

CHAPTER - XI

PROJECT OPERATION PHILOSOPHY

11.1 Concept of the Burhi Gandak-Noon-Baya-Ganga link Intra State Project

The main objective of the Burhi Gandak-Noon-Baya-Ganga link project is to divert the partial quantity of flood water of Burhi Gandak river to Ganga, so that flood damages in the lower reaches of Burhi Gandak basin area falling under Samastipur, Begusarai and Khagaria districts of Bihar State could be reduced to a great extent and to provide enroute irrigation along link alignment. The Justification and objectives of the project are furnished in Chapter 1.

The PFR for Burhi Gandak-Noon-Baya-Ganga link was taken up by NWDA on the request of Government of Bihar during the year 2008 and submitted in 2009. The WRD, Govt. of Bihar conveyed their views/suggestions to NWDA on the PFR of the link project. Further it was also discussed during the various meetings held with Govt. of Bihar. The link canal proposal at PFR stage was modified incorporating the suggestions of Govt. of Bihar.

To expedite the preparation of DPR of intrastate river linking projects referred to the NWDA, a meeting was held on 18.01.2010 between officers of WRD, Govt. of Bihar and NWDA. In the meeting, the State Govt. desired to prepare the DPR of Burhi Gandak-Noon-Baya-Ganga link project as this scheme has been found viable in the PFR stage. It was also decided that NWDA can go ahead with the preparation of DPR directly to save time instead of first preparing the feasibility report and then DPR. Accordingly, NWDA had directly taken up the work for preparation of DPR of the above link canal project.

The detailed field surveys and investigations have been carried out to establish the techno-economic viability of the link project. The suggestions/views of the WRD, Govt. of Bihar and GFCC, Patna have been considered while preparing the DPR.

In 27th meeting of AGM of NWDA held on 31.3.2012 wherein Irrigation Minister, Govt. of Bihar requested NWDA to prepare the PPR of Burhi Gandak-Noon-Baya-Ganga Link Project by 30.4.2012. Accordingly, NWDA has prepared and submitted the PPR in May, 2012.

11.2 The project

The project envisages construction of the following important structures.

- 1) Barrage across Burhi Gandak river near village Muriaro of Samastipur district.
- 2) A 28.95 km long link canal joining river Burhi Gandak to Baya river.

In order to meet the various demands, project operation has to be planned. Since the project will undergo through three different phases, i.e. Construction, Operation and Maintenance, each stage of the project has been discussed in the following paragraphs.

11.3 Project in construction stage

Finance needed for the project is expected from the Centre as well as State Govt. It is understood that Project is under consideration with 13th Finance Commission of Bihar for financing. However, for construction of the project, either of following mechanism could be followed.

- (i) Project to be constructed by Govt. of Bihar
- (ii) Project to be constructed by a Board/Authority comprising of Engineers from the state of Bihar as well as Centre.

Decision in this regard will be taken by the Govt. of Bihar after clearance of project from CWC, MoEF and Planning Commission.

11.4 Project in operation stage

The Burhi Gandak-Noon-Baya-Ganga link project envisages construction of barrage across river Burhi Gandak and 28.95 km long link canal. The entire components lie in the State of Bihar and there is no any inter state consideration/dispute so that the entire project operation is under control of Govt of Bihar.

11.4.1 Flood control to be given top priority

The river Burhi Gandak is a flood prone river and every year human lives are lost and livestock, crops, houses and infrastructure in the area are damaged. It was felt by the Govt. of Bihar to divert some quantity of the flood water to other basin through either by a link canal or through existing river system to mitigate the devastation caused by flood of river Burhi Gandak. Accordingly, Government of

Bihar submitted the proposal of Burhi Gandak-Noon-Baya-Ganga link to NWDA for examining its feasibility and preparation of DPR. The main objective of the Burhi Gandak-Noon-Baya-Ganga link project is to divert the partial quantity of flood water of river Burhi Gandak to the river Ganga so that flood damages in the lower reaches of Burhi Gandak basin area falling under Samastipur, Begusarai and Khagaria districts can be reduced to great extent.

Burhi Gandak river is almost fully embanked in its stretch from Motihari to its outfall in Ganga, except few gaps in the left embankment near Muzaffarpur town where the Bagmati spills meet the river Burhi Gandak. Land in the area is quite fertile and hence valuable. The density of population is also quite high in this area. The fluctuation in the maximum and minimum river discharge is also high in case of this river system and hence the river is unstable.

The course of the river is circuitous and highly meandering in its lower reaches. The slope of the river is almost flat and thereby causing sluggishness in the drainage of flood water. Over and above, as the Ganga remains high almost throughout the flood season and does not allow the Burhi Gandak flood water to drain down and therefore there is a backwater effect in the main stream. This results in the rise in water level in the main channel of Burhi Gandak which brings allied problems like overtopping of embankments, side erosion due to wave action, sloughing of the embankments. It requires preparedness and continuous vigil in the affected area till the situation eases out. The Burhi Gandak-Noon-Baya-Ganga link project will go a long way in alleviating these problems and minimising the flood damages in the districts of Samastipur, Begusarai and Khagaria.

The Burhi Gandak-Noon-Baya-Ganga link canal project lies entirely in the state of Bihar and this will be a first project of its kind which will, apart from reducing the flood losses, provide irrigation, there is also a scope of providing domestic and industrial water supply in the project area and development of pisciculture.

11.4.2 Irrigation benefit to the enroute command on Priority

Priority has been accorded for irrigation to enroute command of link canal. Although this scheme is basically a flood moderation scheme but considering large part of fertile land enroute the link canal, it is also proposed to

provide irrigation to the unirrigated enroute command of link canal lying in Samastipur, Begusarai and Khagaria districts of Bihar during kharif season from the project. The area proposed to be irrigated through link canal is 126034 ha annually out of the worked out enroute GCA of 1.76 lakh ha. It has been accorded priority considering the irrigation benefit as an important aspect in addition to the flood damage protection work of the project.

11.5 Project at maintenance stages

The proposed board to be formed at the time of construction for implementation of the project will be suitably downsized and the same can continue to take care of operation & maintenance of main project, i.e. barrage, other hydraulic structures, main canal, branch canal, distributary etc. However, necessary steps will have to be taken to form a committee with even participation of planners, development managers, stake holders for improving service delivery, planning and even distribution & utilization of resources . Formation of Water Users Association as well as Farmers committee for each segment of command will be taken up. Further, Project Level Committees can be formed by taking representatives of WUAs from command, Irrigation Deptt, Agricultural Deptt. etc.