and also reduces the air pollution levels. The SRDP is proposed to be taken up in five phases based on the feasibility and flow of funds (see Box 8.4.). Phase I and II works have commenced and are in good progress, they are: Phase I: LB Nagar Junction, Kamineni Junction, Chintalkunta Junction, Bairamalguda Junction, Biodiversity Junction, Mind Space Junction, Ayyappa Society (see Box 8.5.), Rajiv Gandhi Statue Junction, and Bahadurpura junction. Phase II: Cable-stayed bridge at Durgam Cheruvu.

Box-8.4: GHMC raises funds through Municipal Bonds

The Greater Hyderabad Municipal Corporation (GHMC) listed its municipal bonds on stock exchange BSE's debt platform and raised Rs. 200 crore by selling the 10-year bonds, became the second civic body to tap funds from this route during the financial year 2017-18, after its counterpart in Pune. Funds raised through the bonds will be utilized to meet funding requirement of Strategic Road Development Plan (SRDP).

To issue these bonds, the municipal corporation needs to have credit ratings issued by two agencies. Already, CARE rating agency gave GHMC 'AA' rating and another agency India Rating also gave GHMC 'AA' Stable rating. These were given after considering different parameters, including assets, revenue generation capacity, and goodwill, etc. Out of 94 municipalities and corporations rated across the country, only 10 corporations have bagged the 'AA' rating. Among the top 10, GHMC stands fifth, which indicates the financial status of the GHMC. The corporation was ranked second among the municipal corporations in the country in transparency. GHMC has become a torchbearer for all corporations across the country in raising fund for the city development.

Box 8.5: Success story of SRDP underpass

Works related to grade separators/flyovers have been initially taken up under the Strategic Road Development Plan (SRDP) at eight junctions. A two-lane unidirectional underpass has been taken up at a cost of Rs.44.3 crore from Kondapur to Ayyappa Society for a length of 450 m. It has been successfully completed and was opened to public on 3 January 2018. The underpass at Ayyappa Society will ease traffic congestion at the junction and the areas that benefit from this project are Kondapur, Ayyappa Society and Madhapur.

Salient features:

- Total cost of underpass : Rs. 44.30 crore (including shifting of utilities)
- Total length of underpass : 450 m
- Length of closed box : 70 m
- Length of approaches : 380 m
- Total width of underpass : 10 m (carriageway –7m)
- Carriageway details : Two-lane unidirectional from Kondapur to Ayyappa society
- Peak-hour traffic flow as of 2015: 8,656 PCUs
- Peak-hour traffic flow projected for 2035: 18,965 PCUs



- (2). Other infrastructural development related to junction improvements, flyovers and bridges, FOBs, RUBs, fish markets, sports complexes, swimming pools and stadia are being constructed at various places.
- (3). **Conservation and protection of prioritised lakes in HMDA area:** HMDA has taken up initiatives towards conservation and protection of prioritised lakes in the HMDA area. A survey on 3,132 lakes is being carried out for fixing the FTL boundaries by fixing the coordinates latitude-longitude. So far, survey has been completed in respect of 2,546 lakes.
- (4). **Development of Musi River Front Development:** The Musi River Conservation and River Front Development at Uppal Bhagat is being developed by the government. The layout is fully developed in all respects with roads, external drainage, water-supply distribution, network, electrification, avenue plantation, etc. An area of 9.50 acres on the eastern side of Uppal Bhagath, abutting the Musi River, was identified for development of Shilparamam.
- (5). **Inter City Bus Terminal at Miyapur:** The bus terminal will provide one-stop integrated facilities to passengers, public and private bus operators and their staff. The state-of-the-art Inter City Bus

Terminal (ICBT) at Miyapur, Hyderabad, has been initiated on public-private partnership (PPP) basis, which will also cater to interstate bus services with better infrastructure and modern facilities for commuters and bus operators.

- (6). **Hussain Sagar Lake and Catchment Area Improvement Project:** The project has been taken up in partnership with JICA ODA with a loan of 7729 million Japanese Yen (equivalent Rs. 310 crore) and Rs. 60 crore from the state government, with an objective to improve the quality of lake water by preventing entry of pollutants, removal of nutrient rich sediments, etc.
- (7). **Development of Eco-Park at Kothwalguda:** The government has proposed to develop an eco-park at Kothwalguda near Himayatsagar, in an area of 85 acres. The salient features of the park are an aquatic bird park, aviary, butterfly park, amphitheatre, rural huts, sculpture park and mountain biking tracks, with landscape and greenery.

Box 8.6: Outer Ring Road Project

One of the key urban infrastructure projects of Hyderabad, the Outer Ring Road (ORR) is a road-cum-area development project. It is a 158 km-long ring road around Hyderabad, connecting important suburban areas such as Narsingi, Kokapet, Patancheru, Shamirpet, Ghatkesar, Shamshabad and Nanankramguda. The major aim of the ORR is to develop well-planned and well-connected urban settlements around the Hyderabad Metropolitan Area. The ORR provides quick access to important nodes in the city and connects various urban nodes outside the city by connecting the national and state highways and other important city roads. The ORR also reduces congestion in the metropolitan area and inner ring road. Salient features of ORR given in the Table 8.3.

Table 8.3: Salient features of ORR

Sl. No.	Particulars	Description
1	Total length	158 km
2	Design speed	120 kmph
3	Right of way (ROW)	150 m
4	Main carriageway	8 lanes
7	Service roads on either side	2 lanes
8	Interchanges	19 Nos.

As a part of the Outer Ring Road, 33 radial roads have been identified for improvement to provide improved connectivity between the Inner Ring Road and Outer Ring Road. The details are: (i) 5 Radial roads form part of national highways; already improved by the National Highways Authorities. (ii) 7 Radial roads were completed by the Hyderabad Metropolitan Development Authority (HMDA)/ Hyderabad Growth Corridor Limited (HGCL)/ Roads & Buildings Department. (iii) 5 Radial roads are taken up by HMDA/HGCL with JICA funds and are in progress. (iv) The remaining 16 Radial roads are proposed for improvement by R&B department.

The Government has decided to take up the following new radial roads for improvement to provide improved connectivity between Inner Ring Road and Outer Ring Road. Details are provided in the Table 8.4:

Table 8.4: New Radial Roads proposed for improved connectivity

Radial Road	Length (Km)	Proposed RoW	From	To
RR-20	15.50	30.00m	Nagole Bridge	Singaram at ORR
RR-26	15.63	19.20m	Kandikal	Nadargul
RR-31	7.5	30m	Taranagar (Chandanagar)	Delwaraguda
RR-32	8.41	30m	Nizampet 'X' Road	Kazipally at ORR

(8). Safety and security: The government has increased the safety and security of Hyderabad through various initiatives. It has acquired modernised vehicles which maintain round-the-clock surveillance in the city. Under the CCTV project, CCTV cameras were installed in various public places and connected with the Command and Control Centre. SHE Teams have been introduced with an objective to provide safety and security to women and to make Hyderabad a safe and smart city.



Hyderabad Metro Rail Project



Air connectivity from RGIA, Hyderabad

8.3. Outlook

Rapid urbanisation provides an opportunity to propel economic growth. Nevertheless, it also congests and puts pressure on the existing civic infrastructure, if not managed properly. Telangana has carried out tremendous work on several areas to manage its urbanisation and strengthening physical, economic, and social infrastructure to make urbanisation sustainable and inclusive. Initiatives of the government are targeted towards both to facilitate the growth and to make urbanisation more inclusive.

Green shoots of initiatives for development of tier-II cities are visible. Policies are targeted to disperse economic activities such as development of IT incubation centres in Warangal, Khammam, Karimnagar, Nizamabad. The Government is developing towns and other urban centres based on their inherent strengths. Heritage and cultural towns like Vemulawada and Yadadri are being developed to tap their potential. Similarly, other towns and cities are being promoted as economic growth centre.

Hyderabad and its surrounding urban agglomerations are, together, the main growth centre in the state. Apart from existing IT and ITeS sectors, pharma, engineering and diverse new areas of economic activity are thriving in the city. The initiatives of the T-Hub and RICH (Research and Innovation Circles around Hyderabad) have made the city, a place for start-ups and a city of ideas. Availability of excellent infrastructure and civic amenities in Hyderabad are attracting skilled workforce from within and outside the country. Commencement of the Hyderabad Metro Rail Project is a stellar example of the government's efforts to

ease urban commuting problems on everlasting permanent basis. The Outer Ring Road enables access to the world-class international airport in about half-an-hour's time. On the social front, the state has unveiled various ambitious projects like Annapurna Meal Centres to provide food to the poor, building night shelters for the homeless, rehabilitation of beggars, affordable 2 BHK houses for the homeless, etc. The government has taken up a number of initiatives to make cities and towns clean through the Swachch Telangana programme.

Hyderabad is well connected by road, rail and air transportation and has best-quality and affordable accommodation, eating establishments, shopping and other hospitality services. Existence of such diverse tourist attractions, along with tourist support services, in one city provides an opportunity to transform the Hyderabad into a global city of tourism. Hyderabad was ranked 17th among the top 20 global cities in JLL's City Momentum Index (CMI) 2016. Hyderabad was also ranked the top Indian city in the quality of living ranking for the second consecutive year, as per Mercer's Quality of Living Report, 2016. Organisation of a number of international events, like Global Entrepreneurship Summit, is testimony to the fact that Hyderabad has acquired a global city image.

Health

*“Health is a state of complete physical, mental and social well-being,
and not merely the absence of disease or infirmity”*

- World Health Organisation

The universal goal of ‘Health for All’, calls for ‘health in all’ policies. The Telangana government is committed to this goal and endeavouring to achieve it by formulating all-inclusive policies and by implementing major flagship programmes like KCR Kit, Arogya Laxmi, Food Security Programmes (like 6 kg rice per person), Telanganaaku Haritha Haram, Mission Bhagiratha, Swachh Telangana, and Aasara Pensions, which directly and positively impact the health of the people, with other flagship programmes complement them to sustain good health.

Life expectancy at birth:

Telangana is ranked third among 21 bigger States

Telangana’s overall health status exhibits significant improvement over the years. Major health indicators of Telangana State and All India are given below in Table 9.1.

Table 9.1: Major Health Indicators: Telangana Vs All India

Major Indicators	Telangana	All India	Source
Life Expectancy at birth (2016) in years	69.4 (males) 73.2 (females)	66.9 (males) 70.3 (females)	India: Health of the Nation’s States, 2017
Birth Rate (2016)	17.5	20.4	SRS Bulletin, 2017
Death Rate (2016)	6.1	6.4	SRS Bulletin, 2017
TFR (2015-16)	1.8	2.2	NFHS-IV (2015-16)
IMR (2016)	31	34	SRS Bulletin, 2017
U5MR (2016)	30.6	39.2	India: Health of the Nation’s States, 2017
MMR (2011-13)	92	167	MMR Bulletin, 2011–13

9.1. Status of Public Health Facilities in Telangana, 2017

Telangana State aims to provide preventive, promotive and curative services for the people in the state, for which it has 4,797 Sub-centres (SCs), 683 Primary Health Centres (PHCs), 193 Urban Primary Health Centres, 107 Community Health Centres (CHCs), 31 Area Hospitals (AHs), 6 District Hospitals (DHs), 7 Medical College Teaching Hospitals and 12 Specialty Hospitals.

9.2. Maternal and Child Health in Telangana

Despite making significant progress in bringing down maternal and child deaths, maternal and child malnutrition remained as the major cause of concern in the state. As per the 2017 report 'India: Health of Nation's States', child and maternal malnutrition are the major risk factors causing Neonatal Disorders, Nutritional Deficiencies, Diarrhoeal Diseases, Lower Respiratory Infections other Common Infections, leading to more deaths among infants, children below 5 years and women. Apart from the above risks, lack of immunisation is also one of the important reasons for infant and Under-5 mortality rates. To further bring down the maternal and child malnutrition, apart from the existing programmes, government has initiated another new flagship programme called 'KCR Kit'. Two major flagship programmes are highlighted in Box 9.1.

Box 9.1: Major Flagship Programmes for bringing down Malnutrition and Anaemia among Pregnant Women, Lactating Mothers and Children below 6 years

1. KCR KIT

The Telangana State Government launched a new programme called KCR Kit on 2 June 2017 to provide compensation to pregnant women (pre- and post-natal periods) living below poverty line, who are receiving health services from public health institutions in the State, @ Rs.12,000 (for a male child) and Rs. 13,000 (for a female child) for wage loss.

First Instalment : Rs. 3000 at the time of registration of pregnancy at a public health facility.

At least 2 ANC check-ups by the Medical Officer, with IFA tablets and TT injection.

Second Instalment: Rs. 5000 (for a female child) and Rs. 4000 (for a male child) and one KCR Kit at the time of delivery in a public health facility. KCR Kit (worth Rs. 2000) consists of 15 items: Johnson and Johnson Baby powder, soap, baby oil, Mosquito net mattress, two dresses for the newborn baby and two handloom Sarees for the mother, etc., is given.

Third Instalment: Rs. 2000 at the time of first immunisation at the age of 3½ months.

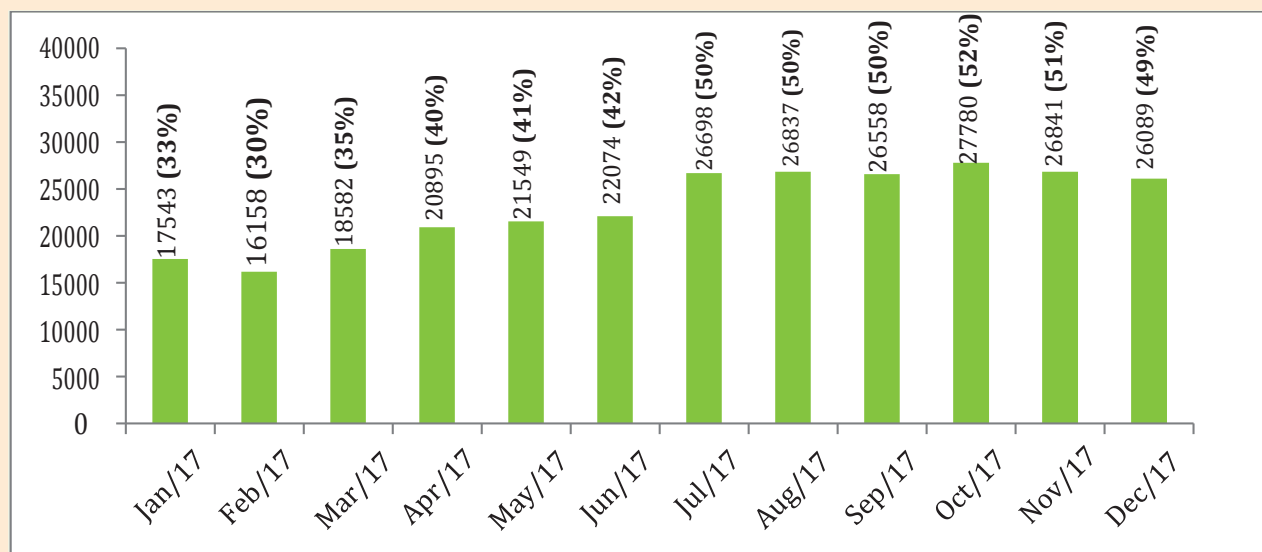
Fourth Instalment: Rs. 3000 at the time when the child receives measles vaccine, Vit.A and JE first dose at the age of 9 months.

All these amounts will be transferred through Direct Benefit Transfer (DBT) to the bank accounts of the beneficiaries.

Progress made as on 20 January 2018

1. 7,46,507 pregnant women have registered
2. 1,46,253 KCR Kits have been distributed to eligible beneficiaries
3. Percentage of deliveries in public health facilities has increased from 33 percent (January 2017) to 49 percent (December 2017). Month-wise percentage and number of deliveries are given in Figure 9.1.

Figure 9.1 : Percentage & Number of Deliveries in Public Health Institutions (month-wise)



2. Arogya Laxmi

ArogyaLaxmi is another prestigious ongoing programme in the State, providing full hot cooked meals (with all the nutritive values) to pregnant women, lactating mothers and children below six years, living below the poverty line. This scheme is currently being implemented in all the 149 ICDS projects, covering 31,711 main Anganwadi Centres (AWCs) and 3,989 mini AWCs, spread over the entire State. During 2017-18, the benefits of this scheme reached to 9,41,170 children in the age group of seven months to three years, 5,01,969 children in the age group of three to six years, and 3,66,344 pregnant and lactating mothers. Apart from this, 18,448 malnourished children are given special care under this programme.

9.2.1. Achievements in Mother and Child Health

- As per MMR bulletin (2011-13), MMR was 92 in Telangana, however, with all the initiatives taken by the government, MMR is expected to come down significantly.
- Infant Mortality Rate (IMR), has come down from 35 (2014) to 31 (2016) as given in the SRS Bulletins 2015 and 2017 respectively.

9.2.2. Other Major Initiatives in Maternal Health (During 2017-18)

- 27,730 ASHAs (one ASHA per 1000 population) were selected through Gram Panchayat Health Committees and given 21 days of institutional training and 7 days of field training at Primary Health Centre (PHC) level and positioned in the habitation level.
- 314 PHCs were notified as 24-hour round-the-clock Mother and Child Health (MCH) care centres to promote institutional deliveries.
- All labour rooms are being standardised. Standardisation of Labour Rooms (SLR) is a unique initiative to introduce uniformity in



infrastructure, services, and quality of care for pregnant mothers by the Government of Telangana and UNICEF. The standardisation focused on five important areas, including space and layouts, equipment and supplies, human resource skill building, consumables and process protocols.

- All the CHCs and PHCs have been strengthened by providing them Ultrasound machines and diagnostic equipment. All the PHCs are branded with uniform colour.
- With the support from the Johns Hopkins Programme for International Education in Gynaecology and Obstetrics (JHPIEGO), Dakshata programme has been implemented in 290 health centres covering all 31 districts. Dakshata is a skill-building activity to bring in quality care with ramification of skills and drills at provider level, so as to reduce complications of morbidity and mortality of mother and neonate. Every case of maternal death is being audited.
- All staff nurses were trained in skilled-birth attendance. During 2016-17, 79 master trainers, 846 district-level providers and 200 Dakshata mentors were trained. Intensive training is provided for mid-wives, staff nurses and medical officers in ante-natal, intra-natal and post-natal care with active collaboration with medical college hospitals. The programme covers 97 percent of delivery load in public health facilities in the State.
- A residential 18-month Midwifery Course was started in 2017. Midwifery mentoring and advocacy is being done free of cost by a UK midwifery consultant.
- At present, 150 bedded MCH blocks are operational in nine districts and the Government is planning to have such MCH blocks in all district hospitals.

The State government has completed aesthetics in seven public hospitals (first phase) both in the interior and exterior space designs, creating a more patient-friendly ambience. In the second phase, this activity has been extended to all the districts.

- **Amma Vodi (102 Services):** This is a pick-up-and-drop-back service between home and public health facility for antenatal and postnatal women, and infants in the State. This programme was initially started in selected areas, as the '102 Referral Transport Service' with 41 vehicles, which later got extended to the entire State. Since its inception till date (from 28 December 2016 to 10 September 2017), 12,836 pregnant women were benefited. Another 200 vehicles were added to the existing fleet from January 2018. Every pregnant woman is being tracked and birth planning is done through this service.
- **ANM Online (ANMOL)** is a Tablet PC-based application that was launched in 2017, which acts as a job aid to the ANMs by providing them with readily available information such as due list, dashboard and guidance based on data entered, etc.



9.2.3. Child Health Care Services

There are 25 Special New Born Care Units (SNCUs), 56 New Born Stabilization Units (NBSUs) and 562 New Born Care Corners (NBCCs) and 10 Kangaroo Medical Care (KMCs) operating in the State to reduce Infant Mortality Rate (IMR) and strengthen the neonatal care services. Apart from the existing facilities, six SNCUS and eight KMCs will be added in due course. The success story ‘Survival and nurturing of extremely pre-term girl child in Nalgonda SNCU is given below in Box 9.2.

Box 9.2: Survival and Nurturing of Extremely Pre-term Girl Child in SNCUs, Nalgonda District Hospital

Nalgonda SNCU has made a remarkable achievement in recent times, by saving the life of an extremely pre-term infant, which is possibly the first of its kind in the country. This may be a record, as this is the survival of a lowest-weight baby (650 g birth weight) among 650 SNCUs in the country. Baby Mamatha, a girl child, was born on 30 December 2015, at a private nursing home in Nalgonda. The baby was born in 28 weeks (against the normal term of 40 weeks) with the birth weight of 650 g (against normal weight of 3000 g). The Parents brought the baby to the Nalgonda SNCU, as they were not able to afford treatment in a private hospital. A team of doctors and nurses at Nalgonda district hospital took up the challenge of saving this child. From 30 December 2015 to 29 May 2016, the innovative things done by the team resulted in an intact survival of the girl child. The team celebrated the first birthday of this baby on 30 December 2016. The weight of the baby at that time was 7.1 kg.



9.2.4. Child Immunisation

Teeka Bandi Mobile Vaccination was started in May 2017 to increase the percentage of full immunisations in the State. In Mission Indradhanush, Telangana State is one of the top-performing States in the country. Year-wise details of children immunised is given below in Table 9.2.

Table 9.2: Child Immunisation during 2017-18 (April - December 2017)

Sl. No.	Indicator	Number of Children
1	BCG	3,87,128
2	Polio third dose	3,67,973
3	Measles	3,62,175
4	Full immunisation	3,60,792
5	Vitamin A	3,48,825
6	Pentavalent third dose	3,60,264

9.2.5. Measles-Rubella Campaign

Telangana State has successfully completed the Measles-Rubella Vaccination Campaign as a part of the Government of India’s National Measles Elimination and Rubella Control Programme. Altogether 91,48,171 children were immunised against a target of 90,01,117, thus achieving 102 per cent.

- Another important initiative is the increase in monthly honorarium for Anganwadi teachers, Mini Anganwadi teachers and Anganwadi Health workers by the government.

- Under Rashtriya Kishore Swasthya Karyakaram (RKSK) programme, a total of 147 Adolescent-friendly Health Clinics, namely Yuva Clinics, are being run at selected government health institutions, i.e., District Hospitals, Area Hospitals, CHCs and certain PHCs, and Medical Colleges in 31 districts of the state, where counselling and clinical services are provided to adolescent boys and girls through trained medical officers, counsellors and ANMs.

9.2.6. Tribal Health Services

Tribals constitute approximately 9.08 percent of total population in Telangana State (Census 2011). They are mainly covered through 3 ITDAs in Khammam, Warangal, and Adilabad districts. There are 599 Sub Centres (SCs), 86 Primary Health Centres (PHCs), 10 Community Health Centres (CHCs), 6 Area Hospitals and 10 Birth Waiting Homes to provide health services to the tribal population. Extended health services are provided by 2987 Community Health Workers (CHWs), who have been hired in the tribal areas for this purpose.

Multi-Specialty Camps (Out-reach services) are organised in all CHCs and Area hospitals in ITDA areas to provide specialist care for the poor. So far, 26,834 patients have been examined through these outreach services in 2017-18.

Twelve (12) Birth Waiting Homes (BWHs) have been set up to encourage tribal ANCs for institutional delivery. The ANCs are motivated to get admitted in advance for safe delivery and to ensure 48 hours of stay at birth-waiting homes. During 2017-18, so far, 957 deliveries have been conducted and have utilised birth-waiting homes.

Twenty-five (25) Mother and Child Health (MCH) teams are in the tribal areas to identify pregnant women living in remote areas, who are not able to reach to the health facilities for regular check-ups. Each MCH team consists of one Medical Officer (MO) and one staff nurse. The team will provide outreach services to identified vulnerable populations under the guidance of Deputy DMHOs and also assess the extent of various diseases and epidemic cases, if any.

9.3. Major Initiatives in General Health

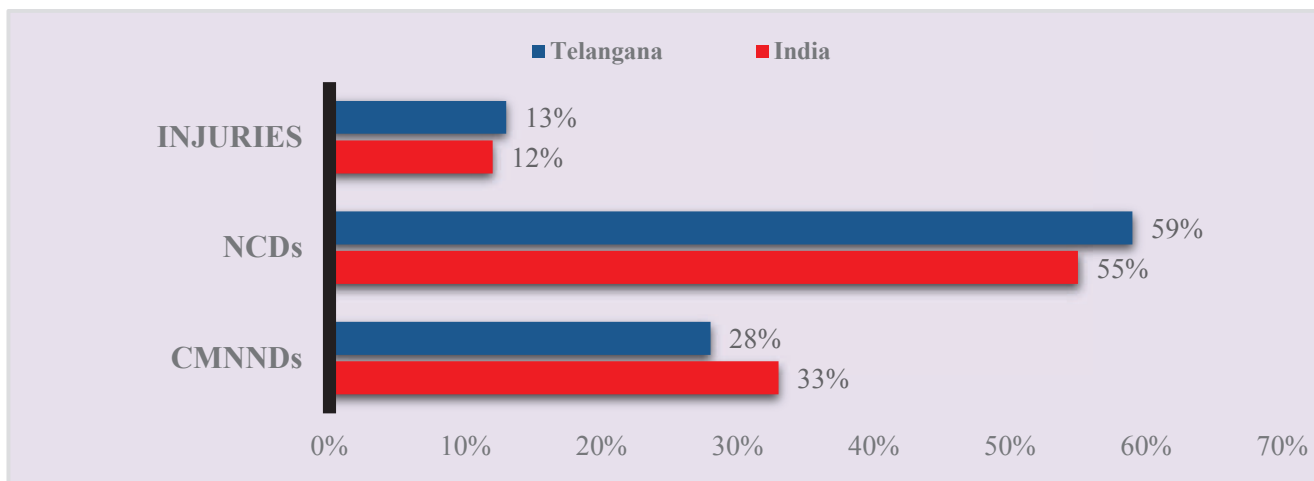
- 17 hospitals have been upgraded.
- 20 Intensive Care Units (10-bedded) have been established in District and Area Hospitals of TVVP hospitals.
- 34 Dialysis centres (5-bedded) have been established in TVVP hospitals.
- The bed strength in Niloufer hospital has been increased from 500 to 1000. New state-of-the-art intensive care block has started functioning.
- 14 wellness centres have been established across the State.
- One e-hospital has been set up in Mahabubnagar district.
- Free hearse services launched (2016) with 50 vehicles to transport dead bodies from hospitals to the location of choice of the family of the deceased.
- e-Aushadi, an Online inventory for the supply of drugs for the patients in Government hospitals and PHCs has been initiated.
- 17 generic medicine stores have been established and are to be scaled up further.
- Mechanised laundries are being set up in 36 hospitals.

- RO plants (for safe drinking water) have been established in all the hospitals.
- 13 blood component units have been procured, in addition to the existing facilities. Blood banks with facilities for components separation has been created in all teaching hospitals.
- For strengthening the human resources (i.e., doctors, ministerial staff, nursing staff and paramedical staff), 2971 specialists, 387 medical officers, 3220 staff nurses, 604 pharmacists, and 382 lab technicians posts were created during the year 2017.
- As a part of the 2014-17 plan, two new medical colleges have been sanctioned in Mahabubnagar and Siddipet districts. A new nursing college is sanctioned at Sircilla.
- In the past three years, the undergraduate seats in government medical colleges rose from 265 to 305. In the last three years five private colleges have been set up with an intake of 450 UG seats
- The number of postgraduate seats in medical colleges increased from 526 to 747 and super-speciality seats from 73 to 82.

9.4. Disease Burden: Telangana Vs All India

The report India: Health of the Nation's States, 2017, provides the first comprehensive set of findings for the distribution of diseases and risk factors across all States of India from 1990 to 2016. Of the total disease burden in India, measured as Disability - Adjusted Life Years (DALYs), in 2016 (Figure 9.2), India had 33 percent due to Communicable, Maternal, Neonatal and Nutritional Diseases (CMNNDs), 55 percent from Non Communicable Diseases (NCDs) and 12 percent from injuries. During the same year (2016) in Telangana, proportion of total disease burden from CMNNDs was 28 percent, NCDs 59 percent and injuries 13 percent.

Figure 9.2: Contribution of Major Disease Groups to the total DALYs, 2016

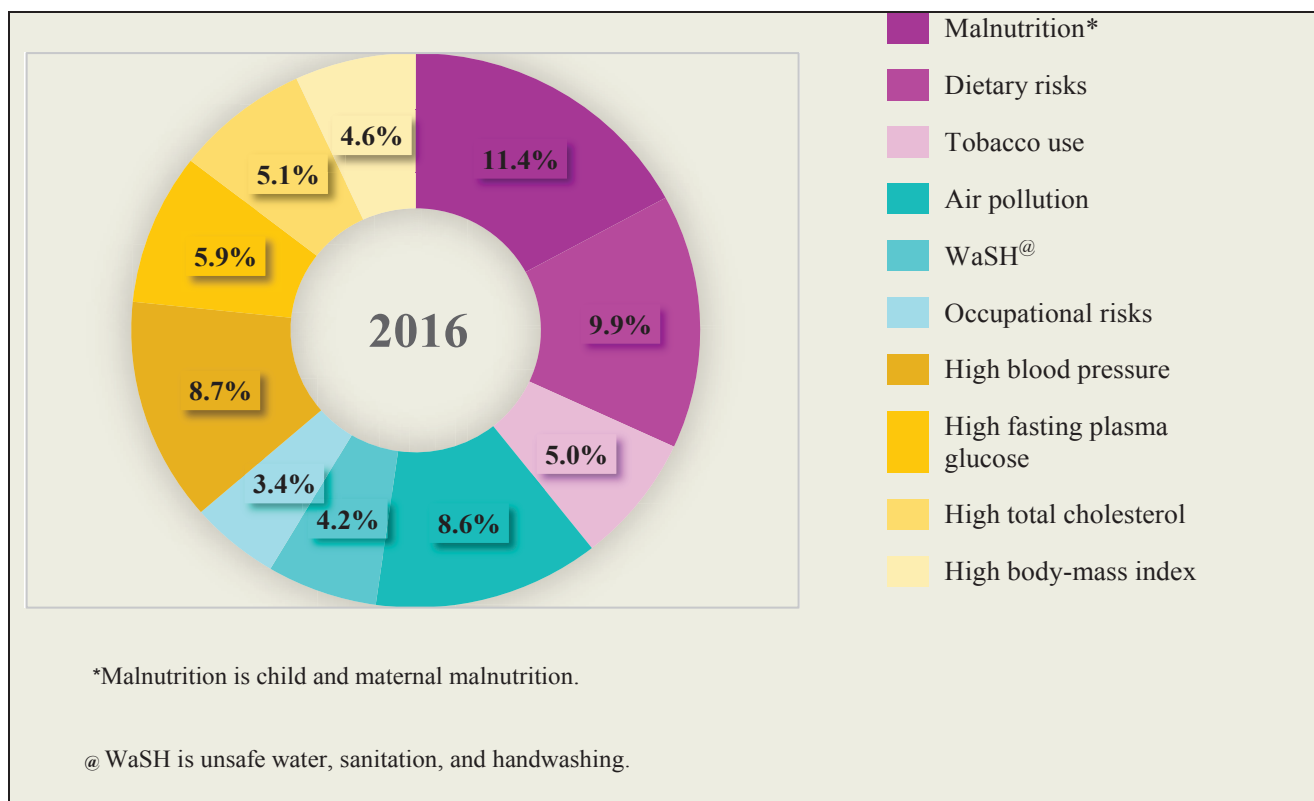


Source: India: Health of Nation's States Report, 2017.

9.4.1. Disease Burden: Telangana

As in the report 'India: Health of the Nation's States', 2017, looking at the leading individual causes of DALYs in Telangana, the top ten risk factors (as seen in Figure 9.3), which are contributing to most death and disability combined, are –Malnutrition (11.4 per cent), Dietary risks (9.9 per cent), High blood pressure (8.7 per cent), Air pollution (8.6 per cent), High fasting plasma glucose (5.9 per cent), High total cholesterol (5.1 per cent), Tobacco use (5 per cent), High body-mass index (4.6 per cent) WaSH (4.2 per cent), and Occupational risks (3.4 per cent). It has been observed between males and females that malnutrition is the major cause of risk among females while for males it is dietary risks.

Figure 9.3 The percentage given in the figure is risks in DALYs from that risk out of total DALYs



9.4.2. Progress made in Communicable and Non Communicable Diseases (During 2017-18)

I. Communicable Diseases

(i) Vector Borne Diseases in the State

With effective implementation of the National Vector Borne Disease Control Programme through early detection and complete treatment, the State could effectively restrict the number of cases in Malaria, Dengue and Chikungunya over the previous years. Since 2014, the State has contributed to only 0.39 percent of malaria deaths in the country. 31,53,990 Fever cases of which 2693 cases came up positive; apart from this, 3,827 Dengue cases and 58 Chikungunya cases were reported during 2017. So far, no deaths have been reported from these diseases. Also, 4,89,200 Long Lasting Insecticide Treated Bed Nets (LLINS) were distributed in October-November 2017.



(ii) Tuberculosis (TB)



With a mission to end TB, under the Revised National TB Control Programme (RNTCP), quality-assured sputum smear microscopy services are being offered for diagnosis of TB. All TB patients are treated under the DOTS (Directly Observed Treatment Short Course) programme. A total of 171 TB units are operating in 31 districts of the State. The public sector gave notification of 36,976 patients and the private sector about 7,529 patients during 2017. From September 2017, the state has taken up a daily regimen for all the TB patients. Active case finding has been taken up in 31 identified SLUM areas of 10 districts. All the 31 districts are provided with CBNAAT machines.

(iii) Telangana State AIDS Control Society (TSACS)

In 2015, the estimated number of people living with HIV in India were 21.17 lakh, of which 1.94 lakh were in Telangana. The burden of HIV (Adults 15 to 49 years) in the state is 2.04 percent. The state aims to reduce the prevalence of HIV to 0.05 percent in the next seven years.

There are 22 Antiretroviral Therapy (ART) Centres to provide universal access to comprehensive, equitable, stigma-free, quality care support and treatment services to all people living with HIV (PLHIV). Apart from this 79 link ART centres are operating in the state. Currently, 72,781 people are living with HIV/AIDS, alive on ART.



Telangana State AIDS Control Society (TSACS), under its Basic Services Division, conducted tests for 3,96,053 general individuals for HIV from April to November 2017 of which 7,840 individuals were identified as positive (1.9 per cent). During the same period, for about 4,42,113 antenatal women were tested and among which 465 were identified as positive (0.1 per cent).

II. Non Communicable Diseases

(i) NCD Screening Test

The Non Communicable Disease burden is on the rise in the country. Twelve districts have been selected for screening the NCDs for the year 2017-18. The adult population is primarily screened for Hypertension, Diabetes, Cervical cancer, Breast cancer and Oral cancer. During the year 2016-17, a total of 6.75 lakh people were screened and for the year 2017-18, so far 4.75 lakh people have been screened. The suspected cases are referred to the higher centres for treatment and follow up. Complete data is being captured ANMs online on Tablet PCs. Under the National Programme for Palliative Care (NPPC), a palliative care unit has been established at Area Hospital, Chevella; the setting up of another seven units are in progress.

(ii) Blindness

The Government has initiated the 'Avoidable Blindness Free Villages programme through an NGO called SAKSHAM in 525 villages of 10 districts (Mahabubnagar, Gadwal, Wanaparthy, Nagarkurnool, Bhupalpally, Mahabubabad, Warangal(U), Warangal(R) and Jangoan). Trainings are being taken up to strengthen the human resources for Netra Rakshaks at village level in the management of other eye diseases like Glaucoma, ROP, etc., with the technical assistance of SAKSHAM to Netra Rakshak at village level to declare Blindness Free Villages.

Recently, in the month of February 2018, the State government has announced a massive eye screening drive across the State, in a bid to ascertain the accurate disease burden of visual impairment. During this time the health authorities will identify the ailments and issue corrective measures such as glasses at free of cost. Also, if the need arises, corrective surgeries will be taken up later in an advanced State-run eye care centre.

9.5. Performance of TVVP Hospitals

There are 107 TVVP Hospitals which cater to the secondary health care system in the State. These hospitals mainly cater to the Maternity and Child Health Care services, besides General Medicine, General Surgery, Ophthalmology, Paediatrics, Orthopaedics, Dermatology, ENT, etc., The physical performance in TVVP Hospitals is given in Table 9.3.

Table 9.3: Physical Performance in TVVP Hospitals (April-December, 2017)

General Indicators	Target	Achievement	Percentage (%)
Out Patients	1,00,23,713	1,21,89,009	122%
In Patients	8,95,050	10,52,917	118%
Major Operations	50,220	82,354	164%
Sterilisations	46,480	28,156	61%
Deliveries	73,980	1,32,106	179%
X-Rays	2,03,850	2,56,614	126%
USG	72,238	1,82,965	253%
ECG	60,926	92,674	152%

9.6. Mehdi Nawab Jung (MNJ) Institute of Oncology & RCC, Hyderabad

As per the report ‘India: Health of the Nation’s States’, 2017, in Telangana, Cancer is one of the top five causes of death among the people aged above 40 years. The MNJ Institute of Oncology and teaching hospital is a 450-bedded apex public cancer hospital in the State. More than 10,000 new patients register every year and about one lakh patients come for follow up. To protect poor people from catastrophic expenditure due to cancer, many costly and sophisticated equipment like 1.5 Tesla MRI, 64 Slice CT Scan, Colour Doppler, Digital Mammography, three Linear Accelerators, one CT Simulator, one RT Simulator, one Spect Gamma Camera and other sophisticated laboratory and theatre equipment are being made available in the hospital. The institute carries out clinical work, teaching and research activities, apart from cancer prevention and education activities.

9.7. Nizam’s Institute of Medical Sciences (NIMS), Hyderabad

NIMS has been functioning as a University under the State Act since 1989, with the objective of creating a Centre of Excellence for providing medical care, and educational and research facilities of high order. There are 34 departments, which include super specialties and broad specialties. The Institute offers Post- Graduate Courses (M-Ch, DM, MS, MD) with the approval of Medical Council of India

During 2017, a total of 6,09,076 outpatient services and 42,547 inpatient services were provided. A total of 22,019 surgeries were performed, of which 10,267 were major surgeries and 11,752 minor surgeries. The Institute has performed 115 Kidney transplants, two Liver transplants and one Heart Transplant; 96 Knee replacements, 67 Hip replacements and 60 Spinal surgeries were performed.

9.8. Aarogyasri Health Care Trust

Aarogyasri Scheme (AS) is a unique Community Health Insurance Scheme in the State, to provide free quality care and equity of access to all below poverty line (BPL) families. This scheme is aimed at protecting the poor against catastrophic health expenditures, by purchase of quality private medical services from an identified network of health care providers through a self-funded reimbursement. Major policy initiatives undertaken under Aarogyasri Health Care Trust, since the formation of Telangana State, are briefed in Box 9.3.

Box 9.3: Major Policy Initiatives Undertaken under Aarogyasri Health Care Trust

1. Under Aarogyasri, 322 network hospitals are empanelled and among these 95 are government hospitals. Since the formation the State, more than 9.4 lakh surgeries have been pre-authorized, at a cost of Rs. 2445.36 crore.
2. Organ transplant surgery procedures are included under Aarogyasri, EHS/JHS Schemes with standard protocols and guidelines.

3. New Dialysis centres in 39 Government hospitals have been sanctioned by the Government of Telangana to provide free Cashless Haemodialysis services nearer to patients' residences, so as to reduce transport costs and to increase compliance.

4. Aarogyasri Health Care trust has provided financial support for establishing Intensive Care Units (ICUs) in Mahabubnagar, Karimnagar and Siddipet district hospitals.



5. A new procedure, with package amount, for the treatment of Varicose veins is included under the Aarogyasri Scheme.

6. Age limit has been relaxed from two years to three years for Cochlear Implantation surgery under the Aarogyasri Scheme.

7. A Quality Cell has been established in collaboration with Access Health International.

8. Cost of Stents (a Cardiac Procedure) has been reduced as per the price fixed by NPPA, GOI.

As a part of the social audit, it is a policy decision to write letters to the beneficiaries. So far, letters were sent to all the discharge cases for the year 2017-18, numbering 1,84,000 beneficiaries. From amongst the replies received, 83 per cent have expressed their satisfaction and 17 per cent have raised grievance. These grievances are being addressed by further investigation for resolving the same.

In the NHP-2017, the Aarogyasri concept is referred to as one of the best alternatives for strategic purchasing of health services.

9.9. AYUSH (Ayurveda, Yoga & Naturopathy, Unani and Homoeopathy)

The Telangana government, along with the National AYUSH Mission (NAM), is encouraging the AYUSH system of medicine. Presently 860 dispensaries and institutions are functioning under the AYUSH (Ayurveda, Yoga & Naturopathy, Unani and Homoeopathy) department. Key initiatives taken under AYUSH are explained in Box 9.4. The Telangana State Medicinal and Aromatic Plants Board is the first and only State body in the country to inspect the cultivated medicinal plants by using GPS, disbursing the subsidy to medicinal plant farmers with transparency and accountability. Medicinal plants species like Aloe vera, Ashwagandha, Tulsi, Redsanders, Sandalwood are being propagated.

Box 9.4: Key initiatives under AYUSH in Telangana

1. Infrastructure upgrading and construction is being undertaken for AYUSH dispensaries/hospitals.
2. Under the Kayalap Programme, cleanliness, hygiene, and infection control are promoted in all faculties.
3. Two out of four wellness centres are operational in Hyderabad and Warangal districts.
4. AYUSH wings are being strengthened in district hospitals. Prevention and Control of Diabetes through Ayurveda, a unique programme, was started in 2016-17 through speciality clinics in all teaching hospitals and dispensaries.

5. In the recent epidemic of Dengue in the Khammam district, AYUSH medicines were distributed door-to-door in all areas affected by Dengue and seasonal fevers.
6. AYUSH-Gram (Village) is a concept wherein one village per 10,000 population will be selected. In these villages, AYUSH-based life styles will be promoted through behavioural change communication.
6. Health programmes through AYUSH systems are being conducted in schools.



9.10. Telangana Diagnostics

To protect the interests of the poor, the government has initiated a new concept called ‘Hub and Spoke’ for providing free diagnostic tests. The State government has launched a new programme called the Biomedical Equipment Maintenance Programme (see Box 9.5).

Box 9.5 : New initiatives taken by the government for free diagnostics and maintenance of equipment

‘Hub and Spoke’ model of diagnostics is being developed, to begin with, in Hyderabad district, which will be extended to the entire State in the coming months. The Institute of Preventive Medicine, Hyderabad, acts as HUB/Apex Laboratory with its feeding points, i.e., spokes, are UPHCs, CHCs, AHs, etc., which act as collection centres. Each spoke, i.e., AH, CHC, UPHC, has a set of mandatory tests to be done as per the guidelines issued.

Biomedical Equipment Maintenance Programme in public hospitals

Maintenance of equipment in public hospitals is a big challenge.. To address this challenge, the Government has outsourced the equipment maintenance of all medical equipment in the State to a single agency. Complete details of equipment, along with present working status, will be made available online for regular monitoring of equipment. The status will be updated online every day. The status of uptime and downtime of each equipment will be monitored.



9.11. Outlook

The government is adopting specific health plans for disease-specific target groups. All the major risk factors have been identified and are being addressed with a special focus on each of them. As malnutrition and anaemia continue to be the major cause of risk factors among pregnant women and children below six years, the government has strengthened its activities under the Aarogya Laxmi Scheme and has introduced a new flagship programme called KCR Kit and brought in coordinated efforts between the Health and Family Welfare and Women and Child Welfare Departments in the state. This will lead to significant results in further bringing down the MMR and IMR in the state. Special efforts are being made in combating communicable diseases like TB and HIV/AIDS. In order to reduce the morbidity and deaths due to non-communicable diseases, early diagnosis and referral treatment have started in the state. To achieve ‘Health for All’, the government is ensuring to expand and strengthen the public health infrastructure facilities in the state. It is consolidating the gains accrued after the formation of the state, in terms of the increased resource allocations, and is planning for the next ten years to operationalise a sustainable strategy to address the challenges.

Education

“Education is the most powerful weapon which you can use to change the world.”

- Nelson Mandela

One of the lynchpins of inclusive development is a well-educated and skilled population, with equal rights and opportunities for all. Investing in education now, in a balanced way across levels and in equitable ways across population groups, will have a multiplier effect on overall development.

The goal of ‘Bangaru Telangana’ emphasised the importance of education. The government focuses on good quality education from primary to tertiary level, including technical and vocational skill development and increase in employability. It has identified education as a priority area of intervention under ‘Bangaru Telangana’ and has taken several initiatives in the education sector.

10.1. Literacy

a. Overview of Literacy Rates (All India and Telangana)

In the last decade (2001-2011), the literacy rate in India has increased from 64.84 per cent to 72.98 per cent, which is more than eight percentage points. Similar increase has been noticed in the literacy rate of Telangana, from 58 per cent to 66.54 per cent.

b. Literacy in Telangana

Variations in literacy rates are noticed among different aggregate groups like rural & urban, within districts (details given in Figure-10.1), age groups, social groups and male & female. The literacy gap between rural (57 per cent) and urban (81 per cent) areas is 24 percentage points and the literacy gap between male (75 per cent) and female (58 per cent) population is 17 percentage points. The details are given in Table-10.1.

Figure-10.1: District wise Literacy Rates in the State

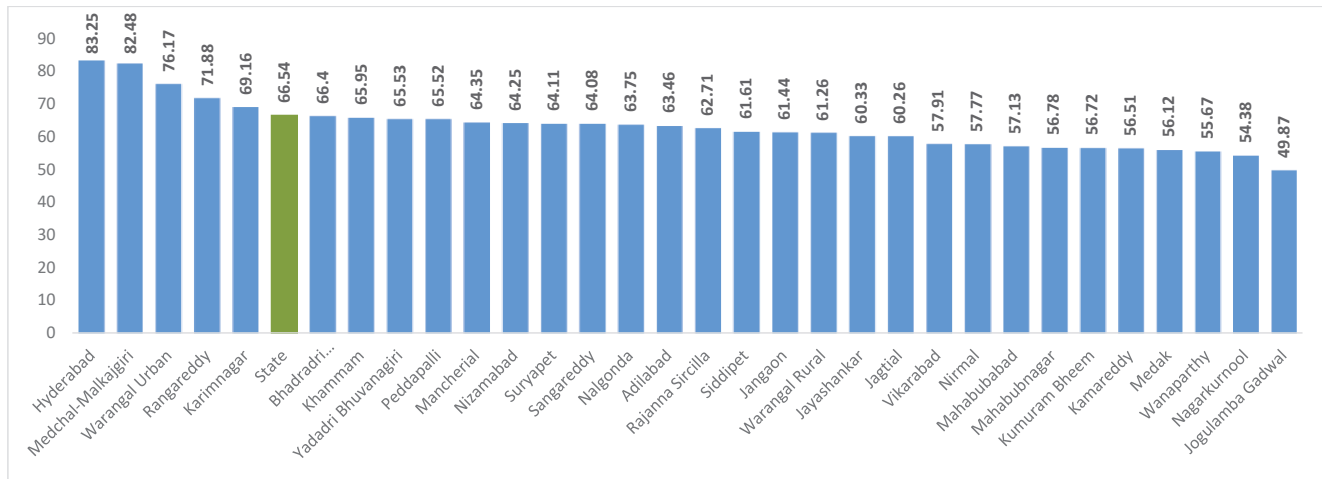


Table-10.1: Literacy Rates among various groups in Telangana and All India

Sl. No.	Groups	Telangana State (per cent)	All India (per cent)
1	Male	75.04	80.88
2	Female	57.99	64.63
3	Total	66.54	72.98
4	Rural Area	57.30	67.77
5	Urban Area	81.09	84.11
4	Schedule Castes	58.90	66.07
5	Schedule Tribes	49.51	58.95

Source: Census of India, 2011

c. Age Group wise Literacy Rates

The literacy rates for the age groups of 7-14 years and 15-24 years in Telangana are higher when compared to the National average. In the remaining age groups, the National averages are higher. The details are given in Table-10.2.

Table-10.2: Age Group wise Literacy Rates

Sl. No.	Age Group	Telangana	All India
1	7-14	90.56	87.92
2	15-24	86.97	86.14
3	25-34	69.62	75.28
4	35-49	51.61	63.73
5	50 and above	35.85	49.42
	Total	66.54	72.98

Source: Census of India, 2011

d. District level analysis of literacy

Among 31 districts of the state, Hyderabad stands at top with 83.2 per cent literacy rate and Jogulamba Gadwal district stands at the bottom with 49.9 per cent. Among all the districts, 5 districts viz. Hyderabad, Medchal-Malkajgiri, Warangal Urban, Rangareddy and Karimnagar are above the state average of 66.54 per cent and the remaining 26 districts have below the state average. The government is putting serious efforts in those 26 districts of low literacy rates, to bring them on par with other districts. The district-wise literacy details are given in Figure-10.1.

Based on the Census 2011, the literacy rates are mapped with the newly reorganised 584 mandals in the State. 63 mandals out of 584, have higher literacy rates than the National average of 72.98 per cent. 112 mandals have higher literacy rate than the State average of 66.54% and the remaining mandals have literacy rate below the state average.

e. Estimated Literacy Rate

During the period from 2011-2012 to 2017-18, about 72.45 Lakh literates have been added through schools and Saakshar Bharat Programme (37.04 Lakh from schools and 35.41 Lakh from Saakshar Bharat Programme). Thus, the total literates would be 279.42 Lakhs. It is estimated that the 7 years and above population would be 332.18 Lakh. Therefore, the estimated literacy rate would be 84.11% upto 2017-18. The increase of literacy rate from 2012 to 2017 would be 17.57 points.

f. Enrolment

During 2016-17, 58.66 lakh children were enrolled in all types of schools in the State. Out of them, 51 per cent enrolled in private schools and 49 per cent in government schools, including schools run by local bodies, private aided schools and central government schools. It is observed that private schools (which account for 27 per cent of all schools in the state) are catering to more than half of all the children. To improve the enrolment in government schools, the state has taken up several initiatives, which include introduction of English medium, development of soft-skills such as communication, social and knowledge skills, midday meal programmes, etc. (Table-10.3)

Table-10.3: School wise & Management wise Enrolment details

Management	PS	UPS	HS	All	Enrolment	% of Enrolment
I - Under Education Department						
State Government (Government & Local Bodies)	18162	3217	4612	25991	2287120	38.98
State Government (Blind, Deaf & Dumb, Sports School, Juvenile)	4	0	11	15	1583	0.03
Model Schools	0	0	192	192	84324	1.44
Kasturba Gandhi Balika Vidyalaya (KGBV)	0	0	391	391	69613	1.19
Telangana Residential Educational Institutions Society (TREIS)	0	0	47	47	17918	0.31
Sub Total-I	18166	3217	5253	26636	2460558	41.95
II - Under Welfare Departments						
Social Welfare Day / Residential Schools	4	9	222	235	71382	1.22
Tribal Welfare Day/Residential Schools	1473	90	303	1866	128162	2.18
BC Welfare Residential Schools	0	0	21	21	8233	0.14
Minority Welfare	0	0	71	71	10568	0.18
Sub Total-II	1477	99	617	2193	218345	3.72
III - Central Government (Navodaya, KVs, Railway Schools etc.)	3	4	44	51	29692	0.51
IV - Aided Schools	302	135	283	720	123880	2.11
V - Private Un-Aided	1436	3863	6067	11366	3007395	51.25
VI - Others (Madarsas + NCLP + URS)	230	125	16	371	26916	0.46
Grand Total	21614	7443	12280	41337	5866786	100

Source: Department of School Education

Table-10.4: Ratio of girls enrolment compared to boys
(all State Government, local body, residential, model schools and KGBVs)

Stage	Enrolment of Boys	Enrolment of Girls	Total Enrolment	Ratio of Girls Enrolment compared to Boys
Primary	483337	519944	1003281	51.82
Upper Primary	144301	164387	308688	53.25
High Schools	646572	720362	1366934	52.69
Total	1274210	1404693	2678903	52.58

Source: Department of School Education

Table-10.5: Community wise enrolment in Government and Local Body Schools

Community	Boys	Girls	Total	% of the Total Enrolment
General	76458	96506	172964	7.56
SC	286220	263552	549772	24.04
ST	165723	154131	319854	13.99
BC	596978	647552	1244530	54.41
Total	1125379	1161741	2287120	100.0

Source: Department of School Education

Table-10.6: Enrolment Trend in Government, Aided & Private Schools for all Classes I to X

Academic Year	All	Government		Private	
	Enrolment (in Lakhs)	Enrolment (in Lakhs)	% of total enrolment	Enrolment (in Lakhs)	% of total enrolment
2015-16	60.63	27.93	46.06%	32.71	53.94%
2016-17	58.67	28.33	48.29%	30.34	51.71%

Source: Department of School Education

g. Spatial Distribution of Education Institutions

Incidentally, the top five districts in literacy also have the leading percentage of high schools. Hyderabad and its surrounding districts – Medchal-Malkajgiri and Rangareddy – also have a high number of higher education institutions in all streams of education, such as junior colleges, engineering, law or other professional courses. These districts also have the highest density of population, which necessitates them to have a higher number of educational institutions.

h. Universal Access to School Education

School facilities were created for achieving universal access to school education. The total number of schools available in the state for catering to primary, secondary and higher education is 41,337. About 70 per cent of them are state government and local-bodies schools followed by private unaided schools i.e., 27 per cent. In addition, there are central government schools (<1 per cent), private aided schools (2 per cent). The Hyderabad district has more number of schools (3,522) and Jogulambha Gadwal has the least number of schools (597). The district wise details of schools under different managements are given in Table-10.7.

Table-10.7: District wise Number of Schools

Sl. No.	District	Central	State	Social Welfare	Private (Aided)	Private (Un-Aided)	Others	Total
1	Adilabad	1	697	553	4	133	18	1406
2	Kumuram Bheem	1	732	376	11	104	13	1237
3	Mancherial	1	730	82	14	220	7	1054
4	Nirmal	0	739	65	1	197	9	1011
5	Nizamabad	1	1186	20	40	448	24	1719
6	Jagtial	0	811	12	3	365	11	1202
7	Peddapalli	1	561	10	8	203	5	788
8	Jayashankar	0	809	158	1	141	3	1112
9	Bhadradri Kothagudem	1	1075	308	34	182	26	1626
10	Mahabubabad	1	915	134	6	154	14	1224
11	Warangal Rural	0	684	25	9	199	7	924
12	Warangal Urban	3	484	14	82	427	25	1035
13	Karimnagar	2	673	14	14	308	6	1017
14	Rajanna Sircilla	1	505	11	3	136	1	657
15	Kamareddy	1	1035	21	5	175	24	1261
16	Sangareddy	3	1293	27	5	375	24	1727
17	Medak	0	921	16	2	116	6	1061
18	Siddipet	1	1005	26	2	220	8	1262
19	Jangaon	0	557	13	10	110	4	694
20	Yadadri	0	703	9	11	170	5	898
21	Medchal-Malkajgiri	9	502	9	12	1249	28	1809
22	Hyderabad	11	694	12	279	2498	28	3522
23	Rangareddy	6	1329	25	13	1178	72	2623
24	Vikarabad	0	1058	25	11	177	8	1279
25	Mahabubnagar	1	1385	29	18	379	35	1847
26	Jogulamba Gadwal	0	469	7	2	106	13	597
27	Wanaparthy	0	525	9	3	144	2	683
28	Nagarkurnool	1	841	72	14	180	2	1110
29	Nalgonda	3	1523	45	57	412	21	2061
30	Suryapet	0	968	16	18	262	13	1277
31	Khammam	2	1227	50	28	294	13	1614
	Total	51	26636	2193	720	11262	475	41337

Source: Department of School Education

i. Dropout Rates

The annual dropout rates for the year 2016-17 among the primary school children is recorded as 7.49 for Boys and 7.79 for Girls. For middle school children is recorded as 5.60 for Boys and 5.55 for girls and for secondary school children is recorded as 4.55 for Boys and 4.63 for girls.

j. Pupil-Teacher Ratio (PTR)

The optimum teacher-pupil ratio can be critical for achieving universal enrolment and retention, and to improve the quality of education of children. During 2016-17, it is recorded as 19.78; 15.61; and 18.34 for

Primary, Upper Primary, and Secondary, respectively. The overall PTR is recorded as 18.49 for the year 2016-17. The details are given in Table-10.8.

Table-10.8: Pupil Teacher Ratio (PTR) Government & Local body Schools

Year / Category	Total Schools	Primary	Upper Primary	Secondary	All
2014 - 15	26,114	20.64	17.86	19.15	19.56
2015 - 16	25,966	20.83	16.79	19.10	19.43
2016 - 17	25,991	19.78	15.61	18.34	18.49

Source: Department of School Education

k. Gross Enrolment Rates (GER):

The enrolment rate among children during the year 2016-17, in primary schools is 128.22 for Boys and 123.51 for Girls and in upper primary schools, it is 80.14 for Boys and 81.69 for Girls. The year wise GER given in Table-10.9.

Table-10.9: Year-wise GER

Year	Primary		Upper Primary	
	Boys	Girls	Boys	Girls
2014-15	115.32	114.85	99.97	99.92
2015-16	99.55	99.54	99.55	99.54
2016-17	128.22	123.51	80.14	81.69

Source: Department of School Education

10.2. School Education

Education is a fundamental right, which, when acted upon, leads to the achievement of the goal of “Education for All”. Over the years, efforts have been made at the state and national level to achieve this goal. Education has become a fundamental right as per Directive Principles of Constitution of India. This spells out the responsibility of the state for providing free and compulsory education to all children from the age of 6 to 14 years.

The educational programmes currently being implemented for strengthening school education in the State are (1) ‘Sarva Siksha Abhiyaan’ (SSA) to universalise elementary education; and (2) ‘Rashtriya Madhyamik Shiksha Abhiyaan’ programme (RMSA) to improve the access and quality of secondary education. These two programmes aim to strengthen the school education and secondary-school education in the state.

10.2.1. Sarva Shiksha Abhiyan (SSA)

SSA is a programme for achievement of Universalization of Elementary education and the capacity of existing teachers is being strengthened by extensive training. The SSA seeks to provide quality elementary education, including life skills. It puts a special focus on the education of girls and children with special needs. The SSA also seeks to provide computer education to bridge the digital divide.

(i) Major Initiatives

a. Filling of Teacher Vacancies

- **Recruitment in Gurukulas :** Recruitment taken up to fill the 8,457 Teacher Posts in Gurukulas through Telangana State Public Service Commission (TSPSC).

- Recruitment in Government & Local body Schools: Recruitment taken up for filling up of 8,792 (i.e., 1,950 School Assistants; 416 Physical Education; 1,011 Language Pandits; and 5,415 Secondary Grade) Teacher Posts in Government and Local body Schools through Telangana State Public Service Commission (TSPSC) instead of selection through District Selection Committee to have quality in recruitment.
- Positioning of Vidya Volunteers during 2017-18: 11,428 Vidya Volunteers: positioned in the Schools on the day of commencement of the academic year 2017-18 (June 2017). This covers even the 'leave vacancies'.
- State Government has enhanced the honorarium to the Vidya Volunteers from Rs.6,000/- p.m. to Rs.8,000/- p.m. in 2015-16 and from Rs.8,000/- p.m. to Rs.12,000/- p.m. in 2017-18.

b. Additional Infrastructure Provided with State Funds

- Provided K-Yans/Projectors to all the Model Schools, TSREIS and Government & Local body High Schools;
- Provided R.O. Plants and CC Cameras to all the Model Schools, TSREIS;
- Provided required furniture with Rs.78.09 Crores to all the Model Schools;
- All 194 Model Schools are provided with complete infrastructure i.e., compound walls and water sumps.

c. Supply of Furniture: Supplied Dual Desks to 694 Institutes such as Model Schools, KGBVs, TREIS Schools, DIETs, Government & ZP Schools (SSC Exam centres & Girls High Schools) by spending Rs.32.00 Crores during the years 2016-17 and 2017-18.

d. Collaboration and Networking with NGOs: Collaboration with International and National Organizations and NGOs for the professional development of teachers for the delivery of curriculum in an effective manner. The state collaborated with UNICEF, British Council, Aga Khan Academy, NCERT, Tata Institute of Social Sciences, State Police Department, Save the Children, Room-to-Read India, Dr. MCRHRD Institute, Hyderabad Central University, Osmania University, EFLU, NIT Warangal, IIT, Hyderabad, Jana Vignana, Vedika and corporate bodies for the professional development of teachers and educational managers.

(ii) Further Initiatives to Improve Access, Equity and Quality of Education

a. Badi Bata Programme: Conducted Badi Bata Programme twice for the Academic Year 2017-18, at the time of re-opening of schools after summer vacation to enrol children. The trend of decreasing enrolment in Government Schools reversed and 50,000 children additionally enrolled when compared to earlier years.

b. Shifting of Anganwadi Centres to nearby Primary Schools: 11,831 Anganwadi Centres shifted to nearby Primary School premises to encourage integration of Pre-Primary Education with Primary Education.

c. English Medium Schools: More than 5,000 Government / Local Body Schools are converted to English Medium to meet the aspirations of the community and better enrolment.

d. Uniforms and Text Books: During the academic Year, 2017-18, Uniforms (for 21.84 lakhs children) and Text Books (for 26.78 lakhs children) were supplied to the School Children by re-opening day.

- e. **Swachh Vidyalaya:** In Telangana State, 14 Schools got National Level Award with cash prize of Rs. 50,000/- each and 37 Schools got State Level Award of Swachh Vidyalaya Puraskar 2016-17 with cash prize of Rs. 10,000/- each.

(iii) **Improved Infrastructure in Schools**

a) **Sarva Shiksha Abhiyan (SSA)**

- 39 New Primary Schools constructed with Rs.7.86 Crores.
- 1,931 Additional Classrooms added with Rs.133.94 Crores.
- 11,732 Toilets constructed with Rs.129.63 Crores.
- 7,798 Dysfunctional Toilets repaired with Rs.27.98 Crores.

b) **Utilization of grants under MPLADs/CDP**

- Works of worth Rs.94.54 Crore taken up with the contribution of Hon'ble MPs/MLCs/MLAs from MPLADs/CDP and SSA funds to provide the required basic facilities to the Schools.

10.2.2. Kasturba Gandhi Balika Vidyalaya (KGBV)

KGBVs started in the year 2004-05 to provide Residential Schooling facility for (a) classes VI to VIII; (b) out of school, (c) orphan, (d) single parent and dropout girls, (e) below poverty line, predominantly belonging to SCs, STs, BCs & Minorities.

- 391 KGBVs are there at the time of formation the State.
- 84 New KGBVs are sanctioned by the GoI during 2017-18 in the newly formed Mandals (EBBs).
- 78,346 Girls enrolled in 475 KGBVs during 2017-18 (Table-10.10).
- GoI supports only Classes VI to VIII under KGBVs.
- State Government extended the scheme by adding IX and X Classes to facilitate continuation of girl's education up to Class-X and avoid dropouts.
- 475 KGBVs functioning with an enrollment of 78346 girls (2017-18).



Table-10.10: Enrollment profile of KGBV Schools

Community wise Enrollment			Category wise Enrollment		
SC	23112	29.5%	Dropout	18921	24.15%
ST	24287	31.0%	Never Enrolled	32670	41.7%
BC	29145	37.2%	Single Parent	13977	17.84%
Minority	1802	2.3%	Orphans	3259	4.16%
Total	78346	100%	CWSN	3941	5.03%
			Over Age	4630	5.91%
			Others	948	1.21%
			Total	78346	100%

Source: Department of School Education

(i) Special Initiatives by the State Government for KGBVs

a) Academic

- Emphasis on remedial coaching.
- 25% reservation provided in the Residential Junior Colleges/ Model Schools for Class X passed out girls from KGBVs.
- Digital Classes started through K-Yans and LCD Projectors with Online and Offline digital content.

b) Health

- Nutritious Menu implemented from 1st January 2018 by adding special items.
 - o Ghee
 - o Eggs four times in a week
 - o Chicken four times in a month
 - o Mutton twice in a month
 - o Fruits five times in a week
 - o Ragi Malt in Milk daily
 - o Sprouts / Phalli Chikki/ etc., as snacks
- ANM provided in every KGBV with sufficient Medicines.
- Regular Health Checkups conducted.
- Health & Hygiene Kits provided containing 15 items like Tooth Brush, Paste, Powder, Sanitary Napkins, Soaps, Oil, etc.
- Provided RO Plants for safe drinking water with Rs.2.96 Crores
- Developed Kitchen Gardens
- PET provided in every KGBV.
- Sanitary Napkin manufacturing machine installed in 3 districts. Incinerators provided for hygiene.

c) Safety & Security of the Girls

- Constructed Compound Walls
- Provided CC Cameras.
- Training in Martial Arts
- Regular night Patrolling by Police
- Sirens provided on pilot basis

d) Amenities provided

- Blankets provided in all KGBVs
- Replaced Bedding Material with Rs.5.29 Crores.
- Replaced Utensils with Rs.1.17 Crores.
- Trunk Boxes provided with Rs.4.29 Crores.
- Plates & Glasses provided with Rs.71 Lakhs.

e) Upgradation of Infrastructure with State Funds

- 291 additional Toilets provided with Rs.4.36 Crores.
- 299 additional Bathrooms provided with Rs.2.99 Crores.
- Water sumps to 365 KGBVs with Rs.10.95 Crores.
- Furniture (Duel Desks) with Rs.9.21 Crores.
- K-Yans provided to 230 KGBVs with Rs.1.74 Crores.
- Biometric devices are being provided with Rs.3.91 Crores.
- Solar Water Heaters provided to 383 KGBVs with Rs.8.68 Crores.
- Additional / New Infrastructure for KGBVs
- Construction of 61 additional academic blocks in the existing KGBVs taken up to accommodate additional intake with Rs.105.87 Crores in 2017-18
- Construction of new buildings for 34 newly started KGBVs with Rs.91.80 Crores taken up in 2017-18.

10.3. Rashtriya Madhyamik Shiksha Abhiyan (RMSA)

RMSA aims to make secondary education of good quality, accessible and affordable to all young persons in the age group of 15-16. The focus is on improving school infrastructure, providing school grants, and recurrent training of the teachers to improve the quality of classroom teaching.

(i) The Major Achievements of RMSA in the State are as under

- Training to all the teachers working in secondary schools on classroom transition, assessment procedures and conduct of Co-curricular activities.
- Orientation to the Headmasters on school leadership and management.
- Conducted excursion trip for students within the State to 82,475 students and exposure visits to outside the state to 5,639 toppers at high school level.
- Conducted Kala Ustav programme at District and State level and participated in National level Kala Ustav at Regional Institute of Education (RIE) Bhopal.
- Information and Communication Technology (ICT) is being integrated in the regular transaction of curriculum in all the School subjects so as to give more clarity and conceptual understanding. Computer labs have been established in about 2,680 Secondary Schools in the state.
- Launched digital class rooms in about 3,800 secondary Schools in the State during the academic year 2016-17 and are being continued.
- About 500 Digital lessons have been developed by the SIET and transmitted through SOFTNET through satellite.
- An e-platform for uploading digital content i.e., Telangana Repository of Open Education Resources has been established and school text books and teacher hand books have been uploaded duly developing meta data.
- Training was provided to all the School teachers for one day on handling the digital content provided to the Schools.
- The digital Schools programme is being implemented in collaboration with department of

Information Technology, Electronics and Communication, Government of Telangana. The Department of ITE&C has provided 1 TB cloud space for establishing e-platform i.e., TROER and also provided 3,000, 1 TB hard discs to the Schools @ 1 per School.

- Integration of ICT in effective transaction of School subjects has been taken up in partnership with Tata Institute of Social Sciences, Mumbai in about 300 secondary Schools across 12 districts.
- Orientation programme has been conducted at District level for Senior School Assistants of 2,451 Schools.
- Student hand books were printed and supplied to the children of 177 Model Schools. Permanent Labs were established at in these Schools.

(ii) New Policy Initiatives and Achievements

These new policy initiatives and programmes have had a significant positive impact on the spread and quality of school education in the State.

- School Evaluation (Shala Siddi):** A programme on school evaluation i.e., a self-appraisal of the school's performance per identified parameters, has been taken up. All the Head Masters have been oriented and the programme has been taken up in the current academic year of 2017-18. The programme was taken up in both government and private schools. Out of 41,337 schools, 29,326 schools have uploaded their school evaluation report on the dashboard of NUEPA. Telangana holds sixth place in the all-India ranking of States in undertaking of the school evaluation exercise.
- Digital Initiatives:** Digital class rooms have been started in secondary schools in the State. Out of 5870 secondary schools, 5,633 schools possess facilities to give digital lessons through LCDs or K-Yans; the remaining are in process. Digital lessons have been developed by the SIET and are transmitted through T-SAT (Mana TV), through satellite. Five digital lessons are being transacted everyday from Classes VI to X across all subjects. The digital lessons developed so far by the SIET and SCERT have been uploaded into 1-TB hard discs and provided to secondary schools.

10.4. Model Schools

Model Schools have infrastructure and facilities of the same standard as the Kendriya Vidyalayas. The government envisaged a holistic and integral education, touching on physical, emotional and aesthetic development of the students of these schools. Infrastructure for satisfying the needs for teaching, sports and co-curricular activities is being provided in these schools. There is sufficient scope for sports, recreation and outdoor activities. A good teacher-pupil ratio is being maintained. Special emphasis is laid on teaching science, mathematics and English.

These schools are established in the Educationally Backward Blocks/Mandals (EBBs). Out of 389 EBBs, 196 were sanctioned Model Schools. The total enrolment of students from class VI to X and Intermediate is 1,25,630. The facilities

of free textbooks, midday meals, free uniforms, scholarships and free bus pass facility for the girl children are being extended to all the students studying in the Model Schools.

State Government has increased intake in Intermediate Sections from 80 to 160 in each Model School during



2016-17 resulting in increase of strength in Intermediate Sections from 13,897 to 21,049 during 2016-17 and during 2017-18 the strength is increased to 33,711. The details are given in Table-10.11.

Table-10.11: Year wise Enrolment Details

Sl. No	Year	No. of Schools	Enrolment		
			Class 6th to 10th	Intermediate	Total Strength
1	2015-16	182	72283	13897	86,180
2	2016-17	192	86827	21049	1,07,876
3	2017-18	194	91,919	33,711	1,25,630

10.4.1. Girls Hostels Attached to Model Schools

- 192 Girls Hostels were taken up with a total outlay of Rs. 247.31 Crores.
- So far 147 Girls Hostels are made fully functional and balance 45 will be made functional by March 2018.



10.5. Midday Meal Scheme

The Midday Meals scheme is being implemented in the state from class I to X with state and central funding. The main objectives of

the scheme are to improve the nutritional and health standards of the growing children eliminate classroom hunger to increase enrolment, more significantly of girls; to improve daily attendance, particularly of girls and children from poorer sections; to reduce dropouts; to encourage socialising among castes and empower women through employment.



Midday meals are being served with super fine rice to all the students in the state since 1st January 2015 onwards. Eggs are being provided thrice a week by the State government since 1st October 2016. A total of 28,674 schools have benefited under this scheme.

- Government of India is supporting to Classes I to VIII. The State Government extended it for High School Sections of IX and X Classes with 100% State funds by spending Rs.176.73 Crores.
- The State Government is giving super fine rice by spending Rs.100.00 Crores in an academic year.
- Eggs/Banana is being provided thrice in a week by spending Rs.87.50 Crores.
- Total 25,48,232 children are benefited under Midday Meal Programme in 2016-17.

10.6. Social Welfare Educational Institutions

To bring social equity and improve access to education for children of SC, ST, BC, minorities and differently-abled communities, the state has been providing hostel and residential school facilities, supplying of books and other provisions at free of cost.

10.6.1. Scheduled Caste Residential Schools

(i) **Telangana Social Welfare Residential Educational Institutions Society (TSWREIS)** is running 268 residential educational institutions (from 5th standard to undergraduate) in the State, for Scheduled Caste (SC) children. Of the 268 institutions existing in the State, 134 were sanctioned in the new State of Telangana. The Society has been working with the noble aim of providing quality education to the needy and deprived children on par with the other advantaged children.

Apart from providing quality education to the children, the Society is making determined efforts to create an environment that builds their confidence levels, leadership and communication skills to meet the challenges of the 21st century. In addition, the society also runs 888 SC Hostels (719 Pre-Matric and 169 Post-Matric hostels) for 71,000 SC students studying from Class III to PG level.

The scholarship residential grant has been increased from Rs.20,000/- to Rs.30,000/- per student to promote quality education at the Pre-Matric stage by admitting them in the best available schools.

The scholarship grant under the Ambedkar Overseas Nidhi Scholarship Scheme has been increased from Rs.10 lakh to 20 lakh per student to pursue higher studies outside India. Since inception, 415 SC students are assisted under the programme. SC Study Circle branches have been sanctioned in 10 district headquarters for giving coaching for job-oriented competitive examinations. Since 2015-16, 101 candidates have been selected for different posts, which include five candidates for the Civil Services.

With all these special initiatives and provisions, significant achievements have been made and the students of Social Welfare Residential Schools have achieved many academic and sports distinctions at State and National level such as, admission in NIT, IIT and Ajim Premji University.

Green Gurus: The bright and talented students who showed excellent performance in the Super Students Lecture Series are selected as Green Gurus. The green gurus get Rs.3500/- per month for their efforts in teaching their peers.

Robox STEM Labs: Robox Stem Labs program was introduced to provide children with computer programming and coding skills and make them innovators in the field of Science, Mathematics, Technology and Engineering.

SWAERO Authors and in-house journal: In order to promote creating writing skills among students, a Swaero-Authors program was introduced to encourage the students to write stories and articles. The society publishes Swaeroes magazine bimonthly to introduce the students to the world of literature, art, science, maths and inspirations stories.

Career Counseling: The TSWREIS in association with Nirmaan Vidya Helpline, Hyderabad, provides free career counseling services to the students of classes IX to intermediate to select the career opportunities and universities for higher education.

Swaerolympics: Sports and games meet are organized at district, zonal and the state level every year to nurture the future sport-stars of India.

Summer Samurai Camps: To provide a platform for the students to explore the learn skills beyond textbook, summer samurai camps are being organized since 2014 involving more than 30,000 students. Basic life skills including communication, social, collaborative, creative and leadership skills are covered under this program.

(ii) Few Remarkable Achievements of Students

- 4 students got selected to study under Student Exchange Program in USA.
- 3 students awarded fellowship to pursue diploma courses in the prestigious colleges in USA.
- One student selected for studying in Harvard University Summer Crossroads Programme, Harvard University, USA.

10.6.2. Schedule Tribes Residential Schools

(i) **Telangana Tribal Welfare Residential Educational Institutions Society (TTWREIS)** is operating 147 residential schools and junior colleges and 22 residential degree colleges for boys and girls. The total strength of the institutions is 41,566 students. The medium of instruction in these institutions is English. Students of TTWREIS are performing better compared to all other students in the state in class X and Intermediate board examinations. The students are groomed to face the tough competition in the outside world. The students of TTWREIS got admissions into IITs (43), NITs (76), medicine (5), Azim Premji University (5) and IIITs (20) during 2017. The students also performed well in various sports and games at national and regional level.

The Society has been working with a prime motto of providing quality education to needy and deprived children and giving them the capability to compete with other more advantaged children. The academic

perspective of Gurukulam is to create vibrant centres for learning which provide a congenial atmosphere for students to excel academically and develop into ethically strong and morally elevated individuals.

(ii) Eklavya Model Residential Schools (EMRS)

The government established Eklavya Model Residential Schools at selected places to give good education together with safe and secure accommodation and boarding with a homely atmosphere.



Accommodation is provided to the principal and staff members so that they live in the school premises. This enables a close and constant interface between the teachers and students. Coaching is also being given to meritorious students to prepare them for top-level competitive exams and emphasis is given to sports. A total of 5 EMR schools were sanctioned.

Box-10.1: Increase of Diet Charges

The Government has increased diet charges for boarders of all welfare hostels and residential institutions. The diet charges given to Pre-Matric students studying in classes III-VII has increased from Rs.750/- to Rs.950/-, for classes VIII-X from Rs.850/- to Rs.1,100/-; and Post-Matric boarders of welfare institutions for inter-PG level, from Rs.1,050/- to Rs.1,500/-. This initiative will ensure a balanced and nutritious diet for the students studying in government-run residential institutions.

(iii) Pre and Post-Matric Hostels

Tribal Welfare Department is running 149 Pre-Matric hostels in 31 districts with 24,793 studying in Intermediate and above courses are admitted in the TW Post-Matric Hostels. Of the total of 163 hostels, 82 are boys hostels with 11,230 boys and 81 girls hostels with 11,455 girls.

(iv) Ashram Schools

Ashram schools are a special intervention for improving education of tribal communities. The objective is to provide residential school facilities for Scheduled Tribes, including PVTGs in an environment conducive to learning, to increase the literacy rate among the tribal students and to bring them on par with other students of the country. There are 319 Ashram schools in the state. In 2017-18, the total number of children admitted into Ashram schools is 93,188.

(v) Additional Diet Menu Provided to the Students

- Chicken - four times a month
- Mutton – two times a month
- Ghee - Everyday at lunch
- Poori - Every Thursday
- Noodles - Every Monday
- Chapathi - Every Sunday breakfast
- Millet Cookies - Every Thursday (ragi, jowar and bajra cookies/biscuits)
- Vermicelli – Jowar or ragi
- Hot Snacks - Ragi mixture

(vi) Academic Achievements

- One student from TTWR IIT Study Centre, Rajendranagar, Hyderabad, bagged admission to the reputed institution, AIIMS, Rishikesh, in the year 2017.
- One student of RJC Ankampalem, HEC Group, secured 463 marks and ranked fifth in the State.
- A group of 128 meritorious students qualified in the JEE-Mains 2017 and 59 students bagged seats in prestigious national institutes like IIT, NIT, IIIT, AIIMS, MBBS.
- A Class VIII student's science project on Earthquake Identifiers was one of the 13 best projects selected at the 24th National Children's Science Congress (NCSC) 2016 organized by Telangana State Council of Science and Technology.

10.6.3. Mahatma Jyothiba Phule Telangana Backward Classes Welfare Residential Education Institutions Society (MJPTBCWREIS)

The government has established Mahatma Jyothiba Phule Telangana Backward Classes Welfare Residential Educational Institutions Society (MJPTBCWREIS) in July, 2014 with the aim to provide quality education to deprived children belonging to Backward Classes and other communities.

The MJPTBCWREIS is facilitating the access to quality education for the students of Backward Classes (BCs) and Economically Backward Classes (EBCs). The Society and the BC Welfare Department are running

residential schools, residential junior colleges and residential degree colleges for boys and girls. The total sanctioned strength of all these institutions is 43,640. The medium of instruction in all these institutions is English. During the year, 119 residential schools, at the rate of one per each Assembly Constituency, were opened on the same day on 12 June 2017 taking the total number of schools to 142. The current status of the residential educational institutions is shown in the Table-10.12.

Table-10.12: Status of Residential Educational Institutions in 2017-18

Sl. No.	Type of Institution	No. of Institutions			Sanctioned Strength		
		Boys	Girls	Total	Boys	Girls	Total
1	Residential Schools	69	73	142	19,240	18,560	37,800
2	Residential Junior Colleges	12	7	19	3,040	2,080	5,120
3	Residential Degree College for Women	0	1	1	0	720	720
	Total	81	81	162	22,280	21,360	43,640

(i) Pre-Matric Hostels

Hostels are maintained to provide free boarding and lodging to students belonging to the Backward Classes and enabling them to pursue their Pre-Matric studies. At present, there are 450 government BC hostels, (341 hostels for boys and 109 hostels for girls). A total of 42,814 boarders were admitted to the BC hostels during 2017-18. This includes 31,607 boys and 11,207 girls.

(ii) College Hostels for Boys and Girls

To promote higher education among BC girls and boys, the government has established one hostel for girls and one hostel for boys in each Assembly Constituency. A total of 250 college (Post-Matric) hostels (125 boys hostels and 125 girls) with a total strength of 30,567 have been functioning in the State in the year 2017-18.

(iii) Scholarships

The government has been reimbursing the tuition fees for BC and EBC students who got admission into professional courses through convener quota. Tuition fee was reimbursed to 6,48,157 and 7,23,573 BC students during 2016-17 and 2017-18 respectively. During 2016-17, tuition fee was reimbursed to 83,133 EBC students of professional colleges. In 2017-18, a total of 86,580 EBC professional students have registered for tuition fee reimbursement on the e-Pass website. Further, the department provides maintenance fee (MTF) to BC and EBC students studying in 186 premier institutions such as IITs, IIMs, NITs, etc., recognised by the Government of India. The total number of students sanctioned MTF in the above institutions is 1,355. Further, 211 BC students in 2016-17 and 101 BC students in 2017-18 were selected for financial assistance under Mahatma Jyothiba Phule BC Overseas Vidya Nidhi for overseas studies.

10.6.4. Minority Residential Institutions

(i) **Telangana Minorities Residential Educational Institutions Society (TMREIS):** The Society is to provide high quality education for talented children belonging to the minority communities through pace-setting residential schools. The Government has brought a novel and historic welfare scheme for minorities and sanctioned 204 residential schools and 2 residential junior colleges for minorities. A total of 206 minority educational institutions, including two colleges, with 47,818 students are running

successfully.

The government takes care of all the needs of the students in these schools including, Boarding, lodging, books, uniform, library, lab, sports etc., incurring an average cost of about Rs.65,000/- per child per year.

- (ii) **Pre and Post-Matric Scholarships** are granted to minority students on par with SC, ST and BC students. The government has announced the sanction of Pre-Matric scholarships that are left over after sanctions of Government of India. About 89,000 students will be benefitted from this scheme for the year 2017-18. Post-Matric scholarships will be granted to students from Intermediate to post-graduation, including professional courses, on saturation basis.

The other important schemes aimed at educational development for minority students include (i) the overseas scholarship scheme, which is open to students who desire to study in foreign universities for higher education; (ii) reimbursement of tuition fee for the students studying from Intermediate to PG courses, including professional courses on a par with SC, ST, and BC students on saturation basis; (iii) sponsorship of 100 minorities students for IAS coaching; and (iv) Telangana Minorities Study Circle;

- (iii) **Centre for Educational Development of Minorities: (CEDM)**

The government has established the Centre for Educational Development of Minorities (CEDM), aimed at the minority population, viz. Muslims, Christians, Sikhs, Buddhists, and Parsis, who constitute 14 per cent of the total population of the State.

To address the issues related to

minorities, the state government has formulated the following schemes for their development.



(a) Major Initiatives

- Free special coaching in core subjects at 75 centres in the state.
- Free workbooks and question banks to Class X students.
- Free coaching and study material for students seeking admission into professional collages and for job-seekers.
- Government has started Telangana Minority Study Circle in the year 2015-16. The purpose is to prepare Minority students for competitive exams leading to employment. So far, 1957 candidates are registered online and offered various trainings.

- (b) **Preserving and promoting of Urdu Language:** The government attaches importance to the preservation, promotion and advancement of the Urdu language and accordingly schemes are being implemented for assisting Urdu-medium schools in infrastructure needs and for encouraging Urdu newspapers, journalists and schools.



(c) Key Achievements

- Introduced Chief Minister`s Overseas Scholarships for Minorities.
- Recognition of Jamia Nizamia Degrees on par with other degrees.
- Gharib Nawaz Skill Development Training Centre in partnership with GoI.

10.6.5. Welfare of Disabled and Senior Citizens

(i) Pre-Matric Scholarships from Classes I to X

The Government is providing financial assistance to disabled students studying in Class I-X in government or government recognised schools, to enable them to complete their education.

Further, children with learning disabilities, who are admitted into specialised schools run by non-governmental organisations that do not get grant-in-aid from the Government of India and whose parent`s or guardian`s income is less than Rs.1,00,000/- per annum, are being sanctioned a scholarship of Rs.1,000/- per annum.

Scholarships have been sanctioned at Rs.70/- for Class I-V students; Rs.100/- for Class VI-VIII students;

and Rs.182/- for Class IX and X students, per month. Apart from travelling allowance, maintenance of prosthetic aids and reader allowance for visually impaired students.

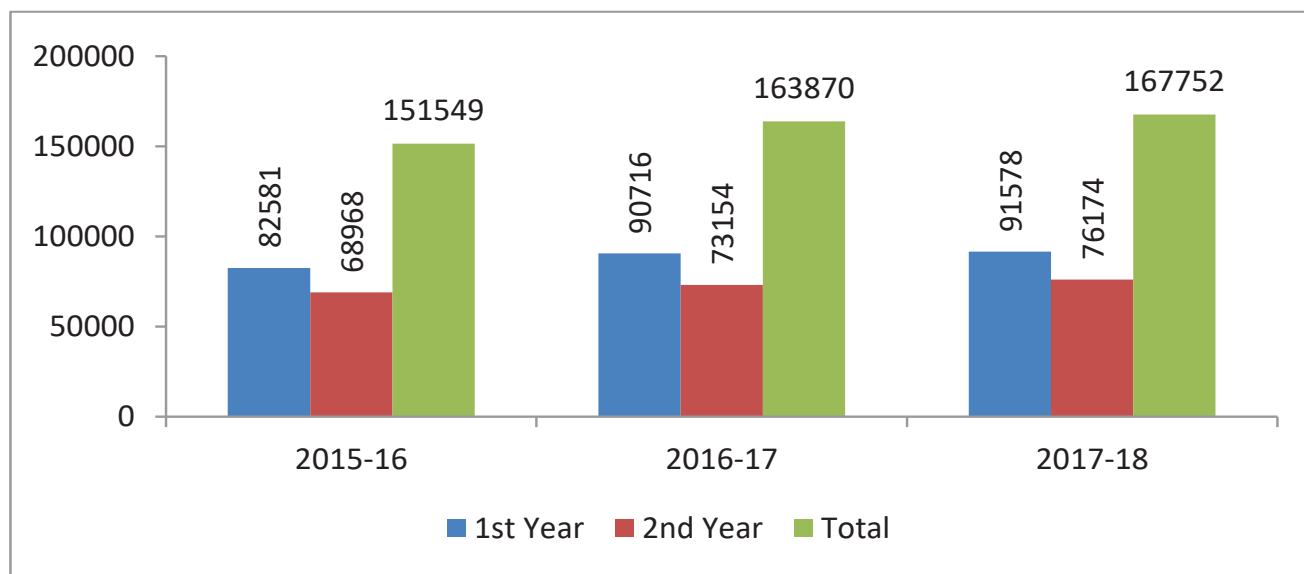
Under this scheme, reimbursement of tuition fees (RTF) and special fees is sanctioned to all the eligible differently-abled students and reimbursed to the institutions concerned, as per norms. Students of intermediate and degree colleges are being given Rs.3,250/- and Rs. 4,420/- for post graduation and professional courses, as scholarships per academic year for their maintenance.

The government is running five (5) residential schools with a total strength of 830 differently-abled students, which include two schools for the Hearing impaired at Hyderabad and Karimnagar; one school for the deaf at Miryalaguda; and two schools for the blind at Karimnagar and Mahabubnagar. In addition, 20 homes and hostels are being maintained by the department for providing shelter to the 2,258 persons with disabilities.

10.7. Intermediate Education

There are 2,457 junior colleges with a total enrolment of 8.65 lakh students studying in both years. Out of these colleges, 404 are government junior colleges (GJCs) including 4 exclusive vocational junior colleges, 41 are private aided junior colleges, 1,620 are private and other junior colleges and 392 are other government institutions. The year wise enrolment in Government Junior Colleges is showing in Figure-10.2.

Figure-10.2: Year wise enrolment in Government Junior Colleges



The Department offers 23 vocational education courses at Intermediate level in junior colleges in the State with special focus on job oriented courses. Apart from these courses, the departmental also offers 40 short-term vocational certificate courses in modules of 3 months, 6 months and 9 months to enable the students to get employment opportunities as per need of the industries.

(i) The Major Achievements

- Computer systems were supplied to all 404 Government Junior Colleges for the first time in the year 2016-17.
- Digital class rooms have been established on pilot basis in 57 Government Junior Colleges
- E-office has been established in the department linking with regional offices for online disposal of the files and for transparency in the administration.

10.8. Collegiate Education

There are 131 government degree colleges (GDCs) and 68 aided colleges in the state; 76,779 students are enrolled in the government degree colleges and 34,922 students are enrolled in aided colleges.

(i) Important Initiatives

- **New Courses:** The Department has been introducing new need-based, job-oriented courses like Biotechnology, Microbiology, Computer Science, Communicative English, Tourism, Advertising and Sales Promotion, etc., in government colleges in the last few years on partial self-financing basis, keeping in view the recent developments in higher education. Post-graduate courses on self-financing basis are being sanctioned every year on the basis of demand and facilities available. During 2017-18, one new PG course was sanctioned in one college, 32 restructured under-graduate (UG) courses were sanctioned in 21 colleges and 29 additional conventional UG courses were sanctioned in 17 colleges.
- **Employability Enhancement:** The Department, in collaboration with Telangana Skills and Knowledge Centres (TSKCs), is imparting a varied spectrum of skills beyond conventional degrees to make the student confident and self-reliant when he/she enters the employment market. Placement drives are also organised for the benefit of students.

The Department has signed a MoA with UNDP under the project “Creating Opportunities for Employment and Entrepreneurship for Women in India facilitated collaboration in strengthening the government degree colleges in their role as career guidance, counseling and skills centres to facilitate establishment of close linkages with the businesses / private sector to open up a range of internship and job opportunities for girls.



T-SAT - NIPUNA (MANA TV): T-SAT - NIPUNA telecasts educational programmes to enhance academic performance of the students, along with creating awareness in career prospects. MANA TV is installed in 95 colleges of the State. It can communicate one-way video and two-way audio

T-SAT-NIPUNA is to provide uniform teaching as a single teacher's expertise can be extended to all colleges; to provide an

opportunity to repeat the lessons through recorded telecast; to help in overcoming the shortage of a teacher's expert guidance in colleges.

- Student Interactive programme is an initiative where students get an opportunity to present study projects / seminars / GDs along with their teacher who mentors them.
- Capacity Building: Academic leadership, capacity building and quality enhancement are the major objectives in conducting the trainings to the faculty. District resource Centres (DRC) were established in select colleges of 30 districts with an objective of optimum utilization of resources by pooling

and sharing among all government colleges in the district. This provides additional support to the students of Government Degree Colleges situated in semi urban, rural and remote areas.

10.9. Higher Education

(i) **Telangana State Council for Higher Education (TSCHE)** is implementing several schemes, special flagship programmes and policy initiatives with an overarching objective of ensuring quality in higher education.

(a) Major Initiatives and Achievements

- Access, Affordability & Equity, and Teaching & Research: The government has already established 30 residential colleges for women under Social Welfare, 21 colleges under Tribal Welfare and one for BC Welfare, to create more access to higher education in rural areas. Another initiative is to strengthen both existing and newly established government colleges. The government is encouraging institutions by providing research grants to consider changing paradigms in the teaching learning process, to foster an entrepreneurial culture amongst students, and imparting of soft skills and focus on skill development with a 'hands-on' approach to the teaching-learning process.
- Special efforts are being made to increase employability skills of the youth in the state. There are 27 Skill Development Centres functioning in government polytechnics to provide life, entrepreneurial and development skills and 14 more are being added during the current year. All 450 regular and 415 contract lecturers have been trained in pedagogy skills and training is in progress in soft, life, domain and communication skills so as to train the students. All classrooms were made e-classrooms with an LCD projector. Computer and training content is provided. Students of disadvantaged sections have been provided 1,812 laptops.

10.10. Technical Education

The department of technical education promotes technical education in the state to bring out good engineers and technicians with profound knowledge, skill, improved efficiency and productivity for industrial development in the State.

The department manages the government polytechnics and monitors the private unaided polytechnics and professional colleges. At present there are 900 diploma & degree level professional institutions in the State with a total intake of 1,95,565.

(i) Major Initiatives of the Department

- To provide quality education, and hands on experience for job placements creating stimulating industrial environment in polytechnics.
- To improve the skills of students to fit into the best production centres in the country, department in collaboration with Ministry of Secondary and Higher Education arranging apprenticeship training with industries.
- The department is facilitating Industry-Institution Interaction Cell in the development of skills of students and staff in different practical areas.

- The department is facilitating improving communication skills and self confidence of the students.
- All polytechnics were made e-classrooms and propose to make e-library in a phased manner.

10.11. Outlook

Towards ensuring inclusive and equitable quality education and promoting lifelong learning opportunities for all is envisaged goal of *'Bangaru Telangana'*, which is also in tune with Goal 4 of Sustainable Development Goals. Significant strides in terms of infrastructure and universal enrolment at primary levels have been almost achieved by the state. Residential education for various social groups is yielding envisaged results. In addition, the government is also taking certain measures to ensure equity among the various social and economic groups.

Welfare

“The test of our progress is not whether we add more to the abundance of those who have much; it is whether we provide enough for those who have too little.”

- Franklin D. Roosevelt

Telangana, the youngest State in the country, has emerged as the number one welfare state in the nation. The government is giving utmost importance to all sections of society, especially the disadvantaged and marginalised population of the State. Towards this, one of the significant and pioneering initiatives by the government is the enactment of the Telangana State Scheduled Castes and Scheduled Tribes Special Development Fund (Planning, Allocation and Utilisation of Financial Resources) Act, 2017. This Act has the most revolutionary provision, i.e., replenishment of the ‘unspent funds allocated to SC and ST Special Development Funds in any financial year’, into the subsequent budget. No other state in the country has enacted such a bold Act so far.

11.1. SC and ST Special Development Fund

Based on the recommendations of the appropriate committees, the Government of Telangana has formed the ‘SC Special Development Fund (SCSDF)’ and the ‘ST Special Development Fund (STSDF)’ for the financial year 2017-18, duly earmarking the required funds in proportion to the SC/ST population. The outlay for the SC Special Development Fund for the year 2017-18 is Rs.14,375.13 crore, which accounts for 16.33 per cent of the total outlay of Rs.88,038.80 crore in the Pragathi Paddu (Development Account). The outlay for the ST Special Development Fund is Rs.8165.87 crore, i.e., 9.27 per cent of the total Pragathi Paddu outlay of the State.

All SC specific programmes are being listed under SCSDF and ST specific programmes are being listed under STSDF. Some of the important on-going flagship programmes like Kalyana Laxmi, Aasara Pensions, Drinking water to households, Health schemes, Sanna biyyam to the students in the SC&ST hostels are proposed to continue under SCSDF and STSDF, respectively.

The government has established a dedicated online portal, for effective and real-time monitoring the progress of the fund utilisation and outcomes. Salient features of the Act are described in Box 11.1.

Box 11.1: SC and ST Special Development Fund Act, 2017

Important Sections of the Act are:

The Special Development Fund of the departments shall include only such schemes that secure direct and quantifiable benefits to the Scheduled Caste/Scheduled Tribe individuals or Scheduled Caste/Scheduled Tribe households or Scheduled Caste/ Scheduled Tribe habitations or Tribal areas that have the potential to bridge the gaps in development following the norms laid down in this Act and the rules made thereunder.

The respective Nodal Agency, while indicating allocation of Scheduled Castes Special Development Fund and Scheduled Tribes Special Development Fund to the schemes shall follow the norms mentioned below:

- (a) for schemes exclusively benefiting Scheduled Caste/ Scheduled Tribe individuals or Scheduled Caste/ Scheduled Tribe households, 100% of scheme cost shall be allocated and accounted for under Scheduled Castes Special Development Fund or Scheduled Tribes Special Development Fund, as the case may be;
- (b) for schemes benefiting Scheduled Caste/ Scheduled Tribe habitations, 100% of scheme cost shall be allocated and accounted for under Scheduled Castes Special Development Fund and Scheduled Tribes Special Development Fund. In case of other habitations the cost shall be allocated and accounted in proportion of the population of the Scheduled Castes or Scheduled Tribes;
- (c) for general schemes, included in the Special Development Fund, benefiting Scheduled Caste/ Scheduled Tribe individuals or Scheduled Caste/Scheduled Tribe households, along with others, the scheme cost shall be allocated and accounted for under Scheduled Castes Special Development Fund and Scheduled Tribes Special Development Fund, as per the Scheduled Caste/ Scheduled Tribe beneficiaries covered;
- (d) in respect of non-divisible infrastructure works, a portion of the scheme cost as may be determined by the Government shall be deemed to have been attributed for Scheduled Castes Special Development Fund and Scheduled Tribes Special Development Fund respectively.

The schemes that fulfil the norms laid down in the Act shall be recommended by the Nodal Agency for Scheduled Castes Development and the Nodal Agency for Tribal Welfare for inclusion in the Annual Pragathi Paddu proposals of the departments and aggregated for placing before the State Council for Development of Scheduled Castes and Scheduled Tribes for consideration and approval.

11.2. Scheduled Castes Welfare

After formation of the state, the government has attached the topmost priority for the development of the Scheduled Castes population in the state. The Social Welfare Department has been renamed as 'Scheduled Castes Development Department', and nominated as the Nodal Department to coordinate and monitor the implementation of various schemes by the government for the integrated development of the SCs.

The main objectives of the Scheduled Castes Development Department (SCDD) are educational advancement, socio-economic development, welfare and protection of SCs and implementation of schemes for social security of SCs, such as Kalyana Lakshmi, free power to households up to 50 units, etc.

11.2.1. Kalyana Lakshmi for SCs

Widening its welfare agenda, the government has announced a novel scheme for the SC/ST girls – Kalyana Lakshmi, operational since 2 October, 2014. A one-time financial assistance of Rs 51,000/ is being provided to the bride's family at the time of marriage to meet the marriage related expenses. A Telangana resident girl, over 18 years of age, belonging to SC community with a combined annual income of her parents not exceeding Rs 2 lakh is eligible under the Scheme. This financial grant has been enhanced from Rs 51,000 to Rs 75,116 in 2017.

Under the Kalyana Lakshmi scheme, since 2014-15, a total of 79,830 SC families have been benefited. During the current year, 22,162 families were benefited till February 2018.

11.2.2. Economic Support Schemes

Under the Economic Support Schemes (ESS), a maximum amount of Rs.5 lakhs per unit will be provided. From 2014-15 to February 2018, a total of 1,01,723 SC beneficiaries have been assisted with a subsidy of Rs.1,094.60 crore.

Under SC Land Purchase Scheme, since 2014-15, a total of 12,867 acres of agricultural land has been purchased and distributed to 4,992 landless poor Dalit families, giving about 3 acres per family. During 2017-18, so far, 1,037 beneficiaries have been covered under the rehabilitation of Gudumba affected persons.

11.3. Scheduled Tribes Welfare

The Tribal Welfare Department has been implementing multifarious welfare and developmental programmes for the socio-economic development of the tribal poor living in 1,174 scheduled villages and in another 9,685 villages situated in non-scheduled areas across the state. The major focus of the department is on education, economic support including land based schemes, social and cultural schemes and regulatory functions.



11.3.1. Kalyana Lakshmi for STs



It is one of the flagship programmes of the government, wherein one-time financial assistance of Rs.75,116 shall be granted at the time of marriage to each poor ST girl whose age is over 18 years. An amount of Rs.132 crore has been allocated in BE 2017-18. A total of 15,009 ST families have been assisted with an amount of Rs.100.59 crore.

11.3.2. Economic Support Schemes

Between 2013-14 and 2015-16, a total of 28,473 beneficiaries were assisted under Economic Support Scheme. During 2016-17, 2404 beneficiaries were covered towards rehabilitating ST Gudumba affected persons and proposed to cover 19,713 beneficiaries under the scheme during 2017-18.

11.3.3. 'Driver-cum-Owner' Scheme

Under this scheme, four-wheeler vehicles are being provided to eligible unemployed ST youth. Under the pilot programme, 50 beneficiaries across erstwhile districts of Rangareddy, Hyderabad, Medak, Nalgonda and Mahabubnagar districts were assisted in collaboration with Uber. The expected net income is in the range of Rs.30,000 to Rs.50,000 per month. Initially, 13 units were sanctioned and started. During 2017-18, it is proposed to cover 500 ST unemployed youth under this scheme. As of date, 261 units have been sanctioned and the remaining are under progress.

11.3.4. Training Centres

Providing employable and self employment skills to the tribal youth is one of top priorities. The government has set up 18 youth training centers for the benefit of tribal youth in different parts of the state. 17 training centers are allotted to eleven reputed national-level skill-training institutions to train the youth in various skills. The infrastructure availability in each centre has been summarised in Box 11.2.

Box 11.2: Facilities in Youth Training Centre	
Facility	Availability
Class rooms	6
Trade labs	6
Administrative (office)	3 Rooms
Conference hall	1 (capacity 100)
Dormitory accommodation	200 capacity
Kitchen-cum-dining	1 (capacity 200)
Guest rooms	4
Open-air auditorium	1 (capacity 300)
Built-up area (Sq.ft.)	27.000
Estimated cost	Rs 3.0 crore

11.3.5. Forest Rights Act, 2006

Under this Act, individual titles were distributed to 93,693 tribals / forest dwellers, covering an extent of 3,00,284 acres. 721 Community titles were distributed, covering an extent of 4,54,055 acres.

The Act provides for post-claim support to the forest rights holders and requires the state government departments, especially Tribal and Social Welfare, Environment and Forests, Revenue, Rural Development, Panchayati Raj, and other departments to provide support for land improvement, land productivity, irrigation facilities, basic amenities and other livelihood measures.



YTC Yellandu, Bhadrachalam District

11.3.6. Girijan Cooperative Corporation

The Girijan Cooperative Corporation (GCC) is playing an important role in providing remunerative prices for minor forest produce such as honey, tamarind, broom grass and a variety of nuts, herbs, leaves, etc., collected by the tribals. GCC also procures agriculture produce from the tribals. The GCC collection and

storage network includes 316 regular and 177 sub depots, which are functioning under 18 Girijan Primary Cooperative Marketing (GPCM) Societies in three divisions in the state. The turnover of the Corporation was Rs.149.55 crore (up to January, 2018). Now, focus is being laid on the establishment of Minor Forest Products (MFP), value addition units and R&D initiatives.



11.3.7. Animal Breeding operations through Integrated Livestock Development (ILD) Centres

The Department is making significant efforts for the breed improvement of cows and buffaloes through artificial insemination in the tribal areas. A total of 192 ILD centres are functioning in collaboration with the JK Trust in seven tribal districts. These centres together have serviced 4,678 cows and buffaloes at the doorstep of the farmers, which enabled to improve their livelihoods.

11.3.8. Implementation of ST SDF

Major departments like Tribal Welfare, Rural Development, Irrigation, Planning, Panchayat Raj Roads, Municipal Administration, Health and Family Welfare, Agriculture, Women Development & Child Welfare and Rural Water Supply are receiving major share of ST SDF allocations and are implementing schemes for the benefit of ST individuals, households and habitations.

11.4. Backward Classes Welfare

The mandate of the department is to bring the Backward Classes (BCs) socially, educationally and economically on par with other developed communities and to achieve an equal status to them in society. The wide range of functions of the department could be grouped into three broad categories:

- To increase access to education and improve their career prospects.
- To eradicate poverty through economic support schemes and also to provide skills for employment among youth.
- To reduce social inequalities and promote social cohesion (unity)

11.4.1. Kalyana Lakshmi Scheme for BCs

The government with an aim of widening its welfare agenda extended this scheme to Backward Classes (BCs) and Economically Backward Classes (EBCs). During the last two years, a total of 83,528 BC and 3,800 EBC beneficiaries were assisted under the scheme.

11.4.2. Employability Skill Development and Training Centres

The Department has 10 training centres, known as Telangana State Backward Classes Employability Skill Development and Training Centres (TSBCESDTCs) in the State, to train poor BC and EBC youth, who are aspiring for formal employment. The coaching is offered for various competitive examinations like Civil Services, Group-I, Group-II, Staff Selection Commission, Railways, etc. In addition, special programmes are also organised in soft skills and personality development for final-year students and unemployed youth. Apart from free coaching, the trainees are provided with stipends and grants for study materials and books.

During 2017-18, so far, 4,200 students have been given free coaching. Further, eight BC advocates from each

district are being provided a three-year professional training to improve their skills and professional growth prospects. The trainees are provided with stipends and study grants for the reading materials.

11.4.3. Most Backward Classes Development Corporation

Most Backward Classes Development Corporation was established to serve the most backward castes of BCs, with a sharp focus on improving the social, educational and financial conditions of most backward classes (MBC) among BCs. Rs.1000 crore has been allocated in the financial year 2017-18.

The government has allocated funds for providing modern mechanised laundry units, skill development for imparting training in modern hair styles and beautician courses, and innovative schemes, common services and other economic support scheme for the welfare of BCs.

11.5. Minorities Welfare

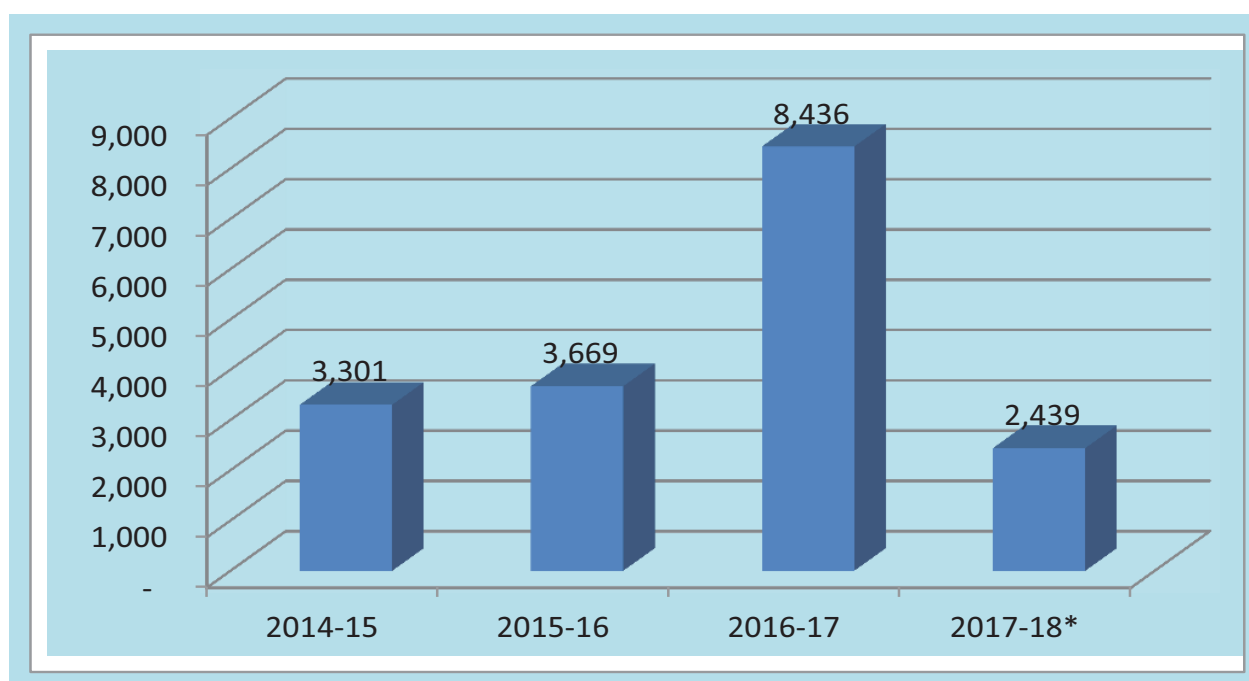
The minorities, including Muslims, Christians, Sikhs, Buddhists and Parsis, together constitute 14 per cent of the total population of Telangana. The basic problem of minorities is socio-economic and educational backwardness. The Government of Telangana is committed to the welfare and empowerment of minorities and has been formulating many novel schemes.

11.5.1. Schemes for Economic Development

Government of Telangana has been implementing two major schemes for the economic development of the minorities.

- i. **Subsidy-cum-Bank Loan Scheme:** The Government is giving a subsidy for starting self employment/business to minority candidates. The government has increased the cost/limit of the business unit from Rs.2.0 lakh to Rs.10.0 lakh. The subsidy component ranges from 80% to 50%. Details of number of beneficiaries during last three years are shown at Figure 11.1.

Figure 11.1: Number of minority beneficiaries covered under the loan-cum-subsidy scheme



ii. **Own Your Auto Scheme:** Under this novel scheme 1,773 autos were sanctioned in the GHMC limits to minorities on subsidy-cum-loan basis. Auto drivers who are financially poor were granted 50 per cent subsidy for the purchase of autos. During 2015-16 and 2016-17, a total of 1,443 autos were provided to the beneficiaries out of the 1,773 sanctioned.



11.5.2. Training, Employment and Skill Development

The Minorities Department extends Training and Skill Development and arranges self employment for minority youth through the Minorities Finance Corporation. New schemes for training have been introduced in collaboration with NAC, Department of Youth Affairs and SETWIN. A total of 21,885 minority youth were trained in various skills during last four years.

11.5.3. Schemes for Social Development

Shaadi Mubarak is an important scheme under social development. Apart from this, the government has initiated a number of schemes to promote the Urdu language and the culture of minorities.

11.5.4. Shaadi Mubarak Scheme

The government has introduced the Shaadi Mubarak Scheme for the social development of minorities. In this scheme, the government gives a one-time grant of Rs.75,116 to the eligible muslim minority bride's family at the time of marriage. A total of 75,751 minority families were assisted under Shaadi Mubarak since its inception.



11.5.5. Other Social and Cultural Development Schemes

- Construction of Urdu Ghar cum Shaadi Khanas: The government attaches importance to the construction of Urdu Ghar cum Shaadi Khanas (UGCSKs). A total of 52 UGCSKs were constructed at a cost of Rs.14.46 crore so far.
- Support to Haj Yatra: Total 4,900 Haji Yatris were supported with a grant of Rs.3.0 crore during 2016-17.
- Dawat-e-Iftar and Distribution of Clothes: The government has introduced a compassionate scheme of arranging Dawat-e-Iftar for two lakh Muslims during Ramzan, with active participation of the



community leaders. Similarly, two lakh clothes parcels were distributed among poor and destitute Muslims.

- **Christmas Feast and Distribution of Clothes:** In line with Government policy of sharing and participating in the festivals of all the religions, the Government arranged a Christmas feast for two lakh people, during Christmas with active participation of the community leaders. In addition to hosting the dinner, clothes parcels were also distributed to poor families.

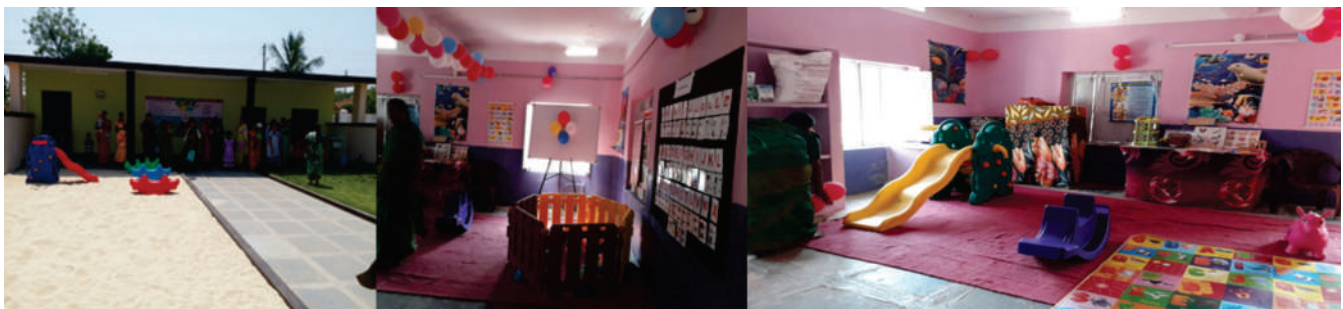
- **Honorarium to Imams and Mouzans:** The government has introduced the payment of an honorarium to imams and mouzans of all the mosques located in Telangana State. Each imam and mouzan is paid Rs.1,500 per month. Out of a total 8,991 applicants, honoraria are being disbursed regularly for 7,011 Imams and Mouzans so far.
- **Institutional Development for Minorities:** The government has initiated a number of steps for the construction, repairs and upkeep the minority institutions like Wakf Board, Macca Masjid and Royal Mosque, Churches, Mosques, Dargahs, Ashoorkhanas, Eidgahs etc. An amount of Rs.71.76 crore was spent towards these activities.

11.6. Women Development and Child Welfare (WD&CW)

The Government is formulating all inclusive policies for the holistic development of women and children. The department has been implementing the most unique outreach programme of the Integrated Child Development Services (ICDS), providing a package of services comprising supplementary nutrition, immunisation, health check-up and referral services, and pre-school non-formal education.

11.6.1. Pre-school Education

Anganwadi Centres (AWCs) are also used for preschool learning and education. The Government is investing in improvement of the AWCs. State-of-the-art learning infrastructures and tools are being provided to the AWCs. Informative and educative charts are being painted inside and outside the AWCs. Glimpses of up-graded AWCs are shown below.



11.6.2. New policy initiatives after formation of Telangana State

To motivate and boost the morale of the Anganwadi Teachers (AWTs) and Anganwadi Helpers (AWHs), the government has twice enhanced their monthly honorarium in short span of three years (Table 11.1).



Table 11.1 : Changes in the honoraria of AWTs and AWHs

Sl. No.	Category	Honorary in Rs.		
		Before 1.3.2015	From 1.3.2015	From 1.4.2017
1	AWTs	4,200	7,000	10,500
2	Mini AWTs	2,200	4,500	6,000
3	AWHs	2,200	4,500	6,000

To improve the management and functioning of AWCs, mechanisms such as children’s assessment cards, parent-teacher meetings and social audits were introduced and streamlined.



Review of children’s assessment cards and parent-teacher meetings at AWCs

11.6.3. Integrated Child Protection Scheme

The Integrated Child Protection Scheme (ICPS) aims to provide care and protection of all children who are in need of care and protection and children in conflict with law. It builds partnerships with different government and non-government organisations providing institutional and non-institutional protection services for children.

Key achievements of the department during 2017-18

- 2,053 children were identified who were in need of care and protection
- 455 licenses were issued to Child Care Institutions (CCIs)
- 316 child marriages were stopped
- 1,782 child labourers were rescued
- 340 street children and 374 begging children were rescued
- 190 child-friendly villages were identified in all 31 districts
- 249 children protection committees were formed at village/mandal level
- 544 cases were registered under the POCSO Act
- 326 children were covered under 'Sponsorship and Foster Care'
- 386 children were identified who were in conflict with law
- 57 missing children were identified, 18 of them were institutionalised and the remaining 39 children were reintegrated with their families
- 59 in country adoptions and 67 inter country adoptions were taken up so far.
- Two campaigns, viz., 'Operation Muskaan –Phase III' (1–31 July 2017) and 'Operation Smile –III' (1–31 January 2017) were rolled out throughout the state for all those who are residing on platforms, bus stands, roads, religious places, hotels, shopping malls, begging, bangle-making, etc., with the coordination of line departments such as Police, Labour, NGOs, Child Line, etc. Under 'Operation Muskaan –Phase III' (1–31 July 2017), a total of 2,496 children were rescued.

11.6.4. Sakhi Centres (One-Stop Crisis Centres) have been established and made functional in 10 districts by the state, to provide medical, legal and psychological support services under one roof to women survivors of violence. So far, 782 sexual assault cases and 5,995 domestic violence cases have been dealt in these centres.

Eighteen women drivers under the She-Taxi Scheme have been provided with financial assistance to provide safety and security to the women passengers

Bharosa Centres are functional to provide counselling to women and children who are in distress.

11.7. Disabled and Senior Citizens Welfare

The Disabled Welfare Department is looking after the all-round development of persons with disabilities by improving their socio-economic and educational standards, and facilitating necessary assistance to senior citizens.

The Government accorded permission for providing financial assistance to the NGOs in the four districts viz., Hyderabad, Jangaon, Medak and Khammam, which are running programmes for the old age as per guidelines.

The following schemes/programmes have been implemented by the department for the benefit of disabled and senior citizens

- Economic Rehabilitation Scheme

- Pre metric and Post metric scholarships
- Maintenance of 20 homes & hostels and five residential schools for VH/HH
- Implementing National Policy for older persons:
- Supply of aids and appliances to the disabled
- Imparting job-oriented training programmes to the disabled through training-cum-production centres.
- Special coaching is being provided in private institutions in TET, DSC, Banks, RRB, JCJ, Civil Services, sports coaching and purchase of sports material. The cost for special coaching ranges from Rs.12,000/- to Rs.30,000/-, borne by the government.
- Running of artificial and caliper manufacturing centres.

11.8. Public Distribution System (PDS)

Telangana is the foremost state in the country to complete seeding of 99.28 percent of 2.74 crore PDS beneficiaries' data with their Aadhaar numbers. The seeding of Aadhaar through e-PDS software has helped to remove duplicate and fraudulent cards.

Out of a total 17,168 Fair Price (F.P.) shops in the state, electronic point of sale (ePoS) machines were installed in 14,005 F.P. shops in 25 districts in the first phase and remaining F.P. shops with ePoS is under progress.

The ePoS implementation resulted in substantial savings to the government. The savings due to implementation of ePoS machines are Rs.521.93 crore.

Portability: 'Portability' or 'anywhere' ration is already implemented in GHMC area of Hyderabad, Rangareddy and Medchal-Malkajigiri districts and the same is being rolled out in the entire state, after ePoS is installed in all the districts.

Grievance redressal by dedicated toll-free number and the department has facilitated the public to make complaints about the illegal transportation of PDS and any irregularities of the F.P. shop across mobile and digital media.

The Civil Supplies Department is the first department after the Police Department to setup a Command Control Centre. It enables the department to locate diversion of PDS vehicles from their routes. All PDS godowns are equipped with the CCTV cameras and their activities are closely monitored.

11.9. Society for Elimination of Rural Poverty (SERP)

The Society for Elimination of Rural Poverty (SERP), Government is a sensitive, supportive structure to facilitate social mobilisation of poor rural women in 30 rural districts. It is unique for being a government institution working exclusively on the demand side by bringing in a new paradigm of development and poverty elimination through empowerment of rural poor. It works by building and nurturing Self Help Groups (SHGs) of women and their federations. The Society works on a comprehensive multidimensional poverty alleviation strategy by focusing on;

- Institution building: Building strong / sustainable institutions for the poor at neighborhood, village, mandal and district level.
- Capacity building: Build their capacities to make them self-managed and self-sustainable in matters of health, education and livelihoods.

- Financial Access: Leveraging resources through commercial banks and other financial institutions.
- Livelihood value chain: Help them get sustainable and diversified livelihoods.
- Human Development value chain.
- Accessing social safety nets and entitlements.

Among these initiatives, the following are the flagship programmes of the state being implemented successfully by SERP.

11.9.1. Institution Building (IB)

Institution building (IB) aims its target groups, i.e., the poorest of the poor (POP) and the poor through a process of Participatory Identification of Poor (PIP) by active involvement of community members and various other stakeholders, viz., Gram Panchayats and mobilizing them into SHGs. The project has given special focus on 100 per cent coverage of marginalised communities, viz., Tribals, Chenchu, Yanadi and Fishermen communities by creating special financial, human resource and institutional provisions. It works for the promotion and strengthening of self-managed and financially sustainable community-based organisations that are owned and controlled by the poorest of poor and the poor.

The following are the initiatives undertaken by IB unit since formation of the state

- Community Based Organisations Status (CBO): After reorganisation of districts, 30 Zilla Samakhyas and 547 Mandal Samakhyas have been formed. A total of 45,47,909 Self Help Group (SHG) members formed 4,14,933 SHGs and 18,544 Village Organisations. The district wise CBOs status is shown below:

Institutions of Rural Poor



11.9.2. Bank Linkage

SERP is facilitating bank linkage for SHG members by promoting diversified livelihoods to augment the income of the poor under the SHG-bank linkage programme. In the financial year 2017-18, SHG Bank Linkage assistance of Rs.3779.44 crore was provided to 1,06,564 SHGs in the state.

11.9.3. Stree Nidhi

Stree Nidhi Credit Cooperative Federation Ltd., is promoted by the Government and the Mandal Samkhayas to supplement credit flow from the banking sector and is a flagship programme of the government. Stree Nidhi provides timely and affordable credit to poor SHG members as a part of the overall strategy of SERP for poverty alleviation.

Under the Stree Nidhi programme, during 2017-18 (as on 12.01.2018), an amount of Rs. 960.02 crore was disbursed to 1,07,042 SHG groups in 30 districts.

11.9.4. Stree Nidhi Success Stories

1. Help in Need

Hello everybody, my name is Pathangi Ramulamma and my husband name is Narsimha. We live in BC colony, Choutuppal Mandal headquarters in Yadadri Bhuvanagiri District. We came across countless financial troubles in our life. Without any work we have starved sometimes. It had become very hard to look after the family. We were not in a position to pay the children's school fees. I became a member in the New Sahara Self Help Group and with it began the good days in our life. In our group, I was sanctioned Rs.50000 as a loan in the micro-segment by Stree Nidhi, to set up a new power loom. It has paved the way for my economic development. Now with the power loom unit, I am getting good returns, leading the family very happily and giving a good education to our children. Thanks to Stree Nidhi.



2. Succour from Stree Nidhi



Stree Nidhi stood as a succour and support in tiring times for Smt. Yippakayala Vijaya, hailing from the mandal centre Sangem of Warangal Rural District. Smt. Vijaya sank into deep despair when her husband Narasimha Ramulu passed away. This poor mother of three daughters was tormented, in want of financial sustenance. Then came Stree Nidhi for her rescue and provided her with loans which were, of course, very soon paid back. Smt. Vijaya, who was in the job of rolling beedies, joined the Mother Teresa Village Federation through SERP. With the cooperation from the village Federation she got the Stree Nidhi micro loan for

Rs.50,000/-. Smt. Vijaya started bangles business at her residence with the loan. As the business flourished her family prospered. Smt. Vijaya is worth her name now as her future and that of her family is safe and sound.

11.9.5. Aasara Pensions

The Government, as part of its welfare measures and social safety net strategy, has introduced Aasara pensions scheme with a view to ensure secured life with dignity for all the poor. The Aasara pension scheme is meant to protect the most vulnerable sections of society, in particular the old and infirm, disabled persons, ART, widows, incapacitated weavers and toddy tappers, who have lost their means of livelihood with growing age. The government has also extended the financial assistance of Rs.1000/- per month to poor beedi workers and to single women under the Aasara pension scheme. The district and category-wise details of live pensioners, beedi workers and single women under the Aasara scheme for the month of December 2017 are shown at Table 11.2.

Table 11.2: Number of different categories of Aasara pension beneficiaries as in December 2017

District	OAP	Widows	Disabled	Toddy Tappers	Weavers	FA to SW	FA to BW	ART	Total
Adilabad	25,006	28,562	7032	42	22	1826	5470	1337	69,297
Kumuram Bheem	20,236	20,025	6617	115	475	2501	48	0	50,017
Mancherial	34,434	38,015	12,610	900	224	2388	2242	0	90,813
Nirmal	33,587	37,202	10,571	269	37	1901	62,937	0	1,46,504
Nizamabad	62,953	69,750	19,511	1045	206	9567	96,609	2335	2,61,976
Jagtial	54,855	40,479	17,183	3221	1718	4251	89,068	939	2,11,714
Peddapalli	32,655	27,951	12,719	2065	697	2071	691	1686	80,535
Jayashankar	38,063	36,779	10,526	1711	911	2467	127	0	90,584
Bhadradi Kothagudem	39,225	45,770	12,166	135	20	5109	2	1109	1,03,536
Mahabubabad	42,131	39,590	15,035	2864	349	2778	13	0	1,02,760
Warangal [R]	39,348	34,441	13,004	3173	1472	2392	2037	0	95,867
Warangal [U]	37,906	40,922	14,678	2466	2592	2359	7122	3536	1,11,581
Karimnagar	48,984	32,668	19,195	3627	2693	3127	9161	3452	1,22,907
Rajanna Sircilla	31,016	21,870	10,426	2111	3759	1764	43,372	0	1,14,318
Kamareddy	48,385	48,933	18,099	696	646	4167	37,113	1629	1,59,668
Sangareddy	52,003	61,543	14,569	668	748	6201	86	3064	1,38,882
Medak	36,776	41,825	8823	732	493	3984	9457	0	1,02,090
Siddipet	57,527	48,781	14,725	2475	2205	3119	34,312	992	1,64,136
Jangaon	32,085	26,622	11,509	3267	1664	1566	2013	556	79,282
Yadadri Bhuvanagiri	36,140	31,807	12,691	5615	3260	2513	908	0	92,934
Medchal-Malkajigiri	31,795	49,370	19,015	411	148	4269	141	0	1,05,149
Hyderabad	56,994	89,448	27,236	0	6	5897	48	11,999	1,91,628
Rangareddy	61,540	75,104	27,079	1939	716	5453	16	0	1,71,847
Vikarabad	38,651	48,682	12,808	469	171	4517	6	1463	1,06,767
Mahabubnagar	63,711	73,896	22,852	1566	3402	6968	3017	3607	1,79,019
Jogulamba Gadwal	24,862	27,970	10,744	369	2106	1922	54	0	68,027
Wanaparthy	29,567	27,058	10,587	452	709	2568	1002	0	71,943
Nagarkurnool	45,910	42,631	13,578	717	251	3590	25	0	1,06,702
Nalgonda	68,381	74,411	29,191	7442	2762	6661	0	2844	1,91,692
Suryapet	50,094	53,831	20,172	6793	887	6426	0	1083	1,39,286
Khammam	63,878	62,703	24,897	3044	451	7553	0	3639	1,66,165
Total	13,38,698	13,98,639	4,79,848	60,399	35,800	1,21,875	4,07,097	45,270	38,87,626

11.9.6. Non-Farm Livelihoods

Agriculture is one of the predominant activities which provides a major source of livelihood for the poorest of the poor (PoP)/ the poor in the rural areas of state. In order to help the farmers sell their produce in a profitable manner, the government has established Procurement Centres through VOs of IKP for collective procurement and marketing.

The objective is to aggregate the produce at VO level so that farmers get benefited by getting a remunerative price (MSP at doorstep) for their produce, along with generating profit for community organisations.

To encourage additional livelihoods for poor SHG families, the government introduced non-farm enterprises which will be established by SHG women. SERP is promoting these small entrepreneurs involved in non-farm activity by providing a marketing platform through exhibitions like Sale of Articles of Rural Artisans' Societies (SARAS) and through DWCRA Bazaars. In order to work across the value chain, provide end-to-end solutions and ensure a good Return on Investment (RoI) to the beneficiaries involved in non-farm activity, the department has embarked upon the following solutions:

11.9.7. Rural Self Employment and Training Institutes (RSETIs)

Rural Self Employment Training Institutes (RSETIs) have been established by lead banks in respective districts, which will be a platform for promotion and establishment of new enterprises and also handholding the beneficiaries for three years for sustainable livelihoods to rural poorest of the poor beneficiaries.

There are 10 RSETIs at present in Telangana, run by the State Bank India, Andhra Bank, Syndicate Bank and Indian Bank. The basic objective of RSETIs is to provide short-term residential training in multifarious spheres in 41 different courses keeping in view of the local demand, followed by long-term handholding. The main focus will be tracking for three years of youth who are trained and facilitate them to set up enterprises by giving necessary support. The trained candidates will be tracked and hand held for three years through SERP by Mandal Samakhya and its staff. During 2017-18, so far 3,719 candidates were trained under 10 RSETIs and 1,233 beneficiaries have established enterprises.

11.9.8. Marketing of SHG products with SARAS: An Introspective

The capacity building and institutional building of the community-based organisations at SERP have resulted in banks coming forward to link more money to these SHG members. This has resulted in evolving and development of entrepreneurship among the SHG members. These small entrepreneurs or producer groups are now able to sell their products locally (through DWCRA Bazaars) and through various exhibitions, SARAS and other related programmes being organised by the government from time to time.

In every SARAS being organised in the state, nearly 150 entrepreneurs from the state and 200 entrepreneurs from other states participate in the event. In SARAS



being organised in other states, on an average 20 to 40 entrepreneurs from our state participate in every state on rotation basis depending on the stalls allocated to our state.

SARAS 2017 organised from 16 to 25 September 2017

Number of participants	:	324
Number of participant states	:	25
Number of visitors	:	3,85,000 Nos.
Sales	:	Rs.185 lakh
Major products	:	Handlooms, handicrafts, jute, leather items, food items, wooden toys, etc.

11.9.9. TRIGP Project

Rural Retail Chain: The objective of this sub-component under TRIGP is to connect rural producers and enterprises with the rural consumers and enhance the quality of consumption of the poor households.

This will be done by transforming the product mix and business models of nearly 7500 traditional rural retail (kirana) stores to enable the provision of a range of products related to nutrition, hygiene and alternate energy. In addition, enterprises linked to the processing of the agriculture produce and manufacturing of nutrition products will be promoted and linked to the retail stores.

These traditional stores and enterprises will be organised into a network of rural retail marts (Knitting Rural Self Help Enterprises (KRuSHE) Marts) and home-based enterprises (KRuSHE Enterprises).

11.9.10. Mahatma Gandhi National Rural Employment Guarantee Scheme

The Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) is the one of biggest poverty eradication and welfare programmes in India. MGNREGA guarantees 100 days of unskilled wage employment to a rural household in a financial year. Telangana is one of the leading states, not only in quantitative terms, but also for innovations in implementation of the programme.



MGNREGA is in implementation in 8,517 Gram Panchayats, covering 438 mandals in 30 rural districts of Telangana. A total of 51.11 lakh job cards were issued to 1.14 crore wage seekers. Out of these, 31 lakh job cards are active and 41.8 lakh wage seekers belonging to 24.5 lakh households reported for work, generating total 10.31 crore person days up to 10th February, 2018.

Key Achievements

- Land Development: 1.67 lakh land development works were taken up during the year with an expenditure of Rs 516.6 crore.
- Soil and Moisture conservation works: 62,045 works were taken up during the year with an expenditure of Rs.417.7 crore.
- Rs.362 crore incurred for 3.6 lakh afforestation and plantation works.
- Desilting of MI Tanks: Rs.163.9 crore expenditure incurred for 5568 works.
- IHHLs: 2.81 lakh IHHLs were taken up and 91,676 were completed with an expenditure of Rs.72.55 crore.

Some of the assets and amenities being constructed under MGNREGA include crematoria, school toilets, school kitchen sheds, internal CC roads, goat sheds, cattle sheds, fish ponds, vegetable pandals, new Anganwadi Centres, GP buildings, CC roads, farm ponds, etc. Matching funds are also mobilised from line departments and constituency development fund of legislators.

11.10. Outlook

From the welfare point of view, this is a remarkable year. The government has been able to build on, further, the several path-breaking welfare measures initiated after formation of the state. The government not only maintained the budgetary support to numerous welfare programmes, but also enhanced significantly. The one-time assistance under Kalyan Lakshmi & Shaadi Mubarak has been increased by about 50 percent, from Rs.51,000/- to Rs.75,116/-. The implementation of the Telangana State Scheduled Castes and Scheduled Tribes Special Development Fund (Planning, Allocation and Utilisation of Financial Resources) Act, 2017, with the revolutionary provision 'If any amount of Special Development Fund remains unspent, it shall be compensated in the next financial year in the same proportion on the reach of actual expenditure to total budget estimate of Pragathi Paddu (Development account) at the end of a financial year in the manner prescribed' is the most remarkable welfare accomplishment of the year. No other state in the country has enacted such a bold Act so far.

Significant economic and social benefits are being achieved through thorough efforts and to achieve Bangaru Telangana with social and economic upliftment of all weaker sections in the state.

STATISTICAL PROFILE

STATISTICAL PROFILE

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1. Gross State Domestic Product at Current Prices

(Rs. in crore)

Sl. No.	Sector	2011-12	2012-13	2013-14 (TRE)	2014-15 (TRE)	2015-16 (SRE)	2016-17 (FRE)	2017-18 (AE)
1	2	3	4	5	6	7	8	9
1.	Agriculture, Livestock, Forestry and Fishing	54,615	67,364	76,631	76,123	76,340	89,142	97,885
1.1	Crops	32,368	40,570	47,093	41,706	37,418	44,358	47,108
1.2	Livestock	18,848	22,858	24,878	29,282	33,753	39,843	45,260
1.3	Forestry and Logging	1,917	2,096	2,163	2,465	2,520	2,666	2,795
1.4	Fishing and Aquaculture	1,481	1,839	2,497	2,670	2,649	2,275	2,721
2.	Mining and Quarrying	11,061	12,685	12,386	14,706	17,068	20,890	22,235
	Primary	65,676	80,049	89,016	90,828	93,408	1,10,032	1,20,120
3.	Manufacturing	62,152	55,431	57,148	54,533	57,923	62,915	69,469
4.	Electricity, Gas, Water supply and Other Utility Services	7,835	5,896	8,709	7,340	7,995	6,261	6,593
5.	Construction	22,791	23,579	24,582	27,786	28,447	30,249	32,350
	Secondary	92,778	84,906	90,440	89,660	94,364	99,425	1,08,412
6.	Trade, Repair, Hotels and Restaurants	37,478	44,547	51,275	64,269	77,186	90,681	1,05,441
6.1	Trade and Repair Services	30,487	36,472	44,563	56,974	68,745	81,115	94,577
6.2	Hotels and Restaurants	6,991	8,074	6,712	7,295	8,441	9,566	10,864
7.	Transport, Storage, Communication and Services related to Broadcasting	25,318	29,871	32,298	35,866	39,769	45,307	51,222
7.1	Railways	1,614	1,757	1,929	2,004	2,010	2,223	2,250
7.2	Road Transport	14,613	17,158	18,691	20,540	22,828	25,679	28,904
7.3	Water Transport	-	-	-	-	-	-	-
7.4	Air Transport	233	432	345	623	1,101	1,327	1,598
7.5	Services incidental to Transport	3,718	4,844	4,477	4,937	4,898	5,519	6,085
7.6	Storage	175	153	171	178	191	234	295
7.7	Communication and Services related to Broadcasting	4,965	5,527	6,685	7,584	8,740	10,326	12,091
8.	Financial Services	21,265	23,632	26,596	30,261	33,123	35,978	40,155
9.	Real Estate, Ownership of Dwelling and Professional Services	55,514	69,245	82,307	96,912	1,09,943	1,27,239	1,47,604
10.	Public Administration	11,313	12,660	14,338	17,166	20,669	22,704	26,954
11.	Other Services	26,709	30,354	35,460	41,536	48,065	53,271	61,144
	Tertiary	1,77,597	2,10,308	2,42,273	2,86,011	3,28,754	3,75,179	4,32,520
12.	Total GSVA at Basic Prices	3,36,050	3,75,263	4,21,729	4,66,499	5,16,526	5,84,636	6,61,052
13.	Taxes on Products	32,811	37,164	40,929	48,642	56,993	69,514	86,250
14.	Subsidies on Products	9,427	10,833	11,078	9,292	10,163	12,165	14,644
15.	Gross State Domestic Product	3,59,434	4,01,594	4,51,580	5,05,849	5,63,356	6,41,985	7,32,657

Note: 1. AE: Advance Estimates; FRE: First Revised Estimates; SRE: Second Revised Estimates and TRE: Third Revised Estimates
2. Totals may not tally due to rounding off.

2. Sectoral Growth Rates of Gross State Domestic Product at Current Prices

(Percentage)

Sl. No.	Sector	2012-13	2013-14 (TRE)	2014-15 (TRE)	2015-16 (SRE)	2016-17 (FRE)	2017-18 (AE)
1	2	3	4	5	6	7	8
1.	Agriculture, Livestock, Forestry and Fishing	23.3	13.8	-0.7	0.3	16.8	9.8
1.1	Crops	25.3	16.1	-11.4	-10.3	18.5	6.2
1.2	Livestock	21.3	8.8	17.7	15.3	18.0	13.6
1.3	Forestry and Logging	9.3	3.2	14.0	2.2	5.8	4.9
1.4	Fishing and Aquaculture	24.1	35.8	6.9	-0.8	-14.1	19.6
2.	Mining and Quarrying	14.7	-2.4	18.7	16.1	22.4	6.4
	Primary	21.9	11.2	2.0	2.8	17.8	9.2
3.	Manufacturing	-10.8	3.1	-4.6	6.2	8.6	10.4
4.	Electricity, Gas, Water supply and Other Utility Services	-24.7	47.7	-15.7	8.9	-21.7	5.3
5.	Construction	3.5	4.3	13.0	2.4	6.3	6.9
	Secondary	-8.5	6.5	-0.9	5.2	5.4	9.0
6.	Trade, Repair, Hotels and Restaurants	18.9	15.1	25.3	20.1	17.5	16.3
6.1	Trade and Repair Services	19.6	22.2	27.9	20.7	18.0	16.6
6.2	Hotels and Restaurants	15.5	-16.9	8.7	15.7	13.3	13.6
7.	Transport, Storage, Communication and Services related to Broadcasting	18.0	8.1	11.0	10.9	13.9	13.1
7.1	Railways	8.8	9.8	3.9	0.3	10.6	1.2
7.2	Road Transport	17.4	8.9	9.9	11.1	12.5	12.6
7.3	Water Transport	0.0	0.0	0.0	0.0	0.0	0.0
7.4	Air Transport	85.6	-20.1	80.7	76.6	20.5	20.4
7.5	Services incidental to Transport	30.3	-7.6	10.3	-0.8	12.7	10.3
7.6	Storage	-12.6	11.5	4.2	7.6	22.1	26.0
7.7	Communication and Services related to Broadcasting	11.3	20.9	13.5	15.2	18.1	17.1
8.	Financial Services	11.1	12.5	13.8	9.5	8.6	11.6
9.	Real Estate, Ownership of Dwelling and Professional Services	24.7	18.9	17.7	13.4	15.7	16.0
10.	Public Administration	11.9	13.3	19.7	20.4	9.8	18.7
11.	Other Services	13.6	16.8	17.1	15.7	10.8	14.8
	Tertiary	18.4	15.2	18.1	14.9	14.1	15.3
12.	Total GSVA at Basic Prices	11.7	12.4	10.6	10.7	13.2	13.1
13.	Taxes on Products	13.3	10.1	18.8	17.2	22.0	24.1
14.	Subsidies on Products	14.9	2.3	-16.1	9.4	19.7	20.4
15.	Gross State Domestic Product	11.7	12.4	12.0	11.4	14.0	14.1

3. Sectoral Contribution of Gross State Value Added at Current Prices

		(Percentage)						
Sl. No.	Sector	2011-12	2012-13	2013-14 (TRE)	2014-15 (TRE)	2015-16 (SRE)	2016-17 (FRE)	2017-18 (AE)
1	2	3	4	5	6	7	8	9
1.	Agriculture, Livestock, Forestry and Fishing	16.3	18.0	18.2	16.3	14.8	15.2	14.8
1.1	Crops	9.6	10.8	11.2	8.9	7.2	7.6	7.1
1.2	Livestock	5.6	6.1	5.9	6.3	6.5	6.8	6.8
1.3	Forestry and Logging	0.6	0.6	0.5	0.5	0.5	0.5	0.4
1.4	Fishing and Aquaculture	0.4	0.5	0.6	0.6	0.5	0.4	0.4
2.	Mining and Quarrying	3.3	3.4	2.9	3.2	3.3	3.6	3.4
	Primary	19.5	21.3	21.1	19.5	18.1	18.8	18.2
3.	Manufacturing	18.5	14.8	13.6	11.7	11.2	10.8	10.5
4.	Electricity, Gas, Water supply and Other Utility Services	2.3	1.6	2.1	1.6	1.5	1.1	1.0
5.	Construction	6.8	6.3	5.8	6.0	5.5	5.2	4.9
	Secondary	27.6	22.6	21.4	19.2	18.3	17.0	16.4
6.	Trade, Repair, Hotels and Restaurants	11.2	11.9	12.2	13.8	14.9	15.5	16.0
6.1	Trade and Repair Services	9.1	9.7	10.6	12.2	13.3	13.9	14.3
6.2	Hotels and Restaurants	2.1	2.2	1.6	1.6	1.6	1.6	1.6
7.	Transport, Storage, Communication and Services related to Broadcasting	7.5	8.0	7.7	7.7	7.7	7.7	7.7
7.1	Railways	0.5	0.5	0.5	0.4	0.4	0.4	0.3
7.2	Road Transport	4.3	4.6	4.4	4.4	4.4	4.4	4.4
7.3	Water Transport	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.4	Air Transport	0.1	0.1	0.1	0.1	0.2	0.2	0.2
7.5	Services incidental to Transport	1.1	1.3	1.1	1.1	0.9	0.9	0.9
7.6	Storage	0.1	0.0	0.0	0.0	0.0	0.0	0.0
7.7	Communication and Services related to Broadcasting	1.5	1.5	1.6	1.6	1.7	1.8	1.8
8.	Financial Services	6.3	6.3	6.3	6.5	6.4	6.2	6.1
9.	Real Estate, Ownership of Dwelling and Professional Services	16.5	18.5	19.5	20.8	21.3	21.8	22.3
10.	Public Administration	3.4	3.4	3.4	3.7	4.0	3.9	4.1
11.	Other Services	7.9	8.1	8.4	8.9	9.3	9.1	9.2
	Tertiary	52.8	56.0	57.4	61.3	63.6	64.2	65.4
12.	Total GSVA at Basic Prices	100.0	100.0	100.0	100.0	100.0	100.0	100.0

4. Gross State Domestic Product at Constant (2011-12) Prices

(Rs. in crore)

Sl. No.	Sector	2011-12	2012-13	2013-14 (TRE)	2014-15 (TRE)	2015-16 (SRE)	2016-17 (FRE)	2017-18 (AE)
1	2	3	4	5	6	7	8	9
1.	Agriculture, Livestock, Forestry and Fishing	54,615	59,434	61,792	55,811	52,348	58,076	62,086
1.1	Crops	32,368	35,541	37,235	29,546	24,921	29,431	30,532
1.2	Livestock	18,848	20,351	20,827	22,519	23,937	25,519	28,179
1.3	Forestry and Logging	1,917	1,906	1,858	1,715	1,683	1,635	1,636
1.4	Fishing and Aquaculture	1,481	1,636	1,872	2,031	1,808	1,491	1,738
2.	Mining and Quarrying	11,061	11,921	10,824	12,604	14,055	16,441	16,936
	Primary	65,676	71,355	72,616	68,415	66,403	74,516	79,023
3.	Manufacturing	62,152	52,598	52,182	48,276	51,380	55,177	59,370
4.	Electricity, Gas, Water supply and Other Utility Services	7,835	6,183	8,692	6,624	6,890	4,901	5,117
5.	Construction	22,791	23,145	21,367	23,332	24,844	26,066	26,940
	Secondary	92,778	81,925	82,240	78,231	83,114	86,143	91,427
6.	Trade, Repair, Hotels and Restaurants	37,478	40,266	43,576	52,230	60,463	67,943	76,315
6.1	Trade and Repair Services	30,487	32,967	37,881	46,315	53,867	60,789	68,493
6.2	Hotels and Restaurants	6,991	7,300	5,694	5,915	6,595	7,153	7,823
7.	Transport, Storage, Communication and Services related to Broadcasting	25,318	27,889	29,005	31,075	33,962	37,973	42,378
7.1	Railways	1,614	1,680	1,806	1,750	1,710	1,764	1,781
7.2	Road Transport	14,613	15,982	16,871	17,678	19,265	21,510	23,967
7.3	Water Transport	0	0	0	0	0	0	0
7.4	Air Transport	233	404	306	548	962	1,125	1,326
7.5	Services incidental to Transport	3,718	4,532	3,964	4,338	4,281	4,682	5,052
7.6	Storage	175	139	146	145	151	176	215
7.7	Communication and Services related to Broadcasting	4,965	5,152	5,913	6,617	7,593	8,715	10,037
8.	Financial Services	21,265	23,323	25,645	28,699	30,906	33,934	36,054
9.	Real Estate, Ownership of Dwelling and Professional Services	55,514	62,606	69,881	78,506	85,745	94,975	1,06,333
10.	Public Administration	11,313	11,523	12,120	13,860	16,018	16,864	18,884
11.	Other Services	26,709	26,990	29,213	32,057	35,436	37,591	41,344
	Tertiary	1,77,597	1,92,596	2,09,440	2,36,427	2,62,529	2,89,280	3,21,309
12.	Total GSVA at Basic Prices	3,36,050	3,45,876	3,64,296	3,83,073	4,12,046	4,49,939	4,91,759
13.	Taxes on Products	32,811	34,209	35,183	41,113	48,716	57,666	69,524
14.	Subsidies on Products	9,427	9,972	9,522	7,854	8,687	10,092	11,804
15.	Gross State Domestic Product	3,59,434	3,70,113	3,89,957	4,16,332	4,52,075	4,97,513	5,49,479

Note: 1. AE: Advance Estimates; FRE: First Revised Estimates; SRE: Second Revised Estimates and TRE: Third Revised Estimates

2. Totals may not tally due to rounding off.

5. Sectoral Growth Rates of Gross State Domestic Product at Constant (2011-12) Prices

		(Percentage)					
Sl. No.	Sector	2012-13	2013-14 (TRE)	2014-15 (TRE)	2015-16 (SRE)	2016-17 (FRE)	2017-18 (AE)
1	2	3	4	5	6	7	8
1.	Agriculture, Livestock, Forestry and Fishing	8.8	4.0	-9.7	-6.2	10.9	6.9
1.1	Crops	9.8	4.8	-20.6	-15.7	18.1	3.7
1.2	Livestock	8.0	2.3	8.1	6.3	6.6	10.4
1.3	Forestry and Logging	-0.6	-2.5	-7.7	-1.9	-2.9	0.1
1.4	Fishing and Aquaculture	10.4	14.4	8.5	-11.0	-17.6	16.6
2.	Mining and Quarrying	7.8	-9.2	16.4	11.5	17.0	3.0
	Primary	8.6	1.8	-5.8	-2.9	12.2	6.0
3.	Manufacturing	-15.4	-0.8	-7.5	6.4	7.4	7.6
4.	Electricity, Gas, Water supply and Other Utility Services	-21.1	40.6	-23.8	4.0	-28.9	4.4
5.	Construction	1.6	-7.7	9.2	6.5	4.9	3.4
	Secondary	-11.7	0.4	-4.9	6.2	3.6	6.1
6.	Trade, Repair, Hotels and Restaurants	7.4	8.2	19.9	15.8	12.4	12.3
6.1	Trade and Repair Services	8.1	14.9	22.3	16.3	12.9	12.7
6.2	Hotels and Restaurants	4.4	-22.0	3.9	11.5	8.5	9.4
7.	Transport, Storage, Communication and Services related to Broadcasting	10.2	4.0	7.1	9.3	11.8	11.6
7.1	Railways	4.1	7.4	-3.1	-2.2	3.1	0.9
7.2	Road Transport	9.4	5.6	4.8	9.0	11.7	11.4
7.3	Water Transport	0.0	0.0	0.0	0.0	0.0	0.0
7.4	Air Transport	73.6	-24.3	79.3	75.7	17.0	17.9
7.5	Services incidental to Transport	21.9	-12.5	9.4	-1.3	9.4	7.9
7.6	Storage	-20.8	4.9	-0.3	3.8	16.9	21.8
7.7	Communication and Services related to Broadcasting	3.7	14.8	11.9	14.7	14.8	15.2
8.	Financial Services	9.7	10.0	11.9	7.7	9.8	6.2
9.	Real Estate, Ownership of Dwelling and Professional Services	12.8	11.6	12.3	9.2	10.8	12.0
10.	Public Administration	1.9	5.2	14.4	15.6	5.3	12.0
11.	Other Services	1.0	8.2	9.7	10.5	6.1	10.0
	Tertiary	8.4	8.7	12.9	11.0	10.2	11.1
12.	Total GSVA at Basic Prices	2.9	5.3	5.2	7.6	9.2	9.3
13.	Taxes on Products	4.3	2.8	16.9	18.5	18.4	20.6
14.	Subsidies on Products	5.8	-4.5	-17.5	10.6	16.2	17.0
15.	Gross State Domestic Product	3.0	5.4	6.8	8.6	10.1	10.4

6. Sectoral Contribution of Gross State Value Added at Constant (2011-12) Prices

(Percentage)

Sl. No.	Sector	2011-12	2012-13	2013-14 (TRE)	2014-15 (TRE)	2015-16 (SRE)	2016-17 (FRE)	2017-18 (AE)
1	2	3	4	5	6	7	8	9
1.	Agriculture, Livestock, Forestry and Fishing	16.3	17.2	17.0	14.6	12.7	12.9	12.6
1.1	Crops	9.6	10.3	10.2	7.7	6.0	6.5	6.2
1.2	Livestock	5.6	5.9	5.7	5.9	5.8	5.7	5.7
1.3	Forestry and Logging	0.6	0.6	0.5	0.4	0.4	0.4	0.3
1.4	Fishing and Aquaculture	0.4	0.5	0.5	0.5	0.4	0.3	0.4
2.	Mining and Quarrying	3.3	3.4	3.0	3.3	3.4	3.7	3.4
	Primary	19.5	20.6	19.9	17.9	16.1	16.6	16.1
3.	Manufacturing	18.5	15.2	14.3	12.6	12.5	12.3	12.1
4.	Electricity, Gas, Water supply and Other Utility Services	2.3	1.8	2.4	1.7	1.7	1.1	1.0
5.	Construction	6.8	6.7	5.9	6.1	6.0	5.8	5.5
	Secondary	27.6	23.7	22.6	20.4	20.2	19.1	18.6
6.	Trade, Repair, Hotels and Restaurants	11.2	11.6	12.0	13.6	14.7	15.1	15.5
6.1	Trade and Repair Services	9.1	9.5	10.4	12.1	13.1	13.5	13.9
6.2	Hotels and Restaurants	2.1	2.1	1.6	1.5	1.6	1.6	1.6
7.	Transport, Storage, Communication and Services related to Broadcasting	7.5	8.1	8.0	8.1	8.2	8.4	8.6
7.1	Railways	0.5	0.5	0.5	0.5	0.4	0.4	0.4
7.2	Road Transport	4.3	4.6	4.6	4.6	4.7	4.8	4.9
7.3	Water Transport	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.4	Air Transport	0.1	0.1	0.1	0.1	0.2	0.3	0.3
7.5	Services incidental to Transport	1.1	1.3	1.1	1.1	1.0	1.0	1.0
7.6	Storage	0.1	0.0	0.0	0.0	0.0	0.0	0.0
7.7	Communication and Services related to Broadcasting	1.5	1.5	1.6	1.7	1.8	1.9	2.0
8.	Financial Services	6.3	6.7	7.0	7.5	7.5	7.5	7.3
9.	Real Estate, Ownership of Dwelling and Professional Services	16.5	18.1	19.2	20.5	20.8	21.1	21.6
10.	Public Administration	3.4	3.3	3.3	3.6	3.9	3.7	3.8
11.	Other Services	7.9	7.8	8.0	8.4	8.6	8.4	8.4
	Tertiary	52.8	55.7	57.5	61.7	63.7	64.3	65.3
12.	Total GSVA at Basic Prices	100.0	100.0	100.0	100.0	100.0	100.0	100.0

7. Net State Domestic Product and Per Capita Income at Current Prices

(Rs. in crore)								
Sl. No.	Sector	2011-12	2012-13	2013-14 (TRE)	2014-15 (TRE)	2015-16 (SRE)	2016-17 (FRE)	2017-18 (AE)
1	2	3	4	5	6	7	8	9
1.	Agriculture, Livestock, Forestry and Fishing	51,358	63,599	72,267	71,272	71,135	83,307	91,629
1.1	Crops	29,554	37,322	43,357	37,528	32,850	39,204	41,634
1.2	Livestock	18,595	22,550	24,532	28,900	33,356	39,374	44,727
1.3	Forestry and Logging	1,896	2,079	2,144	2,441	2,496	2,640	2,769
1.4	Fishing and Aquaculture	1,312	1,647	2,234	2,404	2,434	2,089	2,499
2.	Mining and Quarrying	9,734	11,146	10,331	12,499	14,251	17,443	18,567
	Primary	61,092	74,745	82,598	83,771	85,387	1,00,751	1,10,196
3.	Manufacturing	52,925	46,102	47,857	45,156	48,382	52,552	58,025
4.	Electricity, Gas, Water supply and Other Utility Services	5,215	3,864	5,873	4,967	6,320	4,949	5,212
5.	Construction	21,728	22,349	23,105	26,171	26,816	28,514	30,495
	Secondary	79,869	72,315	76,836	76,293	81,517	86,015	93,733
6.	Trade, Repair, Hotels and Restaurants	35,916	42,603	49,461	62,117	74,537	87,577	1,01,838
6.1	Trade and Repair Services	29,216	34,881	43,061	55,213	66,564	78,541	91,577
6.2	Hotels and Restaurants	6,700	7,722	6,400	6,904	7,973	9,036	10,262
7.	Transport, Storage, Communication & Services related to Broadcasting	20,860	24,928	26,470	29,273	33,040	38,100	43,531
7.1	Railways	1,356	1,480	1,598	1,654	1,626	1,797	1,819
7.2	Road Transport	12,051	14,353	15,610	16,910	19,028	21,879	25,104
7.3	Water Transport	0	0	0	0	0	0	0
7.4	Air Transport	192	361	169	416	918	1,107	1,333
7.5	Services incidental to Transport	3,066	4,053	3,882	4,352	4,357	4,909	5,412
7.6	Storage	150	133	145	149	164	200	252
7.7	Communication and Services related to Broadcasting	4,045	4,549	5,066	5,792	6,948	8,208	9,611
8.	Financial Services	20,929	23,214	26,154	29,704	32,497	35,299	39,397
9.	Real Estate, Ownership of Dwelling and Professional Services	49,920	62,077	72,922	83,407	92,860	1,07,468	1,24,668
10.	Public Administration	8,748	9,872	11,175	13,616	16,587	17,557	21,435
11.	Other Services	24,421	27,945	32,816	38,750	45,127	50,213	58,537
	Tertiary	1,60,795	1,90,639	2,18,997	2,56,866	2,94,648	3,36,214	3,89,407
12.	Total GSVA at Basic Prices	3,01,755	3,37,699	3,78,431	4,16,930	4,61,552	5,22,980	5,93,335
13.	Taxes on Products	32,811	37,164	40,929	48,642	56,993	69,514	86,250
14.	Subsidies on Products	9,427	10,833	11,078	9,292	10,163	12,165	14,644
15.	Net State Domestic Product	3,25,139	3,64,030	4,08,282	4,56,280	5,08,381	5,80,329	6,64,941
16.	Population ('000)	35,682	36,040	36,401	36,766	37,134	37,505	37,881
17.	Per Capita Income (Rupees)	91,121	1,01,007	1,12,162	1,24,104	1,36,905	1,54,734	1,75,534

8. Net State Domestic Product and Per Capita Income at Constant (2011-12) Prices

(Rs. in crore)								
Sl. No.	Sector	2011-12	2012-13	2013-14 (TRE)	2014-15 (TRE)	2015-16 (SRE)	2016-17 (FRE)	2017-18 (AE)
1	2	3	4	5	6	7	8	9
1.	Agriculture, Livestock, Forestry and Fishing	51,358	55,959	58,076	51,883	48,287	53,358	57,147
1.1	Crops	29,554	32,548	34,073	26,191	21,423	25,267	26,212
1.2	Livestock	18,595	20,066	20,521	22,190	23,583	25,142	27,763
1.3	Forestry and Logging	1,896	1,890	1,841	1,694	1,661	1,614	1,615
1.4	Fishing and Aquaculture	1,312	1,455	1,641	1,808	1,619	1,335	1,557
2.	Mining and Quarrying	9,734	10,456	8,943	10,704	11,682	13,664	14,076
	Primary	61,092	66,415	67,019	62,586	59,969	67,022	71,224
3.	Manufacturing	52,925	43,626	43,501	39,854	42,803	45,966	49,459
4.	Electricity, Gas, Water supply and Other Utility Services	5,215	4,052	6,031	4,502	5,388	3,832	4,001
5.	Construction	21,728	21,971	19,977	21,833	23,323	24,470	25,291
	Secondary	79,869	69,649	69,510	66,189	71,514	74,267	78,752
6.	Trade, Repair, Hotels and Restaurants	35,916	38,432	41,924	50,341	58,091	65,285	73,336
6.1	Trade and Repair Services	29,216	31,465	36,516	44,769	51,914	58,585	66,009
6.2	Hotels and Restaurants	6,700	6,967	5,408	5,572	6,177	6,700	7,327
7.	Transport, Storage, Communication and Services related to Broadcasting	20,860	23,142	23,023	25,095	27,867	31,562	35,613
7.1	Railways	1,356	1,421	1,503	1,445	1,378	1,422	1,435
7.2	Road Transport	12,051	13,299	13,520	14,298	15,713	17,958	20,414
7.3	Water Transport	0	0	0	0	0	0	0
7.4	Air Transport	192	336	142	354	792	926	1,092
7.5	Services incidental to Transport	3,066	3,771	3,403	3,821	3,800	4,156	4,485
7.6	Storage	150	119	122	120	126	147	179
7.7	Communication and Services related to Broadcasting	4,045	4,196	4,332	5,058	6,057	6,953	8,008
8.	Financial Services	20,929	22,917	25,224	28,204	30,352	33,327	35,409
9.	Real Estate, Ownership of Dwelling and Professional Services	49,920	55,873	61,291	66,962	71,336	79,015	88,465
10.	Public Administration	8,748	8,844	9,175	10,648	12,303	12,567	14,168
11.	Other Services	24,421	24,695	26,767	29,612	32,821	34,943	38,931
	Tertiary	1,60,795	1,73,904	1,87,403	2,10,862	2,32,770	2,56,699	2,85,921
12.	Total GSVA at Basic Prices	3,01,755	3,09,968	3,23,932	3,39,638	3,64,252	3,97,989	4,35,896
13.	Taxes on Products	32,811	34,209	35,183	41,113	48,716	57,666	69,524
14.	Subsidies on Products	9,427	9,972	9,522	7,854	8,687	10,092	11,804
15.	Net State Domestic Product	3,25,139	3,34,205	3,49,593	3,72,897	4,04,281	4,45,563	4,93,616
16.	Population ('000)	35,682	36,040	36,401	36,766	37,134	37,505	37,881
17.	Per Capita Income (Rupees)	91,121	92,732	96,039	1,01,424	1,08,871	1,18,801	1,30,307

Note: 1. AE: Advance Estimates; FRE: First Revised Estimates; SRE: Second Revised Estimates and TRE: Third Revised Estimates
2. Totals may not tally due to rounding off.

9. Gross Domestic Product and Per Capita Income of All India at Current Prices

(Rs. in crore)

Sl. No.	Item	2011-12	2012-13	2013-14 (TRE)	2014-15 (TRE)	2015-16 (SRE)	2016-17 (FRE)	2017-18 (AE)
1	2	3	4	5	6	7	8	9
1.	Agriculture, Livestock, Forestry and Fishing	15,01,947	16,75,106	19,26,373	20,93,612	22,25,367	24,84,006	25,88,180
1.1	Crops	9,82,151	10,88,814	12,48,776	12,92,874	13,27,997	15,30,137	25,88,180
1.2	Livestock	3,27,333	3,68,823	4,22,733	5,10,411	5,84,070	6,39,912	
1.3	Forestry and Logging	1,24,436	1,37,558	1,56,674	1,73,760	1,82,247	1,80,465	
1.4	Fishing and Aquaculture	68,027	79,911	98,190	1,16,567	1,31,053	1,33,492	
2.	Mining and Quarrying	2,61,035	2,85,842	2,95,794	3,08,476	3,01,230	3,32,947	
	Primary	17,62,982	19,60,948	22,22,167	24,02,088	25,26,597	28,16,953	29,65,377
3.	Manufacturing	14,09,986	15,72,837	17,13,452	18,78,369	21,16,119	23,29,220	25,12,008
4.	Electricity, Gas, Water supply and Other Utility Services	1,86,668	2,15,350	2,60,155	2,82,258	3,36,978	3,63,482	3,88,080
5.	Construction	7,77,335	8,49,365	9,21,470	9,79,086	9,92,298	10,28,463	11,04,185
	Secondary	23,73,989	26,37,552	28,95,077	31,39,713	34,45,395	37,21,165	40,04,273
6.	Trade, Repair, Hotels and Restaurants	8,83,582	10,54,533	11,84,561	13,20,833	14,31,017	15,86,238	28,21,490
6.1	Trade and Repair Services	7,93,681	9,54,683	10,78,421	12,06,474	13,04,935	14,46,832	28,21,490
6.2	Hotels and Restaurants	89,901	99,850	1,06,140	1,14,359	1,26,082	1,39,406	
7.	Transport, Storage, Communication and Services related to Broadcasting	5,29,534	6,09,454	6,89,908	7,86,763	8,72,233	9,35,575	
7.1	Railways	61,150	72,296	78,724	92,459	1,00,436	1,06,582	
7.2	Road Transport	2,62,441	3,00,652	3,38,306	3,70,364	3,99,976	4,34,588	
7.3	Water Transport	6,910	7,190	6,476	7,590	7,354	6,848	
7.4	Air Transport	4,393	8,128	6,853	11,820	20,350	20,655	
7.5	Services incidental to Transport	63,602	72,054	75,719	91,681	94,139	1,03,496	
7.6	Storage	5,108	6,165	6,026	6,407	6,655	6,888	
7.7	Communication and Services related to Broadcasting	1,25,930	1,42,969	1,77,804	2,06,442	2,43,323	2,56,518	
8.	Financial Services	4,80,226	5,36,819	5,99,341	6,61,411	7,27,254	7,42,936	31,73,667
9.	Real Estate, Ownership of Dwelling and Professional Services	10,50,651	12,39,813	14,70,167	17,01,935	19,04,030	21,14,386	
10.	Public Administration	4,91,155	5,46,231	6,01,912	6,76,818	7,31,640	8,59,615	
11.	Other Services	5,34,827	6,17,342	7,00,020	8,14,718	9,28,480	10,64,723	22,01,573
	Tertiary	39,69,975	46,04,192	52,45,909	59,62,478	65,94,654	73,03,473	81,96,729
12.	Total GSVA at Basic Prices	81,06,946	92,02,692	1,03,63,153	1,15,04,279	1,25,66,646	1,38,41,591	1,51,66,379
13.	Taxes on Products	8,90,060	10,57,977	11,80,444	12,91,662	15,18,512	17,59,613	15,85,309
14.	Subsidies on Products	2,60,677	3,16,656	3,10,075	3,27,982	3,21,121	3,47,490	(Net)
15.	Gross Domestic Product	87,36,329	99,44,013	1,12,33,522	1,24,67,959	1,37,64,037	1,52,53,714	1,67,51,688
16.	Per Capita Income (Rupees)	63,462	70,983	79,118	86,647	94,731	1,03,870	1,12,764

Note: 1. TRE:Third Revised Estimates; SRE:Second Revised Estimates; FRE:First Revised Estimates; and AE:Advance Estimates.

2. Totals may not tally due to rounding off

Source: CSO, MOSPI, GOI Press note dated:31.01.2018 and 28.02.2018

10. Sectoral Growth Rates of Gross Domestic Product and Per Capita Income of All India at Current Prices

								(Percentage)
Sl. No.	Item	2012-13	2013-14 (TRE)	2014-15 (TRE)	2015-16 (SRE)	2016-17 (FRE)	2017-18 (AE)	
1	2	3	4	5	6	7	8	
1.	Agriculture, Livestock, Forestry and Fishing	11.5	15.0	8.7	6.3	11.6	4.2	
1.1	Crops	10.9	14.7	3.5	2.7	15.2	4.2	
1.2	Livestock	12.7	14.6	20.7	14.4	9.6		
1.3	Forestry and Logging	10.5	13.9	10.9	4.9	-1.0		
1.4	Fishing and Aquaculture	17.5	22.9	18.7	12.4	1.9		
2.	Mining and Quarrying	9.5	3.5	4.3	-2.3	10.5	13.3	
	Primary	11.2	13.3	8.1	5.2	11.5	5.3	
3.	Manufacturing	11.5	8.9	9.6	12.7	10.1	7.8	
4.	Electricity, Gas, Water supply and Other Utility Services	15.4	20.8	8.5	19.4	7.9	6.8	
5.	Construction	9.3	8.5	6.3	1.3	3.6	7.4	
	Secondary	11.1	9.8	8.5	9.7	8.0	7.6	
6.	Trade, Repair, Hotels and Restaurants	19.3	12.3	11.5	8.3	10.8	11.9	
6.1	Trade and Repair Services	20.3	13.0	11.9	8.2	10.9		
6.2	Hotels and Restaurants	11.1	6.3	7.7	10.3	10.6		
7.	Transport, Storage, Communication and Services related to Broadcasting	15.1	13.2	14.0	10.9	7.3		
7.1	Railways	18.2	8.9	17.4	8.6	6.1		
7.2	Road Transport	14.6	12.5	9.5	8.0	8.7		
7.3	Water Transport	4.1	-9.9	17.2	-3.1	-6.9		
7.4	Air Transport	85.0	-15.7	72.5	72.2	1.5		
7.5	Services incidental to Transport	13.3	5.1	21.1	2.7	9.9		
7.6	Storage	20.7	-2.3	6.3	3.9	3.5		
7.7	Communication and Services related to Broadcasting	13.5	24.4	16.1	17.9	5.4		
8.	Financial Services	11.8	11.6	10.4	10.0	2.2	11.1	
9.	Real Estate, Ownership of Dwelling and Professional Services	18.0	18.6	15.8	11.9	11.0		
10.	Public Administration	11.2	10.2	12.4	8.1	17.5	14.4	
11.	Other Services	15.4	13.4	16.4	14.0	14.7		
	Tertiary	16.0	13.9	13.7	10.6	10.7	12.2	
12.	Total GSVA at Basic Prices	13.5	12.6	11.0	9.2	10.1	9.6	
13.	Taxes on Products	18.9	11.6	9.4	17.6	15.9	12.3	
14.	Subsidies on Products	21.5	-2.1	5.8	-2.1	8.2		
15.	Gross Domestic Product	13.8	13.0	11.0	10.4	10.8	9.8	
16.	Per Capita Income	11.9	11.5	9.5	9.3	9.6	8.6	

11. Gross Domestic Product and Per Capita Income of All India at Constant (2011-12) Prices

(Rs. in crore)								
Sl. No.	Item	2011-12	2012-13	2013-14 (TRE)	2014-15 (TRE)	2015-16 (SRE)	2016-17 (FRE)	2017-18 (AE)
1	2	3	4	5	6	7	8	9
1.	Agriculture, Livestock, Forestry and Fishing	15,01,947	15,24,288	16,09,198	16,05,715	16,15,216	17,16,746	17,67,397
1.1	Crops	9,82,151	9,83,809	10,37,060	9,98,425	9,66,345	10,33,008	17,67,397
1.2	Livestock	3,27,333	3,44,374	3,63,558	3,90,449	4,21,369	4,48,964	
1.3	Forestry and Logging	1,24,436	1,24,743	1,32,093	1,34,609	1,37,022	1,38,779	
1.4	Fishing and Aquaculture	68,027	71,362	76,487	82,232	90,480	95,996	
2.	Mining and Quarrying	2,61,035	2,62,609	2,63,107	2,88,685	3,28,453	3,71,066	
	Primary	17,62,982	17,86,897	18,72,305	18,94,400	19,43,669	20,87,812	21,49,601
3.	Manufacturing	14,09,986	14,86,873	15,60,709	16,83,938	18,98,790	20,48,711	21,53,147
4.	Electricity, Gas, Water supply and Other Utility Services	1,86,668	1,91,635	1,99,601	2,14,047	2,24,198	2,44,934	2,62,923
5.	Construction	7,77,335	7,80,050	8,00,771	8,35,229	8,66,440	8,78,110	9,15,878
	Secondary	23,73,989	24,58,558	25,61,081	27,33,214	29,89,428	31,71,755	33,31,948
6.	Trade, Repair, Hotels and Restaurants	8,83,582	9,81,620	10,34,506	11,35,841	12,59,039	13,70,909	23,13,932
6.1	Trade and Repair Services	7,93,681	8,88,665	9,41,941	10,37,640	11,48,216	12,50,502	
6.2	Hotels and Restaurants	89,901	92,955	92,565	98,201	1,10,823	1,20,407	
7.	Transport, Storage, Communication and Services related to Broadcasting	5,29,534	5,69,523	6,17,556	6,71,848	7,34,588	7,66,193	
7.1	Railways	61,150	69,162	73,685	80,720	85,452	84,594	
7.2	Road Transport	2,62,441	2,82,425	3,00,563	3,20,813	3,42,021	3,62,077	
7.3	Water Transport	6,910	7,052	7,345	7,954	8,100	8,578	
7.4	Air Transport	4,393	4,183	4,550	5,188	6,053	7,184	
7.5	Services incidental to Transport	63,602	66,480	70,172	75,596	80,683	86,617	
7.6	Storage	5,108	5,716	5,210	5,529	6,061	5,869	
7.7	Communication and Services related to Broadcasting	1,25,930	1,34,505	1,56,031	1,76,047	2,06,218	2,11,274	
8.	Financial Services	4,80,226	5,29,792	5,77,914	6,27,255	6,74,022	6,82,553	26,12,670
9.	Real Estate, Ownership of Dwelling and Professional Services	10,50,651	11,50,239	12,89,493	14,46,460	16,25,891	17,55,304	
10.	Public Administration	4,91,155	5,01,383	5,10,046	5,43,853	5,65,019	6,37,056	
11.	Other Services	5,34,827	5,68,263	6,00,748	6,59,262	7,11,692	7,76,047	15,56,327
	Tertiary	39,69,975	43,00,820	46,30,263	50,84,519	55,70,251	59,88,062	64,82,930
12.	Total GSVA at Basic Prices	81,06,946	85,46,275	90,63,649	97,12,133	1,05,03,348	1,12,47,629	1,19,64,479
13.	Taxes on Products	8,90,060	9,60,811	10,08,913	10,92,430	11,51,193	12,30,746	10,39,417
14.	Subsidies on Products	2,60,677	2,94,070	2,71,192	2,76,889	2,68,396	2,82,370	(Net)
15.	Gross Domestic Product	87,36,329	92,13,017	98,01,370	1,05,27,674	1,13,86,145	1,21,96,006	1,30,03,897
16.	Per Capita Income (Rupees)	63,462	65,538	68,572	72,805	77,826	82,229	86,689

Note: 1. TRE:Third Revised Estimates; SRE:Second Revised Estimates; FRE:First Revised Estimates; and AE:Advance Estimates.

2. Totals may not tally due to rounding off

Source: CSO, MOSPI, GOI Press note dated:31.01.2018 and 28.02.2018

12. Sectoral Growth Rates of Gross Domestic Product and Per Capita Income of All India at Constant (2011-12) Prices

		(Percentage)					
Sl. No.	Item	2012-13	2013-14 (TRE)	2014-15 (TRE)	2015-16 (SRE)	2016-17 (FRE)	2017-18 (AE)
1	2	3	4	5	6	7	8
1.	Agriculture, Livestock, Forestry and Fishing	1.5	5.6	-0.2	0.6	6.3	3.0
1.1	Crops	0.2	5.4	-3.7	-3.2	6.9	3.0
1.2	Livestock	5.2	5.6	7.4	7.9	6.5	
1.3	Forestry and Logging	0.2	5.9	1.9	1.8	1.3	
1.4	Fishing and Aquaculture	4.9	7.2	7.5	10.0	6.1	
2.	Mining and Quarrying	0.6	0.2	9.7	13.8	13.0	
	Primary	1.4	4.8	1.2	2.6	7.4	3.0
3.	Manufacturing	5.5	5.0	7.9	12.8	7.9	5.1
4.	Electricity, Gas, Water supply and Other Utility Services	2.7	4.2	7.2	4.7	9.2	7.3
5.	Construction	0.3	2.7	4.3	3.7	1.3	4.3
	Secondary	3.6	4.2	6.7	9.4	6.1	5.1
6.	Trade, Repair, Hotels and Restaurants	11.1	5.4	9.8	10.8	8.9	8.3
6.1	Trade and Repair Services	12.0	6.0	10.2	10.7	8.9	
6.2	Hotels and Restaurants	3.4	-0.4	6.1	12.9	8.6	
7.	Transport, Storage, Communication and Services related to Broadcasting	7.6	8.4	8.8	9.3	4.3	
7.1	Railways	13.1	6.5	9.5	5.9	-1.0	
7.2	Road Transport	7.6	6.4	6.7	6.6	5.9	
7.3	Water Transport	2.1	4.2	8.3	1.8	5.9	
7.4	Air Transport	-4.8	8.8	14.0	16.7	18.7	
7.5	Services incidental to Transport	4.5	5.6	7.7	6.7	7.4	
7.6	Storage	11.9	-8.9	6.1	9.6	-3.2	
7.7	Communication and Services related to Broadcasting	6.8	16.0	12.8	17.1	2.5	
8.	Financial Services	10.3	9.1	8.5	7.5	1.3	7.2
9.	Real Estate, Ownership of Dwelling and Professional Services	9.5	12.1	12.2	12.4	8.0	
10.	Public Administration	2.1	1.7	6.6	3.9	12.7	10.1
11.	Other Services	6.3	5.7	9.7	8.0	9.0	
	Tertiary	8.3	7.7	9.8	9.6	7.5	
12.	Total GSVA at Basic Prices	5.4	6.1	7.2	8.1	7.1	6.4
13.	Taxes on Products	7.9	5.0	8.3	5.4	6.9	9.6
14.	Subsidies on Products	12.8	-7.8	2.1	-3.1	5.2	
15.	Gross Domestic Product	5.5	6.4	7.4	8.2	7.1	6.6
16.	Per Capita Income	3.3	4.6	6.2	6.9	5.7	5.4

13. Gross District Domestic Product of Telangana from 2014-15 to 2016-17

(Rs. in Lakh)

Sl. No.	District	Current Prices			Constant (2011-12) Prices		
		2014-15 (TRE)	2015-16 (SRE)	2016-17 (FRE)	2014-15 (TRE)	2015-16 (SRE)	2016-17 (FRE)
1	2	3	4	5	6	7	8
01	Adilabad	6,31,037	7,00,772	7,80,404	5,16,540	5,59,638	6,00,990
02	Kumuram Bheem	4,52,065	5,16,994	6,25,269	3,71,747	4,15,237	4,74,970
03	Mancherial	8,45,581	9,43,323	10,11,304	6,98,061	7,66,654	8,11,812
04	Nirmal	6,38,068	6,98,219	8,13,265	5,04,684	5,37,811	6,03,731
05	Nizamabad	15,88,825	16,30,692	19,37,669	12,70,756	12,76,085	14,61,489
06	Jagtial	8,58,707	8,91,571	10,60,927	6,47,525	6,65,639	7,74,140
07	Peddapalli	9,90,875	10,92,524	12,42,809	8,45,897	9,14,508	10,18,150
08	Jayashankar	6,39,256	7,53,672	9,62,800	5,12,550	5,81,377	6,98,654
09	Bhadradri Kothagudem	13,61,824	15,20,167	16,23,905	11,40,250	12,61,036	13,23,786
10	Mahabubabad	6,50,043	7,39,263	9,67,048	5,04,469	5,57,036	6,79,108
11	Warangal Rural	6,74,433	7,58,109	8,72,818	5,33,605	5,79,091	6,34,707
12	Warangal Urban	8,57,081	9,76,439	11,53,553	7,08,003	7,89,531	8,93,620
13	Karimnagar	10,79,775	11,24,892	14,32,372	8,76,484	8,84,458	10,70,385
14	Rajanna Siricilla	4,80,822	5,40,743	6,45,169	3,84,860	4,17,794	4,74,156
15	Kamareddy	8,38,494	9,00,398	9,87,432	6,68,359	6,95,505	7,36,783
16	Sangareddy	26,27,803	28,59,734	30,65,488	22,28,148	23,97,490	25,32,748
17	Medak	8,07,917	8,78,977	9,90,600	6,55,482	6,87,703	7,37,924
18	Siddipet	11,77,456	12,89,280	14,88,508	9,38,044	10,00,127	10,79,718
19	Jangaon	5,22,280	5,78,022	6,58,880	4,10,201	4,42,749	4,83,832
20	Yadadri Bhuvanagiri	8,72,182	9,73,862	11,46,395	7,10,493	7,68,847	8,62,351
21	Medchal-Malkajgiri	42,57,582	47,53,479	53,62,225	36,71,541	40,41,860	44,35,809
22	Hyderabad	1,09,60,709	1,26,10,504	1,45,20,670	91,96,161	1,03,16,698	1,14,84,702
23	Rangareddy	81,76,333	93,62,872	1,09,13,472	67,35,584	74,94,465	83,91,771
24	Vikarabad	7,58,641	8,56,114	9,50,899	6,03,146	6,58,041	7,04,434
25	Mahabubnagar	13,66,278	14,59,472	15,18,419	11,20,299	11,66,383	11,95,944
26	Jogulamba Gadwal	5,49,032	5,91,775	7,19,117	4,36,483	4,48,076	5,17,514
27	Wanaparthy	5,00,815	5,50,045	6,35,568	3,93,321	4,18,269	4,68,422
28	Nagarkurnool	7,56,530	7,93,483	8,29,590	5,96,670	6,08,673	6,25,962
29	Nalgonda	18,18,729	19,29,279	20,01,865	15,07,853	14,96,902	15,06,567
30	Suryapet	12,82,538	13,64,867	14,83,205	10,35,476	10,73,613	11,31,467
31	Khammam	15,63,169	16,96,015	17,96,881	12,10,515	12,86,238	13,35,612
Gross State Domestic Product		5,05,84,879	5,63,35,557	6,41,98,525	4,16,33,207	4,52,07,534	4,97,51,259

14. Per Capita Income of Telangana by Districts from 2014-15 to 2016-17

(in Rupees)

Sl. No.	District	Current Prices			Constant (2011-12) Prices		
		2014-15 (TRE)	2015-16 (SRE)	2016-17 (FRE)	2014-15 (TRE)	2015-16 (SRE)	2016-17 (FRE)
1	2	3	4	5	6	7	8
01	Adilabad	77,251	84,736	93,588	62,740	66,932	71,266
02	Kumuram Bheem	75,869	85,763	1,03,822	61,874	68,099	77,825
03	Mancherial	89,903	98,934	1,04,891	73,670	79,597	83,352
04	Nirmal	78,508	84,954	98,129	61,600	64,774	72,013
05	Nizamabad	87,864	89,285	1,04,868	69,772	69,244	78,284
06	Jagtial	75,843	77,908	91,885	56,736	57,647	66,290
07	Peddapalli	1,06,024	1,15,289	1,29,723	89,903	95,527	1,05,123
08	Jayashankar	78,012	91,014	1,15,774	62,027	69,455	82,886
09	Bhadradri Kothagudem	1,08,190	1,19,132	1,26,084	89,898	97,772	1,01,652
10	Mahabubabad	73,150	82,208	1,07,684	56,296	61,301	74,684
11	Warangal Rural	82,084	91,270	1,03,914	64,430	68,956	74,639
12	Warangal Urban	68,809	77,910	91,333	56,484	62,486	70,183
13	Karimnagar	92,284	95,389	1,20,173	74,542	74,486	89,163
14	Rajanna Siricilla	75,284	83,979	99,687	59,813	64,317	72,548
15	Kamareddy	75,065	79,790	86,608	59,375	61,026	63,948
16	Sangareddy	1,42,992	1,55,023	1,64,698	1,20,343	1,28,919	1,34,958
17	Medak	91,551	98,951	1,10,345	73,684	76,609	81,242
18	Siddipet	1,03,106	1,11,761	1,28,701	81,608	86,045	92,412
19	Jangaon	80,618	88,468	1,00,216	62,755	66,998	72,665
20	Yadadri Bhuvanagiri	1,01,184	1,12,110	1,31,749	81,730	87,596	97,953
21	Medchal-Malkajgiri	1,44,788	1,61,483	1,81,104	1,24,155	1,36,412	1,48,792
22	Hyderabad	2,42,147	2,76,964	3,15,745	2,02,197	2,25,086	2,48,275
23	Rangareddy	2,83,636	3,19,079	3,68,747	2,31,977	2,52,707	2,80,602
24	Vikarabad	71,095	79,396	87,891	56,094	60,499	64,533
25	Mahabubnagar	78,723	83,359	86,237	64,040	65,990	67,328
26	Jogulamba Gadwal	78,211	83,407	1,01,977	61,601	62,512	72,484
27	Wanaparthy	75,783	82,699	94,774	59,020	62,278	69,135
28	Nagarkurnool	77,041	79,879	82,694	60,253	60,653	61,725
29	Nalgonda	97,186	1,01,870	1,04,660	79,849	78,150	77,912
30	Suryapet	1,00,222	1,05,697	1,13,348	80,230	82,279	85,608
31	Khammam	96,443	1,03,392	1,08,133	74,121	77,685	79,618
	State	1,24,104	1,36,905	1,54,734	1,01,424	1,08,871	1,18,801

15. Demographic Details of Telangana

a. Population of Telangana State from 1961 to 2011

(in Nos.)

Year	1961	1971	1981	1991	2001	2011
Telangana	12,711,785	1,58,17,895	20,181,085	2,60,89,074	3,09,87,271	35,003,674
India	43,92,34,771	54,81,59,652	68,33,29,097	84,64,21,039	1,02,86,10,328	1,21,08,54,977

b. Percentage of Urban Population to total Population from 1971 to 2011

Year	1961	1971	1981	1991	2001	2011
Telangana	19.27	20.99	25.27	30.18	31.79	38.88
India	17.97	17.98	19.51	22.87	25.49	31.15

c. Percentage of Decadal Growth Rate from 1951-61 to 2001-2011

Year	1951-61	1961-71	1971-81	1981-91	1991-01	2001-2011
Telangana	16.48	24.60	27.59	29.27	18.77	13.58
India	21.51	24.80	24.66	23.85	21.54	17.70

d. Density of Population from 1961 to 2011

Year	1961	1971	1981	1991	2001	2011
Telangana	111	138	176	227	270	312
India	144	177	216	273	325	382

e. Sex Ratio of Population from 1961 to 2011

Year	1961	1971	1981	1991	2001	2011
Telangana	975	969	971	967	971	988
India	941	930	934	927	933	943

f. Literacy Rate of Population from 1961 to 2011

Year	1961	1971	1981	1991	2001	2011
Telangana	17.34	20.70	26.49	41.30	58.00	66.54
India	28.30	34.45	43.57	52.21	64.84	72.98

Source: Registrar General and Census Commissioner of India, GOI.

16. District wise Population, 2011 Census

Sl. No.	District	Population (Nos.)			Rural (Nos.)			Urban (Nos.)		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
1	2	4	5	6	7	8	9	10	11	12
1	Adilabad	3,56,407	3,52,565	7,08,972	2,71,594	2,69,632	5,41,226	84,813	82,933	1,67,746
2	Kumuram Bheem	2,58,197	2,57,615	5,15,812	2,14,967	2,13,861	4,28,828	43,230	43,754	86,984
3	Mancherial	4,08,272	3,98,765	8,07,037	2,27,974	2,25,216	4,53,190	1,80,298	1,73,549	3,53,847
4	Nirmal	3,46,721	3,62,697	7,09,418	2,70,768	2,86,968	5,57,736	75,953	75,729	1,51,682
5	Nizamabad	7,68,477	8,02,545	15,71,022	5,37,574	5,68,698	11,06,272	2,30,903	2,33,847	4,64,750
6	Jagtial	4,84,079	5,01,338	9,85,417	3,73,526	3,90,555	7,64,081	1,10,553	1,10,783	2,21,336
7	Peddapalli	3,99,325	3,96,007	7,95,332	2,45,052	2,46,267	4,91,319	1,54,273	1,49,740	3,04,013
8	Jayashankar	3,54,203	3,57,231	7,11,434	3,26,617	3,30,937	6,57,554	27,586	26,294	53,880
9	Bhadradri Kothagudem	5,32,390	5,36,871	10,69,261	3,64,807	3,65,371	7,30,178	1,67,583	1,71,500	3,39,083
10	Mahabubabad	3,88,058	3,86,491	7,74,549	3,50,530	3,47,643	6,98,173	37,528	38,848	76,376
11	Warangal Rural	3,60,315	3,58,222	7,18,537	3,34,698	3,33,626	6,68,324	25,617	24,596	50,213
12	Warangal Urban	5,41,301	5,39,557	10,80,858	1,69,831	1,70,520	3,40,351	3,71,470	3,69,037	7,40,507
13	Karimnagar	5,04,620	5,01,091	10,05,711	3,48,914	3,47,813	6,96,727	1,55,706	1,53,278	3,08,984
14	Rajanna Sircilla	2,74,109	2,77,928	5,52,037	2,15,791	2,19,354	4,35,145	58,318	58,574	1,16,892
15	Kamareddy	4,78,389	4,94,236	9,72,625	4,17,488	4,31,515	8,49,003	60,901	62,721	1,23,622
16	Sangareddy	7,77,235	7,50,393	15,27,628	5,04,840	4,92,823	9,97,663	2,72,395	2,57,570	5,29,965
17	Medak	3,78,654	3,88,774	7,67,428	3,50,091	3,58,483	7,08,574	28,563	30,291	58,854
18	Siddipet	5,04,141	5,07,924	10,12,065	4,34,875	4,38,138	8,73,013	69,266	69,786	1,39,052
19	Jangaon	2,83,648	2,82,728	5,66,376	2,47,162	2,47,857	4,95,019	36,486	34,871	71,357
20	Yadadri Bhuvanagiri	3,74,719	3,64,729	7,39,448	3,12,323	3,03,960	6,16,283	62,396	60,769	1,23,165
21	Medchal-Malkajgiri	12,56,883	12,03,212	24,60,095	1,08,551	1,01,277	2,09,828	11,48,332	11,01,935	22,50,267
22	Hyderabad	20,18,575	19,24,748	39,43,323	0	0	0	20,18,575	19,24,748	39,43,323
23	Rangareddy	12,43,967	11,82,276	24,26,243	5,25,796	5,00,317	10,26,113	7,18,171	6,81,959	14,00,130
24	Vikarabad	4,63,350	4,63,790	9,27,140	4,00,895	4,01,276	8,02,171	62,455	62,514	1,24,969
25	Mahabubnagar	7,45,101	7,41,676	14,86,777	5,90,205	5,88,369	11,78,574	1,54,896	1,53,307	3,08,203
26	Jogulamba Gadwal	3,09,274	3,00,716	6,09,990	2,77,339	2,69,474	5,46,813	31,935	31,242	63,177
27	Wanaparthy	2,94,833	2,82,925	5,77,758	2,47,528	2,37,942	4,85,470	47,305	44,983	92,288
28	Nagarkurnool	4,37,986	4,23,780	8,61,766	3,93,137	3,80,799	7,73,936	44,849	42,981	87,830
29	Nalgonda	8,18,306	8,00,110	16,18,416	6,33,429	6,16,684	12,50,113	1,84,877	1,83,426	3,68,303
30	Suryapet	5,50,974	5,48,586	10,99,560	4,66,191	4,62,330	9,28,521	84,783	86,256	1,71,039
31	Khammam	6,99,124	7,02,515	14,01,639	5,42,500	5,42,311	10,84,811	1,56,624	1,60,204	3,16,828
	Total	1,76,11,633	1,73,92,041	3,50,03,674	1,07,04,993	1,06,90,016	2,13,95,009	69,06,640	67,02,025	1,36,08,665

Source: Registrar General and Census Commissioner of India, GOI.

17. District wise Child (0-6 Years) Population, 2011 Census

Sl. No.	District	Total Child Population (Nos.)			Rural Child Population (Nos.)			Urban Child Population (Nos.)		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
1	2	3	4	5	6	7	8	9	10	11
1	Adilabad	45,198	42,094	87,292	35,428	33,040	68,468	9,770	9,054	18,824
2	Kumuram Bheem	34,053	32,153	66,206	29,422	27,724	57,146	4,631	4,429	9,060
3	Mancherial	38,578	35,147	73,725	22,988	21,119	44,107	15,590	14,028	29,618
4	Nirmal	42,462	40,307	82,769	33,080	31,406	64,486	9,382	8,901	18,283
5	Nizamabad	86,867	82,754	1,69,621	59,559	56,475	1,16,034	27,308	26,279	53,587
6	Jagtial	47,890	45,382	93,272	35,685	33,849	69,534	12,205	11,533	23,738
7	Peddapalli	34,772	32,040	66,812	21,460	19,999	41,459	13,312	12,041	25,353
8	Jayashankar	35,022	32,829	67,851	32,632	30,694	63,326	2,390	2,135	4,525
9	Bhadradri Kothagudem	54,650	52,676	1,07,326	37,706	36,490	74,196	16,944	16,186	33,130
10	Mahabubabad	42,610	38,472	81,082	38,751	34,933	73,684	3,859	3,539	7,398
11	Warangal Rural	35,279	31,855	67,134	32,886	29,682	62,568	2,393	2,173	4,566
12	Warangal Urban	52,106	48,812	1,00,918	15,572	14,354	29,926	36,534	34,458	70,992
13	Karimnagar	46,124	42,955	89,079	30,000	27,761	57,761	16,124	15,194	31,318
14	Rajanna Sircilla	25,099	23,652	48,751	19,315	18,235	37,550	5,784	5,417	11,201
15	Kamareddy	57,528	54,138	1,11,666	50,455	47,327	97,782	7,073	6,811	13,884
16	Sangareddy	99,712	95,262	1,94,974	65,424	62,546	1,27,970	34,288	32,716	67,004
17	Medak	48,247	45,627	93,874	44,946	42,407	87,353	3,301	3,220	6,521
18	Siddipet	53,194	50,658	1,03,852	45,709	43,542	89,251	7,485	7,116	14,601
19	Jangaon	28,442	26,614	55,056	24,963	23,211	48,174	3,479	3,403	6,882
20	Yadadri Bhuvanagiri	39,890	36,742	76,632	33,036	30,279	63,315	6,854	6,463	13,317
21	Medchal-Malkajgiri	1,48,754	1,38,960	2,87,714	12,686	11,930	24,616	1,36,068	1,27,030	2,63,098
22	Hyderabad	2,45,127	2,23,999	4,69,126	-	-	-	2,45,127	2,23,999	4,69,126
23	Rangareddy	1,54,762	1,43,079	2,97,841	66,458	61,466	1,27,924	88,304	81,613	1,69,917
24	Vikarabad	59,063	55,838	1,14,901	51,517	48,688	1,00,205	7,546	7,150	14,696
25	Mahabubnagar	1,01,262	95,120	1,96,382	82,757	77,913	1,60,670	18,505	17,207	35,712
26	Jogulamba Gadwal	43,304	40,424	83,728	39,520	36,740	76,260	3,784	3,684	7,468
27	Wanaparthy	38,040	34,337	72,377	32,962	29,645	62,607	5,078	4,692	9,770
28	Nagarkurnool	56,292	51,167	1,07,459	51,101	46,261	97,362	5,191	4,906	10,097
29	Nalgonda	94,926	87,070	1,81,996	75,090	68,401	1,43,491	19,836	18,669	38,505
30	Suryapet	56,922	53,214	1,10,136	48,504	45,255	93,759	8,418	7,959	16,377
31	Khammam	71,760	67,854	1,39,614	55,652	52,738	1,08,390	16,108	15,116	31,224
Total		20,17,935	18,81,231	38,99,166	12,25,264	11,44,110	23,69,374	7,92,671	7,37,121	15,29,792

Source: Registrar General and Census Commissioner of India, GOI.

18. District wise Sex Ratio, 2011 Census

Sl. No.	District	Population Sex Ratio			Child (0-6 Years) Sex Ratio		
		Rural	Urban	Total	Rural	Urban	Total
1	2	3	4	5	6	7	8
1	Adilabad	993	978	989	933	927	931
2	Kumuram Bheem	995	1012	998	942	956	944
3	Mancherial	988	963	977	919	900	911
4	Nirmal	1060	997	1046	949	949	949
5	Nizamabad	1058	1013	1044	948	962	953
6	Jagtial	1046	1002	1036	949	945	948
7	Peddapalli	1005	971	992	932	905	921
8	Jayashankar	1013	953	1009	941	893	937
9	Bhadradi Kothagudem	1002	1023	1008	968	955	964
10	Mahabubabad	992	1035	996	901	917	903
11	Warangal Rural	997	960	994	903	908	903
12	Warangal Urban	1004	993	997	922	943	937
13	Karimnagar	997	984	993	925	942	931
14	Rajanna Sircilla	1017	1004	1014	944	937	942
15	Kamareddy	1034	1030	1033	938	963	941
16	Sangareddy	976	946	965	956	954	955
17	Medak	1024	1060	1027	944	975	946
18	Siddipet	1008	1008	1008	953	951	952
19	Jangaon	1003	956	997	930	978	936
20	Yadadri Bhuvanagiri	973	974	973	917	943	921
21	Medchal-Malkajgiri	933	960	957	940	934	934
22	Hyderabad	-	954	954	-	914	914
23	Rangareddy	952	950	950	925	924	925
24	Vikarabad	1001	1001	1001	945	948	945
25	Mahabubnagar	997	990	995	941	930	939
26	Jogulamba Gadwal	972	978	972	930	974	933
27	Wanaparthy	961	951	960	899	924	903
28	Nagarkurnool	969	958	968	905	945	909
29	Nalgonda	974	992	978	911	941	917
30	Suryapet	992	1017	996	933	945	935
31	Khammam	1000	1023	1005	948	938	946
	Total	999	970	988	934	930	932

Source: Registrar General and Census Commissioner of India, GOI.

19. District wise Literates (7 Years and above), 2011 Census

Sl. No.	District	Total Literates (Nos.)			Rural Literates (Nos.)			Urban Literates (Nos.)		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
1	2	3	4	5	6	7	8	9	10	11
1	Adilabad	2,28,689	1,65,802	3,94,491	1,64,470	1,13,386	2,77,856	64,219	52,416	1,16,635
2	Kumuram Bheem	1,47,911	1,07,091	2,55,002	1,14,535	78,824	1,93,359	33,376	28,267	61,643
3	Mancherial	2,69,729	2,02,127	4,71,856	1,34,794	96,600	2,31,394	1,34,935	1,05,527	2,40,462
4	Nirmal	2,10,021	1,51,977	3,61,998	1,55,234	1,07,864	2,63,098	54,787	44,113	98,900
5	Nizamabad	5,04,933	3,95,503	9,00,436	3,34,248	2,49,189	5,83,437	1,70,685	1,46,314	3,16,999
6	Jagtial	3,07,947	2,29,689	5,37,636	2,24,824	1,62,559	3,87,383	83,123	67,130	1,50,253
7	Peddapalli	2,68,587	2,08,774	4,77,361	1,53,617	1,16,571	2,70,188	1,14,970	92,203	2,07,173
8	Jayashankar	2,23,575	1,64,672	3,88,247	2,02,865	1,48,073	3,50,938	20,710	16,599	37,309
9	Bhadradi Kothagudem	3,51,411	2,87,288	6,38,699	2,22,077	1,73,979	3,96,056	1,29,334	1,13,309	2,42,643
10	Mahabubabad	2,29,809	1,66,389	3,96,198	2,00,619	1,41,311	3,41,930	29,190	25,078	54,268
11	Warangal Rural	2,33,711	1,65,359	3,99,070	2,13,492	1,49,901	3,63,393	20,219	15,458	35,677
12	Warangal Urban	4,12,868	3,33,592	7,46,460	1,13,700	84,193	1,97,893	2,99,168	2,49,399	5,48,567
13	Karimnagar	3,57,364	2,76,616	6,33,980	2,32,177	1,69,586	4,01,763	1,25,187	1,07,030	2,32,217
14	Rajanna Sircilla	1,82,946	1,32,665	3,15,611	1,38,476	98,230	2,36,706	44,470	34,435	78,905
15	Kamareddy	2,83,542	2,03,017	4,86,559	2,37,197	1,64,145	4,01,342	46,345	38,872	85,217
16	Sangareddy	4,94,705	3,59,255	8,53,960	2,90,649	1,97,425	4,88,074	2,04,056	1,61,830	3,65,886
17	Medak	2,23,069	1,54,915	3,77,984	2,01,803	1,36,621	3,38,424	21,266	18,294	39,560
18	Siddipet	3,26,013	2,33,560	5,59,573	2,72,345	1,90,026	4,62,371	53,668	43,534	97,202
19	Jangaon	1,81,739	1,32,395	3,14,134	1,52,653	1,09,687	2,62,340	29,086	22,708	51,794
20	Yadadi Bhuvanagiri	2,53,858	1,80,461	4,34,319	2,05,389	1,42,093	3,47,482	48,469	38,368	86,837
21	Medchal-Malkajgiri	9,68,890	8,22,812	17,91,702	75,017	54,495	1,29,512	8,93,873	7,68,317	16,62,190
22	Hyderabad	15,42,688	13,49,467	28,92,155	-	-	-	15,42,688	13,49,467	28,92,155
23	Rangareddy	8,59,096	6,70,849	15,29,945	3,21,466	2,17,056	5,38,522	5,37,630	4,53,793	9,91,423
24	Vikarabad	2,73,236	1,97,138	4,70,374	2,27,574	1,58,412	3,85,986	45,662	38,726	84,388
25	Mahabubnagar	4,29,914	3,02,794	7,32,708	3,11,514	2,04,054	5,15,568	1,18,400	98,740	2,17,140
26	Jogulamba Gadwal	1,59,704	1,02,751	2,62,455	1,37,276	85,307	2,22,583	22,428	17,444	39,872
27	Wanaparthy	1,68,792	1,12,539	2,81,331	1,33,446	85,361	2,18,807	35,346	27,178	62,524
28	Nagarkurnool	2,47,538	1,62,621	4,10,159	2,13,365	1,36,622	3,49,987	34,173	25,999	60,172
29	Nalgonda	5,34,573	3,81,169	9,15,742	3,87,059	2,57,677	6,44,736	1,47,514	1,23,492	2,71,006
30	Suryapet	3,62,596	2,71,717	6,34,313	2,94,818	2,11,866	5,06,684	67,778	59,851	1,27,629
31	Khammam	4,62,275	3,70,045	8,32,320	3,37,475	2,56,787	5,94,262	1,24,800	1,13,258	2,38,058
	Total	1,17,01,729	89,95,049	2,06,96,778	64,04,174	44,97,900	1,09,02,074	52,97,555	44,97,149	97,94,704

Source: Registrar General and Census Commissioner of India, GOI.

20. District wise Literacy Rates, 2011 Census

Sl. No.	District	Total Literacy Rate			Rural Literacy Rate			Urban Literacy Rate		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
1	2	3	4	5	6	7	8	9	10	11
1	Adilabad	73.48	53.40	63.46	69.64	47.92	58.77	85.58	70.95	78.32
2	Kumuram Bheem	65.99	47.50	56.72	61.73	42.35	52.02	86.47	71.88	79.11
3	Mancherial	72.96	55.59	64.35	65.76	47.33	56.56	81.92	66.15	74.16
4	Nirmal	69.03	47.14	57.77	65.31	42.21	53.34	82.30	66.01	74.14
5	Nizamabad	74.08	54.95	64.25	69.92	48.65	58.92	83.84	70.49	77.10
6	Jagtial	70.60	50.38	60.26	66.55	45.57	55.77	84.52	67.64	76.04
7	Peddapalli	73.68	57.36	65.52	68.70	51.52	60.06	81.56	66.96	74.35
8	Jayashankar	70.05	50.76	60.33	69.01	49.32	59.06	82.20	68.71	75.59
9	Bhadradri Kothagudem	73.56	59.33	66.40	67.89	52.90	60.38	85.86	72.95	79.31
10	Mahabubabad	66.52	47.81	57.13	64.35	45.19	54.75	86.70	71.02	78.67
11	Warangal Rural	71.90	50.67	61.26	70.74	49.32	59.99	87.06	68.94	78.16
12	Warangal Urban	84.40	67.98	76.17	73.71	53.91	63.75	89.32	74.54	81.93
13	Karimnagar	77.94	60.38	69.16	72.80	52.99	62.88	89.69	77.51	83.63
14	Rajanna Sircilla	73.47	52.17	62.71	70.48	48.84	59.53	84.65	64.78	74.66
15	Kamareddy	67.37	46.13	56.51	64.63	42.73	53.43	86.10	69.53	77.65
16	Sangareddy	73.02	54.84	64.08	66.14	45.88	56.12	85.70	71.97	79.03
17	Medak	67.51	45.15	56.12	66.13	43.22	54.48	84.18	67.58	75.59
18	Siddipet	72.30	51.08	61.61	69.98	48.16	58.99	86.87	69.47	78.10
19	Jangaon	71.21	51.69	61.44	68.70	48.83	58.71	88.12	72.16	80.33
20	Yadadri Bhuvanagiri	75.82	55.02	65.53	73.54	51.92	62.84	87.27	70.65	79.05
21	Medchal-Malkajgiri	87.43	77.31	82.48	78.25	60.99	69.93	88.30	78.81	83.65
22	Hyderabad	86.99	79.35	83.25	-	-	-	86.99	79.35	83.25
23	Rangareddy	78.87	64.55	71.88	69.98	49.46	59.96	85.36	75.59	80.59
24	Vikarabad	67.58	48.32	57.91	65.14	44.93	54.99	83.16	69.95	76.53
25	Mahabubnagar	66.77	46.83	56.78	61.39	39.97	50.65	86.81	72.55	79.69
26	Jogulamba Gadwal	60.05	39.48	49.87	57.72	36.65	47.30	79.67	63.30	71.57
27	Wanaparthy	65.73	45.27	55.67	62.19	40.98	51.74	83.70	67.45	75.77
28	Nagarkurnool	64.85	43.64	54.38	62.38	40.84	51.73	86.17	68.28	77.41
29	Nalgonda	73.90	53.46	63.75	69.32	47.00	58.26	89.38	74.95	82.17
30	Suryapet	73.39	54.85	64.11	70.58	50.80	60.70	88.76	76.44	82.52
31	Khammam	73.69	58.31	65.95	69.32	52.45	60.86	88.82	78.06	83.35
Total		75.04	57.99	66.54	67.56	47.12	57.30	86.65	75.39	81.09

Source: Registrar General and Census Commissioner of India, GOI.

21. District wise Working Population, 2011 Census

(in Nos.)

Sl. No.	District	Total Population	Cultivators	Agricultural Labourers	Household Industry	Other Workers	Total Workers	% Working Population
1	2	3	4	5	6	7	8	9
1	Adilabad	7,08,972	1,26,363	1,19,664	10,313	92,781	3,49,121	49.24
2	Kumuram Bheem	5,15,812	88,045	99,667	7,490	57,799	2,53,001	49.05
3	Mancherial	8,07,037	45,831	1,48,377	8,423	1,42,154	3,44,785	42.72
4	Nirmal	7,09,418	1,03,498	1,17,204	58,435	97,623	3,76,760	53.11
5	Nizamabad	15,71,022	1,44,090	2,31,941	1,26,712	2,59,823	7,62,566	48.54
6	Jagtial	9,85,417	1,11,345	1,77,530	89,897	1,57,664	5,36,436	54.44
7	Peddapalli	7,95,332	46,115	1,59,967	8,207	1,30,925	3,45,214	43.41
8	Jayashankar	7,11,434	87,346	2,36,408	5,035	55,060	3,83,849	53.95
9	Bhadradi Kothagudem	10,69,261	89,435	2,62,753	8,446	1,56,477	5,17,111	48.36
10	Mahabubabad	7,74,549	1,22,597	2,04,458	7,427	73,002	4,07,484	52.61
11	Warangal Rural	7,18,537	98,880	2,00,721	7,612	69,399	3,76,612	52.41
12	Warangal Urban	10,80,858	43,818	1,20,682	16,094	2,59,046	4,39,640	40.68
13	Karimnagar	10,05,711	78,516	1,86,363	18,694	1,80,347	4,63,920	46.13
14	Rajanna Sircilla	5,52,037	66,751	1,01,737	46,647	83,528	2,98,663	54.10
15	Kamareddy	9,72,625	1,33,267	2,13,224	44,358	1,03,332	4,94,181	50.81
16	Sangareddy	15,27,628	1,09,650	2,98,990	17,234	2,62,282	6,88,156	45.05
17	Medak	7,67,428	1,29,530	1,62,827	15,811	77,642	3,85,810	50.27
18	Siddipet	10,12,065	1,56,467	1,71,665	40,520	1,40,911	5,09,563	50.35
19	Jangaon	5,66,376	85,388	1,29,784	7,764	64,557	2,87,493	50.76
20	Yadadri Bhuvanagiri	7,39,448	62,589	1,48,335	16,736	1,29,693	3,57,353	48.33
21	Medchal-Malkajgiri	24,60,095	26,675	44,980	38,872	8,54,205	9,64,732	39.22
22	Hyderabad	39,43,323	28,308	23,029	46,157	13,15,803	14,13,297	35.84
23	Rangareddy	24,26,243	1,65,705	2,13,624	29,544	6,13,768	10,22,641	42.15
24	Vikarabad	9,27,140	1,65,202	1,91,597	10,727	1,02,626	4,70,152	50.71
25	Mahabubnagar	14,86,777	1,81,963	3,11,713	25,267	2,21,114	7,40,057	49.78
26	Jogulamba Gadwal	6,09,990	85,048	1,83,459	8,441	51,138	3,28,086	53.79
27	Wanaparthy	5,77,758	60,914	1,44,713	8,749	81,773	2,96,149	51.26
28	Nagarkurnool	8,61,766	1,54,560	1,90,030	9,633	1,02,539	4,56,762	53.00
29	Nalgonda	16,18,416	1,58,951	3,89,621	19,633	2,37,886	8,06,091	49.81
30	Suryapet	10,99,560	98,773	3,15,838	8,453	1,38,464	5,61,528	51.07
31	Khammam	14,01,639	95,769	4,14,250	9,198	1,85,512	7,04,729	50.28
Total		3,50,03,674	31,51,389	59,15,151	7,76,529	64,98,873	1,63,41,942	46.69

Source: Registrar General and Census Commissioner of India, GOI.

22. Pattern of Land Utilisation from 2008-09 to 2016-17

(Area in Lakh Hects)

Year	Forest	Barren and Uncultiva- ble Land	Land put to Non-Agri- cultural Uses	Culturable Waste	Perma- nent Pastures and Other Grazing Lands	Misc. Tree Crops and Groves not included in Net Area Sown	Current Fallow	Other Fallow Lands	Net Area Sown	Geograph- ical Area
1	2	3	4	7	5	6	9	8	10	11
2008-09	27.43	6.26	8.19	1.71	3.09	1.16	16.79	7.88	42.33	114.84
2009-10	27.43	6.18	8.24	1.70	3.08	1.16	19.38	8.08	39.59	114.84
2010-11	27.43	6.17	8.71	1.67	3.03	1.14	13.97	7.80	44.92	114.84
2011-12	27.43	6.17	8.82	1.65	3.02	1.14	12.36	8.26	45.99	114.84
2012-13	27.43	6.17	8.86	1.74	3.02	1.14	12.03	7.91	46.54	114.84
2013-14	25.40	6.07	8.81	1.77	3.00	1.12	9.51	7.17	49.23	112.08
2014-15	25.40	6.07	8.85	1.82	2.99	1.12	14.01	8.05	43.77	112.08
2015-16	25.40	6.07	8.92	1.82	2.99	1.12	15.79	8.22	41.75	112.08
2016-17	26.98	6.07	8.52	1.82	2.99	1.12	10.15	6.69	47.74	112.08

Source: Directorate of Economics and Statistics, Telangana.

23. Season wise Rainfall from 1990-91 to 2017-18

(in mms.)

Sl. No.	Year	South-West Monsoon (June to September)		North-East Monsoon (October to December)		Winter Period (January to February)		Hot-Weather Period (March to May)		Total	
		Actual	% Dev. over normal	Actual	% Dev. over normal	Actual	% Dev. over normal	Actual	% Dev. over normal	Actual	% Dev. over normal
1	2	3	4	5	6	7	8	9	10	11	12
	Normal	715.1		129.2		11.5		50.8		906.6	
1	1990-91	653.1	-8.7	140.5	8.7	6.9	-40	31.1	-38.8	831.6	-8.3
2	1991-92	578.1	-19.2	50.5	-60.9	1.2	-89.6	14.9	-70.7	644.7	-28.9
3	1992-93	489.6	-31.5	82.5	-36.1	0	-100	43.3	-14.8	615.4	-32.1
4	1993-94	480.3	-32.8	106.5	-17.6	7.2	-37.4	16.7	-67.1	610.7	-32.6
5	1994-95	436.1	-39	166.1	28.6	39.5	243.5	49.7	-2.2	691.4	-23.7
6	1995-96	512.6	-28.3	240.3	86	1.3	-88.7	21.9	-56.9	776.1	-14.4
7	1996-97	643.5	-10	95.4	-26.2	13.4	16.5	52.1	2.6	804.5	-11.3
8	1997-98	481.3	-32.7	126.5	-2.1	12.3	7	26.6	-47.6	646.7	-28.7
9	1998-99	745.1	4.2	78.4	-39.3	4.7	-59.1	46.5	-8.5	874.7	-3.5
10	1999-2K	574.3	-19.7	37.6	-70.9	6.7	-41.7	33.4	-34.3	652	-28.1
11	2000-01	827.1	15.7	23.1	-82.1	3.3	-71.3	37.4	-26.4	891	-1.7
12	2001-02	582.3	-18.6	134.8	4.3	19	65.2	32.6	-35.8	768.8	-15.2
13	2002-03	488.3	-31.7	86	-33.4	2.7	-76.5	23.9	-53	600.9	-33.7
14	2003-04	672.6	-5.9	103	-20.3	29.7	158.3	50.4	-0.8	855.8	-5.6
15	2004-05	455.8	-36.3	76.4	-40.9	37.4	225.2	44.4	-12.6	614	-32.3
16	2005-06	808.2	13	172.3	33.4	0	-100	137.1	169.9	1117.6	23.3
17	2006-07	728.9	1.9	65.4	-49.4	0.6	-94.8	9.4	-81.5	804.2	-11.3
18	2007-08	734.6	2.7	61.6	-52.3	19.6	70.4	124.2	144.5	940	3.7
19	2008-09	755.2	5.6	38.6	-70.1	0	-100	27.1	-46.7	820.9	-9.5
20	2009-10	494.9	-30.8	122	-5.6	18.8	63.5	46.1	-9.3	681.7	-24.8
21	2010-11	894.4	25.1	152.6	18.1	10.1	-12.2	43.7	-14	1100.8	21.4
22	2011-12	601.1	-15.9	24	-81.4	8	-30.4	27.5	-45.9	660.6	-27.1
23	2012-13	707.2	-1.1	141.8	9.8	34.5	200	33.3	-34.4	916.8	1.1
24	2013-14	851.5	19.1	243.2	88.2	1.3	-88.7	116.2	128.7	1212.2	33.7
	Normal	713.5		129.5		11.5		50.8		905.3	
25	2014-15	494.7	-30.7	54.4	-58.0	13.0	13.0	120.0	136.2	682.1	-24.7
26	2015-16	611	-14.3	27.5	-78.8	1.5	-87.0	76.9	51.4	717.2	-20.8
27	2016-17	912.2	-27.8	70.8	-45.3	0.0	-100.0	35.6	-29.9	1018.6	12.5
	Normal	715.8		127.0							
28	2017-18	645.6	-9.81	129.1	1.7						

Source: Directorate of Economics and Statistics, Telangana.

24. Area Sown and Production of Food-grains from 1955-56 to 2016-17

Sl. No.	Year	Area (Lakh Hects)	Production (Lakh Tonnes)	Sl. No.	Year	Area (Lakh Hects)	Production (Lakh Tonnes)
1	2	3	4	1	2	3	4
1	1955-56	35.35	13.78	32	1986-87	32.02	29.11
2	1956-57	36.52	14.54	33	1987-88	34.93	36.78
3	1957-58	35.64	16.60	34	1988-89	35.39	43.42
4	1958-59	37.28	22.03	35	1989-90	35.32	48.43
5	1959-60	37.85	21.48	36	1990-91	34.10	48.19
6	1960-61	35.92	19.28	37	1991-92	32.33	43.21
7	1961-62	40.50	25.60	38	1992-93	28.39	39.08
8	1962-63	40.06	23.04	39	1993-94	28.03	39.90
9	1963-64	39.69	23.63	40	1994-95	27.76	41.60
10	1964-65	38.84	24.75	41	1995-96	27.73	39.79
11	1965-66	37.92	21.73	42	1996-97	30.56	53.06
12	1966-67	38.25	22.80	43	1997-98	25.90	35.25
13	1967-68	39.01	25.66	44	1998-99	32.47	60.94
14	1968-69	37.80	19.92	45	1999-00	30.77	52.48
15	1969-70	41.15	26.66	46	2000-01	33.39	64.63
16	1970-71	42.12	26.75	47	2001-02	29.64	55.32
17	1971-72	37.39	21.17	48	2002-03	26.67	39.48
18	1972-73	38.07	19.30	49	2003-04	29.93	57.99
19	1973-74	43.17	32.68	50	2004-05	24.97	41.68
20	1974-75	41.92	33.70	51	2005-06	31.31	75.29
21	1975-76	43.79	35.77	52	2006-07	30.81	65.22
22	1976-77	39.82	30.20	53	2007-08	30.09	81.34
23	1977-78	40.34	33.83	54	2008-09	31.72	82.48
24	1978-79	43.87	41.15	55	2009-10	26.49	51.90
25	1979-80	38.41	34.32	56	2010-11	34.44	92.60
26	1980-81	38.71	37.09	57	2011-12	31.09	75.01
27	1981-82	41.61	42.37	58	2012-13	28.36	82.42
28	1982-83	40.31	43.46	59	2013-14	34.30	106.86
29	1983-84	41.79	41.15	60	2014-15	26.13	72.18
30	1984-85	36.38	32.08	61	2015-16	21.80	51.45
31	1985-86	34.64	32.23	62	2016-17	34.39	101.29

Source: Directorate of Economics and Statistics, Telangana.

25. Area sown and Production of Food-grains by States, 2015-16

Sl. No.	State/ Union Territory	Area		Production		Yield	
		(in'000 Hectares)	Rank	(in '000 Tonnes)	Rank	(Kgs per Hectare)	Rank
1	2	3	4	5	6	7	8
1	Andhra Pradesh	4,136.0	12	10,633.7	9	2,571	10
2	Arunachal Pradesh	221.8	24	327.6	26	1,477	28
3	Assam	2,683.1	15	5,358.6	15	1,997	19
4	Bihar	6,571.4	7	14,507.9	7	2,208	14
5	Chattisgarh	4,989.0	9	6,654.2	12	1,334	32
6	Goa	41.7	29	115.3	27	2,767	8
7	Gujarat	3,140.0	14	6,279.3	14	2,000	18
8	Haryana	4,484.6	11	16,358.6	6	3,648	4
9	Himachal Pradesh	761.2	20	1,615.1	20	2,122	17
10	Jammu & Kashmir	912.8	18	1,732.7	19	1,898	23
11	Jharkhand	2,646.3	16	4,092.1	17	1,546	26
12	Karnataka	7,330.0	5	9,924.0	10	1,354	31
13	Kerala	200.9	25	553.8	22	2,756	9
14	Madhya Pradesh	15,658.0	2	30,386.5	2	1,941	21
15	Maharashtra	11,212.0	4	8,754.4	11	781	35
16	Manipur	296.9	22	435.7	24	1,468	29
17	Meghalaya	140.0	26	357.7	25	2,555	11
18	Mizoram	48.5	28	77.4	30	1,595	25
19	Nagaland	321.2	21	515.8	23	1,606	24
20	Odisha	4,818.9	10	6,408.2	13	1,330	33
21	Puducherry	19.7	31	44.7	31	2,271	13
21	Punjab	6,652.1	6	28,400.8	3	4,269	2
22	Rajasthan	12,976.9	3	18,040.0	4	1,390	30
23	Sikkim	62.5	27	94.1	29	1,507	27
24	Tamilnadu	3,747.0	13	11,478.4	8	3,063	5
25	Telangana	2,180.0	17	5,145.0	16	2,360	12
26	Tripura	294.9	23	818.3	21	2,775	7
27	Uttarakhand	877.7	19	1,745.9	18	1,989	20
28	Uttar Pradesh	19,355.0	1	42,550.8	1	2,198	15
29	West Bengal	6,378.8	8	18,005.2	5	2,823	6
30	Andaman & Nicobar Islands	7.6	33	14.7	33	1,926	22
31	Chandigarh	0.1	35	0.3	35	4,472	1
32	Dadra and Nagar Haveli	18.9	32	41.1	32	2,176	16
33	Daman and Diu	2.2	34	2.6	34	1,184	34
34	Delhi	30.6	30	111.7	28	3,650	3
All India		1,23,218.3		2,51,582.2		2,042	

Source: Directorate of Economics and Statistics, Ministry of Agriculture, GoI

26. District wise Livestock and Poultry Population, 2012 Census

(in Nos.)

Sl. No.	District	Cattle	Buffaloes	Sheep	Goat	Pigs	Dogs	Others	Total Livestock	Poultry
1	2	3	4	5	6	7	8	9	10	11
1	Adilabad	2,73,387	51,366	21,057	1,05,771	1,065	4,593	93	4,57,332	5,18,473
2	Kumuram Bheem	2,77,680	47,262	83,813	1,84,203	744	475	86	5,94,263	4,17,386
3	Mancherial	2,11,945	96,960	2,96,133	1,45,376	2,748	2,031	80	7,55,273	4,95,788
4	Nirmal	2,11,507	1,22,219	2,80,211	1,24,979	4,287	6,128	36	7,49,367	4,07,794
5	Nizamabad	1,27,011	2,18,206	4,48,018	1,86,969	6,861	6,428	90	9,93,583	21,78,128
6	Jagtial	97,956	1,30,385	4,05,918	1,01,429	9,285	4,527	100	7,49,600	10,53,213
7	Peddapalli	97,831	1,02,798	3,78,473	91,650	4,071	3,306	113	6,78,242	7,14,387
8	Jayashankar	1,89,469	1,28,391	2,93,914	1,45,487	5,417	2,567	116	7,65,361	6,65,247
9	Bhadradri Kothagudem	2,81,235	1,61,741	1,04,288	2,25,171	3,638	13,076	261	7,89,410	8,40,982
10	Mahabubabad	1,93,903	1,09,028	3,85,025	1,34,477	7,080	4,424	62	8,33,999	7,45,653
11	Warangal Rural	1,02,517	1,27,478	4,48,133	78,814	9,790	1,431	137	7,68,300	11,64,222
12	Warangal Urban	49,918	70,599	2,93,815	50,783	13,129	7,407	697	4,86,348	20,34,825
13	Karimnagar	84,399	1,00,892	4,10,703	83,224	8,696	4,765	304	6,92,983	19,54,110
14	Rajanna Sircilla	46,233	66,481	2,37,002	72,258	5,214	3,546	604	4,31,338	7,92,987
15	Kamareddy	2,06,321	1,81,405	4,70,824	2,90,026	12,955	6,671	973	11,69,175	13,94,420
16	Sangareddy	1,93,506	1,83,082	3,02,177	3,05,431	14,957	25,024	1,198	10,25,375	21,33,349
17	Medak	1,42,374	1,40,147	3,70,880	1,66,561	5,232	6,068	198	8,31,460	58,49,940
18	Siddipet	1,63,578	1,67,387	5,51,526	1,45,909	10,771	5,530	95	10,44,796	1,85,81,908
19	Jangaon	1,26,588	1,08,615	4,76,437	96,007	7,668	2,707	113	8,18,135	8,85,574
20	Yadadri Bhuvanagiri	98,045	1,63,708	4,23,626	1,23,021	3,001	5,062	140	8,16,603	48,76,704
21	Medchal-Malkajgiri	29,135	67,354	92,977	39,913	4,425	58,636	651	2,93,091	29,40,078
22	Hyderabad	18,150	27,714	13,181	39,970	374	56,460	4,271	1,60,120	42,857
23	Rangareddy	2,34,453	1,65,586	5,35,821	2,44,538	8,537	33,776	6,414	12,29,125	1,72,72,003
24	Vikarabad	1,99,894	81,263	1,75,298	2,38,186	9,815	19,048	169	7,23,673	8,11,142
25	Mahabubnagar	2,45,043	1,34,259	17,83,759	2,43,819	23,492	22,520	1,160	24,54,052	31,04,436
26	Jogulamba Gadwal	1,03,891	59,587	3,95,165	73,419	5,003	12,127	42	6,49,234	10,07,994
27	Wanaparthy	87,615	65,143	7,44,137	73,381	10,007	9,904	59	9,90,246	7,86,832
28	Nagarkurnool	2,39,523	1,06,373	6,62,717	1,95,745	9,945	14,917	228	12,29,448	18,90,760
29	Nalgonda	2,18,220	2,99,647	8,79,990	2,87,852	17,086	10,432	653	17,13,880	25,32,797
30	Suryapet	1,73,985	3,19,192	5,61,048	1,18,093	4,634	4,991	109	11,82,052	16,12,045
31	Khammam	1,54,981	3,56,151	3,09,695	1,63,233	7,134	5,633	200	9,97,027	10,44,799
	Total	48,80,293	41,60,419	1,28,35,761	45,75,695	2,37,061	3,64,210	19,452	2,70,72,891	8,07,50,833

Source: Director of Animal Husbandry, Telangana.

27 Production of Fish and Prawn from 2008-09 to 2016-17

Sl. No.	Year	Inland Fish Production (Tonnes)	Fresh Water Prawn Production (Tonnes)	Total
1	2	3	4	5
1	2008-09	1,49,049	2,242	1,51,291
2	2009-10	1,33,613	2,008	1,35,621
3	2010-11	1,33,587	2,206	1,35,793
4	2011-12	1,96,708	3,774	2,00,482
5	2012-13	2,14,591	5,037	2,19,628
6	2013-14	2,43,037	6,596	2,49,633
7	2014-15	2,60,010	8,352	2,68,362
8	2015-16	2,28,185	8,567	2,36,752
9	2016-17	1,93,732	5,189	1,98,921

Source: Commissioner of Fisheries, Telangana.

28. Production of Milk, Meat and Eggs from 2013-14 to 2016-17

Sl. No.	Year	Milk (in '000 Tonnes)	Meat (in '000 Tonnes)	Chicken (in '000 Tonnes)	Eggs (in Lakh Nos.)
1	2	3	4	5	6
1	2013-14	3,924.14	230.29	216.05	100,605.98
2	2014-15	4,207.42	259.73	245.34	106,185.27
3	2015-16	4,442.29	279.98	262.08	112,058.23
4	2016-17	4,681.04	303.04	288.00	118,186.35

Source: Director of Animal Husbandry, Telangana.

29. Mineral Production and Value of Minerals Produced for the Year 2016-17

Sl. No.	Mineral	Unit	Production	Value (in '000 Rupees)
1	2	3	4	5
I. Major Minerals				
1	Coal	Tonnes	6,08,09,502	8,91,46,730
2	Lime Stone	Tonnes	2,53,83,744	1,00,77,346
3	Manganese Ore	Tonnes	10,187	31,030
4	Stowing Sand	Tonnes	23,08,446	2,65,079
Total				9,95,20,185
II. Minor Minerals				
1	Amethyst	Tonnes	-	-
2	Barytes	Tonnes	13,105	49,144
3	Dolomite	Tonnes	4,43,823	1,85,074
4	Feldspar	Tonnes	6,76,811	2,01,690
5	Fire Clay	Tonnes	0	0
6	Latarite	Tonnes	36,79,879	9,67,808
7	Mica	Tonnes	0	0
8	Quartz	Tonnes	6,13,876	1,86,005
9	Silica Sand	Tonnes	0	0
10	Shale	Tonnes	32,100	4,558
11	White Clay	Tonnes	65,149	14,137
12	Yellow Ochre	Tonnes	-	-
Total				16,08,416
III. Other Minor				
1	Black Granite	M3	4,08,899	2,09,62,708
2	Colour Granite	M3	7,78,057	2,51,14,708
3	Gravel / Earth	M3	4,69,61,550	1,62,12,066
4	Fuller's Earth	Tonnes	4,58,839	4,75,210
5	Lime Stone Slabs	M2	34,46,828	17,84,940
6	Limekankar	Tonnes	0	0
7	Mosaic Chips	Tonnes	20,705	15,725
8	Marble	Tonnes	0	0
9	Road Metal	M3	5,12,18,023	4,42,04,739
10	Ordinary Sand	M3	28,44,839	13,41,596
Total				11,01,11,692
Grand Total				21,12,40,293

Source: Director, Mines and Geology, Telangana

30. District wise Fair Price Shops and Food Security Cards - 2017-18

(in Nos., as on December, 2017)

Sl. No.	District	Fair Price Shops	Annapurna cards	Food Security Cards	Priority Household Cards	Total
1	2	3	4	5	6	7
1	Adilabad	355	277	12,920	1,68,770	1,81,967
2	Kumuram Bheem	277	23	12,094	1,23,558	1,35,675
3	Mancherial	423	192	15,053	1,97,326	2,12,571
4	Nirmal	389	35	11,752	1,87,603	1,99,390
5	Nizamabad	741	1,146	19,921	3,55,638	3,76,705
6	Jagtial	586	168	14,679	2,76,173	2,91,020
7	Peddapalli	413	184	12,416	1,99,780	2,12,380
8	Jayashankar	499	44	17,095	1,90,405	2,07,544
9	Bhadradi Kothagudem	442	4	17,575	2,57,944	2,75,523
10	Mahabubabad	553	2	14,681	2,16,948	2,31,631
11	Warangal Rural	464	15	12,179	2,06,012	2,18,206
12	Warangal Urban	459	22	12,164	2,40,508	2,52,694
13	Karimnagar	487	50	15,987	2,54,904	2,70,941
14	Rajanna Sircilla	344	221	13,678	1,53,502	1,67,401
15	Kamareddy	576	1,093	16,312	2,28,793	2,46,198
16	Sangareddy	845	117	27,098	3,33,811	3,61,026
17	Medak	520	87	13,009	1,94,425	2,07,521
18	Siddipet	680	92	18,837	2,62,526	2,81,455
19	Jangaon	355	104	10,611	1,52,201	1,62,916
20	Yadadri Bhuvanagiri	461	0	13,184	1,90,956	2,04,140
21	Medchal-Malkajgiri	636	112	18,342	4,61,285	4,79,739
22	Hyderabad	716	1,430	30,610	5,24,130	5,56,170
23	Rangareddy	919	45	35,333	4,82,649	5,18,027
24	Vikarabad	588	42	26,770	2,04,449	2,31,261
25	Mahabubnagar	804	270	27,999	3,41,776	3,70,045
26	Jogulamba Gadwal	333	143	10,162	1,41,596	1,51,901
27	Wanaparthy	325	121	9,815	1,40,700	1,50,636
28	Nagarkurnool	558	42	17,037	2,11,566	2,28,645
29	Nalgonda	990	73	28,943	4,20,896	4,49,912
30	Suryapet	609	50	18,795	2,88,558	3,07,403
31	Khammam	657	2	26,582	3,69,248	3,95,832
Total		17,004	6,206	5,51,633	79,78,636	85,36,475

Source: Commissioner, Civil Supplies, Telangana

31. District wise Anganwadi Centres, 2016-17

(in Nos.)

Sl. No.	District	Pro-jects	Mandals Covered	Centers		Children Enrolled	AWTs		Ayahs (Helpers)
				Main	Mini		Main	Mini	
1	2	3	4	5	6	7	8	9	10
1	Adilabad	5	18	992	264	56,895	908	156	791
2	Kumuram Bheem	5	15	834	139	43,836	768	86	716
3	Mancherial	4	18	882	73	43,186	823	32	735
4	Nirmal	4	19	816	109	51,510	755	75	671
5	Nizamabad	5	27	1,362	134	80,714	1,339	119	1,281
6	Jagtial	4	18	1,037	28	52,018	1,006	26	946
7	Peddapalli	3	14	701	5	31,326	684	5	657
8	Jayashankar	6	20	1,137	147	42,799	1,083	91	973
9	Bhadradri Kothagudem	11	23	1,432	622	68,553	1,364	506	1,316
10	Mahabubabad	5	16	1,285	152	43,084	1,202	115	1,163
11	Warangal Rural	3	15	832	76	33,175	787	49	734
12	Warangal Urban	3	11	772	23	39,678	749	11	688
13	Karimnagar	4	16	752	25	35,412	726	14	710
14	Rajanna Sircilla	2	13	560	26	29,905	549	23	511
15	Kamareddy	5	22	1,038	155	55,137	1,013	146	967
16	Sangareddy	5	26	1,343	159	90,150	1,307	150	1,242
17	Medak	4	20	885	189	49,838	864	179	812
18	Siddipet	5	22	1,084	65	49,417	1,066	43	1,020
19	Jangaon	3	13	691	41	22,220	653	17	631
20	Yadadri Bhuvanagiri	4	16	809	55	34,192	770	48	723
21	Medchal-Malkajgiri	3	14	774	14	89,468	737	10	645
22	Hyderabad	5	16	909	2	72,298	845	1	801
23	Rangareddy	7	27	1,380	220	1,23,955	1,311	171	1,247
24	Vikarabad	5	18	969	138	64,307	940	121	895
25	Mahabubnagar	7	26	1,734	149	95,379	1,637	102	1,445
26	Jogulamba Gadwal	3	12	651	55	49,710	607	32	571
27	Wanaparthy	3	14	545	44	26,569	509	14	453
28	Nagarkurnool	5	20	908	222	41,186	859	152	782
29	Nalgonda	9	31	1,831	261	77,360	1,773	206	1,732
30	Suryapet	5	23	1,126	81	51,438	1,074	50	1,007
31	Khammam	7	21	1,604	286	78,533	1,524	170	1,420
Total		149	584	31,675	3,959	17,23,248	30,232	2,920	28,285

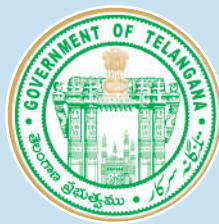
Source: Commissioner, Women Development and Child Welfare, Telangana

32. District wise LPG connections, 2016-17

(in Nos.)

Sl. No.	District	IOCL	HPCL	BPCL	Total
1	2	3	4	5	6
1	Adilabad	27,068	67,916	31,698	1,26,682
2	Kumuram Bheem	18,375	38,668	15,877	72,920
3	Mancherial	81,044	42,385	72,059	1,95,488
4	Nirmal	86,216	43,560	19,059	1,48,835
5	Nizamabad	1,22,995	1,08,113	1,52,288	3,83,396
6	Jagtial	1,49,548	29,320	46,143	2,25,011
7	Peddapalli	1,53,723	4,990	33,807	1,92,520
8	Jayashankar	32,464	69,499	27,665	1,29,628
9	Bhadradri Kothagudem	43,718	2,10,209	19,972	2,73,899
10	Mahabubabad	3,388	50,172	11,061	64,621
11	Warangal Rural	28,132	36,874	45,674	1,10,680
12	Warangal Urban	1,08,411	85,048	1,08,988	3,02,447
13	Karimnagar	60,079	1,45,564	1,48,014	3,53,657
14	Rajanna Sircilla	69,785	18,699	22,095	1,10,579
15	Kamareddy	34,766	47,440	93,947	1,76,153
16	Sangareddy	1,47,338	1,37,957	1,06,959	3,92,254
17	Medak	21,006	61,649	57,877	1,40,532
18	Siddipet	95,907	91,649	66,714	2,54,270
19	Jangaon	19,709	26,512	68,396	1,14,617
20	Yadadri Bhuvanagiri	43,531	30,817	46,811	1,21,159
21	Medchal-Malkajgiri	4,22,079	3,64,587	1,69,010	9,55,676
22	Hyderabad	5,35,826	6,36,998	1,86,718	13,59,542
23	Rangareddy	4,31,314	3,21,616	1,24,803	8,77,733
24	Vikarabad	94,065	42,525	48,243	1,84,833
25	Mahabubnagar	1,14,900	33,054	1,96,882	3,44,836
26	Jogulamba Gadwal	27,573	83,265	225	1,11,063
27	Wanaparthy	73,019	6,400	16,026	95,445
28	Nagarkurnool	54,697	30,616	44,589	1,29,902
29	Nalgonda	1,52,665	1,57,201	63,392	3,73,258
30	Suryapet	1,80,198	22,098	47,250	2,49,546
31	Khammam	1,45,579	1,42,801	81,749	3,70,129
Total		35,79,118	31,88,202	21,73,991	89,41,311

Source : Sr. Manager-SLC/TS, HPCL, Secunderabad.



Government of Telangana
Planning Department

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