

Chapter 15

Other aspects of the project

15.0 General

All the pertinent aspects related to the detailed project report (DPR) of the Godavari(Inchampalli) - Cauvery (Grand Anicut) link project as per the DPR guidelines -2010 are discussed in the relevant chapters. This chapter is dedicated to those aspects or issues which are worthy to be taken note of but could not find place in the previous chapters.

15.1 Scope of the link project

The nine link system connecting Mahanadi -Godavari - Krishna - Pennar - Cauvery - Gundar - Vaigai under Peninsular Rivers Development Component of National Perspective Plan (NPP) is planned to be implemented in two phases. The Godavari (Inchampalli) - Cauvery (Grand Anicut) link project is initiated as a first phase in implementation of this component of the inter basin water transfer. The second phase of Mahanadi - Godavari link system will be implemented, once the storage and diversion structure at Manibhadra on river Mahanadi is materialized. In such case, the additional quantity will be transferred from Manibhadra to Dowlaiswaram, and the saved waters at Polavaram will be further transferred to Nagarjunasagar and beyond. Therefore, the size of canal between Inchampalli - Nagarjunasagar - Grand Anicut is designed to accommodate these additional waters of second phase also.

Further, the barrage at Inchampalli with FPL 87.0m is proposed as per the suggestions of Govt of Telangana. However, Govt Telangana subsequently observed that the backwaters of the Tupakulagudem barrage may intervene with the proposed barrage. In such a case, the Inchampalli barrage may be operated with 83 m crest level instead of 76 m and with a higher pond level to avoid the afflux of water retained at the Tupakulagudem barrage located in the near proximity. The location of the Inchampalli barrage could as well be moved upstream. The required water could as well be lifted from the storage created by Tupakulagudem barrage.

15.2 Rights of beneficiary states

The proposed diversion of 7000 Mm³ is arrived after considering the part of unutilized waters of Chhattisgarh in Indravati sub basin of Godavari basin. This quantity is about 2978 Mm³ under proposed major and medium projects and 1477 Mm³ of hydro power losses. Therefore, the beneficiary States may have to enter an agreement with Chhattisgarh stating that the rights of the beneficiary States will get ceased as and when Chhattisgarh implements the said projects and utilizes its share of water.

15.3 Sharing of waters due to link project

The link project is encompassing the interstate rivers of Godavari, Krishna, Pennar and Cauvery. Some clauses in the Tribunal Awards and the interstate Agreements may need to be reviewed and further agreements may be required among the concerned States on account of this link project. Hence, efforts are to be made for arranging such Agreements well before the implementation of the link project.

15.4 CEIA studies

The DPR of the link project is taken up to convince the concerned States on the implementation of the peninsular component of the inter basin water transfer. The comprehensive environmental impact assessment (CEIA) studies require a minimum observation period of one year and hence the same could not be included in the present DPR. However, these studies will be taken up in due course after firming up of the link canal alignment in the first reach between Godavari and Krishna rivers.

15.5 Solar power potential

The canal top/banks of the 1211 km long link canal are proposed to tap the solar power. The Gujarat Energy, Research and Management Institute (GERMI), Gandhinagar has been assigned with the consultancy study for setting up of grid connected solar (PV) power plant on canal top/canal banks and to assess possible solar power potential along the 426.54 km

long Wainganga (Gosikhurd) - Nalganga (Purna Tapi) link canal in Vidarbha region of Maharashtra. The study assessed the solar potential of the link project as 1884 MW. Considering 6 hours of sunshine on average in a day, about 3768 MU of energy can be generated per annum. The corresponding power and energy per km length work out to 4.4 MW and 8.8 MU respectively.

The solar potential of the Godavari (Inchampalli) - Cauvery (Grand Anicut) link project is estimated on the same lines. Thus, the solar energy is worked out to be 10657 MU with an installed capacity of 5328 MW all along the link canal. The solar power can be used to offset the power requirement to lift the water in the link canal and the surplus power can be uploaded to the grid. However, the benefits from the solar power plants are treated as additional benefits and these are not considered while evaluating the link project for its economic viability.

15.6 Financial resources

The detailed project report (DPR) along with the necessary CEIA studies, needs the following clearances by Govt of India and the respective agencies.

Sl. No.	Clearance	Agency
(i)	Techno-economic	Central Water Commission, TAC of MoWR, RD & GR
(ii)	Forest Clearance	Ministry of Environment, Forest and Climate Change (MoEF & CC)
(iii)	Environmental clearance	Ministry of Environment, Forest and Climate Change (MoEF & CC)
(iv)	R & R Plan of Tribal population	Ministry of Tribal Affairs (MoTA)

After obtaining the above clearances, the Detailed Project Report will be submitted to the Ministry of Jal Shakti, Department of Water Resources, River Development and Ganga Rejuvenation, NITI Aayog for investment clearance. The year wise requirement of funds for the construction of the

project is furnished in **Chapter-10‘Construction Program, Manpower Deployment and Plant Planning’**.

15.7 Future utilisation of facilities created (Buildings)

Various facilities and assets shall be created during the construction period as required in the project such as buildings, roads, heavy equipments and machineries. In order to facilitate the office accommodation, stores and residential accommodation for the construction teams, two categories of buildings i.e. permanent and semi-permanent/ temporary are proposed to be constructed at various construction colonies/ sites and also in the near vicinity of the link canal. After commissioning of the project, the permanent buildings will be utilized for operation and maintenance of the project while the remaining infrastructure can be utilized for the future projects likely to come up in the vicinity or for offices of other State/Central Govt. organisations.

15.8 Role of the project in addressing the issues

In spite of several Tribunal Awards/ InterState agreements being in place for various rivers basins in the country, there have been issues among the riparian States regarding water releases from various projects on interState rivers. The link project by augmenting storages at various reservoirs and ponds viz Nagarjunasagar, Somasila, Grand Anicut will help in solving such issues in Krishna, Pennar and Cauvery basins by reducing pressure on upstream States and ensuring assured waters to the needy downstream States.

15.9 Public cooperation and participation

The project will provide impetus to all-round development of the region and reduce the socio-economic imbalance by enhancing agricultural production and employment opportunities. Hence, good co-operation and whole hearted participation is anticipated from the stakeholders of the beneficiary areas.

15.10 Public Awareness

The benefits to be accrued from the proposed project have been brought to the notice of the general public during the field surveys and other investigation works of the project by the NWDA officials as well as by the respective State authorities from time to time highlighting the importance of the scheme to meet the water shortage of the region and its likely contribution to the overall development of the region in innumerable ways. Thus, the people in the vicinity are well conversant of the link project and are eagerly looking forward to its early implementation.