

## CHAPTER IV

### IRRIGATION & FLOOD CONTROL

#### 4.1 MEDIUM IRRIGATION

**4.1.1** The approved outlay for Medium Irrigation for the Tenth Plan period (2002–2007) is Rs. 2475.00 lakhs. The expenditure incurred during the first four years of the Plan (i.e. 2002–2006) is Rs. 281.49 lakhs. The approved outlay for the year 2006–2007 is Rs. 22.00lakhs. **The proposed outlay for the Eleventh Plan (2007–2012) is Rs.1000.00lakhs and the proposed outlay for the Annual Plan 2007–2008 is Rs. 50.00lakhs.**

**4.1.2** During the 8<sup>th</sup> Plan, the Department took up for execution of Rongai Valley Medium Irrigation Project at an estimated cost of Rs.1630.00lakhs. The Department also referred 4(four) more projects to Central Water Commission for necessary investigation as given below:-

1. Pynthorwah Irrigation Project in Jaintia Hills District
2. Pynthornein Irrigation Project in Jaintia Hills District
3. Mawramhah Valley Irrigation Project in West Khasi Hills

District

4. Kodaldhowa Medium Irrigation Project in West Garo Hills

District.

**4.1.3** **Rongai Valley Medium Irrigation Project:-** The project provides for construction of 10.50m high barrage across river Rongai and 17 Km length Canal. The work is in progress and the construction of barrage is almost completed (95%).The progress of work is hampered due to land dispute and because of this there is cost and time overrun for which the estimate needs revision. The Revised estimate has been submitted to the Central Water Commission for an amount of Rs.13171.52 lakhs for necessary approval. On approval and sanction of the revised estimate, the remaining works for barrage and canals can be completed.

The salient features of the project as per the revised estimate are:-

1. Cultivable Command area = 4775hect
2. Net Irrigable area = 3490hect
3. Crop intensity to be raised = 78% to 147.20%
4. Cost benefit ratio = 2.18

Apart from irrigation, the project on completion will also help reduce the adverse effect of flood in the area.

**4.1.4** As for the remaining four projects, survey and investigation works has been taken up by WAPCOS, India, Ltd Detail Project Reports of all the four schemes are under process.

## 4.2. MINOR IRRIGATION

4.2.1. Meghalaya is basically an agrarian State with about 70 percent of its population depending on agriculture and allied activities. The State is however deficit in food grain production. One of the major requirements for increasing food grain production in the State is to provide assured irrigation so as to enable the farmers to take double/ triple cropping. As against the coverage of ultimate Irrigation potential of 78 % at the National Level, the irrigation coverage in Meghalaya is anticipated to be only 13 % up to the end of 10<sup>th</sup> Plan period. The ultimate irrigation potential in the State is 218 thousand ha under Agriculture Sector and 330 thousand ha under Horticulture. Till date only 23.8 thousand hectares of agricultural land has been brought under irrigation.

4.2.2. The approved outlay for the Tenth Plan (2002-07) is Rs 6000.00 lakhs and the cumulative expenditure during the first four years of the Tenth Plan, i.e. during 2002-06 was Rs. 2629.48 lakhs.. The approved outlay for the Annual Plan 2006-07 is Rs. 1000.00 Lakhs, which is expected to be utilized in full. As such, the total anticipated expenditure during the Tenth Plan is of the order of Rs. 3629.48 Lakhs

4.2.3. **The proposed outlay under the Eleventh Plan (2007-2012) is Rs. 16000.00 Lakhs** which includes Rs. 4900.00 lakhs as Central Assistance for Accelerated Irrigation Benefit Programme (AIBP). **During Annual Plan 2007-08, the proposed outlay is Rs. 2000.00 lakhs** which includes Rs. 800.00 lakhs under A.I.B.P. During the Eleventh Plan, 16500 Ha is targeted to be brought under irrigation which includes the target of 1800 Ha during 2007-08.

4.2.5. There are 7 on-going schemes being implemented under the Accelerated Irrigation Benefit Programme for which Central Loan Assistance is provided by the Central Government with a total command area of 1491hectares. Most of these A.I.B.P. schemes are in an advanced stage of completion. Besides the above, there are 10 ongoing schemes with a total command area of 899.29 hectares implemented under Normal State Plan which are in progress.

4.2.6. **Rain Water Harvesting/Water Management Programme** :- Though the State of Meghalaya receives heavy rainfall during the monsoon period, the States faces water shortage during lean season due to lack of water storage system. The problem of water storage was further accentuated during the last two years when there was a near drought like situation in the State. In order to combat this problem, Water Management Programme is urgently required & the State Govt. proposes to give a high priority to this programme during the Eleventh Plan. It is proposed to give maximum emphasis on restoration/ construction of Rain Water Harvesting structure, by way of constructing small dam/ retention structures in the gullies in between hills for storage of rain water during monsoon and providing irrigation to the hill slopes through contour canals/ pipes to convert the barren hill slopes into Horticulture orchards. Check dams along the river courses will also be constructed to improve water retention. An Outlay of Rs. 3000.00 lakhs for the 11<sup>th</sup> Plan (2007-12) and an Outlay of Rs. 500.00 lakhs respectively are proposed to be earmarked for Rain Water Harvesting/Water Management Programme.

4.2.7. **The other thrust areas during the Eleventh Plan are :-**

**A. Doubling of Irrigation coverage under Bharat Nirman Programme :-** To increase the irrigation coverage in the State by 100 % i.e from 28 thousand ha till end of Tenth Plan to 56 thousand ha till the end of Eleventh Plan as also initiated under the Bharat Nirman Programme of the Hon'ble Prime Minister of India.

**B. Construction of small and micro level schemes :-** Emphasis is proposed to be given for providing irrigation to Horticulture crops through small and micro level irrigation schemes.

**C. Ground Water Development utilization :-** It is proposed to fully develop and utilize the ground water potential of the State especially in Garo Hills and also the schemes for recharging the ground water potential.

**D. Rain Water Harvesting and Proper Water Management :-** Emphasis will be given on this programme during the 11<sup>th</sup> Plan

**E. Participatory approach** with groups of beneficiary farmers for taking up Minor Irrigation Projects will be adopted to ensure maintenance after completion.

4.2.8.1 The broad breakup of the proposed outlay for the 11<sup>th</sup> Plan (2007-12) and the annual Plan (2007-08) in respect of Minor Irrigation Sector is indicated below :

<b>(Rs. Lakhs)</b>			
<b>Sl No.</b>	<b>Programme</b>	<b>11<sup>th</sup> Plan (2007-12) Proposed Outlay</b>	<b>Annual Plan (2007-08) Proposed Outlay</b>
1	Minor Irrigation Projects	11600.00	1300.00
2	<b>Water Resource Management :</b>		
	a) Ground Water Development	800.00	100.00
	b) Rain Water Harvesting and Checked Dams	3000.00	500.00
3	Direction & Administration including Buildings	600.00	100.00
	<b>Total</b>	<b>16000.00</b>	<b>2000.00</b>

### **4.3. COMMAND AREA DEVELOPMENT**

4.3.1. A gap exists between the irrigation potential created and the potential utilized. This is due to various reasons like inadequate provision of field channels, necessity for land shaping / land leveling, etc. In order to bridge this gap, the State Government is implementing a Centrally Sponsored Scheme, viz. Command Area Development which is funded on 50:50 (Central share : State share) basis.

4.3.2. The approved outlay for the Tenth Plan (2002-07) in respect of Command Area Development is Rs 165.00 lakhs. The cumulative expenditure during the first four years of the Tenth Plan, i.e. during 2002-06 was Rs. 82.96 lakhs. The approved outlay for the Annual Plan 2006-07 is Rs. 29.00 Lakhs, which is expected to be utilized in full. As such, the

total anticipated expenditure during the Tenth Plan is of the order of Rs. 111.96 Lakhs. **An outlay of Rs 500.00 lakhs is proposed for the Eleventh Five Year Plan (2007-2012) while the proposed outlay for Annual Plan 2007-2008 is Rs. 50.00 lakhs only.**

#### 4.4 FLOOD CONTROL

**4.4.1** Every year during monsoon, flood creates havoc especially in different parts of the state including Garo Hills, Khasi Hills and Jaintia Hills. The flash flood damages the standing crops by inundating vast areas of paddy fields, snaps road communication by washing away the road formation and semi permanent timber bridges. Due to this, the state Government has to incur heavy non plan expenditure for repairing of roads and bridges every year. To counteract the flood menace, permanent measures for protecting paddy fields, cultivation lands and habitats are necessary. As such enhanced allocation is required for flood control projects.

**4.4.2** The approved outlay for the Tenth Plan is Rs.1100.00lakhs. The expenditure during the first four years of the Plan is Rs.754.95lakhs. The approved outlay during 2006-2007 is Rs. 215.00lakhs which is expected to be utilised in full. Upto the 4<sup>th</sup> year of the 10<sup>th</sup> plans, there are 83 (eighty three) sanctioned schemes with the total cost of Rs.1951.81lakhs. Out of the above 24 (twenty four) will be completed during the Tenth Plan period at the anticipated expenditure of Rs.969.95lakhs. The total number of schemes that will spill over to the 11<sup>th</sup> Plan period is 59 (fifty nine). The bank of sanction as on 01.04.2007 will be Rs.1484.00lakhs provided that there will be no new schemes sanctioned during the year 2006-2007. **The proposed outlay for the Eleventh Plan (2007-2012) is Rs.3300.00lakhs and Annual Plan 2007-2008 is Rs.250.00 lakhs respectively.** During the first year of the **Eleventh Five Year Plan**, Rs.250.00lakh has been provided out of which Rs. 200.00lakhs is being earmarked for implementation of the ongoing spill-over schemes and Rs.50.00lakhs which is meant for new schemes. All the 59 spill-over schemes from the Tenth Plan will be completed during the Eleventh Plan period. Besides these, 25 (twenty five) new schemes are expected to be taken up and completed during the Eleventh Plan.

#### **4.4.3 Centrally Sponsored Schemes:-**

The Ministry of Water Resources through the Brahmaputra Board has earmarked an amount of Rs.7929.00lakhs for implementation of Critical Flood Control and Anti Erosion Schemes which the schemes are to be completed during the **Eleventh Five Year Plan**. The funding pattern is 90:10. 11(eleven ) schemes have been identified against this provision by the State Government. 1 (one) scheme has been sanctioned by the Ministry of Water Resources at a cost of Rs.337.39lakhs and the anticipated expenditure upto 31.03.2007 will be Rs.223.75lakhs.