

Chapter-10

Other important issues

10.1 Utilization of funds received from forfeiture of bank guarantees

GPCB imposes a penalty and collects Bank Guarantee (BG) under the “Polluter Pays” Principle towards compensation of environmental damage and forfeits the BG in case of further non-compliance. The NGT promulgated (January 2014) that the forfeited BG shall be strictly used for the compensatory purpose or restoration of the degraded environment resulting from emission and discharge of effluent and other pollutants.

GoG introduced (December 2018) a scheme with an objective to utilize the forfeited BG amount for activities such as (i) establishment of spent acid management plant/ recovery of spent acid management (ii) improvement in existing biological system (iii) establishment of common steam boiler projects and (iv) common solar sludge drying system. The scheme provided finance up to 10 *per cent* or ₹ one crore whichever is less for the earmarked projects. As of December 2020, GPCB had a balance of ₹ 48.72 crores on account of forfeited BGs. Under the scheme, GPCB had approved (June 2021) financing of seven projects¹ worth ₹ 5.18 crore. Out of these, only one project was community-based (common boiler facility) and the remaining projects were industry-specific.

Audit observed that the GoG took almost five years in formulating the scheme for utilization of forfeited BG, thereby delaying the action required for reducing the air pollution. Further, the projects approved under the scheme were industry-specific instead of being community-based. Thus, there was a need for the implementation of interventions to control emissions.

10.2 Effectiveness of environment audit scheme

At the directions of Gujarat High Court, GPCB launched (1996) “Environment Audit Scheme” (EAS) in the State with a view to assessing (i) the degree of pollution potential of a particular industry or class of industries; (ii) how an individual unit has provided treatment plants and facilities for liquid effluents, air emissions and solid waste; (iii) and whether the said plants and facilities are adequate and efficacious to achieve pollution control norms.

Under EAS, GPCB assigns environment audit of industrial units to environment auditors every year. The Environment Audit Reports² (EAR) is submitted to the GPCB, which scrutinises it. Audit reviewed the EAR of 26 units (power, textile, steel, sugar, cement, fertilizer, refinery, and petrochemical) for 2017-18 and 2018-19 to examine whether the implementation of EAS has achieved its objectives and observed the following: -

¹ Total project cost of ₹ 59.55 crore.

² The EAR is prepared by the Environment Auditors empanelled by GPCB.

- Air emission load was assessed in six reports out of 26 EARs test checked in Audit. Only in the case of Torrent Power Ltd (SUGEN), Surat major emission parameters (SO₂, NO_x and PM) were calibrated in mg/Nm³ and emission load was worked out. In the remaining five cases,³ except for Particulate Matter, the emission level of SO₂ and NO_x was measured in ppm and was not converted into mg/Nm³, thus the emission load calculated was incorrect. The GPCB did not take up the matter regarding missing emission load data in the EAR with the Environment Auditors (EAs). As a result, the degree of pollution potential of a particular industry or class of industries is not available in the EARS which would have been a guiding factor for policy formulation and regulation of industry or class of industries.
- GPCB did not instruct the EAs to calculate emission load for major polluting units such as thermal power plants, refineries, cement plants, petrochemicals, and fertilizers.
- The EARS are not in the public domain; therefore, the public is deprived of the data/ information of pollution due to large industries.
- Data mismatch was observed between the air sampling data of stacks and flue (of PM₁₀, SO_x and NO_x) and the data available in the Inspection Report of GPCB and OCEMS (wherever installed).
- The Adequacy Certificate appended with the EARS lacked emission load.
- Noise is regulated under the Air (Prevention and Control) Act, 1981. As per the CCA and noise standards, the permissible limit for noise is different for day and night time. However, the samples for measuring noise levels in all the test-checked cases were collected in the daytime only. The GPCB had not taken up non-compliance with the EAs.

Government stated (January 2022) that there was still scope and opportunities in the implementation of the existing process which is under consideration. On the issue of reporting emission load, Government stated that emission norms were concentration-based and not load-based. However, Environment Auditor had been directed to check and calculate emission load. It was added that placing Environment Audit Report in the public domain as suggested would be considered for implementation.

Thus, orders of the Gujarat High Court were not being followed prudently. Due to the non-assessment of the degree of pollution potential of a particular industry or class of industries and the non-availability of environmental information in the public domain, the very purpose of the EAS is defeated. The emission load data, if computed even only for the red-large category units operating nearby the heavily populated and in urban areas, may provide important feedback for designing policy interventions and executive action to control and regulate air pollution.

³ Gujarat Industries Power Limited (2017-18), Surat; Shree Kantha Vibhag Sahkari Khand Udoyg Mandali Limited (2018-19); Krishak Bharati Cooperative Society Limited, Surat (2018-19); NTPC, Surat (2018-19) and Pidlite Industries Limited, Vapi (2018-19).

10.3 Non-greening of highways

Plantation in the Right of Way (strip plantation/ avenue plantation) and median (in case of four-lane highways) helps in the reduction/control of (i) Air pollution and dust as trees and shrubs are known to be natural sinks for air pollutants and (ii) impact of ever-increasing noise pollution caused due to increase in the number of vehicles on the road. Indian Road Congress (IRC)⁴ SP-21 stipulates specifications for avenue and median plantation along the highways which are included in tender conditions and the cost of plantation is in-built in the cost of highway construction. During 2011-19, the Ministry approved the diversion of forest land for various highway development projects. In every in-principle approval accorded by the Forests Department for diversion of forest land, it has been mentioned that the user agency shall raise and maintain the strip plantation on either side of the road and central verge at the project cost as per IRC specification (IRC SP 21) and the user agency shall submit the annual compliance report in respect of the above condition. Therefore, it is the responsibility of the highway development agencies (Roads and Buildings Department) to offset the losses by complying with environmental rules.

Roads and Building Department⁵ developed state highways during 2012-14 under public-private partnership. In eight annuity-based road projects, the GoG restricted the annuity payment⁶ to the concessionaires for their failure to develop avenue plantations. In nine other roads developed by Gujarat State Road Development Corporation (a State PSU), avenue plantations were noticed (November 2021) only on one road⁷. In the case of three roads⁸ of Rajkot District, Forest and Environment Department (December 2019) informed that the R&B department had not carried out roadside and median plantation and there is no mechanism with the Forest and Environment Department to monitor roadside plantation. Thus, despite the inclusion of conditions for avenue plantation and median plantation in the in-principle approval/ formal approval accorded for diversion of protected forest, plantation (Strip /Avenue) in Right of way and median/ central verge was either not carried out or was deficient in quantity and quality. Moreover, the user agencies were not submitting annual compliance of terms and conditions of in-principle approval/ formal approval to the FED.

Thus, lack of monitoring of compliance of the terms and conditions and IRC specification by the user agency was observed in road construction works. Further, the FED has not framed a policy to encourage the greening of highways as done by GoI in the case of National Highways by launching of Green Highways (Plantation and Maintenance) Policy 2015.

Government stated (January 2022) that coordination with other agencies like R&B and NHAI would be done.

⁴ The IRC is the Apex Body of Highway Engineers in the country, set up in December 1934 with the objective of Road Development in India.

⁵ Gujarat State Road Development Corporation Limited Gandhinagar and Superintending Engineer, Gujarat State Highway Development Project, Gandhinagar.

⁶ The issue had featured in Para 3.3.3.1 of Report No. 6 of the year 2016 of Government of Gujarat.

⁷ Rajkot-Vadinar State Highway.

⁸ Atkot-Gondal, Upleta-Kolki, Tankara- Latipur state highways.

The State Government may frame a policy for greening of highways and ensure its compliance by the implementing agencies.

10.4 Human-resources of the GPCB- availability vis-à-vis requirement

GPCB initially established to implement the Water (Prevention & Control of Pollution) Act, 1974, is currently entrusted with the implementation of four major Acts and around 20 Rules and Notifications made under these major Acts. Besides this, the GPCB is the only implementing agency for directions received from CPCB, GoG, Supreme Court of India, NGT and Gujarat High Court. Starting with a staff of 25 in 1974, the sanctioned strength of the GPCB, in January 2018, was 728 in 38 categories. Audit analysis of prevailing workload of GPCB and staff strength revealed as under: -

(i) Between March 2008 and March 2020, there was 354 *per cent* increase in the grant of cumulative CCA by the GPCB from 21,010 to 73,527 under the Water Act, Air Act, Hazardous Waste Management Rules, 1989 and the Bio-Medical Waste (Management and Handling) Rules, 1998.

(ii) Under the Water Act, Air Act and Hazardous Waste Management Rules, 1989, in 2007-08, the GPCB collected and analysed 19,567 samples while in 2019-20, it collected and analysed 24,542 samples only despite an increase of cumulative CCA granted from 9,251 to 30,964 under these Acts and Rules.

(iii) GPCB is responsible for monitoring and supervising over 30,964 industries, 42,563 Health Care Units, 34 Common Effluent Treatment Plants, 21 Common Bio-Medical Waste Treatment Facilities, 32 (18 commons and 14 individual) TSDF⁹ sites under the Hazardous Waste Rules and other landfill sites under the Municipal Solid Waste rules in the State.

(iv) Despite the manifold increase in work over the years and increasing pollution in the state, the GoG abolished (February 2018) 223 posts and left the GPCB to accomplish its regulatory function through 505 posts only. As of 01 March 2021, the sanctioned strength of the GPCB was 513. Against this, 105 posts were vacant since 2008. In technical cadres (environment engineers and scientists), there were 17 *per cent* vacancies while in other cadres, there were 30 *per cent* vacancies (March 2021). Thus, GPCB is running with inadequate human resources. The impact of an acute shortage of staff can be gauged from fewer sampling/monitoring activities.

(v) NGT directed¹⁰ (July 2017) all SPCBs to submit comprehensive proposals for capacity building including additional manpower and infrastructure to the State Government within two months and State Government was required to decide within three months thereafter. Consequently, CPCB directed (August 2017) GPCB to prepare a draft proposal as per the indicative guidelines and submit the same to the State Government following the time limit schedule as directed by the Tribunal. GPCB constituted (26 September 2017) a committee for assessment of manpower/staff in consonance with CPCB's Guidelines.

⁹ Treatment, Storage, and disposal facility.

¹⁰ M.C. Mehta v/s. Union of India (O. A. No. 200 of 2014, judgment date 13.07.2017).

GPCB assessed its staff requirement and finalization of the draft report was in progress (November 2021).

Government stated (January 2022) that continuous effort had been made to shorten the staff crunch. It agreed with the audit observation that increase in industrial units has increased the need for technical manpower continuously.

With the expansion of the various types of activities, GPCB needs to be sufficiently provided human resources to enforce all the applicable Acts.

Conclusion

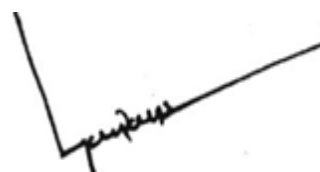
GPCB is slow in utilizing the fund received from the habitual defaulter units. Environment audit reports are not in the public domain and are not inclusive of emission load and data on stack emission, thus defeating the very purpose of the Environment Audit Scheme. The State lacks policy intervention for the greening of highways. The activities of GPCB have increased manifold over time; the human resources have decreased substantially leading to an adverse impact on the monitoring and regulatory function of GPCB.



(H. K. DHARMADARSHI)
Principal Accountant General (Audit-II),
Gujarat

Ahmedabad
The 25 May 2022

Countersigned



(GIRISH CHANDRA MURMU)
Comptroller and Auditor General of India

New Delhi
The 26 May 2022