



CAG

Citizen consumer and civic Action Group

ENVIRONMENTAL LAW ENFORCEMENT MANUAL



TO FACILITATE INVESTIGATION
OF ENVIRONMENTAL CRIMES



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To Facilitate Investigation of
Environmental Crimes

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ABOUT CAG

CAG is a 39-year-old non-profit and non-political organisation that works towards protecting citizens' rights in consumer, civic and environmental issues and promoting good governance processes, including transparency, accountability and participatory decision-making.

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The purpose of the document is to serve as an environmental law enforcement manual aimed at facilitating investigation of environmental crimes. It addresses the challenges faced by various agencies in enforcing these laws and provides guidelines for improving inter-agency collaboration, investigation, and prosecution of environmental crimes.

PURPOSE

1. STRENGTHEN ENFORCEMENT

To improve the enforcement of environmental laws by shifting the perception of environmental harm from minor infractions to serious crimes.

2. PROMOTE COLLABORATION

To foster inter-agency cooperation among pollution control boards, police, water supply and drainage boards, and local bodies.

3. PROVIDE GUIDELINES

To offer detailed procedures and best practices for investigating and prosecuting environmental crimes.

4. ENHANCE AWARENESS

To raise awareness among law enforcement agencies, public prosecutors, and the community about the importance of environmental protection and the legal frameworks in place.

SCOPE

1. DEFINITION OF ENVIRONMENTAL CRIME

Clarifies what constitutes an environmental crime versus a violation, including the essential elements of a crime and societal perceptions of environmental harm.

2. LEGAL FRAMEWORK

Outlines the relevant laws and penal provisions under the Water Act, Air Act, Environment Act, and other local laws, including recent amendments.

3. INVESTIGATION PROCEDURES

Details the steps for investigating environmental crimes, including crime registration, search and seizure, evidence collection, and maintaining the chain of custody.

4. BEST PRACTICES

Highlights best practices for law enforcement agencies, including observation, listening, interviewing, and interrogation skills, as well as the use of technology and forensic science.

5. COMMUNITY ENGAGEMENT

Emphasises the role of community involvement, public awareness, and collaboration with civil society organisations in environmental protection.

6. REPORTING MECHANISMS

Describes effective mechanisms for reporting environmental crimes, including online complaint portals and the involvement of local bodies.

By addressing these areas, the manual aims to enhance the effectiveness of environmental law enforcement, ensuring better protection of natural resources and public health.

1. INTRODUCTION

The survival of all living beings on Earth is intrinsically linked to the health of their surrounding environment, whether terrestrial or aquatic. For life to thrive, these environments must provide conducive conditions that support growth and sustenance. However, human and industrial activities have significantly impacted these environments, contributing to global warming and climate change. Despite the existence of laws and regulations designed to protect the environment, human activities continue to exert immense pressure on natural resources. This ongoing exploitation, coupled with the emission of pollutants and the improper disposal of waste, degrades our water bodies, land, and atmosphere (Häder and Barnes 2019; Edo et al. 2024).

A key area of concern is the contamination of public water supplies, particularly in groundwater and surface water resource areas. These water bodies are especially vulnerable to uncontrolled releases of hazardous materials and pollutants (Babuji et al. 2023). Additionally, airborne hazardous substances—whether in the form of dust, smoke, or vapours—can migrate through the atmosphere, posing significant risks to air quality and public health (Manisalidis et al. 2020). The interconnected nature of air, water, and land pollution underscores the need for comprehensive strategies to address environmental degradation.

While existing environmental protection laws include penal provisions to punish offenders, the enforcement of these laws often face significant challenges.

The environmental problems outlined above are exacerbated by environmental crimes, which can occur in various contexts but are most prevalent during the storage, transportation, and disposal of materials. While existing environmental protection laws include penal provisions to punish offenders, the enforcement of these laws often face significant challenges. Law enforcement agencies may view environmentally harmful behaviour as mere regulatory violations rather than serious crimes, which limits the effectiveness of deterrence and weakens the overall impact of environmental protection efforts (Bishop 2020; Alauddin et al. 2024). Strengthening the enforcement of environmental laws and shifting the perception of environmental harm from a minor infraction to a serious crime is crucial for safeguarding the health of our ecosystems and ensuring sustainable development.

The enforcement of environmental protection laws is visibly lacking, as evidenced by data from the Crime in India statistics, annually published by the [National Crime Records Bureau](#).

Table 1: Police registered cases under the environmental protection laws

Year	Environment Act		Water & Air Acts	
	All India	Tamil Nadu	All India	Tamil Nadu
2014	101	0	63	0
2015	299	1	60	0
2016	122	0	36	0
2017	171	1	36	0
2018	86	1	17	0
2019	487	1	160	0
2020	992	0	589	0
2021	252	0	55	0
2022	329	0	78	22
Total	2839	4	1094	22

Absence of a dedicated environmental crime unit within the police department is potentially a reason for this lack of enforcement.

The table highlights police-registered cases under the Environment Act and the Water & Air Acts across India and Tamil Nadu from 2014 to 2022. At the national level, 2,839 cases were registered under the Environment Act, peaking in 2020 with 992 cases, while 1,094 cases were registered under the Water & Air Acts, with the highest count of 589 in 2020. In Tamil Nadu, only 4 cases were registered under the Environment Act during this period, spread across 2015, 2017, and 2018, whereas under the Water & Air Acts, all 22 cases were reported in 2022. This reflects a significant disparity, with Tamil Nadu showing minimal enforcement under the Environment Act and a recent spike in cases under the Water & Air Acts. Absence of a dedicated environmental crime unit within the police department is potentially a reason for this lack of enforcement.

The [Tamil Nadu Pollution Control Board \(TNPCB\)](#) faces challenges in enforcement, which can be attributed to a shortage of human resources (Prakash, 2023). While addressing the issue of inadequate human resources is the responsibility of the

respective governments, inter-agency cooperation can be strengthened with support from academic institutions, civil society organisations, and other external entities.

This enforcement manual is designed to promote inter-agency collaboration between the pollution control board, the police, the [Tamil Nadu Water Supply and Drainage Board \(TWAD Board\)](#), the [Chennai Metropolitan Water Supply and Sewerage Board \(CMWSSB\)](#), and local bodies. By enhancing cooperation, the manual aims to strengthen the investigation and prosecution of environmental crimes.

2. DEFINITION OF ENVIRONMENTAL CRIME

Environmental crime refers to illegal activities that directly harm the environment.

These crimes include a wide range of actions such as the illegal dumping of hazardous waste, illegal logging, poaching of protected wildlife, unregulated emissions of pollutants, and the unauthorised extraction of natural resources. Environmental crimes not only degrade ecosystems and biodiversity but also pose significant risks to human health and contribute to global issues like climate change. Enforcing laws against environmental crimes is crucial for protecting and preserving natural resources and ensuring the well-being of all living beings. Effective enforcement requires robust legal frameworks, adequate human resources, and strong inter-agency cooperation.

For the purpose of this manual, we define environmental crime as any action that contravenes the provisions of the following laws:



WATER ACT

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



AIR ACT

the Air (Prevention and Control of Pollution) Act, 1981



ENVIRONMENT ACT

The Environment (Protection) Act, 1986



BNS

The Bharatiya Nyaya Sanhita, 2023 (BNS)¹



BNSS

The Bharatiya Nagarik Suraksha Sanhita, 2023 (BNSS)² and



LOCAL LAWS

a few relevant local laws.

Thus, the scope of what constitutes an environmental crime is an intentional act or omission in violation of these laws.

¹Erstwhile the Indian Penal Code, 1860

²Erstwhile the Code of Criminal Procedure, 1973

2.1 CRIME VS VIOLATION

Human behaviour intersects with laws, norms, and shared values. Unlike norms and social values, laws are expressed in written words, requiring precision for enforcement. Defining legal terms like “crime” accurately is crucial in jurisprudence. However, it is challenging to provide a precise definition of crime. Legal scholars like Glanville Williams and JW Cecil Turner acknowledge the difficulty in defining crime due to its dynamic nature, influenced by the criminal and penal policies of a state (Williams 1955; Turner and Kenny 2013). These policies vary based on geography, social values, cultures, beliefs, and political ideologies. **Broadly, a crime is an action or omission that constitutes an offence and is punishable by law.**

2.2 ESSENTIAL ELEMENTS OF A CRIME

Despite the difficulty in defining crime, certain elements are universally accepted. **A crime involves a voluntary act prohibited by law that results in harm.** For an act to be voluntary, there must be criminal intent (mens rea) leading to a criminal act (actus reus). Thus, criminal liability requires both wrongful intention and wrongful act (Lippman 2020). An act or omission qualifies as a crime if it inflicts definite harm on a specific person or the community at large.

2.3 DEFINING VIOLATION

A violation is an action that breaks or acts against a law, agreement, principle, or something deserving respect. **Violations are generally infractions rather than serious offences.** For example, in Tamil Nadu, constructing a building without complying with the **Tamil Nadu Town and Country Planning Act, 1971**, is a violation. Violators typically face monetary fines rather than imprisonment because the act is less severe and does not directly harm individuals or the community like a crime does. Thus, while all crimes are violations, not all violations are crimes.

2.4 ENVIRONMENTAL CRIME VS. ENVIRONMENTAL VIOLATION

Using the essential elements of crime, any direct voluntary act or omission by a person or organisation, with a guilty mind, prohibited by law, and resulting in environmental harm qualifies as an environmental crime. For instance, contravening sections of the **BNS**, or laws like the **Water Act, Air Act** and **Environment Act** constitutes an environmental crime.

Environmental violations, on the other hand, are less serious and often procedural infractions of environmental protection laws. For example, failing to carry out an **Environmental Impact Assessment (EIA)** as required under the **Environment Act**, is an environmental violation. Such omissions do not directly harm the environment, though they may have indirect effects. **Legally, it is challenging to criminalise actions that do not cause direct harm.**

2.5 FROM VIOLATION TO CRIME

The distinction between a violation and a crime arises from societal perceptions of harm rather than a fixed doctrine. When certain behaviours are recognised as significantly harmful, society responds by enacting new laws or amending existing ones to deter them. In the context of environmental protection, whether an act is classified as a crime or a mere violation depends on the perceived severity of its impact.

2.6 SOCIETAL PERCEPTION AND ENVIRONMENTAL HARM

The preference for the term “environmental violation” over “environmental crime” reflects society’s short-sightedness in protecting the ecosystem.

Society and environmental jurisprudence often view environmental harm as a violation rather than a crime due to a lack of recognition of its impact. Unlike immediate signs of violence in crimes like burglary or murder, environmental harm is less visible (Shelley, Chiricos, and Gertz 2011). This results in us often failing to recognise ourselves as victims of environmental crimes. The preference for the term “environmental violation” over “environmental crime” reflects society’s short-sightedness in protecting the ecosystem. It is crucial to mainstream the dialogue on environmental crime amid rampant environmental harm.

3. LEGAL FRAMEWORK

A legal framework for environmental law enforcement is essential for ensuring compliance with environmental regulations and holding offenders accountable. This framework includes penal provisions from the **Water Act, Air Act, Environment Act, BNS, BNSS**, and **relevant local laws** specific to the state of Tamil Nadu.

3.1 SENTENCES AND PENALTIES

Sentences and penalties in environmental cases aim to punish violators, deter future offences, and remediate environmental harm. Penalties may include fines, imprisonment, and court orders to clean up or restore damaged environments. The severity of the penalties depends on factors such as the extent of the harm caused and any prior violations.

Table 2: Penal provisions under the Water Act

Relevant Sections	Offence
Section 20(2) & 20(3)	Non-disclosure of information about water abstraction or discharge of sewage or trade effluent
Section 24	Use of stream or well for disposal of polluting matter
Section 25	Creation of new outlets and new discharges
Section 26	Non-disclosure of information about existing discharge of sewage or trade effluent
Section 31	Non-disclosure of information to State Pollution Control Board (hereafter Board) and other agencies in certain cases
Section 32(1)	Not acting upon in case of pollution of stream or well due to any accident or other unforeseen act or event
Section 33A	Non-compliance with the directions issued
Section 42	Destroying Board-placed markers, obstructing Board officials, damaging Board property, etc.

The punishment for violations under these provisions involves graduated penalties based on the number of offences committed. The minimum imprisonment term mentioned is three months, and the minimum fine is ₹10,000. The maximum imprisonment term is seven years, which applies if the failure continues beyond a period of one year after the date of conviction. Additionally, for such failures, the maximum fine can be ₹10,000 initially, with an added fine of ₹5,000 for each day the failure continues.

Table 3: Penal provisions under the Air Act

Relevant Sections	Offence
Section 21	Establishing or operating any industrial plant in an air pollution control area without the consent of the Board
Section 22	Emission of air pollutants by industries beyond the standards set by the Board
Section 31A	Non-compliance with the directions issued
Section 38	Destroying Board-placed markers, obstructing Board officials, damaging Board property, etc.
Section 38A	Contravention of any provision of this Act by government department

Under **Air Act**, most penalties that previously attracted imprisonment between three months to seven years have been removed through the latest amendment made in 2023 by the **Jan Vishwas (Amendment of Provisions) Act**, with the changes taking effect on April 1, 2024. For the offence under Section 21, imprisonment shall not be less than one year and six months but may extend to six years. For other sections, the fine shall range between ₹10,000 and ₹15,00,000.

Table 4: Penal provisions under the Environment Act

Relevant Sections	Offence
Section 7	Discharging or emitting environmental pollutants in excess of prescribed standards while carrying out any industry, operation or process

Section 8	Handling or causing the handling of any hazardous substance without following prescribed procedures and safeguards
Section 9	Non-disclosure of information to authorities and agencies on discharge of any environmental pollutant
Section 10	Wilfully delaying or obstructing an officer in the performance of their duties
Section 11	Failure to comply with the procedure for taking samples as prescribed

As mentioned earlier, provisions for imprisonment between five and seven years under the **Environment Act** have been removed through the latest amendment made in 2023 by the **Jan Vishwas (Amendment of Provisions) Act**. For instance, contravention of Section 7 or Section 8 now attracts a penalty of not less than ₹1,00,000, which may extend to ₹15,00,000. For other sections, the minimum fine ranges from ₹10,000 to ₹5,00,000. With these amendments, no imprisonment is prescribed for any offence under this Act. Additionally, penalties recovered from offenders under the **Air Act** and the **Environment Act** shall be credited to the **Environmental Protection Fund**.

3.1.1 COGNISANCE OF OFFENCE UNDER ABOVE-MENTIONED ACTS

No court will take notice of any offence under these Acts unless a complaint is made by a Board or any officer authorised by it, or by any person who has given at least sixty days' notice of the alleged offence and their intention to file a complaint. Similarly, the **Central Government** or an **authorised officer** can also file a complaint under the same conditions. Only **courts of a Metropolitan Magistrate** or a **Judicial Magistrate** of the first class can try these offences. If a complaint is made by a person who has given notice, the Board must provide relevant reports upon request, unless it deems that doing so is against public interest.

3.1.2 NOISE POLLUTION

Although noise is considered an air pollutant under the **Air Act**, any complaints related to noise received by the Board are forwarded to the police for necessary action. The **Chennai City Police Act, 1888**, and the **Tamil Nadu Towns Nuisances Act, 1889**, empower police officers to take measures to prevent and control noise pollution in any area.

Table 5: Penal provisions under the Chennai City Police Act, 1888

Relevant Sections	Offence
Section 41	Using sound amplifiers in public places without obtaining the necessary permission from the police
Section 71(xv)	Playing music or beating a tom-tom, blow a horn or trumpet, or beat any utensil, or sound any brass or other instrument without obtaining the necessary permission from the police

Table 6: Penal provisions under the Tamil Nadu Towns Nuisances Act, 1889

Section 3(10)	Unauthorised use of sound amplifiers in public places
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Contravention of the above provisions shall be punishable with a fine not exceeding ₹500, or imprisonment for a term that may extend to three months. Additionally, the police have the authority to seize any sound amplifier used in violation of the terms and conditions prescribed while granting permission.

3.1.3 INVOLVEMENT OF LOCAL BODIES

In addition to the above-mentioned Acts, certain environment-related provisions are being implemented through the Acts meant to govern local bodies.

Table 7: Penal provisions under the Tamil Nadu District Municipalities Act, 1920

Relevant Sections	Offence
Section 161	Allowing or throwing any material in water sources or drainage

Table 8: Penal provisions under the Tamil Nadu Urban Local Bodies Act, 1998

Relevant Sections	Offence
Section 157	Improper disposal of carcasses, rubbish and filth
Section 158	Keeping filth on premises too long
Section 159	Allowing outflow of filth
Section 161	Throwing rubbish or filth into drains

Table 9: Penal provisions under the Tamil Nadu Panchayats Act, 1994

Relevant Sections	Offence
Section 144	Failure to comply with a requisition to clear, cleanse, or remove noxious vegetation from a building or land in a filthy state shall constitute an offence

For the purposes of the **Tamil Nadu District Municipalities Act, 1920**, “filth” includes sewage, night soil, dung, dirt, putrid and putrefying substances, and all offensive matter. This Act serves as umbrella legislation, with each City Municipal Corporation having its own Act and Bye-laws in line with its provisions. For the aforementioned offences, local bodies impose penalties ranging from ₹10 to ₹20. Under Section 144 of the **Tamil Nadu Panchayats Act, 1994**, the penalty is ₹500.

3.1.4 PROVISIONS THAT CAN BE INVOKED UNDER THE CRIMINAL LAWS

In addition to the above environmental protection Acts and local bodies Acts, there are certain provisions under the **BNS** and the **BNSS** that can be invoked. Though these provisions may not directly address environmental protection, they can be applied to prevent actions that are detrimental to the environment at large.






Table 10: Penal provisions under the Bharatiya Nyaya Sanhita, 2023

Relevant Sections	Offence
Section 223	Disobedience to order duly promulgated by public servant
Section 270	Public nuisance
Section 271	Negligent act likely to spread infection of disease dangerous to life
Section 272	Malignant act likely to spread infection of disease dangerous to life
Section 279	Fouling water of public spring or reservoir
Section 280	Making atmosphere noxious to health

All the offences mentioned above, except for those under Section 280, are cognisable. The punishments for certain crimes related to public nuisance, health hazards, and environmental pollution vary in terms of fines and imprisonment.

Committing a public nuisance (not otherwise punishable) may result in a fine of up to ₹1,000. Unlawfully or negligently spreading a life-threatening disease can lead to imprisonment of up to 6 months, a fine, or both while doing so with malicious intent can result in imprisonment of up to 2 years, a fine, or both. Voluntarily polluting public water sources can attract imprisonment of up to 6 months, a fine of up to ₹5,000, or both. Similarly, vitiating the atmosphere to harm public health can result in a fine of up to ₹1,000. The maximum punishment for these offences is 2 years of imprisonment and a fine of up to ₹5,000.

In addition to the above penal provision, Section 152 of the **BNSS** provides magistrates with proactive powers to address potential public safety risks. District or Executive Magistrates can issue conditional orders when they identify specific hazards, such as:

-  Obstructed public pathways
-  Health-hazardous commercial activities
-  Structurally dangerous buildings
-  Unsafe excavation sites
-  Dangerous animals

Upon receiving a police report or relevant information, the magistrate can require the responsible party to either:

1. Immediately remove the identified hazard, or
2. Appear before the magistrate to explain why the hazard should not be addressed

The provision's primary objective is preventing potential public harm by empowering officials to take swift, pre-emptive action. A critical feature of this legal mechanism is that such orders cannot be challenged in civil courts, ensuring rapid intervention to mitigate public safety risks.

There are instances where, based on complaints by the **Chennai Metropolitan Water Supply and Sewerage Board (CMWSSB)**, cases have been registered by the police under Sections 223 and 270 of the **BNS** against individuals involved in illegal sewage discharge activities (CMWSSB 2021).

4. INVESTIGATION OF ENVIRONMENTAL CRIME

In Tamil Nadu, environmental violations are not always treated as environmental crimes, which can hinder effective enforcement.

The investigation of environmental crimes typically follows a set of standard procedures established by enforcement agencies. In Tamil Nadu, environmental violations are not always treated as environmental crimes, which can hinder effective enforcement. This section will highlight best practices followed by law enforcement agencies with dedicated environmental crime units. These practices can serve as a guide for Tamil Nadu's law enforcement agencies responsible for environmental law enforcement, in enhancing their approach to investigating and addressing environmental crimes. By adopting these practices, these agencies can improve their ability to enforce environmental laws and protect public health and the environment.

4.1 INVESTIGATION MODELS AND COLLECTION OF INTELLIGENCE

Investigation of environmental crimes can follow two significant models: reactive and proactive investigations. **Reactive investigations** are initiated in response to reported incidents, involving steps such as complaint reception, initial assessment, site inspection, evidence collection, and legal action. These investigations address immediate threats and ensure compliance with environmental laws. On the other hand, **proactive investigations** involve continuous monitoring and surveillance to prevent and control environmental crimes before they occur. This includes regular monitoring and surveillance, having a network of informers, data analysis, risk assessment, preventive measures, and collaboration with other agencies and communities (Lum et al. 2020).

4.2 REGISTERING THE CRIME

Environmental crimes can be reported by citizens, NGOs, or detected by the [State Pollution Control Boards \(SPCBs\)](#), the [Central Pollution Control Board \(CPCB\)](#), the [TWAD Board](#), the [CMWSSB](#), and local authorities through routine inspections. When an industry is involved, the SPCB typically issues a show-cause notice, requiring the industry to explain the violation. If the response is unsatisfactory, the SPCB may proceed to disconnect the electricity and water supply to the offending industry. At present, SPCBs

limit their role to monitoring industries. The responsibility for monitoring and ensuring compliance of commercial establishments and households lies with the respective local authorities. For crimes related to sewage, the TWAD Board and the CMWSSB are required to address the issue. In cases of violations concerning noise pollution and certain sections of the BNS, a First Information Report (FIR) is registered under the relevant sections upon receiving a complaint. The FIR must detail the nature of the offence, the suspected violators, and the evidence collected.

4.3 SEARCH & SEIZURE

Under the **Water Act** (Section 23), **Air Act** (Section 24), and **Environment Act** (Section 10), authorised officers have the power to enter premises, inspect, and seize any equipment or documents related to the offence. The police can invoke the relevant section of the **BNS** to conduct searches and seizures. These searches and seizures must be conducted with minimal disruption to lawful activities, ensuring that all seized items are meticulously documented and securely stored. If **SPCB** officials anticipate any altercation or law and order issues during the search and seizure, they should seek assistance from the police to maintain order and safety.

Sample collection, including air or emission samples, water or effluents from the scene of the crime, must adhere to the procedures specified in Section 26 of the **Air Act**, Section 21 of the **Water Act**, and Section 11 of the **Environment Act**. These sections outline the proper methods for collecting, handling, and preserving samples to ensure their integrity and admissibility as evidence. Additionally, it is crucial to maintain a clear chain of custody for all samples collected, documenting each step from collection to analysis to prevent any tampering or contamination. Furthermore, authorised officers should be well-versed in the legal requirements and procedural guidelines to avoid any procedural lapses that could compromise the investigation.

4.4 SCENE OF CRIME (SOC) INVESTIGATION: DOS AND DON'TS

When investigating an environmental crime scene, it is crucial to secure the area to preserve evidence. This involves cordoning off the site and restricting access to authorised personnel only. The scene should be documented thoroughly using photographs, videos, and sketches to capture its layout and any potential evidence. Samples of air, water, soil, or other materials must be collected with care to maintain their integrity (Priya et al. 2024). Proper tools and containers should be used for sample collection to avoid contamination, and unauthorised personnel must be kept away to prevent interference.

4.5 INVESTIGATION AND PROSECUTION OF OFFENDERS: DOS AND DON'TS

During the investigation and prosecution of environmental offenders, it is imperative to follow procedures for evidence collection and documentation. This ensures that the evidence is admissible in court and that the investigation is conducted transparently. Collaboration with public prosecutors is essential to build a strong case against the offenders. Delays in the investigation process should be avoided to ensure timely prosecution. Additionally, sensitive information should not be disclosed to unauthorised parties, to protect the integrity of the investigation and the privacy of those involved.

4.6 EVIDENCE COLLECTION, PRESERVATION AND CHAIN OF CUSTODY OF EVIDENCE

Collected evidence must be stored in secure, properly labelled containers and maintained in controlled environments to prevent degradation.

Evidence collection and preservation in environmental crime investigations involve gathering physical samples (water, air, soil), documents (permits, logs), digital data (monitoring records), and witness statements. Collected evidence must be stored in secure, properly labelled containers and maintained in controlled environments to prevent degradation. A crucial aspect of this process is maintaining a clear chain of custody, which refers to the chronological documentation of evidence, detailing its collection, transfer, analysis, and storage. This is vital to ensure the integrity of the evidence and its admissibility in court (Farmer 2008). Each transfer of evidence must be recorded with the signatures of the individuals involved, along with the date and time. Any breach in the chain of custody can compromise the investigation.

4.7 SKILLED INVESTIGATION

Thorough investigations and successful prosecutions serve as a deterrent to potential offenders, discouraging illegal environmental activities. Transparent and skilled investigations build public trust in environmental enforcement agencies, encouraging community cooperation and reporting of environmental crimes (Birzer and Roberson 2012). Additionally, skilled investigators can effectively coordinate with other stakeholders, including government agencies, NGOs, and the community, ensuring a comprehensive approach to tackling environmental crimes.

4.7.1 OBSERVATION SKILLS

Observation skills are crucial for environmental investigators to identify violations and gather evidence. This includes noticing changes in the environment, such as unusual odours, discolouration of water bodies, or illegal dumping activities. Effective observation requires attention to detail and the ability to document findings accurately.

4.7.2 LISTENING SKILLS

Listening skills are essential for understanding the concerns of the community, witnesses, and suspects. Active listening helps in gathering accurate information and building trust with stakeholders. It involves paying full attention, understanding the context, and responding appropriately.

4.7.3 INTERVIEWING SKILLS

Interviewing skills are vital for collecting information from witnesses, suspects, and experts. Effective interviewing involves asking open-ended questions, maintaining a neutral tone, and creating a comfortable environment for the interviewee. This helps in obtaining detailed and reliable information.

4.7.4 INTERROGATION SKILLS

Interrogation skills are used to elicit confessions or critical information from suspects. This requires a thorough understanding of legal boundaries, psychological tactics, and ethical considerations. Effective interrogation balances firmness with empathy to encourage cooperation without coercion. **The police typically possess the required interviewing and interrogation skills for dealing with accused individuals, as this is a routine part of their work. In contrast, environmental engineers, local body officials and others are generally not as well-trained in handling environmental suspects.** Therefore, the investigation of environmental crimes should be carried out by the police.

4.7.5 DOCUMENTATION SKILLS

Accurate documentation is essential for creating a reliable record of the investigation. This includes writing detailed reports, maintaining logs of evidence, and ensuring all documentation is clear, concise, and legally admissible. Proper documentation supports the integrity of the investigation and aids in legal proceedings.

4.7.6 TECHNOLOGY AND FORENSIC INTERROGATION SKILLS

Modern investigations rely heavily on technology and forensic science, including the use of digital tools to analyse data, if required, forensic analysis of environmental samples, and surveillance equipment. Investigators may seek assistance from the forensic science department, whose scientific officers can also serve as expert witnesses during trials. Proficiency in these technologies is essential for investigators to effectively gather and interpret evidence.

4.7.7 COORDINATION WITH OTHER STAKEHOLDERS

Environmental investigations often involve multiple stakeholders, including government agencies, NGOs, and the community. Effective coordination ensures that all parties are informed and involved, which enhances the investigation's credibility and effectiveness. This includes regular communication, joint operations, and sharing of resources.

4.8 OBSERVATIONS OF AN ENVIRONMENTAL ENGINEER, A RETIRED POLICE OFFICER AND AN ADVOCATE

The enforcement of environmental laws requires the collective efforts of multiple stakeholders, including environmental engineers, police officers, and legal professionals. Each of these roles plays a unique and crucial part in addressing environmental violations, ensuring compliance, and holding offenders accountable. The following accounts provide insights into the perspectives and experiences of an environmental engineer, a retired police officer, and an advocate, shedding light on the practical challenges and recommendations for improving environmental law enforcement.



AN ENVIRONMENTAL ENGINEER:

“ Under the Water and Air Acts, environmental engineers primarily issue show-cause notices to industries found violating regulations. If the industry fails to provide a satisfactory explanation or comply with the Board’s orders, we initially disconnect their power and water supply. In cases of repeated violations, we take steps toward the complete closure of the industry. As a result, filing cases in court or involving the police is generally unnecessary. However, for environmental clearance-related violations, cases may occasionally be filed to obtain orders from judicial magistrates. Police involvement is sought only when we anticipate law-and-order issues during the discharge of our duties.

We conduct monthly inspections for red-category industries and quarterly inspections for orange-category industries. Red-category industries are those with a pollution index score of 60 or higher and include highly polluting sectors such as cement, petrochemicals, fertilizers, leather, hazardous chemicals, and distilleries. On the other hand, orange-category industries have a pollution index score between 41 and 59. These industries are relatively less polluting and include sectors like glass manufacturing, aluminium, copper extraction, fruits and vegetables processing, and most food processing industries. Complaints related to noise pollution are forwarded to the police for action. **Enforcing environmental laws in their true spirit is challenging, largely due to factors such as political pressure.**

One specific challenge involves regulating sewage lorries, which are primarily overseen by Revenue Divisional Officers (RDOs). Even if we deny permissions, RDOs often issue clearances, undermining our authority. Additionally, we often receive complaints from the public aimed at settling personal vendettas against individuals or industries, making it difficult to address genuine concerns effectively.

Inspecting central government industries guarded by the Central Industrial Security Force (CISF) is another significant challenge. **Surprise inspections are impossible, as we are required to obtain prior entry passes, defeating the purpose of such inspections.** These challenges make it difficult to implement environmental laws effectively. ”



A RETIRED POLICE OFFICER:

“Police personnel are well known to be overburdened with multiple responsibilities, ranging from crime prevention and detection to the investigation of criminal cases. While performing these duties, I have observed instances where cases have been registered under sections 270, 279, and 280 of the BNS. However, such cases are relatively rare compared to those registered under sections dealing with offences against human body and property.

This discrepancy can be attributed to the fact that police officers are primarily exposed to crimes affecting human life and property. As a result, they may not always be inclined or oriented to invoke provisions related to environmental protection and public health. **Consequently, offences that fall within the ambit of environmental protection laws, despite having specific provisions under the BNS, may often go unregistered or under-enforced.**

Given the operational workload and limited manpower, the government could consider establishing a specialised Environmental Crime Unit, similar to existing special units like the Cyber Crime Wing, Economic Offences Wing, and Idol Wing. Such a dedicated unit would ensure focused attention on environmental offences, thereby improving the enforcement of environmental protection laws and ensuring that environmental crimes are effectively addressed in our state.”



AN ADVOCATE:

“The implementation of environmental protection laws in our state remains inadequate. One key area of improvement is the capacity building of public prosecutors. It is essential for the Tamil Nadu Judicial Academy to provide them with **training on recent amendments to environmental laws**, ensuring they stay up-to-date with legal developments.

Authorities like the Pollution Control Board, police, and local bodies are already burdened with multiple responsibilities. As a result, they may struggle to address urgent environmental issues that require immediate attention. To bridge this gap, executive magistrates should be empowered to invoke Section 152 of the BNSS in cases that demand swift action. However, this provision is rarely utilised in practice.

To enhance the effectiveness of environmental governance, it is crucial to raise awareness among executive magistrates and police officers about key provisions of the BNS 2023 and the BNSS 2023. Strengthening their understanding of these laws will enable timely and effective responses to environmental issues.

Pollution is any action that makes water dirty or harmful. This can happen when substances like sewage, chemicals, or waste (in liquid, gas, or solid form) are released into water. Such contamination can cause problems like bad smell, harm to people's health, or damage to the environment, including animals, plants, and aquatic life. It also affects how water can be used for drinking, farming, industry, or other essential purposes. ”

5. COMMUNITY AND PUBLIC ENGAGEMENT

Community engagement is vital for effective environmental protection. It empowers local communities to take an active role in preserving their environment, leveraging their unique knowledge and vested interest in sustainable practices. **By involving communities in activities like monitoring ecosystems, managing waste, and advocating for conservation, a sense of ownership and responsibility is fostered.** Public awareness and education initiatives further enhance this engagement by informing individuals about environmental issues and encouraging responsible actions (Sulistyaningsih 2022). Collaboration with NGOs and civil society amplifies these efforts, bringing additional resources, expertise, and advocacy skills. Effective reporting mechanisms, such as online complaint portals, enable citizens to report environmental violations, ensuring transparency and accountability (Armstrong 2024). Overall, community engagement leads to more sustainable and impactful environmental protection efforts, creating a collaborative approach to addressing environmental challenges.

5.1 ROLE OF COMMUNITY IN ENVIRONMENTAL PROTECTION

Communities play a pivotal role in environmental protection by actively participating in conservation efforts and advocating for sustainable practices. Their involvement in activities such as tree planting, waste management, and monitoring local ecosystems fosters a sense of ownership and responsibility. Empowering communities through education and resources enhances their capacity to address environmental issues effectively. Collaborative efforts between communities and environmental agencies can lead to more sustainable and impactful outcomes.

5.2 PUBLIC AWARENESS AND EDUCATION

Public awareness and education are fundamental to fostering a culture of environmental stewardship. Environmental education enhances public knowledge about environmental issues, equipping individuals with the skills to make informed decisions and take responsible actions. Educational programs in schools, community workshops, and public awareness campaigns play a crucial role in disseminating information about the importance of environmental protection. Under the Tamil Nadu Climate Change Mission, the government is taking steps to enhance climate literacy among students, government officials, and the public.

This initiative will promote sustainable practices and encourage proactive community involvement in climate-friendly behaviour and environmental conservation.

5.3 COLLABORATION WITH CIVIL SOCIETY ORGANISATIONS

Civil society organisations (CSOs) are essential partners in environmental protection, bringing valuable expertise, resources, and advocacy skills that complement government efforts. In a democratic system, CSOs are often regarded as a key pillar, alongside the legislative, judiciary, executive, and press (Eizenstat 2023). Collaborative initiatives between CSOs and government agencies can significantly amplify the impact of environmental projects. These partnerships help facilitate resource mobilisation, policy advocacy, and community engagement. For example, **CSOs frequently lead grassroots campaigns, conduct environmental education and climate literacy programs, and support community-based conservation projects.** Such collaborations enhance the effectiveness of environmental protection efforts and ensure a more comprehensive approach to addressing environmental challenges.

5.4 REPORTING MECHANISMS FOR ENVIRONMENTAL CRIMES

Effective reporting mechanisms are essential for addressing environmental crimes. Although a concerned citizen can file a complaint by visiting the respective office or sending a letter, an online complaint mechanism can further streamline the process. The TNPCB provides an online complaint portal where citizens can report instances of pollution and environmental violations. This portal allows individuals to register complaints, track the status of their reports, and receive updates on actions taken. By facilitating public participation in monitoring and reporting environmental issues, the TNPCB portal enhances transparency and accountability in environmental governance to a greater extent. Similarly, city municipal corporations and the police have their own online complaint systems. However, the CMWSSB and TWAD Board currently allow complaints only through phone or the **Mudhalvarin Mugavari Department**. Therefore, establishing an exclusive online complaint registration system within these agencies would be highly beneficial to the public.

6. RECOMMENDATIONS FOR BETTER ENFORCEMENT



Based on the stakeholder observations, several critical steps are needed to strengthen environmental law enforcement. Also, environmental crime data from the [National Crime Records Bureau](#) highlights the disparity in enforcement, particularly in Tamil Nadu. This underscores the need for a dedicated environmental crime unit within the police department to enhance enforcement efforts.



Additionally, TNPCB struggles with significant gaps in recruitment, which hampers its ability to enforce regulations effectively. **Strengthening inter-agency cooperation between TNPCB, police, TWAD Board, CMWSSB, and local bodies can provide much-needed on-ground enforcement.** Additionally, involving key stakeholders such as [academic institutions](#), [CSOs](#), and the public will further enhance this collaborative effort. Community engagement and public awareness are also vital, as they empower local communities to take an active role in environmental protection.



Capacity building for [police](#), [judicial](#) and [executive magistrates](#), and [public prosecutors](#), will help create a robust enforcement framework. Also, to bolster enforcement efforts, it is imperative to strengthen forensic capabilities to support investigations and prosecutions. Partnerships with forensic science laboratories will provide essential technical support.



Local bodies should be empowered to address sewage, waste, and other environmental issues at the community level, while executive magistrates must actively use Section 152 of the [BNSS](#) to issue preventive conditional orders. Data-driven enforcement, achieved through comprehensive data collection, analytics, and a centralised database for environmental crimes, can inform policy decisions and track enforcement progress.

These measures, combined with proactive investigation models, will potentially deter environmental offenders and support successful prosecutions.

7. CONCLUSION

The enforcement of environmental laws is crucial for safeguarding our ecosystems and ensuring sustainable development. By addressing the challenges highlighted in this manual and fostering a collaborative approach, we can ensure the robust enforcement of these laws.

Effective enforcement will safeguard our natural resources, preserve biodiversity, and mitigate the impacts of climate change.

Ultimately, by strengthening our commitment to enforcing environmental laws, we can create a healthier, more sustainable environment for future generations. Together, we can work towards a future where environmental protection is a priority, recognising that any action against environmental protection laws is a crime.

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