The Tamil Nadu Pollution Control Board in Retrospect: **An Examination of Selected Parameters from 2017 to 2022**





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Executive Summary

This study provides a comprehensive examination of selected parameters of the Tamil Nadu Pollution Control Board (TNPCB), a key institution in the prevention and control of pollution in the state. Despite the existence of pollution control boards in India for about four decades, there is a lack of specific studies examining the functioning of the Boards. This study aims to fill that gap.

The TNPCB plays a crucial role as a custodian of environmental health in the State. This study focuses on understanding the TNPCB's structure, leadership, and capacity, which are essential elements in fulfilling its mandate. The insights gained could inform policy decisions, contribute to improving the TNPCB's functioning, and aid in better environmental management in Tamil Nadu.

The geographical significance of Tamil Nadu, which has the second longest coastline in India, underscores the need for representation from the Fisheries Sector on the Board. This would ensure that the interests and concerns of the coastal communities are adequately represented in the Board's decisions. The study also highlights the absence of members from local bodies on the Board. This gap in representation could be addressed to ensure a more balanced and inclusive decision-making process.

In terms of tenure, both Chairpersons and Member Secretaries have served an average term of nine months. The short duration of their tenure could potentially affect long-term decision-making processes. With regard to the mandate of the Board, technical decisions are considered to be at the core of its function. However, the analysis shows that the decisions made by the Board are largely on personnel and administrative matters.

The Board's 45-day timeline for consent-related applications is not being met, potentially due to a lack of technical human resources. A more realistic timeline, considering the current workforce, should be established and adhered to. Additionally, while existing data in the TNPCB website provides some insight into pollution-related complaints, it lacks comprehensive details about the TNPCB's complaint handling process. Including information on registered, convicted, acquitted, and pending court cases, as well as actions taken against industries, would enhance understanding of the Board's enforcement capabilities.

Lastly, the study recommends that the government should take immediate steps to fill the vacancies on the technical (comprising engineering and scientific staff) and administrative staff of the Board. This would strengthen the Board's capacity to fulfil its mandate effectively.

Introduction



1 Introduction

The Stockholm Conference, officially known as the United Nations Conference on the Human Environment, was a pivotal event held in Stockholm, Sweden, from June 5 to 16, 1972. This conference was the first of its kind to prioritise environmental issues on a global scale. Participants at the conference agreed upon a set of principles for environmental management, encapsulated in the Stockholm Declaration and the Action Plan for the Human Environment, along with several other resolutions. The Declaration consisted of 26 principles that brought environmental concerns to the forefront of international discourse (United Nations 2023). It initiated a dialogue between developed and developing nations about the relationship between economic growth, environmental pollution, and human well-being.

The Action Plan was divided into three main categories: a Global Environmental Assessment Programme (watch plan), environmental management activities, and international measures to support assessment and management activities at both national and international levels. These categories were further elaborated into 109 recommendations (United Nations 2023). Thus, the Stockholm Conference had a profound influence on the development of environmental protection laws worldwide. In India, for example, the National Committee on Environmental Planning and Coordination (NCEPC), later designated as the Ministry of Environment and Forest, was instrumental in formulating key legislative measures on environmental protection including, the Water (Prevention and Control of Pollution) Act of 1974 (Aggarwal and Aggarwal 2022; Pal 1979). The Water Act of 1974, in particular, led to the establishment of the Central Pollution Control Board (CPCB) and State Pollution Control Boards (SPCBs), marking a significant step in India's commitment to environmental protection.

Given this background, the CPCB and the SPCBs are the primary custodians for preventing and controlling pollution in any form. Therefore, it becomes pertinent to understand the functions of these pollution control institutions, which have been in existence for about four decades. Several reports have examined the functions of pollution control boards in India (<u>CPCB 2020</u>; <u>Ghosh et al. 2022a</u>; <u>Verma 2021</u>). Recently, a report in the form of working papers was prepared by the Centre for Policy Research, examining the SPCBs in the Indo-Gangetic Plains. Inspired by these working papers, this study attempts to understand certain features of the functioning of the Tamil Nadu Pollution Control Board.

Background of the Tamil Nadu Pollution Control Board

The Tamil Nadu Pollution Control Board (TNPCB), established on February 27, 1982, operates under the Water (Prevention and Control of Pollution) Act, 1974. It is responsible for enforcing a variety of acts and rules, including the Water (Prevention and Control of Pollution) Act, 1974 (hereafter Water Act), the Air (Prevention and Control of Pollution) Act, 1974 (hereafter Water Act), the Air (Prevention and Control of Pollution) Act, 1981 (hereafter Air Act), and the Environment (Protection) Act, 1986, along with the rules framed under these Acts (TNPCB 2023).

The TNPCB's administrative structure includes its head office in Chennai, eight Zonal offices, and 38 District offices. The Board office is led by the Chairperson, while the Zonal offices are overseen by Joint Chief Environmental Engineers and the district offices are managed by District Environmental Engineers. To support its scientific and analytical work, the Board has set up eight Advanced Environmental Laboratories and ten District Environmental Laboratories. These laboratories are tasked with analysing water, wastewater, and air quality, as well as monitoring the state's water sources and ambient air. Additionally, the Board has five flying squads led by Environmental Engineers and three offices of Assistant Environmental Engineer (AEE) in areas identified as industrial hotspots (TNPCB 2023).

The TNPCB's mandate includes implementing Pollution Control Legislations and Rules and Notifications. It conducts investigations and collects and disseminates data on water, air, and land pollution. It also sets standards for sewage/trade effluent and emissions. The Board follows a two-stage consent process for new industries: Consent to establish is granted based on the site's suitability before construction activities commence, and consent to operate is granted once the industry has installed pollution control measures that meet the standards. Field officers from the Board regularly inspect industries within their jurisdiction to evaluate the effectiveness of the treatment measures implemented to manage effluent and gaseous emissions (TNPCB 2021).

Description Objectives of the Study

 To examine the composition of the TNPCB and its ability to engage in policy and decision making in furtherance of their statutory goals.

— To analyse the qualifications of the TNPCB's leadership – the Chairperson and the Member Secretary, the length and stability of their tenure, and whether they are well-placed to guide the Boards' functioning.

 To evaluate the adequacy of the TNPCB' capacity – particularly technical capacity – to perform critical functions like consent granting and enforcement.

Significance of the Study

This proposed study on the TNPCB is of significant importance. While the CPCB has conducted a performance audit in compliance with the orders of the National Green Tribunal, and the Centre for Science and Environment has published a report on the public disclosure of pollution control boards (<u>CPCB 2020</u>; <u>Verma 2021</u>), there is a dearth of studies specifically examining the functioning of the TNPCB, as per the grey literature search conducted.

This study aims to fill that gap by providing an understanding of the TNPCB's structure, leadership, and capacity, all of which are crucial elements in the Board's role as a custodian of environmental health in the State. By examining the composition of the Board, the qualifications and stability of its leadership, and its technical capacity to perform key functions, the study aims to shed light on the effectiveness of the TNPCB in fulfilling its mandate.

The insights gained from this study could inform policy decisions, contribute to improving the TNPCB's functioning, and ultimately, aid in better environmental management in Tamil Nadu. Therefore, this study holds substantial value for policymakers, environmentalists, and the general public alike.

Scope and limitations of the Study

This study, on the functioning of the TNPCB, is largely focused on a specific time period, from January 2017 to December 2022. However, when considering the composition of the Board, the data taken into account extends from 01 April 2016 to 31 December 2022. This time-bound scope allows for the analysis of the TNPCB's activities during this period, but it also means that the findings may not be applicable to the Board's functioning outside of this timeframe.

The data used in the study is derived from two main sources:

i. Responses to Right to Information (RTI) applications submitted to the TNPCB.ii. Secondary data retrieved from the TNPCB's website and its affiliated websites, including the Online Consent Management and Monitoring System and the Online Grievance Petition Redressal System.

However, the study encountered some limitations in data collection. For some RTI requests, complete information was not received. Furthermore, no primary data was collected for this study, which means the findings are based solely on the available secondary data and the information provided in response to the RTI applications.

Another significant limitation of the study is that it does not account for recent developments and programs initiated by the TNPCB that fall outside the study period. This could potentially create a disconnect between the study's findings and the current state of the TNPCB. While this study provides valuable insights into the functioning of the TNPCB during the specified period, the findings should be interpreted and understood with these limitations in mind. The study does not claim to represent the entirety of the TNPCB's functioning since its inception, and the results may not be extrapolated beyond the study period without further research.

2 Composition of the State Pollution Control Boards



2 Composition of the State Pollution Control Boards

The SPCB's composition is prescribed under the Water Act and designed to ensure a significant representation from government stakeholders, with a smaller representation from non-governmental stakeholders. The SPCBs is led by a Chairperson, who is assisted by a Member Secretary. These two positions form the core of the SPCB's leadership.

In addition to the Chairperson and Member Secretary, the Board includes up to five representatives from the State Government. These representatives play a crucial role in ensuring that the Board's decisions align with the State's environmental policies and regulations. The Board also includes up to five representatives from local authorities within the State. Their presence ensures that the Board's decisions take into account the needs and concerns of local communities.

To ensure a diverse range of perspectives, the Board also includes a maximum of three nonofficial members. These members represent various sectors such as agriculture, fishery, industry, trade, or any other interest as identified by the State government. Their inclusion ensures that the Board's decisions consider the impact on these sectors. Finally, the Board includes two individuals representing state-owned, controlled, or managed companies or corporations. Their presence ensures that the Board's decisions consider the operational realities and constraints of these entities.¹

In total, the Board can have up to 17 members, providing a wide range of perspectives and expertise. However, for decision-making during Board meetings, a quorum of just five members is sufficient. This provision ensures that the Board can make timely decisions, even if some members are unable to attend a particular meeting.²

¹ The Water (Prevention and Control of Pollution) Act, 1974

² The Tamil Nadu Water (Prevention and Control of Pollution) Rules, 1983

2.1 Detailed Examination of the TNPCB's Composition

The TNPCB provided a list of members who served between 01 April 2016 and 31 December 2022 in response to an RTI application. An analysis of the composition of the Board during this period revealed some interesting findings.

As mandated by the Water Act, apart from the Chairperson and Member Secretary, the Board includes five members from State government departments such as Environment, Climate Change and Forest, Finance, Town and Country Planning, Industrial Safety and Health, Public Health and Preventive Medicine, Tamil Nadu Generation and Distribution Corporation and Tamil Nadu Water Supply and Drainage Board. In addition, representatives from Industries and Commerce Department were at times added as Special Invitees.

Notably, representatives from the departments of Environment, Climate Change and Forest, Finance, Town and Country Planning, Industrial Safety and Health, and Public Health and Preventive Medicine have been consistently present on the Board. This ensures that the Board has representation from departments that directly work on preventing and mitigating pollution and its impact on the environment and human health.

In addition, the Board includes two representatives from state-owned, controlled, or managed companies or corporations, specifically from Guidance Tamil Nadu and the State Industries Promotion Corporation of Tamil Nadu. This ensures that the Board's decisions take into account the operational realities and constraints of these entities.

The Board also includes non-official members, with two representing the Agriculture Sector and one from the Industries Sector. Their presence ensures that the Board's decisions consider the impact on these sectors. However, considering the geographical significance of Tamil Nadu, which has the second longest coastline in India, it would be beneficial to have representation from the Fisheries Sector. This would ensure that the interests and concerns of the coastal communities are adequately represented in the Board's decisions.

Further, it's worth noting that the Board does not currently have any members from local bodies. This is because from 2016 up to December 2019, there were no elected members present in any of the rural or urban local bodies of the State (<u>The Hindu 2019</u>). While the elections were held in December 2019, October 2021, and February 2022 (<u>Ramakrishnan 2022</u>) no members have been included on the Board as of December 2022. This absence could potentially affect the representation of local government interests on issues pertaining to pollution control. Technically, members from local authority should have been on the Board from 2021 onwards. This gap in representation could be addressed to ensure a more balanced and inclusive decision-making process.

Analysis of the Board's ability to engage in policy making and decision-making

The ability of the Board members to engage in policy making and decision-making is largely influenced by their professional background and the departments they represent. Therefore, this section of the report will elucidate how the professional and departmental composition of the Board members shapes their capabilities in these areas. This analysis will provide insights into the dynamics of the Board's decision-making process and its effectiveness in fulfilling its mandate.

Service	Frequency	Percent
Indian Administrative Service	65	46.8
Others	64	46.0
Indian Forest Service	9	6.5
Indian Economic Service	1	0.7

Table 1: Service of the TNPCB members | TNPCB³

The analysis of the professional background of Board members showed that overall about 47% of them belonged to the Indian Administrative Service (IAS), 6.5% to the Indian Forest Service (IFS), and one member to the Indian Economic Service (IES). The remaining 46% were categorised as 'others'. This category included officers from government departments not belonging to any of the services mentioned above, as well as non-official members representing sectors such as agriculture and industry.

The majority of the decision-making members belonged to the IAS. Given that IAS officers are often considered the decision-makers in any executive functions of the government, their decisions have the potential to significantly influence the overall functions of the Board. Members who do not belong to any of the three mentioned services are likely to adhere to the decisions made by the IAS officers. Similarly, non-official members might also be more inclined to agree with the decisions made at the meetings. While the presence of IAS officers on the Board can facilitate inter-departmental coordination and aid in implementing the Board's mandate (Ghosh et al. 2022b), it could potentially influence the expression of opinions from others. This dynamic could impact the diversity of perspectives in the Board's decision-making process.

Representation of State government	Frequency	Represented during	
Directorate	of members	From	То
Town and Country Planning	10	01-04-2016	31-12-2022
Finance	7	01-04-2016	31-12-2022
Environment, Climate Change and Forest	7	01-04-2016	31-12-2022
Guidance Tamil Nadu	6	28-12-2017	31-12-2022
Industrial Safety and Health	5	01-04-2016	31-12-2022
State Industries Promotion Corporation of Tamil Nadu	3	01-04-2016	31-12-2022
Tamil Nadu Generation and Distribution Corporation	3	01-04-2016	30-01-2018
Tamil Nadu Water Supply and Drainage Board	3	01-04-2016	31-05-2017
Public Health and Preventive Medicine	2	01-04-2016	31-12-2022
Industries and Commerce	2	01-04-2016	30-01-2018

Table 2: Frequency of change of members representing the State government departments on the Board | <u>TNPCB</u>⁴

The composition of the Board and the frequency of member changes can have a significant impact on the Board's functions. As indicated in Table 2, the government representatives primarily come from departments directly related to the environment, industries, town planning, and public health.

A majority of these members are from the IAS, who are typically generalists rather than specialists. This means they might rely on insights from the Chairperson and Member Secretary, who are likely to have more specialised knowledge on technical issues pertaining to pollution control and prevention strategies. These IAS officers also play a crucial role during discussions related to granting consent for establishing and operating industries. Their generalist background allows them to consider a wide range of factors and implications, while the technical insights from the Chairperson and Member Secretary ensure that the decisions are grounded in sound environmental principles.

⁴ Ibid.

The frequency of member changes can influence the Board's decision-making process. A lower frequency of change corresponds to a longer tenure on the Board. Over a six-year period, key departments such as Town and Country Planning, Finance, and Environment, Climate Change and Forest experienced more member changes. This could have disrupted the continuity of discussions and decisions at Board meetings. When a new member joins the Board, existing members may need to brief them on the fundamentals of certain decisions and policy discussions that have occurred at previous Board meetings. This process could potentially slow down decision-making and affect the Board's efficiency.

Notably, members from the Directorate of Public Health and Preventive Medicine have had longer tenures on the Board compared to others. This continuity could have facilitated the making of several long-term decisions related to public health and pollution control measures.

In addition to the aforementioned discussion, the absence of certain members from the Board meetings can significantly impact the outcomes of the decisions made. From the Minutes of the Meeting (MoM) for 23 meetings held between 2017 and 2022, obtained through an <u>RTI application</u>, five meeting minutes did not include information on the members present and absent during the meeting. Thus, in the analysis of the remaining 18 MoMs, at least two members were absent from every meeting. Notably, of the two non-official members representing the agriculture sector, one was absent for 11 meetings and the other for 6 meetings. This suggests that the interests of the agriculture sector may not have been adequately represented during the decisions made at these meetings. In light of this, the absence of members is a significant concern for the policymaking and decision-making discussions held at the Board meetings.

The nature of decisions taken at the Board meetings significantly influences the Board's policy making and decision-making abilities. Therefore, an analysis of the MoM was conducted to understand the nature of discussions and decisions made at these meetings. Based on the analysis, the decisions made were categorised into eleven groups: awards, awareness creation, capacity building, conduct of study, expansion of operation, grants to others, grants to others not related to the Board's mandate, legal services, personnel & administration, technical, and miscellaneous.

As per Figure 1, the majority of the decisions (41.4%) made at the Board meetings pertain to personal and administrative matters related to the functions of the Board. These include decisions related to employee recruitment, promotion, retirement, and other benefits provided to employees from time to time.

Next to personal and administrative decisions, 28.4% of the decisions made at the meetings are technical. These include consent to establish and operate, maintenance of continuous air and water quality monitoring stations, and prescribing or revising standards pertaining to emission. Although technical decisions are considered to be the core function of the Board, the analysis showed that the decisions made at the Board are more focused on personnel and administrative matters.

Expansion of operation constitutes 9.2% of decisions made at the Board meetings. This includes the formation of new Zonal offices, acquisition of land and construction of offices at newly formed districts, formation of flying squads, and establishment of environmental laboratories. Apart from technical decisions, expansion of operation is also crucial to improve environmental law enforcement activities on the ground.

One of the positive trends that emerged from the data is that the Board provides financial grants (around 5% of the decisions) to other government departments including Environment, Forest, Municipal Administration, Public Works, Corporations, and Municipalities to undertake environmental protection works. These works involve eco-restoration of lakes and tanks, massive tree plantation programmes, rejuvenation of rivers, etc.

On the negative side, the data suggests that decisions were made to provide financial grants to non-environmental protection works (i.e., works which are not within the mandate of the Board) such as modernisation of conference hall, wall panelling, partition works, and related civil works at the Environment, Climate Change and Forest Department at the Secretariat, LED Stripe lights and floor lights for the 44th Chess Olympiad held in Chennai. Although such grant giving is low (around 2%), there is a need to justify the use of the Board's fund for non-environmental protection activities.



Figure 1: Nature of decisions made at Board meetings | $\overline{\text{TNPCB}}$ ⁵

⁵ <u>https://bit.ly/TNPCB_MoM</u>

Leadership of the SPCB



3 Leadership of the SPCB

As per the provisions of the Water Act, the Chairperson of the SPCBs is required to possess 'special knowledge or practical experience in respect of matters relating to environmental protection'. This could include individuals who have knowledge and experience in administering institutions that deal with environmental protection. The role of the Chairperson is pivotal to the functioning of the Board, and their expertise in environmental matters guides the Board's decisions and policies. Also, the Act provides flexibility in terms of the Chairperson's engagement with the Board. The State government has the discretion to decide whether the Chairperson serves on a full-time or part-time basis.

In addition to the Chairperson, the SPCBs also includes a full-time Member Secretary. The Member Secretary is required to possess qualifications, knowledge, and experience in the scientific, engineering, or management aspects of pollution control, as prescribed by the State government. The Member Secretary's role is crucial in ensuring that the Board's decisions and actions are grounded in sound scientific and technical principles.

Analysis of the educational qualification, length and stability of tenure of the Chairperson and the Member Secretary of TNPCB

Name a		Durc	ation
Name	Eaucational Qualification	From	То
Hans Raj Verma, IAS	Master of Management Studies	27-05-2016	06-09-2016
Atulya Mishra, IAS	M.Sc. Botany	01-04-2017	08-06-2017
Md. Nasimuddin, IAS	M.A. History	09-10-2017	28-08-2018
Shambhu Kallolikar, IAS	M.A. International Relations	29-08-2018	26-09-2019
A.V. Venkatachalam, IFS	M.Sc. Zoology	27-09-2019	23-09-2021
Supriya Sahu, IAS	M.Sc. Botany	25-09-2021	25-10-2021
A. Udhayan, IFS	M.Sc. Environmental Science	25-10-2021	12-06-2022
M. Jayanthi, IFS	M.Sc. Agriculture Ph.D. Environmental Economics	13-06-2022	Till date

Table 3: List of TNPCB's Chairpersons from May 2016 onwards | TNPCB⁶

While the Water Act does not stipulate specific educational qualifications for the Chairperson of the Board, the educational background of the Chairpersons can indeed influence their effectiveness. Of the eight Chairpersons mentioned, three had a background in either Botany or Zoology, and two had education in environmental science and environmental economics. These educational qualifications likely have enhanced their ability to discharge their duties effectively. For the remaining Chairpersons who did not have a degree related to the environment, their professional experience working with government departments related to environmental issues would have been beneficial.

In terms of tenure stability, over a six-year period, there were eight different Chairpersons who served on the Board. On average, each Chairperson served for approximately nine months. One IFS officer served continuously as the Chairperson for two years.

3.1

⁶ https://bit.ly/TNPCB_LoBM

Furthermore, between 27-05-2016 and 26-09-2019, the Chairpersons held their position as Full Additional Charge (FAC), which means they were concurrently assigned other official positions within the government. This dual responsibility could have potentially impacted their ability to diligently discharge their mandated duties as Chairperson to the Board.

Educational		Duration		
Name	Qualification	From	То	
K. Karthikeyan	M.Tech., Ph.D.	01-04-2016	27-05-2016	
N. Sundara Gopal	M.E.	19-07-2016	28-02-2018	
D. Sekar	M.Tech.	01-03-2018	28-05-2020	
R. Vijayabaskaran	M.E.	29-05-2020	02-11-2020	
S. Selvan	M.E., Ph.D.	03-11-2020	29-07-2021	
R. Kannan	M.Tech.	29-07-2021	04-01-2022	
R. Vijayabaskaran	M.E.	04-01-2022	21-02-2022	
R. Kannan	M.Tech.	21-02-2022	Till date	

Table 4: List of Board's Member Secretaries from May 2016 onwards | TNPCB⁷

The State government appoints Member Secretaries in accordance with the educational qualifications prescribed under the Water Act. Every Member Secretary served at TNPCB holds at least a Master's Degree in Engineering or Technology, and two of them have earned Ph.D. degrees. Therefore, the Member Secretary primarily acts as the technical guide for the overall mandate of the Board.

In terms of tenure, similar to the Chairpersons, Member Secretaries have also served an average term of nine months. Out of the eight, two held their office for nearly a period of two years. The relatively short duration of their tenure at the Board could potentially affect certain long-term decision-making processes.

⁷ https://bit.ly/TNPCB_LoBM

Capacity of the SPCB



4 Capacity of the SPCB

While the members of the Board play a crucial role in supporting pollution prevention and control-related policymaking and decision-making, the enforcement and overall effectiveness of environmental regulations are largely determined by the staff employed to support the Board. In addition to planning air pollution abatement programmes and setting air quality standards, the Board staff carry out a majority of the Board's enforcement duties. The staff is responsible for executing the Board's mandate, which includes:

- 1. Granting Consent to Establish (CTE)
- 2. Granting Consent to Operate (CTO)
- 3. Establishing standards for emissions and effluents
- 4. Conducting field inspections to ensure industries adhere to emission standards
- 5. Monitoring air and water quality
- 6. Analysing samples

To effectively discharge these duties, the Board's staff are broadly categorised into three groups: technical, administrative and legal. The technical staff, consisting of engineers and scientists, handle the technical aspects of pollution control. The legal team ensures legal support and representing the Board at court proceedings, and the administrative staff manage the day-to-day operations of the Board. The legal team is not a regular part of the organisation as it operates on an ad-hoc basis. The Board consults with legal experts as and when the need arises. Therefore, for the purposes of this analysis, the legal staff has not been taken into consideration.

Evaluation of the TNPCB's capacity, particularly technical capacity Sanctioned Posts 📕 Occupied Posts Vacant Posts 600 521 500 400 303 283 300 238 238 217 200 161 100 65 56 0



Engineering

Scientific

Administrative

As previously mentioned, the technical staff, comprising engineers and scientists, form the backbone of the Board. Therefore, having a sufficiently staffed technical team is crucial for the Board to effectively discharge its mandated duties. However, the data paints a concerning picture of the staffing situation at the Board. Out of the 303 sanctioned positions for engineering staff, only 238 are filled, translating to a vacancy rate of 21%. The situation is even more critical for the scientific staff, with 54% of the positions found to be vacant. According to the findings from the performance audit of the TNPCB conducted by the CPCB, as reported in 2020, the total number of technical staff was 246 (CPCB 2020). However, within a span of two years, the existing strength of the technical staff increased significantly to 476. Despite this substantial increase, a significant discrepancy remains between the number of sanctioned posts and the actual vacancies. This suggests that while progress has been made in staffing, there is still a need to fill the remaining vacancies to fully realise the Board's operational capacity.

These significant numbers of technical vacancies within the Board could indeed impact the periodic inspection and monitoring of industries. While the MoM indicates that flying

⁸ https://bit.ly/TNPCB_HR

squads have been established to add an element of surprise to inspections and monitoring – a crucial component in ensuring compliance and creating deterrence among industries – the lack of adequate technical staff could still hamper the Board's inspection and monitoring mandate.

Without sufficient technical staff, the effectiveness and frequency of inspections could be compromised. This could potentially lead to lapses in monitoring, which in turn could affect the Board's ability to ensure that industries are adhering to environmental regulations. Moreover, existing staff may be burdened with an excessive workload due to these vacancies. This could potentially impact the morale of the technical staff and result in a considerable reduction in the Board's performance. Therefore, addressing these staffing issues is critical for the TNPCB to effectively carry out its mandate of controlling and preventing pollution.

The administrative staff, which supports the functioning of the Board, also has a high vacancy rate, standing at 26%. This further underscores the staffing challenges faced by the Board.

Analysis of the TNPCB's performance in consent granting and enforcement

As previously discussed, one of the critical functions of the Board is granting consent, whether for the establishment or operation of an industry. During this process, the Board's technical staff are required to inspect the premises of the proposed industries to ensure they adhere to the emission standards prescribed by the Board. While the Water and Air Acts stipulate a time limit of four months for processing consent applications from industries, the Board has ambitiously set a more stringent timeline. The Board aims to process such applications within an average of 45 days (<u>TNPCB 2017</u>). This implies that decisions must be made within this shorter timeframe.

In addition to these responsibilities, the technical staff is also tasked with carrying out enforcement activities. These activities are often triggered by pollution-related complaints received on a daily basis. The staff's response to these complaints forms a crucial part of the Board's mandate to control and prevent pollution. Therefore, this section aims to evaluate the performance of the Board's technical staff in terms of their consent granting and enforcement activities. Understanding this aspect is key to assessing the overall effectiveness of the Board in fulfilling its mandate.

Timeline on granting consent	Consent to Establish (CTE)	Consent to Operate (CTO)	Renewal of Consent (RCO)
Total No. of Applications Received	6785	37072	49302
No. of Applications Granted Within Timeline (on average 45 Days)	0	0	0
No. of Applications Granted Beyond Timeline	6673	36759	49208
No. of Applications Returned	24	98	52
No. of Applications Refused	75	185	21
Pending Applications (Up to 30 days)	0	0	0
Pending Applications (31 - 90 days)	0	0	0
Pending Applications (91 - 180 days)	0	0	0
Pending Applications (More than 180 days)	13	30	21

Table 5: Board's timeline on granting consentbetween 01-01-2017 and 31-12-2022 | TNPCB 9

As indicated in Table 5, none of the consent-related applications were processed within the ambitious 45-day timeline set by the TNPCB. This deviation from the intended timeline can largely be attributed to the significant number of vacancies in the Board's technical staff. Specifically, 21% of engineering positions and 54% of scientific staff positions are currently vacant. Only a small number of applications were pending for consent for more than 180 days.

Further, addressing complaints about pollution incidents is another critical function of the TNPCB. It plays a significant role in enforcing environmental protection laws and initiating legal action against offenders. An analysis of the data derived from the grievance redressal system reveals some interesting findings.

⁹ <u>https://bit.ly/TNPCB_CTEO</u>

Name of Environmental Engineer Office	Addressed complaints	Pending complaints	Total complaints
Chennai	2851	204	3055
Maraimalai Nagar	2621	134	2755
Nagercoil	2265	29	2294
Ambattur	1691	26	1717
Salem	1373	39	1412
Thoothukkudi	1121	7	1128
Coimbatore South	1045	42	1087
Tirunelveli	1067	10	1077
Tiruvallur	994	14	1008
Erode	920	12	932
Coimbatore North	775	17	792
Sriperumbudur	727	19	746
Namakkal	672	16	688
Cuddalore	682	5	687
Thanjavur	682	5	687
Madurai	670	4	674
Perundurai	644	22	666
Tiruchirapalli	661	3	664
Hosur	600	3	603
Virudhunagar	594	5	599
Dindigul	581	3	584

Name of Environmental Engineer Office	Addressed complaints	Pending complaints	Total complaints
Tiruppur South	522	19	541
Karur	518	0	518
Villupuram	475	18	493
Gummidipoondi	473	10	483
Tiruppur North	451	18	469
Vellore	417	17	434
Nagapattinam	407	3	410
Pudukkottai	405	4	409
Kumarapalayam	380	10	390
Tiruvannamalai	291	7	298
Sivagangai	247	5	252
Ariyalur	245	1	246
Vaniyambadi	219	4	223
Dharmapuri	192	1	193
Theni	147	5	152
Ramanathapuram	130	1	131
Udhagamandalam	104	4	108
Total	28859	746	29605

Table 6: Status of complaints received by the TNPCB | <u>TNPCB</u>¹⁰

¹⁰ <u>https://bit.ly/TNPCB_OGRP</u>

Out of the 38 environmental engineer offices in Tamil Nadu, Chennai, Maraimalai Nagar, and Nagercoil received the most complaints about pollution. This could be attributed to the number of industries in these areas, the local population, and the public's awareness of the importance of reporting pollution to the TNPCB. Nagercoil ranks third, even though the number of industries is comparatively lower than in Ambattur, Salem, and Thoothukudi. This could be attributed either to heightened public awareness leading to more pollution reports, or to the environmental office registering every pollution-related complaint. However, further research is needed to establish these connections and understand the reasons for the higher registration of pollution-related complaints. On the other end of the spectrum, the offices in Theni, Ramanathapuram, and Udhagamandalam received fewer complaints. The data also suggests that the TNPCB has been efficient in addressing complaints, with a very low percentage of complaints pending. However, the data does not provide insights into the timeline involved in disposing of the complaints or whether cases were registered under relevant environmental protection laws based on these complaints.

Recommendations



5 Recommendations

Based on the findings of this study, several recommendations have been developed. These recommendations are made in good faith, with the aspiration to support the mandate of the TNPCB. However, it should be noted that the author is not privy to the current organisational capacity, will, or financial situation that may impact the implementation of these recommendations.

1. Ensure Local Body Representation

Given that rural and urban local bodies in the State have elected members, it is crucial for the government to initiate steps to appoint members to ensure their representation as per the Water Act.

2. Fisheries Sector Representation

The Board includes non-official members, with two representing the Agriculture Sector and one from the Industries Sector. Given the geographical significance of Tamil Nadu, which has the second longest coastline in India, it would be beneficial to have representation from the Fisheries Sector. This would ensure that the interests and concerns of the coastal communities are adequately represented in the Board's decisions.

3. Stabilise Tenure

The Water Act prescribes a three-year tenure for members, excluding the member-secretary. However, during the study period, none of the official members served the Board for three years, except the representation from the Directorate of Public Health and Preventive Medicine. To prevent frequent changes that could hamper the Board's functions, the government should ensure a longer tenure for the members. If necessary, amendments to the Water Act or its relevant Rules could be made.

4. Leadership Tenure

The tenure of the Chairperson and Member Secretary, who form the leadership of the Board, is unstable. To improve the performance of any organisation in the long run, it is essential to stabilise the leadership's tenure. The government could amend the Water Act and Rules to prescribe a minimum tenure of two years, similar to the practice followed for top posts in the Police Department.

5. Virtual Participation

Technological advancements used during the COVID-19 pandemic offer a solution for members who find it challenging to attend every Board meeting. Members unable to be physically present could attend meetings virtually, ensuring representation of all interest groups.

6. Quorum Representation

The Tamil Nadu Water (Prevention and Control of Pollution) Rules, 1983 prescribe that the presence of five members during the Board meetings qualifies as a quorum. However, this quorum does not provide representation to all the members as prescribed in the Water Act. Therefore, necessary amendments may be brought into the Rules to include at least one member from the State government, agriculture, fishery, industry, trade, or any related fields, local bodies, and representing state-owned, controlled, or managed companies or corporations to form a quorum. This would ensure a more balanced and inclusive decision-making process.

7. Fund Utilisation

The Board's fund has been spent on a few non-environmental protection related works. Such utilisation of funds should be avoided to ensure resources are directed towards environmental protection.

8. Staff Vacancies

The government should take immediate steps to fill the vacancies in the technical, scientific, and administrative staff of the Board, even if there are justifiable reasons for these vacancies. These vacancies have evidently affected the mandate of the TNPCB. In addition, the data management capabilities and public disclosure mechanisms for information sharing might also have been impacted.

9. Acronym Clarity

The MoM contains several acronyms, such as CEPT for Common Effluent Treatment Plant, which may not be understood by the general public. As the TNPCB's MoM is a public document, it should be prepared in a manner that is self-explanatory to the public.

10. MoM Categorisation

The items on the MoM are presented by item number without any categorisation to distinguish whether a particular item is related to technical or administrative functions of the Board. During the tenure of Mr. Udhayan, IFS, as Chairperson, the MoM were categorised into four parts: General, Technical, Personal and Administration, and Construction, Law, Laboratory, Finance, and Accounts. However, such categorisation was not observed in subsequent MoMs. Therefore, the Board should formulate a standardisation to record the items discussed at the MoM. This will enable the public and researchers to better understand the functions of the Board. This situation also highlights that when the leadership of the Board changes, some best practices may not be followed.

11. Consent Granting Timeline

In addition to providing data on the number of pending applications between 30 and 180 days, specific timelines indicating when the consents were granted should be included. This would provide a clearer picture of the application processing timeline and help identify potential areas for improvement.

12. Reasonable Timeline

The Board's ambitious 45-day timeline for consent-related applications is not being adhered to, possibly due to the vacancy rate of technical human resources. Therefore, a reasonable timeline should be drawn keeping in mind the present human resources, and best efforts should be made to adhere to this timeline.

13. Complaint Handling Process

While the data on public complaints about pollution-related issues provides some understanding of the complaint distribution and resolution rate, it does not offer comprehensive insights into the TNPCB's complaint handling process. Including data points such as the cases registered, convicted, acquitted, and pending at courts and type of action taken against industries will provide a clearer understanding of the enforcement capability of the Board.

14. Data Cleaning

The Online Consent Management & Monitoring System and Grievance Petition Redressal System provide data on consent applications and complaint details. However, both systems include heads such as 'Test Group', 'Test Group 2', and 'Test' with data. Such unattributed data can give misleading figures. Therefore, the database should be cleaned to contain only relevant data.

References



References

Aggarwal, Dinesh, and Praveen Aggarwal. 2022. "Fifty Years of UN Conference on Human Environment, 1972 – What We Achieved and What We Missed." *The Times of India*, June 5.

https://timesofindia.indiatimes.com/blogs/voices/fifty-years-of-un-conference-onhuman-environment-1972-what-we-achieved-and-what-we-missed/

Balasubramanyam, and Chaitanya, Krishna. 2021. "DVAC Books TNPCB Chief on Graft Charges." *The New Indian Express*. September 24.

https://www.newindianexpress.com/states/tamil-nadu/2021/sep/24/dvac-bookstnpcb-chief-on-graft-charges-2362956.html

CPCB. 2020. "Report of the Performance Audit of State Pollution Control Boards/ Pollution Control Committees." New Delhi: Central Pollution Control Board. <u>https://cpcb.nic.in/pcp/report-performance-audit.pdf</u>

Ghosh, Shibani., Karkun, Arunesh., Mathew, Sharon., Dhawan, Prannv., Mahajan, Annanya, and Krishna, Bhargav. 2022a. "The State of India's Pollution Control Boards - A Series of Papers." *CPR*. Centre For Policy Research. October 19.

https://cprindia.org/workingpapers/the-state-of-indias-pollution-control-boards/

Ghosh, Shibani., Mathew, Sharon., Karkun, Arunesh, and Krishna, Bhargav. 2022b."The State of India's Pollution Control Boards: Who Is at the Helm?" Working paper 2.New Delhi: Centre for Policy Research.

https://cprindia.org/wp-content/uploads/2022/10/02-Leadership-WP_CPR-SPCBstudy_191022.pdf

Pal, B. P. 1979. "Indian National Committee on Environmental Planning and Coordination." *Environmental Conservation* 6 (4): 256–256. doi:10.1017/S0376892900003349

Ramakrishnan, T. 2022. "Lessons from the Urban Local Body Polls in Tamil Nadu." *The Hindu*, March 1, sec. Comment.

https://www.thehindu.com/opinion/op-ed/lessons-from-the-urban-local-body-polls-intamil-nadu/article65144661.ece

The Hindu. 2019. "Tamil Nadu Local Body Polls' Delay Due to Delimitation of Wards, Poll Body Tells SC." *The Hindu*, sec. Tamil Nadu.

https://www.thehindu.com/news/national/tamil-nadu/tn-local-body-polls-delay-due-todelimitation-of-wards-poll-body-tells-sc/article28261075.ece

TNPCB. 2017. "Time Limit for Inspection." Tamil Nadu Pollution Control Board.

https://tnpcb.gov.in/pdf/BP/Time-limit-for-processing.pdf

- -----. 2021. "About TNPCB." TNPCB. https://tnpcb.gov.in/about-us.php
- -----. 2023. "Tamil Nadu Pollution Control Board Policy Note 2023-2024." 15. Tamil

Nadu Pollution Control Board.

https://tnpcb.gov.in/pdf/Annual_Report/PolicyNoteEng2023_2024.pdf

Verma, Shreya. 2021. "Transparency Index: Rating of Pollution Control Boards on Public Disclosure." Centre for Science and Environment,.

https://www.cseindia.org/content/downloadreports/10936

United Nations. 2023. "United Nations Conference on the Human Environment, Stockholm 1972." *United Nations*. Accessed November 22.

https://www.un.org/en/conferences/environment/stockholm1972

