



सत्यमेव जयते

Report of the
Comptroller and Auditor General of India
on

Rejuvenation of River Ganga (*Namami Gange*)



Union Government
Ministry of Water Resources, River Development
& Ganga Rejuvenation
Report No. 39 of 2017
(Performance Audit)

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Preface

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 River Ganga along with her tributaries has provided material, spiritual and cultural sustenance to millions of people living in the Ganga river basin.

Considering that the river Ganga has a very special place in the collective consciousness of this country, the 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 for the rejuvenation of the river. The priority is on key activities like pollution abatement, river front development, rural sanitation, biodiversity conservation, restoration of special properties of Ganga, river flow improvement, Ganga Task Force, capacity building, GIS mapping and Ganga Monitoring Centres.

The Performance Audit of the 'Rejuvenation of River Ganga (*Namami Gange*)' examined the adequacy of mechanisms and resources for various schemes for Ganga Rejuvenation, achievement of prescribed milestones, role of various agencies and their effectiveness in review and monitoring for realization of the objective of rejuvenation of the River Ganga as envisaged under *Namami Gange*.

The Performance Audit revealed deficiencies in financial management, planning, implementation and monitoring, which led to delays in achievement of milestones under the programme. There were delays in approval of projects, huge unspent balances under the schemes and other deficiencies, and shortage of human resources, leading to delay in achievement of planned targets. The main objective of Rural Sanitation programme to make all Ganga river basin villages 'Open Defecation Free' could not be achieved. There were shortfalls in forestry interventions for conservation of ecology and biodiversity of the River Ganga. The use of remote sensing data and mobile application was at nascent stage. The monitoring and evaluation was found to be inadequate.

This Report has been prepared for submission to the President of India under Article 151 of the Constitution of India, for being laid before the Parliament.

Executive Summary

The Ganga is the National River of India. For thousands of years, the River Ganga along with her tributaries has provided material, spiritual and cultural sustenance to millions of people living in the Ganga river basin. 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.

Government of India has taken various initiatives since the mid 1980's to address the issues affecting the River Ganga and its tributaries. Government 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.

We undertook a Performance Audit of the Rejuvenation of River Ganga (*Namami Gange*) to assess the adequacy of estimation, availability and utilisation of funds, planning and implementation of various schemes/projects, adequacy of human resources and effectiveness of monitoring and evaluation mechanisms.

We sampled 87 projects (73 ongoing, 13 completed and one abandoned project) for audit scrutiny which constituted sanctioned cost of ₹ 7,992.34 crore. Of the 87 projects selected for audit, 50 projects were sanctioned after 01 April 2014. The 87 projects also included all the 11 institutional projects, five afforestation and one biodiversity project.

Financial Management

Only eight to 63 *per cent* of the funds were utilised during 2014-15 to 2016-17, as compared to Revised Estimate. Funds amounting to ₹ 2,133.76 crore, ₹ 422.13 crore and ₹ 59.28 crore were lying unutilised with National Mission for Clean Ganga, various State Programme Management Groups and Executing Agencies/ Central Public Sector Undertakings respectively as on 31 March 2017.

(Paragraphs 2.2.1 & 2.2.5)

There were delays in submission of Utilisation Certificates in respect of all State Programme Management Groups.

(Paragraph 2.2.6)

State Programme Management Groups of Uttar Pradesh and West Bengal did not conduct their internal audit as per prescribed frequency (quarterly) during 2014-17. Internal audit was not conducted at all in respect of State Programme Management Groups of Bihar and Uttarakhand.

(Paragraph 2.4)

A corpus of ₹ 198.14 crore (as of 31 March 2017) was available in the Clean Ganga Fund. However, National Mission for Clean Ganga could not utilize any amount out of the Clean Ganga Fund and the entire amount was lying in banks due to non-finalization of action plan.

(Paragraph 2.6.1)

Planning

National Mission for Clean Ganga could not finalise the long-term action plans even after more than six and half years of signing of agreement with the consortium of Indian Institutes of Technology. As a result, National Mission for Clean Ganga does not have a river basin management plan even after a lapse of more than eight years of National Ganga River Basin Authority notification.

(Paragraph 3.3)

Out of 154 Detailed Project Reports pertaining to 2014-15 to 2016-17, only 71 Detailed Project Reports were approved. Of these 71 Detailed Project Reports, 70 were approved after delays ranging from 26 to 1,140 days. Out of remaining 83 Detailed Project Reports, 54 were pending at National Mission of Clean Ganga level for a period ranging from 120 to 780 days.

(Paragraph 3.4)

River Conservation Zones were not identified in the States of Uttar Pradesh, Bihar, Jharkhand and West Bengal, till May 2017. In Uttarakhand the identification was under progress.

(Paragraph 3.8)

Pollution Abatement and Ghat Development

As per the target dates, award for the work of all the Sewage Treatment Plants was to be completed by September 2016. National Mission for Clean Ganga is yet to finalise and approve Detailed Project Reports for projects totalling 1,397 MLD capacity as of August 2017.

(Paragraph 4.2.1)

Out of 46 Sewage Treatment Plants, Interception & Diversion projects and Canal works costing ₹ 5,111.36 crore, there were delays in 26 projects costing ₹ 2,710.14 crore due to delay in execution of projects, non-availability of land, slow progress of work by contractors and under-utilisation of Sewage Treatment Plants. Projects relating to Ghats and Crematoria works suffered from non-obtaining of requisite clearances.

(Paragraphs 4.4 & 4.5)

Rural Sanitation

Against the total funds of ₹ 951.11 crore released by National Mission for Clean Ganga and State Governments for activities relating to construction of Individual Household Latrines, Information, Education and Communication and Solid Liquid Waste Management, the five States namely Bihar, Jharkhand, Uttarakhand, Uttar Pradesh and West Bengal could utilise a sum of ₹ 490.15 crore only.

(Paragraph 5.3)

Except Uttarakhand, the other four States namely Bihar, Jharkhand, Uttar Pradesh and West Bengal could not achieve the target of construction of 100 *per cent* Individual Household Latrines as of 31 March 2017.

(Paragraph 5.4)

Solid Liquid Waste Management activities were not taken up in any of the identified districts of the States of Uttar Pradesh, Bihar, Jharkhand and West Bengal. In Uttarakhand work relating to Solid Liquid Waste Management in two out of 132 Gram Panchayats were completed and were in progress in 11 Gram Panchayats as of March 2017.

(Paragraph 5.6)

There were discrepancies in the data reported under Management Information System and basic records maintained by Gram Panchayats in 12 test-checked districts of Uttar Pradesh and Jharkhand.

(Paragraph 5.7.2)

Conservation of Flora & Fauna and Maintenance of Ecological Flow

In Bihar and Jharkhand, no interventions for Agriculture and Urban Landscape were undertaken in the identified districts/divisions. In Bihar, conservation and support activities were also not undertaken. In Uttarakhand, shortfall under natural landscape, agricultural landscape, urban landscape and conservation interventions were noticed.

(Paragraph 6.3.2)

National Mission for Clean Ganga did not identify places of discontinuity of water flow due to engineered diversion or storage and did not initiate any remedial action thereof, as required under the notification of October 2016.

(Paragraph 6.5)

Human Resource Management

There was overall shortage of manpower, ranging from 44 to 65 *per cent* during 2014-15 to 2016-17 in National Mission for Clean Ganga. In SPMGs, the overall shortage ranged between 20 to 89 *per cent*. National Mission for Clean Ganga did not initiate any proposal for strengthening the human resources of State Programme Management Groups.

(Paragraph 7.2)

Monitoring and Evaluation

Monitoring Bodies/Committees such as Governing Body, High Level Task Force, Empowered Task Force and Governing Council did not meet as per required frequency.

(Paragraph 9.2)

The mandate of establishment of 'Ganga Monitoring Centre' was still under conceptualization and planning phase at NMCG as of July 2017.

(Paragraph 9.4)

Implementation of Bhuvan Ganga Web-portal to enable planning, execution and monitoring of investment projects as well as providing platform for central repository of all data through GIS mapping, was slow.

(Paragraph 9.5)

National Mission for Clean Ganga did not develop any mechanism to take appropriate remedial action on the information shared by the public on the Bhuvan Ganga App.

(Paragraph 9.6)

Against an amount of ₹ 198.48 crore sanctioned to Central Pollution Control Board for three projects on monitoring and evaluation, expenditure of ₹ 14.77 crore (7.44 *per cent*) only was incurred as of March 2017.

(Paragraph 9.7)

Against 5,016 compliance verifications required to be conducted by Central Pollution Control Board in respect of 988 Grossly Polluting Industries, only 3,163 compliance verifications were conducted during 2011-17. Against the 120 mandatory adequacy assessments required to be conducted in respect of five identified Common Effluent Treatment Plants, only 17 were carried out as of August 2017. Against the mandatory 560 inspections to be carried out for performance evaluation of 67 Sewage Treatment Plants, only 177 were carried out as of August 2017.

(Paragraph 9.7.1)

Central Pollution Control Board could deploy only 36 Automatic Water Quality Monitoring Systems as against 113 sites identified along the River Ganga for continuous receipt of water quality monitoring on real-time basis.

(Paragraph 9.7.3)

In six cities¹ of Uttar Pradesh, Bihar and West Bengal, Dissolved Oxygen declined from 2012-13 levels. Biochemical Oxygen Demand was higher than the prescribed limit in the three towns (Kanpur, Allahabad and Varanasi) of Uttar Pradesh. During 2016-17, Total Coliform levels in all the cities of Uttar Pradesh, Bihar and West Bengal was very high; ranging between six² to 334³ times higher than the prescribed levels. Specific parameters for water quality monitoring of the river Ganga have not been prescribed by National Mission for Clean Ganga.

(Paragraph 9.8)

¹ Kanpur, Varanasi (downstream), Patna, Munger, Gayespur and Budge Budge

² Patna

³ Gayespur

Recommendations

We recommend that

- i. NMCG may prepare Annual Action Plan, align Budget Estimates based on Annual Action Plan and take appropriate action to regularly review actual expenditure vis-à-vis budget allocation.
- ii. NMCG may ensure preparation and timely submission of UCs/ consolidated Financial Statements by SPMGs, for regular monitoring of the expenditure.
- iii. NMCG may ensure Internal Audit of all the SPMGs as per the prescribed frequency.
- iv. MoWR, RD&GR may release subsequent grants to NMCG, after taking into account the unspent balances available with NMCG/ SPMG/ EAs etc. at the end of the financial year.
- v. NMCG may formulate the action plan for augmentation and utilization of Clean Ganga Fund.
- vi. NMCG may finalize Ganga River Basin Management Plan for implementation of long-term intervention on Ganga Rejuvenation on priority and implement it in a time bound manner.
- vii. NMCG may ensure appraisal of DPRs as envisaged in NGRBA framework in time bound manner.
- viii. NMCG may identify and declare River Conservation Zones on priority, in order to conserve the River Ganga from encroachment and construction activities.
- ix. NMCG may address the capacity gaps of sewerages pertaining to all towns and villages comprehensively and plan sewage systems, STPs, Interception and Diversion works accordingly in a time bound manner.
- x. NMCG/ SPMGs may synchronize Interception and Diversion Projects with setting up of Sewage Treatment Plants and their operationalization for ensuring that no untreated sewage flows into the River Ganga.
- xi. NMCG, SPMGs in consultation with the State Government authorities and Executing Agencies may make tripartite agreements for making land available before awarding the contracts.
- xii. NMCG, in consultation with MoDW&S, may ensure the optimum utilisation of available funds with the State Governments.
- xiii. NMCG, in consultation with MoDW&S, may ensure more realistic planning, data integrity and strict monitoring for achievement targets.

- xiv. NMCG and MoDW&S may ensure the reliability of the data reported under MIS by cross checking with monthly physical/ financial reports submitted by all Swachh Bharat Mission (Gramin) Project Districts.
- xv. NMCG may identify threats and implement programmes/schemes to maintain the Ganga river ecology and conserve flora and fauna in sustainable and time bound manner.
- xvi. NMCG may on priority address the concerns of *Aviral Dhara* by identifying the discontinuity of flow of the River Ganga water due to engineering diversion or storage so as to determine and maintain the ecological flow.
- xvii. NMCG may frame recruitment rules for filling-up the vacancies and increase the sanctioned strength for effectively implementing the projects both at NMCG and SPMG levels.
- xviii. NMCG may have regular meetings for monitoring of Ganga Rejuvenation Programmes, make recommendations and actionable points and follow up scrupulously.
- xix. NMCG may make all efforts to expedite the work already assigned to CPCB on monitoring of pollution, inventorization of crucial parameters of pollution, surveillance on the River Ganga and strengthening of regulators.
- xx. NMCG may expedite the setting up of Ganga Monitoring Centres as envisaged in River Ganga (Rejuvenation, Protection and Management) Authorities Order (2016).
- xxi. NMCG may use geo-spatial data of National Remote Sensing Centre for better monitoring.



1
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

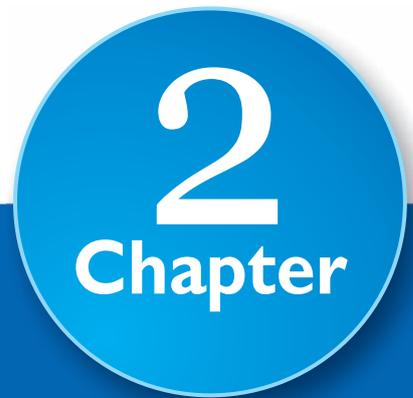
1.8 Structure of the Audit Report

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.



2
Chapter

2.1 Introduction

National Mission of Clean Ganga (NMCG) receives funds from Ministry of Water Resources, River Development and Ganga Rejuvenation (MoWR, RD&GR) under four budget lines namely (i) National River Conservation Program (NRCP) - Externally Aided Projects Component (EAP), (ii) NRCP- Non EAP Component, (iii) National Ganga Plan Component, and (iv) Ghat Beautification and Development of River Fronts component. NMCG transfers funds to the State Programme Management Groups (SPMGs) on quarterly basis, for implementation of the agreed annual action plan.

2.2 Budget and Fund utilisation

Preparation of proper budget plays an important role in timely implementation of any project. Budgeting involves quantifying the financial costs of undertaking specific tasks.

Before seeking funds from Government of India, the participating basin States are required to estimate funds for accomplishment of the project. Budget should be prepared based on the Annual Action Plan. The broad process of preparation of Annual Action Plan is depicted in the Chart 2.1.

Chart 2.1: Process of preparation of Annual Action Plan



We observed deficiencies in financial management of the programme which are given in the succeeding paragraphs.

2.2.1 Deficiencies in preparation of estimates and low utilisation of funds

We found that NMCG prepared its budget without any Annual Action Plan (AAP). Further, the Budget files¹⁰ at NMCG did not contain the details of planned activities and their estimated cost. Thus, NMCG did not follow the prescribed procedure for preparation of budget. Table 2.1 shows the Budget Estimates (BEs), Revised Estimates (REs), actual release of funds and expenditure incurred by NMCG during 2014-15 to 2016-17.

Table 2.1: Financial position of NMCG during 2014-17

(₹ in crore)									
Financial Year	Opening Balance	BE	RE	Funds released by Government of India to NMCG	Interest	Actual Expenditure by NMCG	Closing balance with NMCG	Amount of Utilisation w.r.t. BE (in percentage)	Amount of Utilisation w.r.t. RE (in percentage)
1	2	3	4	5	6	7	8 (2+5+6-7)	9	10
2014-15	189.96	2,137.00	2,053.00	326.00	7.75	170.99	352.72	8	8
2015-16	352.72	2,750.00	1,650.00	1,632.00	37.67	602.60	1,419.79	22	37
2016-17	1,419.79	2,500.00	1,675.00	1,675.00	101.78	1,062.81	2,133.76	43	63

Source: Information provided by NMCG

Table 2.1 shows that only eight to 63 *per cent* of the funds were utilised during 2014-15 to 2016-17, as compared to RE. As a result, the closing balance at the end of each year is more than the actual expenditure during the year.

The low utilisation of funds indicates poor implementation of the programme. The observations in this regard are discussed in Chapters 4, 5, 6, 7 and 9 of the Report.

NMCG replied (August 2017) that after the constitution of the NMCG as an authority and its operationalization by December 2016, the pace of sanction of Sewerage Treatment Plants (STP)s, Interception & Diversion (I&D) works and associated projects, as also various other projects leading to capital creation have gained pace and are at different stages of implementation and execution on the ground. This is likely to result in achievement of not only physical targets but also higher expenditure progress by the end of the year 2017-2018.

Thus, the reply of NMCG indicates slow pace of execution of works during 2014-17 and hence low utilisation of funds.

¹⁰ NMCG furnished the budget files for only two years (2014-15, 2016-17).

2.2.2 Non-constitution of Budget Review Committees

As per Chapter 1 of Project Financial Management Manual (2011), NMCG/SPMGs are to have Budget Review Committees (BRCs) for reviewing various aspects of the budget and submit its quarterly observations to NMCG/SPMG as part of project Management Information System (MIS).

We found that NMCG did not constitute the BRC. SPMGs of Jharkhand, Uttar Pradesh, Uttarakhand, Bihar and West Bengal had also not constituted their BRCs.

In the absence of the BRC, proper monitoring of physical and expenditure targets could not take place which resulted into significant variations between the RE and actual expenditure during 2014-15 to 2016-17 as shown in Table 2.1.

NMCG replied (August 2017) that it had now taken steps for putting in place a BRC both at NMCG headquarter as also in the SPMG for ensuring better coordination for ongoing projects and for ensuring close monitoring of physical and expenditure targets at various levels. NMCG also stated that BRC has now been constituted (July 2017) at NMCG and SPMGs have also been directed to form BRCs. The first meeting of BRC at NMCG has been conducted with participation of various SPMGs.

2.2.3 Non-utilization of entire fund earmarked for *Namami Gange* (2014-15)

As per the budget speech (10 July 2014) of the Finance Minister, an amount of ₹ 2,037 crore was set aside for *Namami Gange* and an additional sum of ₹ 100 crore for Ghat Development and beautification of River Fronts. NMCG could not utilize this amount during the same financial year (2014-15) and only ₹ 326 crore were released to NMCG, due to delayed initiation of proposal for obtaining sanction/ approval of the Competent Authority¹¹.

NMCG replied (August 2017) that since the EFC note is required to be prepared with elaborate details and justification, the NMCG was bound to take a couple of months for making the EFC note.

However, NMCG took four months for initiation of proposal for EFC culminating in the Cabinet approval of the proposal after the end of financial year for which announcement was made in the Budget.

2.2.4 Non-achievement of financial targets approved by the Cabinet

The Union Cabinet approved the following year wise financial targets for utilisation of ₹ 20,000 crore earmarked for *Namami Gange* Programme, details of which are given in Table 2.2.

¹¹ Note for Expenditure Finance Committee (EFC) was initiated on 12 November 2014 i.e. after four months of budget speech of the Finance Minister and was approved by the Cabinet on 13 May 2015.

Table 2.2: Year wise target of fund utilisation

(₹ in crore)

Year	Expected fund release	Actual Expenditure by NMCG
2015-16	3,205	602.60
2016-17	3,500	1,062.81
2017-2020 (December)	13,295	-
Total	20,000	

Source: Information provided by NMCG

Out of ₹ 6,705 crore earmarked during 2015-16 and 2016-17, NMCG could spend only ₹ 1,665.41 crore¹², i.e. less than a quarter of the expected year wise release of funds. Thus, financial targets set under the *Namami Gange* Programme were not achieved.

NMCG replied (August 2017) that towards the end of 2016 and in the year 2017 a number of projects have been sanctioned and process is on to take up all STP projects across 118 towns in Bihar, Jharkhand, Uttarakhand, Uttar Pradesh and West Bengal in the first phase. In the past six months, four Executive Committees have been held where a total of 37 projects involving a financial sanction of ₹ 4,475.20 crore have been approved.

However, the fact remains that NMCG could not spend the amount as per prescribed timelines, indicating delay in project planning and its implementation.

2.2.5 Unspent balance lying idle

As indicated in Table 2.1, funds amounting to ₹ 352.72 crore, ₹ 1,419.79 crore and ₹ 2,133.76 crore were lying unutilised with NMCG as on 31st March 2015, 2016 and 2017 respectively. In addition, out of funds released by NMCG to various SPMGs, ₹ 243.56 crore, ₹ 249.08 crore and ₹ 422.13 crore were also lying unspent as on 31st March 2015, 2016 and 2017 respectively, as depicted in the Table 2.3.

Table 2.3: Unspent balance at SPMGs

(₹ in crore)

SPMGs	Unspent Balance as on 31 March 2015	Unspent Balance as on 31 March 2016	Unspent Balance as on 31 March 2017
1 Bihar	75.86	54.38	120.33
2 Jharkhand	7.08	6.05	19.86
3 Uttar Pradesh	71.24	104.70	180.66
4 Uttarakhand	5.24	7.31	15.74
5 West Bengal	84.14	76.64	85.54
Total	243.56	249.08	422.13

Source: Information provided by NMCG

¹² Including funds released to SPMGs, EAs, MoDW&S

Similarly, ₹ 56 lakh, ₹ 17.14 crore and ₹ 59.28 crore were also lying unspent with various Executing Agencies (EAs)/ CPSUs as on 31st March 2015, 2016 and 2017 respectively. The findings relating to funds released by NMCG to MoDW&S are discussed in Chapter 5.

Unspent balance amounting to ₹ 596.84 crore¹³, ₹ 1,686.01 crore¹⁴ and ₹ 2,615.17 crore¹⁵ lying with NMCG, SPMGs, EAs, CPSUs as on 31st March 2015, 2016 and 2017 respectively indicates slackness in implementation of various activities under the *Namami Gange* Programme.

NMCG replied (August 2017) that the unspent balances at the end of NMCG were utilized in the subsequent years after they were made known to the MoWR, RD&GR at the time of seeking fresh demand of funds for the ensuing year.

The reply is not tenable as huge unspent balance with NMCG continued to rise during 2014-17 due to their non-utilization, which was not considered by the MoWR, RD&GR while releasing fund to NMCG.

2.2.6 Submission of Utilisation Certificates

As per conditions of Administrative Approval and Expenditure Sanction (AA&ES) accorded to projects, quarterly Utilisation Certificates (UCs) were to be furnished by SPMGs to NMCG.

We noted delays in submission of UCs¹⁶ details of which are given in Table 2.4.

Table 2.4: Details of Utilisation Certificates submitted to NMCG

State PMG	Period/ Financial Year	Date of submission of UC to NMCG
Bihar	01.07.2015 to 30.09.2015	25 January 2016
	01.10.2015 to 31.12.2015	3 March 2016
Uttarakhand	2014-15	16 May 2016
	2015-16	
Uttar Pradesh	2014-15	30 March 2016
	2015-16	10 May 2016
West Bengal	01.04.2014 to 30.09.2016	1 December 2016

Delays in submission of UCs not only dilute the system of budgetary and financial control but also makes the project monitoring difficult resulting in slippages in physical performance.

¹³ ₹ 352.72 crore + ₹ 243.56 crore + ₹ 0.56 crore = ₹ 596.84 crore

¹⁴ ₹ 1,419.79 crore + ₹ 249.08 crore + ₹ 17.14 crore = ₹ 1,686.01 crore

¹⁵ ₹ 2,133.76 crore + ₹ 422.13 crore + ₹ 59.28 crore = ₹ 2,615.17 crore

¹⁶ There was no project under Non-EAP component in Jharkhand

NMCG replied (August 2017) that earlier, SPMGs had no finance staff. Even as of August 2017, SPMG Bihar and SPMG West Bengal have no finance personnel. Due to this, Utilization Certificates were not furnished to NMCG in the initial years. However, the process has been streamlined in the subsequent years.

2.3 Financial Reporting

In terms of Financial Management Manual prescribed under NGRBA Framework, all programme activities were required to use double-entry accrual based accounting system. NMCG/SPMGs were to prepare their annual accounts and financial statements in accordance with the generally accepted accounting principles and procedures in India. Further, their annual audited consolidated financial statements were to be prepared by 31 July every year.

Financial Management Manual further states that NMCG was to transfer funds to the SPMGs on quarterly basis, for implementation of the agreed annual action plan. These transfers were to be made in instalments to SPMGs. However, the second instalment was to be released to SPMGs on submission of Audit Report of previous financial year to the NMCG and on reasonable utilisation of the first instalment of the reporting year.

We observed that -

- a. Three SPMGs (Uttarakhand, Uttar Pradesh, and West Bengal) had prepared their financial statements for the year 2012-13 to 2015-16. However, SPMG (Uttar Pradesh) prepared its financial statements for the year 2012-13 to 2015-16 with a considerable delay ranging from one to 10 months. Delay in preparation of accounts indicates weak financial management practices.
- b. SPMG, Bihar did not provide annual accounts per se nor any records related to preparation of annual accounts to audit. Although the request for furnishing of financial statements of SPMG, Bihar for the year 2012-17 was also made to NMCG, yet it failed to provide the same. In the absence of annual accounts, accounting of funds received and spent could not be ascertained.
- c. NMCG did not account for an amount of ₹ 17.27 crore¹⁷ as interest earned by SPMGs of Uttar Pradesh, Uttarakhand and West Bengal on Central share, in its financial statements for the year 2012-13 to 2015-16. Consequently, the said amount was not reported to Government of India and was kept out of account.
- d. According to Rule 230 (8) of General Financial Rules 2017, all interests against Grants in aid released to any Grantee institution should be mandatorily remitted to the Consolidated Fund of India immediately after finalisation of the accounts. An interest amount of ₹ 7.82 crore earned on the funds provided for

¹⁷ If NMCG's share at the rate of 70 per cent, on lower side is taken into account.

execution of works under Ganga Action Plan, Phase-II at Varanasi was lying with Uttar Pradesh Jal Nigam and not refunded to the SPMG.

NMCG in its reply (August 2017) accepted the fact and stated that interest earned on unspent part of Grants-in-aid received from its share was not accounted for in its books of accounts. However, it adjusted the same while remitting the subsequent years' Grants-in-aid to SPMGs.

The reply of NMCG is to be viewed in the light of the fact that adjustment of the interest without booking of the same in its books of accounts, resulted in reporting of short release of grants to SPMGs by ₹ 17.27 crore in its books for the financial years 2012-13 to 2015-16.

In respect of delay in preparation of financial statements, NMCG stated that directions had been issued to all SPMGs to finalise their financial statements within the prescribed time.

2.4 Internal audit

Internal audit plays an important role in assisting management in bringing a systematic, disciplined approach to evaluate and improve the effectiveness of the internal control system. NMCG and the SPMGs were to hire private firms of Chartered Accountants, as internal auditors.

As per the provisions made in the NGRBA Framework, the internal audit of NMCG and SPMGs were to be conducted on a quarterly basis. Further, at the State level, an Audit Committee was to be formed and chaired by the Project Director, SPMG consisting of representatives of participating EAs, ULBs and the State Finance Secretary or his designate. Similarly, an Audit Committee was to be formed and chaired by Mission Director at the level of NMCG. The quarterly internal audit report submitted by Internal Auditor was to be reviewed by these Audit Committees.

We observed the following for the period 2014-17:

- a. Internal audit of NMCG was conducted regularly as per prescribed frequency, except during 2016-17.
- b. In case of SPMGs of Bihar and Uttarakhand, the internal audit was not conducted at all and in case of SPMGs of Uttar Pradesh, West Bengal the internal audit was not conducted as per prescribed frequency.

Further, Audit Committees were neither formed at NMCG nor at the SPMGs, as of March 2017.

Failure to conduct internal audit in accordance with the prescribed framework is an indication of weak internal controls.

NMCG while accepting the facts stated (August 2017) that Audit Committee has been constituted at NMCG and it issued the directions to all the SPMGs for constitution of Audit Committee. NMCG also stated that appointment of Internal Auditors was under process.

2.5 Other Irregularities

2.5.1 Avoidable expenditure on agency commission and service tax thereon

As per New Advertisement Policy¹⁸ of Directorate of Advertising and Visual Publicity (DAVP), all Central Government Ministries/ Departments/ Attached and Subordinate Offices/ Field Offices are required to route their advertisements, including display advertisements, through DAVP only. These orders were reiterated by the Government of India in June 2013. Further, DAVP provides 15 per cent discount (equivalent to agency commission) to Ministries/ Departments and other client organizations for advertisements made through DAVP.

We observed that NMCG hired other advertising agencies for releasing print advertisements in leading national newspapers across the country and incurred an expenditure of ₹ 2.46 crore (March 2014 to June¹⁹ 2016), which include ₹ 36.06 lakh and ₹ 5.23 lakh as agency commission and service tax thereon.

Hiring of private agencies for print advertisements was in violation of Government policy and resulted in avoidable payment of ₹ 36.06 lakh and ₹ 5.23 lakh on account of agency commission and service tax respectively.

In reply (August 2017) NMCG cited the clause No.3 of “The print Media and Advertisement Policy of Government of India – 2016” and stated that PSUs, Autonomous Bodies and Government of India may issue all advertisements, directly at DAVP rates to empanelled newspapers.

The reply of NMCG is not acceptable as it hired the advertising agencies before implementation of new Print Media and Advertisement Policy of Government of India - 2016 of June 2016.

2.5.2 Award of work without inviting competitive bids

As per Central Vigilance Commission’s (CVC) order²⁰ (July 2007), tendering or public auction is the basic requirement for award of work by any Government agency as any

¹⁸ Clause 3 of New Advertisement Policy issued by DAVP (effective from 2 January 2007)

¹⁹ With effect from 7 June 2016

²⁰ Also refer to the Supreme Court judgment in case of *Nagar Nigam, Meerut Vs A1 Faheem Meat Export Pvt. Limited* [Arising out of SLP (civil) No.10174 of 2006]. The judgment states that contracts by State, its corporations, instrumentalities and agencies must be normally granted through public auction/ public tender and only in exceptional cases, for instance, during natural calamities and emergency declared by the Government this normal rule may be departed.

other method, especially award of contract on nomination basis would amount to breach of Article 14 of the Constitution, guaranteeing right to equality, which implies right to equality of all interested parties.

However, NMCG awarded (April 2016) the work of renovation/ refurbishing/ refitting, etc. of its office premise at Dhyan Chand National Stadium to National Project Construction Corporation Limited (NPCC), Gurgaon for completion within four week at a cost of ₹ 7.51 crore²¹ (including agency charge at the rate of eight *per cent*) without inviting tender. NMCG released a payment of ₹ 6.74 crore to NPCC including its fees amounting to ₹ 52.96 lakh and Service Tax as of May 2017 and final payment was yet to be made to NPCC.

The award of work without competitive bidding was against propriety and in violation of CVC's guidelines.

2.6 Clean Ganga Fund

Union Cabinet approved (September 2014) the creation of Clean Ganga Fund (CGF) with the objective of raising contributions from the public, residents, Non Resident Indians (NRIs), Persons of Indian Origin (PIO) and others for financing various activities related to Ganga Rejuvenation. In January 2015, a Trust has been created under the Chairmanship of the Union Finance Minister for operationalisation of CGF.

2.6.1 Idling of funds

A corpus of ₹ 198.14 crore (as of 31 March 2017) was available in the CGF. However, NMCG could not utilize any amount out of the CGF and the entire amount was lying in banks due to non-finalization of action plan by the Trust. As per the Trust deed, the Board of Trustees should ordinarily meet once in three months or as often as might be necessary for the satisfactory conduct of the affairs of the Trust. However, Audit observed that the Board of Trustees had met only once (May 2015) since creation of the CGF.

NMCG replied (August 2017) that an attempt is now being made to list out activities for sponsoring under CGF and is proposed to be placed before Board of Trustees in its next meeting which is to be convened shortly.

2.6.2 Loss of interest

The Board of Trustees of CGF approved (May 2015) the investment of surplus funds in interest earning instruments such as short-term fixed deposit accounts with nationalised/ scheduled commercial banks. However, the fixed deposits for ₹ 84.39 crore were opened (January 2016) after seven months of the decision taken in the

²¹ The cost of the works was revised from ₹ 6.35 crore to ₹ 7.51 crore

meeting of Board of Trustees. As such, by conservative estimate, NMCG incurred a loss of over ₹ 2.04 crore²² on interest.

NMCG stated (August 2017) that CGF would continue to endeavour to get enhanced return on its fund.

2.6.3 Contributions

CGF had to explore the possibility of setting up funds in other jurisdictions/countries of high donor interest such as USA, UK, Singapore, UAE, etc. to enable tax benefits to donors in their respective jurisdictions.

The donor-wise contribution received as on 31 March 2017 is given in Table 2.5.

Table 2.5: Donor wise contribution to Clean Ganga Fund as on 31 March 2017

Category of donor	Amount received (₹ in lakh)	Percentage of total corpus
1. Public sector Undertakings (PSUs)	162,97.77	85.95
2. Private Companies	16,44.73	8.67
3. Individuals	9,98.80	5.27
4. NRIs/PIOs	18.05	0.09
5. Others, Bank Interest	2.48	0.01
Total	189,61.83²³	

Out of the total contribution of ₹ 189.61 crore received under CGF, ₹ 162.97 crore (85.95 *per cent*) were received from the PSUs.

Audit observed that NMCG had not set up funds abroad. As a result, the contributions from NRIs/PIOs were miniscule at 0.09 *per cent* only.

NMCG stated (May/August 2017) that the possibilities of setting up funds abroad were being explored in association with the Ministry of External Affairs.

2.6.4 Audit of Clean Ganga Fund

Audit of CGF was to be carried out by a qualified auditor or a Chartered Accountant/C&AG every year. We observed that no Audit was carried out (May 2017).

NMCG replied (May 2017) that it has proposed to appoint an auditor with the approval of Board of Trustees.

However, in absence of audit of CGF, the correctness of figures relating to CGF as furnished by NMCG could not be verified in Audit.

²² Balance of ₹ 53.79 crore as on 15th May 2015 invested for seven months at the rate of 6.5 *per cent* per annum.

²³ Excluding Accrued Interest of ₹ 8.52 crore

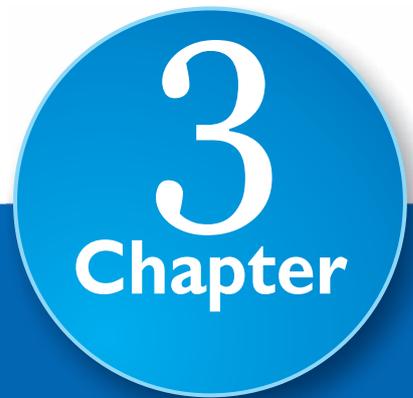
2.7 Conclusion

There were deficiencies in preparation of budget estimates as only eight to 63 *per cent* of the funds were utilised during 2014-15 to 2016-17, as compared to Revised Estimates. There were deficiencies in preparation of Annual Action Plans by both NMCG and SPMGs. Budget Review Committees for proper monitoring were also not constituted by NMCG and SPMGs. NMCG could not ensure timely submission of UCs by SPMGs and also did not account for the interest earned by SPMGs in Central Share. Internal Audit were not carried out as per prescribed frequency. Huge unspent balances were lying with NMCG, SPMGs, EAs and State Governments and the entire amount of Clean Ganga fund was lying idle.

2.8 Recommendations

We recommend that

- i. NMCG may prepare Annual Action Plan, align Budget Estimates based on Annual Action Plan and take appropriate action to regularly review actual expenditure vis-à-vis budget allocation.
- ii. NMCG may ensure preparation and timely submission of UCs/ consolidated Financial Statements by SPMGs, for regular monitoring of the expenditure.
- iii. NMCG may ensure Internal Audit of all the SPMGs as per the prescribed frequency.
- iv. MoWR, RD&GR may release subsequent grants to NMCG, after taking into account the unspent balances available with NMCG/ SPMG/ EAs etc. at the end of the financial year.
- v. NMCG may formulate the action plan for augmentation and utilization of Clean Ganga Fund.



3
Chapter

3.1 Introduction

With a view to promote more holistic approach based on river basin as the unit of planning and institutional redesign for the implementation of schemes/ programmes for Rejuvenation of River Ganga, Government of India created the National Ganga River Basin Authority (NGRBA)²⁴ in February 2009. Government of India dissolved NGRBA with its order of October 2016 and created National Ganga Council as apex body at the Central level for overall planning and superintendence. National Mission for Clean Ganga (NMCG), which was created in August 2011, continued to be the implementing agency for Ganga Rejuvenation.

Integrated Ganga Conservation Mission *Namami Gange* aims to promote comprehensive and coordinated interventions. Its implementation is as per the NGRBA Programme Framework, suitably amended from time to time.

The present Chapter deals with planning mechanism envisaged under NGRBA, as amended from time to time, for implementation of Ganga Rejuvenation programmes. Audit findings are discussed in succeeding paragraphs.

3.2 Annual Action Plans

As per NGRBA framework, a State level annual planning meeting was to be organised by SPMGs in early September every year with all their relevant Urban Local Bodies (ULBs) and Executing Agencies (EAs) participating, to prepare the draft Annual Action Plans (AAPs) for the State. The AAP was to be approved by State Executive Committee (SEC). SPMG was to submit the AAP by the end of September to NMCG for the next financial year.

We found that in the States, AAPs were not prepared during 2014-17 as per NGRBA framework. In Uttar Pradesh, AAPs for 2014-17 were prepared but there were delays ranging between four to 10 months in submission of AAPs to NMCG. Moreover, the information relating to preparation and approval of AAPs by SPMGs/ NMCG was also called for from NMCG but reply was not received, indicating that proper annual planning was not being done at NMCG's end also.

²⁴ On 20 February 2009, under Section 3(3) of the Environment (Protection) Act, 1986

NMCG replied (August 2017) AAPs would be prepared with SPMGs as tentatively NMCG has identified the projects and their deadlines. The AAPs will be finalized soon with SPMGs and EAs.

3.3 Ganga River Basin Management Plan

As per NGRBA Notification (February 2009), NGRBA shall take measures for development of the river basin management plan to promote inter sectoral co-ordination and address the issue of Ganga Rejuvenation in a comprehensive manner. As per the Cabinet approval (May 2015), *Namami Gange* programme intended to introduce convergence of various schemes under Government of India relevant for Ganga Rejuvenation, enhance the size and scope of interventions under overall framework and other initiatives arising out of recommendations of Ganga River Basin Management Plan (GRBMP), through intensive coordination with other Ministries.

3.3.1 Delay in preparation and non-finalisation of GRBMP

Ministry of Environment, Forest & Climate Change (MoEF&CC) signed a Memorandum of Agreement (MoA) with a consortium of seven Indian Institutes of Technology²⁵ (July 2010) and sanctioned the work for preparation of GRBMP with the objective of maintenance and restoration of wholesomeness of the Ganga system and improvement of its ecological health. GRBMP was to provide action plans with specific projects, policy interventions, and management actions along with financial implications. MoEF&CC sanctioned the work (August 2010) at a cost of ₹ 16 crore comprising of 37 deliverables to be completed within a period of 18 months from date of agreement i.e. by January 2012. As per Utilisation Certificate furnished by IIT, Mumbai, against an amount of ₹ 13.69 crore released for the project, an expenditure of ₹ 14.64 crore was incurred till 31 March 2016.

NMCG granted extensions four times, as depicted in the Table 3.1.

Table 3.1: Details of extension granted for preparation of GRBMP

Number of extensions	Date of sanction	Period upto which the extension was given
1 st extension	September 2012	December 2013
2 nd extension	March 2014	June 2014
3 rd extension	July 2014	December 2014
4 th extension	March 2015	31 March 2016

NMCG received the first draft of the GRMBP (January 2015) which included extended summary, main plan document and seven mission reports after 54 months of Memorandum of Agreement.

²⁵ IITs at Mumbai, Delhi, Guwahati, Kanpur, Kharagpur, Chennai and Roorkee

However, NMCG neither circulated GRBMP to different Ministries/ Departments for consultation and seeking their opinion, nor finalised the GRBMP for initiating the long-term intervention on the Ganga.

NMCG could not finalise the long-term action plans even after more than six and a half years²⁶ of signing of agreement with the consortium. As a result, NMCG does not have a river basin management plan even after a lapse of more than eight years of NGRBA notification leading to delay in initiation of long-term intervention for Ganga Rejuvenation based on river basin approach.

MoWR, RD&GR signed another MoA with IIT Kanpur (March 2016) for providing continual scientific support in implementation and dynamic evolution of the GRBMP for an annual budget of ₹ 9.60 crore over a period of ten years. NMCG released an amount of ₹ 9.60 crore as advance (October 2016) to IIT Kanpur. NMCG did not explore other options and ignored the delays in preparation of GRBMP by IIT consortium.

NMCG agreed (August 2017) that due action would be taken on GRBMP.

3.4 Approval of Detailed Project Reports

As per NGRBA framework, NMCG would evaluate the Detailed Project Reports (DPRs) submitted by SMPGs within a maximum period of 60 days. The evaluations would include third party appraisal, site visits and public consultations, as required. The possible decisions are either (i) recommend approval of DPR, or (ii) send back to the SPMG for modifications.

We ascertained the status of 154 DPRs pertaining to the period 2014-15 to 2016-17 and observed that 71 DPRs were approved out of 154 DPRs. Of these 71 DPRs, 70 DPRs were approved after delays ranging from 26 to 1,140 days. Out of remaining 83 DPRs, 54 DPRs were pending at NMCG level for periods ranging from 120 to 780 days. Of these 54 DPRs, 26 DPRs of WAPCOS, eight DPRs of NBCC, 10 DPRs of EIL, one of EPIL, one of SPMG West Bengal, four of SPMG of Bihar and four of SPMG of Uttar Pradesh were pending for approval at NMCG level.

Out of the 83 DPRs, 29 DPRs were returned by NMCG, with delay ranging from 11 to 840 days. Of these 29 DPRs, 23 DPRs were returned to the SPMGs during May-June 2017 (17 of West Bengal, five of Uttar Pradesh and one of Bihar) after 90 to 840 days. On the other hand, it was found that all DPRs (15) of SPMG of Uttarakhand were approved.

²⁶ Since signing of agreement in July 2010

NMCG did not maintain any record for dates of receipt and sanction of DPRs, because of which Audit could not fully evaluate the diligence with which NMCG followed the timeframe prescribed in the NGRBA framework.

This indicates that the support provided by NMCG for preparation of DPRs as mandated under *Namami Gange* is not adequate and effective in making a shelf of DPRs ready for project execution, which may prolong Rejuvenation of Ganga and endanger its ecology.

NMCG stated (August 2017) that in view of technicalities involved, considerable time is required for approval of DPRs. Further, SPMGs have also been submitting many DPRs, as per their own priorities without consideration in the annual planning meet of the States and without obtaining its consent. NMCG further stated that since February 2017, it has been ensuring that DPRs are normally being appraised and approved within the time frame.

3.5 Creation of Ganga Knowledge Centre

Cabinet Committee on Economic Affairs approved (April 2011) the setting up of Ganga Knowledge Centre (GKC) at NMCG to be completed up to March 2013. GKC was to be a State-of-art centre to provide knowledge and technical analysis support services to achieve the aims of the NGRBA. The Group of Secretaries in their 'Action Plan for Ganga Rejuvenation' (August 2014), also observed that there was a need to develop a comprehensive knowledge bank by expanding the scope of GKC and utilise the same for further research, innovations and development of future strategies and setting up of a dedicated institution of learning on Ganga and its tributaries. Moreover, River Ganga (Rejuvenation, Protection and Management) Authorities Order, 2016 also emphasised setting up of such centres.

3.5.1 Tardy progress in the implementation of activities of Ganga Knowledge Centre

NMCG sanctioned the proposal of setting up of GKC in two phases in (September 2013 and March 2014) at an estimated cost of ₹ 48.54 crore. GKC was proposed to be set up at Central level in Delhi which was to be linked with five thematic sub-centres in the States. The scope of work in GKC included developing a high quality web portal for the River Ganga, an integrated information base (MIS) on projects, a state-of-the-art e-library, a comprehensive Geographical Information System (GIS)- based mapping system of the Ganga basin, processes for supporting research, pilots and new ideas and processes for engaging stakeholders through forums, events, publications, interactive models.

We found that:

- Out of ₹ 48.54 crore sanctioned by NMCG towards setting up of GKC, only ₹ 1.43 crore (which was three *per cent* of the amount sanctioned) had been spent as of 31 March 2017.
- Various activities under GKC i.e. framework for data collection and management within NMCG, setting up of e-library, high quality GIS- based web portal with integrated MIS, comprehensive mapping of the Ganga Basin, etc. were yet to be taken up.
- The recruitment of 13 key personnel positions for GKC was to be completed in a period of two years (by September 2015). However, only four personnel were working in GKC (April 2017).
- NMCG had signed MoUs with University of Dundee (UK), The Energy and Resources Institute, The Nature Conservancy (TNC), World Wildlife Fund-India and VA-Tech Wabag Ltd. to conduct collaborative research on various themes of interest to NMCG but it was yet to identify and finalize areas of research as of date.
- NMCG had also not constituted a Research Advisory Committee (RAC) for recommending proposals for research and send them to Empowered Steering Committee for approval.
- The activities of the GKC were to be regularly monitored by the Mission Directorate, NMCG. However, only one meeting (April 2017) was convened by NMCG to take stock of the activities initiated in respect of establishment of GKC.

Thus, the physical and financial progress was very slow which reflected the tardy progress of the work.

3.5.2 Non-achievement of the objectives of the project 'Ganga Gyan Dhara ' under GKC

One of the main activities envisaged under the GKC was to compile and collect legacy data²⁷ on the River Ganga. NMCG engaged (April 2014) Indian Institute of Public Administration (IIPA) for 'Collection and Computerization of Legacy data on the River Ganga' with a fee of ₹ 87.18 lakh for a project duration of 12 months. IIPA was to collate all the existing information on the Ganga, screen the information for relevance and quality, organize and store the data to make it easily retrievable. The tasks assigned to IIPA included (a) searching and collecting implicit/ tacit knowledge with various stakeholders, individuals, institutions; (b) data codification, documentation and digitization; (c) transfer of data/ information to NMCG, etc.

²⁷ Legacy data referred to active as well as inactive data that is stored in physical or electronic format and which may or may not currently be understood, used or managed.

IIPA submitted the completion report (July 2015) without obtaining responses from 33 out of 41 Universities from whom information were sought. IIPA also did not download 77,700 number of reference items that were collected by it. Further, IIPA was to transfer data/information to NMCG in phases, as and when it was complete. Books/ journals readily available had to be transferred once they were codified/ digitized instantaneously and other data sets were to be transferred after the whole process was complete. However, the same was not done by IIPA. NMCG in its reply (July 2017) stated that digitization of some journals/research papers could not be done due to copyright matters. However, the reply was silent about the quantum of data/ information transferred to NMCG.

NMCG had not placed the information and reports submitted by the IIPA in the public domain even after two years of their submission. The website 'Ganga Gyan Dhara' was under maintenance (April 2017). Thus, the objective to organize and store the data to make it easily retrievable remained unachieved.

3.6 Communication and public outreach

As per NGRBA Framework, communication and public outreach strategy and plan was to be prepared to ensure effective abatement of pollution and conservation of the River Ganga through strategic communication and enhanced public participation and outreach. Further, under *Namami Gange* programme (July 2014), in 'short term activities', communication and public outreach were to be undertaken.

The Annual Action plan for communication and public outreach activities in Uttar Pradesh for 2015-16 and 2016-17 were pending in NMCG since July 2015 and April 2016 respectively. Resultantly, no Information, Education and Communication activities were performed.

3.7 Annual Report

NMCG has to prepare an annual report within three months of the end of every year. We found that NMCG has not prepared annual reports since its inception (2011).

NMCG stated (May 2017) that its activities were still at the stage of planning and annual report will be prepared in due course.

3.8 Status of River Conservation Zone

MoWR, RD&GR issued (October 2016) a notification, for constitution of authorities at Central, State and District levels to take measures for prevention, control and abatement of pollution in the Ganga and to ensure continuous and adequate flow of water so as to rejuvenate the river to its natural and pristine condition. Under this notification, the bank and flood plain of the River Ganga should be kept free from

construction activities to reduce pollution sources, pressures and to maintain its natural ground water recharge functions.

We found that River Conservation Zone were not identified in the States of Uttar Pradesh, Bihar, Jharkhand and West Bengal, till May 2017. In Uttarakhand, it was under progress.

NMCG accepted (August 2017) the audit observation.

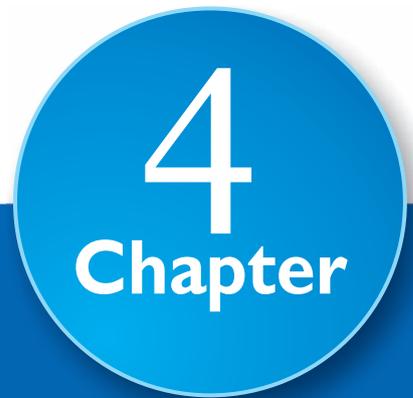
3.9 Conclusion

NMCG has not finalized the Ganga Rejuvenation Basin Management Plan for initiating long-term intervention on the Ganga. Approval of DPRs for Ganga Rejuvenation suffered from inordinate delays. Ganga Knowledge Centre has not been established as of June 2017. River Conservation Zone were not identified in the States of Uttar Pradesh, Bihar, Jharkhand and West Bengal.

3.10 Recommendations

We recommend that

- i. NMCG may finalize Ganga River Basin Management Plan for implementation of long-term intervention on Ganga Rejuvenation on priority and implement it in a time bound manner.
- ii. NMCG may ensure appraisal of DPRs as envisaged in NGRBA framework in time bound manner.
- iii. NMCG may identify and declare River Conservation Zones on priority, in order to conserve the River Ganga from encroachment and construction activities.



4
Chapter

4

Chapter

Pollution Abatement and Ghat Development

4.1. Introduction

NGRBA launched (November 2010) Mission Clean Ganga with the objective of ensuring that by 2020 no untreated municipal or industrial effluents is discharged into the River Ganga. Under *Namami Gange* (May 2015) the scale and scope of various interventions for sewage treatment, Ghats and river front development and rural sanitation have been enhanced by involving multiple agencies, Ministries and Departments.

The details of the funds released by NMCG to SPMGs, Executing Agencies (EAs) and Central Public Sector Undertakings (CPSUs) and expenditure incurred by them during 2014-17, are given in the Table 4.1.

Table 4.1: Details of funds released by NMCG during 2014-17

(₹ in crore)

SPMGs, EAs and CPSUs	2014-15		2015-16		2016-17	
	Release by NMCG	Expenditure by SPMGs /EAs	Release by NMCG	Expenditure by SPMGs /EAs	Release by NMCG	Expenditure by SPMGs /EAs
Bihar		10.58	41.21	62.70	82.03	18.53
Delhi			4.96	4.96	2.17	2.17
Haryana			30.00	30.00	52.73	37.00
Jharkhand	0.97	0.47	-	1.03	46.18	12.74
Uttarakhand	4.26	8.91	7.70	5.64	30.66	10.36
Uttar Pradesh	74.58	12.53	76.82	114.96	287.17	187.73
West Bengal	73.85	38.44	122.96	130.45	99.25	86.83
CPSUs						
EIL			5.77		15.73	18.29
EPIL					3.00	0
NBCC			4.00		0	0
NPCC					3.35	1.40
WAPCOS			6.78		13.31	5.00
Total	153.66	70.93	300.20	349.74	635.58	380.05

Source: Information provided by NMCG

It can be seen from Table 4.1 that NMCG released ₹ 1,089.44 crore to SPMGs and EAs of seven States and five CPSUs, out which ₹ 800.72 crore (74 per cent) was utilised by SPMGs/EAs/CPSUs. The fund allocated to the States through Ministry of Drinking Water & Sanitation (MoDW&S) for Rural Sanitation are discussed separately in Chapter 5.

The present Chapter deals with audit findings relating to sewage generation, interception of drains and installed treatment capacity in selected towns through which the Ganga and its tributaries flow. It also deals with projects undertaken by NMCG through SPMGs and EAs for sewerage treatment, interception and diversion, Ghats, crematoria, river front development and canal.

4.2. Towns

4.2.1 Non-achievement of targets for Sewage treatment under *Namami Gange*

Namami Gange programme²⁸ was to target sanitation of all anthropogenic activities, waste management of all industrial units, reduction in water pollution level etc. The quantifiable targets for the same along with corresponding target dates as approved by the Cabinet are given in Table 4.2.

Table 4.2: Milestone for STPs

	Milestone	Target Date from Date of Sanction
1.	Preparation of DPRs for STPs	October 2015
2.	Tendering of STPs	March 2016
3.	Award of Works	September 2016
4.	Completion of STPs	September 2018

As per the information provided by NMCG, the treatment capacity gap in 106 towns in the five basin States along the River Ganga was 2,109 Million Litres per day (MLD) (Year 2016). The State wise details of treatment capacity gap along with STP projects under implementation are indicated in Table 4.3:

²⁸ The Cabinet Approval to *Namami Gange* was given on 13 May 2015. The programme was to be implemented by 2020.

Table 4.3: Treatment capacity gap along with STP projects under implementation

State	Treatment capacity Gap in 2016 (MLD)	Projects under Implementation (Treatment capacity in MLD)			
		Ongoing	Under Tendering	Approved	Proposed
Bihar	556	222	0	239	86
Jharkhand	15	12	0	4	0
Uttarakhand	79	1	93	38	0
Uttar Pradesh	428	393	50	103	102
West Bengal	1,031	84	0	92	41
Total	2,109	712	143	476	229

Source: Information provided by NMCG

As per the target dates approved by the Cabinet, the award of works for all the STPs was to be completed by September 2016. The treatment capacity gap in 106 towns was 2,109 MLD but STP projects having treatment capacity of 712 MLD were ongoing as of August 2017. The works in respect of 1,397 MLD were yet to be awarded.

NMCG replied (August 2017) that there were many small towns, where pollution load was too small to create STPs and it was exploring various other options to treat this sewage. Further, NMCG stated that the projects under construction/ tendering shall bridge the gap significantly. However, the reply was silent about non achievement of the targets approved by the Cabinet.

4.2.2 Sewage generation, interception of drains and installed capacity

We also collected information about sewage generation, interception of drains and installed treatment capacity of 58 towns and Delhi State from their respective Pollution Control Boards/ Municipalities/ Jal Boards, independently. The details of State-wise data are given in Table 4.4, which was in variation with the data provided by NMCG, as indicated in Table 4.3 above.

Table 4.4: State-wise details of sewage data in sampled towns

State/Number of Sampled Towns	Sewage Generation (MLD)	Sewage Treatment (MLD)	Untreated Sewage (MLD)	%	Untapped Drains
Bihar/8	637	70	567	89	42
Delhi	3,270	2,090	1,180	36	4
Haryana/2	102	76	26	34	2
Jharkhand/2	12	0	12	100	7
Uttarakhand/8	136	65	71	52	32
Uttar Pradesh/16	1,252	535	717	57	147
West Bengal/22	700	162	538	77	192

Source: Information provided by States Pollution Control Board/ Municipalities/ Jal Boards

Table 4.4 indicated that maximum untreated sewage (1,180 MLD) discharged to the River Ganga and its tributaries (Yamuna) is in Delhi and minimum is in selected towns of Jharkhand (12 MLD). However, selected towns of Bihar, Jharkhand and West Bengal along the Ganga River have more than 75 per cent of untreated sewage with respect to total sewage generation.

The wide divergence in the data furnished by NMCG (Table 4.3) vis-à-vis data furnished by the State authorities (Table 4.4) further points towards requirements for NMCG to work in close coordination with State authorities to have complete, up-to-date and consistent data for these important parameters, so that relevant intervention can be planned effectively.

NMCG replied (August 2017) that it had sanctioned many projects for the towns to bridge the gap of sewage generation and sewage treatment. Further, the projects under construction/tendering shall also bridge the gap significantly. Delhi Jal Board is constructing 15 more STPs, upgrading Kondli and Rithala STPs and replacing Okhla STP with capacity augmentation to bridge this gap. In Jharkhand, two sewerage projects have been sanctioned in Sahibganj and Rajmahal which will create STP capacity of 15.5 MLD. Project in Sahibganj is under construction.

Few illustrative cases and audit findings in sampled towns are described in succeeding paragraphs.

4.2.2.1 West Bengal: (a) We further identified 65 drains in 12²⁹ municipalities discharging into the River Ganga, apart from drains identified by West Bengal Pollution Control Board (WBPCB). This indicated that the inventory of drains maintained by WBPCB was not comprehensive and updated. Some of the identified drains in 12 municipalities are shown in Plates 4.1 and 4.2 below.

Sewage discharged directly into the River Ganga in West Bengal	
	
<p>Plate 4.1: Steamer Ghat Outfall (Jiaganj-Azimganj)</p>	<p>Plate 4.2: Manipur Ghat drain (Nabadwip)</p>

²⁹ Bhadreswar (2), Baidyabati (6), (4), Jiaganj-Azimganj (3), Nabadwip (1), Barrackpore (1), Krishnagar (1), Maheshtala (9), Hooghly-Chinsurah (4), Chandannagar (4), Diamond Harbour (6), Bhatpara(25), Budge Budge(3).

NMCG stated (August 2017) that the discharge of the drains does not necessarily contain sewage component only as significant contribution may come from other sources.

However, the reply of NMCG was not specific and was silent about the inventory of drains.

(b) In three towns (Jiaganj - Azimganj , Hooghly-Chinsurah and Baidyabati) waste was being dumped on the bank of the River Ganga as shown in Plates 4.3 and 4.4 below.



Plate 4.3: Dumping of solid waste (mainly plastic) on the bank of the River Ganga in Jiaganj and Azimganj



Plate 4.4: Solid waste dump at Tin paisa Ghat at Baidyabati

(c) The Bhatpara Municipality was facing difficulties in operating its water treatment plant as the oil mixed water discharged by 26 factories situated on the banks-blocked the sand bed of the filter house of the water treatment plant. Owing to this, the Municipality had to shut down the plant for six to eight hours which caused scarcity of water. The matter was informed to the WBPCB in February, 2017 but no action was taken by WBPCB upto May 2017.

(d) Similarly, in Haldia, the water flowing in the drain near Oil Jetty was found to be covered with oil layer. This flows directly into the River Ganga. Kolkata Port Trust had placed work order (June 2016) amounting to ₹ 15 crore for procurement of equipment for combating oil spill as shown in Plate 4.5 and 4.6 below.



Plate 4.5: Water flowing in the drain near Oil Jetty was found to be covered with oil layer



Plate 4.6: Oil mixed water discharged by factories situated on the banks-blocked the sand bed

4.2.2.2 Uttar Pradesh : In case of Kanpur city, the daily average sewage generation is 453 MLD against which total STP capacity of 423 MLD is available. However, only 170.30 MLD of sewage is being treated in Kanpur leaving 282.70 MLD sewage untreated. As a result, the capacity of 252.70 MLD was unutilized. The project for interception and diversion of Sisamau Nala is targeted to divert the sewage so as to utilize 138.33 MLD of surplus capacity. Hence, even after completion of this project, 114.37 MLD of surplus STP capacity will remain to be utilized for which no project has been planned as yet.

NMCG stated (August 2017) that it has sanctioned a sewerage network project for district 1 of Kanpur. In addition, Uttar Pradesh Jal Nigam has prepared DPRs for sewerage district II. The sewerage projects will result in channelization of the sewage to the existing STPs.

Sewage discharged directly of the River Ganga in Uttar Pradesh



Plate 4.7: Sisamau Nala falling in the Ganga river at Kanpur

4.2.2.3 Uttarakhand: Out of eight selected towns, four towns (Muni Ki Reti, Gopeshwar, Badrinath and Karnprayag) did not have STP facility, which was a major reason for non-interception of the drains.

NMCG stated (August 2017) that the STP projects for all these towns had been sanctioned and their completion shall not leave any gap in sewage treatment capacity

Sewage discharged directly to the Ganga in Uttarakhand

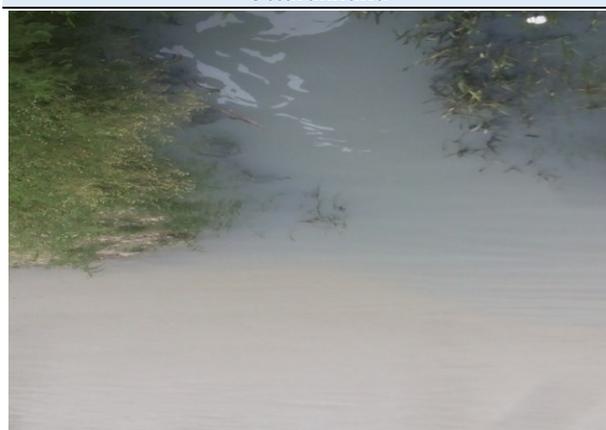


Plate 4.8: Matr Sadan Nullah discharging into River Ganga in Haridwar

4.3. Projects under *Namami Gange* Programme

Under *Namami Gange* Programme, infrastructural projects are implemented by SPMGs through EAs. These projects include, installation of Sewage Treatment Plants (STPs), Interception & Diversion, Ghats and Crematoria and Canal works. Central Public Sector Undertakings (CPSUs) are involved in the work of Entry Level activities in respect of Ghats and Crematoria and Conditional Assessment and Feasibility Study (CA&FS) of towns. During 2014-17, 128 infrastructural projects (₹ 10,638.75 crore) were implemented by NMCG, out of which we selected 70 projects (₹ 7,655.84 crore), for detailed scrutiny as detailed in Table 4.5.

Table 4.5: State/CPSUs/ Category of Total and Sampled projects

States/CPSUs	Projects	Sampled projects	Categories of sampled projects		
			Sewerage/ STP/ I&D/ Canal Works	Ghats & Crematoria and RFD	Implemented by Multilateral agencies
1. Bihar	14	7	6	1	
2. Delhi	2	2	1	1	
3. Haryana	2	2	2		
4. Jharkhand	6	4	1	2	1
5. Madhya Pradesh	2	2	2		
6. Uttar Pradesh	21	10	10		
7. Uttarakhand	38	19	17	2	
8. West Bengal	16	9	7	2	
9. EIL	11	6		6	
10. EPIL	4	2		2	
11. NBCC	5	3		3	
12. NPCC	1	1		1	
13. WAPCOS	6	3		3	
Total	128	70	46	23	1

RFD : River Front Development

The audit findings in respect of Sewage Treatment Plants /Interception & Diversion Projects/ Canal work, Ghats/Crematoria works and those implemented by multilateral agencies are discussed in paragraphs 4.4, 4.5 and 4.7 respectively.

4.4 Sewage Treatment Plants, Interception & Diversion Projects and Canal

A total of 46 of Sewage Treatment Plants, Interception & Diversion Projects and Canal works costing ₹ 5,111.36 crore were sampled in Audit. Out of these nine projects were completed valuing ₹ 680.36 crore. There were delays in 26 projects costing ₹ 2,710.24 crore ranging from three to 82 months. The important audit findings in respect of STPs, I&Ds and Canal are discussed in succeeding paragraphs:

4.4.1 Delay in execution of Projects

4.4.1.1 Bihar: SPMG awarded the contracts (December 2011 to March 2012,) for four projects at Begusarai, Buxar, Hazipur and Munger having total sanctioned cost of ₹ 328.67 crore. The projects were to be completed within 24 months. However, all the four projects were incomplete as of June 2017 even after delay of more than three years. It was observed that land was handed over to the contractor with delays ranging from 310 to 1,434 days³⁰.

NMCG stated (August 2017) that it has already taken action and issued No Objection Certificate (NOC) for termination for the Hajipur, Begusarai and Munger sewerage projects and requested SPMGs/ Bihar Urban Infrastructure Development Corporation Limited (BUIDCo) for submission of their future plans.

Thus, there has been inordinate delay due to non-possession of the site on time.

4.4.1.2 Madhya Pradesh: National River Conservation Directorate (NRCD) sanctioned (July 2007) a project for setting up of a STP of 12 MLD capacity at Rewa town on River Beehar, with duration of three years. The estimated cost of the project was ₹ 4.29 crore. However, due to non-availability of land, work could not be started upto February 2011. Meanwhile, State Government identified the land but the same was insufficient to construct the STP of 12 MLD capacity. Accordingly, State Government decided to adopt a suitable technology, as per the available land. As a result of change of the technology, the cost of the project was revised (February 2009) to ₹ 8.30 crore, for completion by March 2011. The Project implementing agency initially appointed by State Government was unable to execute the work so it-decided (July 2010) to hand over the work to Public Health and Engineering Department (PHED).

We found that site was acquired in February 2012 i.e. almost three years after the sanctioning of the project and work order was issued to contractor in February 2013. The time line for completion of project was extended from time to time and finally it was extended (November 2016)-upto November 2017. We further noticed that only 95 *per cent* of work of STP could be completed as of March 2017. Thus, the project could not be completed as of March 2017 even after lapse of six years.

³⁰ Begusarai- 1,434 days, Buxar- 1,006 days, Hajipur- 310 days , Munger – 546 days

NMCG replied (August 2017) that it has made mandatory for Executing Agencies not to award any work till land is in the possession of Executing Agency, which will help in reducing unnecessary delays.

Further, NRCD had sanctioned (April 2009) another project for construction of STP of 4.7 MLD capacity on Mandakini River, Chitrakoot, Satna at a total cost of ₹ 1.18 crore. All works were to be completed in a span of three years i.e. March 2012. The Project implementing agency appointed by State Government was unable to execute the work, so it was decided (July 2010) to hand over the work to Public Health and Engineering Department (PHED).

We noticed that the land was acquired in March 2013 and work order was issued in April 2013. However, due to land disputes, work remained suspended from July 2013 to April 2015. Although, STP work was completed in March 2017, yet the same could not be functional, as connection of high tension line was still in progress as of March 2017.

Thus the project had not been operationalized even after five years of scheduled date of completion due to selection of implementing agency which was not technically qualified, non-availability of land and lack of effective monitoring.

NMCG replied (August 2017) that selection of Executing Agency is mandate of State Government but NMCG is doing regular monitoring to cut short such delays.

4.4.1.3 Uttarakhand: The scheme of Sewerage System and STP for Gangotri Dham at Uttarkashi was sanctioned in March 2011 at an estimated cost of ₹ 9.87 crore, which was scheduled to be completed by April 2014. We observed that the project was still incomplete though a sum of ₹ 5.51 crore had been spent. As a result, 0.75 MLD of untreated sewage was being discharged into the Bhagirathi (Ganga). On being pointed out, it was stated by the Project Manager, Uttarakashi, that the project could not be completed in time due to closure of shrine and road blockage due to the 2013 floods. The reply was not tenable as six years had elapsed since the sanction and four years since the 2013 floods but the work was still incomplete.

4.4.1.4 Uttar Pradesh: (i) The AA&ES for Japan International Cooperation Agency (JICA) assisted Ganga Action Plan (GAP) phase-II project at Varanasi, under the NGRBA at an estimated cost at ₹ 496.90 crore was accorded in July 2010. We observed that as per the AA&ES, the work of the project was to be completed within 60 months from the date of sanction i.e upto 31 July 2015. There was delay in processing of obtaining approvals from time to time from NMCG and JICA at the stages of bid documents, clearance of queries of the bidders in pre-bid meeting and obtaining NOC from JICA on bid evaluation report of all the packages. However, due to delay in award of work packages ranging from 17 to 49 months (beyond nine months allocated for completion of tendering process i.e upto April 2011), the work could not be completed till date

and the project cost was escalated by ₹ 137.46 crore³¹. Subsequently, a revised DPR has been sent to NMCG for ₹ 571.92 crore which has not been sanctioned as yet (June 2017).

NMCG stated (August 2017) that the DPR was considered and Uttar Pradesh SPMG has been advised to put up the proposal of cost escalation to State Government in accordance with the condition of AA&ES for the project.

(ii) Under JICA assisted GAP-II project, NRCDC sanctioned (July 2010) one component relating to rehabilitation of STP Bhagwanpur (eight MLD) and Deenapur (80 MLD) of Varanasi district at a cost of ₹ 14.90 crore.

We observed that even after the lapse of seven years from the date of sanctioning of the project, the physical progress is only 35.57 *per cent*. Due to inordinate delay in award of work by UPJN by 48 months which has resulted in cost-overrun of ₹ 3.74 crore due to escalation of prices during the period 2010-14. Further, the execution has suffered from flood, farmer's agitation, non-availability of various components of STP.

Hence rehabilitation and capacity enhancement work at Varanasi is much behind schedule.

NMCG stated (August 2017) that rehabilitation of existing STPs does not involve any capacity enhancement. The project is expected to be completed within the revised time frame i.e. by July 2018. However, the fact remains that only 35.57 *per cent* work has only been completed, therefore, the possibility of completion of project within revised time frame seems remote.

(iii) As per NRCDC Guidelines for preparation of projects, 100 *per cent* house connections for the present population within the project implementation period is to be provided in the DPRs. We observed that in two projects, house connections to sewerage network were not incorporated in the DPR of the sewerage projects at Garhmukteshwar (₹ 46.51 crore), and JICA assisted GAP-II at Varanasi (₹ 496.90 crore). A proposal sent to State Government for providing house connections amounting to ₹ 17.26 crore for Garhmukteshwar is yet to be sanctioned (May 2017).

Thus, non-inclusion of house connection works in the DPR led to idle investment on creation of sewerage infrastructure and non-achievement of intended objective.

NMCG accepted the audit observation and stated (August 2017) that the State Government had been advised in the past to ensure last mile connectivity for all the sewerage network projects so as to enable optimal utilization of the assets created.

³¹ Awarded cost of Packages 1 to 5, ₹ 488.77 crore - Sanctioned estimated cost of work ₹ 351.31 crore = cost escalation ₹ 137.46 crore

4.4.2 Non recovery of Liquidated Damages

In Bihar, Uttarakhand and Uttar Pradesh the Liquidated Damages (LD) for delay were not recovered from the contractors in three cases as shown in Table 4.6. Moreover, in respect of Uttarakhand project, the penalty could not be realized, as the Term Deposit Receipt (TDR) amounting to ₹ 69.20 lakh provided as security was found to be fake.

Table 4.6: Non recovery of Liquidated Damages

Name of State	Name of project	LD to be recovered (₹)	LD recovered (₹)	LD not recovered (₹)
Bihar	Sewerage System & STP projects at Begusarai, Munger and Hajipur	27.45 crore	16.61 lakh	27.28 crore
Uttarakhand	Construction of a Sewerage System and a STP for Gangotri Dham at Uttarkashi	69.20 lakh	Nil	69.20 lakh
Uttar Pradesh	Sewerage and non-sewerage in District A at Allahabad"	9.79 crore	15.00 lakh	9.64 crore

Bihar Urban & Infrastructure Development Corporation Ltd. (BUIDCo) replied (June 2017) that in Sewerage System & STP projects of Begusarai and Hajipur, remaining penalty shall be deducted in final running account bills. For Munger project, it stated that contract has already been terminated with forfeiture of Performance Bank Guarantee.

Regarding Uttar Pradesh, NMCG stated (August 2017) that the contractor has completed the work within the sanctioned cost and requested to reconsider the amount of liquidated damage imposed on him. Contractor's application is under consideration on legal point of view. The balance amount will be recovered from the contractor's final bill or from the performance Bank Guarantee submitted by contractor.

4.4.3 Observations in respect of completed projects

4.4.3.1 West Bengal: (i) A project for abatement of pollution of Beliaghat Circular Canal at an estimated cost of ₹ 10.22 crore, was completed in January 2015 at a cost of ₹ 9.08 crore and a time overrun of three years and two months.

The work entailed Interception and diversion of sewer, fencing, construction of pumping stations, afforestation etc. During site visit (May 2017), it was seen that water in the Canal was almost stagnant and polluted due to dumping of solid waste, open defecation, etc. Further, the concrete pillars of the fencing completed in January 2015 were almost demolished. In many locations, there were encroachments by slums/refugees, car repairing shops, garages, eateries, etc. In several places, there were make- shift toilets discharging waste into the canal. Thus the fencing completed

at ₹ 3.13 crore could not be maintained to safeguard the site. Kolkata Municipal Corporation (KMC) did not carry out the afforestation works and returned the amount of ₹ 25 lakh to SPMG without giving any reason. Had this work been carried out by KMC, the encroachment could have been avoided to some extent rendering the work more successful

KMC accepted (June 2017) that there is encroachment in the area.

Stagnant water and encroachment of Beliaghata Circular Canal of West Bengal	
	
<p>Plate 4.9: Belighata circular canal with stagnant water (May 2017)</p>	<p>Plate 4.10: Slums within the buffer zone. Broken Pillars of the fence can be seen (May 2017)</p>

(ii) In Gayeshpur area a project for construction of a STP with 8.33 MLD capacity was sanctioned (February 2011) for ₹ 168.67 crore. The work was to be completed by February 2014.

As per the MoA executed between SPMG, Gayeshpur Municipality and Kolkata Metropolitan Development Authority (KMDA), the Municipality had to ensure house connection of sewer lines. Audit observed that out of 22,000 households, sewerage connection with the manhole/house pit had been provided to only 25 households. The project was completed in December 2016 and has been put on trial run (January 2017) for six months (June 2017) without completion of house connection. Consequently, against the designed capacity of 8.33 MLD of sewage, the STP was treating less than one MLD³² of sewage leading to under-utilization.

NMCG stated (August 2017) that the State Government is taking up separate project for house connection.

4.4.3.2 Uttarakhand: The Uttarakhand Peyjal Nigam is responsible for construction of sewerage network and STPs. The Uttarakhand Jal Sansthan (UJS) is responsible for connecting the establishments and households to the sewerage network laid and for its operation and maintenance. It was noticed that construction of 3.5 MLD STP at

³² The plant was running for at least 30 minutes. Taking eight hours of operation for 8.33 MLD, the sewage treated was less than one MLD.

Tapovan area in Rishikesh was completed and the STP was in operation since May 2016 without being handed over to the Jal Sansthan as on the date of audit (June 2017). It was further noticed all the establishments/ houses in the project area were not connected with the STP. As a result, only 0.29 MLD sewage was being treated against the total capacity of 3.5 MLD.

NMCG accepted the audit observation and replied (August 2017) that it had highlighted this issue in various meetings with senior officers of Uttarakhand. It has been reported that flow had been increased to double but still EAs have to provide more connections.

4.5 Ghats, Crematoria works and Conditional Assessment and Feasibility Study

A total of 24 of Ghats, Crematoria works Projects costing ₹ 2,416.65 crore were sampled in Audit. Out of these two projects were completed valuing ₹ 20.05 crore. There was delay of 12 months in one project costing ₹ 243.27 crore. The important Audit findings in respect of these projects are discussed in succeeding paragraphs.

4.5.1 Non-signing of MoU for CA&FS and delay in approval of DPRs for entry level activities

The work of Entry Level activities³³ in respect of Ghats and Crematoria and Conditional Assessment and Feasibility Study (CA&FS) was allocated to five CPSUs as detailed in Table 4.7. The Cabinet had approved (May 2015) the engagement of CPSUs as EA or nomination basis or as deposit work by these agencies.

Table 4.7: Details of MoUs with CPSUs by NMCG

CPSUs	Date of MoU for carrying out Entry Level activities	State and number of Towns covered
EIL	23 April 2016	32 towns (including 5 priority towns) in Uttar Pradesh and 6 priority towns in other States ³⁴ .
EPIL	25 May 2016	42 towns in West Bengal
NBCC	6 June 2016	22 towns in Bihar
NPCC	25 May 2016	2 towns in Jharkhand
WAPCOS	19 May 2016	13 towns in Uttarakhand and 25 towns in Uttar Pradesh

Table 4.7 indicates that NMCG entered in to MoU with the CPSUs, only in respect of Entry Level Activity. MoUs for CA&FS were yet to be signed.

NMCG accepted (August 2017) the fact and stated that MOU for preparation of CA&FS will be signed.

³³ Entry level activities included modernization/ development of Ghats and Crematoria, Village Sewage Drains Treatment and River Surface Cleaning

³⁴ Uttarakhand, Bihar, Jharkhand and West Bengal

4.5.2 Delay in start of work

4.5.2.1 In Bihar, an amount of ₹ 243.27 crore was sanctioned to SPMG by NMCG for River Front Development (RFD) in Patna (June 2013), to be completed by June 2016.

We observed that as per the conditions of the contract, site would be handed over to the contractor on signing of the contract. Out of total 20 Ghats, land was not made available for four Ghats³⁵ to the contractor due to construction of Ganga Expressway (till June 2017). The physical progress of work under different components of items ranged from 60 to 92³⁶ per cent as of July 2017.

Bihar Urban Infrastructure Development Corporation Limited (BUIDCo) replied (June 2017) that due to release of sites in phased manner contractor could achieve limited progress of work.

4.5.2.2 In Bihar, three works were entrusted to NBCC as detailed in Table 4.8.

Table 4.8: Details of progress of work by NBCC

Place	Contractor	Stipulated Date of start	Stipulated date of completion	Stipulated completion period	Value of contract (₹ in crore)
Sonepur	M/s Trilok & Associates	12 July 2016	12 Oct 2017	15 months	24.55
Buxar	M/s Urmila RCP Projects Pvt. Ltd.	11 July 2016	11 Oct 2017	15 months	26.92
Munger*	M/s Rama Construction Co.	05 Dec 2016	05 Mar 2018	15 months	66.60

*Combined LOA for Sultanganj, Munger and Jamalpur

We noticed that NOCs from various agencies were not taken before the start of work at all sites and foundation work was in progress.

NBCC stated (May 2017) that the proposed project committee for issue of NOC has not been constituted by Government of Bihar. Further, it attributed the slow progress to delay in clearance of land, rise in river water level, hindrances encountered during execution of work and delay in mobilization of contractors. The reply was not tenable as these reasons were foreseeable and NBCC should have taken suitable steps to mitigate their impact and keep pace of the work.

4.5.2.3 In Uttarakhand, NMCG sanctioned (May 2016) ₹ 72.37 crore³⁷ for “Development of Ghats and Crematoria in the Stretch from Rishikesh to Devprayag and Devprayag to Rudraprayag” to WAPCOS. The projects consist of developing of 28

³⁵ Gai Ghat, Bhadra Ghat, Mahavir Ghat and Naujar Ghat

³⁶ Ghats 92 per cent, Promenades 72 per cent, Crematorium 90 per cent, Buildings 60 per cent, Electrical works 75 per cent and Environmental Management Programmes (EMPs) 84 per cent

³⁷ ₹ 22.11 crore + ₹ 50.26 crore

Ghats³⁸ (15 bathing Ghats and 13 cremation Ghats), to be completed within 18 months from the date of AA&ES (i.e. by November 2017).

As per the conditions of AA&ES of the projects, WAPCOS would obtain all the statutory clearance/ permission/ licenses on behalf of NMCG for implementation of the project. Notice Inviting Tender (NIT) also stated (April 2016) that the Contractor would be provided clear site for construction.

- In stretch- Rishikesh to Devprayag, out of 10 Ghats, work was in progress only in four Ghats. Out of these four Ghats, in two Ghats (Devprayag-sangam and Bharat) WAPCOS started the work without obtaining the NOCs. On three Ghats (Phoolchatti – Bathing, Phoolchatti- cremation and Sirasu) though the NOCs were received yet no work could be started so far.

WAPCOS stated (June 2017) that the NOC's were pending with SDM's and DM's.

- In Stretch- Devprayag to Rudraprayag, out of 18 Ghats, NOCs were received in respect of 10 Ghats. Of these, the work was started in respect of nine Ghats. The work on Farasu Ghat was not started inspite of receipt of NOC. The work on another two Ghats namely, (Kirtinagar-old Ganga Ghat and Kirtinagar-New Ganga Ghat) was started by WAPCOS without obtaining the NOCs from the concerned DM. The work was not stated in respect of seven Ghats.

WAPCOS replied (June 2017) that it started the work on two Ghats, i.e. Kirtinagar Old Ganga Ghat and Kirtinagar New Ganga after obtaining NOC prior to commencement of construction. For Ghat at Farasu, NHAI said that this Ghat lies within the area proposed for the expansion of their roads. The matter was being resolved by SPMG, Uttarakhand and WAPCOS was awaiting for further instructions. The reply of the WAPCOS is not tenable as it was stated in the progress report (for the month of March 2017) that NOCs were pending and work was in progress in these Ghats.

Thus, WAPCOS awarded the work to the contractors without getting the NOCs from the State Authorities for starting up the work.

4.5.2.4 Uttar Pradesh, (i) NMCG sanctioned (December 2016) the project for construction of one bathing Ghat and eight cremation Ghats on the selected locations on the bank of river Yamuna (Mathura Stretch) at an estimated cost of ₹ 27.30 crore. The period of completion of the project was 18 months from the date of issuance of the AA&ES.

An inspection team comprising of members from Uttar Pradesh Jal Nigam, Mathura, Municipal Corporation Council, Mathura and SPMG, Uttar Pradesh visited these sites in Mathura stretch on 28 December 2016. Even after the inspection, WAPCOS was not

³⁸ 18 Ghats/Crematoria in Devprayag to Rudraprayag Stretch and 10 Ghats/Crematoria in Rishikesh to Devprayag Stretch

able to get NOC for these sites from the various State Authorities. While accepting the facts, WAPCOS stated that the process of NOC shall commence, on receipt of formal approval from NMCG outlining the Ghats and crematoria to be taken up for construction.

Thus, due to non-obtaining of NOCs from the concerned authority, the construction work of Ghat in Mathura Stretch could not be started even after a lapse of 6 months from the date of AA&ES.

(ii) NMCG sanctioned (September 2016) the project for Ghat works at Brijghat - Garhmukteshwar, to be executed by Engineers India Limited (EIL) within 16 months. However, it has not yet (June 2017) handed over the site to the contractor due to prioritisation exercise by NMCG (February 2017) and instructions issued in May 2017, despite lapse of more than 10 months since award of the contract and eight months since issue of sanction. Therefore, possibility of completion of work within 16 months of issuance of sanction seems remote as the construction activities have not yet (June 2017) started.

4.5.2.5 In **West Bengal**, the works at Bhatpara Crematoria (sanctioned on 22 September 2016 for ₹ 3.73 crore) and Garulia Ghat (sanctioned on 23 September 2016 for ₹ 11.61 crore) were given to EPIL, with maximum time for completion of work as 21 months (June 2018). We noted that the physical progress of work was very slow, as EPIL achieved only 1.15 *per cent* and 2.48 *per cent* of progress of work respectively. NMCG replied (August 2017) that in Bhatpara crematoria, the existing old huge crematoria building is surrounded by residents. Hence, to maintain the safety of the residents, it requires considerable time for the demolition work. Secondly, due to non finalization of approach road for the existing Ghat nearby the crematoria building, work could not be commenced as scheduled. In Garulia Ghats, site was handed over to EPIL in March 2017 only. No work could be possible after second week of April 2017, due to rise of the Ganga river water at work place.

In respect of projects relating to Ghats and Crematoria, NMCG replied (August 2017) that they undertook prioritization exercise in February 2017 as CPSUs delayed the commencement of the work even after finalization of tenders. NMCG also stated that the works started at many locations without obtaining AA&ES and NOCs. The reply of NMCG confirms the audit observations.

4.6 Other Issues

4.6.1 Expenditure on construction activities without receiving sanction

EIL awarded (August 2016) the project for Bithoor Ghats and Crematoria to M/s VRC Construction (India) Private Limited without obtaining sanction from NMCG. Further,

as on 31 March 2017, EIL had incurred an amount of ₹ 1.74 crore on Bithoor which has been met from the funds for Kanpur project.

NMCG stated (August 2017) that the works that are approved should be taken up for construction activities. NMCG further stated that as per the project sanction, the project could be tendered out after obtaining all the clearances including NOC and EIL was expected to follow established practice for execution of work.

4.6.2 Non-provisioning of revenue generation mechanism in O&M activities

As per MoA between NMCG and EIL, Operation and Maintenance (O&M) for six to 12 months shall be part of the construction contract

NMCG, while issuing sanction for the projects, had also stipulated that the organization engaged for O&M must have revenue generation mechanism in place for sustaining the O&M activities.

We observed that while sanctioning the projects, EIL made provision for O&M, but no provision was inserted for institutional arrangement and revenue generation mechanism for O&M activities, which may affect O&M of the facilities created under the project.

NMCG stated (August 2017) that EIL shall workout a feasible solution, under consultation with NMCG and SPMG, only when the project is towards the completion stage.

The reply is not tenable as NMCG also while issuing AA&ES for the projects stipulated that EIL had to explore the institutional framework and the O&M plan during execution and the DLP.

4.6.3 Improper planning for access road to Ghats

During the site visit of Ghats in Mathura Districts, we noticed that all these Ghats are located at the bank of Yamuna River, one on Ramganga/Kali Nadi River, had no "Pakka" road access to the sites that were to be constructed. The people have to reach the Ghat from a narrow and "Kachcha" road which would be full of mud and water during a rainy season.

NMCG replied (August 2017) that the development of access roads are not part of the NMCG mandate for Ghats as it is expected that CPSUs while proposing Ghats/ Crematoria on a certain location will ensure that the access to the site is available.

The reply is not tenable as the access road to all the Ghats were found infeasible and impractical which reflects that the feasibility of construction of access roads were not properly considered by the WAPCOS while preparing the DPR.

4.7 Project executed by multilateral agency

As per Rule 234 (3 & 4) of GFR, 2005 the Department of Economic Affairs (DEA), Ministry of Finance, as the nodal agency, shall execute the legal agreement and shall be responsible for implementing financial covenants laid down in the agreement executed by departments of Government of India and external agencies.

Further, as per Country Programme Action Plan (2013 to 2017) signed on 1st March, 2013 between Joint Secretary, DEA, Ministry of Finance and Resident Representative, United Nations Development Programme (UNDP) India, the programme will be nationally executed under the overall coordination of DEA in the Ministry of Finance. The DEA will exercise national ownership and direction of UNDP programme activities by approving and signing the Country Programme Action Plan with UNDP.

- NMCG sanctioned (April 2016) a project to United Nations Development Programme (UNDP) at a total cost of ₹ 127.83 crore for rural sanitation initiatives in Sahibganj district of Jharkhand under *Namami Gange* scheme and released ₹ 15.25 crore (June and July 2016) to SPMG without obtaining the clearance from Department of Economic Affairs (DEA), Government of India. Further, the State Government in Jharkhand released (August 2016) ₹ five crore as advance to UNDP, without any formal mechanism.

DEA cautioned UNDP (August 2016) as well as the MoWR, RD&GR (October 2016) that the project would be considered for further operationalization and signing only after due approval and consultation. DEA issued (December 2016) an Office Memorandum (OM) highlighting contravention of laid down guidelines of expenditure and GFRs, procedure for selection of UNDP as an implementing partner, fund transfer to UNDP. It advised MoWR, RD&GR that no money be given by Government of India to UNDP for the project.

Thus, NMCG sanctioned the project without adherence to the applicable rules and regulations.

- Under the project, ₹ 23.27 crore was proposed to be mobilized from other trusts/organization. However, no details regarding mobilization of fund from other sources (other than Government of India and UNDP) was available in the records to ascertain the status of fund.

The project aimed to improve the health and quality of life of around 45,000 households located in 78 villages of the Ganga river basin in Jharkhand through improved sanitation practices, quality of wastewater and storm water runoff flowing into the River Ganga. However, UNDP carried out other works such as organisation of special camps for making Aadhar card, opening of bank accounts, focus effectively on PDS system, old age, widow and disable persons pension scheme, special emphasis on eradication of TB in the region etc. which were not part of the approved project.

Thus, State Government of Jharkhand extended undue favour to UNDP by providing it with advance funds even before entering into any agreement with UNDP. Thus, there was lack of diligence in involving a multilateral agency as executing agency.

4.8 Conclusion

NMCG missed the target of preparation of DPRs for STPs as per the Cabinet approval of *Namami Gange* Programme. Untreated sewage was found to be discharged into the River Ganga in the selected towns of Bihar, Jharkhand and West Bengal. The projects executed by SPMG/EAs relating to sewerage systems and Sewerage Treatment suffered from delay in execution due to land acquisition problems, time and cost overrun, slow progress of work by contractor, underutilisation of STPs due to non-connection of all households etc. In case of projects relating to Ghats and Crematoria which are being executed by CPSUs, projects suffered due to delay in start of work, construction activities without receiving AA&ES, non- planning of village sewage drain treatment, lack of coordination among NMCG and CPSUs, delay in grant of NOC from various State Government authorities and non-availability of land, etc.

4.9 Recommendations

We recommend that

- i. NMCG may address the capacity gaps of sewerages pertaining to all towns and villages comprehensively and plan sewage systems, STPs, Interception and Diversion works accordingly in a time bound manner.
- ii. NMCG/ SPMGs may synchronize Interception and Diversion Projects with setting up of Sewage Treatment Plants and their operationalization for ensuring that no untreated sewage flows into the River Ganga.
- iii. NMCG, SPMGs in consultation with the State Government authorities and Executing Agencies may make tripartite agreements for making land available before awarding the contracts.



5
Chapter

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Chapter

Rural Sanitation

5.1 Introduction

Under the *Namami Gange* programme, improved sanitation access was to be provided in identified villages and panchayats located along the main stem of the River Ganga. This component was to be undertaken by NMCG through Ministry of Drinking Water and Sanitation (MoDW&S), as MoDW&S was already working on this area under Swachh Bharat Mission (Gramin) [SBM(G)] scheme, with objectives to bring about an improvement in the general quality of life in the rural areas, by promoting cleanliness, hygiene and eliminating open defecation; and to accelerate sanitation coverage in rural areas.

The components of rural sanitation were to be implemented as per existing guidelines of SBM(G). Implementation of SBM(G) requires large scale social mobilisation and monitoring. A five-tier implementation mechanism was set up at National, State, District, Block and Village level for execution of the programme as illustrated in Chart 5.1.

Chart 5.1: Five tier implementation mechanism of SBM(G)



5.2 Planning and appraisal- adequacy of selection criteria, objectives and targets

MoWR, RD&GR had requested (September 2014) MoDW&S for preparation of detailed action plan for Gram Panchayats located on the banks of the Ganga to make them

Open Defecation Free (ODF). Accordingly, MoDW&S in February 2015 submitted Action plan for three activities namely – (i) Individual Household Latrines (IHHLs), (ii) Solid Liquid Waste Management (SLWM), (iii) Information, Education and Communication (IEC), with a total financial requirement of ₹ 2,354.46 crore, including Administrative charges. Out of that, Central share was of ₹ 1,753.23 core (funding pattern of share of 75:25 between Centre and State) for five riparian States³⁹ of the Ganga covering 1,657 Gram Panchayats in 253 blocks of 53 districts adjoining the River Ganga, as detailed in Table 5.1.

Table 5.1: Component wise total financial requirement of funds

(₹ in lakh)					
State	IHHLs	SLWM	IEC	Administrative Charges	Total
Bihar	70,133.88	6,180.00	6,783.46	1,695.86	84,793.20
Jharkhand	2,679.24	660.00	296.82	74.21	3,710.27
Uttar Pradesh	52,222.08	16,793.04	6,134.68	1,533.67	76,683.47
Uttarakhand	1,198.44	1,376.00	228.84	57.21	2,860.49
West Bengal	56,179.08	4,480.00	5,391.92	1,347.98	67,398.98
Total	1,82,412.72	29,489.04	18,835.72	4,708.93	2,35,446.41

The proposal of MoDW&S was approved (June 2015) by the MoWR, RD&GR. However, as a result of revision (January 2016) in the funding pattern in the ratio of 60:40, the Central share was reduced to ₹ 1,412.68 crore.

Initially, MoDW&S (May 2015) had set a target date for achievement of 100 *per cent* households covered with facility of toilet by March 2016 (Bihar, Jharkhand and West Bengal), June 2016 (Uttar Pradesh) and November 2015 (Uttarakhand). The target date was extended (December 2016) upto March 2017. However, due to slow progress of work in Uttar Pradesh and Bihar, the target date was again extended in March 2017 upto April 2017.

NMCG stated (August 2017) that it had released the Central share to MoDW&S, which released the same to States Executing Agencies. It further stated that the targets and objectives were set by MoDW&S, as NMCG had no direct role and all marked villages identified on the bank of the River Ganga had now been declared ODF.

The reply of NMCG on the issue of declaration of all marked villages as ODF, is to be viewed in the light of the fact that it did not provide any documentary evidence regarding verification of ODF status made by the State Governments through its own teams or through third party. Our audit findings on incorrect declaration and verification of ODF are discussed at paragraphs 5.4.2 and 5.4.3.

³⁹ Uttarakhand, Uttar Pradesh, Bihar, Jharkhand and West Bengal

5.3 Fund release and utilisation

In terms of SBM(G) guidelines, the fund is to be released by the MoDW&S to the State Governments. The State Governments in turn releases the funds to the SBM(G), within 15 days of transfer of funds from Government of India.

NMCG/ MoWR, RD&GR in June 2015 and September 2016, released a lump sum amount of ₹ 263 crore and ₹ 315 crore, respectively to MoDW&S for the activities relating to construction of IHHLs, IEC and SLWM.

We found that although MoDW&S had released the funds amounting to ₹ 578 crore to the five State Governments, but amount of State share was not available with MoDW&S. The details of Central and States share as obtained during the years 2015-16 and 2016-17 are given in Table 5.2.

Table 5.2: State wise/year wise details of funds received and utilized by during 2015-17

(₹ in crore)

Sl. No.	State		Total				
			Opening Balance	Releases	Misc. Receipts	Utilization	Closing Balance
1	Bihar	Central share	0	79.02	0	45.96	61.22
		State share		28.16			
Total			0	107.18	0	45.96	61.22
2	Jharkhand	Central share	-3.63	27.83	0.44	30.36	3.56
		State share		9.28			
Total			-3.63	37.11	0.44	30.36	3.56
3	Uttarakhand	Central share	0	22.56	0.71	6.96	16.31
		State share		0			
Total			0	22.56	0.71	6.96	16.31
4	Uttar Pradesh	Central share	0	370.76	0.60	257.09	335.52
		State share		221.25			
Total			0	592.01	0.60	257.09	335.52
5	West Bengal	Central share	0	77.83	60.78	146.15	44.35
		State share		51.89			
Total			0	129.72	60.78	146.15	44.35
	Total	Central share	-3.63 ⁴⁰	578.00	62.53	486.52	460.96
		State share		310.58			
Grand Total			-3.63 ⁴⁰	888.58	62.53	486.52	460.96

Source : Data provided by MoDW&S and State Governments

⁴⁰ Expenditure incurred prior to March 2015 on the IHHLs

It is evident from the Table 5.2 that as against the total available fund of ₹ 951.11 crore⁴¹, these five States could utilise a sum of ₹ 490.15 crore⁴² i.e. 52 *per cent* of the total available fund.

NMCG stated (August 2017) that it had issued the Letter of Authorisation to MoDW&S and was not concerned with State's share. Further, NMCG made a mention of unspent balances shown against the MoDW&S, which do not match with the actual physical progress of the scheme, as most of the villages have been declared ODF. NMCG further stated (August 2017) that funds released to MoDW&S have been fully utilised but UCs have yet to be received by it.

The reply of NMCG is also to be viewed in light of the fact that ODF status of more than 33⁴³ *per cent* ODF declared villages were yet to be verified, as of March 2017. Further, there were discrepancies in declaration of ODF villages and constructions of IHHLs, as discussed at paragraphs 5.4.2 and 5.4.4.

We further noticed that

- State Government of Uttarakhand did not release its own share of ₹ 2.78 crore to District Implementing Agency, as of 31 March 2017. Further, two⁴⁴ States made a short release of ₹ 50.44 crore against their committed shares, to their District Implementing Agencies.
- Uttarakhand could utilise only 30 *per cent* of the Central Share available with it, as of March 2017. Further, two⁴⁵ States could not utilise even the 50 *per cent* of the funds available with them, as of March 2017.
- Scrutiny of records of four⁴⁶ out of 11 test checked districts⁴⁷ of Uttar Pradesh revealed that in April 2017, 37 GPs⁴⁸ of these four districts, which were earlier identified as Ganga Basin GPs had been unmarked/ deleted from list of Ganga Basin by the State Government. However, prior to their deletion from the list of Ganga Basin GPs, an amount of ₹ 17.76 crore had already been spent on construction of 19,246 IHHLs in these 37 GPs, from the grant received under *Namami Gange*. As the

⁴¹ ₹ 888.58 crore plus ₹ 62.53 crore

⁴² ₹ 3.63 crore plus ₹ 486.52 crore

⁴³ $\{(3656-45)-2406\}/(3656-47) \times 100 = 33 \text{ per cent}$

⁴⁴ Uttar Pradesh and Bihar

⁴⁵ Uttar Pradesh and Bihar

⁴⁶ Allahabad, Meerut, Kasganj and Ghazipur

⁴⁷ Farrukhabad, Kanpur, Bijnor, Mirzapur, Varanasi, Allahabad, Bhadohi, Kasganj, Ghazipur, Unnao and Meerut

⁴⁸ Ustapur Mahoodabad, Chhibaiya uparhar, Palikaranpur, Murarpatti, Katwaroopur, Kaithwal, Kotawa, Mainaya uparhar, Babura, Khajuraul, Mungairi, Kunahiaida, Khanpur Garhi, Makdoompur Bajpur, Nardauli pukhta, Asadgarh, Ismailpur, Pachilana, Hetumpur, Taajpur Manjha, Radhopur, Chitawanpatti, Manjhariya, Rampur Patti, Deva Bairan, Khijirpur, Sabbbarpurkalan, Chakmedani No.2, Leelapur, Badsara, Sitapatti, Sonhariya, Mainpur, Parmeth, Mahepur, Manikpur and Karanada

expenditure of ₹ 17.76 crore was incurred on non-Ganga Basin GPs, therefore, the expenditure was to be recouped from the MoDW&S.

NMCG in its reply (August 2017) noted the audit observation. However, it stated that it was not concerned with State share and its utilisation by State EAs. On non-recoupage of expenditure, the reply of NMCG is not acceptable as the funds of *Namami Gange* was utilised for non-Ganga Basin GPs.

5.4 Physical Targets and achievements

MoDW&S (December 2016) revised the target to achieve all Ganga villages ODF by 31 March 2017. The target date, in the review meeting (24 March 2017) with the Cabinet Secretary was further extended to April 2017 due to slow progress in Uttar Pradesh and Bihar.

We noticed that the target date of April 2017 had lapsed, yet Uttar Pradesh, Bihar, Jharkhand and West Bengal could not achieve the target of 100 *per cent* constructions of IHHLs and completion of IEC activity, Solid Liquid Waste Management work in every selected district as detailed in Table 5.3.

Table 5.3: Target and achievements in terms of numbers of IHHLs constructed

State	IHHLs targeted to be provided as on 31.03.17	IHHLs provided against the targeted IHHLs as on 31.03.17	IHHLs yet to be provided as on 31.03.17	IHHLs targeted to be provided as on 19.05.2017	IHHLs provided against the targeted IHHLs as on 19.05.2017	IHHLs yet to be provided as on 19.05.2017
1.	2.	3.	4.	5.	6.	7.
Bihar	2,71,150	1,62,356	1,08,794	4,49,207	2,06,254 (45.92 per cent)	2,42,953
Jharkhand	33,132	27,801	5,331	36,911	27,801 (75.32 per cent)	9,110
Uttarakhand	9,975	9,943	32	9,641	9,641 (100 per cent)	0
Uttar Pradesh	4,42,874	3,23,168	1,19,706	4,42,672	4,10,869 (92.82 per cent)	31,803
West Bengal	5,06,996	5,03,964	3,032	5,06,996	5,05,528 (99.71 per cent)	1,468
Total	12,64,127	10,27,232 (81.26 per cent)	2,36,895	14,45,427	11,60,093 (80.26 per cent)	2,85,334

Source : Data at Col. No. 2 to 4 was provided by the States. Data at Col. No.5 to 6 was obtained from MIS database of MoDW&S

It can be observed from the Tables 5.3 that there were variation in data of targets set for IHHLs in March 2017 and May 2017. Within a span of two months, in Bihar and Jharkhand the targets of IHHLs were increased from 2,71,150 to 4,49,207 and 33,132 to 36,911, respectively. While, in Utarakhand the targets for construction of IHHLs was

reduced from 9,975 in March 2017 to 9,641 in May 2017. However, the fact is that 9,943 IHHLs had already been constructed in Uttarkhand, as of March 2017.

The State wise target and achievements for ODF villages is given in Table 5.4.

Table 5.4: Target and achievements in terms of numbers of ODF villages

State	Villages targeted to be ODF 31.03.17	Villages attain status of ODF against the target as on 31.03.17	Villages yet to attain the status of ODF as on 31.03.17	Villages targeted to be ODF (as on 19.05.2017)	Villages attain status of ODF against the target (as on 19.05.2017)	Villages yet to attain the status of ODF (as on 19.05.2017)
1.	2.	3.	4.	5.	6.	7.
Bihar	485	228	257	487	342 (70.23 per cent)	145
Jharkhand	78	47	31	73	64 (87.67 per cent)	9
Uttarakhand	265	265	0	222	222 (100 per cent)	0
Uttar Pradesh	1,560	1,022	538	1,627	1,373 (84.39 per cent)	254
West Bengal	2,106	2,094	12	2,106	2,095 (99.48 per cent)	11
Total	4,494	3,656 (81.35 per cent)	838	4,515	4,096 (90.72 per cent)	419

Source : Data at Col. No. 2 to 4 was provided by the States. Data at Col. No.5 to 6 was obtained from MIS database of MoDW&S

Tables 5.3 and 5.4 indicate the following:

5.4.1 Non-achievement of target of construction of IHHLs and ODF

None of the States could achieve the target of construction of 100 per cent IHHLs, as of 31 March 2017 except Uttarakhand, while other four States could complete 45.92 to 99.71 per cent of constructions of IHHLs, by May 2017. As a result of non-achievement of target of 100 per cent construction of IHHLs, none of the States, except Uttarakhand, could get the status of ODF.

NMCG in its reply (August 2017) stated that the target set (11,95,678 IHHLs) by MoDW&S as on August 2017 has been fully achieved. The reply of NMCG is to be viewed in the light of the fact that the target set in May 2017 had been reduced by 2,49,749 IHHLs, for which no evidence has been provided.

5.4.2 Incorrect declaration of ODF

In Uttar Pradesh, 19 GPs⁴⁹ of 10 districts⁵⁰ declared ODF as on 31 March 2017, were selected for verification of their ODF status. Examination of records revealed that a total of 6,824 IHHLs were required for making them ODF. However, only 5,437 IHHLs were constructed by 31 March 2017 in these GPs, leaving shortfall of 1,387 IHHLs. Hence, 19 GPs failed to construct required number of IHHLs by March 2017 but were declared ODF.

NMCG in its reply (August 2017) noted the audit observation and assured that the matter will be taken up with MoDW&S.

5.4.3 Verification of ODF Gram villages

As per guidelines from MoDW&S, the GP after attaining the status of ODF was to declare the same in its Gram Sabha meeting. The resolution passed by Gram Sabha may be for entire GP or even a village/ habitation. State Government was to verify the ODF status through its own teams or through third party. Since ODF is not a one-time process, at least two verifications were to be carried out. The first verification was to be carried out within three months of the declaration to verify the ODF status and the second verification was to be conducted after six months from the first verification. A Gram Panchayat was to be declared ODF only on completion of the above verification procedure. The status of ODF declared and verified GP collected during audit is given in the Table 5.5.

Table 5.5 : Status of declared and verified Villages as on 31 March 2017

State	Number of villages declared ODF	ODF status of villages verified
Bihar	228	Not done
Jharkhand	47	Not furnished by State Government
Uttarakhand	265	204
Uttar Pradesh	1,022	108
West Bengal	2,094	2,094
Total	3,656	2,406

In Uttarakhand and Uttar Pradesh, out of 1,287 villages declared ODF, the status of only 312 villages could be verified by the two States as of March 2017. Further, ODF status of none of the ODF declared village in Bihar could be verified, as of March 2017. This shows very slow progress in verification of ODF villages and authenticity of ODF declared villages could not be ascertained.

⁴⁹ Derwa, Chakniranjan, Badripur, Kakra, Domari, Sarai Domari, Shree Goverdhan, Amauli, Nijamuddinpur, Shivpur, Moiddinpur, Moh Pochha, Kirachan, Nimbai Gair Ehatmali, Sadhopur, Khalispur, Tiwaripur, Chandrapur Gaupura and Ukarrifarauli

⁵⁰ Bhadoi, Allahabad, Varanasi, Mirzapur, Bijnor, Kanpur, Farrukhabad, Unnao, Ghazipur and Kasganj

In its reply (August 2017), NMCG noted the audit observation and assured that the matter will be taken up with MoDW&S.

5.4.4 Irregularities in constructions/ allotment of IHHLs in Jharkhand

In Jharkhand, Village Water and Sanitation Committees (VWSCs) were carrying out the construction activities in the identified villages in phases, for which funds at the rate of ₹ 12,000 per IHHL were being released by District Water and Sanitation Mission (DWSM), Sahibganj to all the VWSCs in advance, with the instructions that in case of joint family, only one IHHL should be constructed, that too in the name of head of the family. We noticed that

- Against one Below Poverty Level (BPL) number, more than one allotment was made, as 147 IHHLs were allotted against the 69 BPL numbers. The expenditure of ₹ 9.36 lakh incurred on construction of 78 IHHLs was in violation of instructions of DWSM, which ultimately led to irregular sanction of IHHLs to ineligible beneficiaries.
- In 10 test-checked villages⁵¹, against the name of 34 beneficiaries, 71 IHHLs were shown as constructed by VWSCs. Thus, misappropriation of fund of ₹ 4.44 lakh in constructions of 37 IHHLs at the rate of ₹ 12,000 per IHHL, cannot be ruled out.
- In two⁵² test-checked villages, against 2,076 households identified by VWSCs for construction of IHHLs, 2,575 were constructed. Thus, construction of excess 499 IHHLs is doubtful for which ₹ 59.88 lakh was paid to VWSCs. Further, in these villages, 851 out of 7,657 beneficiaries were selected by VWSCs without verifiable identification like - Voter Identity card, Aadhar card number, BPL number, etc. In the absence of valid identity, the genuineness of payment of ₹ 1.02 crore made to VWSCs, on account of constructions of IHHLs to these 851 beneficiaries⁵³ could not be verified in audit.
- 1,755 BPL families were identified as beneficiaries by *Mukhiya* and *Jal Sahiya*. Examination of BPL list provided by the District Authority revealed that names of 95 beneficiaries recorded in the list of constructed IHHLs of VWSCs did not match with the name for same BPL number in the BPL list of District Authority. Further, 585 BPL numbers reported in the list of constructed IHHLs of VWSCs, did not exist in the BPL list.

NMCG in its reply (August 2017) noted the facts and stated that issue had been conveyed to MoDW&S. However, on the issue of misappropriation of fund, NMCG stated that it was not concerned with the allotment of IHHLs.

⁵¹ West Pranpur, Amanat Diyara, North Palasgachi, Mokimpur, Kaswa, Bada Madansahi, Fatehpur, Chotti Koderjanna, Badi Koderjanna and Makmalpur Part

⁵² West Pranpur, Amanat Diyara

⁵³ at the rate of ₹ 12,000 per IHHL

The reply of NMCG is not acceptable as there was variation in the numbers of available beneficiaries and the IHHLs constructed by VWSCs in actual.

5.5 Irregularities in construction and functioning of IHHLs in Joint site visits

We carried out joint site visits of IHHLs in GPs with representatives of GPs. These visits in Uttarakhand, Uttar Pradesh and Bihar revealed that 100 *per cent* target of creation of IHHL in ODF declared villages not achieved, no proper sanitation of waste water was available, IHHLs not utilised by families of beneficiaries, no training/ promotion was provided etc. Details of audit findings are as follows:

5.5.1 Uttarakhand: The joint site visits (April-June 2017) revealed that out of 1,188 beneficiaries of 16 villages⁵⁴ in seven districts⁵⁵ declared ODF free, names of 44 beneficiaries were repeated⁵⁶ in the beneficiaries list of five districts⁵⁷. Further, out of these 44 beneficiaries, double payments amounting to ₹ 1.40 lakh were made to 12 beneficiaries of two districts⁵⁸. 41 beneficiaries had still not initiated construction of IHHLs, whereas construction of 34 IHHL was yet to be completed. Hence, actual number of beneficiaries with completed IHHLs was 1,068⁵⁹ only.

5.5.2 Uttar Pradesh: In test checked 11 districts⁶⁰ of Uttar Pradesh, joint site visits (May-June 2017) of IHHLs in 22 GPs⁶¹ revealed that –

- a. Out of total 11,993 households in these GPs, 9,288 individual household latrines were to be constructed. However, only 8,152 (88 *per cent*) IHHLs were constructed. Thus 12 *per cent* households were still not having IHHLs.
- b. Out of total 8,152 IHHLs constructed under *Namami Gange*, only 7,041 IHHLs (86 *per cent*) were actually functional.

5.5.3 Bihar: The findings of the joint site visits (May-June 2017) of IHHLs in 10 villages⁶² of five⁶³ districts of Bihar disclosed that –

⁵⁴ Baleshwar, Srikote, Chaka, Kevar Malla, KevarTalla, Ratni, Mala, Palegaon, Bagi, Kinsur, Pokhta, Taidi, Jhala, Bagodi, Badshahpur and Birpurkhurd

⁵⁵ Tehri, Rudrapryag, Chamoli, Pauri, Uttarkashi, Haridwar and Dehradun

⁵⁶ Name of 43 beneficiaries twice and one thrice

⁵⁷ Puari Garwal, New Tehri, Haridwar, Chamoli and Uttarkashi

⁵⁸ Uttarkashi and Chamoli

⁵⁹ 1,188 – [45 + 41 + 34]

⁶⁰ Farrukhabad, Kanpur, Bijnor, Mirzapur, Varanasi, Allahabad, Bhadohi, Kasganj, Ghazipur, Unnao and Meerut

⁶¹ Datayana, Khalliullahpur, Kathinai, Shilpi, Ramchandipur, Chadravati, Tewaripur, Mainpur, Nagla Gusi, Makdumpur, Indajashanpur, Shahwazur Pukhta, Jamsedpur urf Lalapur, Dubawal uparhar, Badripur, Chakniranjan, Durgapur, Behta, Kirachan, Pattidarapur, Katri alhuapur sarosa and Dudhora

⁶² Nakata Diyara, Sabalpur, Mirzapur Warda, Shankarpur, Malakpur, Hetanpur, Panapur, Banwari Chak, Khawaspur Khurd and Arjunpur

⁶³ Patna, Munger, Bhagalpur, Saran and Buxar

- a. Out of 381 IHHLs surveyed, which were reported constructed for the beneficiaries, only 208 (55 per cent) IHHLs were actually found constructed. Of these, 64 IHHLs (31 per cent) were not being utilised by all family members.
- b. The payment of incentive was to be made to beneficiaries, only after completion of construction of IHHL and after declaration of ODF village by 'Ward Sabha'. We observed during joint site visits that 35 IHHLs were under construction in three villages⁶⁴ but incentive was found paid to all the 35 beneficiaries at the rate of ₹ 12,000 each.
- c. During joint site visit, no IHHL were found constructed in ODF declared village Banwari Chak; whereas, in two declared ODF villages Khawaspur Khurd and Malakpur 20 and 33 per cent construction of IHHLs were found respectively.
- d. Out of 381 test-checked beneficiaries, training/ promotion for use of toilets were not imparted to 241 beneficiaries (63 per cent) in six villages⁶⁵.



Plate 5.1: Non-functional toilet
GP-Datayana, KP- Jalilpur, Bijnor, Uttar Pradesh



Plate 5.2: Non-functional toilet
GP-Kirachan, Block Rajepur, Farrukhabad, Uttar Pradesh

NMCG in its reply (August 2017) noted the audit observation and stated that issue had been conveyed to MoDW&S.

5.6 Solid Liquid Waste Management

The objective of SBM(G) is to bring about improvement in the cleanliness, hygiene and the general quality of life in rural areas. Solid and Liquid Waste Management (SLWM) is one of the key components of the programme.

We noticed that SLWM activities were not taken up in any of the identified districts of the States of Uttar Pradesh, Bihar, Jharkhand and West Bengal. However,

⁶⁴ Shankarpur-nine IHHLs, Malakpur-18 IHHLs and Nakata Diyara-eight IHHLs

⁶⁵ Sabalpur, Shankarpur, Hetanpur, Panapur, Banwari Chak and Khawaspur Khurd

Uttarakhand could complete the work relating to SLWM in two out of 132 GPs and SLWM work in 11 GPs were under progress, as of March 2017.

NMCG in its reply (August 2017) noted the audit observation and stated that issue had been conveyed to MoDW&S.

5.7 Reporting and monitoring discrepancies

In terms of SBM(G) guidelines, the monitoring of outcomes will be the prime focus to be measured in terms of toilet usage as reflected in creation of ODF communities. Monitoring of outputs will also be done for administrative purposes in terms of monitoring of expenditure and assets created.

MoDW&S has developed an online monitoring system for SBM(G). Household level data with respect to sanitation facilities of all GPs in the country are to be made available on the MIS by States. States shall be permitted to update the Baseline Survey status once a year in the month of March-April. All SBM(G) Project districts are to submit their physical and financial progress reports of the implementation of the Programme every month through this online MIS. GP wise physical and financial progress for every month is to be entered in the SBM(G) MIS.

Discrepancies noticed in the reporting and monitoring mechanism are discussed below :

5.7.1 Inadequate Baseline Survey

As per para 5.1 of SBM guidelines, all States were to ensure entry of baseline data on the MIS latest by 30 January 2015. Any household not entered by the States on the Management Information System (MIS) would not be entitled for funds under SBM(G). The Baseline Survey (BLS) data has to be updated by the States in April of every year to take into account changes in the GP during the preceding year. This does not envisage resurvey of GPs, but only entry of incremental changes that may have happened in the GP in the preceding year.

In Uttar Pradesh, a BLS was conducted in 2012-13 to ascertain the number of households without toilets to whom the facility was to be provided with the objective to make GPs Open ODF. Our scrutiny revealed that number of household without toilets in GPs of Uttar Pradesh was being revised frequently at short intervals⁶⁶ in MIS in BLS, which was in contravention to the provision of the guidelines.

Further scrutiny revealed that in 10⁶⁷ out of 11 test checked districts⁶⁸ of Uttar Pradesh, 6,983 toilets were required in 23 GPs⁶⁹ as per BLS report (May 2017),

⁶⁶ Three difference figures were reflected from March 2017 to May 2017. March 2017: 4,79,449; April 2017: 4,57,202; 19 May 2017: 4,42,672.

⁶⁷ Farrukhabad, Kanpur, Bijnor, Mirzapur, Varanasi, Allahabad, Bhadohi, Kasganj, Ghazipur and Meerut

however, in these 23 GPs total 9,285 toilets were constructed/ being constructed under *Namami Gange* scheme. Thus, 2,302 toilets were constructed/ under construction in excess of requirement as per the BLS report. This indicates that the assessment of household without toilets in BLS report was not realistic.

NMCG while accepting the fact stated (August 2017) that it did not have direct concern with baseline survey. NMCG further stated that it had approved the budgetary estimates, on the basis of proposal submitted by MoDW&S for different activities i.e. constructions of IHHLs, SLWM, IEC and Administrative expenses.

5.7.2 Discrepancies between MIS data and basic records of Gram Panchayats

Scrutiny of records of 12 test-checked districts⁷⁰ of Uttar Pradesh and Jharkhand disclosed the discrepancies in the data reported under MIS data of MoDW&S and basic records maintained by GPs, as discussed in Table 5.6.

Table 5.6 : Details of discrepancies in MIS data of MoDW&S and basic records of GPs

State	Discrepancies
Uttar Pradesh	<ul style="list-style-type: none"> In six⁷¹ GPs of three⁷² districts of Uttar Pradesh, the difference in numbers of the beneficiaries was noticed in the online MIS list and the list provided by GPs. In 63 GPs of test checked districts of Uttar Pradesh, 211 beneficiaries were appearing twice in the MIS list. This shows that the online MIS data was not reliable.
Jharkhand	<ul style="list-style-type: none"> In the MIS data of six sampled villages⁷³ of Jharkhand, 540 IHHLs were allotted to 258 beneficiaries suggesting multiple allotments of 282 IHHLs to same beneficiaries. However, in beneficiaries list, only one IHHL to each beneficiary was provided. The names of 49 out of 70 beneficiaries of seven⁷⁴ test checked villages of Jharkhand were included in the beneficiary list of constructed IHHLs. However, their names were not found available in the MIS data.

⁶⁸ Farrukhabad, Kanpur, Bijnor, Mirzapur, Varanasi, Allahabad, Bhadohi, Kasganj, Ghazipur, Unnao and Meerut

⁶⁹ Sunderpur, Mahigawa, Hansauli Kajiganj, Durgapur, Sunhauhra, Behta, Bipausi, Khalliullahpur, Daranagar, Sahpur mau bhalwa/ Nizamuddinpur, Sujabad, Jamsedpur urf Lalapur, Jera, Kalik Mawaiya, Ojhapur, Purawa, Kedarpur, Beraspur, Chakniranjan, Sahwajpurpukhta, Devchandrapur, Manpur and Jalalpurjeera

⁷⁰ Uttar Pradesh (Farrukhabad, Kanpur, Bijnor, Mirzapur, Varanasi, Allahabad, Bhadohi, Kasganj, Ghazipur, Unnao and Meerut) and Jharkhand (Sahibganj)

⁷¹ Tewaripur, Khalispur, Deoria, Sadhopur, Manpur, Mehmoodpur Pukhta

⁷² Ghazipur, Meerut and Kasganj

⁷³ Bada Madanashi, North Palasgachi, West Pranpur, Kaswa, Fatehpur and Makhmalpur part

⁷⁴ Bada Madanashi, North Palasgachi, West Pranpur, Kaswa, Fatehpur, Chotti Koderjanna and Makhmalpur part

State	Discrepancies
	<ul style="list-style-type: none"> • 5,340 IHHLs were constructed, yet 3,153 IHHLs were reported as constructed in MIS. • The names of 49 out of 70 beneficiaries were included in the beneficiary list of constructed IHHLs. But their names were not found available in the MIS data.

The above observations indicated that targets as well as achievements reported by MoDW&S through its online MIS is not reliable.

NMCG in its reply (August 2017) noted the audit observation and stated that issue had been conveyed to MoDW&S.

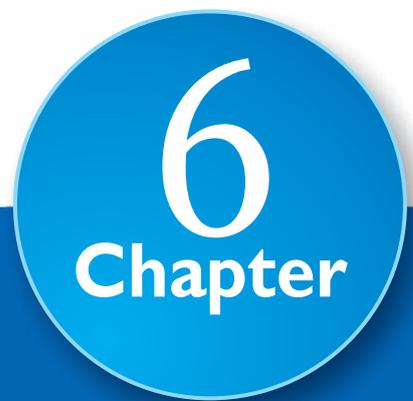
5.8 Conclusion

The main objective of Rural Sanitation programme to make all Ganga river basin villages ODF could not be achieved despite repeated extension of time. There were deficiencies in planning and laxity in spending of available funds by the State Governments, as target set for constructions of IHHLs and ODF villages could not be achieved. Cases of excess constructions of IHHLs and multiple allotments of IHHLs to same beneficiaries were also found. The work relating to Solid Liquid Waste Management was not initiated in Uttar Pradesh, Bihar, Jharkhand and West Bengal. There were discrepancies in data of targets/ achievement reported under MIS and in the records of Gram Panchayats.

5.9 Recommendations

We recommend that

- i. NMCG, in consultation with MoDW&S, may ensure the optimum utilisation of available funds with the State Governments.
- ii. NMCG, in consultation with MoDW&S, may ensure more realistic planning, data integrity and strict monitoring for achievement targets.
- iii. NMCG and MoDW&S may ensure the reliability of the data reported under MIS by cross checking with monthly physical/ financial reports submitted by all Swachh Bharat Mission (Gramin) Project Districts.



6
Chapter

6.1 Introduction

The River Ganga is home to many threatened and sensitive ecosystems⁷⁵ along with a large variety of rare, endangered and threatened faunal species⁷⁶ and supports more than 25,000 floral and faunal species. Forested basins supply a high proportion of freshwater for various uses and ecological needs. Riparian forests act as 'natural buffers' and 'biological filters' as they facilitate functions of purification of water for the dynamic flow of river and its water quality.

River flow is one of the main drivers of biodiversity in rivers, and a river's flow regime – the variation of high and low flows through the year as well as variation over the years – exerts great influence on its ecosystem.

One of the objectives of NGRBA (2009) was to undertake measures relevant to river ecology. This was further reemphasised in the River Ganga (Rejuvenation, Protection and Management) Authority Order (2016) in which it was stated that the River Ganga shall be managed in an ecologically sustainable manner, the lost natural vegetation in catchment area shall be regenerated and maintained and the aquatic and riparian biodiversity in the River Ganga Basin shall be regenerated and conserved.

This Chapter deals with audit findings relating to programmes/projects sanctioned by NMCG for conservation of flora, fauna, ecological flow and special properties of the River Ganga.

6.2 Projects for Flora, Fauna and Ecological Flow

NMCG approved six projects (2015-16) for conservation of flora, fauna, maintenance of ecological flow and assessment of special properties of the River Ganga with sanctioned cost of ₹ 37.58 crore. The details are given in Table 6.1.

⁷⁵ The glaciers, alpine meadows, diverse upland forests, tarai grasslands and swamps, riparian forests, mangroves, etc.

⁷⁶ Gangetic dolphin, otters, critically endangered gharial, mugger or Indian marsh crocodile, Estuarine crocodile and at least 12 species of freshwater turtles including critically endangered *Batagurkachuga* and several species of fish such as critically endangered Gangetic shark, Gangetic stingray, Mahseers, Hilsa and several species of endemic freshwater crabs. In addition, water birds and island nesting birds are important component of the Ganga River Basin.

Table 6.1: Details of projects for flora, fauna and ecological flow

(₹ in crore)					
Agencies	Project	Sanctioned cost	Release	Expenditure (up to March 2017)	Utilization (in per cent)
1. Forest Research Institute (FRI), Dehradun	(1) Forestry Intervention for Ganga. (September 2015)	1.18	1.18	1.19	100
2. Wildlife Institute of India (WII), Dehradun	(2) Biodiversity conservation and Ganga Rejuvenation Part-I (June 2016)	24.84	10.23	1.91	19
	(3) Biodiversity conservation and Ganga Rejuvenation Part-II (September 2016)				
3. Central Inland Fisheries Research Institute (CIFRI), Kolkata	(4) Assessment of fish and fisheries of the River Ganga system for developing suitable conservation and restoration plan. (July 2015)	5.80	2.36	0.41	17
4. National Environmental Engineering Research Institute (NEERI), Nagpur	(5) Assessment of Water Quality and Sediment Analysis to understand the special property of the River Ganga. (March 2015)	5.00	4.50	3.75	83
5. State Forest Department (SFD), Bihar	(6) National Dolphin Survey (November 2015) ⁷⁷	0.76	0	0	0

The extent of utilization of fund was low in case of projects executed by WII and CIFRI which was 19 per cent and 17 per cent respectively. The important audit findings in respect of five projects are discussed in succeeding paragraphs.

6.3 Forestry Interventions for Ganga (FIG)

NMCG sanctioned a project to Forest Research Institute (FRI) for DPR preparation of "Forestry Interventions for Ganga (FIG)" in February 2015 at an outlay of ₹ 1.18 crore. FRI was to identify possibilities for regeneration/improvement of forest catchment areas and its treatment through appropriate native local species. FRI prepared and submitted the DPR on FIG (March 2016).

⁷⁷ The project was not mentioned in the list of projects provided by NMCG to Audit. However, during audit of SPMG, Bihar, the status was ascertained. It was also found mentioned in the action plan for Ganga Rejuvenation submitted by Group of Secretaries (2014).

NMCG approved the DPR (March 2016) prepared by FRI for FIG, consisting of four components i.e. natural landscaping, agricultural landscaping, urban landscaping and conservation activities for implementation in five Ganga main stem States, viz. Bihar, Jharkhand, Uttarakhand, Uttar Pradesh and West Bengal, under Phase-I (2016-21).

We observed the following in implementation of components executed by NMCG:

6.3.1 Non-establishment of National Project Facilitation Unit

The project awarded to FRI also envisaged setting up of a National Project Facilitation Unit (NPFU) to act as National Level Partner Organisation for strengthening knowledge management and capacity building for conservation of riverscapes. However, NPFU was not set up despite proposal made by FRI. NMCG was yet to confirm and communicate its stand in respect of the proposal as of July 2017.

NMCG (August 2017) did not furnish specific reply to the audit observation.

6.3.2 Non-replication of scheme on other tributaries of the Ganga

The scheme (FIG) was to be replicated on the tributaries of the Ganga from the end of third year of execution of the implementation plan. However, NMCG did not initiate any plan for replication and scaling up of planned efforts in additional sites/States. Although NMCG requested FRI to submit a proposal to prepare the DPR of “Forestry Interventions of Yamuna (FIY)” (July 2015), NMCG did not award the work to FRI.

NMCG stated (May 2017) that due to non-availability of funds; it could not implement the programme and requested MoEF&CC to allot funds through Compensatory Afforestation Fund Management and Planning Authority. However, no funds were allocated by MoEF&CC as of August 2017.

It is pertinent to mention that surplus funds were available with NMCG at the end of 2015-16 and 2016-17 as indicated in the para 2.2.1 of this Report.

6.3.3 Role of Project Steering Committee

NMCG constituted Project Steering Committee (PSC) at National level (August 2016) for monitoring and steering the implementation of the DPR. However, details of meeting were not furnished to Audit.

Regarding the inadequate coverage of the DPR, non-establishment of National Project Facilitation Unit, non-replication of scheme on other tributaries of the Ganga, role of Project Steering Committee, NMCG stated (August 2017) that it was due to non-availability of appropriate funds in the approved biodiversity component.

6.3.4 Afforestation projects by States

As per the DPR of FIG, forestry interventions, were to be carried out by the States Forest Departments (SFDs) of five States namely Bihar, Jharkhand, Uttarakhand, Uttar Pradesh and West Bengal. We observed the following:

6.3.4.1 Non-utilization of fund and slow progress of work

NMCG sanctioned (July and September 2016) ₹ 50.63 crore (2.21 *per cent* of estimated cost) to the five States and up to March 2017 an expenditure of ₹ 30.79 crore (61 *per cent*) was incurred leaving a balance of ₹ 9.71 crore (24 *per cent* unutilized) due to delay in sanctioning of the projects by NMCG. State-wise savings ranged from 11 *per cent* (Jharkhand) to 48 *per cent* (West Bengal). In Bihar there was an excess expenditure of ₹ 1.21 crore.

As per project schedule para 19 (DPR, Volume-I), SFDs were to ensure initiation of preparatory and actual plantation activities in the ensuing monsoon season for successful plantation work. As per the DPR, Forestry Intervention for Ganga (FIG) (Phase I) were to be implemented at an estimated cost of ₹ 2,293.73 crore.

State-wise observations are as followings:

- a. All States except Bihar, reported non-completion of advance works and shortfall in plantation.
- b. In Jharkhand, 49 *per cent* of the advance work (174 out of 355 hectares) was completed.
- c. In Uttar Pradesh (Allahabad), the progress of plantation work was only 67 *per cent*.
- d. In Uttarakhand, no plantation was carried out and progress of advanced work was 97 *per cent*.

Due to delay in sanction (during monsoon season), SFDs could not complete the work of plantation of trees in the same year since the advance works like digging of pits were not completed before monsoon season to enable timely plantation.

6.3.4.2 Inadequate coverage

As per the DPR, FIG comprised (i) Natural, (ii) Agriculture and (iii) Urban Landscapes and (iv) Conservation activities. The States were to plant medicinal and other local/appropriate species in the identified districts/divisions. State-wise observations are as follows:

- a. There was no plan of conservation, interventions for FIG in nine divisions⁷⁸ of Uttarakhand.
- b. In Bihar and Jharkhand, interventions for Agriculture and Urban Landscape were not undertaken.

⁷⁸ Alaknanda Soil Conservation; Gopeshwar Soil Conservation; Civil Soyam and Garhwal Forest Divisions; Pauri; Mussoorie; Dehradun; Narendra Nagar; Gangotri National Park; and Uttarkashi Forest Division.

- c. In Bihar, conservation and support activities were not undertaken.
- d. In Uttarakhand, shortfall under natural landscape, agricultural landscape, urban landscape and conservation interventions were 57 *per cent* (12 out of 21 divisions), 54 *per cent* (seven out of 13 divisions), 71 *per cent* (10 out of 14 divisions) and 42 *per cent* (five out of 12 divisions) respectively.
- e. In Uttar Pradesh, at Allahabad only five⁷⁹ (out of 21 planted) species and in Varanasi only two⁸⁰ (out of eight planted) species were planted as per the species specified (12 numbers) in the DPR.

We found that short achievement of targets was actually a result of delayed release of funds to the divisions.

6.4 Conservation of Fauna

NMCG sanctioned two projects for "Biodiversity conservation and Ganga Rejuvenation" at a total cost of ₹ 24.84 crore to Wild Life Institute of India (WII), Dehradun in June 2016 and September 2016 respectively for three years each, to develop a science based aquatic species restoration plan for the River Ganga by involving multiple stakeholders having various components.

- WII was to appoint 26⁸¹ and 70⁸² project personnel under the Part 1⁸³ and Part 2⁸⁴ of the project, by end of December 2016 and March 2017 respectively. However, WII engaged two Project Scientists, 10 Project Associates, 16 Project Fellows, one Database operator, five Project Assistants and four Project Management Unit Personnel i.e. 38 personnel and the remaining ones are in the process of engagement.
- WII was to conduct the stakeholder analysis in first half of the first year of the project. However, the consultations were conducted (June-December 2016) by WII only in Uttar Pradesh.

NMCG accepted (August 2017) the fact and stated that stakeholder consultations have been initiated in Uttar Pradesh, Uttarakhand and West Bengal.

- We noticed that there was delay in designing the training syllabus for spearhead team by WII and it did not validate and implement the syllabus within first half of the first year. We also observed that no training was organised in other places

⁷⁹ Syzygiumcumini, Azadirachlaindica, Dalbergiasissoo, Ficusreligiosa & Delonixregia.

⁸⁰ Swietenia Mahagni and Delonixregia.

⁸¹ One project scientist, two Project Associates, one Rescue and Rehabilitation Officer, six project fellows and other staff

⁸² Three Project Scientists, nine Project Associates, 15 project fellows and other staff

⁸³ Establishment of Aqua life conservation monitoring centre, capacity building and Rescue and Rehabilitation centres

⁸⁴ Planning aquatic species restoration, community based conservation programmes and nature interpretation and education for biodiversity conservation

except Lucknow and Meerut. WII stated (April 2017) that the process of training would be initiated, with effect from June-July 2017.

NMCG stated (August 2017) that the spearhead team to carry forward the project activities in future has been formed for the States of Uttar Pradesh and West Bengal. Once communications are received from other States, a combined training programme for the spearhead team will be initiated post-monsoon.

6.5 Maintenance of Ecological Flow

Aviral Dhara or continuous flow⁸⁵ is important for restoring the wholesomeness of the River Ganga. NGRBA notification (2009) emphasised the urgent need “to maintain *ecological flow* in the River Ganga with the aim of ensuring water quality and environmentally sustainable development”.

As per River Ganga (Rejuvenation, Protection and Management) Authorities Order, 2016, there is urgent need to maintain ecological flows⁸⁶ in the River Ganga with the aim of ensuring continuous flows throughout its length so as to restore its ecological integrity that enables it to self-rejuvenate. It emphasizes that every State Government shall also endeavour to maintain adequate flow of water and all concerned authorities shall take suitable actions in a time bound manner.

NMCG did not identify places of discontinuity of water flow due to engineered diversion or storage and did not initiate any remedial action thereof.

NMCG did not determine the magnitude of ecological-flow at different points for the River Ganga. It also did not assess the linkage between ecological flow and water quality. It was in the process of obtaining data on flow during different seasons, for the period 2015-17 from Central Water Commission.

Thus, NMCG has neither formulated the parameters for determination of ecological flow at different points nor identified the particular impediments affecting the flow.

NMCG stated (August 2017) that the quantification of magnitude of ecological flow is a complex issue having multi-pronged effects on the several competitive stakeholders ranging from irrigation, industrial, power and social sector in the entire Ganga Basin. Finalization of appropriate/rational environmental flow in the context of all the stakeholders and simultaneously addressing abating the pollution by making available

⁸⁵ Means flow of water – along with sediments, nutrients and other natural constituents of the flow – are continuous and adequate throughout the Ganga river network. Both longitudinal connectivity and adequate flows in rivers are essential to maintain *Aviral Dhara*.

⁸⁶ Environmental flows are a regime of flow in a river that mimics the natural pattern of a river’s flow, so that the river can at least perform its minimal natural functions such as transporting water and solids received from its catchment and maintaining its structural integrity, functional unity and biodiversity along with sustaining the cultural, spiritual and livelihood activities of people.

sufficient quantity of water into the river requires broad based consultations with all the States and stakeholders.

While we agree that the magnitude of ecological flow is a complex exercise, the same needs to be addressed in a time bound manner to adopt suitable strategies accordingly. However, NMCG has neither determined ecological flow nor identified the places of discontinuity of water flow with reasons thereof for initiating corrective actions.

6.6 Special properties of the River Ganga

NMCG sanctioned (March 2015) ₹ five crore to National Environmental Engineering Research Institute (NEERI), Nagpur for “Assessment of Water Quality and Sediment Analysis to understand the special properties of Ganga River” to be completed within stipulated time period of 15 months.

NEERI was required to submit Quarterly Physical Progress Reports (QPPR) by fifth day of every quarter, to NMCG. However, NEERI did not submit any QPPR. In the absence of QPPR, there was no mechanism with NMCG to monitor the progress of the project. NEERI stated (May 2017) that considerable time was required for preparation for field visit, collection of water samples, analysis of water samples, data analysis and interpretation and report preparation to arrive at tangible outcome.

NMCG (August 2017) agreed with the audit observation.

Further, NEERI was to develop framework separately for initiating actions to rejuvenate the River Ganga. Although NEERI made specific recommendations in its draft report, these did not reveal any separate framework.

NMCG stated (August 2017) that NEERI has recently received comments from Central Water Commission (CWC). Based on the CWC comments the framework has been updated. NEERI was still awaiting response from CPCB and other organizations. On receipt of response from all the organizations, the framework will be finalized and included in the report accordingly.

While we do agree with the reply that all stakeholders should be involved in the Ganga Rejuvenation framework, NEERI and NMCG should adhere to the timeline prescribed for completion of the project and plan its activities accordingly.

6.7 Conclusion

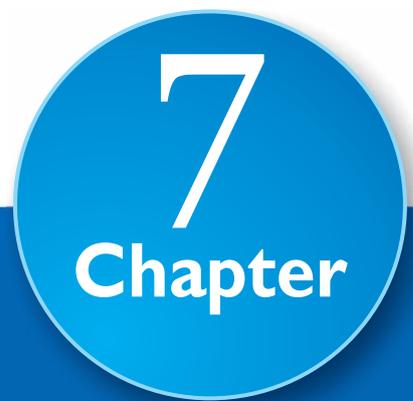
The number of projects for conservation for flora, fauna and river flow were very limited as compared to projects for pollution abatement and river front development. The long term action plan for Ganga Rejuvenation was yet to be finalised based on Ganga River Basin Management Plan. As such, ecology and biodiversity conservation

efforts of NMCG were at a very initial stage and it suffered from deficiencies in programme implementation. There were short release of funds for forestry interventions, coverage on ground for biodiversity conservation and non-sanction of any projects for study of the maintenance of ecological flow.

6.8 Recommendations

We recommend that

- i. NMCG may identify threats and implement programmes/schemes to maintain the Ganga river ecology and conserve flora and fauna in sustainable and time bound manner.
- ii. NMCG may on priority address the concerns of *Aviral Dhara* by identifying the discontinuity of flow of the River Ganga water due to engineering diversion or storage so as to determine and maintain the ecological flow.



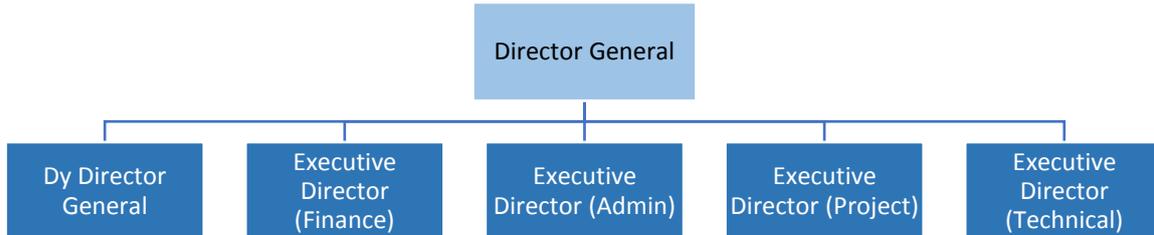
7
Chapter

7.1 Introduction

Government of India created various institutions at Central and State levels for Rejuvenation of the River Ganga. National Mission for Clean Ganga (NMCG) is the implementing agency at the Central level. There are State Programme Management Groups (SPMGs) in the four States (Bihar, Uttarakhand, Uttar Pradesh and West Bengal). In Jharkhand there is a dedicated nodal cell for programme implementation in State Urban Development Department. Further, Central Pollution Control Board (CPCB) and State Pollution Control Boards (SPCBs) deal with enforcement of Acts and Rules for abatement of pollution.

NMCG is headed by a Director General (DG) who is assisted by a Deputy Director General (DDG) and Executive Directors (EDs). The present organisational set-up is given in Chart 7.1.

Chart 7.1: Organisational set-up of NMCG



The present Chapter deals with issues relating to shortages of manpower at NMCG, SPMGs, CPCB and SPCBs and engagement of staff. The audit findings are discussed in succeeding paragraphs.

7.2 Shortages in Human Resource

7.2.1 Shortages in NMCG

In the EFC memorandum on *Namami Gange*, NMCG envisaged increase in the sanctioned posts from 58 to 111. As per approval of the Cabinet (May 2015), necessary strengthening and capacity augmentation of the NMCG and SPMGs were to be carried out for implementation of the programme.

Category wise details of human resources at NMCG during 2014-17 is shown in Table 7.1.

Table 7.1: Category wise Sanctioned Strength and Persons in Position at NMCG during 2014-17

Category	31.03.2014				30.03.2015				31.03.2016				31.03.2017			
	Sanctioned Strength	Person-in-position	Shortage	Shortage (in per cent)	Sanctioned Strength	Person-in-position	Shortage	Shortage (in per cent)	Sanctioned Strength	Person-in-position	Shortage	Shortage (in per cent)	Sanctioned Strength	Person-in-position	Shortage	Shortage (in per cent)
Technical	23	7	16	70	23	7	16	70	23	6	17	74	23	12+2*	9	39
Administrative	29	9	20	69	29	9	20	69	29	12	17	59	29	10+4**	15	52
Supporting	5	5	0	0	5	4	1	20	5	3	2	40	5	4	1	20
Total	57	21	36	63	57	20	37	65	57	21	36	63	57	32	25	44

Source: Information provided by NMCG

*ED (Project), ED (Technical)

** DG, DDG, ED (Admn) and ED (Finance)

Table 7.1 shows that there has been overall shortage, ranging from 44 per cent to 65 per cent during 2014-15 to 2016-17. Under technical category, the shortfall ranged between 39 to 74 per cent.

In NMCG, contractual employees occupy all the positions except 16 Government employees, who are on deputation. Further, NMCG has not increased the sanctioned strength.

NMCG agreed and informed (August 2017) that a proposal is underway to seek approval for operationalization of 14 posts. Further, NMCG stated that the shortfall has been compensated by engaging 18 Technical Professionals.

The fact remained that there was no dedicated human resource for NMCG and there were persisting shortfall at all levels in NMCG during 2014-15 to 2016-17.

7.2.2 Shortages in SPMGs

The overall sanctioned strength vis-à-vis persons in position are indicated in Table 7.2 below.

Table 7.2: State wise sanctioned strength and person-in-position of SPMGs during 2014-17

Category		Bihar			Jharkhand			Uttar Pradesh			Uttarakhand			West Bengal			Total		
		T	A	S	T	A	S	T	A	S	T	A	S	T	A	S	T	A	S
31.03.2014	SS	28	2	4	8	2	8	24	3	10	6	7	6	4	6	3	70	20	31
	PIP	0	2	0	0	2	5	2	2	3	4	3	5	2	4	1	8	13	14
	V	28	0	4	8	0	3	22	1	7	2	4	1	2	2	2	62	7	17
Shortage (per cent)															89	35	55		

Category		Bihar			Jharkhand			Uttar Pradesh			Uttarakhand			West Bengal			Total		
		T	A	S	T	A	S	T	A	S	T	A	S	T	A	S	T	A	S
31.03.2015	SS	28	2	4	8	2	8	27	3	14	5	8	6	4	6	3	72	21	35
	PIP	3	2	3	1	2	4	9	3	14	3	4	4	2	4	2	18	15	27
	V	25	0	1	7	0	4	18	0	0	2	4	2	2	2	1	54	6	8
Shortage (per cent)																75	29	23	
31.03.2016	SS	28	2	4	8	2	8	27	3	14	5	8	6	4	6	3	72	21	35
	PIP	3	2	3	1	2	4	9	3	14	4	5	5	2	4	2	19	16	28
	V	25	0	1	7	0	4	18	0	0	1	3	1	2	2	1	53	5	7
Shortage (per cent)																74	24	20	
31.03.2017	SS	28	2	4	8	2	8	27	3	14	5	8	6	4	6	3	72	21	35
	PIP	3	2	3	1	1	4	6	3	14	4	4	5	3	4	2	17	14	28
	V	25	0	1	7	1	4	21	0	0	1	4	1	1	2	1	55	7	7
Shortage (per cent)																76	33	20	

T = Technical / Specialist; A = Administrative; S = Supporting staff
SS = Sanctioned Strength; PIP = Person-in-position; V = Vacant

Source: Information provided by SPMGs

Table 7.2 shows that under the category of Technical/ Specialists, Administrative and Supporting Staff, the overall shortages ranged between 74 to 89, 24 to 35 and 20 to 55 per cent respectively. State-wise vacancies of Technical/Specialists, ranged from 20 to 100 per cent. In Bihar, 25 to 28 (89 to 100 per cent) number of technical posts were lying vacant during the period 2014-2017.

Due to shortage of staff, SPMGs were largely dependent on EAs for project planning, assessment of funds and monitoring which adversely affected their functioning. Further, NMCG did not initiate any proposal for strengthening the human resources of SPMGs.

NMCG stated (August 2017) that, there has been no need to further augment the cadre of SPMGs since a number of posts allotted to SPMGs remain unfilled.

NMCG needs to expeditiously coordinate with SPMGs for filling up of vacant positions.

7.2.3 Shortages in CPCB

There was shortage of staff in the cadres of Scientific, Technical and Administrative cadres in CPCB. As on March 2017, 15 *per cent* of Scientific posts and 35 *per cent* of Technical posts were lying vacant, as shown in Table 7.3.

Table 7.3: Category wise sanctioned strength and person in position of CPCB during 2014-17

Cadre	2014-15			2015-16			2016-17		
	SS	PIP	V	SS	PIP	V	SS	PIP	V
Scientific	290	244	46	286	244	42	286	242	44
Technical	45	27	18	45	28	17	43	28	15
Administrative	160	119	41	160	120	40	160	115	45
Supporting	44	43	1	44	42	2	44	41	3

SS: Sanctioned Strength; PIP: Person-in-position; V: Vacant

Source: Information provided by CPCB

7.2.4 Shortages in SPCBs

The shortfall in State Pollution Control Boards during 2014-17 is given below:

- Bihar:** There were overall 76 *per cent* vacancy as of June 2017.
- Jharkhand:** Out of 271 sanctioned posts of Environment Engineer, Scientific Assistant, Lab Assistant, Sample Collector etc., 198 (73 *per cent*) posts were lying vacant as on March 2017.
- Uttarakhand:** There was shortage of staff in all categories. The shortage in Scientific and Technical cadres ranged between 56 to 71 *per cent*.
- Uttar Pradesh:** Out of 397 posts⁸⁷ of Scientific and Technical cadres, 101 posts⁸⁸ (25 *per cent*) were lying vacant as of March 2017.

Thus, it can be seen that there were shortfalls in human resources at CPCB and SPCBs.

7.3 Irregular engagement of staff

As per Bye-Laws of NMCG (July 2011), the positions were to be filled by appointing persons, either on deputation or on contract and the service rules of the staff were to be approved by Governing Council (GC). DG NMCG could appoint staff for the project implemented by it. However, approval of the GC and the Government of India shall be obtained for creation of posts in the NMCG.

We found that NMCG engaged 14⁸⁹ consultants, four⁹⁰ project officers and two⁹¹ Research Officers on contract basis without obtaining approval of GC. NMCG did not

⁸⁷ 139 Scientific and 258 Technical posts

⁸⁸ 29 Scientific and 72 Technical posts

frame Recruitment Rules Further, the qualification criteria for different posts (Category A, B, C, D and E) and consolidated pay package per month prescribed by NMCG were not approved by the GC and Government of India.

Thus, the bye-laws were flouted by NMCG for engaging staff.

NMCG stated (August 2017) that it is a temporary body wherein the recruitment was on need basis.

The reply is not tenable as the approval of GC and Government of India. was not obtained by NMCG for engagement of staff.

7.3.1 Improper pay structure and payment

As per Orders (October 1984) from Department of Expenditure, Ministry of Finance (MoF), adoption of pay scale, allowances and revision thereof and creation of posts above a specified pay level in autonomous bodies would need the prior approval of the Government of India in consultation with the MoF.

NMCG approved pay scales and adopted the levels⁹² B, C, D and E without following the employment structure identical to Autonomous Bodies and Societies under Government of India, as detailed in Table 7.4.

Table 7.4: Comparison of NMCG and Government of India pay structure

Group in NMCG	Remuneration adopted by NMCG (₹ in lakh)	Government of India Pay structure (₹)
B - Sr. Specialist	1.50 to 2.00	PB-4: 37,400 – 67,000 (Grade Pay 8,700 to 10,000)
C - Specialist	1.00 to 1.50	PB-3: 15,600-39,100 (Grade Pay 5,400 to 7,600)
D - Assistant	0.75 to 1.00	PB-2: 9,300-34,800 (Grade Pay 4,200 to 5,400)
E – Supporting staff	0.25 to 0.50	PB-1: 5,200-20,200 (Grade Pay 1,800 to 2,800)

NMCG followed consolidated packages per month higher than the prescribed scales under Government of India.

NMCG stated (August 2017) that the pay scales of NMCG were defined by the World Bank, as the above positions were created vide Cabinet Note (April 2011) for World Bank Assistance to NGRBA.

⁸⁹ One in November 2011, One in May 2012, four in 2014, two in 2014-15 five in 2016 and one in 2017

⁹⁰ October, November 2016

⁹¹ September 2014

⁹² Group B (Sr. Specialist) ₹ 1.50 lakh to ₹ 2.00 lakh, Group C (specialist) ₹ 1.00 lakh to ₹ 1.50 lakh, Group D (Assistants) ₹ 0.75 to ₹ 1.00 lakh and Group E (supporting staff) ₹ 0.25 lakh to ₹ 0.50 lakh.

The Cabinet Note (April 2011) stipulates only about the posts for NMCG without their pay scales. NMCG stated (August 2017) that the issue of revising the pay structure would be examined in due course.

7.4 Conclusion

The organization framework created under the National Ganga River Basin Authority for implementation of Ganga Rejuvenation programmes suffered from shortages of human resources at NMCG, SPMGs and CPCB/ SPCBs.

7.5 Recommendation

We recommend that

- i. NMCG may frame recruitment rules for filling-up the vacancies and increase the sanctioned strength for effectively implementing the projects both at NMCG and SPMG levels.



8
Chapter

8.1 Introduction

In the Writ Petition Number 140 of 2015 (*Lalit Miglani vs State of Uttarakhand and Others*) filed before the Hon'ble Uttarakhand High Court (the Court), the Petitioner had highlighted the pollution of the River Ganga. According to the averments made in the petition, the authorities were remiss in discharge of their statutory duties. The Court observed that the quality of water of the River Ganga was deteriorating rapidly every day. The legislations had not helped to save the Ganga. A comprehensive legislation was needed at the national level dealing with the Ganga alone. Accordingly, the petition was disposed of by issuing the mandatory directions vide the judgement delivered on 2 December 2016.

8.2 Directions issued by the Court

- i. The Comptroller and Auditor General was directed to conduct a special audit of all the Centrally Financed Schemes launched to rejuvenate the River Ganga as well as the amount spent by the State Governments for rejuvenation of the River Ganga, within a period of six months and to place the same before the President of India. This time line was further extended upto November 2017 by subsequent order (28 June 2017) of the Court.
- ii. The State Government was directed to enhance the capacity of Sewage Treatment Plants (STPs) at Haridwar and Rishikesh, within three months, taking into consideration the sewage load in these two towns.
- iii. Bharat Heavy Electricals Ltd. (BHEL) was directed to install STP having capacity of 11 MLD, within six months.
- iv. All the 21 Hydroelectric Projects located in the mainstream of the River Ganga were directed to install STPs of appropriate capacity within six months.
- v. NMCG was directed to install an STP, having capacity of 40 MLD, at Jagjeetpur within three months.
- vi. Uttarakhand Environment Protection and Pollution Control Board (UEPPCB) was directed to take action against 180 Industries, to whom Show Cause Notices were issued in the Year 2015-16 and to complete the same within three months.

- vii. Industries to whom Closure Notices were issued in the year 2014-15 and 2015-16 were ordered to be closed/ shut forthwith by the concerned District Magistrates.
- viii. The State Government was directed to take appropriate action against State Environment Protection and Pollution Control Board within six months, since it failed to discharge its statutory duties under the State Act.
- ix. The Union of India was also directed to issue necessary directions to State Environment Protection and Pollution Control Board to strictly implement the environmental laws in order to protect and preserve the River Ganga and in case, the State Board fails to comply with the directions and a grave emergency arises due to further degradation of water quality in Ganga, the Central Government may order the Central Pollution Board to perform the functions of the State Board in the entire stretch of the area covering the River Ganga and its other tributaries in the State of Uttarakhand.
- x. The competent authorities were also directed to initiate criminal proceedings against the defaulters for contravention of the provisions of Water (Prevention and Control of Pollution) Act, 1974 as well as the Environment (Protection) Act, 1986 within three months.
- xi. Ashrams at Haridwar would be ordered to be sealed and closed down in case the sewage is permitted by them to flow in the Ganga directly without treatment
- xii. After three months, no industry/hotel/commercial establishment/educational institution should discharge untreated sewage/ industrial effluents in the River Ganga without its treatment. In case of failure, the competent authority was directed to take stern action against these commercial establishments. All the drains opening into the River Ganga should be sealed and closed after three months.
- xiii. The most polluting units situated on the banks of the River Ganga were ordered to be re-located.
- xiv. No person should litter/defecate/urinate, in open, within a radius of 500 meters on both sides of the River Ganga. The State Government was directed to make suitable amendments in the municipal laws by imposing stringent fines including imprisonment. Any person found littering/ urinating/ defecating in open on the banks of the River Ganga, shall be imposed a fine of ₹ 5,000. The concerned District Magistrates of the State shall be personally responsible to carry out these directions. The District Magistrates of the concerned district were directed to put up suitable number of Notice Boards on all the Ghats and religious places, falling in their territorial jurisdiction, about these directions.

- The Sub Divisional Magistrates were permitted to take cognizance of the matter till the municipal laws were suitably amended. Suitable number of Mobile Magistrates shall remain posted on *Har-ki-Pauri* at Haridwar.
- xv. There should be a total ban on sale, use and storage of plastic carry bags throughout the State of Uttarakhand with effect from 1 January 2017.
 - xvi. The State Government was directed to ensure that people should not use soap, oil and shampoo while taking bath in the River Ganga. Bathing of cattle in the River Ganga was also banned forthwith.
 - xvii. Begging was also prohibited in all the holy places in the State of Uttarakhand.
 - xviii. The State Government was directed to provide Skimmers in sufficient numbers to clean the Ganga at Haridwar, Rishikesh and downstream.
 - xix. The Municipal Bodies, throughout the State of Uttarakhand, were directed to dispose of the garbage on scientific lines by setting up Treatment Plants, as provided under the Municipal Solid Wastes (Management & Handling) Rules, 2000 within six months.
 - xx. There was also a direction not to permit new industries based on water like Sugarcane, Pulp/ Paper Industries, Distilleries, Textile Industries etc. within a radius of two kilometers from the banks of the River Ganga. No new commercial establishment employing more than 50 persons including the hotels, having capacity of more than 50 guests, should be permitted to operate henceforth, without setting up Effluent Treatment Plants or Sewage Treatment Plants. This direction was applicable for big Ashrams housing more than 100 devotees.
 - xxi. The Municipal Corporation, Haridwar as well as the Municipal Council, Rishikesh were directed to construct sufficient number of toilets, based on the technology employed in the toilets used in aeroplanes in order to maintain hygiene in the religious places.
 - xxii. The State Government should declare "River Conservation Zones" where no construction activity should be permitted on the banks of the River Ganga from the highest flood plain by private as well as governmental agencies.
 - xxiii. The Union of India was directed to establish the Inter-State Council for all the riparian States through which the River Ganga flows i.e. Uttarakhand, Uttar Pradesh, Jharkhand, Bihar and West Bengal, within a period of three months from the date of judgement, for making recommendations to the Central Government in order to clean/rejuvenate the River Ganga on the analogy of National Water Development Agency as well as Water Resources Development Council. The inter-State Council shall make recommendations to the Central

- Government, within a period of three months after its constitution, to the Central Government. The Central Government, shall consider the same within a further period of three months and take necessary measures to restore the River Ganga to its pristine glory.
- xxiv. The Forest Research Institute was directed to prepare the fresh DPR for afforestation for the basin and banks of the River Ganga.
- xxv. The Hon'ble Court also recommended/suggested the Union of India to frame legislation exclusively for the River Ganga to save it from extinction.

8.3 Audit findings

The audit findings covering the envisaged planning and institutional mechanisms, funding and execution of schemes for Rejuvenation of River Ganga have been discussed in the Chapters of this report. The specific issues raised in the directions of the Hon'ble Court are at Table 8.1.

Table 8.1: Audit findings relating to issues raised by Hon'ble Uttarakhand High Court

S. No	Issues	Our Observations
1	Whether the capacity of Sewage Treatment Plants at Haridwar and Rishikesh, has been enhanced within a period of three months from the date of court judgement (i.e. 2 December 2016), taking into consideration the sewage load in these two towns?	<p>There are three STPs in Haridwar and one STP in Rishikesh. The sewage load of Haridwar and Rishikesh is 107.2 MLD and 16 MLD respectively against which 63 MLD and six MLD are being treated as on date. The balance sewage of 44.2 and 10 MLD respectively of these towns is being discharged into the river without being treated.</p> <p>A 40 MLD treatment capacity STP was sanctioned for Jagjeetpur, Haridwar in the year 2015 but the same was cancelled in March 2016 and new STPs of 68 MLD and 14 MLD capacity were sanctioned in March 2017 on the orders of the NMCG. Similarly, for enhancement of treatment capacity of existing STP in Rishikesh, 26 MLD capacity treatment STP was sanctioned in March 2017. The time line provided for completion of these new STPs is 24 months. As of date, bidding for construction is under process.</p> <p>Further, upgradation of present STP of 27 MLD capacity at Jagjeetpur and tertiary treatment of 18 MLD STP at Sarai, Haridwar, has also been sanctioned.</p>
2	Whether Bharat Heavy Electricals Ltd. (BHEL) has	From review of records, it was observed that in connection with setting up of STP, BHEL-Haridwar

	<p>installed Sewage Treatment Plant of 11 MLD capacity, as per the direction issued by Uttarakhand Environment Protection & Pollution Control Board on 21 December 2015?</p>	<p>failed to comply with orders of or commitments made before various legal authorities:</p> <table border="1" data-bbox="683 304 1345 752"> <thead> <tr> <th data-bbox="683 304 815 371">Date of order</th> <th data-bbox="815 304 1345 371">Description of order passed by legal authorities</th> </tr> </thead> <tbody> <tr> <td data-bbox="683 371 815 472">10 December 2015</td> <td data-bbox="815 371 1345 472">National Green Tribunal (NGT) directed BHEL, Haridwar to install STP by January 2016.</td> </tr> <tr> <td data-bbox="683 472 815 629">2 December 2016</td> <td data-bbox="815 472 1345 629">Hon'ble High Court of Uttarakhand directed BHEL to install STP having capacity of 11 MLD as per directions issued by the PCB, Uttarakhand on 21 December 2015 within six months from 02 December 2016, if not already installed.</td> </tr> <tr> <td data-bbox="683 629 815 752">17 March 2017</td> <td data-bbox="815 629 1345 752">Hon'ble High Court of Uttarakhand mentioned in its order that BHEL through its General Manager has undertaken to complete the STP within a period of nine months (i.e. by 17 December 2017).</td> </tr> </tbody> </table> <p>BHEL stated (June 2017) that continuous efforts are in process for setting up the STP within nine months from the date of order (dated 17 March 2017) of the Court</p>	Date of order	Description of order passed by legal authorities	10 December 2015	National Green Tribunal (NGT) directed BHEL, Haridwar to install STP by January 2016.	2 December 2016	Hon'ble High Court of Uttarakhand directed BHEL to install STP having capacity of 11 MLD as per directions issued by the PCB, Uttarakhand on 21 December 2015 within six months from 02 December 2016, if not already installed.	17 March 2017	Hon'ble High Court of Uttarakhand mentioned in its order that BHEL through its General Manager has undertaken to complete the STP within a period of nine months (i.e. by 17 December 2017).
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17 March 2017	Hon'ble High Court of Uttarakhand mentioned in its order that BHEL through its General Manager has undertaken to complete the STP within a period of nine months (i.e. by 17 December 2017).									
3	<p>Whether all the 21 Hydroelectric Projects located in the mainstream of the River Ganga have installed Sewage Treatment Plants of appropriate capacity during construction phase and thereafter, at operational phases, within a period of six months from the date of Court judgement (i.e. 2 December 2016)?</p>	<p>The status is as below:</p> <ol style="list-style-type: none"> Six⁹³ Hydroelectric Projects have installed STPs. In two⁹⁴ Hydroelectric Projects, STPs will be installed by July 2017. Six⁹⁵ Hydroelectric Projects are using Septic Tanks/Soak Pits. One⁹⁶ Hydroelectric Project was washed away in natural calamity in the year 2013. Six⁹⁷ Hydroelectric Projects have not started construction yet. 								
4	<p>Whether NMCG got Sewage Treatment Plant of 40 MLD capacity installed at Jagjeetpur within three months from date of Court judgement (i.e. 2 December 2016)?</p>	<p>A new STP with a total capacity of 68 MLD was sanctioned in March 2017 and work has been awarded.</p>								

⁹³ Vishnuprayag, Singloi Bhatwari, SriNagar, Koteswar, Tehri & Maneri Bhali II

⁹⁴ Birahi Ganga, Bhilangana III

⁹⁵ Vanala, Rajwakti, Gangnani, Badyar, Bhilangana & Deval

⁹⁶ Hanuman Ganga Ext II

⁹⁷ JhalaKoti, Kakora Gad, Jalandhari Gad, Siyangad, Melkhet, Nayar Valley Project

5	Action taken by UEPPCB against the 180 defaulting industries which were issued Show cause notices during 2015-16.	<ol style="list-style-type: none"> 1. Out of 180 defaulting industries to whom show cause notices were issued, in 109 cases, the notices were revoked between December 2015 to May 2017. 2. Out of 109, 67 defaulting units complied with the directions of the UEPPCB. However, 42 (Sl. No. 68 to Sl. No. 109 of Annexure 1.1) defaulting units neither submitted their compliance to the show cause notice nor approached the UEPPCB for inspection for watching compliance within the time prescribed in the show cause notices. Further, these units were <i>suo motto</i> inspected by the concerned Regional Officers after the expiry of compliance periods as indicated in the show cause notices issued to these units and on their recommendations, the show cause notices were revoked by the UEPPCB. 3. In remaining 71 cases, closure notices were issued to 32 (Sl. No. 110 to Sl. No. 141 of Annexure 1.1) defaulting industries for non-compliance. In three cases, units were self-closed (Sl. No. 142 to Sl. No. 144 of Annexure 1.1) and in 32 cases, (Sl. No. 145 to Sl. No. 176 of Annexure 1.1), correspondence between defaulting units and the UEPPCB was still on. Case files of four units (Sl. No. 177 to Sl. No. 180 of Annexure 1.1) were not made available to Audit by the UEPPCB. 4. Site visits to five units⁹⁸ declared as closed out of 16 units (Annexure 1.2) and located in Haridwar district was carried out as a sample check. All the five units were found closed.
6	Status of operation of 44 defaulting industries which were served closure notices by the UEPPCB during 2014-15.	<ol style="list-style-type: none"> 1. Of the 44 closure notices, 23 notices were revoked (Sl. No. 1 to Sl. No. 23 of Annexure 1.3), including one case where unit was operational under NGT Orders. 2. In 17 cases (Sl. No. 24 to Sl. No. 40 of Annexure 1.3), where the defaulter units were declared as

⁹⁸ M/s Rachna Enterprises, Peeth Bazar, Bahadarabad, M/s Jain Poly Packaging Solutions, Bahadrabad, M/s Hotel Polaris Restaurant 48 Civil Lines, Roorkee, M/s Hotel Amber, 48 Civil Lines, Bus Stand, Roorkee, M/s Hotel Highway, Aadarsh Nagar, Haridwar Road, Roorkee

		<p>closed by the UEPPCB, evidence of action taken for closure was available in 11 cases (Sl. No. 24 to Sl. No. 34 of Annexure 1.3) whereas, in remaining six cases (Sl. No. 35 to Sl. No. 40 of Annexure 1.3), closure notices were issued but no evidence of follow up activities was available in the files of the UEPPCB.</p> <p>3. In four cases (Sl. No. 41 to Sl. No. 44 of Annexure 1.3), the matter was under process.</p> <p>4. Site visits to nine units⁹⁹ declared as closed out of 13 (Sl. No. 1 to Sl. No. 9 of Annexure 1.4) units located in Haridwar district was carried out as a sample check. It was found that seven out of nine units (Sl. No. 1 to Sl. No. 7 of Annexure 1.4) were operating as on date.</p>
7	Status of operation of 106 defaulting industries which were served Closure notices during 2015-16.	<p>1. Out of 106 closure notices issued, 59 (Sl. No. 1 to Sl. No. 59 of Annexure 1.5) cases were revoked (including 16 cases where units were operational under NGT Orders).</p> <p>2. In remaining 47 cases (Sl. No 60 to Sl. No. 106 of Annexure 1.5) where the defaulter units were declared as closed by the UEPPCB, records regarding actual closing down of 10 units, (including one sealed unit and one self-closed) were found in the files, whereas, in 37 cases (Sl. No. 70 to Sl. No. 106 of Annexure 1.5), closure notices were issued but no evidence of follow up activities was available in the files of the UEPPCB.</p> <p>3. Site visits to six units¹⁰⁰ declared as closed out of 18 (Annexure 1.6) units located in Haridwar district was carried out as a sample check and it was found that all the units were closed as on date.</p>
8	Whether any action was taken by the State	The State Government issued a notice under Section 62 of the Water (Prevention and Control of Pollution)

⁹⁹ M/s Baba Brickfield, Jhabreda, M/s Roshan Brick Field, Nagla, Landora, Roorkee, M/s Savera Brick Field, Bijola, Landora, Roorkee, M/s United Engineers, Begampur, M/s Anchal Brick Field, Bijholi, Landora, M/s Akbar Khan Brick field, Kaliyar, Roorkee, M/s Chand Brick Supply, Nagla Landhora, M/s Shabri Brick Field, Station Road, Landhora, Haridwar, M/s Indian Bhatta, Bijholi, Haridwar

¹⁰⁰ M/s Sharp Industries, IIE Ranipur, Haridwar; M/s Raltronics India Pvt. Ltd, Haridwar; M/s TexPlas Textiles India Pvt. Ltd, Bahadurpursaini; M/s STP Enterprises, Madhupur, Roorkee; M/s Raja Ice Factory, Dudhpur, Haridwar; and M/s Nazma Ice Factory, Dudhpur, Haridwar.

	Government against UEPPCB under Section 62 of the Water (Prevention and Control of Pollution) Act of 1974 in respect of non- discharging of statutory duties under the State Act?	Act, 1974, to the PCB in March 2017 wherein the Board was asked to file its reply within a period of 45 days. The UEPPCB filed the reply to the Additional Secretary, Government of Uttarakhand in May 2017.
9	Whether the Union of India has issued necessary directions to State Environment Protection and Pollution Control Board to strictly implement the environmental laws in order to protect and preserve the River Ganga and in case, the State Board fails to comply with the directions and a grave emergency arises due to further degradation of water quality in Ganga, the Central Government may order the Central Pollution Board to perform the functions of the State Board in the entire stretch of area covering the River Ganga and its other tributaries in the State of Uttarakhand?	No such information has been made available to Audit by NMCG through MoEF&CC.
10	Initiation of criminal proceedings against the defaulters for contravention of the provisions of Water (Prevention and Control of Pollution) Act, 1974 as well as the Environment (Protection) Act, 1986.	Scrutiny of records of the UEPPCB revealed that court cases were filed against 37 units, out of which six cases were settled after imposing penalty of ₹ 5.30 lakh by the Court which was deposited by the said units. Proceedings are in progress in remaining 31 cases. Moreover, five FIRs have been lodged against defaulters for contravention of provisions.

11	Closure of ashrams permitting untreated sewage into the River Ganga.	The UEPPCB instructed the District Magistrate and SSP, Haridwar (February 2017) to seal and close down five ashrams permitting untreated sewage into the River Ganga. The Municipal Commissioner, Haridwar had constituted a committee to conduct joint inspection and submitted report in March 2017 which stated that all the five ashrams have set up their septic tanks which are being cleaned by the Jal Sansthan. Thus, as per the findings of this committee, these five ashrams were not permitting untreated sewage into the River Ganga as on date.
12	Action by UEPPCB against industry/hotel/commercial establishment/educational institution discharging untreated sewage into the River Ganga.	Three hotels discharging untreated sewage into the River Ganga were identified. These were issued closure notices during December 2015 to January 2016. The closure notices were revoked after corrective measures were taken by these hotels. The hotels are operational as on date.
13	Action taken by UEPPCB against drains opening into the River Ganga.	<p>During the scrutiny of the records of the EAs and as per the information provided by the SPMG, it was noticed that all the drains opening into the River Ganga and its tributaries have been identified in the priority towns. There are 111 Nallas discharging 56.871 MLD of sewage into the River Ganga and its tributaries viz, Alaknanda and Bhagirathi. Out of these 111 Nallas, 47 Nallas (Sl. No. 1 to Sl. No. 15 of Annexure 1.7) having a discharge of 30.579 MLD have been tapped till the date of audit. Thus, a discharge of 26.292 MLD is still falling into the river or its tributaries without any treatment.</p> <p>Further, as per the directions of the Member Secretary, the UEPPCB, vide letter no 10073-2083 dated 27 February 2017, directed the MD, Peyjal Nigam to seal all the drains falling into the River Ganga in compliance of the Hon'ble High Court directions. Action taken report was to be submitted to the UEPPCB. The Chief Engineer, Uttarakhand Peyjal Sansadhan Vikas Evam Nirman Nigam has intimated that the DPRs for up gradation of existing STPs as well as of new projects for establishment of STPs along with Interception and Diversion of drains on the main Ganga stem, have been approved by the NMCG and</p>

		the tendering is in process. Hence, it was stated that the directions issued shall be complied after completion of these projects.
14	Relocation of most polluting units situated on the banks of the River Ganga.	As per the directions of the State Government vide letter No: 172(1)X-3-17-15(10)/2017 dated 7 March 2017, a survey was to be conducted by the UEPPCB within two weeks and a report submitted to the Government regarding most polluting units situated on the banks of the River Ganga. During scrutiny of the records and information provided by UEPPCB, Audit was informed that no 'Most Polluting Unit' was situated on the banks of the River Ganga. However, the survey was still in progress.
15	Fines imposed in respect of littering/defecating and urinating in open within a radius of 500 meters on both sides of the River Ganga.	The State Government has promulgated the "Uttarakhand Anti Littering and Anti Spitting Act, 2016" with effect from 30 November 2016 in which specific provision has been made for prohibiting littering, urinating or defecating by pets or humans in open. Contravention of the Act invokes a penalty of ₹ 5,000 or imprisonment up to six months or both. Besides, the State Government has also issued directions vide letter No:172(2)/X-3-17-15(10)/2017 dated 7 March 2017 to the District Magistrates (DMs) of Uttarkashi, Rudraprayag, Tehri, Pauri, Haridwar and the Member Secretary, PCB for compliance of the order of Hon'ble High Court of Uttarakhand. The DMs of Haridwar, Pauri, Rudraprayag and Tehri had issued instructions to SDMs and DM, Haridwar had nominated Mobile Magistrates as well. Campaigning for mass awareness is being conducted through wall writings, hoardings and regular announcements.
16	Total ban of sale, use and storage of plastic carry bags in the State.	During scrutiny of the records of UEPPCB, it was noticed that Secretary, Urban Development Department vide GO No 94 dated 13 January 2016 in compliance of NGT's orders and Chief Secretary, Govt. of Uttarakhand vide GO No. 88 dated 25 January 2017 in compliance of Hon'ble High Court of Uttarakhand order, issued letters to all the Municipal Corporations/Councils, District Forest Officers/Senior Superintendents of Police and the Transport Commissioner, Uttarakhand regarding imposing a total ban on sale, use and storage of bags/ packing

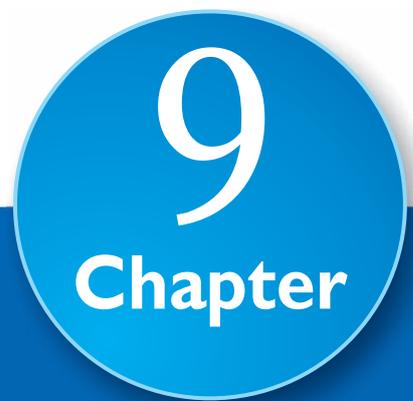
		<p>materials made of plastic and thermocol in the State. A penalty of ₹ 5,000 shall be imposed on any person violating the direction imposed.</p> <p>Scrutiny of the records of the Urban Development Department revealed that ULB's have imposed/collected a fine of ₹ 57.94 lakh in their respective territories while enforcing the ban.</p> <p>Awareness is made through public meetings, wall writings, announcements and Pole kiosks.</p>
17	How is the State Government ensuring that people do not use soap, oil and shampoo while taking a bath in the River Ganga?	The Government of Uttarakhand issued directions vide order no. 172(3)/X-3-17-15(10)/2017 dated 7 March 2017 to the District Magistrates of Uttarkashi, Rudraprayag, Tehri, Pauri and Haridwar prohibiting use of soap, oil and shampoo while taking bath in the River Ganga. Mobile Magistrates have been posted and awareness campaigns are being carried out.
18	What steps has the State Government taken to ban bathing of cattle in the River Ganga?	As per the directions of the Government of Uttarakhand vide no. 172(3)/X-3-17-15(10)/2017 dated 7 March 2017, issued to the District Magistrates of Uttarkashi, Rudraprayag, Tehri, Pauri and Haridwar, bathing of cattle in the River Ganga has been banned. The concerned DMs issued directions to SDMs to enforce the ban. In Haridwar, Mobile Magistrates have been posted.
19	What steps has the State Government taken to prohibit begging in all the holy places in the State of Uttarakhand?	The State Government vide no. 201/XVII-2/17-321(saka)/2002 dated 9 March 2017 issued directions to all the District Magistrates prohibiting begging in all holy places in the state. The DMs have issued orders to the respective SSPs, Municipal Councils and Revenue Officers for ensuring strict compliance.
20	How is the State Government ensuring whether sufficient number of skimmers are provided to clean the Ganga at Haridwar, Rishikesh and downstream?	During scrutiny of the records and information provided by SPMG, it was noticed that the NMCG had awarded a contract for installation of skimmers at Haridwar and Rishikesh to M/s Ashwath Infratech in December 2016 with instructions to deploy the skimmers by 01.01.2017. Respective Urban Local Bodies are responsible for coordinating with the contractor. One skimmer each at Rishikesh and Haridwar were deployed on 1 May 2017. Presently, the skimmer deployed at Rishikesh has been shifted to Delhi due to high velocity of water at Rishikesh. In Haridwar, trial run is in progress. Further, in Haridwar,

		Municipal Commissioner has nominated nodal officer along with seven officials for daily verification of the skimmer. Designated place for disposal of collected waste has also been identified. A tripartite agreement between SPMG, concerned ULB and the Contractor is yet to be executed.
21	Number of skimmers deployed in all the towns on the banks of the River Ganga with effect from December 2016.	Two skimmers one each at Haridwar and Rishikesh respectively were deployed in May 2017. However, one skimmer which was deployed in Rishikesh has since been shifted to Delhi on the instructions of NMCG on 25 May 2017.
22	Whether the Municipal Bodies situated on the banks of the River Ganga have a framework for disposal of garbage on the scientific lines?	The State's Solid Waste Management (SWM) Action Plan (2016-21) has been prepared in 2015, which is now being revised as per SWM Rules, 2016 to cover 92 ULBs. With the support of Deutsche Gesellschaft Für Internationale Zusammenarbeit (GIZ) GmbH, German Technical Cooperation Programme, a City Sanitation Plan (CSP) is being prepared for 12 towns out of above 92 towns. The CSP will cover all the urban liquid and solid waste, and provide complete solution for generation, collection, treatment and disposal of waste. 12 of the 15 priority towns are being covered under this programme.
23	As per the provision of the Municipal Solid Wastes (Management & Handling) Rules, 2000, have the Waste to Energy Plants been set up by the Municipal Bodies for disposal of garbage within six months from the date of court judgement (i.e. 2 December 2016).	Waste to Energy Project of 550 MT capacity has been proposed at Roorkee. Project is under technical review. This proposed plant will collect waste from 18 ULBs i.e. Roorkee, Manglore, Landura, Bhagwanpur, Jhabrera, Laksar, Haridwar, BHEL Haridwar, Shivalik Nagar, Rishikesh, Muni kiReti, Swargashram, Narendra Nagar, Doiwala, Dehradun, Herbertpur, Vikasnagar, Mussoorie (Related to State Infrastructure and Industrial Development Corporation of Uttarakhand).
24	Whether any directions have been issued by the State Government for prohibiting operation of new water based industries like Sugarcane, Pulp/ Paper Industries, Distilleries, Textile Industries, etc. within a radius of two kilometres from the banks of the River Ganga. Directions have been issued to concerned District	Government of Uttarakhand vide its letter no. 172(4)/x-3-17-15(10)/2017 dated 7 March 2017, has prohibited setting up of new water based industries like Sugarcane, Pulp/ Paper Industries, Distilleries, Textile Industries, etc. within a radius of two kilometres from the banks of the River Ganga. Directions have been issued to concerned District

	Distilleries, Textile Industries etc. within a radius of two kilometres from the banks of the River Ganga with effect from December 2016?	Magistrates for neither accepting such applications nor permitting to set up such industries. Further, UEPPCB has also been directed not to issue Consolidated Consent and Authorisation (CCA) to such industries.
25	Whether new commercial establishments (employing more than 50 persons), hotels (having capacity of more than 50 guests), Ashrams (housing more than 100 devotees) operating have set up Effluent Treatment Plant or Sewage Treatment Plant?	Government of Uttarakhand vide letter no. 172(4)/X-3-17-15(10)/2017 dated 7 March 2017 has issued directions to the Department of Industry, State Infrastructure and Industrial Development Corporation of Uttarakhand (SIIDCUL), District Magistrate, UEPPCB and State Level Environment Impact Assessment Authority (SEIAA) to comply with the Court directions and not to permit or issue CCA under Water Act and environmental clearance respectively in such cases without ensuring compliance with the Hon'ble High Court orders.
26	Whether State Government has taken action on the new commercial establishments, Hotels and Ashrams which do not have ETP or STP?	Government of Uttarakhand has issued directions to Industry Department/SIDCUL/UEPPCB vide No. 172 (4) /x-3-17-15 (10)/2017 dated 07.03.2017 to comply with the directions.
27	Have any directions to construct sufficient number of toilets, based on the technology employed in the toilets used in aeroplanes been issued by the Municipal Corporation, Haridwar as well as the Municipal Council, Rishikesh to maintain hygiene in the religious places?	During the scrutiny of records at Haridwar, it was noticed that 53 toilet complexes and 12 bio digester complexes have been proposed under BHEL Corporate Social Responsibility Funds out of which six bio digester complex are in working condition. Construction of five complexes has been completed and one location is yet to be identified.
28	Whether "River Conservation Zones" (where no construction activity should be permitted on the banks of	Notification no. 381/11-2017/06(65)/2016 dated 28.02.2017 and notification no. 382/11-2017/06(66)/2016 dated 28.02.2017 have been issued under the Uttarakhand Flood Plain Zoning Act, 2012. Notifications have been issued notifying 60 Km reach

	the River Ganga from the highest flood plain by private as well as Governmental agencies) have been identified by the State Government in respect of the River Ganga?	of the River Ganga in Uttarkashi and Haridwar District as River Conservation Zones and no objections have been invited from all concerned. Works in this flood plain zoning area have been categorized as prohibited and restricted.
29	Have any declarations been issued by the State Government prohibiting construction activity in "River Conservation Zones"?	Notification no. 381/11-2017/06(65)/2016, dated 28.02.2017 and notification no. 382/11-2017/06(66)/2016 dated 28.02.2017 have been issued under the Uttarakhand Flood Plain Zoning Act, 2012. Any construction Works in the notified flood plain zone have been categorized as prohibited and restricted.
30	Whether the Inter-State Council (ISC) has been established?	The constitution of ISC is under progress.
31	Details of the meeting of the ISC. Whether the ISC has made any recommendations to the Central Government? If yes, details of such recommendations along with the date when these were made.	
32	What measures have been taken by the Central Government on the basis of the recommendations made by the Inter-State Council to restore the River Ganga?	
33	Follow up by the ISC on the action taken on these recommendations and present status thereof.	
34	Whether fresh DPR for afforestation of the basin and banks of the River	
		DPR prepared by FRI was approved by NMCG in March 2016. The observations in this regard are included in Chapter 6. FRI informed (February 2017) the State

	Ganga and its tributaries have been prepared by Forest Research Institute (FRI) and submitted to NMCG?	Government that the proposed DPR was envisioned to be implemented initially for five years and which could be extended for another five years, as per requirement and availability of resources.
35	Has the MoWR, RD&GR/ NMCG framed any laws exclusively for the River Ganga in view of the Court Judgement?	No



9
Chapter

9.1 Introduction

Under NGRBA Framework, NMCG and SPMGs have pivotal role of monitoring and evaluation of programmes. Besides, it also envisages role of EAs, ULBs and third party monitoring of projects.

Further, other bodies have been created at the Central level to coordinate amongst the Ministries, Departments and State Governments concerned, monitor the implementation process, address bottlenecks, suggest and take such decisions as may be necessary to ensure speedy implementation etc.

The present Chapter deals with audit findings relating to institutional mechanism for monitoring and evaluation put in place by the MoWR, RD&GR and NMCG. The audit findings relating to these aspects are given in the paras below.

9.2 Institutional mechanism for monitoring and evaluation

There are various bodies and committees such as Governing Body, High Level Task Force, Empowered Task Force, Governing Council, Empowered Steering Committee and Executive Committee to monitor and evaluate programmes of Ganga Rejuvenation. These bodies/committees have been created under NGRBA framework, Societies Act and by the orders of the Government of India. Various bodies have been reconstituted or dissolved by the River Ganga (Rejuvenation, Protection and Management) Authority Order (October 2016).

9.2.1 Governing Body

As per NMCGs Bye-Laws (July 2011), meeting of the Governing Body (GB), chaired by the Union Minister (of the Controlling Ministry) was to be convened at least once in a year for approval of Annual Report and Annual Accounts. However, the GB met only once (May 2016) since inception (July 2011) and adopted the annual accounts of NMCG for the years 2011-12 to 2013-14. Therefore, the GB did not execute its functions in accordance with the Bye-Laws.

9.2.2 High Level Task Force

A High Level Task Force¹⁰¹ (HLTF) was constituted (February 2015) to facilitate interaction among Ministries/Departments and State Governments and to ensure effective cooperation for achieving the objective of clean Ganga. It is chaired by the Cabinet Secretary and has the Secretary of Department of Expenditure, Secretaries of nine¹⁰² Ministries, Chief Secretaries of five States¹⁰³ and Joint Secretary to the Prime Minister as members. Mission Director, NMCG acts as the Member Secretary.

The role of HLTF are as follows:

- a. To ensure that the concerned Ministries/ Departments prepare an action plan for Ganga Rejuvenation;
- b. To ensure that a robust monitoring mechanism is put in place by MoWR,RD&GR for implementation of the action plans;
- c. To facilitate coordination between Ministries/Departments and State Governments for timely implementation of action plans.

We observed that since the constitution of HLTF, six meetings had been organised between 13 February 2015 and 12 January 2017.

Despite the meetings held at regular intervals, HLTF could not ensure that the action plans were prepared by all the SPMGs/ NMCG. Ganga River Basin Management Plan has not been finalized by NMCG as detailed in paras 3.2 and 3.3.

Further, there were persistent shortfall in staff at NMCG and direction of capacity augmentation in NMCG by HLTF (December 2015) is yet to be complied. Consequently, DPRs were pending and approved after significant delays.

9.2.3 Empowered Task Force

An Empowered Task Force (ETF) on the River Ganga¹⁰⁴ was constituted (October 2016) consisting of the Union Minister, MoWR,RD&GR as Chairman, Union Minister for State, MoWR,RD&GR as Vice Chairperson, Secretaries of Government of India, Chief Secretaries of States as members and Director General of NMCG as the Member Secretary. The role of ETF is to coordinate amongst the Ministries/Departments and State Governments concerned, monitor the implementation process, address bottlenecks, suggest and take such decisions as may be necessary to ensure speedy implementation etc. The ETF was to meet at least once every three months or more as it may deem necessary.

¹⁰¹ The task force has been constituted by Cabinet Secretariat vide its office memorandum dated 06 February 2015.

¹⁰² Department of Expenditure; Ministries of Water Resources, River Development & Ganga Rejuvenation; Urban Development; Environment Forests & Climate Change; Drinking Water & Sanitation; Rural Development; Shipping; Tourism; Agriculture and Power

¹⁰³ Bihar, Jharkhand, Uttarakhand, Uttar Pradesh and West Bengal

¹⁰⁴ As per MoWR,RD&GR notification of October 2016

However, the records revealed that since the constitution of ETF, one meeting (February 2017) was held. The ETF raised the concern for non-constitution of State Ganga Committees (SGCs), pollution in the River Ganga and Yamuna due to less quantity of water and sewerage water pollution, etc.

However, SGCs have not been constituted in Bihar and West Bengal. This apart, the concerns raised by ETF in its meeting have not been addressed so far.

9.2.4 Governing Council

The Governing Council (GC) was constituted under the Bye-Laws (July 2011) of NMCG society as an Executive Council vested with the overall management of the society consisting of Secretary of the Ministry (the Controlling Ministry) as Chairman. As per Memorandum of Association, the GC has full control over management of the affairs and programmes of NMCG. The meeting of the GC was to be convened at least once in four months. The GC was reconstituted vide notification of October 2016 with DG, NMCG as ex-officio Chairman. However, the records revealed that the GC met four times only during 2014-17 (as of 31 March 2017) instead of meeting three times in a year. There was shortfall of five meetings.

9.2.5 Empowered Steering Committee and Executive Committee

NGRBA in December 2009 constituted an Empowered Steering Committee (ESC) with Secretary of the Ministry¹⁰⁵ as Chairperson and Secretaries of Department of Expenditure/Ministries (Urban Development, MoEF&CC and Power), Secretary Department of Science and Technology, Secretary Planning Commission, Chief Secretaries of five States, Chairman CPCB & CWC, Additional Secretary and Financial Advisor of the Ministry as members and Mission Director NGRBA was to function as Member Secretary. The ESC was to consider, appraise and sanction project proposals related to activities of NGRBA. The ESC was to meet as necessary and at least once in three months. During 2014-2016 ESC met nine times upto September 2016. The ESC was dissolved after the October 2016 notification and a new committee i.e. Executive Committee (EC) came into force. EC is a two-tier management structure comprising of GC and Executive Committee (EC) with DG NMCG as ex-officio Chairperson. The EC was to report to GC at least once in three months. The frequency of meeting of EC was not set. The EC met three times from March 2017 to May 2017.

9.3 Third party monitoring

National River Conservation Directorate (NRCD), Ministry of Environment and Forests, Government of India issued (September 2010) the guidelines for strengthening the monitoring and inspection arrangements under NGRBA and directed that to review and monitor the performance of projects funded under NGRBA, a Third Party

¹⁰⁵ Controlling Ministry

Inspection (TPI) was required to be done on the basis of detailed on site review and examination of appropriate documents through the entire lifecycle of the project. As per guideline, the TPI would strengthen the State Government agencies in maintenance of the desired quality of work and would cover all four stages of the life cycle of a project, namely pre-construction, construction, commissioning and trial run and post construction. Our observations on TPI by the States are discussed below:

9.3.1 Jharkhand: Government of Jharkhand nominated (December 2016) Indian Institute of Technology, Kharagpur as an agency for the purpose of TPI in respect of all projects. We noticed that appointment of agency for TPI for Sahibganj Sewerage network and STP project was made after execution (March 2016) of agreement for the project with the contractor and TPI of pre-construction stage was not done.

9.3.2 Uttar Pradesh: It was found that out of 20 infrastructure projects, nominations of consultants for TPI were done between December 2015 and February 2017 by SPMG only for 12 projects. However, TPI Reports were not found on records.

9.3.3 Haryana: As per DPR, 'online monitoring system' was to be set up at River Yamuna at Panipat and Sonipat. The system was not set up and no expenditure was incurred (March 2017).

Public Health Engineering Department (PHED), Haryana stated (July 2017) that online monitoring system has been installed at STPs. The reply is not acceptable, as the online monitoring system was to be set-up at river Yamuna and physical and financial progress upto March 2017 indicated that the project was not set-up and no expenditure was incurred.

In case of West Bengal, TPI was not carried out.

9.4 Ganga Monitoring Centres

As per the River Ganga (Rejuvenation, Protection and Management) Authorities Order, 2016, NMCG was to identify places/ laboratories/ stations/ institutes to be called as 'River Ganga Monitoring Centre' for monitoring amongst other things, continuous flow of water and pollution levels in the River Ganga Basin.

We observed that mandate of establishment of 'Ganga Monitoring Centre' was still under conceptualization and planning phase at NMCG, as of July 2017.

NMCG replied (August 2017) that the establishment of Ganga Monitoring Centre in five riparian States of the River Ganga had been approved in fifth Executive Committee Meeting held on 2nd August 2017 at an estimated cost of ₹ 46.69 crore.

9.5 Implementation of Bhuvan Ganga Web-portal and Bhuvan Ganga App

To explore and identify possible areas of collaboration and sharing of data and knowledge, NMCG initiated a discussion (May 2014) with National Remote Sensing Centre (NRSC) and signed an MoU (June 2015) envisaging the importance of Geospatial Information System (GIS) mapping for effective abatement of pollution in the River Ganga. GIS mapping was to be helpful in planning, execution and monitoring of investment projects as well as providing platform for central repository of all data related to the Ganga. It envisaged development of Bhuvan Ganga Web-portal and Bhuvan Ganga App.

The responsibilities of NRSC and NMCG as prescribed in the MoU, along with our observations are given in Table 9.1.

Table 9.1: Responsibilities of NRSC and NMCG as per MoU and Audit observations

	Responsibilities as per MoU	Our observations
NRSC	Preparation of concept proposal documents on envisaged tasks using geo-spatial data products, tools and services	NRSC shared a concept note of space technology for Rejuvenation of Ganga River (March 2015), but detailed project proposal on concept note was not submitted to NMCG.
	Web GIS applications development and design on Bhuvan portal infrastructure to facilitate easy access, visualization	NRSC launched Bhuvan Ganga Web application, but the relevant layers and tools needed for easy access and better visualization were yet to be developed.
	Development of Bhuvan Ganga mobile app	Bhuvan Ganga mobile app launched.
	Coordination with other agencies related to creation of geo-spatial database and development of web based application	Collaboration between CPCB and NRSC was yet to be initiated and NMCG was coordinating with other agencies to collect relevant data.
	Ensuring easy data sharing between two parties and facilitation in providing the necessary support/training required for NMCG for utilization of products and tools developed by NRSC	A handholding from NRSC was required to enable NMCG for data management in Bhuvan-Ganga.
NMCG	Sharing all spatial and non-spatial data sets, currently available and to be procured during the project execution to NRSC	The data related to drain confluence and sampling points of drain, STP, industries, Ghats and crematoria, afforestation were not loaded on Bhuvan Ganga portal.

Responsibilities as per MoU		Our observations
	Acquisition of all real-time and historical water quality data acquired in the Ganga river basin by different organisations.	NMCG had shared CPCB water quality data for years 2013-15, which could be visualized on Bhuvan Ganga portal. However, real time data and other historical water quality data acquired in the Ganga river basin by different organisations was yet to be uploaded.
	Continuously support NRSC through focal Point Officers for data collection, organisation and applications development and for maintaining Bhuvan –Ganga Portal	Two officers were identified as focal point officers on behalf of NMCG.

It can be seen from Table 9.1 that implementation of Bhuvan Ganga Web-portal has been slow. We also observed that the timeline for carrying out the above responsibilities were not incorporated in the MoU. For monitoring the progress of the project, regular joint meetings were not held and there was a gap of more than 14 months in holding the first meeting after signing of MoU.

NMCG stated (May 2017) that a proper mechanism for monitoring the progress of project activities would be established. Joint review meeting would be conducted on monthly basis, to expedite the implementation of Bhuvan Ganga web-portal.

9.6 Non-utilisation of information shared by general public through Bhuvan Ganga App

Bhuvan Ganga App is Indian Space Research Organisation's mobile application developed to enable public to collect and report information on various pollution sources and provides a platform for crowd sourcing to monitor pollution in the River Ganga and enable decision makers at NMCG to prioritize interventions. The app has provision to collect information regarding Urban Sewage, Semi-urban/Rural Sewage, Natural Drains/Nallas, Industrial Waste Water, Solid Waste Disposal or any other pollution source, which is then sent to Bhuvan Ganga web server. Officials of NMCG can see the data in near real time, on Bhuvan Geo-portal. The collected field information could be visualized by public after due moderation by NMCG.

We found that NMCG had not developed any mechanism to take appropriate remedial action on the information shared by public.

NMCG replied (May 2017) that a proposal on establishment of such mechanism was under preparation. This indicates that the application was ineffective as NMCG was not taking any follow up action on information received from the public, which also hindered the public participation in Ganga rejuvenation programme.

9.7 Projects for Monitoring and Evaluation

NMCG sanctioned (between March 2011 and June 2013) three projects to Central Pollution Control Board (CPCB), for total cost of ₹ 198.48 crore against which expenditure of only ₹ 14.77 crore (seven *per cent*) was incurred by CPCB as of March 2017, as detailed in Table 9.2.

Table 9.2: Project wise sanctioned cost and utilisation for monitoring and evaluation

(₹ in crore)

Agency	Projects	Sanctioned cost	Utilisation (by March 2017)	Percentage utilisation
Central Pollution Control Board, New Delhi	1. Pollution, Inventorization, Assessment and Surveillance on Ganga river	34.77	9.03	26
	2. Strengthening of Environmental Regulator	69.26	1.87	3
	3. Water Quality Monitoring System for River Ganga	94.45	3.87	4
Total	3 projects	198.48	14.77	7

The audit findings relating to projects sanctioned for monitoring and evaluation are discussed in succeeding paragraphs.

9.7.1 Project entitled - 'Pollution, Inventorization, Assessment and Surveillance on Ganga river'

In order to strengthen pollution inventorization, assessment and surveillance programme, National River Conservation Directorate (NRCD) approved (March 2011) a project namely – "Pollution, Inventorization, Assessment and Surveillance on Ganga river" to Central Pollution Control Board (CPCB) with a total cost of ₹ 34.77 crore to be fully financed by NRCD. The total duration of the project was 60 months. However, project duration was extended (June 2016) upto June 2017, without any cost escalation. A total expenditure of ₹ 9.03 crore (26 *per cent*) was incurred by CPCB, as of March 2017.

We noticed the following deficiencies:

- Against 97 posts sanctioned for Research Associate/ Senior Research Fellow/ Junior Research Fellow/ Data Entry Operator/ Personal Secretary to be engaged on contractual basis, only 31 posts¹⁰⁶ could be filled by CPCB, as of March 2017.

NMCG (May 2017) stated that a large number of applications were received by CPCB and selection process took time. However, the fact remained that even after lapse of

¹⁰⁶ Research Associate/ Senior Research Fellow/ Data Entry Operator

six years of sanction of the project, CPCB/NMCG failed to engage the requisite manpower.

- The compliance verifications of 1,109 identified¹⁰⁷ Grossly Polluting Industries (GPIs) were to be conducted once in a year by CPCB, for the parameters stipulated through environmental clearances and consent orders. However, as against 5,016 compliance verifications¹⁰⁸ required to be conducted in respect of 988 GPIs, only 3,163 compliance verifications were conducted by CPCB during 2011-17. Further, compliance of 121 GPIs, which were identified during 2015-16 were not verified by CPCB, as of March 2017.
- In order to improve adequacy assessment of Common Effluent Treatment Plants (CETPs) responsible for river water quality, CPCB had to carry out the adequacy assessment of six identified CETPs on quarterly basis for the parameters stipulated in consent orders. We noticed that as against the 120 mandatory adequacy assessments¹⁰⁹ required to be conducted in respect of these six CETPs, during the years 2012-13 to 2016-17, only 17 were carried out as of August 2017.
- CPCB was required to evaluate the performance of 67 STPs on regular basis, a half-yearly and later on quarterly¹¹⁰ for performance evaluation of STPs fixed under the project. However, CPCB did not conduct the performance evaluation of STPs as per prescribed frequency. Further, as against 560 mandatory inspections to be carried out for performance evaluation of the 67 STPs, only 177 were carried out as of August 2017. This apart, performance evaluation of 15 STPs was not done at all by CPCB, as of August 2017.

NMCG, while accepting (June/ August 2017) the facts, stated that due to manpower crunch the regular inspection of GPIs, CETPs and STPs could not be conducted as per prescribed frequency. However, CPCB could not engage the full manpower despite having funds and sufficient time.

9.7.2 Project entitled - 'Strengthening of Environmental Regulator'

NMCG sanctioned (June 2013) a project namely 'Strengthening of Environmental Regulator' to CPCB for ₹ 69.26 crore under the Institutional Development component of the World Bank assisted National Ganga River Basin Project to strengthen water quality monitoring network both in terms of locations and frequency. The duration of the project was of eight years. CPCB incurred an expenditure of ₹ 1.87 crore under the project (as of 31 March 2017), which is only five *per cent* of the expenditure of ₹ 40.79 crore proposed to be incurred by CPCB on proposed activities till March 2017.

¹⁰⁷ 760 GPIs identified as of March 2011. Further, 349 new industries were also identified and inventorised as GPIs during 2015-16

¹⁰⁸ 4,560 inspections [760 GPIs x 6 years (2011-17)] plus 456 inspections [228 GPIs x 2 years (2015-16)]

¹⁰⁹ (four assessments per year) x (six CETPs) x (five years)

¹¹⁰ During the period June 2016 to June 2017

Out of the total expenditure, 82 per cent of the expenditure was mainly incurred on salary and input cost of CPCB staff.

We found the following deficiencies:

- In order to increase the frequency of water quality monitoring of the River Ganga, CPCB was to increase the numbers of water quality monitoring locations by amalgamation of both CPCB's (57) and NRCD's (77) locations on the Ganga. Though sampling and analysis of water quality on all these 134 locations were to be started from November¹¹¹ 2013, CPCB could not take over the 77 locations of NRCD, as of February 2017. As a result, manual water quality monitoring at 77 identified locations were not conducted at all, by CPCB (till March 2017). Even at 57 locations under its control, CPCB did not conduct monitoring as per prescribed frequency for all parameters¹¹².

NMCG accepted (August 2017) the fact that due to insufficient resource and infrastructure facility available with SPCBs, the manual water quality monitoring at 57 locations could not be carried out as per prescribed frequency. It further stated that 77 identified locations of NRCD were being monitored for the period by the respective identified institutes¹¹³.

The reply of NMCG is not tenable as more than four years have lapsed since receipt of the detailed project reports from these five¹¹⁴ SPCBs, yet their proposal could not be finalised by NMCG as of March 2017. This apart, earlier monitoring of 77 locations of NRCD was being carried out by these institutes. However, there were basic differences in the parameters and frequency of water quality monitoring done by CPCB and these institutes. To overcome these differences, the locations of NRCD were to be taken over by CPCB.

- Total 44¹¹⁵ Scientific/ Technical/ Administrative posts were sanctioned under the project. These posts were to be filled up by CPCB within first year of the project. However, we noticed that only 15¹¹⁶ posts could be filled by CPCB by March 2017.

NMCG while accepting the facts (May/ August 2017) stated that a large number of applications were received by CPCB and selection process took time. However, the fact remained that CPCB/ NMCG failed to engage proposed staff to requisite capacity.

¹¹¹ As per DPR, the project activities were to be started from the sixth month from the date of sanctioning of the project. As the project was sanctioned in June 2013, so it should have been undertaken with effect from November 2013

¹¹² The five parameters for monitoring by CPCB are Core Parameters, Bio-Monitoring, General Parameters, Trace Metals and Pesticides

¹¹³ PCRI-BHEL Haridwar Uttarakhand, IIT-Kanpur Uttar Pradesh, Patna University Bihar, Kalyani University West Bengal

¹¹⁴ Bihar, Jharkhand, Uttarakhand, Uttar Pradesh and West Bengal

¹¹⁵ Scientist (22)/ Technical (2), Administrative (13), Support staff (4) and consultants (3)

¹¹⁶ 13 scientific, one Office Manager and one Consultant

- In order to organize the database generated out of water quality monitoring of the River Ganga and its translation into information, CPCB was required to procure the latest Information Technology Hardware/ Software¹¹⁷. However, we found that as of 31 March 2017, CPCB failed to procure these specialised hardware/ software.

This apart, sufficient fund of ₹ 4.65 crore was earmarked for renovation of its Bio-monitoring and instrumentation Laboratories at Delhi and upgradation of its laboratories at Zonal Offices (Lucknow and Kolkata), yet as of 31 March 2017, CPCB could complete the work of renovation of its Bio-monitoring lab at Delhi only.

CPCB accepted (May 2017) the facts.

- In order to develop the confidence of sampling and analysis conducted by SPCBs and CPCB, accreditation of laboratories of CPCB's Zonal Offices at Kolkata and Lucknow and State PCBs of Uttar Pradesh, Uttarakhand, Bihar, West Bengal were to be done through National Accreditation Board for Testing and Calibration Laboratories by February 2014. However, we found that only laboratories of Zonal Offices of CPCB situated at Lucknow and Kolkata had been accredited as of June 2017.

While accepting the facts, NMCG stated (May 2017) that due to constraints of resources and facility this aspect could not be implemented.

9.7.3 Project entitled - 'Water Quality Monitoring System for River Ganga'

NMCG sanctioned a project 'Water Quality Monitoring System for River Ganga' to CPCB in June 2013 at a total cost of ₹ 94.45 crore, with the objective of establishing a dense network of Water Quality Monitoring (WQM) Network and its strengthening, having duration of seven years (84 months). CPCB had to undertake a comprehensive design of the water quality monitoring network, which included continuous WQM of the River Ganga with regular field based monitoring, information systems, and alternative institutional approaches.

CPCB incurred a total expenditure of ₹ 3.87 crore only (till March 2017), which was mainly on input cost of its staff (₹ 3.71 crore) and on hiring of taxi and salary to contractual staff etc. (₹ 16 lakh). We noticed the following deficiencies:

- CPCB identified 113 sites, along the River Ganga, for continuous receipt of water quality monitoring on real-time basis with the help of Automatic Water Quality Monitoring System (AWQMS). For this, CPCB opted the model of data purchase. Under this data purchase concept, CPCB was to select a bidder (Data Service Provider), who had to bear the cost of AWQMS and its installation, operation and maintenance. The data generated out of these AWQMS were to be purchased by CPCB, at agreed rates. The target date of installation, testing and commissioning of all 113 AWQMS

¹¹⁷ **Hardware** : GIS server, Plotter, GPS tracking system. **Specialized software** : Arc Info 10, Google professional version (4 sets).

was March 2013. However, we noticed that as of March 2017, only 36 AWQMS could be installed. The main reasons for non- installation and commissioning of all AWQMS within the prescribed time were attributed to

- a. Delay in initiation of action for obtaining the permission/ No Objection Certificates (NOCs) from the owner of sites viz. State Government/ Bodies/ Agency. We noticed that CPCB initiated the action for obtaining of NOCs in October 2014. As a result, NOCs of only 90 sites could be obtained by CPCB, as of March 2017.
 - b. Delay in selection of Data Service Provider, as CPCB selected the Data Service Provider in July 2016¹¹⁸, with a total cost of ₹ 26.55 crore for setting up of AWQMS at 36 identified sites for five years. As reported by CPCB, these 36 AWQMS were set up in the month of March 2017.
- CPCB was to institute a consultancy verification of proper measurement of various water quality parameters and associate follow-on procedures to ensure that the data provided by Data Service Provider is representative and accurate. However, CPCB could not appoint the Data Qualification Consultant, as the price quoted by the lowest bidder for this task was much higher than the sanctioned cost. Hence, CPCB decided to undertake the data validation as its own in-house activities, by hiring required manpower (December 2016) for which a proposal was sent to NMCG (February 2017).

We noticed that although Data Service Provider had started the supply of data generated from 36 AWQMS (from 11 March 2017), yet the approval of NMCG to the proposal of CPCB was awaited (March 2017).

- CPCB was to initiate community monitoring programme every year, under which training/ workshops were to be organised for citizen groups, like schools, cultural and religious organizations and Non-Governmental Organisations. Further, portable water quality analysis kits were also to be distributed. However, we noticed that CPCB did not organise any Training/ Workshop for citizen groups. Further, 100 portable water monitoring kits were procured (January 2016) with an expenditure of ₹ 2.50 lakh, yet the same could not be distributed among citizen groups (as of 31 March 2017).

NMCG while accepting the facts stated (June/ August 2017) that due to lack of experience and uniqueness of the project model the project progress was slow.

Hence, despite spending ₹ 3.87 crore, WQM system could not be strengthened as envisaged in the project even after lapse of four years.

¹¹⁸ Date of signing of Agreement with Data Service Provider i.e. M/s s::CAN Messtechnik Ges. m.b.H. Austria

9.8 Water Quality Monitoring

As per the River Ganga (Rejuvenation, Protection and Management) Authorities Order 2016, the restoration and maintenance of the physical, chemical and biological quality of the waters of the River Ganga shall be achieved in a time bound manner.

In India, water quality assessments are carried out on the basis of parameters developed in the year 1978 by Central Pollution Control Board (CPCB), as shown in Table 9.3.

Table 9.3: Parameters for water quality assessment developed by CPCB

Designated best use	Quality Class	Primary Water Quality Criteria
Drinking water source without conventional treatment but with chlorination	A	<ul style="list-style-type: none"> ▪ Total Coliform¹¹⁹ organisms (MPN*/100 ml) shall be 50 or less ▪ pH between 6.5 and 8.5 ▪ Dissolved Oxygen¹²⁰ 6 mg/l or more, and ▪ Biochemical Oxygen Demand¹²¹ 2 mg/l or less
Outdoor bathing (organized)	B	<ul style="list-style-type: none"> ▪ Total coliform organisms(MPN/100 ml) shall be 500 or less ▪ pH between 6.5 and 8.5 ▪ Dissolved Oxygen 5 mg/l or more, and ▪ Biochemical Oxygen Demand 3 mg/l or less
Drinking water source with conventional treatment	C	<ul style="list-style-type: none"> ▪ Total coliform organisms(MPN/100 ml) shall be 5000 or less ▪ pH between 6 and 9 ▪ Dissolved Oxygen 4 mg/l or more, and ▪ Biochemical Oxygen Demand 3 mg/l or less
Propagation of wildlife and fisheries	D	<ul style="list-style-type: none"> ▪ pH between 6.5 and 8.5 ▪ Dissolved Oxygen 4 mg/l or more, and ▪ Free ammonia (as N) 1.2 mg/l or less

¹¹⁹ Coliforms are a broad class of bacteria found in our environment, including the faeces of man and other warm-blooded animals. The presence of coliform bacteria in drinking water may indicate a possible presence of harmful, disease-causing organisms.

¹²⁰ Dissolved Oxygen (DO) refers to the level of free, non-compound oxygen present in water or other liquids. It is an important parameter in assessing water quality because of its influence on the organisms living within a body of water.

¹²¹ Biochemical Oxygen Demand (BOD), also called biological oxygen demand) is the amount of dissolved oxygen needed (i.e., demanded) by aerobic biological organisms to break down organic material present in a given water sample at certain temperature over a specific time period.

Irrigation, industrial cooling, and controlled disposal	E	<ul style="list-style-type: none"> ▪ pH between 6.0 and 8.5 ▪ Electrical conductivity less than 2,250 micro mhos/cm, ▪ Sodium absorption Ratio less than 26, and Boron less than 2 mg/l.
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MPN: Most Probable Number; mg : Milligram; l : litre; micro mhos : a unit for electrical conductivity; pH : a numeric scale used to specify the acidity or basicity of an aqueous solution, where pure water is neutral, at pH 7

Source: CPCB

Biochemical Oxygen Demand (BOD), Dissolved Oxygen (DO) and Total Coliform (TC), normally indicate the biological health of a river.

9.8.1 Comparative study of water quality in selected towns during 2012-13 and 2016-17

On the basis of data obtained from Central Pollution Control Board/ Uttar Pradesh PCB/ Kolkata Metropolitan Water & Sanitation Authority/ Kolkata Metropolitan Development Authority, we studied the water quality trends using parameters prescribed for Class 'B': Outdoor bathing of the River Ganga in ten important towns of four States¹²² for the year 2012-13 and 2016-17, details of which is given in Table 9.4.

Table 9.4: Comparative study of water quality during 2012-13 and 2016-17

State	Town	BOD				DO				TC			
		Criteria: 3 mg /l or less				Criteria: 5 mg /l or more				Criteria: 500 MPN / 100 ml or less			
		2012-13		2016-17		2012-13		2016-17		2012-13		2016-17	
		Mean (Upstream)	Mean (Downstream)	Mean (Upstream)	Mean (Downstream)	Mean (Upstream)	Mean (Downstream)	Mean (Upstream)	Mean (Downstream)	Mean (Upstream)	Mean (Downstream)	Mean (Upstream)	Mean (Downstream)
Uttarakhand	Rishikesh to Haridwar	1.30*	5.30**	1.00*	1.10**	8.40*	7.20**	10.30*	9.30**	82*	1445**	28*	223**
Uttar Pradesh	Kanpur	4.23	8.17	3.31	6.03	8.73	6.63	8.10	6.20	16592	102333	4867	70167
	Allahabad	5.10	4.94	3.90	4.09	8.03	7.68	8.03	8.06	9917	13417	39750	43083
	Varanasi	3.11	5.13	3.13	5.44	8.02	7.48	8.41	6.93	8767	43500	3000	46167

¹²² Uttarakhand, Uttar Pradesh, Bihar and West Bengal

Bihar	Patna	2.60	2.70	2.70	2.70	8.30	8.20	7.50	7.40	5600	14909	3630	3723
	Munger	2.40	2.50	3.20	3.20	8.10	8.06	7.90	7.70	3960	4166	3777	4535
	Bhagalpur	2.60	2.60	3.00	2.90	7.90	7.80	7.90	7.70	5560	9500	4228	4371
West Bengal	Gayespur	2.47	1.85	2.31	3.08	7.64	6.93	6.90	6.79	42266	32116	140000	167500
	Budge Budge	3.29	3.09	3.46	2.35	5.85	5.87	5.29	4.88	333750	71000	88500	53833

* Rishikesh; ** Haridwar

It can be seen from Table 9.4 that the quality of water between Rishikesh to Haridwar in Uttarakhand was fit for outdoor bathing as DO, BOD and TC level were within the prescribed water quality criteria under Class-B during 2012-13 and 2016-17¹²³. In six cities¹²⁴ of Uttar Pradesh, Bihar and West Bengal, DO declined from 2012-13 levels. BOD was higher than the prescribed limit in the three towns (Kanpur, Allahabad and Varanasi) of Uttar Pradesh. During 2016-17, TC levels in all the cities of Uttar Pradesh, Bihar and West Bengal was very high ranging between six¹²⁵ to 334¹²⁶ times higher than the prescribed levels. Thus, water quality in eight out of 10 towns (except Rishikesh and Haridwar) did not meet the standards for Class 'B' or outdoor bathing class on all the parameters.

Parameters for water quality listed under Table 9.3 were evolved in the year 1978 by CPCB. In the River Ganga (Rejuvenation, Protection and Management) Authorities Order 2016, it has been brought out that the restoration and maintenance of the chemical, physical and biological quality of the water of the River Ganga shall be maintained in a time bound manner.

9.9 Conclusion

Meetings of various bodies/committees created under NGRBA framework, Societies Act and order of Government of India to monitor and evaluate programmes have not been held as per the prescribed frequencies. There was slow implementation of projects sanctioned to CPCB for water quality monitoring, strengthening of regulators and inventorization, etc. Establishment of Ganga Monitoring Centres was still in conceptual and planning stage. The use of Remote sensing data and mobile applications were at nascent stage. Concerns of audit about non preparation of action plan, non-finalisation of GRBMP, pendency of DPRs, persistent shortfalls in human resources, slow progress of projects, etc. as described in Chapters 2, 3, 4, and 5 reflect that monitoring and evaluating mechanism in place has been far from effective.

¹²³ For the intervening period data of water quality was not available

¹²⁴ Kanpur, Varanasi (downstream), Patna, Munger, Gayespur and Budge Budge

¹²⁵ Patna

¹²⁶ Gayespur

9.10 Recommendations

We recommend that

- i. NMCG may have regular meetings for monitoring of Ganga Rejuvenation Programmes, make recommendations and actionable points and follow up scrupulously.
- ii. NMCG may make all efforts to expedite the work already assigned to CPCB on monitoring of pollution, inventorization of crucial parameters of pollution, surveillance on the River Ganga and strengthening of regulators.
- iii. NMCG may expedite the setting up of Ganga Monitoring Centres as envisaged in River Ganga (Rejuvenation, Protection and Management) Authorities Order (2016).
- iv. NMCG may use geo-spatial data of National Remote Sensing Centre for better monitoring.

New Delhi
Dated: 18 September 2017



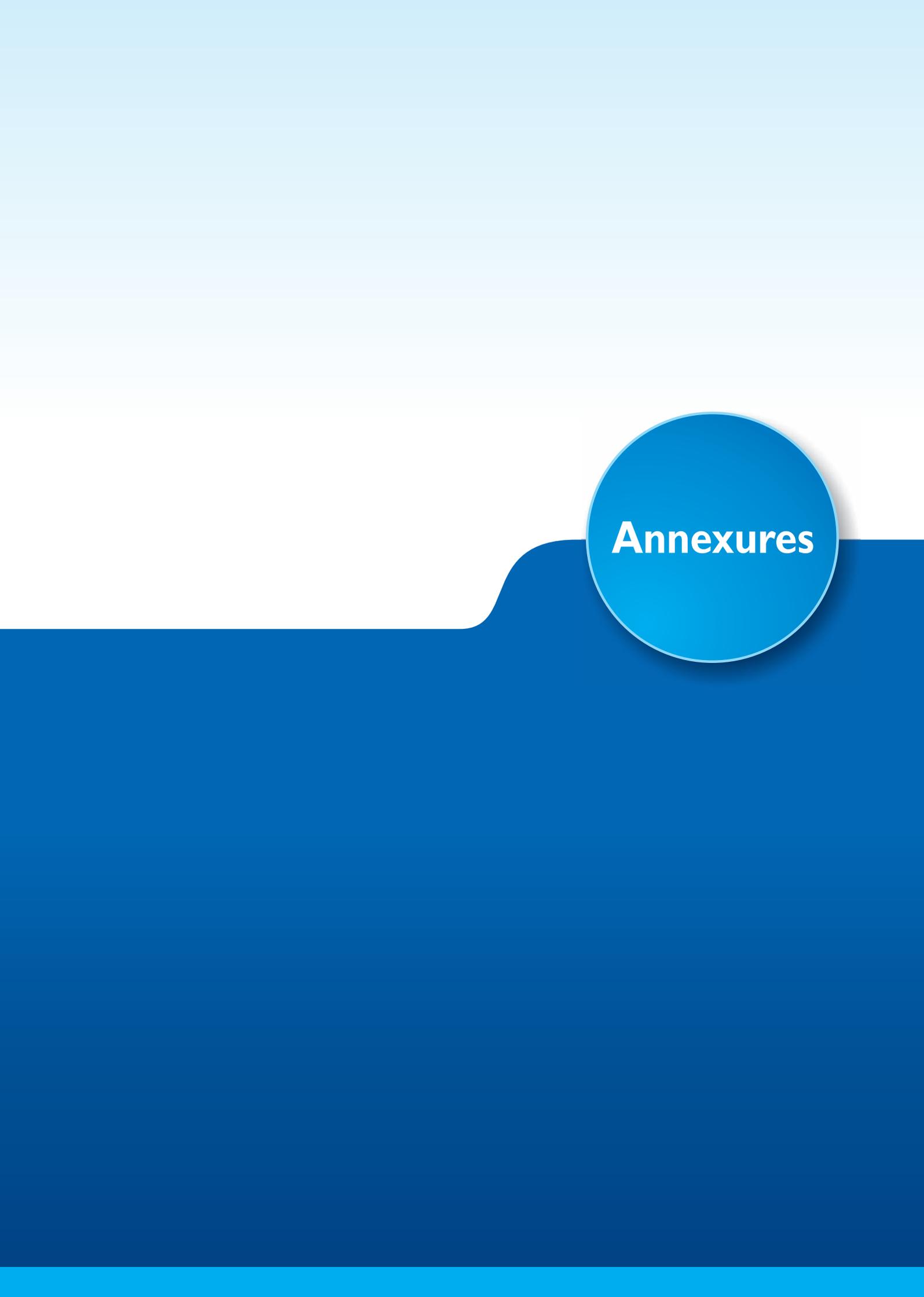
(MANISH KUMAR)
Principal Director of Audit
Scientific Departments

Countersigned

New Delhi
Dated: 19 September 2017



(SHASHI KANT SHARMA)
Comptroller and Auditor General of India



Annexures

Annexures

Annexure 1.1

(Paragraph reference 8.3, Table 8.1)

Present Status of 180 Industries/Units to whom Show Cause Notices were issued during 2015-16

Name and location of the Defaulting Industry
1. M/s Himalaya Grits, Haldwani, Nainital
2. M/s Hotel Ganga Beach Resort & Hotel, Laxmanjhula, Rishikesh, Dehradun
3. M/s Shri Radhey Enterprises, IP-42, Raipur Ind. Estate, Bhagwanpur, Haridwar
4. M/s J.D. Talc, Motinagar, Haldwani, Nainital
5. M/s Hotel Invitation, Rampur Chungi, Roorkee, Haridwar
6. M/s Hotel All Season, Manglore Road, Roorkee, Haridwar
7. M/s Hotel Pacific Garden, Manglore Road, Roorkee, Haridwar
8. M/s Hotel Valley, Adarsh Nagar, Roorkee, Haridwar
9. M/s Sheel Chand Agro Oil Pvt. Ltd., Lalpur, US Nagar
10. M/s Cooper Pharma Ltd., Selaqui, Dehradun
11. M/s Kent Industries, Lakeshwari, Haridwar
12. M/s Suraksha Pharma, Roorkee, Haridwar
13. M/s Panchwati Nutients, Roorkee, Haridwar
14. M/s Pulse Pharmaceuticals Pvt. Ltd., Karondi, Haridwar
15. M/s Britania Industries Ltd., IIE Pantnagar, US Nagar
16. M/s Miter & Miter Engineers Pvt. Ltd., IIE Pantnagar, US Nagar
17. M/s AICA Laminates India Pvt. Ltd., IIE Pantnagar, US Nagar
18. M/s Sunmax Auto Engineering Pvt. Ltd., IIE Haridwar
19. M/s Sagar Pulp and Paper Mills Ltd., Jhabreda Road, Manglore, Haridwar
20. M/s Megic Wire (Unit-2), Salempur Ind. Estate, Roorkee, Haridwar
21. M/s Raj Rajeshwari Technofeb, Dev Bhoomi Ind. Estate, Haridwar
22. M/s Surin Automotive Pvt. Ltd., ESIPL, Sitarganj
23. M/s Parle Biscuits Pvt. Ltd., ESIPL, Sitarganj
24. M/s Gujrat Ambuja Exports Ltd., ESIPL Sitarganj, US Nagar
25. M/s Balaji Action Buildwell, ESIPL Sitarganj, US Nagar
26. M/s Uttaranchal Pulp and Paper Mills Ltd., Mendate, Manglore, Haridwar
27. M/s Sagar Pulp & Papers Mills Ltd., Manglore-Devband Rd., Manglore, Haridwar
28. M/s Galfar Engineering & Contracting Pvt. Ltd., Buchpuri, US Nagar
29. M/s Corbett Rattan, Dhikuli, Ramnagar, Nainital
30. M/s Krishna Wilderness Retreat, Dhikuli, Ramnagar, Nainital
31. M/s Myrica Resorts, Dhikuli, Ramnagar, Nainital
32. M/s Kan Whizz Hum Tum Resorts, Dhikuli, Ramnagar, Nainital
33. M/s La Parle Resorts, Dhikuli, Ramnagar, Nainital
34. M/s Corbett Tiger Den, Bel Parav, Kaladungi Road, Ramnagar, Nainital
35. M/s Corbett Aroma Havens, (Park), Dhikuli, Ramnagar, Nainital
36. M/s The Monal Nest, Dhikuli, Ramnagar, Nainital
37. M/s Jpee Drugs, IIE Haridwar
38. M/s Bolt Master India Pvt. Ltd., IIE Pantnagar, US Nagar
39. M/s Amar Polypack Pvt. Ltd., IE Haridwar
40. M/s Dixon Technology Pvt. Ltd., Selaqui, Dehradun

Name and location of the Defaulting Industry	
41.	M/s Hotel Shiva Palace, Mayapur, Haridwar
42.	M/s Sundram Fastners Ltd., IIE Pantnagar, US Nagar
43.	M/s Radhu Products, Pvt. Ltd., IIE Pantnagar, US Nagar
44.	M/s Eurasia Door devices, IIE Pant Nagar, US Nagar
45.	M/s Pankaj Gas Cylinders, IE Pant Nagar, US Nagar
46.	M/s SLG Bright Wires, IIE Pant Nagar, US Nagar
47.	M/s Piyush Industries, Saleempur, Haridwar
48.	M/s Corbett Jungle Treasure, Dhikuli, Ramnagar, Nainital
49.	M/s Country Inn, Dhikuli, Ramnagar, Nainital
50.	M/s Camp Hornbill, Kyari, Ramnagar, Nainital
51.	M/s Clarks Inn Corbett, Kyari, Ramnagar, Nainital
52.	M/s Wild Crest, Dhikuli Ramnagar, Nainital
53.	M/s Ramganga Resort, Jamaria, Almora
54.	M/s Platidum Safari Lodge, Bhakrakot, Almora
55.	M/s Jukaso Manu Maharani, Dhikuli, Ramnagar, Nainital
56.	M/s Treff Hotel, Dhikuli, Ramnagar, Nainital
57.	M/s Corbett Comfortable Resort, Ramnagar, Nainital
58.	M/s Corbett River Creek, Jhadgaon, Almora
59.	M/s Jungle Paradise Retreat, Dhikuli, Ramnagar, Nainital
60.	M/s P.M. Tools and Abrasives, Raipur Ind. Area, Bhagwanpur, Haridwar
61.	M/s Jindal Refinery Pvt. Ltd., Kashipur, US Nagar
62.	M/s Raj Deluxe, Sabzi Mandi, Vishnu Ghat, Haridwar
63.	M/s Hotel Trishul, Railway Road, Haridwar
64.	M/s Hotel Sachin International, Shraavan Nath Nagar, Haridwar
65.	M/s Monal Resort, Rudraprayag
66.	M/s Amana Metal Finishers Pvt. Ltd., Ranipur, Haridwar
67.	M/s Arham Technochem, Roorkee, Haridwar
68.	M/s International Sales Corporation, IIE Haridwar
69.	M/s Project Director, Construction and Maintenance Div. Jal Nigam, DGVR Camp. Ashutosh Nagar, Rishikesh, Dehradun
70.	M/s LRC Speciality Surfactants, Lakeshwari, Bhagwanpur, Haridwar
71.	M/s ITC (Food Division), IIE Haridwar
72.	M/s Godwin Hotel, Haripur, Dehradun
73.	M/s Hotel Dynasty, 48 Civil Line, Roorkee, Haridwar
74.	M/s Hotel Prem Dynasty, 48, Civil Lines, Roorkee, Haridwar
75.	M/s Hotel Grand President, 48 Civil Lines, Roorkee Haridwar
76.	M/s Hotel Solitare, Makhanpur, Bhagwanpur, Haridwar
77.	M/s Hotel Raj Palace, Haridwar Road, Roorkee, Haridwar
78.	M/s Hotel Suvridha & Guest House, 48 Civil Line, Roorkee, Haridwar
79.	M/s Hotel Royal Palace, 22 Civil Lines, Roorkee, Haridwar
80.	M/s Hotel Sagar & Restaurant, 19 Civil Lines, Roorkee, Haridwar
81.	M/s Hotel Maya Palace, Rampur Changi, Roorkee, Haridwar
82.	M/s Hotel Blue Saffoir, Rampur Chowk, Roorkee, Haridwar
83.	M/s Hotel Surya Farms, Manglore Road, Roorkee, Haridwar
84.	M/s Hotel Aryan, Manglore Road, Roorkee, Haridwar
85.	M/s Patanjali Ayurved Ltd., Old Ind. Area, Haridwar
86.	M/s Kotek Health Care, Roorkee, Haridwar

Name and location of the Defaulting Industry	
87.	M/s Avina Milk Products, Bahgwanpur, Haridwar
88.	M/s Roop Polymers Ltd., IIE Pantnagar
89.	M/s Metalman Micro Turners, IIE Pantnagar, US Nagar
90.	M/s Endurance Technologies Pvt. Ltd., IIE Pantnagar
91.	M/s Nipman Fastners Ind. Pvt. Ltd., Salempur Mehdood, Haridwar
92.	M/s Sagar Stone Crusher, Devrampur, Haldwani, Nainital
93.	M/s Country Club Wild Exotica, Dhikuli Ramnagar, Nainital
94.	M/s Rosewood Resort, Dhikuli, Ramnagar, Nainital
95.	M/s Shree Cement Ltd., Akbarpur, Laksar, Haridwar
96.	M/s Pyrax Polymers, Sunehra Rd. Roorkee, Haridwar
97.	M/s E-Durables, C-5 UPSIDC Selaqui, Dehradun
98.	M/s Emkay Automobiles Industry Ltd., IIE Pantnagar, US Nagar
99.	M/s Lucas TVS Ltd., IIE Pantnagar, US Nagar
100.	M/s Jim's Jungle Retreat, Dhela, Ramnagar, Nainital
101.	M/s Corbett Wild Irish Spa & Resort, Kyari, Ramnagar, Nainital
102.	M/s Hridesh Spa & Resort, Dhikuli, Ramnagar, Nainital
103.	M/s Euro Life Healthcare Pvt. Ltd., Bhagwanpur, Haridwar
104.	M/s Hotel Shiv Murti, Railway Road, Haridwar
105.	M/s Bharat Bhoomi Tourist Complex, Haridwar Road, Rishikesh, Dehradun
106.	M/s Hotel Chotiwalla, New Bypass Road, Bhupatwala, Haridwar
107.	M/s Hotel Chotiwalla, Dhudhari Chowk, Haridwar
108.	M/s Sarovarpartica, Badrinath, Chamoli
109.	M/s Krishna Cottage, Swargashram Rishikesh, Pauri
110.	M/s Jain Gramodhyog, Jaspur Khurd, Kashipur, US Nagar
111.	M/s Hotel The Amaris, Natraj Chowk, Rishikesh, Dehradun
112.	M/s Deccan Valley Housing Society, Rishikesh, Dehradun
113.	M/s Ranjana Minerals and Chemicals, Motinagar, Haldwani, Nainital
114.	M/s Guru Nanak Minerals, Motinagar, Haldwani, Nainital
115.	M/s Hotel Park Prime, Dhudhan Chowk, Haridwar
116.	M/s Kumaon Minerals, Motinagar, Haldwani
117.	M/s Raj Bags, Katiya, Kashipur, US Nagar,
118.	M/s Hotel Polaris Restaurant, 48 Civil Lines, Roorkee, Haridwar
119.	M/s Hotel President, 48, Civil Lines, Roorkee, Haridwar
120.	M/s Hotel Urvashi, Civil Line Bus Stand, Roorkee, Haridwar
121.	M/s Hotel Amber, 48, Civil Line, Roorkee, Haridwar
122.	M/s Hotel Motel Punjab, RamnagarChowk, Roorkee, Haridwar
123.	M/s Hotel Highway, Aadarsh Nagar, Haridwar Road, Roorkee, Haridwar
124.	M/s Hotel Siddharth, Ramnagar Chowk, Roorkee, Haridwar
125.	M/s Anand Lodge, 32 Civil Line, Near Nilam Talkez, Roorkee, Haridwar
126.	M/s Keshav Polymers and Traders, Roorkee, Haridwar
127.	M/s Shanti GramodhyogSansthan, Haridwar
128.	M/s Mahashakti GramodhyogSansthan, Banjerawala, Roorkee, Haridwar
129.	M/s Micro Turners, IIE Pantnagar, US Nagar
130.	M/s Windlas Auto Pvt. Ltd. (Unit-1), IIE Pantnagar, US Nagar
131.	M/s Tex Zipper, Dev Bhoomi Ind Estate, Bantakhedi, Haridwar
132.	M/s Deshmesh Rosin Company, Bhujiaghat, Nainital
133.	M/s Jindal Research Labs Ltd., Mahuakhedaganj, US Nagar

Name and location of the Defaulting Industry	
134.	M/s Bharat Construction Company, Vill. Pora, Teh. Purola, Uttarkashi
135.	M/s Shivalik Infrastructure Pvt. Ltd., Tyuni, Distt. Dehradun
136.	M/s Avanti Metal Industries, IIE Pantnagar, US Nagar
137.	M/s Corbett Country Resort, Dhikuli, Ramnagar, Nainital
138.	M/s Dharamveer, Behind Bal Kunj School, Govindpur Dadupur, Haridwar
139.	M/s Daksh Plater, Behind Bal Kunj School, Govindpur, Dadupur, Haridwar
140.	M/s Uday Palace, Peepalkoti, Chamoli
141.	M/s Rama Hotel, Srikot, Pauri Garhwal
142.	M/s Jain Poly Packaging Solution, Bahadarabad, Haridwar
143.	M/s Rachna Enterprises, Peeth Bazar, Bahadarabad, Haridwar
144.	M/s Mari Mant Hotel, Dhudhachari Chowk, Bhupatwala, Haridwar
145.	M/s Omaxe Rivera, Plot No. B- IIE, Pantnagar, US Nagar
146.	M/s Neel Metal Products Ltd., IIE, Haridwar
147.	M/s Ganga Kinare, 237, Veerbhadra Road, Rishikesh, Dehradun
148.	M/s Bharat Heavy Electricals Ltd (BHEL) Haridwar
149.	M/s Country Inn, Motichur
150.	M/s Hotel Regenta, Motichur, Dehradun
151.	M/s Hotel Divine International, 48 Civil Lines, Roorkee, Haridwar
152.	M/s Hotel Premhans, 48, Civil Lines, Roorkee, Haridwar
153.	M/s Hotel Kazri, 48 Civil Line, Roorkee, Haridwar
154.	M/s Bharat PG Guest House, Rampur Chungi, Roorkee, Haridwar
155.	M/s Anand Guest house, Ramnagar Chowk, Roorkee, Haridwar
156.	M/s Hotel Stayam Palace, Rampur Chungi, Roorkee, Haridwar
157.	M/s Hotel Godavari, Manglore Road, Roorkee, Haridwar
158.	M/s Hotel Vishal, Manglore Road, Roorkee, Haridwar
159.	M/s Hotel Prakash, 19 Civil Line, Roorkee, Haridwar
160.	M/s R.G. Buildwell Engineer Ltd., Rudraprayag
161.	M/s Pacific Estate (Apartment), Dehradun
162.	M/s Jindal ESIPL CETP (Sitarganj) Ltd. Sitarganj, US Nagar
163.	M/s Halax Health Care, Karondi, Roorkee, Haridwar
164.	M/s Roots Corporation Ltd., US Nagar
165.	M/s Surya Smelters Pvt. Ltd., Sunhera Road, Rajputana, Roorkee, Haridwar
166.	M/s Global Energy Solutions, Dineshpur, Gadarpur, US Nagar
167.	Station Master, Northern Railways, Kathgodam, Nainital
168.	M/s Jivanta Laboratories Pvt. Ltd., IIE Haridwar
169.	M/s Uttaranchal Metal Pvt. Ltd., Plot No.-11, 12, 13 Sector-02 IIE, Distt. Haridwar
170.	M/s Hotel Astha Palace, Mayapur, Haridwar
171.	M/s The Corbett View Resort, Dhela, Ramnagar, Nainital
172.	M/s Sunshine Industries, Govindpur Dadupur, Bahadarabad, Haridwar
173.	M/s Natraj Enterprises, Behind Bal Kunj, Govindpur Dadupur, Haridwar
174.	M/s Neel Kanth Dham, Rishikesh Road, Haridwar
175.	M/s Hotel Sachin International, Rudraprayag
176.	M/s Hotel Hayat Palace, Manglore Road, Roorkee, Haridwar
177.	M/s Divine Resort, Laxman Jhulla Road, Rishikesh
178.	M/s Mahadev Thermopack, Mahuahedaganj, US Nagar
179.	M/s Naman Buildcon Ltd., Kanwali, Central Hope Town, Dehradun
180.	M/s Komal Metal Finishers, IIE Pantnagar, US Nagar

Annexure 1.2**(Paragraph reference 8.3, Table 8.1)****List of Industries located in Haridwar District and declared as closed (out of 180 Industries which were served Show Cause Notices during 2015-16)**

Sl. No.	Name of Industry	Date of Show Cause
1	M/s Rachna Enterprises, Peeth Bazar, Bahadarabad	30.03.2016
2	M/s Jain Poly Packaging Solution, Bahadarabad,	11.12.2015
3	M/s Hotel Polaris Restaurant, 48 Civil Lines, Roorkee	08.01.2015
4	M/s Hotel Amber, 48, Civil Line, Roorkee	18.06.2015
5	M/s Hotel Highway, Aadarsh Nagar, Haridwar Road, Roorkee	18.06.2015
6	M/s Dharamverr, Behind Bal Kunj School, Govindpur Dadupur	21.03.2016
7	M/s Daksh Plater, Behind Bal Kunj School, Govindpur, Dadupur	21.03.2016
8	M/s Natraj Enterprises, Behind Bal Kunj, Govindpur Dadupur	30.03.2016
9	M/s Hotel Urvashi, Civil Line Bus Stand, Roorkee	18.06.2015
10	M/s Hotel Motel Punjab, Ramnagar Chowk, Roorkee	18.06.2015
11	M/s Hotel Siddharth, Ramnagar Chowk, Roorkee	18.06.2015
12	M/s Anand Lodge, 32 Civil Line, Near Nilam Talkez, Roorkee	18.06.2015
13	M/s Keshav Polymers and Traders, Roorkee	12.08.2015
14	M/s Shanti Gramodhyog Sansthan, Haridwar	01.09.2015
15	M/s Mahashakti Gramodhyog Sansthan, Banjerawala, Roorkee	02.09.2015
16	M/s Tex Zipper, Dev Bhomi Ind.Estate, Bantakhedi	12.10.2015

Annexure 1.3
(Paragraph reference 8.3, Table 8.1)
Present Status of 44 defaulting industries which were served closure notices
by the UEPPCB during 2014-15

Sl. No.	Name of the defaulting industry
1	M/s Iqbal Ice Factory, Bhagwanpur, Haridwar
2	M/s Tirupati LPG Industries Ltd., Selaqui, Dehradun
3	M/s Vanguard Laboratories, Selaqui, Dehradun
4	M/s Devanshu Appliances Pvt. Ltd., Selaqui, Dehradun
5	M/s E-Durables Unit-2, Selaqui, Dehradun
6	M/s PMV Nutrients Pvt. Ltd., Mahuakhedaganj, Kashipur
7	M/s Arham Technochem, Devbhoomi Ind. Estate, Bantakhedi
8	M/s Himalaya Brick Field, Tikola, Roorkee
9	M/s Eli Pharmaceuticals, Sisona, Bhagwanpur
10	M/s Anishaka Polysurf, Devbhoomi Ind. Estate, Bantakhedi
11	M/s Ganesh Brick Field, Roorkee
12	M/s UP Bone Mills, Roorkee, Haridwar
13	M/s Tejas Stone Crusher, Bhogpur, Haridwar
14	M/s Om Sai Screening Plant, Bhogpur, Haridwar
15	M/s Shreejee Stone Crusher, Bhogpur, Haridwar
16	M/s Kosi Mineral & Stone Crusher, Ladhpura, Bazpur, U.S.Nagar
17	M/s B.R. Papers Ltd., Lalpur, Jaspur, Kashipur
18	M/s Shubham Chemicals Pvt. Ltd., Lalpur, Kichha
19	M/s GS Pharmabutor Pvt. Ltd. IIE Pantnagar
20	M/s Rama Penel Pvt. Ltd., IIE Pantnagar
21	M/s U & K Steel, Sunhera, Roorkee
22	M/s Hanuang Toys and Textile Ltd., Lakeshwari
23	M/s Multiwal Duplex Pvt. Ltd., Kashipur
24	M/s Shree Shyam Pulp & Board Mill Ltd. (Unit-1), Kashipur
25	M/s Roshan Brick Field, Nagla, Landhora,
26	M/s Savera Brick Field, Bijola, Landhora, Roorkee
27	M/s Anchal Brick Field, Bijholi, Landhora
28	M/s Akbar Khan Brick Field, Kaliyar, Roorkee
29	M/s Chand Brick Supply, Nagla, Landhora
30	M/s Baba Brick Field, Jhebreda
31	M/s Shabri Brick Field, Station Road, Landhora, Haridwar

Sl. No.	Name of the defaulting industry
32	M/s Indian Bhatta, Bijholi, Haridwar
33	M/s JBM Enterprises, Shiv Ganga Ind. Estate, Lakeshwari
34	M/s JMJ Paper Products Pvt. Ltd., Khempur-Shikarpur
35	M/s Swasti RMC, Brahmanwala, Haridwar-Bye-pass, Dehradun
36	M/s Apple Formulation Pvt. Ltd., Kishanpur, Bhagwanpur
37	M/s Nijam Udhyag, Manglore, Roorkee
38	M/s United Engineers, Begampur,
39	M/s Riddhi Vinayak Techno Concreate Products, Majra
40	M/s Rava Hitech Rudrapur Pvt. Ltd., Rudrapur
41	M/s Doffhills Laboratory Pvt. Ltd., Selaqui, Dehradun
42	M/s Daffohills Laboratories Pvt. Ltd., Selaqui Dehradun
43	M/s PMV Malting (P) Ltd., Mahuakhedaganj
44	M/s Skymap Pharmaceuticals, Devbhoomi Ind. Estate, Bantakhedi

M/s Doffhills Laboratory Pvt. Ltd., Selaqui, Dehradun appears twice in the list since UEPPCB served closure notice two times.

Annexure 1.4**(Paragraph reference 8.3, Table 8.1)****List of closed Industries located in Haridwar (out of 44 Industries which were served Show Cause Notices during 2014-15)**

Sl. No.	Name of the defaulting industry	Date on which the Closure notice was issued
1	M/s Baba Brick Field, Jhebreda	01.08.2014
2	M/s Roshan Brick Field, Nagla, Landhora,	02.07.2014
3	M/s Savera Brick Field, Bijola, Landhora, Roorkee	02.07.2014
4	M/s Anchal Brick Field, Bijholi, Landhora	01.08.2014
5	M/s Chand Brick Supply, Nagla, Landhora	01.08.2014
6	M/s Shabri Brick Field, Station Road, Landhora, Haridwar	06.09.2014
7	M/s Indian Bhatta, Bijholi, Haridwar	06.09.2014
8	M/s Apple Formulation Pvt. Ltd., Kishanpur, Bhagwanpur	02.07.2014
9	M/s United Engineers, Begampur,	16.07.2014
10	M/s Akbar Khan Brick Field, Kaliyar, Roorkee	01.08.2014
11	M/s Nijam Udhyag, Manglore, Roorkee	02.07.2014
12	M/s JMJ Paper Products Pvt. Ltd., Khempur-Shikarpur	10.02.2015
13	M/s JBM Enterprises, Shiv Ganga Ind. Estate, Lakeshwari	24.02.2015

Annexure 1.5
(Paragraph reference 8.3, Table 8.1)

Present status of 106 defaulting industries which were served Closure notices during 2015-16

Sl. No.	Name of the defaulting industry
1	M/s VIP Industries Ltd., IIE Haridwar
2	M/s Khatema Fibres Ltd., Khatima
3	M/s Konark Industries, Mahuakhedaganj, Kashipur
4	M/s Omkar Infratech Ltd., Ratanpuri, Bazpur, Kashipur, U.S.Nagar
5	M/s Just In Agri Food (P) Ltd., Mahuakhedaganj
6	M/s Mega County, Mussoorie Diversion, Dehradun
7	M/s Project Manager, Construction and Maintenance Unit, Rishikesh
8	M/s KVN Auto Engineering Pvt Ltd. Lalpur
9	M/s Rudra Auto Tech Engineering Pvt. Ltd., IIE Pantnagar
10	M/s Shree Radhey Enterprises, Raipur Ind. Estate, Raipur
11	M/s DPS Polymers, Bhagwanpur
12	M/s Sameer Bright Bar Industries, Rudrapur
13	M/s Shri Guru Stone Crusher Pvt. Ltd., Kanauri, Bazpur
14	M/s Asha Stone Crusher, Bazpur
15	M/s Hari Har Stone Crusher Pvt. Ltd., Kanori, Bazpur
16	M/s Redission Blu Hotel Haridwar, IIE Haridwar
17	M/s Gagan Brick Supply, Roorkee
18	M/s Gagan Brick Supply, Tanda Bhaneda, Roorkee
19	M/s Alpha Ingots, Gangnoli. Laksar
20	M/s Shri Bankey Bihari Ispat Pvt. Ltd., Kishanpur, Kichha
21	M/s Van Health Care, Karondi, Haridwar
22	M/s Panchwati Prayogshala, Roorkee
23	M/s HMI Manufacturing Corporation, Haridwar
24	M/s JMD Heat Treatment, Bhagwanpur
25	M/s Iqbal Ice Factory, Bhagwanpur, Haridwar
26	M/s Apple Industries, Old Ind. Area, Haridwar
27	M/s Micro Turner, Begumpur, Haridwar
28	M/s Tech Hard India, Bahadarabad Ind. Area
29	M/s Verizon Energy System, Industrial Area
30	M/s Makino Automotive, Bahadarabad Ind. Area
31	M/s Avanti Bufa Pvt. Ltd., Raipur, Bhagwanpur, Roorkee
32	M/s Mahakali Stone Crusher, Haldwani
33	Raj Rajeshwari Techno feb, Devbhoomi Ind. Estate, Bantakhedi
34	M/s Hotel Shiv Sai, Indira Basti, Haridwar
35	M/s Vivek Hotel, Indira Enclave, Shantikunj, Haridwar
36	M/s Dexbio Pharma Pvt. Ltd., Raipur, Bhagwanpur
37	M/s Mitter & Mitter Engineers Pvt. Ltd., IIE Pantnagar
38	M/s Kashi Vishwanth Textile Pvt. Ltd., Kashipur
39	M/s Mitter & Mitter Engineers Pvt. Ltd., IIE Pantnagar
40	M/s Sundram Fastner Ltd., IIE Pantnagar
41	M/s Verizon Energy System, Industrial Area, Haridwar

Sl. No.	Name of the defaulting industry
42	M/s Uttaranchal Pulp and Paper, Manglore
43	M/s Alps Industries Ltd., IIE Haridwar
44	M/s Sai Auto Industries, Shimla Pistaure, Rudrapur
45	M/s Surin Automotive Pvt. Ltd., Kishanpur
46	M/s Bharat Glass and Aluminium Works, Begumpur
47	Multiwal Pulp and Board Mill Pvt. Ltd., Bazpur Road, Kashipur
48	Multiwal Duplex Pvt. Ltd., Kundeshwari Road, Kashipur, US Nagar
49	M/s Euresia Doordevices, IIE Pantnagar
50	M/s Radhu Products Pvt. Ltd., IIE Pantnagar
51	M/s Arham Technochem, Bantakhedi, Bhagwanpur
52	M/s Sunmax Auto Engineering Pvt. Ltd., IIE Haridwar
53	M/s Pankaj Gas Cylinders, IIE Pantnagar
54	M/s SSV Hi Tech Rudrapur
55	M/s takshi Auto Components Pvt. Ltd., IIE Ranipur
56	M/s ANG Auto Ltd., Eldeco-Sidcul Ind. Park, Sitarganj
57	M/s Ferro Terro India Pvt. Ltd., Lakeshwari, Bahgwanpur
58	M/s Needle Eye Plastic Industries Pvt. Ltd., Bazpur
59	M/s Aman Metal Finisher, IIDC Ranipur, Haridwar
60	M/s Ashish Agri Food Pvt. Ltd., Mahuakhedaganj
61	M/s Shri Sai Enterprises, Kichha Road, Rudrapur
62	M/s Windals Auto Parts Pvt. Ltd. (Unit-3), Rudrapur
63	M/s Shree Shyam Pulp and Board Mill Pvt. Ltd., Unit-2, Kashipur
64	M/s Quede Export, IIE Pantnagar
65	M/s SLG Bright Wires, IIE Pantnagar
66	M/s R.R. Enterprises, IIE Pantnagar, Haridwar
67	M/s Sharp Industries, IIE Ranipur,
68	M/s P.N. Pulp & Paper Kicha Road, US Nagar
69	M/s Tex Plas Textile India Pvt. Ltd., Bahadurpur Saini
70	M/s Hillways Construction Com. Pvt. Ltd., Rudraprayag
71	M/s Rudradham Recyclers Pvt. Ltd., Rorkee, Haridwar
72	M/s The Artigo Residency, Mussoorie Diversion
73	M/s Seema Construction, Shyampur, Haridwar
74	M/s Hotel Tapovan Resort, Laxman Jhulla Road, Rishikesh
75	M/s Raltronics India Pvt. Ltd. IIE Ranipur
76	M/s Raja Ice Factory, Dudhpur, Haridwar
77	M/s Sheetla Finishers, Dadupur, Haridwar
78	M/s Nazma Ice Factory, Dadupur, Haridwar
79	M/s Sabri Brick Field, Godharana Road, Akbarpur Road,
80	M/s Bansal Impex, Kichha Road, Rudrapur, US Nagar
81	M/s STP Enterprises, Madhupur, Roorkee
82	M/s Durga Engineering , Lakeshwari, Haridwar
83	M/s Scaff India, Raipur, Haridwar
84	M/s Indian Bhatta, Bijholi
85	M/s Agrawal Aluminium, Sitarganj
86	M/s T.S. Enterprises, Garhi Maychak, Shyampur, Rishikesh
87	M/s GS Enterprises, Mohbewala Ind. Area,
88	M/s Sagar Chemicals, Haldwani

Sl. No.	Name of the defaulting industry
89	M/s P.N. Paper Industry Ltd., Kichha
90	M/s Shree Shyam Pulp and Board Mill Pvt. Ltd., Unit-1, Kashipur
91	M/s Tex Zippers, Devbhoomi Ind. Estate, Bantakhedi, Haridwar
92	M/s Park Prime Hotels, Haridwar
93	M/s Medglobe Therapeutics Ltd., Raipur, Bhagwanpur, Roorkee
94	M/s Micro Turner, IIE Pantnagar
95	M/s Micro Turner, IIE Haridwar
96	M/s Keshav Polymer & traders, Lakeshwari, Bhagwanpur
97	M/s Aftab Battery Udhog, Kelakheda, Bazpur
98	M/s Parul Fabricators, Sitarganj
99	M/s Lotte Electronics, Kishanpur, Kichha
100	M/s Ganpati Metal Products, Bhurani, Rudrapur
101	M/s Suransh Power Pvt. Ltd., Ramnagar
102	M/s Narendra Precision Fastners, IIE Pantnagar
103	M/s Windals Auto Pvt. Ltd., Bhagwada, Kichha
104	M/s Avanti Metal Industries, IIE Pantnagar
105	M/s B.A. International, Roorkee
106	M/s Dashmesh Rosin Company, Dogda, Bhujiaght, Nainital

- M/s Gagan Brick Supply, Roorkee, M/s Mitter & Mitter Engineers Pvt. Ltd., IIE Pantnagar, M/s Verizon Energy System, Industrial Area, Haridwar and M/s Windals Auto Pvt. Ltd., Bhagwada, Kichha appear twice in the list since UEPPCB served closure notice two times.

Annexure 1.6**(Paragraph reference 8.3, Table 8.1)****List of closed Industries located in Haridwar (out of 106 Industries which were served Closure Notices during 2015-16)**

Sl. No.	Name of the defaulting industry	Date on which the Closure notice was issued
1	M/s Sharp Industries, IIE Ranipur,	06.02.2016
2	M/s Raltronics India Pvt. Ltd. IIE Ranipur	23.05.2015
3	M/s Tex Plas Textile India Pvt. Ltd., Bahadurpur Saini	06.02.2016
4	M/s STP Enterprises, Madhupur, Roorkee	18.05.2015
5	M/s Raja Ice Factory, Dudhpur, Haridwar	16.06.2015
6	M/s Nazma Ice Factory, Dadupur, Haridwar	16.06.2015
7	M/s Rudradham Recyclers Pvt. Ltd., Rorkee, Haridwar	01.05.2015
8	M/s Seema Construction, Shyampur, Haridwar	23.05.2015
9	M/s Sheetla Finishers, Dadupur, Haridwar	16.06.2015
10	M/s Sabri Brick Field, Godharana Road, Akbarpur Road,	22.06.2015
11	M/s Durga Engineering , Lakeshwari, Haridwar	01.09.2015
12	M/s Scaff India, Raipur, Hardiwar	01.09.2015
13	M/s Indian Bhatta, Bijholi	06.09.2015
14	M/s Medglobe Theraputics Ltd., Raipur, Bhagwanpur, Roorkee	08.01.2016
15	M/s Keshav Polymer & traders, Lakeshwari, Bhagwanpur	22.01.2016
16	M/s R.R. Enterprises, IIE Pantnagar, Haridwar	06.02.2016
17	M/s B.A. International, Bhagwanpur, Roorkee	06.02.2016
18	M/s Tex Zippers, Devbhoomi Ind. Estate, Bantakhedi, Hardiwar	21.12.2015

Annexure 1.7
(Paragraph reference 8.3, Table 8.1)

Sl. No.	Name of the town	Total Nalas	Discharge from Nala (MLD)	Tapped Nalas	Discharge tapped from Nala (MLD)	Name of River in which Nalas fall	Remarks, if any.
1	Uttarkashi	4	0.380	4	0.38	Bhagirathi	
2	Srinagar	17	2.270	7	1.52	Alaknanda	
3	Devprayag	4	0.128	1	0.029	Ganga	
4	Tapovan	5	0.390	5	0.39	Ganga	Out of these five drains, two are carrying Natural unpolluted Water
5	Muni-ki-Reti Dhalwala	15	7.570	9	0.37	Ganga	
6	Rishikesh	5	8.210	4	8.20	Ganga	
7	Haridwar	22	31.49	17	19.69	Ganga	
8	Badrinath	6	0.549	-	-	Alaknanda	
9	Joshimath	7	3.620	-	-	Alaknanda	
10	Gopeshwar	7	1.580	-	-	Alaknanda	
11	Nandprayag	9	0.091	-	-	Alaknanda	Out of nine drains only three are carrying waste water
12	Karnprayag	7	0.202	-	-	Alaknanda	
13	Gauchar			-	-	Alaknanda	
14	Rudraprayag	8	0.362	-	-	Alaknanda	
15	Kirtinagar	2	0.029	-	-	Alaknanda	
	Total	111	56.871	47	30.579		

Abbreviations

Abbreviation	Full Form
AA&ES	Administrative Approval and Expenditure Sanction
AAP	Annual Action Plan
AWQMS	Automatic Water Quality Monitoring System
BE	Budget Estimate
BHEL	Bharat Heavy Electricals Limited
BLS	Baseline Survey
BOD	Biochemical Oxygen Demand
BPL	Below Poverty Level
BRC	Budget Review Committee
BUIDCo	Bihar Urban Infrastructure Development Corporation Limited
C&AG	Comptroller and Auditor General of India
CA&FS	Conditional Assessment and Feasibility Study
CCA	Consolidated Consent and Authorization
CETF	Composite Ecological Task Force
CETP	Common Effluent Treatment Plant
CGA	Central Ganga Authority
CGF	Clean Ganga Fund
CIFRI	Central Inland Fisheries Research Institute
CPCB	Central Pollution Control Board
CPSU	Central Public Sector Undertaking
CSP	City Sanitation Plan
CVC	Central Vigilance Commission
CWC	Central Water Commission
DAPV	Directorate of Advertising and Visual Publicity
DDG	Deputy Director General
DEA	Department of Economic Affairs
DG	Director General
DO	Dissolved Oxygen
DPR	Detailed Project Report
DWSM	District Water and Sanitation Mission
EA	Executing Agency
EAP	Externally Aided Project
ED	Executive Director
EFC	Expenditure Finance Committee
EIL	Engineers India Limited
EMP	Environmental Management Programme
EPIL	Engineering Projects India Limited
EPO	Environmental Planning and Coordination Organisation
ESC	Empowered Steering Committee
ETF	Empowered Task Force

Abbreviation	Full Form
FIG	Forestry Interventions for Ganga
FIY	Forestry Interventions for Yamuna
FRI	Forest Research Institute
GAP	Ganga Action Plan
GB	Governing Body
GC	Governing Council
GFR	General Finance Rules
GIS	Geographical Information System
GKC	Ganga Knowledge Centre
GoI	Government of India
GP	Gram Panchayat
GPD	Ganga Project Directorate
GPI	Grossly Polluting Industry
GRBMP	Ganga River Basin Management Plan
GTF	Ganga Task Force
HLTF	High Level Task Force
I&D	Interception and Diversion
IEC	Information, Education and Communication
IHHL	Individual Household Latrine
IIPA	Indian Institute of Publication
IIT	Indian Institute of Technology
ISC	Inter-State Council
JICA	Japan International Cooperation Agency
KMC	Kolkata Municipal Corporation
KMDA	Kolkata Metropolitan Development Authority
LD	Liquidated Damage
MIS	Management Information System
MLD	Million litres per day
MoA	Memorandum of Agreement
MoD	Ministry of Defence
MoDW&S	Ministry of Drinking Water & Sanitation
MoEF&CC	Ministry of Environment Forest & Climate Change
MoF	Ministry of Finance
MoU	Memorandum of Understanding
MoWR,RD&GR	Ministry of Water Resources, River Development and Ganga Rejuvenation
NBCC	National Building Construction Corporation
NEERI	National Environmental Engineering Research Institute
NGRBA	National Ganga River Basin Authority
NGT	National Green Tribunal
NIT	Notice for Inviting Tender
NMCG	National Mission for Clean Ganga
NOC	No Objection Certificate

Abbreviation	Full Form
NPCC	National Projects Construction Corporation
NPFU	National Project Facilitation Unit
NRCD	National River Conservation Directorate
NRCP	National River Conservation Programme
NRSC	National Remote Sensing Centre
O&M	Operation and Maintenance
ODF	Open Defecation Free
PAC	Public Accounts Committee
PHED	Public Health and Engineering Department
PSC	Project Steering Committee
QPPR	Quarterly Physical Progress Report
RAC	Research Advisory Committee
RE	Revised Estimate
RFD	River Front Development
SBM(G)	Swachh Bharat Mission (Gramin)
SEC	State Executive Committee
SEIAA	State Level Environment Impact Assessment Authority
SFD	State Forest Department
SGC	State Ganga Committee
SGRCA	State Ganga River Conservation Authority
SIIDCUL	State Infrastructure and Industrial Development Corporation of Uttarakhand
SLWM	Solid Liquid Waste Management
SPCB	State Pollution Control Board
SPMG	State Programme Management Group
STP	Sewerage Treatment Plant
TC	Total Coliform
TDR	Term Deposit Receipt
TNC	The Nature Conservancy
TPI	Third Party Inspection
UC	Utilization Certificate
UEPPCB	Uttarakhand Environment Protection and Pollution Control Board
UJS	Uttarakhand Jal Sansthan
ULB	Urban Local Body
UNDP	United Nations Development Programme
UPJN	Uttar Pradesh Jal Nigam
UPSPMG	Uttar Pradesh State Programme Management Group
VLD	Village Level Drains
VWSC	Village Water and Sanitation Committee
WBPCB	West Bengal Pollution Control Board
WII	Wildlife Institute of India
WQM	Water Quality Monitoring
YAP	Yamuna Action Plan

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