

## CHAPTER –IV

### WATER RESOURCES, IRRIGATION AND FLOOD CONTROL

#### 4.1 INTEGRATED WATER RESOURCE MANAGEMENT PROGRAMME

4.1.1. Though the State receives an average of about 12,000 mm of rain annually, there is an acute water shortage in many parts of the State during the dry season. The large scale mining of coal, limestone, etc. including deforestation has adversely affected the water system in the State. This has resulted in the deterioration of the quality of water which affects public health and agricultural activities. There has also been a significant decline in the natural aqua life in the rivers and streams in the State. In view of the above, the condition of the water sources in the State needs to be urgently addressed.

4.1.2. The objectives of the Integrated Water Resource Management Programme are to (i) encourage planning and management on a natural water systems basis through a dynamic process that adapts to changing conditions; (ii) balance competing uses of water through efficient allocation that addresses social values, cost effectiveness, and environmental benefits and costs; (iii) participation of all units of government and stakeholders in decision-making through a process of coordination and conflict resolution; (iv) promote water conservation, reuse, source protection, and supply development to enhance water quality and quantity; and (v) foster public health, safety, and community good will.

4.1.3. During the Twelfth Five Year Plan, an allocation of ` 13,000.00 lakhs is proposed for this sector. During the first year of the 12<sup>th</sup> Plan, i.e. Annual Plan 2012-13, the approved outlay under this programme is ` 9000.00 lakh out of which ` 5400.00 is under Externally Aided Projects (EAP), ` 2915.00 under Special Plan Assistance (SPA) and ` 385.00 lakh under Additional Central Resources (ACR). However, an amount of ` 3600.00 lakhs is anticipated to be utilized for Integrated Water Resources Management since the EAP project of ` 5400.00 did not materialize.

4.1.4. During 2013-14, an allocation of ` 9600.00 lakhs has been proposed under Integrated Water Resources Management.

#### 4.2 MEDIUM IRRIGATION

4.2.1 The projected outlay for Medium Irrigation for the 12<sup>th</sup> Plan period is ` 350.00 lakh and the approved outlay during the Annual Plan 2012-13 is ` 55.00 lakhs. The anticipated expenditure is ` 55.00 lakhs. The Tentative budgeted outlay for the year 2013-2014 is ` 60.00 lakhs.

4.2.2 The 11<sup>th</sup> Plan outlay and expenditure, the projected outlay and anticipated expenditure during the 12<sup>th</sup> Plan and the proposed outlay for 2013-14 is indicated in the table below:-

(` in lakhs)

Name of Scheme	11 <sup>th</sup> Plan Projected Outlay	11 <sup>th</sup> Plan 2007-12 Actual Expenditure	Annual Plan 2011-12 Actual Expenditure	12 <sup>th</sup> Plan Projected Outlay	Annual Plan 2012-13		Annual Plan 2013-14 Proposed Outlay
					Approved Outlay	Anticipated Expenditure	
Medium Irrigation	1000.00	Nil	55.00	350.00	55.00	55.00	60.00

4.2.3 During the 8<sup>th</sup> Plan, the execution of Rongai Valley Medium Irrigation Project was taken up at an estimated cost of ` .1630.00lakhs. The project provides for construction of 10.50m high barrage across river Rongai and 34.177 Km length Canal. The work for construction of barrage is 95% completed. The work is now suspended due to land acquisition and Revised Estimate which is now under updation.

4.2.4. **The Working Group of the Planning Commission held on 30.04.2008 had decided to abandon the Rongai Valley Medium Irrigation Project and all accounts of the Project are to be closed. The Working Group also suggested that for the residual payment, the State Govt. will set a committee which will work out the payment, and also explore the project use in terms of Drinking Water Supply, Food storage, Pisciculture and recreation.**

4.2.5. **Again, the Working Group of the Planning Commission which held on 19.05.2010 suggested that the outlay of Medium Irrigation have to be shifted to Minor Irrigation since the State Government decided to abandon the project.**

4.2.6. **The Govt. of Meghalaya has closed the project in its present form however, desired that the assets already created have to be utilized.**

### 4.3 MINOR IRRIGATION

4.3.1. The identified ultimate irrigation potential of the State is approximately 2.18 Lakhs hectare. The irrigation potential created up to the end of 2011-12 is about 40,312.53 Ha which is 18.50 % of the ultimate potential. Out of this, 38,399.08 Ha is under Surface water and 1913.45 Ha is under Ground water. The number of completed schemes is 444 Surface Water Schemes, 9 Nos. Deep Tube Wells and a cluster of Shallow Tube Wells.

4.3.2. The schemes are funded mainly by the Government of India under the Accelerated Irrigation Benefit Programme (AIBP). Some are also funded by NABARD under the RIDF schemes, while there are also few projects being taken up under the State Plan.

4.3.3. The proposed outlay during the Twelfth Plan (2012-2017) is ` 76,000.00 lakhs. In the first year of the 12<sup>th</sup> Plan, i.e. Annual Plan 2012-13, the approved outlay was ` 10150.00 lakh which includes ` 7500.00 lakh under AIBP and ` 850.00 lakhs of NABARD Loan. It is anticipated that the Plan allocation of ` 10150.00 lakh will be utilised in full.

4.3.4. The proposed outlay for Annual Plan 2013-14 is ` 11350.00 lakh which includes ` 8500.00 lakh for A.I.B.P., ` 850.00 lakhs of NABARD Loan. With this allocation, 5775 Hectares is targeted to be irrigated.

#### 4.4 COMMAND AREA DEVELOPMENT

4.4.1. 6 (six) M.I. projects at an estimated cost of ` 122.20 Lakhs has been physically completed during 2012-13 with a balance expenditure of ` 37.00 Lakhs. The new proposal under the cluster of 5 (five) M.I. projects at an estimated cost of ` 17,16,200/- covering an area of 160.77 Ha is under consideration.

4.4.2. The proposed outlay for the 12<sup>th</sup> Plan for this sector is ` 350.00 lakhs. As against the approved outlay of ` 100.00 lakhs during 2012-13, the anticipated expenditure is ` 38.00 lakhs only. During 2013-14, an amount of ` 110.00 lakhs is proposed for CAD with a target coverage 160 hectares.

#### 4.5 FLOOD CONTROL

4.5.1. Every year during monsoon, flood creates havoc especially in different parts of the state including Garo Hills, Khasi Hills, Jaintia Hills and Ri-Bhoi District. The flash flood damages the standing crops by inundating vast areas of paddy fields, snap road communication by washing away the road formation and semi permanent timber bridges. To restore the road communication, the State Government annually incurs heavy non-plan expenditure for repairing and restoration of the damaged roads and bridges. Permanent measures for protection of roads and bridges, paddy fields, cultivation lands and habitats are therefore necessary.

4.5.2 The projected outlay for Flood Control for the 12<sup>th</sup> Plan period is ` 2100.00 (L) and the approved outlay for the Annual Plan 2012-13 is ` 310.00 (L) which is expected to be utilized in full. The proposed outlay for 2013-14 is ` 2300.00 (L).

4.5.3. The 11<sup>th</sup> Plan outlay and expenditure, the projected outlay and anticipated expenditure during the 12<sup>th</sup> Plan and proposed outlay for the Annual Plan 2013-14 is indicated in the table below:-

(` in lakhs)

Name of scheme	11 <sup>th</sup> Plan Projected Outlay	11 <sup>th</sup> Plan 2007-12 Actual Expenditure	Annual Plan 2011-12 Actual Expenditure	12 <sup>th</sup> Plan Projected Outlay	Annual Plan 2012-13		Annual Plan 2013-14 Proposed Outlay
					Approved Outlay	Anticipated Expenditure	
Flood Control including Flood Protection Works.	3300.00	1252.15	266.00	2100.00	310.00	310.00	2300.00
<b>Total</b>	<b>3300.00</b>	<b>1252.15</b>	<b>266.00</b>	<b>2100.00</b>	<b>310.00</b>	<b>310.00</b>	<b>2300.00</b>

4.5.4 The physical target and achievement during the 11<sup>th</sup> plan period and the proposed targets during the 12<sup>th</sup> plan and Annual Plan 2013-14 is as indicated in the table below:-.

Item	Unit	11 <sup>th</sup> Plan (2007-12)		12 <sup>th</sup> Plan Projected Outlay (2012-17)	Annual Plan 2012-13		Annual Plan 2013-14 Proposed Target
		Target	Actual Achievement		Target	Anticipated Achievement	
Flood Control including Flood Protection Works	Nos.	86	78	50	10	10	9

#### 4.6 REPAIR, RENOVATION AND RESTORATION OF WATER BODIES

4.6.1 The Ministry of Water Resources, Government of India has launched the scheme of Repair, Renovation and Restoration (RRR) of Water Bodies as a State Sector scheme. The programme is being implemented by Soil & Water Conservation Department and Water Resources Department. Funds for this programme are provided by the Government of India as Central Assistance, of which 90% is grant from the Central Government and 10% is the contribution of the State Government.

4.6.2. The main objectives of the scheme are:

- (i) Comprehensive improvement of selected tank systems including restoration.
- (ii) Improvement of catchment areas of tank.
- (iii) Community participation and self-supporting system for sustainable management for water bodies covered by the programme.
- (iv) Ground Water Recharge.
- (v) Capacity Building of communities, user groups standing committee for Panchayats and State Government/Central Government Agencies concerned with the planning, implementation and monitoring of the project.
- (vi) Increase in storage capacity of water bodies.
- (vii) Improvement in agriculture/horticulture productivity and increase in recharge of ground water in downstream areas of water bodies.
- (viii) Environmental benefits through improved water use efficiency; irrigation benefits through restoration of water bodies, supplementation of the groundwater use and promotion of conjunctive use of surface and ground water.
- (ix) Development of tourism, cultural activities, etc.
- (x) Increased availability of drinking water.

4.6.3 The proposed outlay for this sector during the 12<sup>th</sup> Plan period is ` 7000.00 lakhs. During 2012-13, the approved outlay is ` 3400.00 lakh, of which ` 2840.00 lakh is earmarked for works being taken up by the Soil & Water Conservation Department and ` 560.00 lakh is provided for works being taken up by the Water Resources Department. The entire approved outlay is anticipated to be utilized in full.

4.6.4 A proposed outlay of ` 3400.00 lakh is provided for this programme during 2013-14.