

ANDHRA PRADESH LEGISLATIVE ASSEMBLY

SESSION – 5

NOTE FOR SHORT DISCUSSION ON “STAGE OF POLAVARAM PROJECT – IRRIGATION PROJECTS – REVERSE TENDERING”

Water Resources in A.P. :

The economy of our state is primarily dependent on agriculture, which directly and indirectly employs 62% of the population. Agriculture contributes 34% to the state's GDP. Providing irrigation facility increases the agricultural production, which in turn improves the economic position of the people dependent on agriculture. The areas where there is assured irrigation facility like Krishna Delta and Godavari Delta etc. have progressed well and shown prosperity.

Andhra Pradesh is blessed with 40 Major, Medium and Minor Rivers, out of which Godavari, Krishna, Vamsadhara, Nagavali and Penna are prominent Rivers. 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.

Keeping in view the importance of irrigation in economic growth of the state, the then Government started Jalayagnam in 2004-05 taking up number of projects in the drought prone and backward areas of the state.

Present status of Irrigation in Andhra Pradesh

Total Geographical area	:	402.70 Lakh Acres
Total Cultivable Area	:	199.04 Lakh Acres
Irrigation Potential Created	:	105.37 Lakh Acres
Balance Cultivable Area	:	93.67 Lakh Acres
New ayacut to be created		
With ongoing Projects	:	34.25 Lakh Acres.

Polavaram Irrigation Project

This multipurpose project, which is the lifeline of the state is being constructed at 42 Km upstream of Sir Arthur Cotton Barrage at Dowlaiswaram on the river Godavari, near Ramayyapeta Village, Polavaram Mandal of West Godavari District.

- Reservoir Gross Capacity : 194.6 TMC
- Utilization of water under the Project : 322 TMC

Benefits:

- Irrigation Potential : 7.2 lakh Acres of new ayacut to be created. Stabilization of 23.5 lakh acres
- 960 MW Hydro Power (12x80 MW).
- Water Diversion: 80 TMC of Godavari water to be diverted to Krishna River. Water saved in Krishna River will be shared between Andhra Pradesh, Karnataka, Maharashtra (45 TMC, 21 TMC, 14 TMC)
- Domestic & Industrial water Supply: 23.44 TMC of water to the habitations and industries in and around Vishakhapatnam City including Vizag steel plant.
- Drinking water Facility: Drinking water facility to 540 villages for a population of 28.5 Lakh enroute canals
- Utilization by other states: Odisha and Chattisgarh can utilize 5 TMC and 1.5 TMC of water for Reservoir.

Declaration as 'National Project':

- Government of India, recognizing the importance of the project, declared this project to be a National project (Section-90 of A.P. Reorganization Act, 2014)
- The Ministry of Water Resources (MOWR) Government of India issued a notification vide F.No. 15/4/2014 Dt:28.05.2014, constituting the Governing Body (GB) to Polavaram Project Authority (PPA).

Revised administrative approval accorded for the project for Rs.55,548.87 Crores vide G.O Ms. No.21, dated.10.02.2019.

Component wise details are as follows:

A) Polavaram Irrigation Project Head works :

In the revised administrative approval, sanction is accorded for Rs.9,734.34 Cr. for execution of Spillway, Radial Gates, Diaphragm Wall, U/S & D/S Cofferdams, ECRF dam, Power House, Right & Left connectivities etc. All the works are grounded and are in progress. 66.86% of Works are completed.

B) Polavaram Irrigation Project Right Main Canal :

In the revised administrative approval, sanction is accorded for Rs.4,318.96 Cr. vide G.O.Ms.No.21, Dt: 10.02.2019 for execution of Right Main Canal. The Canal runs for a length of 174 Kms in West Godavari and Krishna Districts. For execution purpose, the canal is divided into 7 packages. All the works are grounded and are in progress. The percentage of work done is 91.69%.

This canal is proposed to irrigate 3,20,000 Acres in West Godavari and Krishna Districts and to divert 80 TMC of River Godavari water to River Krishna.

C) Polavaram Irrigation Project Left Main Canal :

In the revised administrative approval, sanction is accorded for Rs.4,202.69 Cr. vide G.O.Ms.No.21, Dt: 10.02.2019 for execution of Left Main Canal works. The Canal runs for a length of 213.49 Km in East Godavari and Visakhapatnam Districts. For execution purpose, the Canal is divided into 8 Packages. All the works are grounded and are in progress. The percentage of work done is 68.34%.

This canal is proposed to irrigate an ayacut of 4,00,000 acres in East Godavari and Visakhapatnam Districts and also to supply 23.44 TMC of water to Visakhapatnam city for industrial and domestic needs.

STATUS OF WORKS:

Description	Completed
Head works	66.86%
Right main canal	91.69%
Left main canal	68.34%
Overall works component	71.83%
LA and R&R	19.85%
Total Project including LA and R&R	41.10%

- The balance works under Polavaram Head works, Power plant and Tunnel work under Package-65 were cancelled and fresh tenders were received under reverse tender process. This resulted in saving of Rs.838.51 Crs. to the Government.

The Project is programmed to be completed by December 2021.

- With proper planning, by taking up coffer dams after completing spillway and Spill Channel works, water could have been supplied to the ayacut by gravity from June 2020 itself and all the works could have been completed by June 2021 comfortably.

Reimbursement of Expenditure:

Total expenditure incurred on Polavaram Project up to 31.10.2020	:	Rs.17,665.29 Cr
Expenditure incurred on the Project before National project.	:	Rs.5,135.87 Cr.
Expenditure incurred on Polavaram Project under National Project from 01.04.2014 to 31.10.2020	:	Rs.12,529.42 Cr.
Total Funds released to the State Government through Polavaram Project Authority.	:	Rs.8,507.26 Cr.
Balance Reimbursement to be made by GOI for the expenditure already made on the Project by the State of AP as National Project.	:	Rs.4,022.16 Cr.

- The Revised Cost estimate-II of the project at 2017-18 Price level was approved by the TAC for Rs.55,548.87 Crores. The Revised Irrigation Component at 2017-18 Price level (including PPA cost) is finalized as Rs.51,095.96 Crores.
- Further, the Revised Cost Committee has recommended the Revised Cost of the Project as Rs.47,725.74 Crores at 2017-18 PL, for which the Irrigation Component works out to be Rs.43,164.83 Crores.
- During 13th PPA meeting, Government of India has been requested to reimburse the expenditure made on the project as per the revised cost of the project for Rs.47,725.74 Crores at 2017-18 PL as recommended by revised Cost Committee.
- Hon'ble Finance Minister along with officials met the Hon'ble Finance Minister, Govt. of India thrice and requested to reimburse the entire cost of the Project duly considering the water supply component also.

- Hon'ble Minister for Water Resources also met Hon'ble Minister for Jal Shakti, Govt. of India and persuaded to consider reimbursement of entire cost of the Project.
- There is favourable response from the Hon'ble Ministers of Govt. of India on the requests made.
- **Based on the request of Govt. of AP and the decisions taken in the 13th PPA meeting held on 2-11-2020, Ministry of Jal Shakti, Govt. of India requested CWC to submit its recommendations on the issue of "finalizing the funding mechanism for the increase in project cost at 2017-18 PL as recommended by RCC in its report dt.17-03-2020 for project completion". This is the result of the relentless efforts made by the Government of AP and it is a positive development in meeting the entire cost of the project by Govt. of India.**

LA and R&R:

- A total of 371 habitations (West Godavari –137 & East Godavari – 234) are going to be affected due to the construction of the project. Total number of families affected are 1,05,601 (West Godavari-34,672 & East Godavari-70,929), out of which, 3,922 families were rehabilitated.
- Total land to be acquired is 1,66,423.27 Acres, out of which 1,12,337.95 Acres is already acquired.
- An expenditure of Rs.6,583.11 Crs has been incurred on LA and R&R and a balance amount of Rs. 26,585.28 Crs is required to complete the LA and R&R.
- There is little progress in land acquisition and Rehabilitation & Resettlement during 2014 to 2019. Only 17 habitations have been rehabilitated out of total 373 habitations.
- Now, the Government is giving equal importance to LA and R&R along with works and it is proposed to complete the project by December 2021.

FORMATION OF SPV's

It is proposed to form 5 SPVs for completion of Projects in all the regions of the state for the development of all regions of the state.

- 1) Rayalaseema Drought Mitigation Projects Corporation Limited
- 2) Uttarandhra Irrigation Projects development Corporation Limited
- 3) Krishna Kolleru Salinity Mitigation Projects Corporation Limited
- 4) Palnadu Area Drought Mitigation Projects Corporation Limited
- 5) AP State Water Security development Projects Corporation Limited

Rayalaseema Drought Mitigation Projects Corporation Limited is already formed and the process of getting loan from Financial institutions is under process.

Cabinet accorded approval for formation of another 3 SPVs i.e, Uttarandhra Irrigation Projects Development Corporation Limited, Krishna Kolleru Salinity Mitigation Projects Corporation Limited and Palnadu Area Drought Mitigation Projects Corporation Limited.

Action is initiated for formation of the 5th SPV i.e, AP State Water Security Development Projects Corporation Limited.

REVERSE TENDERING IN IRRIGATION PROJECTS

In the regular tendering system, most of the tenders are being received with excess amount over the estimate cost. To attract more competition among the bidders and to effect savings to the government exchequer, Government have taken a revolutionary decision and introduced reverse tendering system vide G.O.Ms No. 67 Water Resources Department Dt. 16-8-2019.

Under the new reverse tendering system, tenders were called for the works which are closed due to poor progress and also for new works.

In Water Resources Department, tenders were called for the following old works, which are closed due to poor progress. The ECV put to tender is calculated for the balance work at agreement rates. **The total savings in the old works is Rs.1141.89 Cr.**

Savings due to Reverse tendering

(Rs.in Cr.)

Sl.No	Name of Project / Work	Previous agreement Amount	Amount after reverse Tendering	Savings
1	Polavaram Project			
	a)Package No.65 of Polavaram Irrigation Project	290.01	231.47	58.54
	b)Polavaram Irrigation Project Main Dam Package	4987.55	4359.11	628.44
	c)Additional savings on Hydro-Electric Project			151.54
	Polavaram Project Total			838.52
2	Veligonda Project - Tunnel 2	553.13	491.37	61.76
3	Construction of Althurupadu Balancing Reservoir	253.77	185.96	67.81
4	Somasila Project - Kavali Canal (BPR Canal) – Construction of Diversion canal from KM.48.559 to KM.52.950 in foreshore of Chinnakraka Balancing Reservoir in SPSR Nellore District.	29.76	22.75	7.01
5	Modernization of D.R.& D.M. Channels in Dagadarthi Mandal of SPSR Nellore District.	24.02	23.01	1.01
6	Somasila Project - Anam Sanjeeva Reddy High Level Lift Canal Phase-II	527.53	459.63	67.90
7	GNSS Phase-II – Package No.1	406.74	371.42	35.32
8	GNSS Phase-II – Package No.2	351.61	326.77	24.84
9	Modernization of Guntur Channel from Km. 0.000 to Km.47.000	346.56	318.87	27.69
10	TGP Main canal lining in Kurnool Dt	245.91	235.87	10.04
	Total for old works			1141.89

Tenders were called for the following new works in reverse tendering. **The total saving in the new works is Rs.201.94 Cr.**

Savings due to Reverse tendering

(Rs.in Cr.)

Sl.No	Name of Project / Work	Amount of Lowest Bid received before Reverse Tendering	Amount after Reverse Tendering	Savings
1	Improvements to Pothuraju nala in Ongole town	78.14	62.52	15.62
2	Construction of Flood Protection Wall along Left Margin of River Krishna from Kanakadurgamma Varadhi to Kotinagar in Vijayawada city.	110.44	104.92	5.52
3	Rayalaseema Lift Scheme to draw and utilize 3 TMC per day from Sangameswaram to SRMC at Km 4 from Pothireddypadu Head Regulator.	3340.47	3307.07	33.40
4	Lining of Existing SRBC / GNSS Canal upto Berm Level to draw 30,000 c/s in between Gorukallu Reservoir to Owk Reservoir including Owk Tunnel III	1331.06	1297.78	33.28
5	(i) Improvements to Escape Channel, Nippulavagu, Galeru River and Kundu River from Km 0.000 to Km 189.200 and Re-gradation of Vagu, flood Protection works and providing high level Bridges at enroute villages for improving the carrying capacity to 35000 cusecs", (ii) "Construction of Joladarasi Reservoir with 0.8 TMC across Kundu River at Joladarasi (V), Koilkuntal (M), Kurnool District" and (iii) "Formation of Rajoli Reservoir across Kundu River on Upstream side of existing Rajoli Anicut for a total storage capacity of 2.95 TMC of Water.	1841.70	1758.82	82.88
6	Upgradation of Canal system from Pothireddypadu Head Regulator and BCR complex from foreshore of Srisailem Reservoir and Improvements to existing SRBC /GNSS canal upto Berm level from Banakacherla Complex to Gorakallu Balancing Reservoir from Km 0.000 to Km 56.775	1026.38	1000.72	25.66
7	Construction of Retaining Walls for survepalli canal from Km 0.600 to Km 3.300 in Nellore District.	87.73	83.70	4.03
8	Modernisation of Penna Delta Balance work of Package No - 6	93.92	92.37	1.55
Total for new works				201.94

The total saving in the old works and new works put together is Rs.1343.83 Cr.