

PREFACE

Water Resources Development and Management is a key area which needs focused attention for proper utilisation of water which is a precious natural resource. Growth and expansion of economic activities inexorably lead to increasing demand of water for various purposes. Due to continuous improvement in the living standards of the people, increase in urban population and the pace of industrial and other developments, many of our metropolitan cities face acute shortage of water for domestic and industrial purposes. The ground water levels in urban areas are depleting at an alarming rate due to drawal of ground water at a rate exceeding the recharge. In addition the coastal cities are facing the problem of sea water intrusion which affects the quality of ground water. Provision of surface water for domestic needs to big cities help in maintaining the levels and quality of ground water.

Mumbai, the capital city of Maharashtra State is considered the commercial and financial capital of the country. With a population of more than 18 million, it is one of the ten largest mega cities of the world. The present demand of domestic water need (2012) is about 4529 million litres per day (MLD), whereas the available supply is only about 3675 MLD. Thus there is a gap of about 854 MLD. With the present pace of development of Greater Mumbai, it is anticipated that there would be acute shortage of domestic water in future. As per the assessment of Municipal Corporation of Greater Mumbai (MCGM) the domestic water demand for Mumbai City in the year 2041 will be about 6680 MLD thus widening the gap between demand and supply. The Damanganga – Pinjal Link Project envisages to provide about 1586 MLD for augmentation of domestic water supply to Mumbai city to meet its requirement. Additional augmentation of 865 MLD is also envisaged from Pinjal dam project which is being proposed by Government of Maharashtra. Thus a total quantity of 2451 MLD would be available from these projects.

The National Water Development Agency prepared the Feasibility Report of Damanganga – Pinjal Link during the year 2004. Continuous efforts were made in building consensus amongst the States of Gujarat and Maharashtra through Consensus Group headed by the Chairman, Central Water Commission. As a result of these efforts a tripartite Memorandum of Understanding was signed by the States of Gujarat and Maharashtra and the Union Government on 3rd May, 2010 in the presence of Hon'ble Prime Minister of India for preparation of Detailed Project Reports of Damanganga-Pinjal and Par-Tapi-Narmada Link Projects. Accordingly the Southern Region of NWDA was entrusted with the work of preparation of DPR of Damanganga –Pinjal Link Project.

Various survey and investigation works done by NWDA with the help of expert agencies have been duly incorporated in the DPR. The hydrological studies and design of various components of the Project were carried out by Central Water Commission (CWC), geological investigations by Geological Survey of India (GSI), geotechnical

investigation and construction material survey by Central Soil and Materials Research Station (CSMRS), environmental impact assessment studies by WAPCOS and seismic studies by Central Water and Power Research Station (CWPRS).

Damanganga-Pinjal Link Project envisages construction of a dam across river Damanganga near Bhugad village of Trimbak taluka in Nasik district of Maharashtra namely Bhugad dam, a dam at Khargihill across river Vagh, a tributary of Damanganga river near Behadpada village in Jawhar taluka of Thane district of Maharashtra namely Khargihill dam, a dam across river Pinjal near village Khidse in Wada taluka of Thane district (proposed by Government of Maharashtra) and two tunnels of lengths about 17.488 Km. and 25.224 Km. connecting Bhugad reservoir with Khargihill reservoir and Khargihill reservoir with Pinjal reservoir. The Project will provide 579 million cubic meters of water annually to Mumbai alongwith 5 megawatt of hydro power.

The Project Report has been prepared in seven volumes as per the details below.

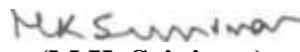
Volume - I	Main Report
Volume – II	Annexures of Main Report
Volume – III (A)	Appendices - Survey & Investigations (Part-I)
Volume – III (B)	Appendices - Survey & Investigations (Part-II)
Volume – IV	Appendices - Hydrology, Power
Volume – V	Appendices - Estimate
Volume – VI	Drawings - Survey & Investigations
Volume – VII (A)	Drawings - Designs (Part-I)
Volume – VII (B)	Drawings - Designs (Part-II)

Director General, NWDA had continuously monitored the progress of preparation of Detailed Project Report and provided valuable guidance and advice which helped in timely completion of the DPR. His contribution in this regard is gratefully acknowledged. I also acknowledge the support provided by Chief Engineer (HQ) and his team.

The officers of Water Resources Departments of Governments of Gujarat and Maharashtra provided continuous support to NWDA in preparation of DPR. Their contribution in this regard is thankfully acknowledged.

I also would like to place on record my sincere thanks to all the officers and staff of Investigation Circle, Valsad and its Divisions for their untiring efforts due to which the DPR could be completed in time.

28th March , 2014
Hyderabad


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