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Chapter

1.1 Introduction

River systems have been the birthplace of civilizations all over the world. The Ganga is the National River of India¹. For thousands of years, the River Ganga along with her tributaries² has provided material, spiritual and cultural sustenance to millions of people living in her basin.

The Ganga is a perennial river fed by snowmelt and ice-melt almost round the year. Ganga basin is the largest river basin in India constituting 26 *per cent* of the country's land mass and supporting about 43 *per cent* of its population. The basin covers an area of 10,86,000 sq km, extending over India, Nepal and Bangladesh. About 79 *per cent* area of Ganga basin, spread over 8,62,769 sq km, is in India.

The river flows through five States (Uttarakhand, Uttar Pradesh, Bihar, Jharkhand and West Bengal) of India before it drains into the Bay of Bengal. It brings sediment and nutrients which helps in providing long-term fertility to the basin areas. The biodiversity of the River Ganga synthesizes three different eco-regions of India namely the Himalayas, the Gangetic plains and the Delta region. The large number of lakes and wetlands spread across the Ganga basin support specialized flora and fauna as well as migratory species, which fulfil crucial ecological and social functions. However, the river has been facing threats due to population pressures, extensive and unplanned urbanization, industrialization, expansion of agriculture, destruction of forests, abstraction of water for irrigation and industry, lack of proper investment in water quality infrastructure and governance problems.

For effective abatement of pollution, rejuvenation, protection and management of the River Ganga, Government of India has notified 11 States (Bihar, Chhattisgarh, Delhi, Haryana, Himachal Pradesh, Jharkhand, Madhya Pradesh, Rajasthan, Uttar Pradesh, Uttarakhand and West Bengal) under the Ganga river basin³.

¹ On 4 November 2008, the Prime Minister of India declared Ganga as the National River of India.

² The River Ganga originates at the confluence of Rivers Alaknanda and Bhagirathi at Devprayag and traverses a course of 2,525 kilometres flowing south into the Bay of Bengal. It has a large number of tributaries joining it during this course.

³ As per River Ganga (Rejuvenation, Protection and Management) Authorities Order, 2016. Other States having major tributaries of Ganga may be included under the Ganga river basin as may be decided by the National Council for Rejuvenation, Protection and Management of River Ganga.

1.2 Institutional development for Ganga Rejuvenation

1.2.1 Legislation

Water (Prevention and Control of Pollution) Act, 1974⁴ was the first major initiative for prevention and control of water pollution and maintaining or restoring wholesomeness of water.

Government of India enacted the Environment (Protection) Act, 1986 for the protection and improvement of environment and connected matters. Environment includes water, air, land and the inter-relationships, which exists among and between water, air and land and human beings, other living creatures, plants, microorganism and property.

Authorities for implementation of programmes for prevention of pollution of the River Ganga were constituted in exercise of the provisions of these Acts.

1.2.2 Institutional framework and Government interventions

The various initiatives taken by the Government relating to abatement of pollution and conservation of the River Ganga upto 2011 are briefly given in Table 1.1.

Table 1.1: Institutional development

Date	Event
December 1984	Preparation of Ganga Action Plan (GAP) as a centrally sponsored scheme by Department of Environment ⁵ with the objective of reducing pollution in the River Ganga. The target was interception, diversion and treatment of wastewater generated in 25 class-I towns in Uttar Pradesh, Bihar and West Bengal.
February 1985	Setting up of Central Ganga Authority (CGA) and Ganga Project Directorate (GPD) in Department of Environment to finalise the policy framework for an action plan on prevention of pollution of Ganga and to oversee its implementation.
April 1985	Approval of GAP as a centrally sponsored scheme to be completed by March 1990.
1986	Enactment of Environment (Protection) Act, 1986.
1993	Initiation of GAP-II. The scheme was to cover other 25 class-I towns that were left out in Phase-I as well as in other polluting towns along the river. GAP-II was also envisaged to cover tributaries of the River Ganga, viz. Yamuna, Damodar and Gomti. In addition to the States under GAP-I, Jharkhand, Delhi and Haryana were also covered under GAP-II.
1993	Initiation of Yamuna Action Plan (YAP) Phase I for abatement of pollution in River Yamuna, to be completed by April 2000.
June 1994	Conversion of GPD into National River Conservation Directorate (NRCD) in the wake of Government decision to extend the pollution abatement programmes to all the rivers in India.
September 1995	Conversion of CGA into National River Conservation Authority.

⁴ Under Article 252, Parliament can legislate for two or more States by consent and adoption of such legislation by any other State. Water (Prevention and Control of Pollution) Act, 1974 was enacted in pursuance of this provision.

⁵ Presently Ministry of Environment, Forest and Climate Change

Date	Event
March 2000	Closure of GAP- I.
February 2003	Closure of YAP-I.
December 2004	Launch of YAP-II.
February 2009	Notification of National Ganga River Basin Authority (NGRBA) and constitution of State Ganga River Conservation Authorities (SGRCA) in Uttarakhand, Uttar Pradesh, Bihar, Jharkhand and West Bengal. NGRBA was the planning, financing, monitoring and coordinating authority for strengthening the collective efforts of the Central and State Governments for effective abatement of pollution and <i>conservation</i> ⁶ of the River Ganga by adopting a river basin approach for comprehensive planning and management.
July 2010	Memorandum of Understanding (MoU) with Consortium of seven Indian Institutes of Technology (IITs) for preparation of Ganga River Basin Management Plan (GRBMP).
May 2011	Framing of NGRBA Programme Framework prescribing the detailed guidelines for implementation arrangement and frameworks for investment, financial management, procurement and accountability for various programmes on abatement of pollution and conservation of the River Ganga.
August 2011	Establishment of National Mission for Clean Ganga (NMCG) as a registered society for implementing the mandate of NGRBA. NMCG had the responsibility for overall project planning and management, direct implementation of national level activities and ensuring satisfactory implementation of State level investments and activities relating to the River Ganga.
December 2011	Launch of YAP-III at estimated cost of ₹ 1,656 crore with assistance of Japan International Cooperation Agency (JICA). Funds of ₹ 97.42 crore were released under these projects and YAP-III from 2013-14 onwards as of July 2016. In addition, two projects were sanctioned at Sonapat and Panipat towns in Haryana at a cost of ₹ 217.87 crore.

Considering that the River Ganga has a very special place in the collective consciousness of the country, the erstwhile Ministry of Water Resources was renamed (July 2014) as Ministry of Water Resources, River Development and Ganga Rejuvenation (MoWR, RD&GR) to bring a comprehensive approach to this national priority and NGRBA including the Mission Directorate, NMCG and other related matters of Ganga and its tributaries were allocated to this Ministry. NGRBA was subsequently reconstituted (September 2014) and its mandate was modified to include measures for effective abatement of pollution and Rejuvenation of the River Ganga.

Government of India dissolved the NGRBA (October 2016) and constituted the National Ganga Council to act as an authority having overall responsibility for superintendence of pollution prevention and Rejuvenation of the River Ganga Basin⁷. However, as separate rules for financial and budgetary framework under the new notification were yet to be formed, the provisions of NGRBA Programme Framework

⁶ The word conservation was replaced with Rejuvenation vide MoWR, RD&GR Notification dated 29 September 2014.

⁷ River Ganga (Rejuvenation, Protection and Management) Authorities Order (2016)

continued to be followed for execution of projects. NMCG was converted into an authority vested with powers to issue directions and exercise powers under the Environment (Protection) Act, 1986. Secretary, MoWR, RD&GR is the Chairman of the Governing Council of NMCG.

1.2.3 *Namami Gange Programme*

In furtherance of the priorities and national objectives envisaged under NGRBA, Government of India approved (May 2015) the Integrated Ganga Conservation Mission namely, *Namami Gange* as an umbrella programme with the aim of integrating previous and currently ongoing initiatives by enhancing efficiency, extracting synergies and supplementing them with more comprehensive and better coordinated interventions. The scheme is to be implemented up to 2020, with total outlay of ₹ 20,000 crore. It envisages implementation of Ganga River Basin Management Plan (GRBMP) through intensive coordination with the concerned Ministries.

Various interventions under *Namami Gange* were proposed for short-term (a period up to three years from 2014), medium term (a period up to five years from 2014) and long term vision (a period of 10 years and more). The priority is on pollution abatement, rural sanitation, river front development/management, restoration of special properties of the Ganga, biodiversity conservation, river flow improvement, communication & public outreach activities and other activities/pilot projects included in NGRBA Programme Framework as well as those arising from GRBMP.

For the new initiatives proposed under the programme, funding was to be as 100 per cent central sector scheme, while the existing programmes were to continue under their earlier approved mechanism. It adopted the NGRBA programme framework and fast track appraisal and approval process through Empowered Steering Committee (ESC) for all *Namami Gange* activities on the River Ganga and its tributaries, including projects yet to be sanctioned.

1.3 Programme implementation

At the Central level, NMCG was constituted as an authority to ensure implementation of programmes. At the State level, State Programme Management Groups (SPMGs) of Uttar Pradesh, Uttarakhand, Bihar and West Bengal were set-up as registered societies and in Jharkhand, a dedicated nodal cell within the State Government Urban Development Department was set up.

Execution of the infrastructure investments was to be done by the Executing Agencies (EAs), selected for each investment. The choice of EAs includes the existing State-level technical agencies which have the mandate of urban infrastructure (especially wastewater) management in their respective States.

Programme was to be implemented with local coordination for planning and implementation provided by Urban Local Bodies (ULBs), where needed.

The established institutional model and implementation arrangements were operationalized through tripartite Memorandum of Agreements (MoAs) between NMCG, SPMGs, ULBs and the EAs as per their involvement in a programme or project.

NMCG received Grants-in-Aid as Budget line of MoWR, RD&GR and transferred funds to the SPMGs, CPSUs, other Central and State Government agencies.

During the period from 2014-15 to 2016-17, funds of ₹ 3,633 crore were released by Government of India against which expenditure of ₹ 1,836 crore was incurred by NMCG.

1.4 Why we chose the topic

Various initiatives since the mid 1980s could not address the issues affecting the River Ganga and its tributaries in a comprehensive manner despite investments by the Government of India. Of late, there has been increase in awareness and understanding about the problems affecting the River Ganga. As a result, there has been growing emphasis on multi-disciplinary, multi-sectoral and system-based integrated approach involving all the stakeholders. Besides the Government interventions, judicial pronouncements and civil society endeavours have brought about greater environmental activism in the context of Ganga Rejuvenation.

Report No. 5A (2000) of the Comptroller and Auditor General of India (C&AG) highlighted the limitations of Ganga Action Plan, based on which the Public Accounts Committee (PAC) made (2003-04) certain recommendations in its 62nd report (Thirteenth Lok Sabha). PAC accepted (March 2008) the Action Taken Note submitted by the Ministry.

MoWR, RD&GR requested (August 2015 and June 2016) the C&AG to conduct 'Concurrent Audit' of NMCG. We communicated (October 2016) a proposal to undertake milestone based Compliance audit to the MoWR, RD&GR. The Hon'ble High Court of Uttarakhand issued (December 2016) several directions on measures for prevention of pollution of the river. The Hon'ble High Court also sought for a special audit by the C&AG of all the Centrally Financed Schemes launched to rejuvenate the River Ganga, as well as on the amounts spent by the State Governments for Rejuvenation of River Ganga.

In view of the significance of the topic, initiatives under taken by the Government, the request of MoWR, RD&GR and the judicial pronouncement, we decided to take up a Performance Audit of the Rejuvenation of River Ganga (*Namami Gange*).

1.5 Audit Objectives

Performance Audit on Rejuvenation of River Ganga seeks to examine

- a. Whether the estimation, availability and utilization of funds was adequate and reliable;
- b. Whether various schemes/projects were planned as per prescribed framework;
- c. Whether projects on sewerage, Ghats and crematoria, river front development, canals and rural sanitation were implemented in accordance with milestones prescribed under *Namami Gange* in an economic, efficient and effective manner;
- d. Whether execution of projects for conservation of flora, fauna and maintenance of river flows were implemented in effective and efficient manner;
- e. Whether human resources were adequate;
- f. Whether the directions of the Hon'ble Uttarakhand High Court were complied with; and
- g. Whether effective monitoring and evaluation mechanism was put in place for realization of the outcomes of projects under *Namami Gange*.

1.6 Audit Sample, Scope and Methodology

With increased focus on Rejuvenation of the River Ganga, Government of India accorded greater priorities by way of entrusting the responsibilities of Ganga Rejuvenation to MoWR, RD&GR (July 2014) and announced *Namami Gange* (July 2014) with the aim of integrating previous and currently ongoing initiatives. We, therefore, emphasised on the activities which took place during the period from 2014-15 to 2016-17. However, we also covered projects sanctioned prior to announcement of *Namami Gange* but ongoing during 2014-17 and the relevant records/documents of prior years were examined where pertinent.

As on 1 April 2014, 55 projects costing ₹ 4,588.35 crore were ongoing and 90 projects costing ₹ 6,386.90 crore were sanctioned during 2014-17. Of these 145 projects costing ₹ 10,975.25 crore, 11 were institutional projects (sanctioned cost ₹ 285.12 crore), five afforestation projects (sanctioned cost ₹ 50.62 crore), one Biodiversity project (sanctioned cost ₹ 76 lakh) and 128 were infrastructural projects (sanctioned cost ₹ 10,638.75 crore).

We selected 87 projects including 70 infrastructural (sanctioned cost of ₹ 7,655.84 crore) and all 11 institutional projects, five afforestation projects and one bio-diversity

project. Of these selected 87 projects, 73 were ongoing, 13 were completed and one was an abandoned project.

The sanctioned cost of ₹ 7,992.34 crore of the 87 selected projects constituted 72 *per cent* of sanctioned cost of 145 projects. Of the 87 projects selected for audit, 50 projects constituting 57 *per cent* of the sample were sanctioned after 1 April 2014. The projects were selected based on risk assessment on parameters such as preliminary/ detailed estimates, sanctioned cost, delay in execution, status of work, cost overrun, pollution load of the town on the River Ganga, threats to river and its tributaries etc.

The scope of audit included examination of records at the following entities involved in implementation of projects relating to Rejuvenation of River Ganga:

- (i) National Mission for Clean Ganga (NMCG), Delhi
- (ii) Central Pollution Control Board (CPCB), Delhi
- (iii) Forest Research Institute (FRI), Dehradun
- (iv) National Environmental Engineering Research Institute (NEERI), Nagpur
- (v) Wildlife Institute of India (WII), Dehradun
- (vi) Ministry of Drinking Water and Sanitation
- (vii) Central Inland Fisheries Research Institute (CIFRI), Barrackpore, Kolkata
- (viii) National Building Construction Corporation (NBCC)
- (ix) Engineering Projects India Ltd. (EPIL)
- (x) Engineers India Ltd. (EIL)
- (xi) National Projects Construction Corporation (NPCC)
- (xii) WAPCOS Ltd.
- (xiii) The records of State Programme Management Groups, Forest Departments, State Pollution Control Boards/ Union Territory Pollution Control Committee and such other agency in the States⁸ of Bihar, Jharkhand, Madhya Pradesh, Uttar Pradesh, Uttarakhand, West Bengal, Haryana and Delhi.
- (xiv) Environmental Planning and Coordination Organisation (EPCO), Jabalpur, Madhya Pradesh.

We held entry meeting with NMCG on 11 April 2017 in which we explained the audit objectives, scope and methodology. The audit observations were issued to the NMCG in July 2017 and its comments were received in August 2017. An exit meeting was subsequently held on 17 August 2017 wherein audit findings and recommendations were discussed with NMCG. The report was revised on the basis on discussion held in exit meeting and issued (August 2017) to NMCG and MoWR, RD&GR for their further comments. The replies of NMCG have also been incorporated in this report.

⁸ Except Chhattisgarh, Himachal Pradesh and Rajasthan as no funds were released to these States.

1.7 Audit Criteria

Audit criteria were derived from the following sources:

- (i) The Water (Prevention and Control of Pollution) Act, 1974
- (ii) Environment Protection Act, 1986
- (iii) Notification of 2009 for Constitution of National Ganga River Basin Authority
- (iv) Notification of 2014 for Reconstitution of National Ganga River Basin Authority
- (v) River Ganga (Rejuvenation, Protection and Management) Authorities Order, 2016
- (vi) NGRBA Programme Framework
- (vii) NGRBA guidelines
- (viii) General Financial Rules
- (ix) Guidelines issued by Central Vigilance Commission for Works Contract
- (x) Guidelines and instructions issued by Central Pollution Control Board/ State Pollution Control Boards
- (xi) Court Judgements on the subject⁹

1.8 Structure of the Audit Report

Along with this introductory Chapter the report has nine Chapters. Chapter 2 brings out the issues relating to Financial Management whereas Chapter 3 deals with Planning Mechanism of *Namami Gange* Programme. Chapter 4 focuses on the projects relating to pollution abatement and Ghat developments, etc. Matters relating to Swachh Bharat Mission implemented by MoDW&S under *Namami Gange* Programme are depicted in Chapter 5. Issues relating to Institutional Projects and Human Resource Management of NMCG are described in Chapter 6 and Chapter 7 respectively. Chapter 8 relates the position on compliance to the Hon'ble Uttarakhand High Court Judgement. Lastly, Chapter 9 highlights the aspects relating to Monitoring and Evaluation of *Namami Gange* Programme.

1.9 Acknowledgement

We acknowledge the cooperation extended by National Mission for Clean Ganga, Central and State agencies and Public Sector Undertakings during the course of the audit.

⁹ Audit findings in respect of directions of the Hon'ble Uttarakhand High Court (December 2016) are at Chapter 8.