

**J. CHOKKAA RAO GODAVARI LIFT IRRIGATION SCHEME  
SALIENT FEATURES**

<b>1. Location of the scheme (starting point)</b>	:	On the river Godavari near Gangaram (v), Eturunagaram (M), Warangal District of Andhra Pradesh state
<b>2. Type of project</b>	:	Irrigation
<b>3. Location of headworks</b>	:	Longitude: 80°-21'-00" E Latitude : 18°-36'-00" N Earthquake zone No. III
<b>3. Interstate aspects of the project</b>		
(a) Catchment area of the basin	:	3,12,812 sq.km.
(b) Submergence due to project in the state	:	2,000 ha
(c) Proposed utilisation by the project		
Irrigation (M.cum.)	:	Kharif: 948.6; Rabi: 101.9; Hot weather: 283.2; Total: 1333.7
Water supply	:	56.35 M.cum.
Industrial	:	0.34 M.cum.
<b>4. Irrigation</b>	:	By Lift-cum-Gravity
(a) Gross Command Area (GCA)	:	3,68,283 ha
(b) Culturable Command Area (CCA)	:	2,61,663 ha
(c) Area under irrigation	:	Kharif: 2,41,021 ha; Rabi: 23,360 ha; Hot weather: 700 ha; Two seasonal: -; Perennial: 20,643 ha.
Gross Irrigated Area (GIA)	:	2,85,724 ha
(d) Intensity of irrigation	:	109.6%
(e) Districts benefited (if the district is predominantly tribal or drought prone, it may be so indicated against each district)	:	Warangal-Medak, Karimnagar, Nalgonda (all the districts are drought prone)
<b>5. Water supply</b>		
(a) Domestic – Name of the towns served	:	Jangaon, Kodipikonda in Warangal Distt, Siddipet in Medak Distt, Yadagirigutta and Bhongir in Nalgonda Distt.
Size of population served	:	11,51,258 (2001); 13,07,654 (2011)
Quantum of water made available	:	1.9 TMC (2011)
Quantum of water per capita	:	Rural: 91 lpcd; Urban: 175 lpcd
(b) Industrial locations – Districts	:	Medak and Nalgonda
Quantum of water made available	:	0.012 TMC (2011)

<b>6. Hydrology</b>		
(a) Catchment area at headwork site	:	2,69,000 sq.km. No separate details of catchment area under major, medium and minor schemes are available. The scheme envisages lifting of water just downstream of proposed Inchampally project.
(c) Proposed utilisation by the project -		
- Irrigation (M.cum)	:	Kharif: 948.6, Rabi: 101.9; Hot weather: 11.3; Perennials: 271.8
- Water supply (M.cum.)	:	56.4
Total	:	1,390 M.cum.
<b>7. Headworks</b>		
(a) Intake structure – Approach channel	:	238 m long from R/B of Godavari to pump sump
- Capacity	:	75 cumec
- Sump	:	13.9 m x 7.4 m x 7.3 m
- No. of steel pipe	:	5
- Diameter	:	2.5 m each
(b) No. of pumps	:	83
<b>8. Water Conductor System</b>		
(a) Length of pipeline	:	170.43 km
(b) Static head	:	410 m
<b>9. Canal System</b>		
(a) Purpose of canal (Irrigation / Diversion / Water supply / Multipurpose)	:	Irrigation
(b) Type of canal – Flow / lift	:	Flow & lift
- Lined / unlined	:	Lined
- Discharge capacity of the channel above which lining is proposed	:	All channels are designed as lined
- Type of lining	:	Cement concrete, in-situ lining
(c) Details of irrigation canals	:	Total length of canals: 365.53 km ; Net CCA: 2,61,663 ha.
(d) No. of distributories	:	110
(e) No. and names of online tanks	:	12 (Bhimganapuram, Ramappa, Salivagu, Nagaram, Dharmasagar, Ghanpur Rly Stn, Ashwaraopalli, Bommakur Pedda Pendyala, Pedda Cheruvu, Chandupatla & Madikonda)
(f) No. of tanks within the command	:	173

(g) Efficiencies :	Surface irrigation		Drip irrigation
	Ponded	Non-ponded	
Conveyance	76.5%	76.5%	88.2%
Field application	85%	79%	96%
(h) Cropping pattern of CCA	:		Existing: 103.2% Proposed: 109.6%
(i) Power requirement	:		485 MW
<b>10. Benefits</b>			
<b>Item</b>	<b>Irrigation area</b>	<b>Rs. / ha.</b>	<b>Value in lakh</b>
Incremental benefits	286.784	38,726	11,077.6
Water supply	11,51,258 (2001)		
Population served	13,07,654 (2011)		
<b>11. Benefit Cost Ratio</b>			
(a) B.C.Ratio at the discounted rate of 10%	:		1.36
(b) Financial Internal Rate of Return (IRR)	:		10.44
(c) Economical Internal Rate of Return	:		14.3