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INTERLINKING OF RIVERS AND ITS ADVANTAGES

Kale Avadhut^{*1}, Gothankar Pranit^{*2}, Kadam Nilesh^{*3} and Mehetre Dinesh^{*4}

^{*1, *2, *3} Student, Department of Civil Engineering, Jai Hind Polytechnic, Pune, India

^{*4} Assistant Professor, Department of Civil Engineering, Jai Hind Polytechnic, Kuran, India

ABSTRACT

The interlinking of rivers involving inter basin water transfer has canals, tunnels or water lifts, for water to flow from one river basin to another and making use of excess water. In India rainfall is dependent on the south-west and north-east monsoons or on the shallow cyclonic depressions and disturbances and on violent local storms which form regions where cool humid winds of the sea meet the dry winds from the land and occasionally reach cyclonic dimension. Hence some areas are affected by the droughts while other areas are affected by seasonal floods. There is a general perception that with growing human population and rising standards of living, the available supplies of fresh water on the planet are becoming insufficient to meet demand. It will be scarce, expensive to develop and maintain and valuable in use.

I. INTRODUCTION

Water is one of the principle elements which not only governs life on earth but also influences economic, industrial and agricultural growth of mankind. There is a general perception that with growing human population and rising standards of living, the available supplies of fresh water on the planet are becoming insufficient to meet the demand. India has a monsoon climate. Except for a small coastal area in the South, almost the entire rainfall occurs during three to four monsoon months. Thus cultivation during non-monsoon months is irrigation dependent. A characteristic of the monsoon climate is variability of rainfall from year to year. India has an average of one in five below-normal rainfall years. India is basically an agricultural country, and all its resources depend on agricultural output. In India, 55% of agricultural output is from irrigated lands. Moreover, average farm incomes have increased from 80-100% as a result of irrigation, while yields have doubled compared with those achieved under the former rain-fed conditions. Water will no longer be cheap and plentiful. It will be scarce, expensive to develop and maintain and valuable in use. At this point interlinking of Indian rivers will open new avenues for developing new supplies. But we are at cross roads, creating new supplies when we face problem leads to bad management of resources. So there is also a need to develop strong policies for efficient use of water resources. The main aim of present research work is to find out the types research relationship with various physical and cultural features of the regions & to give the management and consevational measurements for the study region.

II. OBJECTIVE

Reducing disparities in different river basins by transferring water from ‘surplus’ basin to ‘deficit’ basins.

III. METHODOLOGY

The interlinking of our rivers to transfer the floodwater from the surplus rivers to deficit areas is one of the most effective ways to increase the irrigation potential, for increasing the food grain production, mitigate floodwaters and reduce regional imbalances in the availability of water. Brahmaputra, the northern tributaries of Ganga, Mahanadi, Godavari and west flowing rivers originating from the Western Ghats are found to be surplus in water.

If we could build storage reservoirs in these rivers and connect them to other parts of the country regional imbalances could be removed significantly.

One excellent example before us is the transfer of surplus waters of Rabi-Baes to Rajasthan right up to Jaisalmer and Berme through Indra Gandhi Nahar Pariyojana. The project has eliminated drought conditions, transformed desert waste lands into an agricultural productive areas by bringing irrigation and vegetation to about 2 million hectare area. Contribution in agricultural production due to implementation of the project is worth 1750 crore rupees annually. Canal water is available for meeting domestic needs and the Indian Military at the western boundary

receive water from this canal. The project has miraculously changed the living conditions and the socio-economic

conditions of the people.

Advantages

- 1.To solve the problem of water crisis in cosmopolitan cities of India and Inter-state water-disputes.
- 2.To provide adequate quantity of water to 101 feminine prone provinces of the country and to plugg the big disaster thus to save the annual destruction of India agriculture worth more than 25 thousand crores of rupees.
- 3.The rural areas of the country will get an all out development on modern lines .it will boast the rural economy and the life-style of Indian village.
- 4.Due to interlinking of rivers, the overall economic activities of the country will be enhanced resulting in an annual increase of GDP. The employment opportunities also increase.
- 5.Not only the environment protection and pollution control shall be achieved but this creation of “National Rivers Water Grid” shall also provide extra security to the country as a whole.
- 6.Due to this project the food production will increase from present 200 Million tonne to 500 Million tonne per annum to feed the 1800million population by 2050.
7. It will increase navigational efficiency apart from controlling flood & eliminating chances of draught.
- 8.Generate employment in agriculture, power, transport & construction sector.
- 9.To change the course of 173bl,Q,Mt.water flow resulting in the additional irrigation of 35Million Hectare land and the additional production of 34000Megawatt of Hydro-electricity.

Strategies Adopted

- 1.Diversion of surplus flood water into deficient basin i.e. Girna – Bori, Girna – Titur, Girna – Mhasva, Girna – Anjani.
- 2.160 villages dependent for drinking water on reservoir were converted under this i.e. Bori dam covers highly draught prone areas of Dhule, Malmatha (Nasik) & Jalgaon District.
- 3.Exsisting canals and other systems were utilized to the maximum capacity with possible modification.
- 4.Exsisting canal system (Jalgaon canals, Titur canals, Lower Girna canals, Hantur canals) with increased capacity and maximum discharge kept on flowing and diverting water to deficient storages.
- 5.Exsisting canal capacity increased by rasing canal banks with earth work and rugosity coefficient was improved by laying PVC paper of low cost at leaky portions.
- 6.Aqueduct and syphons capacity increased by raising wall height with B.B. masonry temporarily & PVC paper laid in the channels to as rogosity coefficient.
- 7.Low cost polythene paper used at canal apexes for reduction percolation losses.
8. Short Links – Searched to divert the higher discharge . i.e. Panzan to Bori.
- 9.New links wherever required dug immediately – Jamda to Khandakesium, Jamda to Titur.
- 10.Exsisting deficient storage got filled and every canal water diverted to wells in command. Lower Girna canal to Salwa – Nanded.
- 11.Reservoir capacity was increased to store the maximum possible water by putting gunny bags on top of W.W with calculated risk.. i.e. no encroachment
- 12.beyond high flood level and can easily by pulled down by simply wire rope in flood situation.

IV.FUTURE SCOPE

- 1) To study difference in ground water table before & after interlinking for different districts.
- 2) Flood disaster management.
- 3) To study socio-economic development of different watersheds.

V. CONCLUSION

- 1) This river linking project in Maharashtra, India, is based on innovative methods of linking of natural and artificial water drainage for inter-basin and intra-basin water transfer.
- 2) This is a unique technique of rain water conservation; utilization of flood water run-off and replenishing natural and artificial water bodies through natural and artificial water drainage channels.

- 3) The excess water in a river is utilized to recharge the ground water bodies and dry wells in its command areas.
- 4) The project is designed for the optimum utilization of rainfall-runoff for inter-basin and intra-basin water transfer through innovative technologies of both surface water transfer and ground water recharge.
- 5) The principle of watershed management within the command area is used not only for agriculture purposes, but also for drinking water and industrial purposes.

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