

CHAPTER - V

SUMMARY AND CONCLUSION



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In a country like India where rainfall is scanty and uncertain, the development of irrigation potential through the construction of major, medium and minor schemes becomes the sine qua non of the strategy of agricultural development. The research work tries to study the development of irrigation project in Solapur district, with particular reference to Bhima (Ujjani) Irrigation Project. The main emphasis was the impact of Bhima (Ujjani) dam on cropping pattern in benefiting area of the project. The changes in cropping pattern have been studied with the help of a case study of Ranjani village.

The Bhima (Ujjani) dam has the total irrigation potential of 1,29,440 hectares (I.C.A.) flow irrigation and 8500 hectares (I.C.A.) lift irrigation. The seven talukas such as Pandharpur, Madha, Malshiras, Karmala, North Solapur, South Solapur and Mangalwedha are the benefiting areas

by left and right canals of the Bhima (Ujjani) irrigation Project. The length of this dam is 2467 Km. and its height is 42,855 meter. The total watershed area of the dam is 14,850 sqm. which has capacity of 3114 million. T.M.C. The total cost of construction of the dam is Rs. 340 crores including the development cost of the benefiting area.

The total irrigation potential increased 16,700 hectare from 1979 to 92,398 in 1988. Though actual utilization of irrigation water has increased 5,309 hectare from 1979 to 44,613 hectares in 1988. However, the under utilisation irrigation potential was continuously increasing during the period of ten years from 1979 to 1988, which increased from 11,391 hectare to 47,785 hectares during the same period.

An effort is made in Chapter III to analyse the land use pattern and the changes in cropping pattern. The total command area of Bhima project has covered 189 villages and 1,33,000 hectares of land. These villages will be getting irrigation

water, out of 189 villages 106 villages in the catchment area of (Ujjani) left bank canal (U.L.B.C.) are getting irrigation water from agricultural season 1983-84. Till today remaining 83 villages are under catchment of Ujjani right bank canal (U.R.B.C.) which is not yet completed. Table No. III-2 gives details about 106 benefiting villages under U.L.B.C.

Today out of 189 villages 106 villages are getting irrigation water for cultivation purposes. The irrigation system which is applicable for Bhima dam consists three cropping system of Kharif, Rabbi and Summer crops. According to Government rule of eight monthly irrigation system which increases the cropping intensity and the area under food crops. The Bhima project irrigation water is being available with two sources lift and canal (flow). Table No. III-3 and III-4 give information about the impact of lift irrigation on Kharif, Rabbi and Summer crops. These two tables (III-3, III-4) reveal that, potential

of lift irrigation was increased from 6000 hectares in 1983-84 to 15,757 hectares in 1987-88. It is very remarkable that, particularly after 1985-86 the total irrigation area crossed its potentiality in 1976-87, 1987-88. The potential of lift irrigation in the year 1986-87 was 12054 hectares whereas the total irrigated area recorded more than 154% increase i.e. 18613.32 hectares. This achievement is due to the rule of eight monthly supply.

The availability of flow irrigation is the greatest contribution of Bhima project. As given in Table No. III-5 and III-6 the potential of flow irrigation was showing continuously increasing trend from 1983-84 (15,500 hectares) to 1987-88 (37,827 hectares). The utilisation of irrigation potentiality reached, its optimum level in year 1985-86 (106%) and 1986-87 (100.05%).

The basic data related to major cropping pattern under Bhima dam is given in appendix 'A'.

The tables have been prepared on the basis of information.

In view of this fact the area under foodgrains was showing increasing trend from 1983-84 (11921.07 Ha.) to (13122.45 Ha.) in 1987-88 including all Kharif, Rabbi and Summer seasons. In foodgrains Jawar is having the great contribution. In commercial crops sugarcane and groundnut have the major contribution. The area under commercial crops has almost doubled from 5524.76 hectares in 1983.84 to 13252.76 hectares in 1987-88.

Thus the composition of cropping pattern is given in table No. II-9 and Table No. 10. It is observed from these tables that Rabbi Jawar contributes major share in the foodgrains crops. Sugarcane and groundnut have the greater share in the commercial crops. Though there was restriction for adoption of the perennial crop like sugarcane due to the eight monthly irrigation system the area under sugarcane

is still increasing. It is reported that, the farmers can afford to take sugarcane even after paying penalty and heavy irrigation charges.

The C.A.D.A. is adopting the Co-operative system of irrigation water distribution for the benefiting farmers. In Chapter - IV we have presented a case study of Ranjani village in which co-operative irrigation society named Shri Sidheshwar co-operative Kalwa Pani Watap Society is working on ideal basis.

The Ranjani village is the first beneficiary village which is situated in Madha Taluka. It is on the border line of Indapur taluka of Poona District. According to 1971 census the population of small Ranjani village was 2597 which increased to 2641 after decade (1981) census. Today there are nearly 600 households of the total population 2840. The total area of the village is 841 hectares.

The cropping pattern of Ranjani village has been totally changed and there is the signs of green

revolution. The average land holding of each farmer is hardly 1.15 hectares which is totally irrigated.

It is clear from the table No. IV-3 out of total number 189 farmers, thirty (15.87%) have the average per farmer irrigated area of 2.99 hectares in the first size group of less than 0.50 hectares. The eighty-nine farmers are having the irrigated land between the size group of 0.50 to 1.00 hectare and the average irrigated area per farmer in this size group is only 1.27 hectares. Only eight farmers are having irrigated area on an average more than 2.50 hectares irrigated land. Thus the average irrigated land holding per farmer is 1.15 hectares.

It is very remarkable to note that, most of the beneficiaries in Ranjani village are not only small farmers but also marginal farmers, who are the participants of modernisation of agriculture.