Interlinking Of Rivers – A Concept Or Reality?

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Late Dr. K.L. Rao was a great name in Civil and Hydraulic Engineering. His pioneering efforts in the Central Water and Power Commission and later in the Ministry of Irrigation Power have borne fruit in the Planning, designing and execution of many river valley projects. Myself as a young engineer had also worked under him for a couple of years. He was later elevated as a Minister for Irrigation and Power, and the GANGA– Cauvery linking project was his contribution to the water woes of the country. The interlinking of rivers have two components, the Himalayan component and a Peninsular one.

Interlinking of Rivers (ILR)

The Himalayan component envisages construction of reservoirs on the principal tributaries of the Ganga and the Brahmaputra in India and Nepal, along with transfer of water from the eastern tributaries of the Ganga to the west, apart from linking the Brahmaputra to the Ganga and the Ganga to the Mahanadi. The Peninsular component consists of interlinking of the Mahanadi-Godavari-Krisha-Penna-Cauvery, diversion of the west flowing rivers of Kerala and Karnataka to the east, interlinking the west flowing rivers north of Mumbai and South of Tapi and interlinking river Ken with Chambal. All interlinking schemes obviously are for the purpose of transferring water from one river system to another, aided by either gravity flows (tunneling through mountains) or by lifting across natural barriers.

The above links are meant to carry water from surplus areas to deficit ones. There are two areas where we have a surplus of water – the Bramhaputra-Meghna system and the Western Ghats where the rivers carry much of the annual precipitation into the Arabian Sea. The proposal to divert west flowing rivers in Kerala and Karnataka is meant to use the water that would otherwise flow into the Arabian Sea.

The Government of the day did not seriously consider implementing these proposals. It was subsequently left to the N.D.A. Government under Prime Minister Vajpayee to take up this concept into reality. The estimated amount at that time was an investment of Rs.5,60,000 crores and the time for the work was a period of minimum 15 years.

But the UPA I and UPA II did not follow suit and as on date the ILR remains as a concept. The Supreme Court on 27th February this year directed the Central Government to constitute a Special Committee to pursue the decade old plan of linking India's rivers and come up with a Plan of action on a specified time. This directive of the Apex court of India attracted the attention of the media, eminent jurists and experts, a few of which are given below.

Comments on the Supreme Court directive

"The Hindu" in its editorial of 1st March stated "Achieving huge inter-transfer of water in the Himalayas and Peninsular river system is a complex goal for a variety of reasons, not the

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least of which is the displacement of a large number people". The editorial continued "Moving water across river basins cannot be achieved without energy - intensive heavy lifts and destructive modification of ecologically important landscapes" and suggests that the way forward is to work on more efficient and less destructive options viz., rain water harvesting programme of scale, raising irrigation efficiency and effecting local transfers for agricultural and municipal use.

Sri Ramaswmy R. Iyer former Secretary, Water Resources, Govt. of India in his article of 2nd March in the Hindu "WITH all due respects, MY LORDS" lamented that the Project decision has been taken away from the hands of the Government. It has now been exercised by the Supreme Court, the Government and the Planning Commission have been reduced to the position of subordinate offices or implementing agencies of the Supreme Court. Sri Iyer systematically goes through the records of earlier studies, activities and the present status of the grand concept (originated decades ago) and says "Even if the learned judges did not have time to read all the available material, should not they have at least heard a dozen of scholars representing different disciplines and a few social activists - before they decided to issue directions to the Government?" The article concludes by suggesting that Court conduct further hearings, listen to wide range of options and reflect the matter before it comes to firm conclusion.

Former eminent judge of the Supreme Court Sri V.R.Krishna Iyer referring to the article of Sri Ramaswamy R. Iyer writes in the Hindu on 12th March : "judges, merely because they wear robes, cannot decide on the course of rivers, whether they should be linked or not and if at all, how they should be linked….. and they cannot issue executive direction or promulgate legal mandates or punitive imposition in such contexts. He further says that a national debate involving also the great engineers - especially river engineers that we have, is essential before undertaking the implementation of a national project such as this. He further adds "where the implications are too great to grasp and the consequences may be beyond repairs" hasten slowly will be a piece of good advice".

BHARAT DOGRA, a Free Lance journalist writing in the "HINDU" says "At a time when there are problems relating to the sharing of waters, transfer water across distant areas can easily aggravate tensions. This should be avoided". Surplus and deficient areas were arrived at considering the pattern of rainfall, drought and water availability over a period of time. But now with the changes in weather caused by the Climate Change – eg, areas like Assam where monsoon played truant and desert regions like Rajasthan experienced floods, surplus and deficient areas become subjective and could lead to tensions. These realities also need be factored into before creating infrastructure for such transfers. There are less disruptive and cheaper alternatives than connecting rivers to reduce the misery of floods and droughts.

Problems that have surfaced already

The Brahmaputra-Ganga link has two possible alignments, one of which is through Bangladesh and the other passing entirely through Indian territory (the Siliguri chicken neck). Bangladesh has already rejected the proposal for linking Brahmaputra through Bangladesh. The other alignment through Siliguri involves large-scale lifting of water and does not appear to be economically viable. Thus both the proposed links have serious problems without addressing which the interlinking of the Ganga and the Brahmaputra is not possible.

Let us then look at the picture of inter river basin transfers without the Brahmaputra-Ganga link. There is little doubt that States in the Gangetic basin are unlikely to agree that they have surplus water. Bihar has always argued that its water needs have not been met from the Ganga system. Pubjab has already objected to the interlinking of rivers and had earlier objected to Rajasthan as a non-riparian state being given water from the Indus river system. Thus the entire north Indian component of the river inter linking, which envisages transfer of water from the eastern rivers to the western ones would fall through, unless we are able to transfer water from the Brahmaputra. This is not surprising as the only basin that is really surplus of water is Brahmaputra.

Peninsular River Interlinking

The peninsular river interlinking has two components – one of interlinking the peninsular rivers themselves and the other is linking the Ganga to the peninsular rivers. The National Commission for Integrated Water Resources Development Plan (NCIWRDP) had examined this issue and had suggested that of all the peninsular basins, only the Cauvery and the Vaigai basins had a shortage of water. They had suggested transferring "surplus" water from Mahanadi and Godavari to meet the deficit of Cauvery and Vaigai basins.

The issue here is that both Orissa and Andhra are united in their opinion that Mahanadi and Godavari have no surplus water for such transfers. If we cannot convince Karnataka of the need of a riparian state Tamil Nadu for water, we can well imagine the problem of persuading Orissa of the same for a non-riparian state. Here also, the crucial question - to persuade Orissa and Andhra - would then rest on the ability to transfer water from the Ganga to the Mahanadi and from the Mahanadi to the Godavari. We are again back to the question of surplus water in the Ganga system, without which the grand scheme of interlinking Indian rivers would be a mirage.

In addition to negotiating between Indian States and also with Bangladesh, Nepal and Bhutan would also need to be involved. A large part of the Himalayan component consists of transferring water from the eastern tributaries of the Ganga to the western part of the country and storage of water in Nepal and Bhutan.

Need for cost-benefit analysis

We have not dealt with ecological and other implications of such large-scale transfer of waters between different river basins. However, there can be no universal position against or in favour of such transfer. Every hydrological system is unique and so are all transfers between them. Unless details are available of the nature and amount of transfers and its costs, a blanket opposition (or support) would neither be scientific nor rational. As natural barriers separate basins, transfers involve either tunneling through mountains or high lifts, both of which are expensive. The key question here would be the costs of such a scheme against the projected benefits as also the long term impact on the environment.

Before we surrender to the grand vision of interlinking all the rivers in the country, we need therefore a detailed examination of such schemes. Only after a detailed examination identifies potential benefits to be large enough for such investments, we should move forward. Any such move would need agreements between India, Bangladesh, Nepal and Bhutan for water sharing, as also between various states in the country. Unless these steps are taken, we will open the country to many more disputes on river water sharing. The interlinking of rivers without addressing such issues has the potential to create precisely such a situation; the cure will then become worse than the disease.

Source: Publications and inputs from internet.