

**GOVERNMENT OF ANDHRA PRADESH
WATER RESOURCES (GEN.1) DEPARTMENT**

U.O.Note.No.1559690/Gen-1/2018**Dated 26/09/2018**

Sub	W.R. Department - Annual administrative reports for the year 2017-18 of the Heads of Departments under the control of Secretariat Departments – Furnishing of report – Requested – Reg.
Ref	<ol style="list-style-type: none"> 1. From the GAD U.O.Note No.GAD01-PUoMISC/ (NINI)/11/2018-PU-A, dated 25-7-2018. 2. From the ENC(IW) letter No.ENC/SE(P&M)/EE-II/DEE6/AEE2/Misc, dated 12-09-2018

The attention of the General Administration (PU.A) Department is invited to the reference 1st cited. A copy of the Annual Administration Report for the year 2017-18 in respect of Water Resource Department is sent herewith. They are also informed that the Annual Administration Reports for the remaining periods 2014-15, 2015-16 and 2016-17 years will be sent soon after receipt of the same from the ENC.

SHASHI BHUSHAN KUMAR, IAS**SECRETARY TO GOVT**

To
✓ The General Administration (PU.A) Department (we)

//FORWARDED :: BY ORDER//

A. Soukha Roy
SECTION OFFICER

E Receipt No:
Date: 27/9/2018
Section: PUA
Signature:

Signature valid

Digitally signed by Shashi
Bhushan Kumar
Date: 2018.09.26 09:26:17 IST
Reason: Approved

From
Sri.K.Srinivas,M.Tech.,MIE.,MIGS.,
Engineer-in-Chief (IW),
Water Resources Department,
Government of Andhra Pradesh,
48-10-9/1, NH Feeder Road,

TO
The Secretary to Government,
Water Resources Department,
4th Block, 1st Floor
A.P. Secretariat, Velagapudi
AMARAVATHI.

Lr.No.ENC/SE(P&M)/EE-II/DEE6/AEE2/Misc

Dated:12-09-2018

Sir,

Sub: Water resources Department - Annual Administration Reports for the
year 2017-18- Submitted -reg

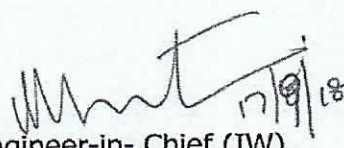
Ref: GoAP/WR (Gen-I) Department /Memo No.1559690/Gen.I/2018-1
Dt:26.07.2017

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With reference to the above the Annual Administration Report for the year
2017-18 is here with submitted as desired.

Encl: as above

Yours faithfully,
K.Srinivas
Engineer-in- Chief (IW)


for Engineer-in- Chief (IW)

**ANNUAL ADMINISTRATION REPORT OF WATER RESOURCES DEPARTMENT FOR
THE YEAR 2017-18**

Andhra Pradesh is blessed with 40 Major, Medium and Minor Rivers, out of which Godavari, Krishna and Penna are prominent Rivers. There are 40,817 Minor Irrigation Tanks (3,573 Tank Cascades), 15.35 lakh bore wells, 1132 LI schemes, 64,122 Check dams, 61,834 Percolation tanks, 6.48 lakh farm ponds in the State providing water wealth to the State.

The rainfall in the State varies from 496.6 mm in Anantapuramu to about 1217 mm in North Coastal districts with average annual rainfall of 966 mm. Rainfall is erratic and not uniformly distributed. Drought is a recurring phenomenon in the State alongside frequent episodes of floods and cyclones. At the same time, surplus water is going into the sea from River Godavari. The average annual flow into the sea from Godavari river is about 2500 TMC. In this background, Government contemplated inter and intra linking of rivers to transfer water from surplus basins to deficit basins.

With the increase in population, growing urbanization and industrialization, the demand for water for various purposes is increasing steadily. To meet the growing demands, Government is taking a mission based approach with long term vision.

1. Functions of the Department

1. Hydrological assessment of availability of water in the river basins including water allocation to the Irrigation and other purposes duly assessing the availability in the basin.
2. Planning & design of Irrigation systems.
3. O & M of reservoirs and canal systems.
4. Construction of new projects to create irrigation potential for economic development of the State.
5. Stabilization of existing ayacut by rehabilitation of the age-old projects.
6. Modernization of age old Major & Medium Irrigation projects.
7. Improve water management and efficiency by integrated and coordinated and implementation of operation and maintenance plans for existing Irrigation projects.
8. Flood management.
9. Restoration and maintenance of flood banks.

10. Irrigated area assessment and assessment of water royalty charges for industrial and other utilization.
11. Presentation of data & analysis on water availability of Interstate river basins to the respective tribunals.

2. Organisation Setup of the Department

At Secretariat level, the policies, the administrative matters budget and financial matters are being dealt by Principal Secretaries and Secretaries with the assistance of Joint Secretaries etc. There are 3 posts of Engineer-in-Chief in the Water Resources Department. The Engineer-in-Chief, Administration is in charge of overall administration of the Water Resources Department. The Engineer-in-Chief, Irrigation looks after all the technical matters of the department coordinating all the Chief Engineers. The Engineer-in-Chief, Polavaram Irrigation Project, is looks after the National Project, Polavaram.

There are 20 Chief Engineers functioning in the department looking after the various projects including one Chief Engineer in the cadre of Joint Secretary.

The Superintending Engineer is in charge of a circle. The Superintending Engineers who are working under the concerned Chief Engineers are the regional Officers in charge of a circle and their jurisdiction may cover more than one district in some cases. The Executive Engineer is in charge of a Division in a district and is in charge of construction and maintenance of all Irrigation works in the division. The Deputy Executive Engineer is in charge of a Sub – Division and in charge of Construction and maintenance of Irrigation works under Sub Division Jurisdiction and works under the control of the Executive Engineer. The Assistant Executive Engineer/Assistant Engineer is in charge of the construction and maintenance of Irrigation works within the Section and works under the control of Deputy Executive Engineer.

The department is also having quality control in order to ensure the quality of work and to prevent.

Cadre Strength of the Department is as follows

S.No	Designation	Sanctioned Strength
1	Engineers-in-Chief	3
2	Chief Engineers	20
3	Superintending Engineers	52
4	Executive Engineers	267
5	Deputy Executive Engineers	943
6	AEEs and & Asst. Engineers	3416
	Engineering cadre Total	4701
7	Circle scale Technical Staff	1430
8	Circle scale Ministerial Staff	7157
9	Work Charged Establishment	4800
	Grand Total	18088

APSIDC

Andhra Pradesh State Irrigation Development Corporation Limited was incorporated as a Company under the provisions of Companies Act 1956 and started functioning w.e.f. 07.09.1974. The Company affairs are administered by the resolutions passed by the Board of Directors appointed by the Government of Andhra Pradesh. The Joint Managing Director is the Chief Executive of the Company supported by Departmental Heads in Technical, Finance and Administration Departments.

Basically, it is an Engineering organization entrusted with execution of Lift Irrigation Schemes, Ground Water Schemes (Tube wells & Bore wells) all over the

State. The Administrative control of the APSIDC, hitherto under the control of PE Department for the purpose of restructuring, was re-transferred to the respective Administrative Department of Secretariat (Water Resources Department) vide G.O Ms.No:37 of Public Enterprises –II Department, Dt:07-09-2001.

The Government (SR) Department has directed to divide the Andhra Pradesh State Irrigation Development Corporation Limited and to start functioning as two separate entities on and from the appointed day. Accordingly the APSIDC has created two distinct State Units within the entity and started functioning as two separate units from the appointed day i.e., 02-06-2014. The Expert Committee headed by Dr Sheela Bhide, IAS (Retd.) has approved the final demerger proposal of APSIDC and the proposal for apportionment of employees between APSIDC and TSIDC as on 02-06-2014.

At present, the Corporation is functioning with three Circles, 06 divisions and 02 Project Offices in the A.P. State and their Head Quarters have been fixed depending upon the work load.

The Superintending Engineer is in charge of a Circle and the Superintending Engineer who is working under the control of Joint Managing Director and their jurisdiction may cover more than one District. The Executive Engineer is in-charge of a Division in a District and is in charge of construction and commissioning of all Lift Irrigation Scheme works in the Division. The Deputy Executive Engineer is in charge of a Sub-Division and in-charge of construction and commissioning of Lift Irrigation Schemes under Sub-Division jurisdiction and works under the control of the Executive Engineer. The Assistant Executive Engineer/ Assistant Engineer are in-charge of the construction and commissioning of Lift Irrigation Schemes within the section and works under the control of Deputy Executive Engineer.

The Social Engineering Cell headed by the Senior Geophysicist with Hydrologist, Assistant Geophysicists and Assistant Hydrologists are presently looking after the Social Engineering activity of Lift Irrigation Schemes i.e., capacity building of the farmers (beneficiaries) as the ground water activity is dispensed by APSIDC from 1996 onwards.

Groundwater

Ground water has emerged as key resource in the irrigation sector of Andhra Pradesh providing irrigation facility to 41% of gross irrigated area in the state. The Ground Water and Water Audit Department is playing a crucial role in the development, management and conservation of the precious resource in the state.

The Ground Water Department was established in 1971 for evaluation of Minor Irrigation schemes for well sinking and energization of wells with pump sets in the state as per the agreement entered by the Government of India with the World Bank for financing Minor Irrigation schemes. Later on the department is entrusted with the responsibilities of providing scientific inputs for exploration, assessment, monitoring, augmentation and regulation of ground water resources in the state.

The Ground Water Department was renamed as Ground Water and Water Audit Department in 2014 and kept under the administrative control of Water Resource Department. The department has Directorate, headed by the Director and constitutes 13 district offices headed by Deputy Directors and 2 offices headed by Assistant Director.

The main functioning of the Department :

- Estimation of groundwater resources periodically in the State with groundwater basin/watershed concept and according clearances for minor irrigation schemes.
- Detailed investigations for delineation of potential zones and for selection of sites for construction of wells by Developmental Agencies and Individuals.
- Investigations for identification of feasible areas and suitable structures for artificial recharge measures to be implemented under Watershed and other programmes.
- Monitoring of groundwater levels and quality through network of observation wells and improved network of purpose built piezometers with Automated Digital Water Level Recorders.
- Drilling of exploratory-cum-production bore/tube wells.

- Special studies for evaluation of the groundwater regime through modern tools like aerial photos, satellite imagery, GIS etc., for development and management of groundwater resources and to prioritize areas for recharge measures and for implementing regulatory measures under Andhra Pradesh Water, Land and Trees Act (APWALTA).
- Monitoring and disseminating the Real Time ground water levels through CM dashboard for the utility of different stake holders, Planners and Academicians.
- Development of decisions support system for the determination of best groundwater management and recharge techniques for reversing the declining trend of groundwater table in different geomorphic and geological units in the State (748 micro basins).
- Conjunctive use study in command areas of Tungabhadra Project Complex, LLC., KC Canal, Srisailem Right Branch Canal.

Ground Water investigations in different parts of the state are carried out by technical officers under the supervision of 13 offices of Deputy Directors at Srikakulam, Vizianagaram, Visakhapatnam, Rajahmundry, Eluru, Vijayawada, Guntur, Ongole, Nellore, Chittoor, Kadapa, Ananthapuramu and Kurnool.

To monitor the groundwater management in command area under Tungabhadra Projects and SRBC, the O/o the Deputy Director is functioning at Kurnool and O/o the Assistant Director at Nandyal respectively. The Deputy Director is in charge of the District Office and assisted by Assistant Hydrogeologists, Assistant Hydrologists, Assistant Geophysicists, Technical Assistant (Hg), Technical Assistant (H), Technical Assistant (GP) assist the Deputy Directors and Assistant Directors in Technical matter. Administrative Officers and/ or Superintendents assist the Deputy Directors in Administrative and Accounts matters. Total 650 posts were sanctioned of which 337 are filled (52 %) and 313 (48 %) are vacant.

3. Budget and Expenditure:

The Capital and Revenue Budget and Expenditures details of Irrigation Projects are as below

Year	Description	Budget (Rs. in Crores)	Expenditure (Rs. in Crores)
2017-18 (upto March 2018)	Capital	12097.01	8148.01
	Revenue	673.25	584.73
	APWRDC vide G.o.Ms.No.86 Dt:06.08.2018		3194.28
	Total	12770.26	11927.02

Physical and Financial Achievements

The achievements for the year 2017-18 in Major, Medium, Minor and APSIDC are appended below.

S.NO	Description	Target for 2017-18 in acres	Achievements for 2017-18 in acres
1	Major and Medium Irrigation (New)	5,19,300	81,928
2	Major and Medium Irrigation (Stab)	3,25,056	4,45,000
3	Minor Irrigation (Bridging gap ayacut)	3,03,000	1,61,000
4	APSIDC (New)	46,722	30,000
5	APSIDC (Stab)	88,601	71,000

The New Irrigation Potential created under Major & Medium Irrigation projects during 2017-18 is 0.82 Lakh Acres under the following projects.

Sardar Gouthu Lachanna Thotapally Project	-	17,778 Acres
Pushkara Lift Irrigation Scheme	-	2,044 Acres
Tadipudi Lift Irrigation Scheme	-	4,000 Acres
Kandula Obulareddy Gundlakamma Project	-	8,928 Acres

Somasila Reservoir	-	560 Acres
Handri Neeva Sujala Sravanthi Phase- I	-	6,000 Acres
Galeru Nagari Sujala Sravanthi	-	500 Acres
Gandikota Lift Irrigation Scheme	-	2,100 Acres
Siddapuram Lift Irrigation Scheme	-	8,000 Acres
CBR Right Canal	-	24,538 Acres
Pogonda Reservoir	-	4,000 Acres
Anicut across Sarada River	-	3,480 Acres
Total	-	81,928 Acres

Water Management during 2017-18:

Area irrigated in both Khariff and Rabi seasons in 2017-18

(Ayacut in Lakh Acres)							
S.No	Year	Agriculture			Water Resources Department		
		Khariff	Rabi	Total	Khariff	Rabi	Total
4	2017-18	88.71	56.80	145.52	83.57	30.22	113.80

4. POLICIES:

Reform Measures and Policy Initiatives

As Irrigation is a State subject, states have the autonomy to evolve and constitute institutions appropriate to local conditions reflecting the predominant ideological, political and regional demands. The Irrigation Reforms in Andhra Pradesh followed a path setting trajectory containing several significant measures culminating in crucial outputs. To identify the factors and regions of imbalance, assess sustainability options, classify long time trends to identify State requirements and interventions based on the type of risks and potential involved for generating informed interventions, evaluate both spatial and socio-economic potential planning points to generate seperate plans for required interventions.

1. Andhra Pradesh State Water Policy (2009)

The State Water Policy is intended to identify and specify the common framework and broad guidelines within which the water sector is to be managed and developed. The policy outlines the current areas of concern, basic approaches, suggests reform measures and identifies priorities, goals and sets the vision guiding irrigation sector in the State of the Andhra Pradesh.

The Water Policy sets the tone and tenor of water management in the State and together with the Andhra Pradesh Farmer's Management of Irrigation Systems Act, 1997, CAD Act, 1980 and the Andhra Pradesh Water Tax Act, 2002 delineates the broad scope, parameters and rules governing the water resources management in the State. The policy contains six sections spelling out the need, objectives, strategies, approaches and implementation arrangements for water resources management in the State.

Objectives

- Ensuring of water security to the population
- Managing demand for water, a finite and increasingly diminishing resource for drinking, irrigation, industry and power supply
- Improving and safeguarding existing drinking water supplies, managing water for irrigation, industry, power supply and environmental sustainability and prevention of pollution along with issues like development of new.
- Maintenance and operation of existing infrastructure, pollution, over-abstraction and unplanned development, water logging, salinization, increasing toxic elements, are the main challenges and issues of concern for the State.
- Building of an enabling environment, implementing of participatory and capacity building tools, through the integration of new management tools and systems such as the integrated data systems, water demand management and a new communication system as being the key areas of focus.

- Improving water management and efficiency by integrating efforts of related institutions, encouraging participation and involvements of users, progressive re-engineering and re-orientation of institutions, practices and processes, institutionalizing service charging for water, improving infrastructure, services and utilization efficiency for a holistic and optimal development, management and operation of infrastructure.
- Improving the availability, efficiency and productivity of irrigation through outcome oriented institutional and investment activities, realizing optimum irrigation potential of irrigation projects, sustainable use of ground water by improving performance of irrigation projects through involvement of primary stakeholders.
- Maintain and sustain ecological balance by conserving and protecting water bodies and wet lands through regulation and enforcement of standards.

Water Use Priority

- Drinking water
- Irrigation
- Hydro-power
- Ecology
- Industries
- Tourism and recreational uses
- Ports and Inland navigation
- Strategy

Water Management focused on taking appropriate cost effective delivery of water resources, rehabilitation, modernization operation and maintenance of infrastructure and a pro user participation legal environment, promotion of modern management practices for development of appropriate information analysis, communication, bench marking and auditing systems.

Use of appropriate modern technology like modern computer hardware and software, modern knowledge base, interactive decision support systems, data and voice communication systems, internet use, improved information flow

arrangements, effective targeted research and knowledge partnership, moving towards 24X7 urban and rural drinking water supply, prevention of water pollution, conservation of water by reducing losses in evaporation, conveyance and distribution of water, flood, drought and land erosion management as the special focus areas of the policy.

Establishment of regulatory institutions, Strengthening of Water User Organizations with greater responsibilities in management of water and irrigation infrastructure, Restructuring and capacity building of the existing Water Resources Department and other water sector organizations identified as main institutional arrangements for operationalizing the policy objectives.

2. Andhra Pradesh State Rehabilitation and Resettlement (R & R) Policy (2005)

The Andhra Pradesh State R&R Policy 2005 for giving more benefits to the displaced families, as compared to National R&R Policy is being implemented for the early acquisition of lands etc., for the ongoing projects by paying appropriate compensation to the ryots for their lands and houses and the rehabilitation works are in progress.

3. Andhra Pradesh Water Resources Regulatory Commission

Andhra Pradesh Water Resources Regulatory Commission Act is enacted and published in the gazette on 09-09-2009. Government has appointed 01-08-2010 as the date on which the provisions of Act came into force. Commission is yet to be constituted.

4. Water Management Committee (WMC)

Sectoral approach and fragmentation of water resources development between various departments has been the bane of efficient water resources development often leading to its sub-optimal utilization. Conventional departmental divisions and resultant policy duplication and cross-cutting programmes, increases expenditure, undercut's outputs and impacts effective action negatively. The diverse uses, objectives and interests of water use and management departments have

often led to sub-optimal utilization and inefficient exploitation. Taking cognizance of the significance of coordinated action for improved water management a Water Management Committee (WMC) has been constituted as an apex body at the State level competent to take decisions on policy and reforms, regulation and performance and convergence on water related issues.

Objectives

The WMC represents the evolving of the irrigation management towards establishment of more effective and efficient management structures in place to prepare the sector for future demands and requirements. It also aims to affect interdepartmental co-ordination for synergy in their respective plans and operations.

Composition

The Chief Secretary to the Government of Andhra Pradesh is to be the Chairperson and the Principle Secretary (Irrigation) & Commissioner CADA are to be the convener of the Committee. The other members include Principal Secretaries of the concerned Departments, Secretaries of Water Resources Department, concerned Engineers-in-Chief, Chief Managing Director, AP GENCO, Engineer-in-Chief (IW) and Director, Ground Water Department. The CAD & WM Wing of the restructured / renamed Water Resources Department provides technical support to the Water Management Committee.

Functions

Policy / Reforms

- Review implementation of the State Water Policy.
- Setting guidelines and review of institutional reforms for efficient water resource management for the various water user departments.
- Setting guidelines for research and analysis in water resource management for future policy formulations and reform.

Regulation and Performance

- Fixing rates for various water uses.

- Setting guidelines and development of water management plans for the various water user departments.
- Fixing norms for quality on water related infrastructure and services.
- Setting norms for water quality and water pollution, especially related to industrial waste water.
- Fixing norms and procedures for operation and maintenance of water resources infrastructure both by departments and user organizations.
- Fix norms for apportionment of water tax and royalties collected by Irrigation Department to various agencies for O & M of irrigation systems.
- Setting guidelines and review conjunctive use of ground water and surface water in command areas.
- Setting guidelines and review managing water logging/salinity problems including salinity ingress.
- Fixing norms and review performance of the Technical Group.

Convergence

- Setting guidelines and review harmonizing existing policies, executive orders and rules related to water resource management issued by different departments.
- Setting guidelines and review harmonizing water management plans for the various water user departments.

5. Command Area Development (CAD) Committee

Government has constituted CAD Committee vide G.O.Ms No. 21 (I&CAD Genl. IV.1) Department dated: 05-03-2010. This committee reviews and monitor of O&M Works, budget and ayacut development under Irrigation projects.

The committee will approve the action plans of O&M and deferred Maintenance works in each of the project under plan & non plan.

6. Apex Committee

The Government has constituted Apex Committee vide G.O.Ms No.197 Water Resources (CAD) Department, dated: 03-11-2015 to lay down the policies for

implementation of the provisions of the Andhra Pradesh Farmer's Management of Irrigation System Act, 1997 and to give such directions to any Farmers Organization, as may be considered necessary, in exercising their powers and performing their functions in accordance with the provisions of the Act.

7. Expert Committee

The Government has constituted Expert Committee vide G.O.Ms.No.198 Water Resources (CAD) Department, dated: 06-11-2015 to study the APFMIS Act and its implementation in Andhra Pradesh, to take up field study on the performance of WUAs and maintenance of Water Bodies in Andhra Pradesh and in other States, to suggest the ways of strengthening the WUAs in the State and to recommend any changes required in the APFMIS Act, 1997.

5. Vision of the Government:

Drought is a recurring phenomenon in the state alongside floods. In this background, Government contemplated inter and intra linking of rivers. The vision of the Government is to make the State drought proof and provide water security to all its citizens for drinking water, irrigation and industrial needs with multi pronged approach. The measures taken by the Government are

- Adopting water conservation measures under water conservation mission
- Completion of all ongoing Projects
- Taking up new Projects
- Interlinking of rivers
- Adopting micro irrigation techniques like drip and sprinkler irrigation
- Water audit and Integrated water management by conjunctive use of surface water and ground water
- Providing protective irrigation during dry spells by using rain guns.

6. Status of Irrigation :

Total Geographical area	:	402.70 Lakh Acres
Total Cultivable Area	:	199.04 Lakh Acres
Irrigation Potential Created	:	104.61 Lakh Acres
Balance Cultivable Area	:	94.43 Lakh Acres

New ayacut to be created with ongoing Projects : 31.66 Lakh Acres

The irrigation projects are classified based on the irrigated ayacut under the projects.

Major Irrigation Projects	- Ayacut above 25000 Ac (10,000 ha.)
Medium Irrigation Projects	- Ayacut above 5000 Ac up to 25000 Ac (10000ha.)
Minor Irrigation Projects	- Ayacut up to 5000 Acres (2000 ha)

In addition, the Department is also in charge of Command Area Development works, Flood Control and Drainage works in the State. For the early completion of ongoing projects and to modernize the existing Irrigation Projects in the State financial assistance is being received from Rural Infrastructure Development Fund (RIDF), (NABARD), JICA (Japan International Co-operation Agency), Accelerated Irrigation Benefit Programme (AIBP) and World Bank assistance in addition to the State Development Plan.

Major and Medium Irrigation Projects

In order to utilize the available water to the maximum extent possible for irrigating the entire cultivable command area in the State, Government of Andhra Pradesh has taken up 58 No.s of Major & Medium Irrigation Projects amounting to Rs.1,02,82,909.00 Lakhs from 2004 onwards, which comprises 29 No.s of major, 18 No.s of medium, 4 No.s of flood banks and 7 No.s of modernization works.

Out of 58 Projects, 13 No.s of Projects were completed, 45 No.s of Projects are ongoing. Out of 45 No.s of ongoing Projects, 17 No.s are giving partial ayacut. From the 13 No.s of Completed Projects and 17 No.s of ongoing Projects (which are giving partial ayacut) and old Projects the New Ayacut created is 15.69 Lakh Acres and ayacut stabilized is 19.09 Lakh Acres.

The total Irrigation Potential contemplated under these projects is 72.63 Lakh Acres (i.e., 48.42 Lakh Acres New and 24.21 Lakh Acres Stabilization). The works on Flood Banks and Modernization Projects are in progress.

Land Acquisition is a major hurdle in construction of irrigation projects. For speedy completion of land acquisition required for various projects consent awards are being passed after discussions with the land owners. An extent of 2.15 Lakh Acres of land was acquired and the balance land to be acquired is 0.43 Lakh Acres.

Regarding status of R&R, the R&R works are to be implemented in 21 Projects. The total number of affected habitations is 552 in 21 Projects. Out of 21 Projects, the R&R works are completed in 7 Projects and partially completed in 2 Projects. R&R works in 8 Projects are in progress. R&R works in 4 projects are yet to be started.

7. PROGRAMS AND SCHEMES:

On Going Prioritized Projects:

In view of the State's financial position, 7 projects were identified as prioritized projects by Government and determined to complete early to benefit all regions in the State.

The prioritized projects are

- 1) BRR vamsadhara Project (Stage II- Phase II)
- 2) Thotapalli Barrage project
- 3) Polavaram Irrigation Project
- 4) Poola Subbaiah Veligonda Project
- 5) Kandula Obul Reddy Gundlakamma Reservoir
- 6) Handri Neeva Sujala Sravanthi Project
- 7) Galeru Nagiri Srujala Sravanthi

1. BRR VAMSADHARA PROJECT (STAGE II- PHASE II)

The project is being constructed on Vamsadhara river and it consists of construction of side weir at Katragadda to divert the flood water of Vamsadhara river for filling Hiramandalam reservoir (19.05 TMC capacity) connected through a flood flow canal of 33.70 kms. The scheme is intended to create an IP of 20,000 acres

under flood flow canal, 5,000 acres under high level canal of Hiramandalam reservoir and 20,000 acres under right main canal.

Main Objectives of the Project :

- This project is being constructed on Vamasadhara River. Revised administrative sanction is for Rs 1616.23 crores.
- Vamsadhara project stage-I, phase-I was completed and 2,10,510 acres of Ayacut is created.
- The ayacut under Stage-II, phase-II is 45,000 acres .
- Two stages together create irrigation facility to 2,55,510 acres.
- Phase-II of Stage-II works are partially completed and 4000 cusecs of water can be drawn through flood flow canal and 8 TMC can be stored in Hiramandalam Reservoir now .
- 1.20 TMC water is stored in Hiramandalam reservoir so far .
- This project is proposed to be completed by 12/2018.

2. Sardar GouthuLatchannaThotapalli Project

Thotapalli Barrage was constructed across Nagavali River near Thotapalli village of Gurugubilli mandal in Vizianagaram district. The reservoir capacity is 2.509 TMC. The project is providing Irrigation facilities for 1,20,000 acres of new ayacut and stabilizing 64,000 acres of ayacut in Vizianagaram & Srikakulam districts. This project was inaugurated by the Hon'ble Chief Minister Sri Nara Chandrababu Naidu in September 2015. Revised administrative approval accorded for Rs 774.90 crores.

- Foundation stone was laid in the year 2003 and the project is inaugurated by the Hon'ble Chief Minister Sri Nara Chandrababu Naidu garu on 10-09-2015.
- Thotapalli barrage project is named after the great freedom fighter: "Sardar Gouthu Latchanna " and is named as Sardar Gouthu Latchanna Thotapalli barrage project.
- 1,20,000 acres of new ayacut is created under this project.
- New ayacut of 1 LakhAc.is created and 64,000 Ac. is stabilized. 444 Minor irrigation tanks were filled and water is supplied to last year.

3.POLAVARAM IRRIGATION PROJECT

- The Hon'ble Chief Minister has given thrust to the progress of the Polavaram Project works by making weekly reviews and works are being carried out on war footing basis.
- At present, many Sophisticated and Heavy Machinery and equipment have been deployed at site and the pace of work has been accelerated. In addition to the Heavy machinery worth 1500 Crs deployed at site, every day about 5000 people are working at Dam site.
- Dam Design Review Panel has been formed by MoWR, New Delhi to review and issue guidelines for early approval of designs and already 6 design review meetings were conducted since July, 2016. The meetings were also conducted at Dam site for onsite approvals.
- Hon'ble Chief Minister has inaugurated the Concrete works of Spillway on 30th Dec 2016. About 1055 lakh cum of Earthwork is involved in the Project and so far 70% of the work is completed. M/s Thriveni Earth movers has deployed very huge excavators and dumpers at site and on the average 2.0 Lakh Cum of excavation is carried out per day.
- Spillway at Polavaram Dam is designed to discharge 50 Lakh cusecs of water through 48 nos of radial gates of size 16 x 20m. Fabrication of Gates is done at work site and so far 20 Gates out of total 48 gates are completed.
- 57.90% work completed. The project is scheduled to be completed by 2019
- **Right Main Canal:** Polavaram Irrigation Project Right Main Canal is intended to provide irrigation facilities to an extent of 3.20 lakh acres and drinking water facility to 253 enrouting villages in West Godavari and Krishna Districts besides diversion of 80 TMC of river Godavari Flood Water to river Krishna.
- **Left Main Canal:** Polavaram Irrigation Project Left Main Canal is intended to provide irrigation facilities to an ayacut of 2,50,000 acres in E.G. District and 1,50,000 acres in Visakhapatnam District . Works in all the packages of LMC are in progress The Government is very keen to complete the works of Polavaram Irrigation Project Left Main Canal upto 50 kms by July 2017 and the entire length by June 2018.

PATTISEEMA LIFT SCHEME:

Every year thousands of TMC of Godavari flood water flows into the Bay of Bengal. Since the Polavaram Dam is still under construction and takes some more time to complete, the Government decided to divert 80 TMC of Godavari Flood water into River Krishna. To achieve early benefits of Polavaram project duly protecting existing utilization, including Godavari Delta System, this Pattiseema lift scheme was envisaged. The water thus lifted at Pattiseema is diverted into River Krishna through Polavaram right main canal. This project is completed and protected the Ayacut of 13.08 lakh acres of Krishna Delta System.

This Godavari flood water thus lifted will be utilized in Krishna Delta and the water saved in Krishna river will be diverted at Srisaillam to cater to the needs of drought prone Rayalaseema districts. The link of two main rivers "Krishna – Godavari Pavitra Sangamam" came into reality with the strong determination of the Hon'ble Chief Minister and it has shown a clear path and direction to the country on river linking. Total Project Expenditure incurred on the scheme is Rs. 1646.81 Crores

Main Objectives of the Project:

- Date of laying of foundation stone 29.03.2015
- Dedicated to the Nation: 15.08.2015
- First pump inauguration: 16.09.2015
- Date of merging of Krishna and Godavari at Pavitra sangamam: 16.09.2015
- Pattiseema scheme completed : 27.03.2016
- Water released to Khariff-2016 : 06.07.2016
- By completion of PLIS the dream of national interlinking of rivers came into reality.

4. POOLA SUBBAIAH VELIGONDA PROJECT:

This project takes off from Kollamvagu foreshore on right bank of Srisaillam reservoir near Markapur in Prakasam district. This project is contemplated to provide irrigation facilities to about 4.47 lakh acres and drinking water facilities to 15.25 lakh people in drought prone fluoride affected mandals of Prakasam, Nellore and Kadapa Districts by utilizing 43.50 TMC of Krishna river flood water by gravity. The main components of this project consists of providing of two tunnels across

Nallamala hills, one with 7 metres diameter and the other with 9.2 m. The length of each tunnel is 18.80 kms. The water flow by gravity through two tunnels in the Nallamala hill ranges to Nallamala sagar reservoir for the proposed ayacut.

Main Objectives of the Project :

- On orders of the then Hon'ble Chief Minister Sri Nandamuri Taraka Rama Rao garu, Sri Siva Ramakrishnaiah garu had submitted project report.
- Foundation stone was laid in the year 1996 by Hon'ble Chief Minister Sri Nara Chandrababu Naidu garu.
- Key feature of this project is providing of two major tunnels with a length of 18.820 Km (tunnel-1) and 18.838 km (tunnel-2)
- Administrative approval accorded for Rs 5150 Crs The Cumulative expenditure is 4415 Crs. Total percentage of work done 69.72%
- By constant monitoring and inspection, the tunnel boring work of tunnels is being expedited. Balance length in Tunnel -1 is 4.48 Km and Tunnel-2 it is 8.313 km
- The work of providing head regulator at Kollamvaagu upstream side of SLM Dam was entrusted to R.K Infra Corporation private Ltd and the work is commenced.
- Overall, 81% work is completed.
- It is programmed to complete the work of one tunnel by January 2019 and the entire project by May, 2019.

5. KANDULA OBULAREDDY GUNDLAKAMMA RESERVOIR PROJECT

Gundlakamma reservoir was constructed across Gundlakamma river near Chinna Mallavaram village in Maddipadu mandal in Prakasam district. The project is intended to provide irrigation facilities for 80,068 acres in Prakasam district and supply of drinking water for 2.56 lakh people in 43 villages. The scheme is sanctioned administrative approval for Rs 753.833 .The cumulative expenditure is Rs 627.80 Crs. 93.35% of work is already completed.

✓ Main Objectives of the Project :

- Foundation stone was laid by Hon'ble Chief Minister Sri Nara Chandrababu Naidu on 19.11.2003.
- This Project is proposed on river Gundlakamma at Chinna Mallavaram village.
- Gundlakamma reservoir consists of 3 earthen banks and one spillway portion.
- Total capacity of reservoir is 3.859 TMC.
- The project is partially completed and an ayacut of 60,000 acres already created, on completion additional ayacut of 20000 Acs will be created
- It is programmed to complete the work by September, 2018.

6. HANDRI-NEEVA SUJALA SRAVANTHI

The HNSS project is contemplated to provide irrigation facilities to 6.03 lakh acres in the four districts of Rayalaseema i.e. Kadapa, Kurnool, Chittoor and Anantapur and supply of drinking water to about 33 lakh people, utilizing 40 TMC of flood water from the Krishna river. This project is intended to lift and deliver the required water from 256 m to 750 m in different stages.. The main canal length is 565 kms. The crucial part of the scheme involves lifting of water in 8 stages in phase-I main canal and 4 stages in phase-II main canal with a total lift height of 369.06 m, excavation of 5 tunnels for a total length of 13.05 kms and formation of 8 balancing reservoirs.

Under HNSS scheme from Km (-) 1.150 to 216.30 the canal is proposed for widening to carry the discharge and is designed as unlined canal and the scheme is administratively sanctioned for Rs 1030.0078 Crs and is divided into three packages. The work is in brisk progress and 33% of total work is completed in package-1, 32% of total work is completed in package-2 and 20% of total work is completed in package-3.

Main objectives of the project :

- This project foundation stone was laid by the then Hon'ble Chief Minister Sri Nandamuri Taraka Rama Rao garu in the year 1988.
- This project is one of the Major lift irrigation Project in Asian Continent.
- The length of main canal is 565 km.

- Main feature of this project is lifting of water to a height of 292 m in phase-1 and to a height of 76 m in phase- II through 4 lift irrigation schemes.
- This year, record quantity of 37.32 TMC of water is lifted. This is made possible only because of completion of Pattisam Lift Scheme, which catered to the needs of Krishna Delta and the water thus saved could be used in HNSS and other Rayalaseema Projects. Water is supplied to 30,000 Ac. direct ayacut and supplementation to 35,000 Ac. ayacut under TBP HLC system. Water is also supplemented to 2,00,000 Ac under Minor Irrigation tanks, apart from recharging 36,000 bore wells. 5.255 TMC of water is supplemented to KC Canal.
- Water is released from Jeedipalli reservoir to Gollapalli Reservoir on 02-12-2016 and water is supplied to 33 MI tanks in this area.

7. SKD GALERU-NAGARI SUJALA SRAVANTHI:

GNSS project is envisaged to draw 38 TMC of flood water of Krishna river from the foreshore of Srisailem reservoir to provide irrigation facilities to an extent of 4.79 lakh acres in the districts Kadapa, Chittoor and Nellore, besides providing drinking water facilities to a population of 5 lakh people living in 610 villages and towns enroute the canal. The scheme is proposed to use flood water by gravity through Gorukallu, Owk and Gandikota reservoirs. This scheme administratively sanctioned Rs 5646.94 Crs and cumulative expenditure so far is Rs 5741.05 crores. So far 92% of total work is completed.

Gandikota Lift Irrigation Scheme stage-1 Pumping is commissioned by operating all the 10 Pumps & Motors on 11-1-2017. Water of 0.85 TMC is pumped to Paidipalem Balancing Reservoir, out of which 0.20 TMC of water is released to Himakuntla Sump and 0.27 TMC of water issued to Canals and Distributaries of GKLI scheme.

There are 5 Lifts from Gandikota Reservoir to Chitravathi Balancing Reservoir, out of which 4 lifts are commissioned on 11-1-2017. The bore wells near the Reservoirs are fully charged and the drinking water problem is solved. Most of the Orchards survived with this water.

Main Objectives of the Project :

- This project was proposed by the then Hon'ble Chief Minister Sri Nandamuri Taraka Rama Rao garu and designed by Dr. Sri Ramakrishnaiah garu.
- In the phase-II it is proposed to divert the water from Sarvarajasagar to Adavikothuru reservoir of Chittoor district.
- This scheme includes 7 lift irrigation schemes
- Under phase-I 35,000 acres of ayacut was proposed for irrigation.
- Main canal length is 334 km and it is enrouted through 11 balancing reservoirs
- Gandikota Lift Irrigation Scheme stage-1 : 0.34 TMC of water is supplied to Pulivendula Branch Canal and Sweet Citrus (Cheena) and Banana Gardens in 18,000 Acres are saved . Total benefits are estimated to about Rs.354 Crores.

57 Projects proposed for completion in one year:

As the scope of all ongoing and contemplated Projects is large, Government identified part of these Projects as low hanging fruits to achieve early benefits. In total, 57 Projects are identified to complete them in a time bound manner to reap early benefits. Out of these, 10 Projects are already completed and 7 Projects are ready for inauguration..

Inaugurated Projects:

1. Purushothapatnam LI Scheme.

- This Scheme taken up at a cost of Rs. 1638 Cr. is contemplated for lifting 30 TMC of Godavari Water into Polavaram Left Main Canal and to Yeleru Reservoir for creation of new ayacut of 1,47,386 Acres and stabilisation of 67,614 Acres and also meeting the Drinking water and Industrial needs of Visakhapatnam District.
- This Scheme facilitates inter linking of Godavari and Yeleru rivers.
- All 10 pumps in phase -I and all 8 pumps in phase-II are commissioned.
- Last year, 1.6 TMC of water was lifted.
- This year, 4.48 TMC of water is lifted so far.

2. Construction of anicut across Sarada River.

- This Project facilitates creation of new ayacut to an extent of 3,480 Acres.
- The Project was inaugurated on 6th September 2017.

3. Mutchumarri LIS.

- This scheme is taken up to supply water from Srisaillam Reservoir to KC canal and HNSS even the water level in Srisaillam is below MDDL.
- Water released on 02-01-2017 to KC canal and on 08-09-2017 to HNSS Project.
- During 2016-17, 1.336 TMC of water was lifted and supplied to KC canal ayacut.
- During 2017-18, 2.95 TMC of water was lifted.

4. Kandaleru Left Canal – Lift Scheme.

- This Project was inaugurated on 12.11.2017.
- This project stabilises an ayacut of 20,700 Acres in upland areas of Podalakur, Chejarla and Venkatachalam Mandals in SPSR Nellore Dist.

5. Gandikota – CBR Lifts

- This Project was inaugurated on 3rd January 2018.
- This project creates new ayacut of 24,000 Acres and stabilisation of 60,000 Acres.

6. Sri BuddaVengala Reddy Siddapuram LI Scheme.

- This Project was inaugurated on 7th January 2018.
- This project creates new ayacut of 20,300 Acres and stabilisation of 1000 Acres in 12 No. of Villages under Atmakur and Pamulapadu Mandals of Kurnool District.

7. Modernisation of Yerracalva.

- Yerracalava is widened to increase its carrying capacity from 5000 cusecs to 20250 cusecs to avoid inundation of villages and ayacut along the drain.
- This Project was inaugurated on 08.01. 2018.

8. Formation of Pogonda Reservoir in West Godavari Dt.

- This Project was inaugurated on 19th February 2018.
- This Project creates new ayacut of 4,000 Acres and stabilisation of 3,652 Ac.

9. SH-31 Road Work (GNSS Phase -I).

- As the existing road is coming under submersion in Gandikota Reservoir, this new road facilitates impounding of water in Gandikota reservoir.
- The work is completed and inaugurated on 06-06-2018.

10. Pulakurthy LI Scheme.

- This project stabilises 9,830 Acres in Kurnool District.
- The work is inaugurated on 23-08-2018.

Ready for Inauguration:

1. Pedapalem LI Scheme on Krishna River.

- This project creates new ayacut of 1830 Acres in Guntur Dt.
- Project is completed and proposed for inauguration on 19.09.2018.

2. Chinasana LI Scheme on VLMC.

- This project creates new ayacut of 2200 Acres in SrikakulamDt
- Project is completed and proposed for inauguration on 18.09.2018.

3. Gorukallu Balancing Reservoir (Sri NarasimharayaSagar):

- This reservoir is a Balancing reservoir with 12.44 TMC capacity to derive benefits under GNSS and SRBC systems. This project stabilises an ayacut of 1,90,000 Acres.

- Last year, 7.74 TMC of water was stored in the reservoir.
- Project is completed and proposed for inauguration on 13.09.2018.

4. Owk Tunnel:

- Owk Tunnel facilitates to deliver water to Gandikota Reservoir and from there to various reservoirs in Kadapa District to meet irrigation, drinking water and industrial requirements.
- Project is completed and proposed for inauguration on 13.09.2018.

5. Pulikanuma Lift Irrigation Scheme:

- This project stabilises an ayacut of 26,400 Acres. in Kurnool District.
- Project is completed and proposed for inauguration on 13.09.2018.

6. Pulichintala Project.

- Proposed for Inaugurationon reaching 30 T.M.C of Storage (30.09.2018)
- This project stabilizes an ayacut of 13,08,000 Acres under Krishna Delta System.

7. KondaveetiVagu Pumping Scheme:

- This Project saves the capital city from inundation by lifting of 5000 Cusecs of flood water of Kondaveetivagu and letting into River Krishna on U/s of Prakasam Barrage.
- Project is completed and proposed for inauguration on 10.09.2018.

Ongoing Projects

1. B.R.R.Vamsadhara Project Phase-II of Stage-II .

- This project creates new ayacut of 45,000 Acres and stabilization of 2,10,510 Acres.
- Phase-II of Stage-II works are partially completed and 2000 cusecs of water is being drawn through flood flow canal and Hiramandalam Reservoir is ready for storing 4 TMC of water now.
- 1.20 TMC water is stored in Hiramandalam reservoir so far.

- Proposed for inauguration on 31.12.2018 after completion of the total work.

2. Interlinking of Rivers Vamsadhara and Nagavali Rivers .

- This project creates new ayacut of 5,000 Acres and stabilization of 37,000 Acres.
- Work is in progress. Proposed for inauguration on 31.12.2018.

3. Offshore Reservoir Project On Mahendratana River.

- The work consists of excavation of Flood Flow Canal from Mahendratana river near Chapara village of Meliaputti (M), formation of proposed Offshore Reservoir with a storage capacity of 1.76 TMC at Regulapadu (V) and formation of canals taking off from the Reservoir to irrigate an ayacut of 24,600 acres.
- Work is in progress. Proposed for inauguration on 31.12.2018.

4. Taraka Rama Thirtha Sagaram Reservoir Project.

- The project consists of construction of barrage across Champavathi river near Kotagandredu (village), excavation of diversion canal, formation of Kumili reservoir and left and right main canals taking off from the reservoir to irrigate an ayacut of 24,710 acres including stabilization of 8,172 acres of wet ayacut under Denkadaanicut.
- Work is in progress. Proposed for inauguration on 30.06.2019.

5. Babu Jagjeevan Ram Uttarandhra Sujalasravanthi Project :

- Babu Jagjeevan Ram Uttarandhra Sujalasravanthi Project is contemplated for diversion of 63.33 TMC of surplus water from Godavari to the drought prone areas of Visakhapatnam, Vijayanagaram and Srikkulam districts to provide irrigation facilities to 8 lakh Ac. at an estimated cost of Rs.16,400 Cr.
- Administrative approval is sanctioned for Phase-1 for Rs.2022.20 Cr.
- Work is in progress. Proposed for inauguration on
- 30.06.2019.

6. KandulaObula Reddy Gundlakamma Reservoir Project:

- This project creates new ayacut of 80,060 Acres in Prakasam Dt.
- Already, 60,000 Ac. Ayacut is created. The balance ayacut will be created by Khariff 2018.
- Proposed for inauguration on 15.09.2018.

7. YerramChinnapoli Reddy Korisapadu Lift Irrigation Scheme:

- This project creates new ayacut of 20,000 Acres in Prakasam Dt.
- Work is in progress.
- Proposed for inauguration on 31.12.2018.

8. Nellore Barrage:

- This project stabilizes 1,00,000 Acres ayacut under Penna Delta System.
- Work is in progress. Proposed for inauguration on 15.10.18.

9. Sangam Barrage:

- This project along with Nellore Barrage stabilizes 2,59,387 Acres. under Penna Delta System.
- Work is in progress.
- Proposed for inauguration on 30.11.2018.

10 . Chintalapudi Lift Irrigation Scheme.

- This Scheme is intended to supply irrigation facilities to an extent of 2.00 lakh acres in upland areas of West Godavari District besides supply of drinking water to the enroute villages with an estimated project cost of Rs.1701 crores.. In Phase-I, 30% of work is Completed.
- The Scheme is modified to irrigate a total ayacut of 4.8 Lakh Acres by enhancing the discharge from 56 cumecs to 194.52 cumecs. The work is in progress.
- Two pumps are Proposed to be commissioned in
- September.
- Proposed for completion of the project on 28.02.2019.

11. Tunnel-I, II and Head Regulator of Veligonda Project .

- This Project is intended to utilize 43.50 TMC of water from foreshore on Right bank of Srisaillam Reservoir. This project is contemplated to provide irrigation facilities to about 4.47 lakh acres and drinking water facilities to 15.25 lakh people in drought prone fluoride affected mandals of Prakasam, Nellore and Kadapa Districts.
- To reap the ultimate benefits of Veligonda Project ,the key items i.e Tunnel-I ,II and Head Regulator are prioritized.
- 80 % of the work is completed in Tunnel –I, and 56% of work is completed in Tunnel –II. Head Regulator work is in progress.
- Head Regulator -Proposed date for inauguration 31.03.19
- Tunnel – I Proposed date for inauguration 15.01.19
- Tunnel – II Proposed date for inauguration 31.05.19

12. Lifting of water from Jeedipalli Reservoir to Bhairavanithippa

Project:

- The project is proposed to lift 3.70 TMC of water in 14 stages from Jeedipalli reservoir of HNSS project and to utilize 2.0TMC of water to feed the Bhairavanithippa project in Gummagatta Mandal and 1.70 TMC of water to feed 114 tanks in kalyanadurgam constituency.
- The ayacut contemplated under BhairavaniThippa Project is 12,000 Ac. and the ayacut under minor irrigation Projects is 10300 Acres.
- The civil works are grounded.
- The Proposed date for completion of the Project is 30.06.2019.

13 . Somasila – Swarnamukhi Link Canal :

This project consists of

- Construction of Rajupalem and Panguru combined Balancing Reservoir, Inletting 11 vagus into SSLC
- Improving Thodamanadu Tank to store 0.600 TMC , Improving Uranduru Tank to store 0.300 TMC.
- Work is in progress. Proposed date for inauguration is 31.12.18.

14. Adavipalli Reservoir & Adavapalli Lift under HNSS Phase-II:

- This project creates new ayacut of 80,000 Acres.
- Work is nearing completion. Proposed date for inauguration is 15.09.18.

15. Kuppam Branch Canal under HNSS Phase-II:

- This project stabilizes 6,300 Acres ayacut in Chittoor Dt. besides providing drinking water in the region.
- Work is in progress. Proposed date for inauguration is 02.10.18.

16. Gandikota Reservoir:

- This reservoir facilitates supply of water to various other reservoirs in Kadapa Dt. to meet irrigation, drinking water and industrial needs.
- The reservoir is completed and 8.27 TMC water is stored during last year.
- R&R work is being done to store 12 TMC of water.
- Proposed date for inauguration is 15.10.18.

17. Marala Reservoir:

- This project creates new ayacut of 18,000 Acres. The reservoir work is completed.
- Water will be supplied to this reservoir in Khariff season this year.
- Proposed date for inauguration is 30.09.18.

18. Cherlopally Reservoir:

- This project creates new ayacut of 5,500 Acres. The reservoir work is completed.
- Water will be supplied to this reservoir in Khariff season this year.
- Proposed date for inauguration is 30.09.18.

19. Madakasira Branch canal beyond Gollapalli Reservoir:

- This project creates new ayacut of 42,772 Acres.
- Work is in progress. Proposed date for inauguration is 30.09.18.

20. Sri Balaji Reservoir

- Formation of Sri Balaji Reservoir near Karakambadi (V), Renigunta (M), Chittoor (D) with a storage capacity of 3.00 TMC is proposed with a cost of Rs 219.55 Crs to supply 2.00 TMC of water to Mallemadugu Reservoir by gravity and 1.00 TMC to Tirupathi Drinking water needs.
- Work is in progress. Proposed date for inauguration is 31.12.18.

21. Mallemadugu Reservoir

- Formation of Mallemadugu Reservoir with a capacity of 2.65 TMC is proposed with a cost of Rs.241.15 Crs to Create irrigation potential of 51,050 Acrs including stabilization of existing ayacut of 3950 Acrs.
- Work is in progress. Proposed date for inauguration is 31.12.18.

22. Venugopalasagar Reservoir:

- This Project is intended to store 2.683 TMC of water to feed an ayacut of 25,800 acres at a cost of Rs.353.15 Crs.
- Work is in progress. Proposed date for inauguration is 31.12.18.

23. GNSS Ph-II up to Kodur in Kadapa Dist.

- GNSS phase-II is proposed to provide irrigation facilities to 2.25 Lakh acres in Kadapa, Chittoor and Nellore districts at a cost of Rs.3227.52 Crs.
- Work is in Progress in some Packages. Some Package works are preclosed and action is being taken to complete Forest clearance and resume the works with new agencies.
- Proposed date for inauguration is 31.03.19

24. Widening of HNSS main canal:

- Widening of HNSS main canal upto Jeedipalli reservoir is taken up to carry full discharge of 3800 Cusecs with an estimated cost of Rs.870.05 Cr.
- Proposed date for inauguration 31.03.19

25. Jeedipalli – Upper Pennar Project Lift Irrigation Scheme .

- The scheme is proposed to Lift 3.91 TMC of Water from foreshore area of Jeedipalli Reservoir to fill the proposed Somaravandlapalli and Puttakamuma Reservoirs to feed an ayacut of 25,000 Acres.
- Work is in progress. Proposed date for inauguration is 30.06.19.

26. Modernisation of Mid Pennar South canal

- The scheme contemplates modernization of the existing Mid Pennar South canal for a length of 84 Km in Anantapuram District with a cost of Rs.491 Cr. The scheme stabilizes an ayacut of 33,176 Ac.
- Proposed date for inauguration is 31.03.19.

27. Community Lift Cum Drip Irrigation Systems.

- With a view to increase the irrigated area in rain – fed areas in Anantapur district, Govt. Sanctioned Community Lift Cum Drip Irrigation System on Mid Pennar, PABR and Jeedipalli Reservoirs for an amount of Rs. 890.60 Cr.
- The Project is going to benefit 50000 Ac. Ayacut utilizing 2 TMC of water.
- Proposed date for inauguration is 31.03.19.

28. Water Supply to Western Mandals of Kurnool District:

- The scheme is intended to lift 1.238 TMC of flood water of Krishna River from HNSS Main Canal to feed 68 tanks in 9

mandals. An Ayacut of 10,130 acres will be stabilized and also drinking needs of people & livestock will be met.

- The cost of the Project is Rs.224.30 Crs.
- The work is grounded.
- Proposed date for inauguration is 31.01.19.

New Projects:

1. Water Supply to Mulapalli and other 4 tanks:

- The scheme is proposed for supply of water to Mulapalli Tank (Near Naravaripalli) and another 4 tanks from Neeva Branch Canal of HNSS System to feed an ayacut of 154.03 Acres under the 5 Cascading Tanks by excavating Link channel and to provide drinking water in Chandragiri Mandal of Chittoor District.
- The cost of the Project is Rs.38.48 Crores.
- Status: Tenders will be finalized this week

2. Lifting of water from Somasila Swarnamuki link canal to Mallemadugu Reservoir and from Mallemadugu Reservoir to Balaji Reservoir

- Lift is proposed from Somasila –Swarnamuki link (SSLC) to Mallemadugu and Sri Balaji reservoirs to cater the future drinking water needs of Tirupati town and enroute villages apart from contemplated ayacut under GNSS.
- It is proposed to lift 4 TMC of water in 60 days from SSLC to Mallemadugu reservoir with an estimate cost of Rs.288.80 Cr.
- It is proposed to lift 2 TMC of water from Mallemadugu Reservoir to Sri Balaji Reservoir in 35 days with an estimate cost of Rs.198.00 Cr.
- Status: administrative approval under process

3. Lifting of water from SSG Canal to Althurupadu Reservoir:

- This project consists of Lift at Km 34.100 of SSG Canal to lift 2.35 TMC of water to Althurupadu reservoir with 30M lift.

- Construction of Alturupadu Balancing Reservoir with a storage capacity of 1.108 TMC. Status:
- Tenders will be finalized this week

4. Hagari (Vedavathi Project) Lift irrigation scheme:

- This Project is intended to lift 8.29 TMC of water in order to Provide irrigation facility to 80,000 Ac. The a cost of project is estimated as approximately Rs.900.00 Crs.
- Investigation is being done.

5. Rajolibanda Diversion Scheme (RDS) Right Canal:

- This scheme contemplates diverting of 4 TMC of water from Tungabhadra River to cater drinking and irrigation needs of western parts of Kurnool Dt.
- Administrative approval is under process

6. Formation of Gundrevula Reservoir:

- The project is proposed to store 20 TMC of water to stabilize 2.65 Lakh Acres ayacut under KC canal System in Kurnool and Kadapa Dist. in Khariff and Rabi seasons put together at a cost of Rs.1485Crs.
- Resolving inter state issues is under process.

7. Construction of new barrage (10 TMC) across Krishna river near Vykuntapuram (V):

- To meet the requirement of 10 TMC of Drinking water for new capital "Amaravati", it is proposed to construct a new barrage on River Krishna at 23 Km upstream of Prakasam Barrage and 16 KM downstream of Pulichintala Project at Vykuntapuram village, DamulurMandal, Guntur District. The Approximate cost of the project is Rs.2169 Crs.
- Tenders will be finalized this month

8. **Interlinking Of Godavari – Penna Rivers Phase-1:**

- Action is initiated for interlinking Godavari and Pennar Rivers to meet drinking and irrigation needs of drought prone areas of Prakasam, Nellore & Chittoor Districts.
- The project is divided into Five Phases.
- In First Phase, it is proposed to lift water from Godavari river (through existing pumps of Chintalapudi LIS and Pattiseema LIS) to Krishna river through Polavaram Right Main Canal and Lifting water from right bank of Krishna river at Harischandrapuram (V) to Nagarjuna Sagar Right canal.
- Tender process initiated.

9. **Modernisation of existing Left and Right canal system of Thotapalli old Regulator:**

- The project is intended to stabilize an ayacut of 64,000 Acres under Left canal, Right canal and open head channels of Thotapalli old system by way of Modernisation.
- Tenders will be finalized this month.

10. **High Level Canal from Hiramandalam Reservoir to Itchapuram:**

- The Project is proposed to create New IP of 75000 Ac. in the 5 distressed Mandals of Mandasa, Sompeta, Kaviti, Kanchili&Ichapuram in Srikakulam district besides supplying drinking water to the enroute villages situated in upland area, utilizing 5.675 TMC of water from Hiramandalam Reservoir. Approx. Cost of Project is Rs.1050.00 Crs.
- DPR is under preparation.

11. **Mukthyala Lift irrigation Scheme:**

- The Scheme is intended to stabilize the ayacut of 38,627 Acres under NagarjunaSagar Left Canal in Jaggayyapet Constituency.
- Technical feasibility is under study.

12. Minor Irrigation Works and Lift Schemes in Kuppam Area:

- i. Palar Checkdams -34 No.s
- ii. Improvements to feeder channel from Jambucheruvu to PB Nathamcheruvu near PB Natham (v) in Kuppam (M).
- iii. Reconstruction of Check dam across Manjalamaduguvanka near V. Mittapalli (V) in Kuppam (M).
- iv. Extension of tank bund on L/S and R/s of Existing tank bund of D.K.Palli to safeguard from Encroachments.
- v. Improvements to Check Dam across Peddavanka near Athinatham (V) in Gudupalli (M).
- vi. Excavation of Preethichamanuru Village in SanthipuramMandal to DaseganuruCheruvu of KuppamMandal.
- vii. Construction of Lift scheme on peddavanka (Kallivanka) near athinartham village of gudupallimandal of chittoor district to feed chain of tanks and providing of drinking water facility to kuppam town.
- viii. Construction of Lift on Musalimadugu tank near Veernamala (V) in Ramakuppam(M).

Status: Admn approval under process

8. Interlinking of rivers - Maha Sangamam:

Godavari and Krishna are already linked in the name of Pavitra Sangamam with the completion of Pattisam lift scheme. Now, it is proposed to link Godavari and Penna on one side and Godavari – Vamasadhara on the other side links through like Uttarandhra Sujala Sravanthi and Vamasadhra- Nagavali and Nagavali-Swarnamukhi, Vegavathi, Champavathi rivers on other side creating a grand link of all major rivers in the name of Maha Sangamam Smart Water Grid

Smart Water Grids will be created similar to electric power grids to supply water to needy areas by transfer of water from water surplus basins to water deficit basins and filling up of tanks from major assured sources.

9. (A) Minor Irrigation,

Neeru – Chettu & Neeru-Pragathi:

To utilize the water resources efficiently, Government recognized the importance of water conservation, water Management and water audit and taken up Water conservation (Neeru – Chettu) Sub – Mission under Primary Sector Mission with inter departmental convergence with a vision to make the state Drought Proof. This programme was launched on 19-02-2015 in Chittoor district. To promote public participation in the programme, awareness building campaign is undertaken throughout the state.

Cascade Development

Number of cascades will be developed in all the basins of the state by interlinking all the tanks within the cascade. Further the interlinking of cascades will be taken up by identifying the links between tanks and cascades.

Series of Check Dams

Series of Check Dams and sub surface dams at suitable locations will be constructed on all minor rivers and streams to recharge ground water.

Panta Sanjeevini (Farm Ponds)

A massive programme for digging of Farm ponds under Panta Sanjivini will be taken up with sizes of 5 x 5 x 2, 8 x 8 x 2 and 10 x 10 x 2 Mts. These farm ponds will recharge the ground water and also used for supplementation during the water scarcity.

Dry spell Mitigation

By using Rain guns life saving Irrigation will be provided by collecting water from nearby water source and to supplement water to the distressed Ayacut during dry spells.

Achievements

- During 2015-16, 2016-17, 2017-18 and 2018-19 the following Works were taken up under Neeru-Chettu / Neeru Pragathi programme in large scale :
 - De-silting of tanks : 86.70 Crore Cum

- No of Cascades developed :2901
- No of Check dams were constructed by Minor Irrigation& Rural Development Department :1.031Lakhs
- No of farm ponds were excavated by Minor Irrigation & Rural Development:9.548Lakhs
- No of Other Harvesting Structures were constructed by Rural Development Department :9.587Lakhs
- No of Soil Moisture Conservation Works taken up by Rural Development Department : 1.126Lakhs

Impact Established due to Neeru Chettu works :

- About **94.569 TMC** of water was additionally stored in the tanks and other water bodies due to de-silting of tanks and construction of water harvesting structures by Minor Irrigation & Rural Development Departments under Neeru-Chettu programme.
- Ayacut Stabilised is 7.694 Lakh Acres.

(B) Ground Water Department

External Aided Projects :

A. National Hydrology Project Phase (HP-III)

This World Bank project developmental objective 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 project cost is Rs.80.00 Crores and Project period is 8 years proposed from 2015-16 to 2023-24.Total cost ofRs.80.00 Crores is a grant from Government of India.

Overview of Proposed Project Activities

HP-III will further improve and expand monitoring systems for water availability and water use. It will emphasize real-time monitoring for operations, flow forecasting, integrated water resource planning on a river basin basis and strengthening of community-based groundwater management.

The major components:

1. Improving Water Resources Monitoring Systems (WRMS)
2. Improving Water Resources Information Systems (WRIS)
3. Water Resources Management Applications
4. Improving Institutions and Capacity Building

B. Andhra Pradesh Integrated Irrigation And Agriculture Transformation Project (APIIATP):

In sequel to Andhra Pradesh Community Based Tank Management Project World Bank proposed integrated irrigation and agriculture transformation project in Andhra Pradesh. The estimated project cost is Rs.1600.00 Crores with the project duration of 7 years (2017-18 to 2023-24) with the development objective of the project is to enhance agricultural productivity and to improve efficiency of around 1200 MI tanks through catchment treatment approach with a total ayacut of about 1.2 lakh hectares benefitted some 2.0 lakh small and marginal farmers.

Participatory Ground water Management (PGM) is one of the components in the present Project and the outlay for this sub-component is Rs.36.00 Crores. The Ground Water Department is dealing this component of the project.

The objective of the PGM is to focus on conjunctive use of surface and ground water through sustainable water conservation and management methods by construction or rehabilitation by wisely managing ground water through participatory approach. The activities of PGM are selection of tanks and PHM wells, participatory Hydrological Monitoring, Ground water sharing crop water budgeting conjunctive use strategies etc.,

10. ACTIVITIES:

Government have taken several measures to make the State drought proof and to provide water security to all to eradicate poverty and reducing economic inequalities. Neeru - Chettu (Water Conservation) is a sub-mission of the primary water sector mission.

Neeru Pragathi Udyamam, a 90 days campaign on water conservation, from 20.04.2017 to 20.07.2017 in all districts duly involving Government and non - Government functionaries including College / University faculty and students. District

wise workshops for water conservation campaign was conducted by mobilizing the students of College / University, faculty and all other stakeholders of the society.

Jalasiriki Harathi was Conducted at all water bodies and Rivers in the state in festive mode from 06.09.2017 to 08.09.2017 to create awareness building campaign on the subject of importance of Water Bodies and water conservation and management across the State.

The Hon'ble Chief Minister started the **Jalasamrakshana Udyamam** -116 days (from 12th February to 7th June under Phase-II Programme) under Neeru-Pragathi in Guntur District on 12.02.2018 and inaugurated the Palavagu development in venkatayapalem village.

11. Achievements:

- The Hon'ble Vamsadhara Tribunal issued final order permitting state of Andhra Pradesh to construct Neradi Barrage across the river Vamsadhara with ancillary structures on 13-09-2017
- From Thotapalli project, 1 lakh Acres new ayacut is created out of contemplated ayacut of 1,20,000 Acres apart from stabilizing 64,000 Ac ayacut. About 444 Minor irrigation tanks were filled irrigating an ayacut of 12,215 Ac.
- Purushothapatnam LI Scheme is taken up at a cost of Rs. 1638 Cr. is contemplated for lifting 30 TMC of Godavari Water into Polavaram Left Main Canal and to Yeleru Reservoir for creation of new ayacut of 1,47,386 Acres and stabilisation of 67,614 Acres and also meeting the Drinking water and Industrial needs of Visakhapatnam District. This Scheme facilitates inter linking of Godavari and Yeleru rivers. All 10 pumps in phase -I and all 8 pumps in phase-II are commissioned. Last year, 1.6 TMC of water was lifted. This year, 4.48 TMC of water is lifted so far.
- The Polavaram Irrigation Project is taken up as **National project**. The multipurpose Polavaram Project dam would be 150 feet high and will store 194 TMCs of water. This project will help irrigate over 7.2 lakh acres beside providing drinking water to several cities, towns and to industries. The Polavaram Project reached a major milestone on June 11th with completion of

the crucial diaphragm wall. The longest and deepest such wall in the country, it forms the foundation for the Earth-cum-Rock-Fill (ECRF) Dam of the Polavaram Project across the Godavari River. It has been constructed in a record time of 14 months at a cost of Rs423 Crores.

- Pattiseema Lift Scheme is a long cherished dream of interlinking of rivers Godavari and Krishna became reality with the commissioning of this Scheme in a record time of one year by March, 2016. The Limca Book of Records acknowledged that this is the fastest completed Project in the country. In 2015-16, 8.00 TMC water was diverted saving Khariff crop in 8 lakh Ac, 2016-17, 55.62 TMC of water is diverted and khariff crop in 13.08 lakh acres in Krishna Delta could be supplemented with this water which yielded crop worth Rs.5500 Cr. During 2017-18, 105.90 TMC water is diverted facilitating the farmers of Krishna Delta to go for transplantation in June itself.
- Mutchumarri Lift Irrigation Scheme is contemplated to lift water from Srisaillam foreshore even from below MDDL to the ayacut of K.C Canal and HNSS. The scheme for K.C Canal was completed on war footing basis and was dedicated to the Nation on 02-01-2017 by the Hon'ble Chief Minister. About 1.34 TMC of water was supplied to K.C Canal during 2016-17. During 2017-18, about 1.50 TMC of water was released so far to K.C Canal. The scheme for HNSS was completed on war footing basis and was dedicated to the Nation on 08-09-2017 by the Hon'ble Chief Minister. At present 6 pumps are kept ready to release water.
- Veligodu balancing reservoir is located across Kundu tributary of Penna river at Veligodu town in Kurnool district of Andhra Pradesh. This year a record quantity of 16.95 TMC of Krishna water filled in Veligodu reservoir and provided irrigation for 96,961 Acres under Telugu Ganga Project in Kurnool District and remaining water supplied to SR-1, SR-2 and SPVB Reservoirs in Kadapa district.
- This year record quantity of 90.25 TMC of water was released from Pothireddypadu regulator. The savings arised from Pattiseema water in Krishna Delta has been utilized from the foreshore of Srisaillam Reservoir to supply to the Rayalaseema Region Projects. 38.76 TMC is supplied to Telugu

Ganga Project, 25.16 TMC is supplied to K.C Canal / Nippula vagu and 26.33 TMC is supplied to Srisaillam right branch canal / Galeru Nagari Sujala Sravanthi.

- Gorakallu Reservoir is constructed under Galeru-Nagari Sujala Sravanthi Scheme. For the first time 26.33 TMC of water was released to Srisaillam right branch canal and Galeru Nagari Sujala Sravanthi . Out of which 7.74 TMC water is stored in Gorakallu reservoir and 2.47 TMC water is stored in Owk Reservoir. Owk bypass tunnel is completed successfully and water is being supplied to Gandikota Reservoir through Owk tunnel.
- Gandikota Reservoir is constructed across Penna river under Galeru-Nagari Sujala Sravanthi Scheme with a storage capacity of 26.85 TMC in Kadapa district. Gandikota Reservoir receives water from Srisaillam Reservoir through Pothireddypadu Head regulator. Out of 19.50 TMC of Krishna water received to Gandikota Reservoir, 6.35 TMC water is supplied to Mylavaram Reservoir, 3.67 TMC of water is supplied Chitravathi Balancing Reservoir, 1.00 TMC of water is supplied to Paidipalem Reservoir, 0.50 TMC of water is supplied to Vaamikonda Sagar, 0.30 Water is supplied to Sarvaraya sagar and remaining 8.27 TMC of water is stored in Gandikota Reservoir. Gandikota - Chitravathi balancing reservoir lifts are inaugurated by Hon'ble Chief Minister on 03-01-2018 facilitating supply of water to CBR Right canal (Lingala canal) and Pulivendula Branch canal.
- **APSIDC** completed 110 lift irrigation Schemes creating new ayacut of 1.61 Lakh Ac. 454 schemes were revived stabilizing ayacut of 2,97,262 Ac. Expenditure incurred during last 4 years Rs.1069.14Cr.

Ground water

- In AP about 40 lakh acres of gross area is being irrigated with groundwater, drawing water from 15.08 lakh bore wells in the state.15.35 lakh agriculture bore wells are Geo tagged.Under NTR Jalasiri scheme, 1.24 lakh agriculture bore wells are taken up for irrigating 10 lakh ac. with cost of Rs 1490 Cr.
- The aim of the Government is to maintain ground water level between 3 to 8 mts. To monitor the groundwater levels, 1254 piezometers established.

- In the last four years the state as a whole received -34%, -5%, -30% and -14% deficit rainfall against normal rainfall. With the water conservation measures taken, there is an average 2.00m net rise in ground water level from pre monsoon 2017 which is equal to about 200 TMC of additional ground water availability .
- The rise of ground water table resulted in saving of about Rs. 440 Cr. in power bills for lifting of water. Ground water stressed mandals came down from 200 to 160 and deep water level villages came down from 2874 to 1810. Drinking water transported villages came down from 1584 to 692.
- Memorandum of Understanding with NRSC/ISRO:
Government of Andhra Pradesh has entered in to MoU with NRSC/ ISRO to utilize their expertise and technologies in extending our Integrated Water Management system into a full-fledged "Andhra Pradesh Water Resources Information and Management System (APWRIMS)". With this collaboration, we will be able to achieve our set goals in a more scientific way.

12. Better Water management practices:

- Micro Irrigation: A.P ranks 2nd in the country in the coverage of micro Irrigation with coverage of 23.32 lakh Ha benefiting 6.25 lakh farmers.
- Rain Guns: 13,000 rain guns deployed to alleviate drought situation in Rayalaseema
- Monitoring and Management: more than 4000 real-time sensors to monitor water resources.
- Mobile lifts are being used to supply water for one or two wettings when the source of supply is not at one place.
- Micro Irrigation: Government is promoting Micro Irrigation techniques like drip and sprinkler irrigation for optimum utilization of water.
- piped network: It is proposed to take up piped network instead of conventional canal system to prevent losses and better water conservation.

- Immersive Tele video conferencing facility has been established in the department for monitoring the progress of projects with Drones and reviewing the progress with Engineers at District Level.
- Modernization of Deltas and Nagarjunasagar Canal System
Modernization of Godavari, Krishna and Pennar deltas and also NagarjunaSagar Canal System are under progress to improve the water use efficiency of the existing canal systems.

13.Awards received:

- CBIP Award 2017 was received for "optimum and efficient utilization of water resources" in Godavari Delta System.
- Limca book of records was received for fastest completion of Pattiseema Lift Irrigation Scheme.
- Skoch Award was received for NTR Jalasiri Programme
- This year, 19 Skoch awards are received which include National significance State of the year Platinum award in Irrigation sector and Platinum award for Water Resources Department.
- Niti Aayog has given Third rank to Andhra Pradesh in composite water management Index with 68 points, with Madhya Pradesh in second rank just one point ahead with 69 points and Gujarat in first rank with 76 points.
- Energy and Environment Foundation has given Global water conservation award for 2018 to Water Resources Department, Government of Andhra Pradesh.

14.CONCLUSION

This Government is determined to make Andhra Pradesh a drought proof state by taking up integrated management and development of water resources through scientific water conservation, water management, interlinking of rivers and completing all ongoing Projects in a time bound manner.