

CHAPTER-V

IRRIGATION

5.1.0 Availability of assured irrigation facility is undoubtedly the most important prerequisite for a sustained development in the agricultural sector of Assam. The modernization of agricultural practices vis-à-vis increase in productivity of crops cannot be conceived in absence of assured irrigation facilities. The importance of irrigation development bears special significance in the context of efforts towards economic development of the State.

5.1.1. Like other leading States in India, the programmes for development of irrigation in Assam has been launched under two heads, viz-Major & Medium Irrigation and Minor Irrigation. While the Irrigation Schemes are classified as Major, Medium and Minor, they are categorised as Surface Flow, Surface Lift (For Major / Medium and Minor) and Ground Water Lift (for Minor only).

5.1.2. At present three Departments, viz. Irrigation, Agriculture and Panchayat & Rural Development are associated with development of irrigation facilities in the State. While the Irrigation Department, being the Nodal Department for development of irrigation in the State, executes and maintains Major, Medium and Minor Irrigation Schemes, the irrigation works of the other two departments are confined to Minor Schemes only. It may further be mentioned that the Assam State Minor Irrigation Development Corporation (ASMIDC) Ltd. was also earlier closely associated with the development of Minor Irrigation in the State by installing Private Shallow Tube Wells (STWS) and Low Lift Points (LLPs) through provision of institutional finance upto 1992-93. But its field works have since remained suspended due to stoppage of institutional finance.

5.1.3. Out of the total geographical area of 78.44 lakh hectares, the Gross Cropped Area of Assam is 40.87 lakh hectares (1999-2000). Against this, the ultimate irrigation potential i.e. the ultimate Gross Irrigation Potential (Annually Irrigable Area) to be created is assessed at 27 lakh hectares, which constitutes 66.06 per cent of the Gross Cropped Area. Against this, the Gross Irrigation Potential created upto 2003-04 is only 11.26 lakh hectares which constitutes only 27.55 per cent of Gross Cropped Area and 41.70 per cent of ultimate irrigation potential. The contribution made by the above three Departments and the ASMIDC is shown at Table 5.1.

TABLE- 5.1				
GROSS IRRIGATION POTENTIAL (ANNUALLY IRRIGABLE AREA) CREATED IN ASSAM UPTO 2003-04.				
Department / Agency	Gross Irrigation potential created upto 2003 – 04 (Area in lakh Hect.)			Percentage contribution
	Major & Medium Irrigation	Minor Irrigation	Total	
1	2	3	4	5
1. Irrigation Department	2.01	3.20	5.30	47.07
2. Agriculture Department	-	3.93	3.93	34.90
3. Panchayat & Rural Development Department	-	0.54	0.54	4.80
4. Assam State Minor Irrigation Development Corporation (Upto 1992-93)	-	1.49	1.49	13.23
Total	2.10	9.16	11.26	100.00

Source : Irrigation Department, Assam.

The above statistics reveals that the progress so far achieved is not much encouraging. The position is however expected to improve in near future due to efforts being made in that direction.

The irrigation schemes in the State are being taken up through loan assistance from the World Bank under the Assam Rural Infrastructure and Agricultural Services Project (ARIASP) and also from the Non-Lapsable Central Pool (NLCP) of resources with 100 percent Central Assistance for creation of additional irrigation potential in the State. The achievements under the above Schemes are narrated below.

(a) Accelerated Irrigation Benefit Programme (AIBP):

The Accelerated Irrigation Benefit Programme with Central Loan Assistance (CLA) was initially conceived during the year, 1995-96 but actual allocation of fund was received in the year, 1996-97. The programme was originally meant for Major and Medium Irrigation Schemes only, but subsequently it was also extended to cover Minor Irrigation Schemes. At the initial stage the funding pattern of the AIBP was in the ratio of 1:1 by the Central : State Government which was subsequently modified to 2:1 and now it stands at 3:1 for special category States including Assam.

At present 10 (ten) numbers of Major / Medium Projects are in ongoing stage. The latest estimated cost of the Projects is Rs.876.30 crore and the expenditure-incurred upto March, 2004 is Rs.491.49 crore. The estimated potential of the Projects is 2.32 lakh hectares and the upto date creation of potential (till March, 2004) is 1.10 lakh hectares.

As regards Minor Irrigation under the AIBP, a total of 40 Nos. of schemes have been taken up since 1999-2000 with estimated cost of Rs.39.64 crores against which Central Loan Assistance released upto 2003-04 is Rs.6.26 crores and 8 Nos. of schemes have been completed so far. The total expenditure incurred upto March, 2004 is Rs.8.35 crore.

(b) Non-Lapsable Central Pool (NLCP):

Under the programme of Non-Lapsable Central Pool of Resources, 86 Nos. of Minor Irrigation Scheme in Phase-I have been completed creating additional potential of 10,679 hectares against the targeted area of 13,536 hectares by incurring 100% expenditure i.e. Rs.11.21 crore in Plain Area of the State.

Under Phase-II, which was started in the year 2000-2001, a total of 37 numbers of schemes comprising 25 in Plain Areas and 12 in Hill Areas were taken up against the allocation of Rs.29.30 crores (Rs.3.19 crore for Plain Areas and Rs.26.11 crore for Hill Areas) with a target of physical achievement of 14,021 hectares (5462 hectares for Plain Areas and 8559 hectares of Hill Areas). Against this, a total of 5074 (2878 hectares in Plain Areas and 2196 hectares in Hill Areas) have been achieved upto 2003-2004 completing 23 Nos. of schemes (13 in Plain Areas and 10 in Hill Areas). The expenditure incurred upto 2003-2004 is 22.62 crore (Rs.2.31 crore in Plain Areas and Rs. 20.31 crore in Hills Areas).

(c) Assam Rural Infrastructure and Agricultural Services Project (ARIASP) :

The Irrigation Department Started the execution of schemes under ARIASP with effect from 1997-98. Under the Project a total of 215 schemes were taken up which included 136 number of Deep Tube-wells, 56 numbers River Pumping station and 23 numbers Micro Lift Irrigation schemes.

Although no new scheme has been taken up during 2004-05 under ARIASP, three numbers of spilled over schemes are in progress during 2004-05. A total of 6333 hectares of area have been created upto to 2003-2004 by the schemes and 186 numbers out of 215 numbers of these schemes have been handed over to the concerning Water Users' Association (WUAS). The total expenditure incurred upto June, 2004 is Rs.9.88 crores against the release of Rs.10.04 crore by the ARIASP society.

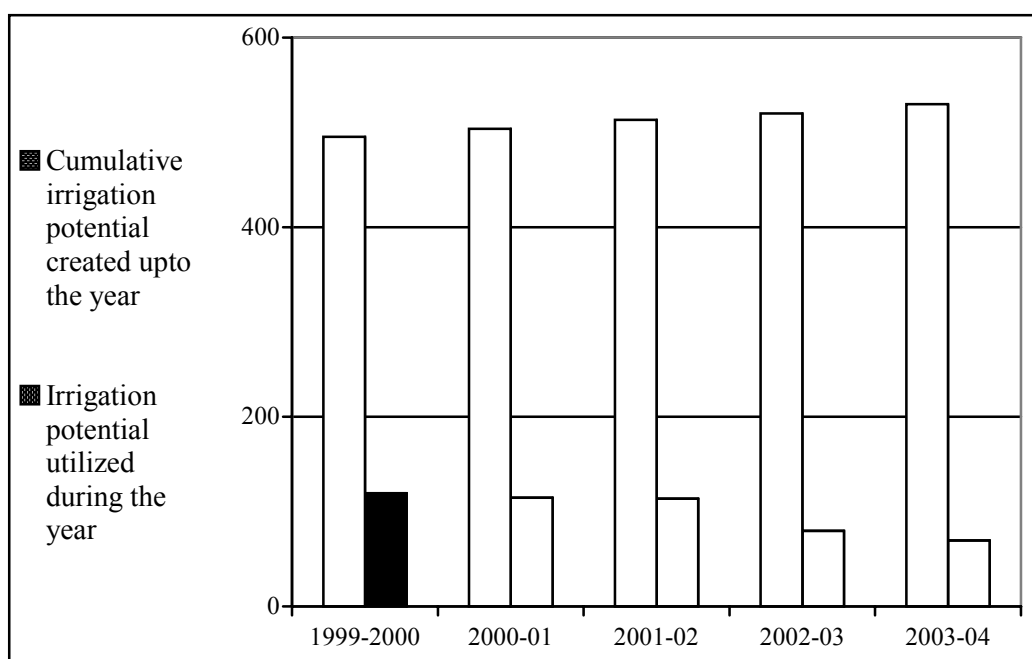
Creation and Utilization of created irrigation potential:

5.1.4. In addition to the creation of irrigation potential by agriculture Department Panchayat and Rural Development Department and by Assam State Minor Irrigation Development Corporation Ltd. through institutional finance, Irrigation Department Assam alone created an irrigation potential of 5.30 lakh hectare upto 2003-04. But the most discouraging aspect of irrigation development in the State is the decreasing trend of utilization of irrigation potential already created through Government Irrigation Schemes. The cumulative irrigation potential created upto and utilized during the last 5 (five) years are furnished in Table 5.2.

TABLE-5.2
IRRIGATION POTENTIAL CREATED AND UTILISED
(Potential /Area in thousand hectares)

Year	Cumulative irrigation potential created upto the year			Irrigation potential utilized during the year			Percentage utilization to created potential
	Kharif	Rabi & Pre-Kharif	Total	Kharif	Rabi & Pre-Kharif	Total	
1	2	3	4	5	6	7	8
1999-2000	341.37	154.07	495.44	97.84	21.24	119.22	24.06
2000-01	344.57	159.42	503.99	99.90	14.83	114.73	22.76
2001-02	348.82	164.52	513.34	99.34	13.74	113.48	22.11
2002-03	353.65	166.39	520.04	71.91	7.46	79.37	15.26
2003-04	361.00	169.00	530.00	61.79	7.69	69.48	13.11

Source : Irrigation Department, Assam.



The decreasing trend of utilization of irrigation potential from Government Irrigation Schemes (under Irrigation Department Assam) is due to some reasons like – non-practising of cropping pattern as per designed / approved cropping pattern of the Schemes, lack of eagerness of the farmers to utilize irrigation water due to lack of awareness about the role played by irrigation in increasing yield rates of crops, non-repair of schemes due to paucity of fund, non-energisation of pump sets and irregular supply of electricity in case of Electrical Lift Irrigation Schemes etc. The imposition of Irrigation service charges on the beneficiary cultivators has also made some farmers reluctant to avail the benefits of irrigation facilities for fear of being compelled to pay the irrigation service charges.

Irrigation Service Charges:

5.1.5. As per national policy, Irrigation Service Charges or water rates, as the case may be, should be realized from the beneficiary farmers so as to cover at least the full operation and maintenance cost of the irrigation schemes and the same should be reviewed and enhance time to time to cover even one per cent of the capital cost. The Irrigation Department had levied Irrigation Service Charges in 1992 and the rates were doubled with effect from 2000 – 2001 for enhancing revenue in conformity with the Fiscal Reform Programme. The prevailing rates of Irrigation Service Charges which came into effect from 2000-2001 are furnished in Table 5.3

TABLE-5.3
CROPWISE IRRIGATION SERVICE CHARGES
IN ASSAM WITH EFFECT FROM 2000 –2001

Crops	Rate per Bigha (In Rs.)	Rate per Hectares (In Rs.)
1. Kharif	37.50	281.24
2. Wheat and other Rabi Crops	75.00	562.50
3. Early Ahu / Ahu	100.00	751.00
4. Jute	20.00	150.00
5. Sugarcane	29.60	222.00

The Irrigation Service Charges are to be realized by the Irrigation Department through the beneficiary committees of the respective irrigation schemes. For this purpose, the Department has taken action for formation of Water Users' Associations (WUAs) which are also to be entrusted with the operation and maintenance of the schemes with a view to achieve optimum utilization of irrigation potential. About 450 WUAs have been formed upto 2002-03 and 186 schemes rehabilitated under the ARIASP have been handed over to the WUAs upto 2003-2004.

As a result of stress laid on enhancing realization of Irrigation Service Charges, the amount realized has also increased from negligible Rs.0.24 lakh in 2001–2002 to Rs.1.74 lakh in 2002–2003 and further to Rs.2.78 lakh in 2003-04.