

DEPARTMENT OF WATER RESOURCE

ANNUAL PLAN - 2010 - 2011

III.A. MAJOR AND MEDIUM IRRIGATION

INTRODUCTION

77 % of the population of Jharkhand state is dependent on the agriculture sector for its livelihood. Existing irrigation coverage as per third Minor Irrigation Census is merely 23.95% of the available arable land (as against the national coverage of around 70 %). Irrigation is the critical factor for increasing agricultural production & productivity. The state of Jharkhand has a total agricultural area of about 29.74 lakh hectare. As per the assessment of 2nd Bihar Irrigation Commission 12.765 lakh ha Irrigation Potential can be created in Jharkhand through Major and Medium Irrigation Projects and rest from Minor Irrigation Schemes. Out of this by the end of March' 2009, 7.31 lakh ha Irrigation Potential has been created by the completion of one major irrigation project, 101 medium irrigation projects and numbers of minor irrigation schemes in the post independence period.

During 2009-10, 1 (One) Major (Gumani Barrage Scheme), 9 (Nine) Medium Scheme (Sonu, Nakti Ramrekha, Upper Sankh, Surangi, Bhairwa, Panchkhero, Kesho & Batane Reservoir Schemes) are targeted to be completed.

In Gumani Barrage Scheme (Major Scheme) civil work of barrage & Main Canal has been completed & the progress of gates is 50%, distribution system is 80%. The drawing of hoisting arrangement & stop log has been submitted to CWC for approval which is yet to be approved. In this situation, it will be difficult to complete this project during 2009-10, however irrigation facility has been planned to be provided from Kharif 2010.

The Head-work of Sonua, Nakti, Ramrekha, Uppershankh, Surangi & Batane Reservoir Schemes have been completed. The head works of Bhairwa, Panchkhero & Kesho Reservoir Projects have been targeted to be completed by March, 2010.

The Main Canal of Sonua, Nakti (except in initial reach of 15 chains due to forest land), Upper Sankh & Surangi have been completed, The Main Canals of Ramrekha, Bhairwa, Panchkhro are targeted to be completed by March 2010.

Due to procedural delay in land acquisition in the above medium schemes, the "distribution Systems" will be completed during 2010-11.

Partial irrigation from all the above schemes will be provided from next Kharif season 2010.

In the Ajay Barrage Scheme, a major scheme, head works has been completed. The progress of Main canal & branch canals is 95% & distributaries are 80%. Irrigation will be provided from this scheme from Kharif 2010.

Through Minor Irrigation Schemes, 16,740 ha additional irrigation potential is target to be created during 2009-10.

Being under developed status of the irrigation sector in the state as well as for a breakthrough in the assault against poverty a multi pronged strategy is being employed with the following main components :

- (a) Increase irrigation coverage through a mix of major, medium, minor irrigation schemes and ground water schemes
- (b) Making existing irrigation network more efficient
- (c) Move towards effective Participatory Irrigation Management (PIM) and
- (d) Strengthen and upgrade the administrative infrastructure & improve the existing delivery and monitoring mechanism.

Achievement during 11th Plan

2007-08

- Additional 9,040 ha Irrigation Potential has been created by completing 86 Nos. Check Dam & Series Check Dam.
- Additional 1,946 ha. Irrigation potential has been created by completing 139 Nos. Micro lifts Schemes.
- 15 Nos. of Minor Irrigation projects have been completed creating additional Irrigation potential of 2,250 ha.
- By completing 731 Nos. (different-dia) dug wells an additional irrigation potential of 1,720 ha. have been created.
- Additional 480 ha Irrigation Potential has been created by completing 12 Nos Ahar-Talab.
- Additional 80 ha Irrigation Potential has been created by completing 2 nos. Water Harvesting Structure.

2008-09

- Three medium irrigation schemes, namely, Dhansinghtoli Reservoir Scheme, Katri Reservoir Scheme and Kansjore Reservoir Scheme have been completed, creating total additional irrigation potential of 12,550 ha.
- 18 Nos. old medium irrigation projects were taken up for restoration by which 5,911 ha. lost irrigation potential has been restored.
- Additional 4,370 ha Irrigation Potential have been created by completing 28 Nos. Check Dam/Series Check Dam.
- Additional 10,700 ha. Irrigation potential have been created by completing 820 Nos. Micro lifts Schemes.
- 2 Nos. of Minor Irrigation projects have been completed creating additional Irrigation potential of 300 ha.

- By completing 482 Nos.(different-dia) dug wells an additional irrigation potential of 1,260 ha. have been created.
- 16 nos. Water harvesting structures were completed and additional irrigation potential of 1,100 ha. created.
- By renovating 179 Nos. Minor irrigation project/Check Dam Project, Lift Irrigation Projects and Old Water Bodies 6,084 ha lost irrigation potential have been restored.

2009-10

- During 2009-10, the trial run of Main Canal of Upper Shankh Reservoir Scheme has been commenced and about 500 ha area was irrigated during Kharif Season.
- The river closer of Sonua Reservoir Project, Surangi Reservoir Project & Ramrekha Reservoir Project have been completed, The Dams of the above schemes have been completed & the progress of main canals and distribution systems of these projects are about 75%.
- 17 Nos. old medium irrigation projects were taken up for restoration / ERM by which 16,000 ha. lost irrigation potential are proposed to be restored.
- Additional 9,195 ha Irrigation Potential is proposed to be created by completing 115 nos. Check Dams/ Series Check Dams.
- Additional 1,800 ha. Irrigation potential are proposed to be created by completing 180 nos. Micro lifts Schemes.
- 19 Nos. of Minor Irrigation projects are proposed to be completed creating additional Irrigation potential of 2,145 ha.
- By completing 580 Nos. (different-dia) dug wells an additional irrigation potential of 2,020 ha. are proposed to be created .
- Additional 1580 ha irrigation potential is proposed to be created by completing 27 nos. Water Harvesting Structures.
- By renovating 70 Nos. Minor irrigation project/Check Dam Project, Lift Irrigation Projects and Old Water Bodies 1,050 ha lost irrigation potential are proposed to be restored.
- Survey for new projects like Kanhar, Tahle, Burhai has been undertaken.

Objectives

- ♦ Major irrigation project are to be completed in a time bound manner.
- ♦ Through proper management of water irrigated area may be increased by another 10-15 % of cultivable area. Moisture level and under ground table may also improve through ground water recharging.

- ♦ Thrust may be given on minor and lift irrigation projects as they are more suitable and economical and have short gestation period.

2. EARMARKED SCHEME

2.1 A.I.B.P (M & MI)

Six irrigation projects as earmarked schemes, receiving assistance under A.I.B.P. of MoWR, GOI are indicated as below :-

- 1 Gumani Barrage Project
- 2 Upper Sankh Res. Project
- 3 Surangi Res. Project
- 4 Sonua Res. Project
- 5 Panchkhero Res. Project
- 6 Kansjore Res. Project

The W.R.D. Govt. of Jharkhand is pursuing the inclusion of Sukari Reservoir Scheme, Tajana Reservoir Scheme, Raisa Reservoir Scheme & Re-construction of head works of Kanchi Weir Scheme (an ERM Scheme) under A.I.B.P. If these schemes are approved by MoWR Govt. of India under A.I.B.P. for 2010-11, additional amount will be received as Central Grant.

3. STATE PLAN SCHEMES

Continuing Schemes

3.1 Major/Medium Irrigation Projects

- 1 Subernrekha Multipurpose Project
- 2 Ajay Barrage Project
- 3 Punasi Reservoir Project
- 4 Amanat Barrage Projects
- 5 Konar Irrigation Project
- 6 North Koel Project
- 7 Bhairwa Reservoir Project
- 8 Suru Reservoir Project
- 9 Nakti Reservoir Project
- 10 Remrekha Reservoir Project
- 11 Jharjhara Reservoir Project

- 12 Garhi Reservoir Project
- 13 Keso Reservoir Project
- 14 Batane Reservoir Project
- 15 Kans Reservoir Project
- 16 Sukri Reservoir Project
- 17 Tajana Toli Reservoir Project
- 18 Kanti Reservoir Project
- 19 Re-construction of head works of Kanchi Weir Project
- 20 Raisa Reservoir Project
- 21 Suali Reservoir Project

3.2 Restoration of old Irrigation Projects and its maintenance

Restoration of lost irrigation potential of old major & medium irrigation projects is cheaper & more beneficial than creation of new irrigation potential. An outlay of Rs 2000.00 lakh has been proposed during Annual Plan 2010-11 for the Restoration of Old Irrigation Projects which includes Rs. 440.00 lakh for maintenance of existing irrigation projects to provide irrigation facility during Kharif and Rabbi season.

3.3 Extension Renovation & Modernization of Completed Projects (ERM)

E.R.M of completed projects is needed to enhance the irrigation capacity of existing irrigation projects or to retain their irrigation potential. Many augmentation schemes are needed to increase the water availability in existing irrigation projects. For this purpose, an outlay of Rs. 1000.00 lakh has been proposed during Annual Plan 2010-11.

New Schemes

3.4 Major/Medium Irrigation Projects

- 1 Burhai Reservoir Project
- 2 Kanhar Reservoir Project
- 3 Tahle Reservoir Project
- 4 Bateshwar Pump Canal Project
- 5 Tilaiya Irrigation .Project
- 6 Domani Nala Reservoir Project
- 7 Kulhar Reservoir Project
- 8 Amant Reservoir Project
- 9 Pniyakhor Reservoir Project
- 10 Right Banki Reservoir Project

- 11 Ranital Reservoir Project
- 12 Jinjoi Reservoir Project
- 13 Phoolwaria Reservoir Project
- 14 Satpotka Reservoir Project
- 15 Torai Reservoir Project
- 16 Salaiya Reservoir Project

3.5 Dam Safety & Hydrology Project-II

The Ministry of Water Resources (MoWR), GoI is piloting a Dam Safety project & Hydrology Project-II from World Bank assistances. Jharkhand is also included in this programme. Accordingly, a token outlay has been provided in the Annual Plan 2010-11.

3.6 Restoration of old water bodies

Under the above mentioned scheme, renovation/restoration of following bodies will be taken up : -

- Getalsud Reservoir
- Gonda Reservoir
- Hatia Reservoir
- Chharwa Reservoir (Hazaribagh)
- Sitarampur Reservoir (Adityapur)

3.7 Capacity Building, Strengthening & Upgradation

- 1 Construction & Establishment (furnishing) of Sinchai Bhawan
- 2 Survey and Investigation, Consultancy and Evaluation
- 3 E-Governance
- 4 Constitution of Jharkhand Irrigation Commission
- 5 Linking Irrigation to Agriculture
- 6 Renovation of Old Vehicles/Purchase of New Vehicles
- 7 Renovation of Building & construction of new buildings
- 8 Training/Workshop/Seminar Departmental Officers/Water User Association/ Beneficiaries Committee

SUMMARY (Major & Medium)

Sl. No.	Type of Scheme	Annual Plan 2010-11 (Rs. in lakh)			
		Proposed Outlay	Flow to TSP	Flow to SCSP	Flow to OSP
A.	Earmarked	4830.00	2500.00	1330.00	1000.00
B.	State Share (CSS/CS)	--	--	--	--
C.	State Plan Schemes				
	i. Continuing Schemes	28980.00	13730.00	9430.00	5820.00
	ii. New Schemes	490.00	267.00	123.00	100.00
D.	EAP (if any)	--	--	--	--
E.	Other	--	--	--	--
	Grand Total	34300.00	16497.00	10883.00	6920.00

III. B. MINOR IRRIGATION

INTRODUCTION

The State of Jharkhand is situated in a plateau region having the undulating topography. The annual precipitation in this State is 1300 mm to 1400 mm. Minor & lift irrigation schemes are more suitable for this region as they are economical to construct and have low gestation period and do not involve any major land acquisition problem or displacement of population.

Out of the total cultivable area (29.74 lakh ha.), only 12.765 lakh ha. can be irrigated through Major and Medium Irrigation Schemes while the remaining area has to be covered through Minor / Lift Irrigation /Ground Water Schemes.

2. EARMARKED SCHEME

A.I.B.P (Minor)

State level TAC has approved schemes under Minor Irrigation Sector. Administrative Approval is being obtained after which proposal for inclusion under A.I.B.P of Union Ministry of Water Resources (MoWR) will be submitted. The Proposed Outlay during 2010-11 for Earmarked Schemes under Minor Irrigation Sector, which will be executed under A.I.B.P. is as below:-

- Construction of Check Dam/ Series Check Dam.
- Construction of Medium. Irrigation Schemes &
- Other Minor Irrigation Schemes

3. STATE SHARE TO CSS

Pilot Project for Restoration/Renovation & Reconstruction of Water Bodies (Minor) [75 : 25]

Under the Pilot Project for restoration of Water Bodies directly linked to Agriculture, Central Assistance is provided by Ministry of Water Resources, Government of India on 75:25::Centre:State ratio basis. State & District Level Committees have been formed and assuming that more districts of Jharkhand will be selected under this Pilot Project Programme, the proposed outlay for Annual Plan (2010-11) as state share is as follows;

- Pilot Project for R.R.R. of Water Bodies directly linked to Agriculture

4. STATE PLAN SCHEMES

Continuing Scheme

A. Execution of Ongoing MI Project

- 1 Construction of Check Dam/ Series Check Dam.
- 2 Construction & Rehabilitation of Water Harvesting structures (M.I. Projects/Check dams/ Ponds/Ahar etc) & Gram Bhagirathi Yojana
- 3 Construction of M.I. Projects
- 4 Construction of different dia dug wells
- 5 Construction of Microlift Projects

B. Ground Water Survey & Recharging Project

C. Restoration of Old Minor Irrigation Projects & its Maintenance

- 6 Renovation of Lift Irrigation Project
- 7 Renovation M.I. Project/Ch. Dam Project
- 8 Renovation & Construction of Ahar - Ponds/Augmentation of traditional water resources

D. Liability of BDP

New Schemes

A. Execution of New Minor Irrigation Project

- 1 Construction of Check Dam/ Series Check Dam.
- 2 Construction & Rehabilitation of Water Harvesting structures (M.I. Projects/Check dams/Ponds/Ahar etc) & Gram Bhagirathi Yojana
- 3 Construction of Medium. Irrigation. Projects
- 4 Construction of different dia dug wells
- 5 Construction of Microlift Projects

B. Ground Water Survey & Recharging Project

C. Capacity Building Strengthening & Upgradation

- 1 Construction & Renovation of buildings, godown & offices.
- 2 Survey and Investigation, Consultancy and Evaluation.
- 3 E-Governance
- 4 Restoration of Old Vehicles
- 5 **Training of officials NGO/Water User Association**

SUMMARY (Minor)

Sl. No.	Type of Scheme	Annual Plan 2010-11 (Rs. in lakh)			
		Proposed Outlay	Flow to TSP	Flow to SCSP	Flow to OSP
A.	Earmarked	6500.00	3250.00	550.00	2700.00
B.	State Share (CSS/CS)	200.00	100.00	0.00	100.00
C.	State Plan Schemes				
	i. Continuing Schemes	1710.00	780.00	120.00	810.00
	ii. New Schemes	3090.00	1385.00	710.00	995.00
D.	EAP (if any)	--	--	--	--
E.	Other	--	--	--	--
	Grand Total	11500.00	5515.00	1380.00	4605.00

III. C. COMMAND AREA DEVELOPMENT (CAD)

INTRODUCTION

Under Command Area Development and Water Management Programme (CADWM), three projects namely Kanchi Weir, Mayurakshi and Annaraj have been submitted of which GOI. Kanchi & Mayurakshi have been accorded approval. More schemes are also planned to be proposed under this programme.

2. STATE SHARE TO CSS

Mayurakshi Reservoir and Kanchi Irrigation Project

Mayurakshi Reservoir and Kanchi Irrigation Project and other proposed schemes to be executed under Central assistance.

SUMMARY (CAD)

Sl. No.	Type of Scheme	Annual Plan 2010-11 (Rs. in lakh)			
		Proposed Outlay	Flow to TSP	Flow to SCSP	Flow to OSP
A.	Earmarked	--	--	--	--
B.	State Share (CSS/CS)	200.00	0.00	40.00	160.00
C.	State Plan Schemes				
	i. Continuing Schemes	--	--	--	--
	ii. New Schemes	--	--	--	--
D.	EAP (if any)	--	--	--	--
E.	Other	--	--	--	--
	Grand Total	200.00	0.00	40.00	160.00

III. D. FLOOD CONTROL

INTRODUCTION

Many villages on the right bank of river Ganga have been threatened due to erosion of the bank of the River Ganga, for the last several years. The River Ganga is endangering the National Highway No. 80 running parallel to the river on to right bank . The river Sone is engulfing agricultural land in Palamu district. To save the villages, National Highway anti- erosion works such as revetment and bed bars will have to be executed.

2. STATE SHARE TO CSS

Anti-erosion works in Ganga Basin (75 : 25)

The Ministry of Water Resources (MoWR), GoI is piloting Anti Erosion works in Ganga Basin with central assistance (75:25) where in Jharkhand is also included. The anti erosion works to be executed in subsequent years is decided on the basis of actual site condition after the visit of GFCC members and with their consent. Accordingly provisions have been made as below;

- Restoration work of Simaria-Goregama right embankment
- Anti Erosion Work on the right bank of river Ganga at Narayanpur (Rajmahal) district Sahebganj
- Anti Erosion work on the right bank of river Ganga from Budhwariya to Kanhaiya Asthan, Distt- Sahebganj
- River training work on right bank of Sone River between village Deori to Dangwar in Palamu district.

3. STATE PLAN SCHEMES

Continuing Schemes

3.1 Flood Protection Schemes

The following ongoing projects are proposed during 2010-11 :-

- Restoration of Sangrampur, Narayanpur, Vishrampur embankment in Godda district
- Anti erosion works near Tarhassi Bazar on Amanat river in Manatu block,
- Anti erosion works near Tandawa village on right bank of Danro river
- A/E Work on right bank of Sone river near village Budhawa in Palamau district phase-II
- A/E Work on right bank of Sone river near village Devari in Palamau district phase-II

- Anti erosion work on river North Koel on right bank near Raja Harishchand Ghat near Medaninagar.
- A/E Work near village Chakchamu and Baijachak on the left bank of Sunder river under Mahgama Block in the District Godda
- Construction of Embankment Left and Right Bank of Dahuajor river
- A/E Work on Kanchi River at Arkaya village in Bundu Block in the District Ranchi
- A/E Work on Left Bank of Subernrekha river near Kapali, Daiguttu, Subhas Colony and Laxman Nagar at Mango, Jamshedpur
- A/E work on the Right Bank of River Kajhia between villages Simratan and village Sarotia.
- Other Flood Protection Project

New Schemes

3.2 Flood Protection/Anti Erosion Project

The following new projects are proposed during 2010-11 :-

- A/E Work on right bank of Sone river near village Dangwar in Palamau district
- Raising & strengthening of embankment between Nemtari to Kanbhara and Sarotia to Simralari in Godda block.
- A/E on work on right bank of Amanat river at village Sikkimeral Palamu district.
- A/E work near vill- Asangi, Adityapur, Sarikela Kharsawa.
- A/E work on right bank of kharkai river at Kadma.
- A/E work in village kakarbona in Pakur block
- A/E work in village Godermana on left bank of Kanhar river
- Flood protection work in right bank of Sone river between Sundrpur & Dumarsota
- A/E work to protect village - Benakara & Gaganpuna, Hatpur from Brahamani river in Dumka district.
- A/E Work on the right bank of river Ganga at Chandipur in the District Sahebganj(Phase-II)
- A/E Work on the right bank of river Ganga at Shobhapur in the District Sahebganj (Part-II)
- Ganga at Shobhapur(Part-III) in the District of Sahebganj
- Restrengthening and restoration of Anti Erosion Works on right bank of river
- A/E Work in two villages (Rahmatpur and Fatehpur) of Gumani river

- A/E Work from chain 130.50 to 134.00 of Narainpur-Sangrampur right embankment near village Sangrampur under Mahgama Block in the District Godda
- A/E Work at village Bamdole and Mahuldangni in Bahragora Block, East Singhbhum
- A/E work on the Right Bank of River Gangas at Mahajan Toli (Rajmahal) Distt. Sahebganj
- A/E work on Left Bank of River Bansloi at village Basmati in Maheshpur Block Distt. Pakur
- A/E work on left Bank of River Brahmerni near village Ganpura in Block Pakuria Distt. Pakur
- A/E work on river Amanat at Tarhasi Bazar, Block-Manatu, Distt. Palamau
- A/E work on Right Bank of Kharkai River near Gitangali complex
- A/E work on the Right Bank of river Kajhia near village kanbhara-Garbanna, Distt. Godda
- Anti Erosion work to protect seven villages (Yadavnagar, Bada Chandpur, Abdullapur etc.) from Gumani river in Barharwa block in Sahebganj district,
- Restoration of embankment from Pathkachpara to Kenduatand on right bank and from Mohanpur to Saptar on left bank of Patro river in Madhupur block in Deoghar district,
- Anti erosion works near Kajaldaha & Jhunki Village on the bank of Brahmani river in Sikaripara block of Dumka district other Flood Protection Project
- Protection work of anti erosion work at Barkuria village in Chaibasa district.
- Provision for Flood Fighting and Maintenance of Embankment on different rivers of the state.

SUMMARY (Flood Control)

Sl. No.	Type of Scheme	Annual Plan 2010-11 (Rs. in lakh)			
		Proposed Outlay	Flow to TSP	Flow to SCSP	Flow to OSP
A.	Earmarked	--	--	--	--
B.	State Share (CSS/CS)	800.00	780.00	20.00	0.00

C.	State Plan Schemes				
	i. Continuing Schemes/	300.00	250.00	50.00	0.00
	ii. New Schemes	400.00	350.00	50.00	0.00
D.	EAP (if any)	--	--	--	--
E.	Other	--	--	--	--
	Grand Total	1500.00	1380.00	120.00	0.00

Total Plan Allocation

A. TRIBAL SUB PLAN

A sum of **Rs. 23392.00** lakhs has been earmarked for Tribal Sub Plan out of total proposed outlay of **Rs. 47500.00** lakhs during Annual Plan 2010-11.

B. SPECIAL COMPONENT SUB PLAN

A sum of **Rs. 12423.00** lakhs has been earmarked for Special Component Sub Plan out of total proposed outlay of **Rs. 47500.00** lakhs during Annual Plan 2010-11.

C. FLOW TO DISTRICT PLAN

A sum of **Rs. 11500.00** lakhs has been earmarked for District Plan out of total proposed outlay of **Rs. 47500.00** lakhs during Annual Plan 2010-11.

D. OUTLAY PROPOSED FOR VARIOUS SCHEMES

Water Resources (Major, Medium & Minor)

Sl. No.	Type of Scheme	Annual Plan 2010-11 (Rs. in lakh)			
		Proposed Outlay	Flow to TSP	Flow to SCSP	Flow to OSP
A.	Earmarked Schemes				
1	AIBP (M&MI)	4830.00	2500.00	1330.00	1000.00
	AIBP (Minor)	6500.00	3250.00	550.00	2700.00
B.	State Share to CSS				
1	Pilot Project for restoration of water bodies (Minor)	200.00	100.00	0.00	100.00
2	Command Area Development	200.00	0.00	40.00	160.00

3	(CAD) Anti Erosion works in Ganga Basin (Flood)	800.00	780.00	20.00	0.00
C. State Plan Schemes					
Continuing Schemes					
1	Major and Medium Irrigation	28980.00	13730.00	9430.00	5820.00
2	Minor Irrigation	1710.00	780.00	120.00	810.00
3	Flood Control	300.00	250.00	50.00	0.00
New Schemes					
4	Major and Medium Irrigation	490.00	267.00	123.00	100.00
5	Minor Irrigation	3090.00	1385.00	710.00	995.00
6	Flood Control	400.00	350.00	50.00	0.00
Grand Total		47500.00	23392.00	12423.00	11685.00

SUMMARY (Water Resources)

Sl. No.	Type of Scheme	Annual Plan 2010-11 (Rs. in lakh)			
		Proposed Outlay	Flow to TSP	Flow to SCSP	Flow to OSP
A.	Earmarked	11330.00	5750.00	1880.00	3700.00
B.	State Share (CSS/CS)	1200.00	880.00	60.00	260.00
C.	State Plan Schemes				
	i. Continuing Schemes/	30990.00	14760.00	9600.00	6630.00
	ii. New Schemes	3980.00	2002.00	883.00	1095.00
D.	EAP (if any)	--	--	--	--
E.	Other	--	--	--	--
Grand Total		47500.00	23392.00	12423.00	11685.00