

## **XI.B.1. An Assessment of Environmental Impact of Tungabhadra Project**

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The purpose of paper is to highlight the Environmental Assessment and improve decision making so as to ensure that the project options under consideration are environmentally sound and sustainable. In order to assess the environmental impact, irrigated waters of Tungabhadra Project (TBP) has been chosen to study its implications. The TBP was completed in 1955 and released irrigated water to the volume of 256.5 TMC, to cover 12,11,400 acres of land under both right and left canals. During the last four and half decades, the impact of irrigation has brought significant changes in cropping pattern, income and employment among downtrodden classes, besides checking recurring floods and famines. It is found that the unauthorised and unscientific cultivation has been observed under more un-congenial conditions, which carried water-logging and salinity around 20 per cent in the irrigated fields. Due to two crops of wet irrigation, health hazards like water-borne diseases like malaria, Jaundice, typhoid are become rampant. The downstream level of canal water was found to be surcharged with chirodies. Suppose, Calcium concentration in reservoir water attains its peak as much as 27.20 mg per litre and in monsoon season it reaches to 9.20 mg per litre.

Poor drainage conditions and unlined distributories have been contributed for water-logging and salinity. For checking the monster of silt both in the dam and canals, the authorities have to encourage forest coger both in catchment and command areas. Industrialisation on the adjacent places of main canals have been mush-roomed up, which paved a way for solid wastes, polluted water and poisonous gases, targeted the sensitive flora and fauna. Owing to continuous chemicalisation of agriculture, the soil profile has lost its inheritant colours, minerals and nutrients, which harms not only the prospects of farmers but also food security of the nation..