FOREWORD

The Mahanadi-Godavari-Krishna-Pennar-Cauvery-Vaigai-Gundar, a major nine link system under Peninsular river development component of National Perspective Plan formulated by Government of India has been planned based on the proposed storages at Manibhadra on river Mahanadi & at Inchampalli on river Godavari. These two dams could not be taken up by the State Govts. in view of submergence and R&R issues. Therefore, the alternate planning of Mahanadi - Godavari link is under progress in consultation with Govt. of Odisha. Further, the proposed supplementation from Himalayan component to Mahanadi basin is also yet to be finalized.

In the above background, it is proposed that the Mahanadi- Gundar link system will be taken up in two phases.

- a) Phase I: Identifying surplus waters in Godavari basin and transferring these waters upto Cauvery through Godavari - Krishna - Pennar - Palar – Cauvery link system
- b) Phase II: Linking Brahmaputra Ganga Subernarekha Mahanadi Godavari rivers, thus enriching the Phase –I with suitable modifications.

NWDA has prepared draft DPR of Phase –I and sent to concerned states i.e. Andhra Pradesh, Chhattisgarh, Karnataka, Madhya Pradesh, Maharashtra, Odisha, Telangana, Tamil Nadu, Kerala and Puducherry in March, 2019 for comments/observations. The comments of various State Governments to the extent possible have been taken into account while finalizing the DPR.

The present report deals with the Phase –I of link system viz. Godavari (Inchampalli) – Cauvery (Grand Anicut) link system comprising of the following components:

- 1. Godavari (Inchampalli) Krishna (Nagarjunasagar) link
- 2. Krishna (Nagarjunasagar) Pennar (Somasila) link
- 3. Pennar (Somasila) Cauvery (Grand Anicut) link

Based on the suggestion of Telangana State Government, the Link canal will off-take from Inchampalli Barrage. The Godavari (Inchampalli) – Cauvery (Grand Anicut) link system envisages diversion of about 7000 Mm³ of surplus in

Godavari basin and unutilised waters of Chhattisgarh from Indravati sub-basin to provide irrigation, domestic and industrial water supply benefits enroute in the states of Telangana, Andhra Pradesh and Tamil Nadu. While the link proposal off-taking from Inchampalli barrage would provide an annual irrigation of 9.45 lakh ha utilising 5049 Mm³ of water. Besides, about 512 Mm³ and 944 Mm³ of water are provided towards domestic & industrial water supply in the region which include 202 Mm³ and 500 Mm³ for domestic and industrial use for Chennai.

The DPR of the Project has been prepared as per the "Guidelines for Preparation of Detailed Project Report of Irrigation and Multipurpose Projects of Ministry of Water Resources (2010)". The DPR contains the details of various surveys and investigations such as topographical surveys, geotechnical and construction material surveys, geological investigations etc.

The co-operation and assistance received from the concerned State Govts. in preparation of the DPR is thankfully acknowledged. My thanks are due to Central Water Commission (CWC), Central Soil & Material Research Station (CSMRS), Geological Survey of India (GSI), National Remote Sensing Centre (NRSC) etc., who were closely associated with various investigations and studies at FR level of the component link projects, which are incorporated in this DPR.

I compliment the concerned officers of NWDA, especially the Chief Engineer (HQ), the Chief Engineer (South), Hyderabad, the Superintending Engineer, Investigation Circle, Hyderabad and their teams in Investigation Divisions at Hyderabad, Bengaluru & Chennai for their sincerity, devotion and hard work in completing this gigantic task within the assigned time period.

The efforts are on for finalization of Phase-II of nine link system and its implementation. It will be appreciated if the State Govts. would extend their cooperation for early implementation of phase-I so that the envisaged benefits can be derived from the link project in the right earnest.

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New Delhi

(Bhopal Singh)

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