Conclusion:

The present researcher has thoroughly studied the primary & secondary data, available & surveyed number of villages randomly, to analysis the impact of Mayurakshi canal irrigation system on its socio-economic aspects. The project cost was Rs. 45.49 cores (Source: Mayurakshi Project Report, Irrigation Department of West Bengal). How much it is gained, has taken into consideration. How much this canal irrigation system helped the agricultural economy of this region also has been taken into account. After the thorough study & analysis of the data & discussion with the villagers & water users, the researcher has proposed some positive measures may be useful for the socio-economic development of this canal command area by mitigating the problems created through the continuous practice of canal irrigation system. The proposed suggestive measures are:

- Dam & barrages are to be maintained on regular basis through dredging, desilting to run this canal irrigation system efficiently. Canal beds are also to be desilted on a regular basis. In this regard Panchyats may invest their duties by the farmers through National Rural Employment Guaranteed Schemes & these works should be done in every year before the rainy season so as to store more rain water & to help to flow upto the last end of the canal command.

- Continuous uplifting of ground water is depleting the ground water table, so canal water may help in recharging the ground water level. In this respect, scientific geological knowledge regarding the presence of hard impermeable rocks should be experienced as these rocks help to store ground water. Satellite imagery of geological structure taken by Indian Space Research Organization may help in this regard. This work should be done systematically & scientifically by the Central Water Investigation Department & Shallow Water Investigation Department. If it is done by the Irrigation Department, this water may help in the dry season which would be cost benefitted to the farmers.

- Farmers should be trained properly by the Non-Government Organizations & Govt. Agricultural Department at cost free so as to adopt new agricultural technologies. Technical supervision on agriculture & follow up action on agronomic practices
should be provided to the farmers by the Govt. agencies. Dry farming, sprinkle irrigation, pipe irrigation to avoid evaporation, should be taken into consideration.

To make farming a risk free & profitable activity, the govt. should provide standard seeds & agronomic expertise at farms & give guarantee purchase & regular marketing of agricultural produce.

The soil of the canal command area is highly suitable for Sugarcane, Til, Linseed, Jute & Pulses production which are less water needed crops, so to provide sustainable agricultural development, cropping pattern should be changed from Aman – Boro to high yielding varieties of traditional crops such as Maize, Barley, Gram, Rapeseed, Linseed, Pulses, Sugarcane etc.

In paddy cultivation where water is hardly reached, SRI [System of Rice Intensification] method to be applied, as it requires least amount of water & no need of water stagnancy in the paddy fields. Production is also high by this method. This method is highly practiced now in Andhra Pradesh where rainfed canal irrigation is highly practiced.

The tyranny of the middleman must be eliminated, so that the farmers may sell their own produce directly to the market which should be regulated by the state govt.

Govt. should establish number of cold storages in the rural sector & should provide subsidies to the private companies in the construction of cold storages where the farmers could easily store their excess production.

In the dry season, when water is highly scarce, the farmers should be encouraged to adopt mini dairy farming, poultry farming, floriculture, horticulture & sericulture & pig farming as secondary occupation. This will lead their economical health by removing their indolence & worklessness in the dry season, as it can employ a good number of populations.
Farmers should also be supplied 440 voltage electricity in the morning for three to four hours to lift canal & ground water but this high voltage electricity supply should be checked during heavy rains.

Along all the canals, regulators should be set up to operate the water flow avoiding political interference & it should be observed & regulated by the Irrigation Department.

Canal water revenues should be collected regularly, so as to maintain the canals, to dredge the canal beds, dam & barrages. If it is done, water storage capacity of dam & barrage would be revived by giving birth efficiency of this canal irrigation system but these revenues should be different in different season as per available water.

Govt. also should encourage building farm ponds to store rain water & excess released canal water to be used in dry season. These farm ponds not only would accelerate their agricultural practice but also would increase their economic level through fishing.

Through National Rural Employment Guaranteed Schemes canals should be excavated deeply at some intervals to store more canal water released during rainy season. This may create temporal artificial farm ponds which may be useful in dry season to produce flowers, potato, vegetables, & oilseeds which are less water needed.

Farmers should contribute a minimum of 10 percent costs of their works in the form of cash or labour for three components namely construction of field channels, reclamation of sand laden fields & renovation of minor tanks.

So, In conclusion it can be proclaimed by the researcher that Mayurakshi Canal Irrigation Project after investing Rs.45.49 cores (vide Mayurakshi Project Report, Department of Irrigation Govt. of West Bengal), now it has lost its major importance. It changed the morphology of all rivers of this region, abolished the distributaries of rivers i.e. Manikarnika, Devaki which helped to carry excess flood water that was used in river lift
irrigation. Construction of dam & barrages totally changed the river courses, destroyed the rivers’ regular flow & its natural importance on the human civilization & culture.

The researcher feels that this project has failed to fulfill its target for which it was initiated. It is very difficult to bring change in socio economic condition of the people with this project as it is ill maintained, unsystematically supplied, lack of involving of local people in planning, construction & implementation stage.

In fine, it can be said that to get benefit in irrigation only for two or three decades, the environmental system dynamics of this command area are being hampered. This project has spoiled the whole drainage network system as well as creates various new problems in geo-environmental condition of this command area & its surroundings.

Therefore, before going to install this type of Mega Irrigation Project a thorough cost-benefit analysis, considering even the environmental loss, should be taken into prime consideration. The present researcher would like to state that, the traditional irrigation practice from surface water sources is more desirable than this type of imposed canal irrigation at the cost of drainage system dynamics.