

## IMPACT OF IRRIGATION SYSTEM IN TAMILNADU

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### **ABSTRACT**

Irrigation appears as an extremely important and effective means of increasing agricultural production. Irrigation can compensate the loss and shortfall caused by the vagaries of nature to promote agriculture. Irrigated agriculture increased the availability of farm products to achieve self sufficiency in food production. The rate of increase in agricultural production is four times higher than that of increase in population. Irrigational projects are reducing unemployment and promoting regional development and thereby automatically improving the lifestyle of the people. Irrigation is an important factor in the production of agriculture and its use or abuse reflects a pattern of social relationship that exists in any society. Irrigation works by encouraging steady supply of water provide good protection against the ravages of famine, and thereby added revenue to the State. Agriculture provides employment of about 65 percent of the total work in the country. Employment also increases due to related activities like agro-industries, transport, trade and banking. With the establishment of the project stagnation of water in a wider area leads to the growth of forest around it. Dams mostly have the objectives of providing water for irrigation, electricity generation and prevention of flood. The construction of dams and impounding huge quantities of water may cause some ecological changes. Landslides due to reservoirs, loss of breeding ground in lake for migratory fish, reduction of fish breeding place in river downstream due to reduced flows are further harmful effects. The irrigation sector suffers from the problems of under utilisation, poor maintenance of infrastructure, inequitable distribution of water and heavy losses from wastage of water.

### KEY WORDS

Irrigation - Water resources – economic – agriculture – development – expansion – commercialization – transformation – population – employment - instrument

#### **Introduction:**

Each person takes a gander at water as a ' Gift of God; and realizes he can't make do without it for quite a while. Water resources of a nation comprise one of its most significant economic assets. Irrigation shows up as a critical and compelling method for expanding rural production. Water is one of the fundamental components to continue life on earth close to air, and it is key and each living being that inhales and develops required water. Irrigation, in any case called counterfeit supply of water for plants to guarantee trimming and yield demonstrated certain as the most urgent contribution to upgrading agriculture profitability. Irrigation being the fake utilization of water to land typically advances vegetation in a spot or territory or district where downpour is so occasional to meet the perpetual prerequisites. Irrigation can remunerate the misfortune and deficit brought about by the impulses of nature to advance agriculture.<sup>1</sup> Agriculture forms the backbone of Indian economy and irrigation goes about as the oxygen for the growth of agriculture in numerous places and States. To build the cultivable region, dams, supplies, tanks and wells were built without even a second's pause to store water. The artificial supply of water to the plants got a lot of need in Tamil Nadu from days of yore.

#### **Economic Impact:**

Tamil Nadu being an agrarian State has created agriculture based economy. Agrarian production relies on accessibility of water resources. Water accessibility can drive economic growth. Inundated agriculture expanded the accessibility of ranch items to accomplish self sufficiency in food production. This self sufficiency of food production quickened the economic growth and standard of life of the people. Irrigation for agriculture has become a major source of economic turn of events. The extension and improvement of irrigation

facilities involved a key spot in India's projects for agriculture development after 1950. Water must be viewed as a public resource and anticipating water resources improvement is by all accounts multi objective and multi disciplinary. It is hence basic to develop ground breaking strategies on local and public premise overlooking political limits dependent on a plainly characterized public water strategy. Water ought to be considered as a most important potential to guarantee economic manageability.<sup>2</sup> Extension of irrigation facilities guarantee agricultural improvement since the beginning of arranging. In the light of this reality the Famine Enquiry Commission of 1945 has properly seen that among the measures that might be received to build the zone under growth and the yield per section of land the primary spot must be given to the works for the supply and protection of water.<sup>3</sup> Down the ages irrigation has played through history a key part in the persistent course of rural turn of events. Inundated agriculture gave the agrarian premise of society, adequate production for endurance and the accomplishment of economic growth. The economy of the town changed from means arranged to cash economy and from trade to showcase relations. With irrigation and commercialization, there has been a change in the trimming design and more noteworthy specialization in crop growth.

### **High Production**

Irrigation lands yield higher than un-inundated land. Extension of irrigation has been integral to the technique for expanding rural production. Better returns delivered by Irrigation raise the overall degree of the maker and guarantee nourishment for the growing millions. Normal yields of all harvests are significantly higher in flooded zones. Accordingly interest in an irrigation project prompts the making of new gainful action and a sensible growth pace of national income relies upon economy on water use. The rate of increase in agrarian production is multiple times higher than that of increment in population. The growth of irrigation facilities made ready for the increase of agricultural production. So livelihood

security is assured. Increase of employment opportunities turned into an extra factor for the improvement of the State.<sup>4</sup> Proficient irrigation empowers to acquire the best get back from a harvest. It additionally advances appropriation of new innovation installed in the utilization of high-yielding assortments, manures and plant insurance measures to build the profitable limit of the land. A definitive advantage of irrigation would be as expanded yield production, expanded interest for work, increment in the pay of the farmers and other rural population and an increase in the State domestic product from agriculture. All these all in all lead to a general improvement in the economic government assistance of people living around the project zone. To develop the abundance of a nation and to build the national income and to make all world's acceptable accessible to an everyday person, we should get more out of nature. The first Green Revolution was a stupendous accomplishment in India and turned into a good example for some creating countries to improve agricultural production and innovation in the dry land growth.<sup>5</sup>

#### **Growth of Per-Capita Income:**

Irrigational projects are diminishing joblessness and advancing provincial turn of events and subsequently naturally improving the way of life of the people. The arrangement of more water both in amount and quality comprises a vital condition for economic growth. This economic growth established the foundation for the growth of standard of life of the people. The independence in food production reinforced the lifestyle of the people. An assured water supply to agriculture as the blood of the nation spells success makes business potential and expanded salary and improves capital arrangement. This opened new possibilities to people to increase their expectation of life. Transport and communication facilities expanded bounteously because of the endeavor of irrigation projects, which subsequently offered more employment opportunities, expanded commercial activities and social co-operation. Additionally water accessibility has urged industries to jump up in urban

communities. The economy of the village changed from means arranged to cash economy and there has been a change in the trimming design and more noteworthy specialization in crop growth.<sup>6</sup>

### **Social Impact:**

Irrigation is a significant factor in the production of agriculture and its utilization or misuse mirrors an example of social relationship that exists in any society. Water is a significant solution for this disease and light carrier for an agreeable, perfect and sound life. Water asset development goes about as an incredible instrument for advancing the work of little ranchers as the people who are firmly bound up with the dirt and water. Way of life including standard of health improves with the salary of the population. Presentation of irrigation expands the absolute rural production of the territory and lessens the antagonistic impacts and circumstances like flood and dry spell. Fundamentally people of the territory concerned can settle calmly and families develop more food in their territories. The per-capita accessibility of water in a nation demonstrates the personal satisfaction of people and the personal satisfaction of people decides their status in the public arena.<sup>7</sup>

Construction of dams helps to control the flood and safeguard the life and property of people to have a quiet existence. In like way bliss can be procured while water is utilized for family unit purposes. The most significant movement of water development project is to connect the dam destinations in the upper catchment regions to the towns and urban communities in the lower areas. This promptly interfaces the good countries with the marshes as far as trade, commerce, access to educational and medical facilities. The access to social associations is answerable for the presentation of groundbreaking thoughts and innovation and various other immediate and roundabout linkages. The irrigation activities can give great water to the society for keeping up good health. Accessibility of sufficient amounts of water is one pre imperative for palatable individual and homegrown cleanliness. This was denied to

lion's share of people of certain places in Tamil Nadu specifically and India as a rule before the starting of the greater part of the irrigation schemes. Crop failure or low yield would prompt starvation, offering ascend to neediness and swelling. Malnutrition is a difficult issue in arid lands and the development of inundated agriculture along with raising domesticated animals and fishing improves by expanding the amount and nature of food stuff with protein substance.<sup>8</sup> Most importantly there is a noteworthy danger of vector reproducing of infections like malaria, filaria, dengue and other such ailments which breed in little pools of water made in the edge of the repository because of the bringing down and raising of the water level of the store. There is a more grounded want for better health, cleanliness and clinical consideration and this yearning for health turns into a significant inspiration driving the execution of Public Health Programs.<sup>9</sup>

### **Famine Relief**

In our nation the improvement of irrigation had occurred as a proportion of famine help and indeed, starvations brought forth the possibility of irrigation. Irrigation works by empowering consistent flexibly of water give great insurance against the attacks of starvation, and subsequently added income to the State. Subsequently one's capacity to oversee rainstorm will decide their capacity to decrease hunger and guarantee food, water and business security. Irrigation supported agricultural efficiency and diminished unfriendly effects of dry spell. Squander terrains could be changed over into beneficial land with the assistance of irrigation.<sup>10</sup> Irrigation shapes the help for supported effective agriculture. It lightens enduring, jam life, deflects famine and advances material thriving of the nation. Fake flexibly of water to the grounds through irrigation showed up as the main solution for oust starvation. In spite of the fact that it is an exorbitant issue its motivation of providing dampness basic for plant growth particularly during stress period and affirmation against brief span dry spell during crop season are acclaim commendable.

**Giving Employment Opportunities:**

History bears declaration to the way that since the start of human growth water has been the main impetus behind the blossoming of thriving throughout everyday life. Better work open doors made ready for the better way of life. Agriculture gives work of around 65 percent of the complete work in the nation. Work additionally increments because of related exercises like agro-industries, transport, exchange and banking.<sup>11</sup> Improvement of irrigational project guarantees crop production as well as diminishes loss of soil and water, rations verdure and gives business and gaining. In addition to the direct rural advantages, Irrigation animates a wide scope of economic exercises improvement of creature agriculture and fisheries, growth of agro preparing enterprises and the system made by the irrigation projects. Irrigation raises both work and pays substance of land and subsequently adds to capital growth. Irrigation regularly encourages greater work open doors for pursued work as it permits growth of more harvests every year just as more work for escalated crops. In regard of giving maintain and sources of income to the people. Irrigation upheld agriculture gets the top situation among the roads of business.<sup>12</sup> Increase of irrigation gave chance to the beneficial work of work which was bounteously accessible.

**Environmental Impact:**

Before the starting of a plan the specific region might be dry and parched and resembled a characteristic desert. With the foundation of the undertaking stagnation of water in a more extensive territory prompts the growth of woodland around it. The irrigation project, i.e., repository, gives a natural environment to wetland species particularly water birds. Trees that are thriving in the repository territory are being residences to the sorts of various assortments of neighborhood and unfamiliar root. Repository can likewise be a wellspring of water to the creatures and plants in the connecting territories. The arrangement of water to metropolitan and provincial regions for homegrown and city use can essentially

help improving the living climate.<sup>13</sup> The increase in water flexibly from dams can assist with decreasing the episodes of certain water-based maladies like skin disease. The arrangement of water by dams can improve natural reclamation and profitability. Recovery of forests, habitation to wetland species, development of outing and the tourism and such happen as the result of the plans.

### **Consequences for Eco System:**

The construction of huge dam, store fundamentally includes immersion of huge region and this has prompted the loss of backwoods and natural life living space, the loss of species population and the debasement of upstream catchment. Dams generally have the goals of giving water to irrigation, power age and avoidance of flood. A few dams have the target of giving water to industry or to metropolitan, rustic, city and homegrown utilization.<sup>14</sup> The debasement of the catchment brings about more prominent residue streams into the repository, accordingly decreasing the life of the dam and furthermore representing a danger to the security of the dam. Forest corruption happens in the catchment zone because of improved access, both during and after dam growth. After the growth of dam, the forests and other vegetation there are lowered under the store.<sup>15</sup>

The construction of dams and appropriating gigantic amounts of water may cause some biological changes. Relocation of population from maintenance zones and submergence of social landmarks are most anticipated ones. Microclimatic changes in the encompassing zones, change in water quality and stream systems, flooding of backwoods and removal of natural life are accounted for without further ado. Avalanches because of stores, loss of favorable place in lake for transient fish, decrease of fish reproducing place in stream downstream because of diminished streams are further destructive impacts. The dirt, stones and sand needed for the growth of dams and rivers are frequently mined and quarried from around the dam and channel site. Such extraction can likewise have unfavorable ecological

effects, particularly by exasperating, dust contamination.<sup>16</sup> This in turn affects river and other water bodies disturbing wild life and destroying vegetation. The consumption of ground water resources influences water quality. At the dam site growth exercises in every case fundamentally raise the degrees of residue in the air. Stores additionally lower gainful rural land in the valley. This influences the social and economic expense as well as unfavorably influences developed biodiversity and a large group of birds, creepy crawlies, vertebrates and reptiles that have received to agrarian eco system.<sup>17</sup>

### **Control the Flood:**

The issue of floods is as old as the rivers themselves. The Central Flood Control Board which was arrangement in 1954 found a way to execute flood control measures as the growth of dams control the regular event of flood, there is less need to spend a tremendous sum for help store and the construction of different dams deflected the periodical event of floods and flood united torments.<sup>18</sup> The atrocities of flood can be constrained by tackling flood control program and by logical Irrigation the board and water resources development. The extension of Irrigation, the preservation of soil and the control of floods are legitimately associated with the food flexibly of the nation and the overall catchment and flourishing of the people. Much profitable cultivable land lies along stream courses and in their flood fields. The fake stockpiles go about as protection against flood harm to agricultural production during blustery seasons and the put away water is later delivered during resulting dry seasons. Consequently the significant undertakings help to control floods and they can use nearly the whole typical yearly progression of the stream and to deflect the cataclysms.<sup>19</sup> The chief utilization of dams is to store a part of the flood so as to defer or oversee when the pinnacle happens. This limits the opportunity of correspondent tops from floods in various feeders showing up simultaneously in the standard of the river, decreasing the likelihood of penetrating dykes and overpowering other flood safeguards. The main performance

parameter in flood control remember decrease for the zone overflowed and avoidance of any subsequent loss of life, social disruption, health impacts and property and property and economic misfortunes and famine which at that point and there delighted in a free play in the nation was placeless.<sup>20</sup>

### **Conclusion:**

The antiquated lords gave a lot of consideration for the growth of Irrigation and agricultural production. Subsequently the British kept up the previously existing ones and furthermore began a couple of new irrigational works. Irrigation facilities brought the infertile land into arable land. In any case, the system isn't hundred percent liberated from issues. In Tamil Nadu a few huge dams were built. These dams are the foundation of enormous scope irrigation in the State. The agriculture advisory committee has surveyed roughly the amount of rising waters in the State that have been saddled for irrigation in the State. Along these lines the deliberate employments of regular water resources have started distinctly with the beginning of Independence in 1947. Use of irrigation to agriculture shows up as a typical component of Tamil Nadu from early days and references are there in the antiquated Tamil literary works like Sangam Literature. Irrigational works began directly from the times of human settlement on the river banks. The irrigation area experiences the issues of under use, helpless support of system, biased dispersion of water and substantial misfortunes from wastage of water. Soil and water are two normal resources which uphold every agrarian turn of events and meet every one of our necessities of food, grain, kindling and modern crude material.

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