

## **Irrigation Scenario**

### **Introduction:**

Irrigation is the most important input for agriculture and vital for food security. Therefore, large investments were made in successive Plans for expansion of irrigation facilities. Many major, medium and minor irrigation projects have been constructed in the country during last five decades, thereby increasing the Irrigation potential from 22.6 million ha in 1951 to 100 million ha in 2005. This has resulted in increase in the food grains production from 50 million tons in 1951 to 208 million tons in 2005. The National Commission for Integrated Water Resources Development in its report has outlined the importance of irrigation and estimated that increase in irrigation facilities alone has contributed to about 52% increase in food grains production whereas improved agricultural practices coupled with high yielding varieties have contributed to 48% increase in food grains production.

Although the country is now self sufficient in food grains production, the task of feeding a growing population poses a challenge. The net sown area of the country remains unchanged. Given the constraints of land availability, it is necessary to bring more area under irrigation to meet the challenge. The report of sub-committee on more crop and income per drop of water states that by 2050 AD the population of the country may stabilize around 1.6 to 1.7 billions and that would require about 450 million tons of food grain annually at the required level of consumption. Area wise, it is necessary to provide irrigation to at least 130 million ha for food crops alone and in an area of 160 million ha for all crops to be able to meet the demands of the country in 2050 AD and ensure food security.

### **Irrigation in Orissa:**

Orissa is primarily an agrarian state. Irrigation sector holds the key to Orissa's economic development and poverty alleviation. The state has a cultivable land of 61.65 lakh ha. It has been assessed that 49.90 lakh ha can be brought under irrigation through major, medium and minor (flow & lift) irrigation projects.

Irrigation development has not made much headway in the state in the pre-independence era. Hardly 183.07 thousand hectare of net irrigation potential was created. After introduction of Five Year Plan by Govt. of India in 1951, attempts were made for rapid harnessing of water resources and much emphasis was laid to

accelerate the irrigation potential creation. By the end March 2009, net irrigation potential of 2301.35 thousand hectare has been created through major, medium and minor irrigation projects executed by Department of Water Resources. In addition to the above, 533.28 thousand hectare of net irrigation potential created through other sources like dug-well, water harvesting structures, small check dams etc. Sector wise created irrigation command up to end of March 2009 is given in the following table.

**Created Net Irrigation Potential (Unit-'000 ha.)**  
**Total Status as on 31.03.2009**

Sector	Pre-Plan Period	Plan Period (end of March 2009)	Total	Irrigation intensity	Executing Agency
Major & Medium	183.07	1102.86	1285.93	145%	W.R Deptt.
Minor (flow)	-	541.71	541.71	114%	W.R Deptt.
Minor (lift)	-	473.66	473.71	156%	W.R Deptt.
Other Sources*	-	530.79	533.28	185%	P.R Deptt, Agril Deptt. Private
<b>Total</b>	<b>183.07</b>	<b>2580.16</b>	<b>2834.63</b>		

\*Source-Orissa Agricultural Statistics

**Irrigation Potential Utilization:**

The State's achievement in irrigation potential creation during last five decades is considerable, but its utilization is not very encouraging in comparison to national average. The irrigation potential creation and utilization corresponding to the year 2005-06, 2006-07 & 2007-08 is given in the following figure reveals that potential utilization in our state is 74%, 78% & 81 % against the national average of 85%. The gap between potential creation and utilization is attributed to many factors, but the main reasons are defunct LIPs, MIPs and deterioration of distribution systems in the irrigated commands. The State Government is attaching utmost importance to minimize the gaps. System improvement works of some of the major and medium irrigation projects have already been completed under OWRCP and AIBP. Biju Krushak Vikash Yojana (BKVY) R,R&R ,FFW, RIDF,NCCF and NREG schemes are being utilized for restoration of In-operable LIPs, Partly derelict MIPs. Apart from that, 900 partly derelict / completely derelict MIPs with irrigation potential of 1.20 lakh ha are selected for rehabilitation under World Bank funded Orissa Community Tank Management Project (OCTMP). System improvement to 15 major, medium and 1400 lift Irrigation projects with irrigation potential of 2.18 lakh hectare are proposed under ADB-funded Orissa Integrated Irrigated Agriculture and Water Management Investment Projects (OIIAWMIP).

### Status of Irrigation Potential creation & Utilization)

Year	Irrigation Potential creation (th.ha)			Irrigation Potential utilization (th.ha) *			% of utilization
	Khariff	Rabi	Total	Khariff	Rabi	Total	
2000-01	2533.83	1071.99	3605.82	1589.88	535.84	2125.72	58.59%
2001-02	2554.26	1117.63	3671.89	1752.27	793.64	2545.91	69.33%
2002-03	2608.59	1123.75	3732.34	1246.81	465.21	1712.02	45.86%
2003-04	2674.12	1161.21	3835.33	1737.49	780.87	2518.36	65.66%
2004-05	2707.27	1266.22	3973.49	1845.79	844.87	2690.66	67.71%
2005-06	2731.50	1294.92	4026.42	1922.70	1042.79	2965.49	73.65%
2006-07	2720.46	1318.52	4038.98	2001.98	1147.47	3149.45	77.97%
2007-08	2765.73	1342.06	4107.79	2027.00	1281.46	3308.46	80.54%

\*Orissa Agriculture statistics.

#### Year of Irrigation: 2008

Being an agrarian state, the Government is attaching utmost importance for irrigation development. Hon'ble Chief Minister took a meeting on 24.12.2007 with senior officials of Government to discuss about development of irrigation infrastructure in the state.

*It was decided that 2008 would be the "Year of Irrigation" and following targets were fixed.*

1. 1000 lift irrigation projects would be installed
2. Targets would be fixed for providing irrigation from major and medium irrigation projects during 2008-09. (Additional irrigation potential of 1.00 lakh hectare from all sources would be created).
3. Target would be fixed for renovation of old MIPs under World Bank assisted OCTMP.
4. CAD works would be taken up out of NREGS fund and would be implemented through Pani Panchayats.
5. 3-4 Minor irrigation Projects would be taken up in every block not having 35% of its cultivable area under irrigation.
6. Improvement of canal system would be taken up out of NREGS fund. These works would be supervised by Pani Panchayat.
7. 25000 new shallow tube well points would be installed with subsidy from APICOL. This programme would be called "Jala Nidhi".
8. Irrigation sources would be created in every village not having irrigation facility. This is to be met out mostly of NREGS funds.

*From the above points, Jala Nidhi programme would be implemented by Agriculture Department and development of irrigation sources in each village would be implemented by Panchayati Raj Department. All other points would be implemented by Department of Water Resources.*

The achievement made in the Year of Irrigation by Department of Water Resources is given below.

1. 1172 Lift irrigation projects have been installed.
2. Additional irrigation potential of 62409 hectare has been created.
3. 50 old minor irrigation projects have been taken up under World Bank assisted OCTMP for renovation.
4. 173 new MIPs have been taken up under RIDF and AIBP schemes.
5. Rs. 51.25 lakh has been sanctioned by Collectors of Cuttack, Kendrapada, Jagatsingpur, Jajpur, Bhadrak, Sonapur to take up 31 projects under CAD works. Besides, 27.557 thousand hectare of field channel and 11.525 thousand hectare of field drain has been completed through Pani Panchayats under centrally sponsored programme.
6. 236 projects costing 38.48 crore sanctioned by collectors for canal improvement works were taken up through NREGS fund.