

Irrigation Potentical 103.50
Lakh Acres

Andhra Pradesh state is aspiring to grow into a competitive economy that creates opportunities for everyone, to foster the growth of productive firms, farms and people through putting necessary infrastructure – both physical and social in place. Proper infrastructure facilitates growth and the multiplier effect of the physical infrastructure such as irrigation projects, dams, roads, bridges, ports, airports and communications enhance growth opportunities and ultimately help for reducing poverty. The government takes cognizance of the changing patterns of government regulation worldwide and is transforming into a strategic, value-enhancing force which besides striving to fulfill basic needs of people also directing them into a lane of fast-paced growth. The government is focused upon facilitating the conversion of more ideas into enterprises, promoting the growth of small businesses and also linking them to larger ones.

The Sunrise state of Andhra Pradesh is moving forward with coast/port led growth strategy and is keen to improve the infrastructure and logistics.

### Irrigation

Andhra Pradesh called a "River State" and blessed with major river systems like the Godavari, Krishna, Pennar, Vamsadhara and other rivulets, is giving utmost importance for Irrigation development as well as its management. The State of Andhra Pradesh is allocated 512.040 TMC of Krishna Waters under the existing Projects. The existing utilization under Godavari is to the extent of 308.703 TMC.

### Utilisation of Water for Irrigation:

River basin wise utilization of water under existing and ongoing irrigation projects is shown in Table 7.1.

Table 7.1 Utilisation for Irrigation

Sl.	River Basin	Utilization for Irrigation (in TMC)		
No	Kiver dasin	Existing Projects	Ongoing Projects	
1	Krishna River	512.040	150.50	
2.	Godavari River	308.703	431.688	
3.	Pennar River	130.536	58.120	
4.	Vamsadhara	28.605	12.142	
5.	Other Rivers	322.839	32.082	
	Total	1302.723	684.532	

Source: Water Resources Department

### Irrigation Potential created:

Creation of Irrigation Potential continued to be the most prioritized area. So far 103.50 lakh acres of irrigation potential has been created up to Nov 2016 under major anicuts on Krishna, Godavari and Pennar rivers, Projects like NagarjunaSagar, Telugu Ganga, Somasila, SRBC, Vamsadhara, Medium Irrigation projects and Minor Irrigation schemes. The details of sector wise irrigation potential created up to November, 2016 are shown in Table 7.2 and district-wise irrigation potential created in the state are given in Annexure 7.1.

Table 7.2 : Sector Wise Irrigation Potential created up to November, 2016

Sector	Ayacut (lakh acres)
Major Irrigation	65.00
Medium Irrigation	5.52
Minor Irrigation	25.60
APSIDC	7.38
Total	103.50

Source: Water Resources Department

### Contemplated Irrigation Potential:

Completion of present 57 projects (28 Major +18 Medium + 4 Flood Banks + 7 Modernisation), will create 48.431 lakh acres of new ayacut Irrigation Potential under Major, Medium irrigation projects besides stabilization of 21.189 lakh acres.

### Priority projects:

The Government has decided to complete 7 ongoing projects on priority basis providing early irrigation facilities in the drought prone Rayalaseema and Prakasam districts and backward districts of Srikakulam and Vizianagaram.

### Seven Priority projects

- 1. a) Polavaram Right Main Canal including Pattiseema
  - b) Polavaram Left Main Canal.
- 2. Thotapalli Barrage project
- 3. Handri Neeva Sujala Sravanthi project
- 4. Galeru Nagari Sujala Sravanthi Phase I
- 5. BRR Vamsadhara Project (Stage II- Phase II)
- 6. PoolasubbaiahVeligonda Project
- 7. Gundlakamma Reservoir

### Project completion targets:

Thotapalli, Polavaram RMC, GNSS, HNSS, Vamsadhara Stage-II, Phase-II and Polavaram Left Main Canal are programmed to be completed by June 2017. Polavaram Head Works are programmed to be completed by June 2018.

Polavaram irrigation project is treated as National project as per the AP State Reorganization Act-2014. Accordingly, Central Government has tied up with NABARD for financial assistance. First installment of Rs.1981 crores was released to Andhra Pradesh on December 2016.

### Modernization of existing systems:

Due to occurrence of frequent cyclones and consequent damage to crops, modernization of the following river systems was taken up to stabilize the existing ayacut of 46.36 lakh acres. Modernization of delta systems and other projects has been taken up at a cost of Rs.12840 crore. Scheme wise details are shown in Table 7.3

Table 7.3: Ayacut area under modernization of delta system

Name of the Scheme	Ayacut (in lakh acres)
Godavari Delta	10.38
Krishna Delta	13.08
Pennar Delta	2.47
Nagarjuna Sagar project	14.71
TBP HLC & LLC	4.64
Yeleru Reservoir Scheme	0.68
Nagavali System	0.40
Total	46.36

Source: Water Resources Department

### Support for completion:

Financial assistance from World Bank, JICA, NABARD and from Government of India is being obtained and the works are in progress for the early completion of ongoing projects. Most of the sites suitable for gravity irrigation schemes have already been exhausted and upland areas which cannot be irrigated by gravity flows are planned to be developed under Major Lift Irrigation schemes. The Government has programmed the following special lift irrigation schemes:

- A. Chinthalapudi Lift Irrigation scheme to irrigate 2 lakh acres in upland areas of West Godavari and Krishna districts with a cost of Rs.1701Crore and is under progress.
- B. Babu Jagjeevan Ram Uttarandhra Sujala Sravanthi Project is being taken up with a cost of Rs.7214.00 Crore to create an ayacutof 8 lakh acres in the upland areas of Srikakulam, Vizianagaram and Visakhapatnam districts. The project is yet to be started.

### Accelerated Irrigation Benefit Programme

17 Projects (9 Major and 8 Medium) were included under AIBP with a target to create an Irrigation potential of 5.35 lakh ha. Out of these 17 projects, 8 projects were taken up prior to 2004-05, and 9 projects were taken up after 2004-05. Out of these 9 Projects, 2 projects are covered under Prime Ministers Relief Package (PMRP) and the balance 7 Projects are covered under Normal AIBP. Thus, out of the total 17 AIBP projects, 7 Projects (3 Major and 4 Medium) were completed and 1 project was dropped and the balance 9 Projects are under progress. Out of the 9 Major Irrigation Projects under AIBP, Polavaram Project is now declared as National Project in 2014-15.In all, Irrigation Potential of 2.94 Lakh ha. has been created up to October, 2016 under AIBP.Details of IP created under Major and Medium projects (AIBP) are given in Annexure 7.2.

### Hydrology Project Phase -I&II(HP)

Hydrology Project Phase-I was taken up 50 gauge discharge sites on various minor streams and 22 digital water level recorders at various reservoirs have been established. Further 124 standard rain gauge stations, 56 autographic rain gauge stations, 3 full climatic stations, 9 water quality level I and 2 water quality level II labs were also established. The HP Phase-IIproject was taken to extend and promote the sustained and effective use of the HIS by all potential users concerned with the water resources planning and management, both public and private, thereby contributing to improved productivity and cost effectiveness of water related investment.

### Hydrology Project - III (National Hydrology Project

NHP is a Central sector scheme with 100% grant to the state/Central Implementing agencies for a period of 8 years from 2016-17. The objective is to improve the extent, quality and accessibility of water resources information, and to strengthen the capacity of water resources management institutions / Departments in India. The Memorandum of Agreement (MOA) is signed between the Ministry of Water Resources, River Development & Ganga Rejuvenation (MoWR, RD&GR), Government of India and Water Resources Department, Government of Andhra Pradesh for the implementation of National Hydrology Project (NHP). The project implementation plan, for a total amount of Rs 80.00 Crores is approved by MoWR. The components and respective cost proposed are shown in Table 7. 4

Table 7. 4 : Component wise Projects

Sl No	Project component	Amount (cr)
1	Water Resources Data Acquisition System	48.00
2	National Water Resources Information System	4.00
3	Water Resources Operation and Planning	12.00
4	Institutions and Capacity Enhancement	16.00
	Total	80.00

.Source: Water Resources Department

### **CADA Projects**

#### APILIP:

Andhra Pradesh Irrigation Livelihood Implementation Project (APILIP) envisages increasing the agricultural production by constructing and rehabilitation of irrigation facilities, improving water management and agriculture practices, enhancing agricultural income, construction of Minor Irrigation Tanks and formation and capacity building of WUAs. It consists of formation of one (1) New Minor Irrigation Tank in surplus river basins with a tentative cost of Rs.2.32 crores to create new Irrigation potential of about 272 acres and to take up Rehabilitation of nine (9) existing medium irrigation projects at an estimated amount of Rs.216 crore to stabilize an ayacut of 49,330 ha. The

cumulative expenditure incurred under this project during 2007-2016 (up to July, 2016) in Rs.250 crores. The project is completed and closed w.e.f 11-07-2016.

### APILIP-II

Andhra Pradesh Irrigation Livelihood Improvement Project (Phase-II) for Rs.2000 crores is under examination with Government of India. The project proposal consists of modernization of 20 medium irrigation projects, restoration of 445 Minor Irrigation tanks and Agri-business component. About 4 lakh acres of ayout will be stabilized under this project. The project duration is from 2016-17 to 2020-21.

#### RRR-II

345 Minor irrigation tanks were covered under Repairs, Renovation and Restoration(RRR-II) of minor tanks with an estimated cost of Rs.112.36 crore apart from 3 works taken up in other programmes. Of these, 324 works were completed, and remaining 18 works have been terminated. The expenditure incurred under this project to bridge gap ayacut of 40,807 hectares during 2012-16 and expenditure incurred up to 31-3-2016 is Rs.57.09 crore.

#### RRR-III

Under this scheme the proposals are submitted to MOWR for sanction.

SL.	Name of the	No. of	Ayacut	Estimated
No	Dist.	Tanks	in Ha.	Cost in Cr.
1	Prakasam	122	19321	80.24
2	Nellore	81	11724	48.21
3	Ananthapuram	35	2220	11.45
	Total	238	33265	139.9

### APCBTMP (World Bank Phase-I)

Andhra Pradesh Community Board Tank Management Project (APCBTMP) envisaged increasing the agricultural production by construction and rehabilitation of irrigation facilities, improving water management and agriculture practices, enhancing agricultural income, Modernization of Minor Irrigation Tanks capacity building of WUAs. 975 Minor Irrigation tanks were renovated and 3,01,756 acres ayacut was stabilized. The cumulative expenditure incurred under this project during 2007-2016 (up to Oct, 2016) is Rs.439.24 crores. The project is completed and closed by 31-07-2016.

ECONOMIC INFRASTRUCTURE

### APIIATP (World Bank Phase-II)

Andhra Pradesh Integrated Irrigation and Agriculture Transformation Project (Phase-II) funded by World Bank for Rs.1600 crores was cleared by Department of Economic Affairs (DEA) Ministry of Finance, New Delhi. The proposal consists of modernization of 1200 Minor Irrigation Tanks to stabilize an ayacut of around 3 lakh acres. The project duration is from 2016-17 to 2020-21. World Bank Pre-identification Mission visited the state from 8th to 17th August, 2016 Aide Memoire Issued. World Bank Preparatory Mission also visited the State from 15th to 25th November 2016.

### Minor Irrigation

Minor Irrigation deals with investigation and execution of Minor Irrigation Sources of ayacut up to 5000 acres. Minor Irrigation plays an important role in the development of agriculture and livelihoods particularly in drought prone areas and areas outside command of Major and Medium projects. Minor Irrigation is providing irrigation facilities to increase the agriculture production in the existing ayacut of 25.60 lakh acres under 40817 tanks.

The total registered ayacut of 25.60 Lakh Acres is not being irrigated every year and hence the gap ayacut is being increased year by year and the average gap ayacut is approximately 57% of total registered ayacut.

A total amount of Rs.583.37 crores is spent during 2016-17 upto 25-11-2016 which includes expenditure of Rs.352.32 crores under Neeru Chettu, NABARD & SCSP, TSP etc.

### Minor Irrigation Census

As per the 5<sup>th</sup> Minor Irrigation Census 2013-14, there were 10.54 lakh minor irrigation sources in Andhra Pradesh against 9.72 lakh sources as per 4thMinor Irrigation Census 2006-07, registering an increase of 8.41%. The statement showing data on Minor Irrigation sources is given in Annexure-7.3.

### **Ground Water**

The government is targeting water security – drinking water, irrigation and industrial use. With an objective to conserve every drop of water the government is working

towards sustainable ground and surface water management through programmes like Neeru Chettu, Neeru-Pragathi, Panta Sanjeevini(farm pond), Panta Raksha (Rainguns), borewells under the NTR Jala Siri Programme. In addition to these programmes, several schemes are also put in place to provide access to quality drinking water by conservation and sustainable management of water resources.

It is also targeted to drought-proof the state and provide safe drinking water for all the people. Groundwater is one of the major sources of drinking water in both urban and rural areas. In addition, it is also an important source of water for agricultural and industrial sector. Being a critical and integral part of the hydrological cycle, its availability depends on rainfall and recharge of water.

The demand for water has increased over the years led to water scarcity in many parts of the world. During the past two decades, the water levels in several parts have been falling rapidly due to an increase in ground water extraction. The number of wells drilled for providing irrigation to both food and cash crops has rapidly and indiscriminately increased. Intense competition among users viz., agriculture, industry and domestic sectors is driving groundwater table lower.

The National Water Policy calls for controls on exploitation of groundwater through regulation and an integrated and coordinated development of surface and groundwater through conjunctive use.

### **Key Functions**

- Periodic estimation of groundwater resources of the state on a watershed approach and according clearances to minor irrigation schemes.
- Detailed investigations for delineation of potential zones and selection of well sites, to be implemented by developmental agencies and individuals.
- Investigations for identification of feasible areas and suitable sites for artificial recharge and rainwater harvesting structures.
- Drilling of exploratory cum production bore / tube wells to study sub surface configuration of aquifers and assess aquifer parameters
- Monitoring of groundwater levels and quality through a network of observation wells, stream flow check points and improvednetwork of piezometers with Automatic/

Digital Water Level Recorders with Telemetry for Real Time Ground Water Levels.

- Conjunctive use studies in selected major command areas
- Identification of feasible sites for construction of bore wells under NTR
- Jala Siri II programme for small and marginal farmers in Command areas and also in Non-Command areas of 3 high rainfall north coastal districts.
- Special studies for evaluating groundwater regime through modern tools like, aerial photographs, satellite imagery, Geographical Information System etc,
- · Aquifer Mapping and Management studies.

In recent years, the department shifted its focus to management by adopting Community Based Ground Water Management (CBGWM).

### Estimation of Groundwater Resources

The state has been divided into 748 watersheds (Groundwater Basins or Assessment Units) for estimation of groundwater resources. The last estimation was done for the base year 2012-13. Groundwater Resource Estimation for the base year 2014-15 in nearing completion. Categorization of basins/mandals/villages is made based on stage of ground water development and long term groundwater levels trends. Details of the availability, utilization and stage of Ground water resources as per GEC -2012-13 are shown in Table 7.5 and Table 7.6.

Table 7.5: Ground Water Development

Ground water Resources	Command Area	Non Command Area	Total
Annual Ground water availability (MCM)	9163	9317	18480
Annual Ground water utilization (MCM)	2754	5350	8104
Balance Ground water availability (MCM)	6409	3967	10376
% of utilization stage of Ground water development)	30	57	44
Category	Safe	Safe	Safe

Source: Ground Water Department.

Table 7.6: Stage of Ground Water Development

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Category	Watersheds (No.)	Mandals (No.)			
Over Exploited	79	61			
Critical	22	17			
Semi-critical	62	54			
Safe	585	538			
Total	748	670			
Over exploited villages to be notified under					
APWALTA- 946 villages.					

Source: Ground Water Department.

In terms of quantity, the total groundwater availability in the state is 18,480 Million Cubic Meters (MCM) out of which 8,104 MCM is utilized for various purposes leaving a balance of 10,376 MCM. The overall stage of ground water development is about 44%. The stage of ground water development in command areas is 30% and the stage of groundwater development in non-command areas is 57%.

### Groundwater Development

A study of the composite hydrographs of the past and present indicates that groundwater development is taking place in the state. It is generally observed that more the recharge more will be the utilization. At present, on an average, about 1.3 hectares of gross area is irrigated per well and on an average a total of 50,000 new wells are commissioned per year due to which the average unit area irrigated per well may decrease. The net groundwater irrigation potential created during 2015-16 was 11.93 lakh hectaresand gross area irrigated under groundwater was 16.43 lakh hectares with 15.09 lakh bore wells. It is expected that if, micro irrigation practices are adopted on saturation mode, net irrigation potential through groundwater can reach to a level of 16 lakh hectares with additional recharge to ground water by taking up water conservation works in large scales.

### Investigations

The department is conducting investigation for selection of sites for wells, artificial recharge studies, implement of APWALTA and hydrological clearances etc. During the year 2016-17 (up to Oct 2016) the department has investigated 65,723 sites under various programmes for construction of

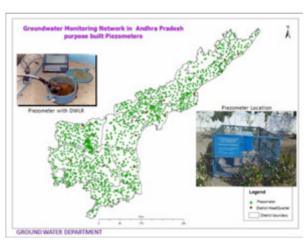
different types of wells under SCSP, TSP, WALTA, Lift Irrigation, Artificial Recharge Structures, Industries, Sand Mining, Drinking water and NTR JalasiriPhase.II etc., Out of which, under SCSP, the department has conducted ground water surveys in 1499 sites and recommended 1004 sites through which 690 hectares of the area is likely to be irrigated, benefitting 993 farmers belonging to Scheduled Castes. Under, Tribal Sub Plan the department has conducted ground water surveys in 1941 sites and recommended 1426 sites through which 2090 hectares of the area is likely to be irrigated, benefitting 1591 farmers belonging to Scheduled Tribes.

### Monitoring of Ground Water Levels

The Department is monitoring the changes in groundwater regime continuously through a network of 1254 Piezometer wells in different hydrogeological and geomorphic units. The water levels are recorded and the fluctuations noticed seasonally and annually are analyzed in relation to rainfall, recharge measures, drought and extraction of groundwater in the area.

### Real Time Monitoring of Groundwater levels:

Digital Water Level Recorders in 1254 Piezometers are functioning for real time monitoring of the ground water levels interval. The real time data is being analyzed with rainfall and reports are being disseminated through CM Coredash board.



### Groundwater Levels Scenario:

In the water year 2016-17, (up to February 2017) the State has received 28% less rainfall against the normal rainfall. Observed a net rise of 0.43 m. from May-16 and net fall of 1.45m from November-2016 water levels.

Coastal Andhra region received 24% deficit rainfall against the normal rainfall upto February, 2017 where as it was 10% excess during the same period in the previous water year (resulted in a net raise of 0.26 m from May-16 and 0.22m from February, 16 to February, 17 water levels).

Rayalaseema region received 33% deficit against the normal rainfall upto February-17whereas it was 30% excess during the same period in the previous water year and as a result a net fall of 1.99 m. from May-16 and 3.94 m from February -16 to February-17 water levels.

The average groundwater level for the State in February 2017 is 12.54 m., where as it was 11.48m.during the same period in the previous year and observed a net fall of 1.06m. from the same month in the previous year water level.

Because of the failure of North East Monsoon and more utilization of groundwater for Rabi crops, the groundwater levels are being drastically falling. When compared the present water levels with November month water levels, almost in all districts fall in water levels is observed. Nellore district (the fall is ranging from 0.84m to 2.69m) and in the state as whole average fall is 1.45 meters from November, 2016 (it is equal to about 150 TMC of additional groundwater usage from November month)

### Monitoring of Water Quality

The department collects water samples during pre-monsoon [May] and post-monsoon [November] from all monitoring wells and also during investigations. These water samples are being analyzed in the 4 Chemical Laboratories of the department. During 2016-2017 (uptoJanuary, 2017), 5875 water samples were collected/analyzed against the annual target of 5,524.

### Drilling

Under the programme, the department is constructing borewell/tubewells in the SC/ST lands to study the lithology and aquifer parameters and handing over to SC/ST beneficiaries. Against the annual target of 200 wells under drilling, 296 bore/tubewells wells have been drilled under Scheduled Castes Sub-plan in 2016-17. Against the annual target of 100 wells under drilling, 64 bore/wells and 296 tube wells have been drilled under Tribal Sub-plan in 2016-17.

### Command Area Development

The department takes up studies under four major project commands viz., Nagarjunasagar Right Canal Command, Nagarjunasagar Left Canal Command, Srisailam Right Branch Canal Command, Tungabhadra Project Complex Command area to study the impact of excessive irrigation, delineate areas already water logged and prone to water logging, recommend conjunctive use of both surface and ground water and to suggest other suitable remedial measures to improve productivity.

Monitoring of Groundwater levels is being carried out six times a year through 759 Command area observation wells to know the impact of canal releases on groundwater regime. The changes in chemical quality of groundwater are being monitored twice a year and detailed hydro geological and geophysical surveys are being carried out to recommend sites for construction of irrigation wells. Groundwater augment in these command areas are underutilized. The present stage of ground water development in various commands reflected varying levels with NagarjunaSagar Right Canal Command Area(7%), NagarjunaSagar Left Canal (26%), Tungabhadra Project Complex Command Area(40%) and Srisailam Right Branch Canal Command Area (32%). The department is also working out different conjunctive use strategies in the four major commands and preparing conjunctive use plans for each district falling under the above commands.

### Conjunctive use management

Ideally there should no need for conjunctive use (i.e., supplementing the irrigation needs from groundwater), but in reality conjunctive use of surface water and groundwater

in the command area necessitated for the reasons are Irrigation system is not able to supply required quantity of canal water at required time to service the designed command are and maintain the irrigation schedule, when the storage in the reservoir is depleted due to low rainfall, when supply of canal water for irrigation use is reduced due to increase in the demand by other competitive uses and to increase the efficiency of irrigation system. The department is arriving at different conjunctive use plans for the 20 Medium Irrigation Projects by Water Resources Department.

### NTR Jala Siri-II Project (implementation of Conjunctive use)

Implementing conjunctive use of groundwater and surface water in a true spirit in a big way. The objective of the scheme is to utilize the dynamically rechargeable groundwater resources in command areas, where the groundwater development is under "SAFE" category and create an additional ayacut of about 6.0 lakh acres in the state. Under this scheme the Department has identified the scope for about 1.24 lakh bore wells in Command areas in the state and high rainfall areas of North Coastal districts. This programme is intended for small and marginal farmers in the state and the total outlay of the project is 1498 crores

So far, the department has conducted feasibility surveys for the selection of bore well sites in 54,603 sites and recommended 36,360 sites for construction of bore wells. The Rural Development Department is executing the drilling of bore wells and energisation etc.

### Geo tagging of all Agriculture Bore Wells

A new initiative first of its kind in India for sustainable groundwater development. The Government has taken up an innovative work of Geo tagging of all 15.09 lakh bore wells in the state. So far 98% of the wells have been geo tagged along with bore well photograph and certain information about the bore well.

### World Bank Assisted Projects

### I Externally Aided Projects:

### AP Community Based Tank Management Project:

Participatory Groundwater Management aims at empowering the groundwater users in the tank influence zone to wisely manage the dynamic groundwater resources replenished through rainfall, surface water sources and return circulation from irrigated areas. The participatory Ground Water Management comprises of five major activities a) Capacity building of the Stakeholders, b) Participatory Hydrological Monitoring (PHM), c)water Audit and Crop Water Budgeting, d) Crop Planning and e) Crop Adoption.

Under this component 142 tanks have been selected for Participatory Groundwater Management activities, falling in 6 districts and covering 71 mandals. The activities cover the installation of PHM equipment including rainguages, drilling of piezometers, trainings, data analysis and dissemination etc. The Project was completed by July, 2016.

#### II) Hydrology Project Phase III

The objective of this project is to improve the scope and accessibility of water resources data and information and to strengthen water resources planning and management across the state. The proposed cost of the project is Rs.80.00 crore and project period is 8 years proposed from 2015-16 to 2023-24. Total cost of Rs.80.00 crore is a grant from Government of India for the year 2016-2017 an amount of Rs.2.219 cCrore released for 2017-2018. Annual Work Plan for Rs.9.79 crore is approved by Government of India.

### III) Andhra Pradesh Integrated Irrigation and Agriculture Transformation Project

In sequel to Andhra Pradesh Community Based Tank Management Project is approved by the World Bank with an estimated cost of Rs.40.00 Crores and the same will be implemented shortly in all the districts in Andhra Pradesh except Guntur district. The main objective is Participatory Groundwater Management

### Neeru-Chettu/NeeruPragathi Mission

Neeru-Chettu Mission is a sub-mission of Primary Sector Mission. The role of Ground Water Department in the Mission is to provide technical support to the other departments for identification of sites for recharge structures, preparation of conjunctive use plans and impact assessment of Neeru-Chettu activities in the State. The important objectives are additional recharge to groundwater, technical and systematic development of groundwater resources, improvement of groundwater use efficiency in Non-command areas and implementing conjunctive use plan in command area and finally achieve more productivity per unit of water.

### Convergence with other Departments:

The Groundwater department works in convergence with the departments of Rural Development, Forest, Horticulture, Irrigation and Andhra Pradesh Space Application Centre (APSAC).

### Ground Water Sustainability

Day by day ground water utilization is getting increased for various needs resulting in the depletion of groundwater levels particularly in Non-command areas in the state. For sustainable development of this valuable resource, the Government is taking up various water conservation and water management measures. The objective is to make the state drought proof and increase the State GSDP in one hand and enhance the groundwater recharge through water conservation works, inter-linking of rivers and transfer of water from surplus basins to deficit basins. The department has set a goal to keep the ground water levels between 3 to 8 meters below ground level. If the water levels are above 3 meters, the crop yields/Productivity/Production can decrease and soil characteristics will also deteriorate. If the water levels are below 8 meters the power consumption will be more, well yields decrease and environmental issues will be more.

Based on the groundwater level data collected from piezometers, it is observed that about 52% of the area in the State is showing water levels more than 8 meters and in about 34% of the area reflected the water levels range between 3 to 8 meters and 14% of area with 0-3 metres ground water level as on February, 2017 in the state.

Details of depth of water level ranges are shown in chart 7.1 and district wise depth of water levels are given in Annexure 7.4

Chart 7.1 Variation in depth of water levels



Source: Ground water Department.

Power

Power sector is one sector that has recorded significant performance in terms of generation, transmission and distribution. An efficient, resilient and financially robust power sector is essential for growth and poverty reduction. The state is going in a big way towards non-conventional energy sources as well. Solar and Wind power will be the focus areas. As a critical infrastructure pushing the state economy upwards, its impact on the agriculture sector has also showed great promise. Various challenges have been faced by the power sector since bifurcation of state and major turnaround has been brought about by the government with apt policy reforms, considerably reducing the AT&C and T&D losses and providing quality power.

From 22.5 million units of power deficit in June 2014, the state was became surplus power state and able to provide Quality power supply to all domestic consumers on a 24X7 basis.

The recent performance of the State Power sector received acclaim from various quarters. The sector has won five national awards for remarkable energy conservation and efficiency parameters. The best practices followed by the state in the power sector are being emulated by other states.

The Vision of the APTRANSCO is "To Plan, Construct and Maintain the Transmission Network in the State of Andhra Pradesh in line with Demand Growth and Generation Expansion in an efficient manner so as to ensure highest availability and lowest operational costs."

Details about APTRANSCO are shown in the below.

Table 7.7 APTRANSCO - 2016-17

Parameter	Performance as on 31-10-2016
Installed Capacity (MW)	13885.38
Maximum peak demand met (MW)	7965 (23-08-2016)
Minimum demand met(MW)	3800 (19-05-2016)
Maximum Grid consumption in MU	178.15 (23-08-2016)
Minimum Grid consumption in MU	101.272 (19-05-2016)
Total energy available for use (Grid consumption (MU) during 201617 upto Oct,2016)	31,849.74
Consumers served (Lakh Nos)	169.18
Agricultural services (Lakh Nos)	16.28
Per capita consumption(kwh) 2015-16	987

Source: AP TRANSCO

#### Support of Power sector to agriculture

- Government is committed to the welfare of farmers and supplying free power to all agriculture consumers including all the services released. The revised estimated Budgetary subsidy (electricity) provided for agriculture given by the Government during the year 2016-17 is Rs.3366.35Crores.
- During the year 2016-17, it is programmed to release 50,000 new agricultural connections. So far i.e. up to 31-10-2016, 46,295 agricultural services have been released. The total agricultural services in the state as on 31-10-2016 is 16.28 lakhs.



 Government has waived the power consumption arrears relating to agricultural consumers of DISCOMs and RESCOs. As per modified policy, farmers having up to 3 connections in dry land, up to 2.5 Acres land holding in wet land are eligible for free power. The modified policy proposes incentives to promote energy saving measures.

Per capita consumption (kwh)2015-16 - 987

Agriculture Services- 16.28 Lakhs

### R-APDRP

Restructured-Accelerated Power Development and Reforms Programme (R-APDRP) is a flagship programme of Government of India which aims at achieving actual demonstrable performance in sustained loss reduction. It has two parts – Part-A and part-B.

### Part-A -I- IT Implementation

This includes projects for establishing of baseline data and IT applications for energy accounting/auditing & IT based consumer service centers. An amount of Rs.188.26 Crores was sanctioned to cover 75 towns in the state with more than 30,000 population (as per 2001 census) (APSPDCL covers 46 towns + APEPDCL covers 29 towns) within five years from the date of sanction of the project.

States are required to provide detailed timelines broken into quarterly targets. These targets shall be reviewed each quarter and in case state fails to achieve targets in two consecutive quarters, the sanction extension in completion period may be withdrawn and conversion of loan to grant would be limited to only towns completed till that time.

In the 7th Power Minister's Conference held on 10th Sep'2013, it was resolved that the State Governments shall complete all works under R-APDRP Scheme by 2016-17. This would include complete implementation of all Part-A (IT) schemes by 2015 and Part-B as well as SCADA Schemes by March 2017.

### Progress of Works

- 75 towns (46 in APSPDCL and 29in APEPDCL) declared Gone-Live as on 31-03-2015.
- Data Center (DC) at Hyderabad and Disaster Recovery (DR) center at Tirupathi have been established with all servers and are being shared by both AP and Telangana.
- Customer care centers are established in all the DISCOM head quarters and integrated with Data centre.
- An amount of Rs.145.68 Crores (Rs.83.50 Crores in APSPDCL & Rs.62.18Crores in APEPDCL). Out of total sanctioned amount Rs.188.26 Crores has been spent so far (up to Nov-16).

### Part-A -II- (SCADA/DMS)

The Supervisory Control and Data Acquisition / Distribution Management System (SCADA/DMS) System will provide real time monitoring & control, loss minimization/load balancing and considerable improvement in voltage/VAR profiles. It would also facilitate proper handling of loads while load shedding & restoration, efficient planning of network for future growth by using proven power system planning tools. Scheme consists of installation of Remote Terminal Units (RTU) at each 33/11 KV Sub- stations and integrating these RTUs with centralised control centre to manage Distribution system of the Town. The eligibility criteria of SCADA/DMS system cover urban areas towns and cities with population of more than 4,00,000 & 350MUs annual input energy. Under SCADA / DMS Visakhapatnam town covered in APEPDCL-1, and 3towns viz., Vijayawada, Guntur and Nellore towns are covered in APSPDCL. Rs52.35 Crores was sanctioned by PFC for SCADA/DMS in the above 4 towns (Rs 39.19 crs in APSPDCL and Rs 13.16 crs APEPDCL).

#### **Progress of Works**

- In APSPDCL the scheme was sanctioned in March'2011 is likely to be completed by March 2017, as per the revised schedule.
- In APEPDCL the Visakhapatnam Scheme was sanctioned by Steering committee on 27.9.13 is likely to be completed by March 2017, as per the revised schedule.
- An amount of Rs.9.71 Crores (Rs.4.14 Crores in APSPDCL and Rs.5.57 Crores in APEPDCL) out of total sanctioned amount Rs.52.35 Crores has been spent (up to Oct-16).

### Part-B: Distribution System Strengthening:

This includes regular distribution strengthening projects such as renovation, modernization and strengthening of 11KV level substations, transformers/ transformer centers, reconductoring of lines at 11KV level and below, load bifurcation, feeder separation, load balancing, HVDS (11KV), Aerial Bunched Conductoringin dense areas, replacement of electromagnetic energy meters with tamper proof electronic meters, etc. In addition, in certain highload density rural areas with significant loads, works of separation of agricultural feeders from domestic and industrial ones, and of High Voltage Distribution System (11KV) are also taken up. SCADA enabling components are sanctioned under Part-B scheme.

Rs.216.14 Crores was sanctioned for 42 towns with more than 30,000 population (as per 2001 census) and Aggregate Technical &Commercial (AT&C) losses of more than 15% for distribution System Strengthening in the two DISCOMs. DISCOM wise sanctions are APEPDCL: Rs.61.82 Crores. (10 towns) APSPDCL: Rs.154.32 Crores. (32 towns). The original scheme was sanctioned in March'2010. A total amount of 317.07Crs has been sanctioned Under Part-B (Distribution System Strengthening (Rs.216.14Crs) and SCADA/DMS enabling components (RS.100.93Crs). Out of 15 towns originally sanctioned in 2010, works have been completed. 1 town in APEPDCL and 14 towns in APSPDCL). Post verification of town baseline AT&C losses, 27 new towns (AP SPDCL-18, AP EPDCL-9) have become eligible for part-B funding since the town AT&C losses are > 15%.

Total Towns for Part-B is 42 (APEPDCL-10, APSPDCL-32). Out of total sanctioned amount of Rs.216.14 Crores, an amount of Rs.166.40 Crores (Rs.119.18 Crores in APSPDCL & Rs.47.22 Crores in APEPDCL) has been spent so far (Up to Oct-16).

### SCADA /DMS enabling components:

In addition to the system strengthening works, an amount of Rs 100.93Crs has also been sanctioned under part-B for providing the SCADA enabling components in the 4 towns where the SCADA project is sanctioned. These towns are not included in the 42 towns covered under system strengthening.

The towns covered under SCADA/DMS Enabling components are One town i.e., Visakhapatnam with Rs21.42Crs in APEPDCL and 3 towns i.e. Vijayawada, Guntur and Nellore with.Rs79.51Crores in APSPDCL. The works would be completed by March 2017. An amount of Rs.17.367Crores (Rs 7.44Crs in APSPDCL and Rs.9.927Crores in APEPDCL) out of total sanctioned amount of Rs.100.93Crores has been spent so far. A total project expenditure of Rs.339.17Crores has been incurred by the DISCOMs under R-APDRP so far.

#### Integrated Power Development Scheme (IPDS)

The Government of India have launched the new "Integrated Power Development Scheme" (IPDS).

Components of new IPDS are 1. Strengthening of subtransmission and distribution networks in the urban area, 2. Metering of distribution/feeders/consumers in the urban area and 3.IT enablement of distribution sector and strengthening of distribution network for completion of the targets laid down under R- APDRP for 12th and 13th Plans by carrying forward the approved outlay for R-APDRP to IPDS. The existing R-APDRP scheme is subsumed in the IPDS scheme as a separate component.

The scope of work under IPDS scheme would be eligible for funding provided it is not covered under any GoIprogrammes like R-APDRP/RGGVY/ NEF etc., The projects for which any other grant/subsidy from Government of India has already been received/proposed to be received shall not be eligible under this scheme. Distribution Reforms Committee (DRC) should ensure that there is no duplication of works while recommending the projects to the Nodal Agency.

An amount of Rs.650.70 Crores (Rs.300.01 Crores to APEPDCL (29 towns)and Rs.350.69 Crores to APSPDCL (54 towns) has been sanctioned under IPDS scheme.

In addition to the above the smart city project proposals with an estimated project cost of Rs.470.05 Crores, have been submitted to Power Finance Corporation (PFC) are yet to be sanctioned under IPDS.

#### Deendayal Upadhyaya Gram Jyoti Yojana (DDUGJY)

Govt. of India has launched DDUGJY for the rural areas with the following components:

- separation of agriculture and non-agriculture feeders facilitating judicious rostering of supply to agricultural & non-agricultural consumers in the rural areas;
- strengthening and augmentation of sub-transmission & distribution (ST&D) infrastructure in rural areas, including metering at distribution transformers, feeders and consumers end;
- (iii) rural electrification, as per CCEA approval for completion of the targets laid down under RGGVY for 12th and 13th Plans by subsuming RGGVY in DDUGJY and carrying forward the approved outlay for RGGVY to DDUGJY;

The approval for components (i) and (ii) above with a total cost of Rs.43033 Crores including a budgetary support of Rs.33453 Crores from Government of India during the entire implementation period.

The existing programme of Rajiv Gandhi GrameenVidyutikaranYojana (RGGVY) as approved by CCEA for continuation in 12th and 13th Plans are subsumed in this scheme as a separate rural electrification component [component (iii) above] for which CCEA has already approved the scheme cost of Rs.39275 Crores including a budgetary support of Rs.35447 Crores. This outlay will be carried forward to the new scheme of DDUGJY.

The projects under the scheme shall be formulated for rural areas only and will cover works relating to feeder separation, strengthening of sub-transmission & distribution systems including metering of distribution transformers, feeders &consumers and rural electrification component. Out of the total Project Cost, 60% is grant from GoI and 10% from APDISCOMs contribution & 30% loan from financial institutions/banks. In addition to that the maximum grant by GoI including additional grant on achievement of prescribed milestones is 75%. Rural Electrification Corporation Limited (REC) shall be the Nodal Agency for operationalization and implementation of the scheme under the overall guidance of MoP.

#### Implementation of DDUGJY

An amount of Rs.922.10 Crores is sanctioned under DDUGJY. Under rural electrification component of Rs.290.22 Crores, under intensive electrification. Out of 9,330 villages5,500 villages are covered, out of 19,460

habitations 3,226 habitations are electrified and covering 5,92,670 rural households and works are under progress in the remaining habitations.

The District Electricity Committees were formed in all Districts. M/s.REC was nominated as the Project Monitoring Agency(PMA) for both DISCOMs for an amount of 1% of the approved project cost as consultancy fee.

### AP Rural HVDS Project

The High Voltage Distribution System (HVDS) aims at reduction of losses through replacement of the low voltage network with high voltage network and installation of large number of smaller capacity distribution transformers viz., 25 KVA/ 16 KVA DTRs in place of higher capacity distribution transformers viz., 100 KVA/ 63 KVA for supply to agricultural consumers. This system is best suited to meet the scattered low-density loads observed in rural areas in India. Based on the sample studies carried out in Andhra Pradesh, the system loss reduction due to adoption of HVDS system is expected to be around 10%.

HVDS was implemented to 8,22,193 agriculture services at a cost of Rs.3283.95 Croresup to 31.03.2016. In addition, during the year 2016-17, HVDS has been implemented to 14,421 agricultural services at the cost of Rs.80.74 Crores, bringing the total number of agricultural services up to 30-09-2015 at the cost of Rs.849.13 Crores the total number of agricultural services converted under HVDS to 8,36,614 at a cost of Rs.3,364.69 Crores in the state.

The cost of the APRHVDS(ID-P216) project is Rs.294.75 Crores. JICA sanctioned loan assistance to an extent of 85% of the Project Cost, i.e., Rs.252.80 Crores on ODA package at concessional rate of interest of 0.65%. The repayment period would be 40 years (including grace period of 10 years). Power Sector is one of the priority sectors for Japanese ODA Loans.

### Project preparatory activities

HVDS Project is taken up with an aim to implement the scheme in a big way in the state where large number of agricultural pump-sets exist. HVDS has already been implemented to 8.36 lakh agricultural pumpsets by availing loans from REC/PFC etc.

Under the revised proposed project activities, APRHVDS Project is to cover 46,727 agricultural services in 7 districts of the State at an estimated cost of Rs.294.75 Crores.

The details of Financial benefits likely to accrue due to implementation of the HVDS Project would result in saving of Rs.76.72 Crores per annum is shown in Table 7.8.

Table 7.8 Financial benefits

Sl. No	Savings Category	Savings (Rs. in Crores)
1	Reduction in Energy Loss	12.54
2	Reduction in theft of Energy	18.13
3	Reduction in Peak power loss	45.47
4	Reduction in Transformer failure	0.58
	Total Savings	76.72

The project to be implemented by APSPDCL (Tirupati), would result in saving of Rs.76.72 Crores per annum. It was decided that APSPDCL will repay the loan amount through the benefits accured by implementation of this project. APSPDCL shall bear the balance portion of the project cost i.e., 15% from their internal sources or through other domestic lending for the successful implementation of the project.

M/s. Voyants Solution Pvt. Ltd, Project Management Consultant would continue to provide services to APSPDCL in the State under the same contract agreement and also communicated addendum to the MoD to the respective executing agencies. The 10 packages in respect of AP SPDCL works are under progress. An expenditure of Rs.248.03 Croresincurred covering 42,182 agricultural services at APSPDCL. APSPDCL received an amount of Rs.185.21 Crores towards claims.

### APGENCO- Generation Progress: Rayalaseema TPP Stage-IV (1x600MW):

Land acquisition has been completed. 1.4 TMC of water has been allocated for both RTPP stage-III & IV from SPVB Reservoir by water resources department. Ministry of Coal allotted 2.31 MTPA long term coal linkage from M/s.MCL for 500MW. Additional 1.2MTPA coal linkage for enhanced 100MW is awaited.

#### Status

- Boiler: Total tonnage of 23,361 MT has been erected.
- Pressure parts: Alignment of Wall Blowers is in progress.
   Erection of tracing line from HFO skid to header is in progress.

TG: Condenser – A : SS baffle plates welding in progress. Condenser – B : Stiffener pipes fit up & welding in progress.

Turbine: Inner diffuse plate for LPT erection is

in progress.

Generator: Leak test for cooling housing frame is

in progress.

ESP: Cumulative Tonnage of 8,439 out of

9,582 MT have been erected. ID Fan outlet to chimney inlet discharge duct

welding has been completed.

Rotating equipment: Pre assembly of Journal Shaft

Assembly with Journal Head & Trunnion Shaft Assembly for Mills is

completed.

FD FAN - A&B: Preparation is in progress for acid

cleaning of lub oil piping.

ID FAN –B: Erection of lub oil piping is in

progress.

ID FAN A&B: Alignment of fan & motor is under

progress.

Arrangements are under progress for spring releasing of fans foundations.

TG Building:

PHB 17.00M Floor Slab: completed in BC bay up to grid

10.

PHB 8.50 M Floor Slab: completed in BC bay up to grid

5.

24.00 M Slab: completed in BC bay from Grid

6 to grid 10.

27.50 M Slab: completed

32.00 M Slab: completed in BC bay from Grid

8 to grid 10.

Chimney civil works: 8 Chimney Corbels and Ring Beam

have been completed.

Unit is programmed to commission by March 2017.

### Dr.NTTPS Stage - V (1x800MW), Unit#8

LoI was issued to M/s BHEL for Design, Engineering, Manufacture, Supply including supply of Mandatory Spares and Erection, Testing & Commissioning for coal fired 1x800 MW super-critical Unit and Zero date commenced on 15.12.2015. The unit is programmed for synchronization by 14.03.2019. APGENCO has issued Letter of intent for BOP Packages to M/s BGR Energy Systems Ltd, Chennai. The date of LoI i.e., 06.07.2016 is Zero date for BOP. An advance of Rs 229.987 Crores released to BGRESL.

#### Status:

Rerouting of 220 kv line works by APTRANSCO is completed and final circuit charged on 20.11.2016.BHEL is submitting drawings and engineering is under progress. 4031 MT ESP materials received at site from M/s BHEL/Ranipet.Soil tests completed. Out of 313 about 58 piles for Boiler foundationscompleted.Earth work excavation for foundations for D1, D3, D5 & D6 blocks in township is under progress. Construction of stores and sedimentation tank is under progress.

### Sri DamodaramSanjeevaiahThermal Power Station Stage-II (2X800MW)

LoI for the BTG package of 1x800MW SDSTPS – Stage –II was issued to M/s BHEL on 02.11.2015 for an amount of RS.2307 Crores.Payment has been made for an amount of Rs.198.95 Crores on 15.12.2015. Hence, the Zero date for BTG package commenced from 15.12.2015. M/s Tata Projects Limited has emerged as L1 bidder. LoI issued to M/s TPL for execution of BOP package for an amount of RS.2606 Crores on 06-07-2016.Piling work started at site in ESP area and out of 232 about 61 were completed. Piling work started at site in Boiler area and out of total 236 about 49 were completed. BTP and BOP Engineering activities are under progress.

### NagarjunasagarTailpond Dam PH (2x25MW)

Main dam civil works are completed. All major works of power house are completed. Both units are commissioned in the month of January 2017.

Details about power generation and distribution are given in Annexure 7.5.

### Solar and Wind Power Plants

Establishment of 5 MW canal bund solar PV Plant on Polavaram Right Main Canal, West Godavari.

This is a Pilot-cum demonstration project approved by MNRE. The plant successfully commercial operation (CoD) on 19.11.2016.

Establishment of 500 MW capacity Solar Power Plant at Thalaricheruvu, Ananthapuram.

MNRE has accorded approval for setting up of one solar park of capacity 500 MW in Ananthapuram – II Ultra Mega Solar Park- II (500MW) at Talaricheruvu Village, near Tadipatri. Tender were floated in APGENCO e-procurement Website. The Pre Bid Meeting with bidders was held on 03.09.2016. The replies to the pre bid queries were uploaded in APGENCO e-procurement platform on 19.9.2016. The last date for submission of bid is 19.10.2016. The PQ/Technical Bids were opened on 27.11.2016 and evaluation is under progress.

10 MW Ramagiri wind farm, Ananthapuram. Tenders were floated for Repowering of the existing Ramagiri wind farm with a capacity of 7-10 MW on e-procurement platform, based on the estimation of site potential by M/s C-wet, Chennai (now NIWE). The tenders were floated in APGENCO e-procurement platform on 25.10.2016. The Pre Bid meeting is completed on 24.11.2016

# Roads and Buildings

### Roads

Roads are one of the basic modes of transportation system and also an important priority sector of Infrastructure. Systematic development of roads is one of the important pre-requisites for development and acceleration of growth in the economy. Among the different modes of domestic transportation systems, road transport carries more than 80 percent of the Goods and Passenger traffic. The network of roads, particularly from rural to urban facilitates speedy movement of goods and services and ensures higher growth trends, connectivity social integrity and wellbeing of the

society. The productivity and efficiency of road transport is directly linked with the availability and quality of road network.

In view of the high potential in agricultural activity, there has been huge increase in Road network. The total R&B Road network in the state as on 30-04-2016 was 47,002 Kms. Surface wise lane wise and type of roads details are shown in Table 7.9.

#### Length of Roads

National Highways 5293.43 Kms +1344.30 Kms in-principle declared

Major District Roads - 31596.00 Kms

Table 7.9: Status of R&B Roads

Lane	Length of Road (in Kms)	Surface	Length of Road (in Kms)	Туре	Length of Road (in Kms)
Four Lane	2418.36	Cement Concrete	2216.89	National Highways	5293.43
Double Lane	11007.01			State Highways	
Double lane with paved shoulders	939.90	Black top	47454.57		15,406.00
Intermediate Lane	2748.74 Metalled &		2624.00	Major District Roads	31596.00
Single Lane	35181.43	Offinettaled		-	-
	52295.43		52295.43	52,295.43	

Source: Engineer-in- Chief, Roads and Buildings

### State Roads

Construction and maintenance of roads and bridges on State Highways, Major district roads, rural roads are taken up by the R&B department. Particularly Roads taken over from Panchayat Raj department or other Local Bodies are brought to the required standards and kept in motarable condition. The R&B department maintains a total of 47,002 Km of roads (excluding NH roads) comprising 15,406 Kms of State Highways, 26,038 Kms of Major district roads and 5,558 Kms of rural roads had taken over from PR department and other local bodies.

The State Roads wing maintains the entire State Roads (Non-core net) of 32,280 Km using the State budget grant. There are two types of maintenance works ie., ordinary repairs (annual maintenance) and the other periodical maintenance on the roads which are ripe for renewal. The repairs are taken up based on the condition of road, year of last renewal, traffic on the road and soil condition.

#### Length of Roads

Density of National Highways 10.81 Kms per lakh
- National average 8.60 km. per lakh

Length of 32.82Kms is available for every 1,000 Sq. Kms - National average 30.45 km.

### Specail Repairs Programme (SH & MDR) Works

415 works costing Rs.530.36 Crores are on hand as on 31.10.2016 of which57 works costing Rs.72.38 Crores are completed. 219 works costing Rs.258.53 Crores in Progress.139 works costing Rs.199.45 Crores in agreement stage. An amount of Rs.338.66 Crores was incurred expenditure as against the sanctioned amount of Rs.428.90 Crores during 2016-17. Road lengths of 1900 Km and 29 Culverts are improved as against the target of 2345 Km and 35 respectivelyby the end of October, 2016.

Under State development Plan (SH & MDR), 325 works costing Rs.2509.96 Crores as on 31.10.2016, 102 works costing Rs.395.30 Crores are completed.106 works costing Rs.1089.92 Crores are in Progress.54 works costing Rs.403.60 Crores are at tender / agreement stage. 63 works costing Rs.621.14 Crores are at Estimate Stage.

An amount of Rs.289.47 Crores was incurred expenditure during 2016-17 asagainst the sanctioned amount of Rs.284.04 Crores. Road lengths of 542 Km and 2 Bridges are improved/widened against the target of 853 Km up to the end of October, 2016.

### Sanctions under Scheduled CasteSub Plan

Under Special Castes Sub Plan an amount of Rs.14.00 Crores budget was provided during 2016-17 against which an amount of Rs.3.15 Crores was spent. Road lengths of 2 Km are improved against the target of 5 Km up to the end of Oct, 2016.

At present the SCSP works are various stages of construction. 31 works costing Rs.44.05 crores are on hand as on 31.10.2016, 3 works costing Rs..4.00 crores are completed, 10 works costing rs.13.35 crores in progress. and18 works costing Rs.26.70 crores in agreement stage.

### TRIBAL SUB PLAN - (TSP)

Under Tribal Sub-Plan, an amount of Rs.20.00 Crores was provided during 2016-17, against which an amount of Rs.20.30 Crores was spent. Road lengths of 33 Km are improved / widened against the target of 20 Km by the end of October, 2016

At present the TSP works are various stages of construction.30 works costing Rs.298.44 Crores are on hand as on 31.10.2016, 7 works costing Rs.13.41 Crores are completed, 6 works costing Rs.47.77 Crores are in progress, 5 works costing Rs.39.70 Crores are to be grounded / started ,18 works costing Rs.197.56 Crores are at estimation stage.

### Road Safety Engineering Works

Apart from the above, Road Safety Engineering Works (RSEW) were also sanctioned. At present, 59 works costing

Rs.17.30 crore are on hand, of which 39 works costing Rs.10.50 are completed, 17 works costing Rs.5.28 are in progress and 3 works costing Rs.5.28 crore are at tender stage.

An amount of Rs.6.00 Crore budget was provided during the financial year 2016-17, against which an amount of Rs.3.38 Crore was spent. Road lengths of 27 Km and 20 No of Culverts are improved as against the target of 48 Km and 45 Culverts by the end of October, 2016.

### NABARD Works RIDF & RIAD:

The State Government has taken up infrastructure development in rural areas through financial assistance of NABARD with the funds provided under RIDF (Rural Infrastructure and Development Fund) & RIAD (Remote and Interior Area Development). Since inception of NABARD funding to rural area infrastructure, nearly 9300 km of rural roads have been brought to riding surface with BT and connected to nearby towns.

So far, 1758 road and bridge works in 22 tranches i.e., RIDF II to RIDF XXII (including RIAD Phase I to V) (1996-97 to 2016-17) for Rs.3394.30 crore were taken up. 1612 works were completed with a cost of Rs.2542.47 crore and 103 works costing Rs.611.57 crore are in progress. 42 works costing Rs.237.11 crore are at tender stage.

### Rural Development Fund

Rural development fund works have been taken up in Roads and Buildings department with Agricultural Marketing Committee funds to improve connectivity of rural areas and to transport agricultural produce to nearby market yards. Under this scheme improving non BT road to BT standard and construction of bridge works are taken up.

So far, 1169 works costing Rs 1,626.36 crore for a length of 6003.81 Km + 28 bridges were sanctioned under Rural Development Fund from 2008-09 to 2016-17 and 1037 works costing Rs.1375.63 crore for a length of 5316 Km + 15 Bridges were completed. 115 works costing Rs.214.02 crore for a road length of 647.66 Km and 5 Bridges are in progress. 17 Works costing 36.70 Crores for a length of 40.30 Kms + 8 Bridges are in tender stage.

### Works taken up under HUDCO Loan

Under this scheme, 347 works were sanctioned and covering a length of 795 Km, costing Rs.471.92 Crores. 1079 Road safety interventions works with a cost of Rs.92.76 Crores were sanctioned under Road Safety interventions and all the works were completed. The expenditure incurred so far on these HUDCO works is Rs.560.15 Crores.

### Upgradation of NREGS works under TSP.

During 2012-13, 20 works costing Rs 100.22 Cr covering a length of 199.81 Km were sanctioned. Out of this, 13 works are completed, 6 works are pre closed due to delay in getting forest clearance and balance one work in srikakulamdistrict is in progress and will be completed by March'2017. During 2015-16, 8 works costing Rs 22.72 Cr covering a length of 38 Km were sanctioned. Out of this two works are completed, five works are in progress and one bridge work tender is under finalization.

### LWE Works

The work "Construction of High level Bridge across River Sileru including widening to two lane and improvement from Km 0/0 to 10/0 of Chintur -Motu Road in East Godavari District in Andhra Pradesh (Bridge work only) was taken up under RRP-I scheme. The Revised estimate is amounting to Rs.2805.71 lakhs. Under Road Requirement Plan Phase II (RRP-II) in LWE affected areas of AP state , 130 works covering a length of 1290.74 kms with an estimated cost of Rs.1203.68 crores in LWE affected four border districts of Visakapatnam, East Godavari, Srikakulam&Vizianagaram are sent to Ministry of Home affairs , Government of India . The Road development,MORT&H,New Delhi have accorded approval for the lowest bid received and concluded the agreement on 26.11.2016.

### Special Component Subplan - (SCSP)

Rs 10.15 Crores budget was provided for 2016-17 against which proposals were submitted for Rs 50.00 Crs to the Welfare Department for according approval of covering 19 works in Vizianagaram and East Godavari Districts.

### Ruralroads Plan Works

5486.07 kms of Panchayat Raj Roads are transferred to Roads & Buildings Department in which around 1500 kms are having Non BT surface. Hence it is proposed to sanction works for conversion of Non BT roads to BT roads in a phased manner under Rural Roads Plan 2016-17. So far, 154 works costing Rs.315.49 Crores for a length of 592.512 Km + 2 bridges were sanctioned under Rural Road Plan 2016-17, 1 work was completed costing 2.00 Crores.119 works costing Rs.234.23 Crores are in progress. 29 Works Costing Rs.70.56 crores for a Length of 112.78 Kms + 3 Bridges are in tender stage.

### Centrally Sponsored Programmes:

A Central Road Fund for improvement of roads is being released by the Government of India as per "The Central Road Fund Act 2000, Act No. 54 of 2000". Under CRF act, Government of India introduced diesel and petrol cess at Rs.1.50 on sale of one litre of Petrol / Diesel. The fund so collected is meant for utilization of development and maintenance of National Highways, other State Roads and construction of Roads under (or) over Rail- ways etc.

The Central Government sanctions works under CRF, Economic Importance and Inter State Connectivity with specific guidelines and allocates the fund in the following ratio:

- A. 50% of the cess on High Speed Diesel (HSD) Oil for the Rural Roads.
- B. The balance 50% of cess on High Speed Diesel (HSD) Oil and the entire cessof petrol is distributed as per norms for development and maintenance of roads.

The Government has provided Rs.162.00 crore in B.E 2016-17 and expenditure incurred is Rs.162.00 crore. The above works are intended for improving the condition of the roads for a length of 833.19 kms which benefit large number of population to transport their agricultural produce and other industrial goods which directly/indirectly help the socio economic growth of the state and in turn the country. During 2016-17 the Government of India have accorded approval for 61 works of Rs 619.00 crores for a length of 813.00 kms and entrustment is under process. Further 66 additional proposals are prioritised for Rs.100 crore for a length of 849.59 km.

### Road Over/Under Bridges (ROBs/RUBs)

Road Over/Under Bridges (ROBs/RUBs) railway safety works are constructed mainly in lieu of busy level crossings (manned) where train vehicular units (TVUs) are more than one lakh. The constructions are taken up under cost sharing basis with railways on 50:50 basis as per the norms and approved by the railway board. As per public representations, ROBs/RUBs are being taken up at LC's where TUV's are less than 1.00 lakh, with 100% share from the Government.

At present, 112 ROBs/RUBs (both 50:50 & 100%) are approved by the Railway Board which are at various stages of construction. 58 works costing Rs.1050.41 crore were completed, 20 works costing Rs.693.16 Crore are in progress, 06 works costing Rs.128.45 crore are at estimate stage, 13 works costing Rs.49.70 crore at investigation stage and 15 works costing Rs.664.47 Crores are newly approved by the Railways.

An amount of Rs.50.00 Crores budget was provided during 2016-17 against which an amount of Rs.27.59 Crores was spent. 2 ROBs/RUBs are completed against the target of 10 ROBs up to the end of October, 2016.

### National Cyclone Risk Mitigation(NCRMP)

The National Cyclone Risk Mitigation (NCRMP) Project is taken up in 9 coastal districts. The prime purpose of the project is to provide necessary infrastructure either by new construction or by repairs or improvements to the existing damaged roads to the habitations and cyclone shelters to facilitate evacuation or for transport of relief material in quick and uninterruptedly. Some of the roads near sea coast have un-bridged crossings, or with low level causeways. During cyclones or during heavy / flash floods the people living near the sea coast face difficulty to reach safer places. When the people stay in cyclone shelters etc., it is also necessary to supply medicine, water, food and other relief material to the un-interruptedly. Hence, it is very essential to take up the bridges construction and also to make all weather roads.

The Government sanctioned the following works,

Under Phase -I: 11 works costing Rs.27.29 Crore were completed

Under Phase - II: 12 works costing Rs.143.55 Crore are sanctioned (9 works costing Rs.42.55

Cr. are completed, and 3 works costing

Rs.101.00 Crore are in progress)

Under Phase -III: 12 works costing Rs.157.25 Crore

are sanctioned.(11 works costing Rs.145.50 Cr. are in progress, and 1 work costing Rs.11.75 Crores at

tender)

(Put together, 20 works costing Rs.72.70 Crores were completed, 14 works costing Rs.263.10 Crores are in progress, 1 work costing Rs.11.75 Crores at Tender Stage)

### A.P.Disaster Recovery Project (APDRP)

This project is taken up in 4 Coastal Districts (Srikakulam, Vizianagaram, Vishakhapatnam and East Godavari) of Andhra Pradesh affected by HUDHUD cyclone. The Prime purpose of the project is to finance permanent restoration, reconstruction, strengthening and widening (mostly single-lane to double-lane) of about 250 Km of damaged MDRs including cross-drainage structures, following the IRC and Ministry of Road Transport and Highways (MORTH) Standards. Widened MDRs will help the state to conduct its operations at the time of any such disaster in future. Procurement Plan was approved from the World Bank for 26 works for an amount of Rs.302.50 Crores as per original proposal.

The Government have sanctioned 17 works with an amount of Rs.240.40 Crores as per revised cost in four districts viz. 5 works costing Rs.55.10 Crores in Srikakulam, 4 works costing Rs.49.70 Crores in Vizianagaram, 3 works costing Rs.42.50 Crores in Visakhapatnam and 5 works costing Rs.93.10 Crores in East Godavari district.

Total put together 17 works were sanctioned for Rs.240.40 Crores and are under evaluation out of 26 works proposed and approved by the World bank. Further the revised cost for 26 works is Rs.360.90 Crores.

### National Highways

There are 26 National Highways in the state covering a length of 5293.43 Km of which 2034.36 Kms is four-lane and above, 1929.01Kms two-lane, 939.90 two-lane

#### ECONOMIC INFRASTRUCTURE

with paved shoulder, 207.73Kms intermediate lane and 182.43Kms are of Single lanes(as on January 2017). In addition in-principle declared NHs for a length of 1344.30 km for which DPRs under preparation for two lane with paved shoulders The density of National Highways is 10.81Kms per lakh population (2011) in the State as against national average of 8.60 km and in terms of area coverage,

a length of 32.82Kms is available for every 1,000 Sq. Kms in the State as against national average of 30.45 km.

Out of 5293.43Kms, National Highways in the state, a total length of 1813.22 Km are under the control of NHAI for development under NHDP and 462 kms with PIU, Machilipatnam.

Sl. No	Work	From-To	Kms	Remarks
1		Kathipudi to Digamarru on NH 214 (New NHNo.216)	140	Developed by PIU Machilipatnam,
2	Two lanning with paved shoulders	Vijayawada to Bhadrachalam on NH 221 (New NH No.30)	70.60	MoRT & H /GoI. Preparation of
3		Digamarru-Ongole Road, NH 214A	entire length of 255 Kms	feasibility reports under progress
4	Four laning	NH 4 (New NH No. 69&40)	entire length of 84Kms	Handed over to NHAI
5	Tour raining	NH 63 (New NH No. 67)	entire length of 56 Kms-Rs 995.09 crores	Work is being started.
6	Rehabilitation and upgradation of roads	Nagarjuna- sagar Dam to Yerpedu section of NH 565	5 works to a length of 337.00 Kms at a cost of Rs.1403.56 Crore	Works are in progress.
7	Rehabilitation and upgradation of NH 67 to two lane with paved shoulders	1.Mydukur to Dornala T-Junction.2.Dornala T junc- tion to Atmakur.3.Atmakur to Nellore	Three work on NH-67 to alength of 149.50 km at a cost of Rs 790.94 Crore	Works are in progress.
8	Rehabilitation and upgradation of NH42	Karnataka Border to Kuppam	4 works on NH-42 under NH(O) EPC to a length of 253.66 kms at a cost of Rs919.396 crores	Works are in progress.
9	Rehabilitation and upgradation under EPCNH(O) Corridor Approach	Muddanuru-Jammalamadugu	One work on NH- 67 for a length of 32.15Kms at a cost of Rs 143.87 crores	Work is in progress
10	Rehabilitation and upgradation under EPCNH(O) Corridor Approach	Adoni to Madhavaram via Mantralayam	One work on NH- 167 for a length of 55.06Kms- Rs.224.83 crores	Work is in progress
11	Rehabilitation and upgradation under EPCNH(O) Corridor Approach	Pileru to Rayachoty	One work on NH-40 for a length of 51.85 Kms- Rs.175.03 crores	Work is in progress
12	Rehabilitation and upgradation under EPCNH(O) Corridor Approach	Raipur-Visakhapatnam	One work on NH- 26 Four lane for a length of 11.60 Kms- Rs.84.12 crores	Work is in progress

Sl. No	Work	From-To	Kms	Remarks
13	Construction of 4-lane ROB in lieu of LC No.122	Chittoor-Kurnool road on NH- 18 (new No.40) near Ootokuru village	Sanctioned for an amount of Rs.82.72 crores	Work is being started.
14	Four laning of 5.122 km NH9(New NH 65)(1.40km) with NH5(3.60km)	Bhavanipuram to KanakaghudhammaVardhi Junction in Vijayawada City limits	Sanctioned for an amount of Rs 333.22 crores	Work is in progress
15	Construction of High Level Bridge	Ananthapur-Chennai road of NH-205 (new No.42) under NH(O) across Chitravathi River	Sanctioned for an amount of Rs.19.47 crores	Work is in progress
16	Construction of 4-Lane ROB and its approaches in lien of existing level crossing No.124E/SPL 3@ Km 1.800( New Chainage km 77.805 on NH 205		Sanctioned for an amount of Rs.98.55 crores	Work to be entrusted
17	Construction of 4-Lane ROB and its approaches in lien of existing level crossing No.23/SPL class @ Km 3.600 of NH 18		Sanctioned for an amount of Rs.109.03 crores	Work to be entrusted
18	Construction of 4-Lane ROB and its approaches in lien of existing level crossing No.18A/SPL class @ Km 7.800 of NH 18		Sanctioned for an amount of Rs.113.87 crores	Work to be entrusted
19	Construction of 4-Lane ROBand its approaches in lien of existing level crossing No. 102/3E @ Km 281.200 of NH 205		Sanctioned for an amount of Rs.138.44 crores	Work to be entrusted
20	Rehabilitation and upgradation under EPCNH(O) Corridor Approach	Puthalapattu-Pileru sec) of Chittor-Kurnool road of NH18(New NH-40)	Sanctioned for an amount of Rs.172.53 crores	Work entrusted
21	Rehabilitation and upgradation under EPCNH(O) Corridor Approach	Rayachoty-Kadapa Road of NH-18( New NH-40)	51.28 kms –Rs347.40 crores	Work entrusted
22	Rehabilitation and upgradation under EPCNH(O) Corridor Approach	Gooty- Tadipatri section of NH 67	63.013 kms-Rs 289.57 crores	Tender process
23	Rehabilitation and upgradation under EPCNH(O) Corridor Approach	Chintakunta to Adoni Section of NH167	58.80Kms-Rs 290.15 crores	Work entrusted
24	Construction of New Bridge parallel to existing bridge	Km 165/4 of Chittoor- Kurnool road NH18(40)	Sanctioned for an amount of Rs 6.9677 crores	Tender process
25	Rehabilitation & up-gradation of NH-340 from section) to two lane with paved shoulders in the State of Andhra Pradesh on EPC mode under NH(O) Annual Plan 2016-17	km 0/0 to km 60/380 (Design Ch. 0/000 to 60/025 excluding Km 55.600 to 57.650 (2.050Km)) (Rayachoty to Angallu	Sanctioned for an amount of Rs 319.28 crores	Tender process
26	Strengthening & Widening to 2 lane with paved shoulders from	Km 552/950 to Km 577/545 of Mangalore -Tiruvanamalai road of NH-234 (New NH -75)	Sanction awaited.	Tender process

### Andhra Pradesh Road Development Corporation

The Road Development Corporation was established in the year 1998 to develop and maintain roads and other allied and incidental activities in the State.

### A.P. Road Sector Project

The project (P 096021) was approved by the Government of India and World Bank for widening and strengthening and maintaining certain important and high traffic roads with an objective of smooth travel and to reduce transport cost. The cost of project is Rs.2245.00 Cr.

### Major Components of the Project

#### A. Road Improvement Components

- Up-gradation and Improvement component
   Five roads consisting of 7 packages with a cost of Rs.1060.00 crore of road length is targeted for widening and strengthening in this component.
  - a) Road work for Chittoor Puttur road (CP 01) work is completed
  - b) Kurnool Devanakonda Road (KD-02): Work is under progress.
  - Mydukur- Jammalamadugu road (MJ-03 & MJ-04): This road consists of two packages i.e.,
     MJ-03 & MJ-04, MJ-03is nearing completion and MJ-04 is under progress.
  - d) Pedana Nuzivedu Vissannapeta road (PNV-08 & PNV-09): This road consists of two packages i.e., PNV-08 & PNV-09. PNV-08 package was terminated and re-bidding is in progress. PNV-09 is in progress.
  - e) Kakinada Rajahmundry Road (KR-07): Work is in progress.
- II. Output Performance Based Road Contracts (OPRC) 3791 Km.

OPRC Project was taken up at a cost of Rs.975.00 Cr. (5 years duration in 2 phases). Under this component, 7 Packages in phase-I covering a length of 1287 Km were completed during 2014,

and 9 Packages in Phase-II have been completed so far and the remaining 10 packages in Phase-II are in progress and will be completed by 2018.

III. Institutional Strengthening, Road Safety & PPP Facilitation Support: Cost Rs.79.20 cr.

Institutional Strengthening Action Plan (ISAP): M/s Lea Associates Ltd. Canada in association with LASA, New Delhi, were appointed as consultants for consultancy services on ISAP implementation.

The Consultants submitted inception report for Part A (implementation of ISAP) & Part B (RNMP), draft organization structure, draft report on RDC managed CRN focused Road fund, draft report on baseline settlement and Road Network Analysis. The Road fund aspects were presented before Hon'ble CM on 28.10.2016 and a Committee was constituted to examine the aspects of Road Fund Mechanism and in principle agreed to the proposals on Nov, 2016.

### Road Safety Component

Under this component, Renigunta- Rayalacheruvu Road of 140 Km length was identified as Demo Corridor for improving Road safety with the objective of implementation of Road accident mitigation activities through multi sector approach. Civil works of APRDC completed. Certain enforcement measures are taken up on the corridor. Procurement of certain equipment pertaining to Transport, Police and Medical Dept. is in advanced stage. Certain Black spots on State Highways in 5 districts have been taken up and completed under the Road Safety Project by improving the safety at the identified black spots. Transport Department is the Nodal/Lead department for implementation of Road Safety Action Plan. During implementation stage 40% reduction in accidents is reported in the demo corridor i.e., Renigunta – Rayalacheruvu Road

### Road Management System (RMS):

APRDC has taken up the establishment of Road Management System for optimum utilization of funds towards road improvement and maintenance by using RDBMS and HDM-4 software. By using RMS,

prioritization of roads requiring immediate maintenance and widening for capacity augmentation can be made and based on budget availability prioritized roads may be improved.

RMS involves collection of road asset data like road width, shoulders width, location of electric poles, bridge locations etc., and also road surface details such as potholes, edge breaking, rutting etc., using a Network survey vehicle, which is fitted with requisite equipment to capture all the data on roads.

Configuration & Validation of RDBMS software, data collection is in progress and district-wise rolling out plans are under preparation and likely to be completed by April 2017.

### PPP Scheme

- A second bridge across river Godavari near Rajahmundry including approaches connecting EGK road under (PPP) project costing Rs.808 Cr. was substantially completed and the bridge is in operation.
- Narketpally- Addanki -Medarametla Road connecting Narketpally on NH 65 and Medarametla on NH 16 was taken up and substantially completed at a cost of Rs.1197 Cr. The road is in operation stage and the length of road in Andhra Pradesh is 125 Km.
- Feasability studies were taken up for 32 roads of length approximately 2000 Km to take up development under PPP.

### **Annuity Works**

Nine road works of a total length of 163.30 Km at a cost of Rs.393.55 cr. were developed and are in Operation & Maintenance stage.

### Panchayati Raj

Total length of the rural roads-78,282 KM,

CC roads - 2549 KM,

BT roads - 20,461 KM,

WBM roads-- 10,614 KM,

Gravel roads - 20,831 KM,

Earthen roads - 23,827 KM.

### Panchayat Raj Roads

The total length of the rural roads under Panchayati raj Engineering Department is 78,282 KMs in the state as on 01.04.2016. The surface details of the road length are CC - 2549 KM, BT -20,461 KM, WBM 10,614 KM, Gravel 20,831 KM and Earthen 23,827 KM.

During the year 2016-17 (upto Dec, 2016), 1403 KM length of road was completed duly incurring an amount of Rs.515.52 crore. The annual periodical maintenance of rural roads for the year 2016-17 is completed for 1667 KM incurring an expenditure of Rs.60.54 crore.

### **Buildings**

The present activities of Buildings Wing include Execution of Building works taken up under Plan Schemes, Secretariat buildings, Court Buildings and judicial Quarters (under State Centrally Sponsored Schemes) and Buildings of other Department under Deposit works and Maintenance of Buildings under Non-Plan Schemes.

The present plinth areas of Government buildings in the control of R&B Department are as follows.

Non-Residential: 30.12 Lakh Sft.
 Residential Buildings: 30.81 Lakh Sft.

### Construction of Office Buildings

This is a State Plan scheme to Construction of new office Buildings in the State. Under this scheme 9 Buildings works are taken across the State.

- Construction of 3 Integrated Collectrate Complexes each at Srikakulam, Ananthapuram and Nellore
- Construction of Multistoried Building at Vijayawada for (R&B) HOD office accommodation.
- Construction of office Buildings at Madanapalli and Ongole are under progress
- Construction of Buildings for Vigilance and Enforcement department at Tirupathi.
- construction buildings for Inspection Bunglows/GHs/ Other Buildings where in this Buildings are for providing accommodation to VVIPs and Officials during their tours.

- construction of new Residential buildings and renovation for existing Govt residential accommodation for State Government Officials.
- Construction and renovation of buildings for Judicial Department (Law Dept-Home Dept). An amount of Rs: 28.30 Cr is provided in BE 2016.17 and Expenditure incurred Rs.15.17 Cr for 31 No of Court Buildings and 11 No of Residential Quarters.

### **Transport**

Vehicles on road - 95.36 Lakhs

Revenue for 2015 - 16 - Rs. 2128. 75 Cr.

Road Transport plays a prominent role in the economic development of the State. The transport department plays a key role in granting licenses to drivers, registration of motor vehicles, issue of transport permits, levy and collection of motor vehicle tax, enforcement of vehicle violations, and acts as nodal agency for road safety and motor vehicles pollution control.

The State as on 1-12-2016 had a registry of 95.36 lakh vehicles. About 78.34% of the vehicles on road are two wheelers, followed by cars, tractor trailers, three wheelers, buses and goods carriage trucks. Details about registered motor vehicles on road are shown in Annexure 7.6.

The transport department collects revenues from the issue of driving licenses, registrations, permits and taxes. The revenue is shown in Table 7.10.

Table 7.10: Revenues of Transport department

Year	Total Revenue (Rs. Crs)	% of Growth
2011-12	1473.54	11.28
2012-13	1602.12	8.73
2013-14	1517.83	-5.26
2014-15	1766.16	16.35
2015-16	2128.75	20.53
2016-17 (up to Feb 2017)	2251.66	5.77

Source: Transport Department

### Enforcement

The Transport Department has been making a conscious effect to enforce the provisions of the Motor Vehicles Act by actively booking cases for violation of various provisions of Motor Vehicles Act, 1988, A.P. Motor Vehicles Taxation Act, 1963 and the rules made there under. Active enforcement enables better compliance of registration, licensing and taxation by operators. In the year 2016-17 (upto November, 2016), the department through active enforcement has been able to mobilize revenue of Rs. 185.83 Crores. During the current year the enforcement wing is focusing on road safety related violations such as 1) Drunken Driving, 2) Carrying passengers on Goods Vehicles, 3) Over Speed, 4) overload, 5) Driving Without helmet, 6) Not having valid driving license, 7) No reflectors, 8) Not wearing seat belt, 9) Driving in wrong/ opposite direction, and 10) overloading of passengers on vehicles. For the 1st Quarter of the financial year 2016-17 from 01-04-2016 to 30-06-2016, the number of cases booked against the above violations is 65,794. In the 2nd Quarter from 01-07-2016 to 30-09-2016, the number of cases booked is 63,730.

### Road Safety

To minimize the road accidents in the state, Road Safety Programmes and awareness campaigns were conducted in the state with vehicle drivers, students and stake holders.

### Rectification of Black spots

The interdepartmental coordination is critical for identification and rectification of black spots on all the State and National Highways of the State. Though 1013 Black Spots were identified, out of which 951 black spots were rectified and the list of the rectified black spots was communicated to the Transport Department officials and they were asked to study the impact of these rectifications in consultation with respective departments. The district officials of Transport/Police/R&B/ Medical & Health who are members of the District Road Safety Committees had inspected the accidents spots again after rectification and furnished their impact study reports which are being referred to R&B Dept for necessary action.

### Lead agency:

The lead agency meetings were conducted every three months and several decisions were taken on road safety.

### Enforcement on Road Safety Related Violations:

During the current year the enforcement wing of the Transport Department had focused more on Road Safety related violations like driving with Over speed, plying vehicles with Overload, driving 2 wheelers Without Helmet, driving vehicles without valid Driving Licence., etc., and booked 1.30 lakh cases from 1st April, 2016 to 30th September, 2016

### Trauma Care Centers

It is decided to support management of the existing trauma care centers and to establish more such centers.

### Road Safety Fund

To create Road Safety Fund with an amount of Rs.10 crore for various Road Safety improvement activities. The Committee on Road Safety has issued necessary directions to the states to set up Road Safety Fund and ensure that a steady flow of money accrues to the fund by diversion of significant portion of the fines/compounding fee collected from the traffic violations.

### Wearing of Helmets & Seat Belts

During the year 2016-17 (up to November, 2016) 7.52 lakh cases of driving without helmet were booked. The two wheelers are contributing 24% of total motor vehicles accident deaths in the State and the wearing of protective headgear will reduce the deaths and injuries to persons travelling on two wheelers.

### Need for vehicles and equipment:

The Transport Department does not have appropriate fast moving vehicles and other equipment required for enforcement against drunken driving and speed driving. 40 breath analyzers are available for this purpose.

### Removal of Liquor shops on Highways:

On removal of liquor shops on State and National Highways, notices were issued to 890 shop owners to shift the shops away from the Highways. Excise Department had to take all the administrative / legal steps to complete the process of removal of liquor shops from National/State Highways.

### Training & Research Institute:

The Government of Andhra Pradesh has proposed to construct the institute inVenkatachalampalli Village Darsi Mandal, Prakasam district in partnership with M/s. MaruthiSuziki Private Limited.

### Inspection & Certificate Centre:

The Ministry of Road Transport & Highways introduced a scheme to establish Inspection & Certification Centre in each of the State. A proposal was submitted to the Government of India for sanction of the said project near Gannavaram at Vijayawada and is in active consideration of Government of India Another single track Inspection & Certification Centre under the demo corridor project is also coming up at Kadapa.

#### I.T. Related Initiatives

- As part of e-Pragati Project of Government of Andhra Pradesh to make the citizen services transparent and responsive, the department proposed to make all the 83 services available to citizens online.
- Business process re-engineering is being done in respect
  of 83 citizen services wherein collection of taxes/fee
  is being done by SBI MoPS payment gateway so that
  revenue collected from the citizens is directly deposited to
  the treasury.
- All the services are going to be integrated with Aadhar number and authentication by capturing thumb impression of vehicle owner/driver to avoid impersonation by having integration with UIDAI/AP Online.

- All citizens services are being integrated with Vahan/ Saradhi portals of Govt. of India, wherein details of other State vehicles/Driving licenses will be obtained through web service whenever they approach for any transaction in AP. This initiative will curb entry of fraudulent vehicles/Driving Licenses in AP.
- New registration of the non-transport vehicles is integrated with "Vahan" portal, wherein technical specifications of the vehicles are directly captured by entering Chassis number and Engine number of the vehicle at dealer level in New Online Application.
- All citizens services are being integrated with IIB for Online authentication of insurance policy number as well as validity of the insurance.
- Integration with CCTNS, Financiers, Police Department, Income tax Department (PAN) etc., is also being done.
- The Online Services project was inaugurated by the Hon'ble Chief Minister on 1st March, 2016 at Visakhapatnam by facilitating the registration of vehicles online at the Dealer point itself, without the owner visiting the RTA office. This process of online registration is already extended to the entire State. All the other transactions also would be made online by February, 2017
- While the new owner of a vehicle will get his vehicle registered online without coming to RTA office, the other online services facilitate the vehicle owner or licence holder to apply online, to pay fee and upload document online. The officials of the transport department also would approve the transaction online and the applicant will be permitted to download the official document online. The online facility will not only reduce the footfalls of citizens in RTA offices, but would improve the transparency and security of all the transactions.
- Transport Department is the first Government Department to install 110 PoS machines for collection of taxes/fee in the 95 offices in the entire State during November/December 2016 owing to demonetization effect, as citizen friendly initiative.
- The Department has decided to go for Cloud Service Provider which is very economical instead of purchasing a server and the tender process is already completed for Cloud Service Provider.

### Andhra Pradesh State Road Transport Corporation

No Employees - 57651

The average vehicle productivity per day

of its fleet - 378 kms

The AP State Road Transport Corporation initially had a fleet strength of 609 buses (16 depots) with a staff of 5,081 in 1958. The needs of transport have increased, forcing implementation of nationalization and increase in fleet strength year after year to meet the needs of traveling public as the State has been growing on all fronts since then. The fact that APSRTC is the largest state road transport undertaking in the country was acknowledged both by Limca Book of Records (2000), and the Guinness Book of World Records (31st October, 1999).

The corporation has 4 zones, 12 regions and 127 depots with a total fleet strength of 11,962 buses and 57651 employees on rolls as on October, 2016. It recorded fuel efficiency of 5.16 per liter up to October 2016, it operates on about 44.87 lakh kms and transports about 69.75 Lakh passengers daily. The average vehicle productivity per day of its fleet is 378 kms and the Corporation achieved 99.50% fleet utilization upto October, 2016.

The Corporation has introduced trend setting improvements in the quality of travel in rural and urban areas by providing newly designed ordinary coaches "Teluguvelugu" for rural passengers, "Vennela AC Sleeper, Garuda Plus, Garuda, Indra and Super Luxury buses for long distance passengers, Metro Luxury AC, "Metro Deluxe" and "Metro Express" for urban passengers, and "Sapthagiri luxury and Saptagiri express" for ghat road

passengers from Tirupathi to Tirumala Ultra Deluxe buses and Amaravathiare the new type vehicles introduced. JnNURM buses were also introduced for urban passengers in major cities like Vijayawada, Visakhapatnam and Tirupathi. The Corporation has introduced on-line ticket booking system for the convenience of passengers.

### Special achievements

The Corporation bagged National Awards for 1.HighestTyre Performance, 2. Fuel efficiency and 3 Productivity. Among the STUs in India, APSRTC stands top in physical performance in vehicle productivity and resource utilisation indicators like vehicle utilisation, fleet utilisation, average number of passengers transported, fuel efficiency, tyrelife, break down rate and accident rate.

Regular conduct of induction training and refresher courses for defaulting drivers have increased safety during both night and day time operations. The AP State Road Transport Corporation performance from 2010-11 to 2016-17 (Upto Oct-16) is given at Annexure 7.7.

## Airports And Non Metro Airports

Vijayawada, Tirupati, Kadapa and

Rajahmundry Airports to be upgraded

New airports at Bhogapuram, Dagadarthi, Orvakaland Nagarjunasagar

Government has entered into memorandum of understanding with Airports Authority of India for upgradation/modernization of non-metro airports at Vijayawada, Tirupati, Kadapa and Rajahmundry. There is a scope for improvement of air linkage is essential to fast development in the state.

As per the MoU, the state government will provide additional land required for expansion / up-gradation of

the airport on free of cost to AAI besides supply of water, electricity and security arrangement free of cost for 5 years.

### Vijayawada Airport

The existing operational airport belongs to Airports Authority of India, Government of India. The existing land of the present airport is in around 536.19 acres. As per Master Plan, AAI has already constructed new apron and subsequently extended the runway from 5725 ft to 7500 ft for operation of A-320 type of Airports.

Terminal expansion under way, interim terminal building commercial operations date will be scheduled after the inauguration on 12th January 2017. Out of 698 acres 610 acres are handed over to AAI by the state government. Balance of 88 acres will be handed over in next 2-3 months after completion of R&R. MOCA / AAI to sanction integrated terminal building and international status to the Airport, MoCA has requested for the same.

### Tirupathi Airport

The existing airport is in an area of 312 acres and belongs to Airports Authority of India. The AAI has proposed to upgrade the airport to international standards. Though no MoU was entered with AAI, the State Government agreed to provide 718 acres of land and 690 acres in Phase-I free of cost. State Government has handed over advance possession of 293 acres located in Reniguntamandal. The Airport Authority of India, New Delhi has proposed for upgradation of Tirupathi Airport and the total requirement of additional land is 1165.00 acres (approximately). 686 acres of land has been handed over to AAI. All the support functions for the operations are in place viz., immigration process trained personnel, customs and immigration systems etc. International operations awaited from a scheduled carrier to commence flights.

### Rajahmundry Airport

This is an existing operational airport in an area of 365.49 acres. The State Government signed MoU with AAI on for up-gradation & operation of bigger aircrafts such as B 737 – 800 / A320 etc. The new domestic passenger terminal building for 150 per hour capacity and new fire station cum technical block cum control tower are completed. The new

No of Post offices 10,322

terminal building is also opened for passengers. 686 acres of land has been handed over to AAI. All the support functions for the operations are in place viz., immigration process trained personnel, customs and immigration systems etc. International operations awaited from a scheduled carrier to commence flights Letter of request for commencement of international operations has been sent to Air India.

### Bhogapuram

83% of land under possession (2191 acres out of 2646 acres). Consent for 455 acres yet to be received statutory clearances, site clearance & in-principle approval obtained

Environmental Clearance: Environmental studies under completion and submitted to PCB. Public hearing scheduled on 11 Jan 2017 and environmental clearances before March 2017.

### Dagadarthi

438 acres out of total 1399 acres under possession Statutory Clearances: Site clearance & in-principle approval obtained Environmental Clearance: Environmental studies under completion and submitted to PCB. Public hearing completed and Environmental clearances to be obtained.

### Orvakal

Total land planned for airport development: 1010 Acres Government land – 638 Acres; Assigned land – 123.2 Acres, Patta land – 243 Acres. Statutory Clearances: Site clearance & in-principle approval obtained Environmental Clearance: Environmental studies under completion and submitted to PCB. Public hearing scheduled on 5 Jan 2017 and Environmental clearances before March 2017.

### Kadapa Airport

Airport is operationalized under the Viability Gap Fund scheme to airlines and air connectivity provided to Vijayawada. Total land available with the Airport: 1060 acres.

### **Aviation Policy**

Government of Andhra Pradesh has brought a comprehensive Civil Aviation Policy, 2015 for development of Airports in the State.

### Communications

There were 10,322 Post offices in the State, of which 59 are Head Post Offices, 8 are MukhyaDakGhars, 1,517 are Sub Post Offices and 8738 Branch post offices as on March 2016. Details of district wise post offices data are shown in Annexure 7.8

There were 2,386 Telephone exchanges, 7.11 lakh land line connections, 14354 public telephone connections (Local +STD), 64.94 lakh wireless subscribers (pre &post paid) and 15040 wireless subscribers WLL (pre &post paid) up to November 2016 in the state. District wise status of telephone connections are given in Annexure 7. 9.

Telephone exchanges - 2,386

Land line connections, - 7.11 lakh

Public telephone connections (Local +STD)-

14354

Wireless subscribers (pre &post paid)- 64.94 lakh wireless subscribers

### Banking

There were 7007 scheduled bank offices at the end of September, 2016 in the State. The aggregate deposits amounted to Rs.2,39,389.77 crore and the total bank credit extended was to the order of Rs.2,53,808.45 crore up to September, 2016. The credit-deposit ratio of the banks in the state is 106.02% as against RBI norm of 60%.

The total priority sector advances to Net Bank Credit (NBC) was Rs.1,72,457 crore (71.17%) against RBI norm of 40%. Agricultural advances to Net Bank Credit were Rs.1,03,238 crore (42.61%) against RBI norm of 18%. Non-Farm Sector Advances was Rs.40,979 crore which accounted for 16.91% of NBC. Other priority sector advances are at Rs.27,363.73crore forming 11.29% of NBC. Profile of banking institutions in A.P as on 30-09-2016 is given in Annexure 7.10.



### Sea Ports

Major Port -1

Notified Ports -14

Kakinada Anchorage Port (Aprl- Oct 2016)

Cargo handled -10.90 lakhM. Tonnes

Total Revenue earned - Rs. 11.35 crore

Kakinada deep water Port (Aprl- Oct 2016)

Cargo handled -79.90 lakh M. Tonnes

Total Revenue earned - Rs.228.00 crore

Gangavaram Port (uptoOct) Cargo handled -108.40lakh M. Tonnes

Krishnapatnam Port (Aprl- Oct 2016)

Cargo handled -209.00lakh M. Tonnes

Total Revenue earned - Rs. 896.92 crore

Rawa Port (Aprl- Oct 2016)

Cargo handled -5.70 lakh M. Tonnes

Total Revenue earned - Rs. 2.58 crore

Andhra Pradesh has 974 Kms long coast line with a major Port at Visakhapatnam under Government of India control and 14 notified ports under State Government. Of which 4 are captive ports.

### Kakinada Anchorage Port

The anchorage port is being operated by the State Government. The anchorage port has a capacity to handle about 4 million metric tons of cargo per annum. The port handled 21.00 lakh tonnes of cargo and realized revenue of Rs.25.40Crore on cargo and earned total revenue of Rs.25.40 crore as Government share in 2015-16. The Port handled 10.90 lakh Tonnes of cargo and earned total revenue of Rs.11.35 crore during 2016-17 (upto the end of October, 2016).

### Kakinada Deep Water Port

The port was awarded to M/s Kakinada Seaports Limited on OMST basis on Dt. 1-4-1999 for a period of 20 years initially stipulating that they have to pay 22% of revenue share on the Gross Income to the Government. The Governments constructed 3 berths at a total cost of Rs.293.00 Crore. Presently, Kakinada Deep Water Port is under operation with 6 berths and 2 OSV berths and one North return wall berth of 635 Mts. length. So far, an extent of 441 Acres land was given on lease basis. The port handled 150.00 lakh tonnes of cargo and realized revenue of Rs.393.00 crore. The Government received Rs.95.99 crore as Government share in 2015-16.

The port handled 79.90 lakh tonnes of cargo and earned total revenue of Rs.228.00 crore during 2016-17 (upto the end of October, 2016).

### Gangavaram Port

The Government of Andhra Pradesh awarded a green field deep water port at Gangavaram near Visakhapatnam under PPP. The State Government is having an equity share of 10.39 % in M/s GPL. The concession fee is 2.10% of the gross revenue earned by the developer. Presently, Gangavaram port is under operation with 9 Berths with a capacity of 45 Million Tons per annum. An extent of 1800 Acres of land was given towards equity and 1052 acres was given on lease basis.

The port handled 194.00 lakh tonnes of cargo and realized revenue of Rs.737.71 crore against which they have paid Rs.26.24 crore as AP Government share for 2015-16. The Port handled 108.40 lakh tonnes of cargo and earned total revenue of Rs.371.94 crore and Government received Rs.7.82 crore as Government share during the year 2016-17(upto the end of October, 2016).

### Krishnapatnam Port

The commercial operations in Krishnapatnam port were commenced on 20.03.2009. Presently, the Port is under operation with 9 berths. Construction of Additional berths under Phase II is in progress with an estimated cost of Rs.6000 crore. So far, an extent 3462 Acres of land was given as against 5800 acres approved by the Government. The balance land acquisition is under process.

The port handled 348.90 lakh tons of cargo and realized revenue of Rs.1506.09 crore against which they have paid Rs.39.15 cores towards Government share to the A.P. Port department in 2015-16.

The port handled 209.00 lakh tonnes of cargo and earned total revenue of Rs.896.92 crore during the year 2016-17 (upto the end of October, 2016).

### Rawa Port

Rawa Port is located near Surasenayanam in East Godavari District and it facilitates to transport Crude Oil from S. Yanam to Chennai / Visakhapatnam / Haldia by Sea. The Port is in operation.

The Port handled 13.00 lakh tonnes of cargo and realized revenue of Rs.5.00 Crore in 2015-16. The Port handled 5.70 lakh tonnes of cargo and earned total revenue of Rs.2.58 and Government received Rs.2.58 crore as Government share during the year 2016-17(upto the end of October, 2016).

### Other Non- Major Ports under development,

Non-Major Ports at (1) Machilipatnam, (2) Bhavanapadu (3) Narsapur (4) Ramayapatnam (5) Kakinada SEZ (6) Meghavaram Port (7) Nakkapalli Port (8) Nizampatnam, (9) Vodarevu are under development process.Further, Duggarajapatnam Port in Nellore District in under development by Government of India.

### Machilipatnam Port

The Government of Andhra Pradesh have awarded development of Machilipatnam Port in Krishna District under PPP Model. Land acquisition is in process.

Notification issued by District Collector for Ac. 2282.20. The Government has constituted Machilipatnam Area Development Authority (MADA) for land pooling with jurisdiction of 426.16 Sq. Kms. and with Head Quarters at Machilipatnam under section -3 A of the Andhra Pradesh urban Areas (Development) Act 1975. Land pooling is under progress to procure lands required for Machilipatnam Port under Machilipatnam Area Development Authority.

### Bhavanapadu Port:

The port is located in Srikakulam district. There is a defunct fishing harbor, and no commercial activity at this Port. Availability of the Land is 270 Acres. As per the report the port can be developed to handle about 6.5 MTPA by 2016-17. The estimated cost of the Project in Phase-I is Rs.1707 Crore, Phase-II is Rs.656 crore. The port is initially proposed to be developed under Phase-I with 5 berths.

The Government issued orders to limit acquisition of land only to an extent of 2000 to 2500 acres for establishment of Bhavanapadu Port. Revised land map consisting of 2130 acres. (2050+80=2130 acres) of project site has been communicated to the RFP bidders on 26.09.2016.

### Narsapur Port:

The Port is located in West Godavari district. There is no commercial activity in the port. No port land is available at the port. M/s. INCAP has been nominated as nodal agency for the selection of bidder for the development of port. M/s. INCAP has entrusted the work of preparation of techno economic feasibility report to M/s. RITES, New Delhi. The work is in progress. Requisition for land acquisition filed with District Collector for Ac. 3695.76.

### Ramayapatnam:

Ramayapatnam proposed site for port development is a coastal village, located at South – East corner of Prakasam district in Ulavapadu Mandal, located 4.5 km East of Thettu on NH-5 and 93 km North of Krishnapatnam Port. It is 12.8 km away from Ulavapadu and 78.7 km distance from Ongole. The connecting straight road joins NH-5 at Thettu. South Central railway passes adjacent to the NH-5 Nearest Railway stations is 'Thettu' located within 6 km from the sea.

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M/s. INCAP has been nominated as nodal agency for the selection of bidder for the development of Port. M/s. INCAP has entrusted the work of preparation of techno economic feasibility report to M/s. RITES, New Delhi. The work is in progress.

### Kakinada SEZ:(Captive Port)

The State Government declared Kakinada SEZ as a minor port. M/s. Kakinada Special Economic Zone Pvt. Ltd., proposed to construct Captive Port within SEZ. It is proposed to handle all cargos in SEZ through this captive port. This notified port is situated 15 Km. North of Kakinada Deep Water Port in East Godavari District. Initially M/s. Kakinada Special Economic Zone Pvt. Ltd., proposed to construct Captive Port within SEZ. M/s.KSEZ proposal to construct 3 berths one for handling coal and other two for handling general cargo. The total cost of project includes Dredging, Breakwater revetment, construction of Berths, Port Buildings, Road works, Railway line, Port Craft berth, Miscellaneous etc., is Rs.2041.92 Crores.

### Meghavaram Port: (Captive Port)

The State Government declared Meghavaram port in Srikakulam district as minor port on 19-3-2008. The captive port has been allotted to M/s. East Coast Energy on 19-3-2008. Captive port for imports of coal, fly ash for the thermal plants. The Port is being developed by M/s East Coast Energy Pvt. Ltd., with an estimated cost of Rs.600 Crore. Project preparatory works are in progress.

### Nakkapalli Port: (Captive Port)

The State Government declared Nakkapalli port in Visakhapatnam district as a minor port for export of Alumina by M/s ANRAK Aluminum Ltd. The proposed port is 75 Km from South of Visakhapatnam. M/s. Anrak Alumina Ltd., has proposed to construct 2 berths to handle alumina & thermal coal etc. The cargo handling capacity of the project is 4 MLT per annum.

### Nizampatnam and Vodarevu Ports: (under development)

The State Government have proposed to develop Vodarevu port in Prakasham district &Nizampatnam port in Guntur

district under Public Private Participation mode on Build, Own, Operate and Transfer (BOOT) basis. The port is at present under dispute.

### Duggarajapatnam:

Proposed port at Duggarajapatnam is located in SPSR Nellore district of Andhra Pradesh. The site is located 23 kms north of Sriharikota islands (ISRO) in Vakadumandal of SPSR Nellore district. Important towns like Gudur are at a distance of 40 km and Vakadu at 10 km.

The site is 30 km from the National Highway 5 at Nayudupeta and within 100 Km from Chennai/Tirupati besides being in close proximity to Tada growth centre. The site is connected with NH-5 at three places namely Sullurpet (35 km), Naidupet 33 km) and near Guduru (40 km). The nearest railway line is at Naidupet and railway junction is at Gudur at a distance of 42 km away from Duggarajapatnam. The development of the port is under process by Government of India as per A.P. Re-organization Act 2014.

### **Tourism**

No of Central reservation offices - 10

No of Buses - 52

No of boats and launches - 77

Tourism is an effective instrument in terms of generating employment, earning revenue and foreign exchange, enhance environment, preserving culture and tradition there by resulting in overall development. The government is committed to develop Heritage spots in Kurnool, Prakasam, Rajamundry, Tirupathi, Vijayawada, Visakhapatnam and other important places. Divine destinations like Tirupathi, Srisailam, Srikalahasthi, Kadapa Darga, Mahanandi, Simhachalam, Annavaram, Vijayawada and other places are being integrated in religious tourism circuits. While ensuring that the bio diversity and socio economic needs

of the community are maintained, beach tourism is being promoted. World class coastal and eco-tourism circuits are being developed.

### Andhra Pradesh Tourism Development Corporation (APTDC)

APTDC, the State Government undertaking was incorporated in 1976. It continues to register significant growth since last few years with focus on creation of tourism infrastructure and products. The Corporation continues to strive for promotion of new tourism products such as eco-tourism, beach tourism and cruise tourism. The river cruise tourism to Pattiseema and Papikondalu on river Godavari, Nagarjunasagar to Srisailam on Krishna river have become immensely popular. APTDC operates 28 tour packages including on demand tours. The transport fleet is operated through network of 8 tour promotion scheme agents, authorized booking agents and 10 Central Reservation Offices.

Currently, the corporation runs a chain of hotels and restaurants and providing quality accommodation and food for tourists at important locations. 42 hotels with around 1002 rooms and 2140 bed strength in prime locations fostering homely ambience packages and an impressive fleet of 52 buses that connect important tourism locations within and outside the state. The water fleet with 77 boats and launches provide pleasure cruises and river cruises at affordable prices. The corporation runs sound & light shows, river & lake cruise and pleasure rides making tourism a pleasurable experience.

The activities of the corporation can be classified broadly into the eight categories viz. Hospitality (hotels & catering units), transport (guided & package tours), water fleet (leisure cruises & pleasure boating), sound & light shows, eco-tourism, construction of new tourism products, tourism asset management and conduct cultural festivals

While the primary focus of APTDC remains aggressive in developing a world-class tourism infrastructure, recently, it has ventured into new tourism related fields like, heritage, pilgrimage and eco-tourism etc.

### Growth of APTDC

APTDC has registered a systematic growth both in terms of revenue and tourist arrivals over the years. In line with the policy of the Government, APTDC has focused on development of tourism infrastructure that has led to promotion of new tourism products and successful functioning of tourist centers. About 17.52 lakh tourists visited the state accruing a revenue of Rs.93.16Crores during 2016-17.

### Tour Packages

APTDC has designed a number of Tourist packages to different destinations covering temples, hill resorts, beach resorts, heritage sites both in and outside the state. A modern transport fleet of over 55 buses. APTDC is the first corporation in the country to introduce Volvo coaches that set a new level in tourism travel. The transport fleet is supported by a chain of central reservation offices in Hyderabad, Tirupati, Visakhapatnam, Bengaluru, Chennai and Kolkatta supported by a network of tour promotion agents. APTDC also enters into strategic alliance with major tour operators. These tours connect major hubs such as Chennai, Bengaluru, Tirupati, Coimbatore seamless travel destination.

#### Haritha Hotel Chain

The "Haritha Hotel Chain" with 42 hotels (1002 rooms) located in important tourist centers provide the right ambience and quality that tourists demand. All APTDC hotels provide a restaurant, AC and non AC accommodation and in major locations a swimming pool. Few places where hotels & resorts are located include Vijayawada, Visakhapatnam, Jungle Bells, Araku Valley, Rishikonda, Tirupati, Horesely Hills, Kuppam, Kurnool, Dwaraka Tirumala, Srisailam, Nellore, Kadapa, Srikalahasthi, Orvakallu and Dindi including new hotels and resorts at Srikakulam, Chinthapalli, Kakinadaand Thummalapenta and Tirupati.

### Properties of APTDC

There are 7 resorts in Visakhapatnam division, 3 in Kakinada division, 3 in Vijayawada division, 5 in Nellore division, 4 in Tirupathi division, 5 in Kadapa division, 7 in Kurnool division, 3 in Srisailam division.

### Wayside Amenities

APTDC has taken up development of wayside amenities along highways to provide better facilities to highway travelers like Restaurant, Washrooms, Parking area, Souvenir shop and Children play area at Alankanapaly, Ontimitta, Gopavaram, Thallapaka and Lepakshi have been completed and commissioned. Wayside amenities development at Nagari, Udayagiri and Kalikiri have been taken up and works are in finishing stage.

### Water Fleet

APTDC owns the large water fleet of 86 small and big boats. The corporation operates leisure based cruises and water sport boats at different lakes and rivers of the State and also Para sailing at Srisailam, Vijayawada, Rishikonda and Mypadu. The vessels Nagasiri and Vijayasiri are very popular for leisure cruises.

APTDC water fleet strength includes FRP boats, Launches, Parasailing boats and large vessels. The Corporation operates 8 cruises in Godavari and Krishna rivers. New catamaran type boats and the latest Speedboats were introduced at various water bodies to strengthen water fleet operation. APTDC operates pleasure rides at Nellore, Srisailam, Vijayawada, Hope Island (Kakinada), Vishakhapatnam (Bay of Bengal), Rajahmundry and Brahmasgaram.

### Different types of Boats

### River Cruises

Most popular river Cruise on river Godavari between Pattiseema and Papikondalu is being operated that is attracting large number of tourists. The introduction of the river cruise on Godavari has motivated many private entrepreneurs to operate similar cruises on the river. The cruise offers a pleasurable experience of a four hours boat ride and brings the tourists back to Pattiseema in the evening. A two day package with night stay intented camp along the banks of the Godavari near Kollurenroute to Papikondalu is also arranged for tourists. A package tour was introduced in river Krishna from Nagarjunasagar to Srisailam. A Twin deck cruise (120 seater) (Haritha) with an air- conditioned lower Deck is presently operating in Godavari river in addition to FRP boats.

### Houseboats

In addition to pleasure cruises, 3 air-conditioned house boats are being operated, which offer an experience similar to the backwaters of Kerala. The House boats are equipped with two bedrooms and a deck to laze through the day along the serene and picturesque Godavari in East Godavari district.

### Ropeway

The Ropeway facility available at Srisailam Pathalaganga gives good revenue of an average of about 10 to 12 Lakh per month to the corporation. This facility benefited many local people with direct and indirect employment. Boating revenue also increased as more tourists got down at Pathalaganga to take the boat rides. This has become a major attraction for Srisailam pilgrim tourists also.

### Sound and light shows

Sound and Light show organized at Chandragiri palace near Tirupati to showcase the historic and heritage monuments of Chandragiri Fort to tourists is immensely popular. These shows have recorded narrations (English, Hindi & Telugu) along with imaginative use of music, sound and light effects—creating a dramatic history of the forts.

### Single window service

For the first time in India, APTDC has introduced customized tours in the year 2009 to fit the specific needs of tourists. The tour is customized on the requirement of choice of activities of the tourists and APTD C helps plan the entire itinerary to provide a seamless tour experience. Services offered in pack- age include- transport, accommodation, sightseeing & visits, escort services, shopping, local cuisine, local events. Places not shown to routine visitors are shown; sightseeing places insisted by the tourists are taken care of and includes entry tickets with specific taste involved for local cuisine.

Online booking is extended to general public facilitating the tourist to book APTDC properties online. A website www.aptdc.gov.in. is in place providing more details. APTDC also taken up a massive social media/on- line campaign through face book, twitter, you tube etc. It has a toll free No: 1800 425 45454 which operates round the clock.



### Mega destinations and secondary destinations

APTDC has focused development in and around the three primary destinations of Vijayawada, Visakhapatnam and Tirupati. In addition, development is also centered around the 3 secondary destinations like Kakinada, Kurnool and Nellore. The development of infrastructure is based on developing destinations and tourism circuits with a funding mix from the Government of India and State Government.

### Eco-Tourism initiatives

The corporation has taken up the initiative of identifying potential Eco-tourism spots in the state. It has successfully implemented popular eco-projects like the Belum caves, revamping of Borra caves, an exotic Jungle destination by name 'Jungle Bells' at Tyda, the illumination of Ettipothala waterfalls and development of Bhavani river Island.

### Community based Eco-tourism

Andhra Pradesh is encouraging community based ecotourism in association with forest department, by providing opportunities for jungle walks, forest retreats, wild life tourism, bird watching and trekking.

Some of the places identified for eco-tourism are Maredumilli (East Godavari district), Nelapattu (Nellore district), Mamandur, Talakona, Nanniyal (Chittoor district), Balapalli (Kadapa district), Ettipotala (Guntur district), Kambala Konda (Visakhapatnam district), Orvakallu (Kurnool district), Coringa Wild life sanctuary (East Godavari district). Transport to and from the destination is provided by APTDC. Vana Samrakshana Samithi (community) provides accommodation, guide services and food facilities. Forest department provides the infrastructure under Community Forest Management (CFM).

### Tourism Projects

APTDC taken up the Construction of new tourism projects with state and central finance assistance and for the year 2015-16.

 Development of Costal tourism circuit in Nellore District under Swadesh Darshan Scheme of GoI.  Development of Amravati as Heritage & Pilgrimage tourism destination under Prasad & Hridaya schemes of GoI. Projects are under progress.

APTDC has also initiated the new proposals and appointed the consultants for the preparation of DPR's. for development of rayalaseema regions and heritage tourism circuit, development of Mahayana Buddhist circuit in AP. development of costal tourism circuit in Visakhapatnam district. Development of Godavari river flowing areas as Akhanda Godavari tourism projects with state funds.

# Information Technology and Communications

No of Services covered under e-Pragati 745

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The state government is making efforts to make Andhra Pradesh as an IT hub in the years to come. The Government is proactively working for making the State as preferred IT Destination. With an intent to rebuild the State by implementing a slew of IT initiatives, Government has formed three societies viz., e-Government authority, Electronics & IT agency and Innovation Society for development of ICT Industry in the Sunrise State of Andhra Pradesh. Government has put in place two policies — IT policy and Electronic policy which are based on four pillars - Infrastructure, Incentives, Human resource development and Good governance. The policies offer suitable infrastructure and incentives to encourage start ups and first generation IT/Electronic companies which is unparallel in the country.

The government has put in place several technological interfaces such as on-line feeder monitoring system, geotagging of agriculture bore wells, smart metering installation, utilization of 'Kaizala app' for seamless interaction among

the employees during the implementation of Government programmes and HT Consumers. The government has implemented the innovative fibre grid providing a package wherein Internet with 15 MBPS speed, Video, TV with all channels, three phone facilities would be provided to all the houses in the state at an affordable cost of Rs.149/per month. As a pilot project, Mori village in the East Godavari District has been developed with the assistance of some global companies in becoming fully Internet of Things (IoT) compliant transforming the rural economy. The village stands as an e-example in the Country with the accessibility of WiFI, internet connectivity, cable TV in all its households and moving towards less cash economy. Success of this pilot project has encouraged us to scale it to five assembly constituencies in the 1st phase.

Recently eight IT companies were inaugurated at IT Service Tech Park in Vijayawada. Visakhapatnam is being developed as 'Fintech hub' of national and international importance. Tirupathi is being developed as electronic cluster. Many leading companies have already set up their plants.

Some of the key incentives offered to promote IT initiatives

- Rebate on land cost@ Rs.60,000 per employee created in case in case of mega projects in IT and Rs.40, 000 per employment generated for other IT companies, subject to a maximum of 80% of land cost.
- The mega projects operate from the built up space are also eligible for rental subsidy @ Rs.10 per SFT per month for a period of 3 years in prescribed scale space per employee.
- For IT Companies that received land from State Government, incentive will be given Rs.50,000/- for generation each employment.
- For IT Companies that did not receive land from Government and have annual sales of more than Rs.25 crores per annum, incentive of either Rs.1,00,000/- or 6 months of CTC (cost to company), whichever is lower, for generation each employment.
- For IT Companies under MSME/SC/ST categories an those companies having less than Rs.25 crores of annual revenue, Incentive will be given either Rs.1,50,000/- or 6 months of CTC (cost to company), whichever is lower, for generation each employment.

- Training companies for IT and Electronics will get Investment subsidy up to 50% with CAPEX, to a maximum of Rs.1.00 Crore.
- In case of Mega Projects in Electronics, 30% of investment will be provided as subsidy, capped at Rs.250 Crores.
- In case of General Projects in Electronics, 25% of investment will be provided as subsidy, capped at Rs.250
- In case of MSME/BC/SC/ST/Women/Rural Electronic industries, 30% of investment will be provided as subsidy, capped at Rs.250 Crores.
- 25% Power subsidy for Mega Projects for a period of five years; 20% Power subsidy for all other categories of companies for a period of five years.

### IT Infrastructure:

To provide infrastructure which suits the global needs for setting up of IT/Electronic companies in the sunrise state of Andhra Pradesh. The Government has initiated the development of infrastructure like IT parks at Kapulapadda in Visakhapatnam and in Tirupathi to attract the global players in IT industry. The proposal to develop Information Technology Investment Region in Visakhapatnam region in an area of 40.4 Sq.Km with a total outlay of Rs.10,357 Cr is under active consideration of GoI.

Parallel to the above, Government has identified Electronic System Design & Manufacturing as a growth sector to create employment high in numbers. To achieve this, Government has earmarked few areas for Electronic Manufacturing Clusters (EMC) across the state for setting up companies exclusively for ESDM. There are a total of 9 such EMCs both in private and Public development models. Some Govt. initiated EMCs are like Gudipalle in Anantapuramu, Yerpedu in Chittoor and Gurrampalem in Vishakhapatnam. Renowned private organizations are also in different stages of development of EMCS viz. Sri City in Chittor, Elicina Ragamayuri in Anantapuramu, Nobel Electronic Manufacture Cluster Pvt Ltd in Anantapuramu, Kakinada SEZ Pvt Ltd in Kakinada and Continental Warehouse Corporation Ltd in Chittoor.

Government envisage developing physical incubation infrastructure to host institutes as the pilot incubators to

#### **ECONOMIC INFRASTRUCTURE**

create world class live work and play environment for nurturing innovation and start-ups. To take this ahead, ITE&C Department has inaugurated 50,000 SFT incubation space as "Start up Village", IT incubation towers in Tirupathi (7,500 SFT), Kakinada (15,000 SFT) and IT incubation tower in JNU-Anantapuramu (20,000) will be inaugurated shortly to encourage students to become prospective start-ups.

Development of IT industry are given in Table 7.10.

Table 7.10 Software Turnover

Government is keen to provide the ready to use office spaces (plug a play) to the needy entrepreneurs. In this regard, Government started the construction of IT Towers exclusively to allot to the IT companies who wants to start their commercial operations in Visakhapatnam, Tirupathi and CRDA region as Millennium Tower (4.5 Lakh SFT), IT Business Center (50,000 SFT) and IT Towers – Mangalagiri (2 Lakh SFT) respectively.

S.		Achievements			
No	Indicator	As on 31-3-2015	As on 30-11-15	During 2016-17 (Nov 15 to Nov' 16)	Cumulative (up to Nov'16)
1	IT Companies established (Nos.)	246	356	13	369
2	Start-ups (Nos.)	30	186	0	186
3	EMCs approved (Nos.)	-	3	0	3
4	IT Incubation Towers Constructed (Nos.)	-	3	0	3
5	Turnover (Rs.in Cr)	1850	2150	395.42	
6	Employment Created (Nos.)	24,739	31,939	2,991	34,930

Source:IT&C department

### e-Procurement (www.apeprocurement.gov.in)

e-Procurement System is being used in the State for all procurements above the value of Rs.10 Lakhs. The platform is extensively used for procurement works by Irrigation department, Roads and Buildings etc, Government issued orders to Go-Live of new version of e-Procurement system for all user departments and PSUs etc. of Andhra Pradesh with effect from 9th May, 2016. The new system is being used by all user departments/PSUs/ Universities /Local bodies etc. of Government of Andhra Pradesh. The portal has successfully processed 310919 transactions in united Andhra Pradesh worth Rs.352637 Crores up to 31st May 2014 and 95890 transactions processed in newly formed Andhra Pradesh worth Rs.32311 crores from 02.06.2014 to 31.10.2016.

Sl. No	Year	Total Transactions	Total Value (Rs. in crores)
1	01.06.2014 to 31.03.2015	21422	4181
2	2015-2016	43055	17247
3	01.04.2016 to 31.10.2016	31413	10883
	Total	95890	32311

Source:IT&C department

### **Achivements:**

e-Procurement has secured demonstrable and significant benefits by way of cost and time savings to the Government, brought transparency and empowered the small & medium suppliers. The path breaking initiative has proved that transparency, fairness and equal opportunity to private entrepreneurs who bid for Govt. contracts, sell products or expertise to Govt. agencies will not only result in healthy competition, significant contribution to the economy but also makes significant social impact as a citizen assurance on transparent utilization of public funds. As a matter of fact the successful implementation of this initiative by the state of Andhra Pradesh has motivated the Govt of India and several other state Governments have to embark on e-Procurement initiatives.

### Challenges:

Government of Andhra Pradesh e-Procurement system still faces challenges. Although the system's hardware is in place, its operating system must be stabilized, users continuously trained, content reliability enhanced, and product choices broadened. Furthermore, some parts of the population have been left out of e-Government. A Government wide policy is needed to narrow the widening societal gap information and communications technology capacity. For the full effect of e-Procurement reform to be felt, its changes must be internalized, and savings in Government agencies' procurement should be reflected in their expenditure management. Engaging treasury officers in the overall procurement process from demand planning, budget planning, acquisition management, and logistics management, to final disposal-would enable agencies to prepare more accurate expenditure plans, helping ensure more predictable procurement in support of service delivery. Developing this link would require integrating the e-Procurement system with the treasury information management system to allow timely data exchange between them.

### **Awards**

- Topped the overall assessment of 39 e-Gov projects conducted by the Ministry of Information Technology, Govt of India with a score of 83.7 on a scale of 0-100. www.mit.gov.in/SA/index.asp
- GoAP- e-Procurement case study is published in the World Bank website www.worldbank.org/egov

### Communications Wing:

New G2G AP SWAN Network (AP Broad Band Network):

Government has implemented APSWAN connecting the State Capital to all District Head Quarters (DHQs) with 12 Mbps bandwidth and connecting all DHQs with corresponding MHQs with 4 Mbps under AP Broad Band Network. The new Network is completely IP based and provides voice, data and video communications to all Government offices.

### APNET/SAPNET:

The Government of Andhra Pradesh as a part of its objective to harness the potential established a Satellite based communications Network to be utilized in District Education, Tele Medicine, Agriculture Extension, E-Governance, creating Awareness in Self Help Groups and Human Resource Development. Presently Andhra Pradesh has 2 Channels. Channel 1 is to telecast the

recorded programmes and Channel 2 for live Interact. Live is being used for transmission of programmes of Education, Agriculture Department, Indira Kranthipatham and Police, HRD, Social Sector Programs and AP Skill Development Programs etc.

### **IVRS** Project

The Government of Andhra Pradesh, in the process of building & developing a new State, and to ensure that all the information related to Government Services & welfare Schemes being implemented for the public to be pooled in a single system and create awareness in the public using telephonic- Voice & SMS campaigns has implemented an IVRS based customized system with SIP Telephony trunk lines that can handle Public Broadcasting on Government Schemes & Services and also obtain the Citizen Satisfaction levels through ITE&C Dept. Based on the Feedback received from the public, GoAP intends to ensure that there are no bottle necks in the implementation of Welfare Schemes and also to improvise the Governance through speedy delivery of the services & schemes to citizens.

ITE&C Dept established and commissioned the IVRS for robust broadcasting & feedback system - PBFT Public Broadcast and Feedback Telephony System comprising a Web-portal(https://ivrs.ap.gov.in), Unified Communication platform for Voice & SMS, IVR dial out calls facility for measuring public satisfaction using SIP trunk technology and fine tuning policies according to the needs of the people with 24/7 customer service support, and the roll out to all the Departments is completed. Presently the system is operating with 15,000 SIP trunks (10,000 from BSNL and 5,000 from Reliance as alternate source for connectivity) with 2 Connectivity Service providers M/s.BSNL and M/s.Reliance with load balance to improve the call success rate of existing SIP based setup. Daily teleconferences and feedback surveys are being conducted on regular basis with Service Providers M/s.Web Country.

### Video Conference Facility (VCF):

The Information Technology & Communications Department through M/s A.P. Technology Services (APTS) Limited has implemented IP based High Definition Video Conference (VC) system up to Mandal Level. Mandal level Video Conference system is procured and commissioned in

669 Mandals and 49 RDOs, 13 CPOs, 13 Collectorates, 3 ITDAs and at State Head quarter, Hyderabad. Now Video Conference facilities are extended to new Interim Government Complex (IGC), Velagapudi.

### APSCAN (Post AP Reorganisation)

Andhra Pradesh Secretariat Campus Area Network (APSCAN) is connecting all the line blocks and connecting about 5000 nodes for data and presently 2000+ nodes are operational. Apart from this, it provides Internet, Intranet, eMail, SDC Staging & DR Services. Internet Bandwidth is provided through 3 service providers.

### Interim Government Center (IGC)

FM and O&M activities are provided to all the Blocks by ITE&C Department.

### AP State Data Centre (APSDC)

APSDC is being shared by both the States. It provides support Infrastructure for Power, (AC, UPS, and Generators etc.), Network Infrastructure, Security Infrastructure, Management Infrastructure, Disaster Recovery Setup, Computer Infrastructure and Storage Infrastructure. 108 Applications from 31 departments are hosted.

### e-Pragati:

Andhra Pradesh has always been at the forefront of implementing e-Governance, having pioneered popular projects like CARD, eSeva, MeeSeva, e-Procurement. To take the evolution of e-Governance to the next level, it is felt essential to have AP State Enterprise Architecture (APSEA) for providing better services to citizens and businesses. The initiative has been named as e-Pragati to signify that the program is intended to create an ecosystem based on integration and interoperability of all the development and welfare departments of the Government towards realizing the vision of Sunrise AP 2022 by enabling design and delivery of services in a coordinated, integrated, efficient and equitable way that citizens and businesses deserve.

e-Pragati is a massive program covering 33 departments and 315 agencies and around 745 services have been identified so far. The services have been grouped into 72 projects (45 green field and 27 brown field) and bundled into 14

packages for ease of procurement and implementation. This is the largest e-Governance program approved by any State with a total outlay of Rs.2398 crore out of which, the Government Capex would be to the extent of Rs.1528 Crore. The Program is scheduled to be implemented / rolled out by Mar'18. The design phase of the program is almost completed and e-Pragati vision document has been released on Oct 9th 2015. Some of the RFPs are already issued and all the RFPs packages are planned to be issued by Jun'2017.

### MeeSeva

MeeSeva currently has 355 high impact services and the project has already completed 8 crore transactions and most of the government departments are now on board. The target is to ensure that MeeSeva becomes the entry and exit point for the citizen to approach the government for any service. Besides this, project also delivers more than 20 crore transactions every year for other services like Bill Payments besides a big range of B2C services making it the country's biggest one stop e-governance shop. MeeSevacenters are now also providing Business Correspondent Services for various banks and achieving financial inclusion for the citizens. This is significant because of the large scale Aadhaar based DBT roll out in the country.

The convergence of services viz., interactive services, payment services through various Delivery Channels/ Kiosks helps citizens access multiple utilities. Bill payments at the same counter through credit cards/debit cards, cash, Demand Drafts and cheques for payments from April to November,16 were Rs.674.68 crore through 175.18 lakhs transactions..

### MeeKosam:

The Government had directed to revamp the existing system and design a new integrated Public Grievance Redressal System. Under the proposed system, all the grievance petitions received at the CMO/Secy./HoDs/District Collectorates, District level and Mandal level Offices would be registered, tracked and redressed on a common platform, linked to the Aadhaar No. of the petitioner to ensure proper accountability. MeeKosam system receives all the grievance petitions through the new Grievance Redressal System named as "MeeKosam" from

27 departments of our state. Meekosam live portal (www. meekosam.ap.gov.in) was launched by the Hon'ble CM on 26.05.2015 for remaining districts in AP.

Present Status: A total 60.92 lakh of grievances are registered from 02.03.15 to 07.12.16 and 59.19 lakhs were resolved.

### Andhra Pradesh Information Technology Academy

Andhra Pradesh Information Technology Academy (APITA) has been established on 01-06-2016 in place of Institute for Electronic Governance (IEG), a Schedule-X Institution of A.P. Reorganization Act, 2014. The academic activities of the Society have been planned to run in the name of "Amaravati Knowledge Centers".

The major objectives of APITA are:

- a) Support capacity building initiatives of ITE&C Department.
- b) Develop and offer courses in IT, Electronics and Communications in collaboration with industry.
- c) Bridge the urban rural divide in producing readily employable graduates.
- d) Provide conducive environment for learning through value addition programs.
- e) Promote a culture of Research and Development in IT, Electronics and Communications.
- f) Facilitate e-governance through oriented programs for state government employees.
- g) Offer consultancy support in Capacity Building programs.
- h) Collaborate with Industry, Educational and Research Institutions for the promotion and development of e-governance.

APITA has academic collaborations with Oracle Academy, Microsoft, IBM, Indian School of Business, National Instruments, SAP, DQ Entertainment, eSF Labs, Arjun e-Learning to offer various academic / training programs to the students of Andhra Pradesh. The details of the programs are mentioned below:

Academic Partner	Program offered			
Oracle	Free licensed software to APITA			
Academy	registered colleges; training and			
	certification to faculty members			
	training to the students			
Microsoft	Microsoft Imagine Academy Program			
	(offer five client access licenses, Office			
	365 software at reduced price; MS			
	office license free of cost for all students			
	and faculty; certification coupons at			
	reduced price			
IBM	IBM Cloud Application Developer			
	Training and Certification Program			
Indian School	Technology Entrepreneurship Program			
of Business	(TEP)			
(ISB)				
National	LabVIEW and Industrial IoT program			
Instruments				
SAP	SAP University Alliance Program and			
	SAP Student Academy			
DQ	Training and Certification in Animation			
Entertainment				
eSF Labs Pvt	Training and Certification in Cyber			
Ltd	Security and Digital Forensics			
Arjun	Free e-Learning content / courses /			
e-Learning Pvt	tutorials to the students			
Ltd				

During the academy year 2016-17, 162 colleges (128 Engineering / MCA colleges and 34 Degree colleges) in the state are registered with APITA. During the current academic year 2287 students are trained in Soft skills, 1457 in Aptitude and reasoning, 470 in Oracle Database, 503 in Animation and 76 in NI Lab VIEW and IIoT. Furthermore, 56 faculty members are trained and certified by Oracle Academy in JAVA fundamentals and Program and 152 faculty members are trained in Engineering Education and Research by National Instruments. For the ISB TEP Program 411 students from 15 colleges have joined for 2016-18 batch and 171 students out of 185 from 2015-17 batch have completed the first year course.

APITA is also playing a major in the capacity building activities of the e-governance initiatives. It has trained a total of 73667 government employees on Tablet PCs and also coordinated the MDM enrollment program in the districts. The social contribution of this training initiative can be perceived in the spread of digital literacy to the mandal level government officials and the economic contribution may be perceived in the increased productivity of the officers who have begun using the tablets for their official purposes. APITA staff working in the districts is also trained by AP HRDI as Master Trainers for conducting CSC2.0 training in Andhra Pradesh.

### Aadhaar Permanent Enrollment Centers

UIDAI, in the process of evolving a national level policy for setting up PECs across the country, ensured that the needs of unenrolled beneficiaries are taken care through MeeSevacenters in the districts. APTS have set up of 811 Permanent Enrolment Centre's (PEC) in MeeSevacenters at each Mandal headquarters across the State of Andhra Pradesh. Details of the Aadhaar kits delivered and activated status as on 07-12-2016 is given in Table 7.11.

Table 7.11 Aadhaar Kits Delivered and Activated Status as on 07-12-2016

District	Aadhaar Kits Deployed	Enrollments done	No of Packets Uploaded
Srikakulam	39	405287	376548
Vizianagaram	54	607046	578701
Visakhapatnam	57	589808	559914
East Godavari	64	589740	564095
West Godavari	51	446860	416858
Krishna	61	300707	268343
Guntur	59	469600	440028
Prakasham	56	468400	439413
SPS Nellore	72	542309	522127
YSR	57	291778	272214
Kurnool	97	919535	890920
Ananthapuramu	68	874038	851686
Chittoor	76	368534	347967
TOTAL	811	6873642	6528814

