Irrigation has acquired increasing importance in agriculture the world over. India has the highest irrigated land in the world today (54,80,000 hectares). India’s irrigation development this century & particularly after independence has seen number of large storage systems, all by the Government effort & money. However, in British period in India, there were particularly no large reservoir projects in India. Even in British period, a few storage structures were built only in the beginning of this century. Post independence India however has seen more than 60 percent of irrigation budgets going for Major & Medium projects.

After independence rapid harnessing of water resources was the prime objectives. According the State government were encouraged to expeditiously formulate & develop water resources projects for specific purposes like irrigation, flood control, hydro power generation, drinking water supply, etc. As a result, a large number of projects comprising dams, barrages, hydro power structures, canal networks etc. have come up all over the country in successive five years plans. Among these, Mayurakshi Reservoir Project is one of the main Major irrigation projects.

The population of India is expanding rapidly, with corresponding increased pressures on the food supply & the environment. To feed large number of population more crops are to produce. It demands more irrigation water from surface or underground.

In many countries, big dams & reservoirs were originally considered vital for national security, economic prosperity & agricultural survival. But today, the results are clear: dams have destroyed the ecosystems in & around rivers, lakes & streams, dams are not assurance for effective flood control, its hydro power is not cheap & reliable, its irrigation is irregular. Through water logging & salinization it destroys formerly fertile lands.

Mayurakshi Reservoir Project along with its canal irrigation system has been taken up for the present study. This irrigation system has been started in the year of 1954 & completed with its full phase in the year of 1985 by the Government of West Bengal. The Mayurakshi irrigation canal command area belonging to one of the drought prone Zones of West Bengal comprises with maximum areas of Birbhum district, western parts of Murshidabad district & north eastern part of Burdwan district. The irrigation system is controlled by the Irrigation Department, Government of West Bengal, Suri, Bolpur & Rampurhat Division. The main motto of this canal irrigation system was to save
agriculture from erratic nature of rainfall & to improve the socio-economic condition of the poor farmers.

The whole study has been carried out from different aspects. These different aspects have been discussed in the following chapters.

The first chapter discusses the history of irrigation development, different types of irrigation system, canal irrigation development in India since medieval period, canal irrigation projects in West Bengal, selection of the project, location & scope of the study, objectives & methodology.

The second chapter deals with salient features of Mayurakshi canal irrigation network, its principles & deficiencies.

The third chapter gives an account of the components of the physical environment of the study area.

The fourth chapter discusses about the land use pattern of the whole canal command area & its decadal change.

The fifth chapter presents the cropping pattern of the canal command area & its change.

The sixth chapter analyses the socio-economic profile of the people of this canal command area & its change since 1981.

The seventh chapter is important as it finds out the impact of the irrigation system on the change in agriculture & socio-economic profile.

The eighth chapter deals with the case studies of the selected villages from this canal command area.

The ninth chapter identifies the emerging problem of this canal irrigation system.

The tenth chapter tries to find out the suggestive remedial measures of the emerging problems.

The whole study has been supported by a bibliography & at the end questionnaire has been included in annexure.

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