

GREEN TRIBUNAL, GREEN APPROACH

THE NEED FOR BETTER IMPLEMENTATION
OF THE POLLUTER PAYS PRINCIPLE



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CONTENTS

Chapter 1: Introduction	7
Chapter 2: Review of NGT decisions evoking the Polluter Pays Principle	8
Chapter 3: How NGT orders are complied with on the ground	18
Chapter 4: Best practices for implementing Polluter Pays	21
Chapter 5: Conclusion and recommendations	29
Annexure 1: NGT court cases	34
Annexure 2: Case studies: River pollution from sugar industries	39
Annexure 3: Key cases where NGT orders were challenged at the Supreme Court	40
Notes and references	42

CHAPTER 1

Introduction

The Polluter Pays Principle is one of the three key principles upon which the National Green Tribunal (NGT), India's green court, relies for delivering decisions. As per Section 20 of the NGT Act, 2010, while passing any order, decision or award, the Tribunal shall apply three core principles, including the 'principles of sustainable development, precautionary principle, and the polluter pays principle'. Adhering to these principles has been essentially underscored to ensure that the orders or decisions of the Tribunal not only take care of the current environmental nuisance brought before it, but also try to ensure a sustainable future.

The Polluter Pays Principle is important for determining punitive costs of damages from environmental violations caused by industries or individuals. The principle is applied to ensure that the costs of mitigating environmental damage are internalized by the industry or the individual found liable, and not externalized. It is also an important means for tackling public health hazards that result from environmental pollution. The principle has the potential to play an important role in shaping the performance of industries/commercial enterprises and make them adopt environmentally responsible practices.

The NGT has used the Polluter Pays Principle to deliberate on matters of environmental violations and determine a cost for such actions. The cases involve a variety of issues, including violating requirements of statutory clearances and permits causing environmental harm, violations of clearance conditions and permits, pollution from industrial activities and non-compliance with specified pollution standards, impact on communities and other matters related to pollution.

In the light of deliberations on various matters where this principle has been evoked by the Tribunal, the current report is an evaluation of its effective use. The review is based on information as available in the public portals of the courts, communications with various government officials, and the counsel of specific cases and parties in the matters. A particular challenge remained with accessing information for small companies/industries, as information for them was not available on public platforms.

The report relies on certain parameters for evaluation, such as the penalty or compensation arrived at, the scientific and technical approaches used to calculate penalties, the directions NGT is following and whether the use of the Polluter Pays Principle is guiding better environmental practices. This analysis throws light on the use of this Principle by the Tribunal and key shortfalls and challenges.

Finally, the report provides salient recommendations to tighten application of the Polluter Pays Principle, and improve environmental responsibility of various stakeholders through its application. The objective of this report is to initiate a dialogue aimed at addressing these shortfalls, and to make the Polluter Pays Principle more effective.

CHAPTER 2

Review of NGT decisions evoking the Polluter Pays Principle

The first aspect of this report's analysis is on the manner in which the National Green Tribunal has applied the Polluter Pays Principle. The assessment is of various matters decided by benches of the NGT between 2012 and now that have evoked the principle. Two key benchmarks have been taken as the basis of this qualitative analysis:

- i. How is the penalty/compensation determined? What is the structure used?
- ii. What are the ground realities with respect to following the NGT orders? What end is imposing penalties achieving?

In this review of NGT cases, we look at how the penalty amount has been calculated or arrived at. To understand how the NGT has imposed a penalty on various occasions, the report categorizes the cases under broad headings depending on type of violations and subsequent impacts. These categories are:

- A. Project activities carried out without obtaining the required permissions for work (i.e. environmental or forest clearances) affecting environment and ecology**
- B. Violations of clearance conditions impacting ecology and environment**
- C. Industrial units operating without consents and violating pollution standards**
- D. Damage to the environment from large-scale pollution**
- E. Negligence of civic responsibilities and negligence by authorities resulting in pollution**
- F. Activities directly affecting the livelihood of communities**

In the following section we review the penalty or compensation as imposed under each of these categories. The arguments have been further elaborated through specific case examples as appropriate.

A. For project activities carried out without obtaining the required permissions for work affecting environment and ecology

CASE REVIEWS

The NGT has imposed a fine on various developers observing violations of statutory requirements for carrying out project activities, which in turn had affected environment and ecology. Six particular cases can be noted in this regard—*The Forward Foundation vs. State of Karnataka*, *S.P. Muthuraman vs. Union of India*, *Manoj Mishra vs. Union of India and Ors.*, *Krishan Lal Gera vs. State of Haryana*, *Sunil Kumar Chugh vs. Secretary Environment Department, Govt. of Maharashtra and Ors.* and *Hazira Macchimar Samiti vs. Union of India and Ors.*

A review of the key cases in this regard suggests the following trends with regard to liability to pay penalties:

- In all matters, except one,¹ the penalty has been stipulated as 'five per cent of the project cost'. The five percent of project cost has been set as a bench mark referring to the judgment of the Supreme Court (SC) on the matter of *Goa Foundation vs. Union of India and Ors.*² (see 'Key discussion factors', i. *The stipulation of penalty as 5 per cent of project cost*).
- In most cases, the stipulated penalties remain provisional.³ The amounts have been indicated as 'initial' amounts, and the NGT has set up expert/special committees to review the situation further. The final amounts are to be determined based on 'committee reports' that the NGT had set up after stipulating the initial amount.

- Penalty amount remains unchanged⁴ following submission of Committee reports as observed, in three⁵ out of the four cases which directed Committee involvement.⁶ Further, in certain cases the Tribunal has altogether rejected the report of the committee after it was filed⁷ (see *Annexure 1A*).
- The NGT has also made reference to the matter of *Sterlite Industries (India) Ltd. vs. Union of India & Ors.* of the SC for determining the 'liability' of the developers to pay in flagship cases such as *The Forward Foundation vs. State of Karnataka*.⁸

KEY DISCUSSION FACTORS

Two key factors need to be discussed regarding the decision of such matters

- i. The stipulation of penalty as 5 per cent of project cost, which is mostly provisional**
- ii. Reliance on the Goa judgment as a parallel for determining penalty**

i. The stipulation of penalty as 5 per cent of project cost

A pertinent question that arises from the above trends is: Why has the NGT settled on 5 per cent of the project cost as a penalty amount?

The NGT justified its choosing the amount of 5 per cent by referring to the Supreme Court judgment of April 2014 in the matter of *Goa Foundation vs. Union of India and Ors.*⁹ The case involved irregularities with respect to iron ore mining in Goa.

Referring to this judgment, the Tribunal in the Forward Foundation case noted that '*the principle which has often been adopted by the Courts, including the Hon'ble Supreme Court in the case of Goa Foundation Vs. Union of India and Ors. (2014), is to direct deposit a certain percentage of the cost of the project at the first instance. In the case of Goa Foundation, the Supreme Court had directed deposit of 10 per cent of the value of the mineral extracted*'.¹⁰

However, the Tribunal considered the amount of 10 per cent to be '*somewhat on the higher side*' and decided to settle for a lesser percentage—five per cent. As noted by the NGT, '*[W]e are of the considered view that 10 per cent of the project cost may be somewhat on the higher side and to maintain the equitable balance between the default and the consequential liability of the applicant, we direct the Project Proponents to pay at the first instance compensation for their default at the rate of 5 per cent of the cost of the project*'.¹¹

The Tribunal has also relied on the 5 per cent share of the project cost as it found that determining the compensation amount with 'exactitude' was difficult. While deliberating on the matter of *Forward Foundation vs. State of Karnataka*, the Principal bench chaired by Justice Swatanter Kumar noted that '*at this stage the entire amount of compensation payable on various counts by the Project Proponent cannot be determined with exactitude*'. However, the bench considered that this should not preclude the Tribunal from imposing a penalty. The bench held that '*liability to pay for violation of law, raising construction unauthorizedly and illegally, renders the Project Proponent liable to pay the environmental compensation*'.¹²

In about four months, the Principal bench once again made similar observations in the matter of *Sunil Kumar Chugh vs. Secretary Environment Department, Govt. of Maharashtra*.¹³ The bench noted, '*[W]e are aware that it may not be possible to determine compensation on account of violations of EC Regulations with consequential untold damage to the environment and with some exactitude, but that should not be the reason for the project proponent to avoid their liability in that regard*'.

ii. The reliance on the Goa judgment as a parallel for determining penalty

The Tribunal has referred to the Goa judgment of the Supreme Court as a rationale for stipulating a share of the project cost as the penalty amount. But does this form the appropriate parallel?

In April 2014, the Supreme Court pronounced its judgment on Goa mining in *Goa Foundation vs. Union of India and Ors.*, which dealt with various issues of mining irregularities in the state. These included aspects of illegal mining, regulatory loopholes, environmental impacts, concerns of intergenerational equity of mining benefits etc.

Taking into consideration concerns of 'sustainable development and intergenerational equity', the Apex Court directed that mine leaseholders pay 10 per cent of their 'sale proceeds' of iron ore mined towards a public fund—the Goan Iron Ore Permanent Fund—for this purpose. Also, as deliberations suggest, the reason that 'sale proceed' was considered as the basis for determining the payment was because 'lessees earn out of the sale proceeds' of the mineral(s) excavated by them. Therefore the earning of a leaseholder/company was the consideration.

The NGT has taken the project cost as the basis in place of sale proceeds. For infrastructure projects, project cost can be a basis for estimating the earnings that a developer might have from the project. However, project costs are not the same as sale proceeds. Instead, for building projects, sale proceeds can be roughly calculated from the quantities sold (such as units) multiplied by the sales price per unit within a particular period.¹⁴

B. For developers who violate clearance conditions, thus impacting ecology and environment

CASE REVIEWS

Developers/companies have also been held liable to pay a penalty or environmental compensation for violating conditions stipulated in statutory permits such as environmental and forest clearances (EC and FC) or for not undertaking environmental impact assessment (EIA) appropriately before getting EC. Three specific cases of the NGT can be noted in this regard—*Ajay Kumar Negi vs. Union of India*, *Mohammed Kabir and Ors. vs. Union of India and Ors.* and *Naim Sharif Hasware vs. M/s Das Offshore Co.*

However in all three matters, the lack of quantitative assessment has made the decisions of the Tribunal controversial.

KEY DISCUSSION FACTORS

Lack of quantitative assessment

What emerges from both the aforementioned cases is that the compensation amounts as determined is not backed by any calculation or rationale. Further, the lack of a quantitative assessment becomes problematic because the ground realities also differ. In such cases, the subjectivity of the Tribunal's decision clearly remains a matter of concern.

In the matter of *Ajay Kumar Negi vs. Union of India*,¹⁵ the penalty imposed by the Tribunal is disputed because the ground realities suggested far less damages, most of which was paid for by the company. On 7 July 2015, the Principal bench imposed an 'initial' fine of Rs 5 crore on Nuziveedu Seeds Limited Power Generation (P) Ltd on the grounds that the company had caused damage to forest wealth in the Tidong basin of Himachal Pradesh (HP), due to development of its 100-MW Tidong-I Hydro Electric Project. It was noted that the company had violated conditions of clearances, particularly FC. The Rs 5 crore was subject to 'further adjustments' upon the examination of matters by a Committee constituted by the bench.¹⁶

However, later deliberations of the matter suggest that the amount of Rs 5 crore was subjectively arrived at. Upon submission of reports by the Committee, the amount as imposed seemed not to be commensurate with the ground realities as the estimated damage was far less and the company had paid many of the compensation costs as required under forest laws. The bench seemed to be caught up in uncertainty following ground observations (see *Annexure 1B*).

Similarly in the case of *Mohammed Kabir vs. UoI*¹⁷ citing difficulties in calculating compensation costs, the judges relied on the date of lease granted to determine how much penalty had to be paid. The bench also referred to a previous case, the matter of *Krishna Kant Singh vs. National Ganga River Basin Authority*, where the Principle bench of the Tribunal had

directed Simbhaoli Sugar Mills—which had opened without the consent of the concerned Board for a long period and polluted the surface water and groundwater in the region—to pay a compensation of Rs 5 crore. The compensation was imposed for flouting the law and causing pollution.¹⁸

In the third matter of *Naim Sharif Hasware vs. M/s Das Offshore Co.*,¹⁹ the Tribunal imposed a fine of Rs 25 crore on Das Offshore, observing that the company had knowingly flouted various steps of the EIA process (such as site selection, public hearing etc.) and actually ‘committed suppression of facts or fraud’. As a result of this flouting, mudflats and mangroves in the area were destroyed by land reclamation and project implementation during the development of an offshore fabrication yard next to the Rajapuri creek in Maharashtra’s Raigad district. The bench considered that the company is ‘liable to face the legal consequences for environment degradation and should pay a heavy penalty’. An amount of Rs 25 crore was considered to be ‘just and proper’, without further explanation as to how the amount had been arrived at.

The company filed an appeal²⁰ in the Supreme Court. In an order dated 17 April 2015, the SC directed a stay of the NGT order. The SC order notes, ‘*there shall be interim stay of the impugned judgment and order, subject to the appellants’ depositing Rs. 12 crore in this Court within four weeks’ time from today*’. According to Mukesh Verma, counsel in the matter, the Rs 12 crore was deposited.

C. For companies operating without board consent and violating norms

CASE REVIEWS

The Polluter Pays Principle has been most widely used by the Tribunal for holding companies liable for payment where they have been operating without required consents from the State Pollution Control Boards (SPCBs) and violating pollution standards. The Tribunal considers that ‘*wherever industry violates the conditions of the consent order, its liability to pay environmental compensation automatically arises*’.²¹

Among cases of pollution and violation of consent conditions by various industrial units, a prominent category remains cases of river pollution, particularly of the Ganga, from industrial discharges. Four specific cases can be noted in this regard—*Krishan Kant Singh vs. National Ganga River Basin Authority and Ors.*, *Krishan Kant Singh and Ors vs. Daurala Sugar Works Distillery Unit, DSM Sugar Distillery Division vs. Shailesh Singh & Ors.*, and *Krishan Kant Singh vs. Triveni Engineering Industries Ltd.*

Of all the reviewed cases that observed such violations, nearly 42 per cent cases have been imposed with a penalty or environmental compensation charge. Violators comprise a variety of industrial units, with a wide range of scale of operation, size and prosperity. In all these matters, the concerned industries are sugar and distillery units in Uttar Pradesh (UP).

A review of the cases shows the following trends in terms of determining compensation:

- While deliberating on such matters, NGT decisions were guided by the observations of the Supreme Court in the matter of Sterlite Industries. Though the NGT in all these matters did not always make reference to the Sterlite case, the parameters that it took into consideration while deciding on the liability that companies would pay could be inferred to have been guided by it. Penalty was determined primarily on the basis of nature of activities, scale of operation/quantum of production and period of operation of the unit(s).
- In some cases, the NGT also noted that, in addition to the above factors, the ‘profit enjoyed by the company’ or the ‘turnover’ was a factor in calculating compensation.²²
- In these cases, however, cost of environmental pollution, cost of harm to natural resources or potential cost of harm to people in the area were neither clearly noted nor estimated.
- No further specific calculation on how the penalty amount was arrived at is outlined in the judgment. As noted, in

certain instances the Tribunal found it difficult to determine the exact quantum of penalty due to lack of data on exact damage caused.²³ Nonetheless, the Tribunal did suggest a model for determination of penalty based on factors such as the date of commissioning, nature of activity, capacity to handle the raw material and turnover of the units.²⁴

- The NGT has taken recourse to 'guess work' in the absence of proper estimation parameters.

KEY DISCUSSION FACTORS

The following two key factors need to be discussed with regard to NGT decisions in such matters:

- i. Poor rationale and recourse to guess work in determining compensation amounts**
- ii. Penalties are nominal with respect to company turnover**

i. Poor rationale and recourse to guess work in determining compensation amounts

In many cases, the NGT explicitly said that compensations cannot be arrived at with certainty, and hence proceeded to rely on guesswork to determine the penalty. In two cases, *Krishan Kant Singh vs. Triveni Engineering Industries Ltd.*, and *DSM Sugar Distillery Division vs. Shailesh Singh*, the Tribunal actually mentioned dependence on 'guesswork' for arriving at the amount (see *Annexure 2*).

ii. Penalties are nominal with respect to company turnover

As we have seen, in most cases, the penalty amount is very small compared to the company's overall turnover. Only a small percentage of project costs are applied. A nominal charge effectively defeats the objective of ensuring that companies internalize pollution costs before embarking on a project that can actually translate into better environmental practices.

Liability of payment is typically determined on the basis of periods of operation causing pollution and nature of pollution, but in some cases payment is determined on the basis of a company's prosperity (Simbhaoli Sugars). Effectively, polluters in most cases actually pay peanuts when compared with scale of production and company turnover.

For instance, in the case of Simbhaoli Sugars, the company's prosperity constituted a determining factor for the penalty amount of Rs 5 crore. This amounted to less than 5 per cent of the turnover of the company for its alcohol production, which is about Rs 81 crore, as from the company's annual report of 2013–14, the total turnover was about Rs 864 crore with sugar and alcohol combined (with sugar about 90 per cent, worth about Rs 783 crore, and alcohol worth about Rs 81 crore). Therefore, the penalty amount (Rs 5 crore) if compared to the total turnover is less than 0.6 per cent. A similar issue of low penalty as compared to the company's turnover also holds for matters concerning Daurala Sugar, Triveni Engineering etc. (see *Annexure 2*).

Owing to the lack of a proper method for calculating compensation, the polluter only ends up paying a fraction of the large costs of cleanup. A review of company profiles and their annual reports suggests that the sugar and distillery units in UP polluting the Ganga are some of the biggest sugar and distillery units of India. The Tribunal could have generally considered a higher percentage of the total turnover of companies to determine the penalty amounts. The determining percentage could have been 3 per cent of the turnover as, according to Central Pollution Control Board (CPCB) estimates, this percentage is considered to be bearable by a company and can be spent by it for complying with pollution standards.²⁵

D. For cases of damage to ecology and environment from large-scale pollution

CASE REVIEW

Besides matters of industrial pollution, the NGT has been imposing a penalty, or compensation charge, for environmental pollution, or damage to ecology from varied sources. The categories of pollution can be broadly classified as follows:

- Air pollution in urban areas from vehicular sources
- Pollution of rivers/waterbodies from untreated sewage and waste disposal, or accident
- Groundwater depletion due to over-extraction for various purposes

The decisions on air pollution issues, river cleaning and pollution prevention hold particular significance with respect to the following:

- In some of the cases, the NGT, encouragingly, is looking for more long-term policy measures to internalize the cost of environmental pollution control by making the polluter responsible. A pollution charge, fee or spot fine is stipulated for every violation.
- Another is a rights-based approach wherein the judges discuss the right of citizens to a clean environment (e.g., the court on its own motion case).
- The NGT has also directed authorities to design various policy instruments to address pollution instead of using just a command-and-control approach.

KEY DISCUSSION FACTORS

- i. Levying fee/compensation charge as a pre-emptive measure**
- ii. Directing spot fine and payment to compensate for cleanup cost of waste**
- iii. Directing state authorities to design appropriate policy mechanism for payments**

i. Levying fee/compensation charge as a pre-emptive measure

The NGT has used the Polluter Pays Principle as a policy instrument to levy a fee/charge to compensate for environmental harm and breach of civic responsibilities, which is a significant move. This is particularly related to air pollution in urban areas from vehicular sources. For instance, while deliberating on the matter of air pollution in Delhi NCR in *Vardhaman Kaushik vs. Union of India & Ors.*, the Principal bench sternly noted that the vehicles entering Delhi have been enjoying an 'undue incentive' just to save Rs 1,000. This was perceived by the NGT not to be 'reasonable and environmentally tolerable'. An 'environment compensation charge' on vehicles entering Delhi was thus levied as Rs 700 for two-axle vehicles, Rs 500 for four-axle vehicles and Rs 1,000 for three-axle vehicles. This amount is over and the above the toll tax paid, and would be parked with the Delhi Pollution Control Committee (DPCC).

Similar observations were made while dealing with the impact of heavy tourism in Rohtang Pass that was causing air pollution. In a matter taken up suo motu—*Court on its own Motion vs. State of HP & Ors.*²⁶—the Principal bench considered that it is 'entirely uncalled for and unjustified if the tax payers' money is spent on taking preventive and control measures to protect the environment'. It held that tourists and vehicles who are 'using the roads and are carrying on such other activities for their enjoyment, pleasure or commercial benefits must be made to pay on the strength of the Polluter Pays principle'. Consequently, in February 2014, the NGT imposed a charge on every truck, bus and vehicle passing through the route ahead of Vashishta and Rohtang Pass, at Rs100 for heavy vehicles, Rs 50 for light vehicles, and Rs 20 per head for passengers travelling by CNG or electric buses (taken care of in bus fare). The Himachal Pradesh government was also asked to levy an environmental compensation of Rs 500 for vehicular pollution (air and noise) around the mall road in Shimla on vehicles passing through the area. The order was communicated in the matter of *Sh. Permanand Klanta vs. State of Himachal Pradesh*.²⁷

The Tribunal has also used the Principle as a punitive warning for the concerned state authorities for their negligence in dealing with air pollution. For instance, in the matter of *Centre for Environment Protection, Research & Development vs. State of M.P. and Ors.*,²⁸ concerning vehicular pollution in Indore city over years, the Central bench asked the Madhya Pradesh government to deposit a security of Rs 25 crore before the Registrar of NGT bench. The amount was stipulated in view of the government's lax attitude towards pollution prevention. As noted by the bench, the '*attitude of the State in not showing due regard to the adherence of law for the prevention of pollution makes the State liable on the Polluter Pays Principle*'. The state of MP was given a 60-day period to make the necessary efforts for compliance with the law, which it failed to do. The authorities were hence told by the bench that 'the security shall be liable to be attached and utilized for environmental need under the NGT Act, 2010'. The matter, however, still remains disputed as noted at the time of this report.

ii. Directing spot fine and payment to compensate for cleanup cost of waste

The NGT has also used the Principle to direct cleanup and prevent pollution of rivers, particularly where pollution occurs from discharge of untreated sewage, spillage or indiscriminate throwing of waste/garbage. In such cases, authorities have been asked to use the Principle to impose a spot fine on the violator. For instance, in the matter of *Manoj Mishra vs. Union of India and Ors.*²⁹ that concerns pollution of the Yamuna River, the Principal bench of the NGT in Delhi ordered in January 2015 that anyone who dumped debris in the river would be liable to pay compensation of Rs 50,000. Such compensation shall be used for removal of such waste and restoration of environment. The bench also prohibited throwing of pooja material or any other material such as foodgrain and oil into the river, except at the designated sites. Any person found to be disobeying this would be liable to pay a compensation of Rs 5,000.

In the NGT case of *Court on its Own Motion vs. State of Himachal Pradesh* in addressing the question of introducing pollution charges, the court said that tourists and visitors would be taxed based on the basis of whether they are travelling in personal or public vehicles. Accordingly, buses, trucks and other vehicles would have to pay a sum of Rs 100 for heavy vehicles and Rs 50 for light vehicles. Passengers in CNG or electric buses would pay Rs 20 per head.

iii. Directing state authorities to design an appropriate policy mechanism for payments

The NGT has also referred to the Polluter Pays Principle to ask state authorities to design appropriate policy mechanisms to clean the Ganga. For instance, in the matter of *Indian Council for Enviro-Legal Action vs. National Ganga River Basin Authority and Ors.*,³⁰ the NGT in a December 2015 judgment said that one of the measures for cleaning the Ganga by the concerned authorities could be based on the Polluter Pays Principle. The order was given while deliberating on the matter of Ganga pollution in the river's Gomukh-to-Haridwar stretch in Uttarakhand, where the main source of pollution was untreated sewage entering the river from hotels, dharamshalas and ashrams. The majority of these have neither sewage treatment plants (STPs) nor the necessary permits such as the one for water use from the Central Ground Water Authority. The bench held that if the state intends, '*the State Government, its instrumentalities, public authorities and bodies would be entitled to invoke the Principle of Polluter Pays and require the industries, hotels and dharamshalas and even households to pay environmental compensation, and/or sewage charges*'. The bench further specified that the compensation would be directly proportionate to the discharge of the effluent from such premises. For instance, a hotel with 50 rooms or above should be required to pay a much higher amount than one with 10 rooms. The amount to be fixed was left to the discretion of the state government.

Similarly, in the 2016 case of *Jalbiradari vs. MoEF*,³¹ the NGT court refrained from imposing any final compensation, but instead offered an interim amount of Rs 25 lakh. The task of determining the amount was given to the State Level Environment Impact Assessment Authority (SEIAA). The interim amount was to be adjusted with the final charge submitted in the expert body's report. Making further directions, the court even laid down specific factors to be included in the assessment report, decreeing that the SEIAA would compute environmental, ecological and other damage caused by the project as well as initiate remedial steps in that direction. The amount would also be determined according to the legal violations of the polluters.³²

E. For cases where pollution is caused by individuals

CASE REVIEWS

Some NGT orders have sought to address pollution caused by individuals, which are mostly in the form of waste disposal without segregating and burning of waste.

The two cases discussed herein are *Kudrat Sandhu vs. Govt of NCT* and *Almitra H. Patel vs. Union of India*. These cases demonstrated the intention to introduce policy measures to pre-empt harms. They include efforts to extend the responsibility of paying the costs of pollution to individuals rather than only the corporation being sued. Other orders have found the state responsible for pollutions occurring in their jurisdiction.

KEY DISCUSSION FACTORS

- i. **Imposing penalties on individuals**
- ii. **Making the State liable for damage within its jurisdiction**

i. Imposing penalties on individuals

Two decisions of the NGT delegate the costs of pollution (and therefore the responsibility of care) to the individuals who pollute. In *Kudrat Sandhu vs. Govt of NCT*,³³ the judges asked the corporation on the one hand to frame a scheme for getting people to give segregated waste through tax rebates and other incentives³⁴ and on the other hand to penalize those not segregating waste.³⁵

*'We direct the Commissioner of each Corporation to submit a scheme before the Tribunal for providing incentive to the people who give segregated waste at source, by way of rebate in property tax and on the other hand to impose penalties on residents, societies, RWAs who do not provide segregated waste. It should be kept in mind that on Polluter Pays Principle, each person would be liable to pay for causing pollution, if the waste is generated. It is the duty of a citizen to ensure that said waste is handled properly and not to cause any pollution or cause inconvenience to other persons. The entire burden cannot be shifted on the state and authorities. It shall be submitted, within one month, to the Tribunal.'*³⁶

In the case of *Almitra H. Patel vs. Union of India*,³⁷ the court passed directions imposing penalties on any person or body responsible for different grades of waste burning.

*'[V]iolators including the project proponent, concessionaire, ULB, any person or body responsible for such burning, shall be liable to pay environmental compensation of Rs. 5,000/- (Rs. Five Thousand only) in case of simple burning, while Rs. 25,000/- (Rs. Twenty Five Thousand only) in case of bulk waste burning.'*³⁸

It was also suggested that the senior-most officer in charge of the company shall be liable to be personally proceeded against.³⁹

ii. Making the state liable for damage within its jurisdiction

The case⁴⁰ of *Almitra Patel* also imposed liability for pollution on the state or Union Territory under whose jurisdiction the clearance permits were granted. However, the calculation of the amount of environment compensation was to be determined by an independent tribunal of experts.⁴¹

The concept of delegating responsibility on states is supported by the theory that doing so will incentivize better monitoring of environmentally risky activities.⁴² The state would then be incentivized to come up with policies like charging systems that pre-emptively set out taxes and penalties for degrees of pollution. It is also a useful extension of the Polluter Pays Principle as it ensures compensation for victims when the corporations are insolvent or when it is difficult to identify the polluter.

F. For activities directly affecting the livelihood of communities

CASE REVIEWS

The Tribunal has also held project developers and industrial units liable to pay a fine for undertaking activities which have affected the lives and livelihoods of communities in the area. From the cases reviewed, five matters can be noted in this regard. These include *Ramdas Janardan Koli vs. Ministry of Environment and Forests*, *Mukesh Yadav vs. State of Uttar Pradesh*, *Vajubhai Arsibhai Dodiya & Ors. vs. Gujarat Pollution Control Board*, *Lokmangal Sansthan vs. Sanjay Wadettiwar & Ors.*, *Shri Sant Dasganu Maharaj Shetkari vs. The Indian Oil Corporation Ltd. & Ors.*⁴³

One of the most prominent cases remains that of *Ramdas Janardan Koli vs. Ministry of Environment and Forests*. In this matter, the Western bench of the NGT imposed a penalty of Rs 95 crore on three companies (JNPT, CIDCO and ONGC), observing that the port expansion activities of these companies, particularly JNPT, affected the livelihoods of the fishing community in Maharashtra's Raigad district⁴⁴ (see *Annexure 1F*).

In general the following trends can be noted with respect to penalty imposed:

- The penalty as imposed was directed to be paid either to the affected communities/persons or to the concerned authorities for using the money to deal with environmental damages and restoration.⁴⁵
- Although the NGT referred in the cases to scientific reports and data for confirming pollution, there was no proper calculation given with regard to how compensation to be paid was arrived at. This made it difficult to understand whether the compensations/penalties were sufficient. However, even in cases where a detailed calculation was given, as in *Ramdas Janardan Koli vs. Ministry of Environment and Forests*, it remained inadequate.

KEY DISCUSSION FACTORS

Inadequate compensation for affected communities

In the matter of *Ramdas Janardan Koli vs. Ministry of Environment and Forests*, the Western bench of NGT observed that the port expansion activities, particularly of JNPT, had affected the livelihoods of the fishing community in Maharashtra's Raigad district. It imposed a compensation cost of Rs 95 crore on three companies—JNPT, CIDCO and ONGC. The bench gave the calculation on how the amount of Rs 95 crore was determined and stipulated that it be divided equally among 1,630 affected families.⁴⁶

If looked at closely, however, the compensation as imposed translated into a lower amount than the minimum wage under Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) of 2005. The amount stipulated in this case, estimating the total loss of livelihood earnings of 1,630 families for three years, was Rs 95,19,20,000 (approximately Rs 95 crore). This translated into an estimated wage compensation of Rs 133 per day. This is even less than the minimum wage stipulated under MGNREGA⁴⁷ as specified in 2012 for the state of Maharashtra, which, as per 2016 revisions, is Rs 192 per day.⁴⁸

The other case is of *Hazira Macchimar Samiti vs. Union of India*,⁴⁹ also decided by the Western bench of NGT. In this matter the Tribunal imposed a fine of Rs 25 crore on Adani Hazira Port Private Ltd (AHPPL), setting aside the EC given to its port expansion project in Hazira, Gujarat in 2013. The penalty was primarily for ecological damage and the alleged impact on communities. It was noted that AHPPL had obtained an EC for expansion and carried out port activities without complying with several environmental conditions of the first EC (given in 2003). It was alleged that activities of the company since 2007 had caused environmental degradation and mangrove destruction and affected livelihoods of fishing communities.

The penalty as imposed in this matter remains problematic on two accounts. First, there is no calculation provided for how the amount of Rs 25 was arrived at.⁵⁰ There was neither a quantitative estimation of environmental damage caused nor estimated livelihood loss of communities or mention of financial benefits of the company from the project.

Second, taking into consideration that in cases where projects started work before obtaining an EC, the NGT typically considered 5 per cent of the project cost to determine the penalty amount, Rs 25 crore remains very low. Though the judgment does not specify the project expansion cost, the EIA report noted the estimated project cost for port development was Rs 1,800 crore.⁵¹ The penalty of Rs 25 crore is therefore about 1.4 per cent of the project cost.

CHAPTER 3

How NGT orders are complied with on the ground

How effective are NGT orders?

An assessment of effectiveness takes into account the following questions:

- A. How are the fines to be paid or directed to be paid (i.e. to whom)?**
- B. Does the polluter pay as directed?**
- C. Are monetary orders complied with?**
- D. Is there a clear mechanism to monitor if monetary orders are being implemented?**

A. How are fines to be paid?

Section 24 of the NGT Act (2010) notes the way in which an 'amount payable for damage to the environment' should be deposited and used. As stipulated, the amount of 'compensation or relief' shall be credited to a Fund, the Environment Relief Fund (ERF) managed by a Fund Manager through whom the amount is to be remitted. The National Green Tribunal (Practices and Procedure) Rules (2011), Rule 35 (1) further specifies that the amount as ordered by the Tribunal should be remitted to the authority of the ERF 'within a period of 30 days from the date of order or award or as otherwise ordered by the Tribunal'. The authority is further required to create and maintain a separate account 'for the purpose of receiving and disbursement of the amount pursuant to the order or award of the Tribunal'.⁵²

The United India Insurance Company Limited (UIICL) has been appointed as the Fund Manager of the ERF by the Ministry of Environment, Forest and Climate Change (MoEF&CC).⁵³

COURTS DO NOT DIRECT PAYMENTS TO ERF IN ALL CASES

A review of cases decided by various benches of the NGT shows that the Tribunal has not asked for the payment to be made to the ERF in all cases. In fact, the NGT directed the money to be paid to various other administrative authorities in a majority of cases. The money was typically asked to be deposited with various state- and district-level authorities, such as the SPCBs, State Environment Departments, Forest Departments and District Collectors. For instance, from the cases reviewed where a direct fine was imposed on the polluter, in about 40 per cent of cases the payment was directed to be made to the SPCBs/PCCs; in about 17 per cent to the State Environment and Forest Departments; and in 10 per cent cases to the District level authorities such as the Collector. In barely above 12 per cent of the cases, payment was directed to the ERF. The NGT also asked payments to be made to the 'concerned' state authorities, directly to the affected community in a few cases, and in one particular matter to the Registrar of the NGT itself.

Rule 36 of the NGT (Practices and Procedure) Rules 2011 specifies that a relevant authority will transfer the amount deposited for restitution of property from the ERF to the concerned authorities such as the District Collector. Rule 37 further specifies that an authority will transfer the amount deposited for restitution of environment to a nodal agency. According to law practitioners, these are typically the authorities to whom the fund is ultimately transferred for disbursement—such as the District Collector—or who are to undertake action for remediation and restitution of environment, such as state government agencies. Therefore, such orders of the NGT allow direct transfer to these authorities, bypassing the authority as specified under the Public Liability Insurance Act.

The NGT is, unlike the constitutionally created judiciary, a tribunal created under statutory law. The National Green Tribunal Act creates,⁵⁴ gives powers to⁵⁵ and defines the scope of the functions of the NGT.⁵⁶ It is implied that the Tribunal may not make an order that is outside its authority as provided under the Act. Therefore, when the Tribunal bypasses Section 24 of the NGT Act requiring that compensation be paid to the ERF, it is working outside its jurisdiction and in violation of the NGT Act.

B. Does the polluter pay?

The situation with respect to payment remains inefficient. This can be elaborated by the following situations.

I. SPARSE PAYMENT TO ERF

Even in cases where payment to the ERF was explicitly decreed, there have been only two deposits at the time of the report. As per information secured from an RTI filed with the UIICL,⁵⁷ only in two out of seven cases has money been deposited in the ERF by way of NGT's penalty. For SPCBs, the percentage of deposits is much higher. Part of this can of course be attributed to the fact that in most cases the polluters/violators have been asked to deposit the money with the State Boards.

II. ORDERS CHALLENGED BEFORE THE SUPREME COURT IN CASE OF HIGH PENALTIES

With respect to the question of depositing the money with concerned authorities as directed by NGT, the analysis shows that orders are typically challenged at the higher courts, particularly the Supreme Court, where a heavy penalty has been imposed by the Tribunal.⁵⁸ While the Apex Court has in some cases asked the violator to pay the fine as ordered, in several cases a stay order was given (see *Annexure 3*). However, if the payments are not too high (i.e. negligible in comparison to the turnover of the companies), the polluter makes payments to the concerned authorities in most cases. For instance, in case of all the sugar and distillery units, the concerned companies made the payment. As noted by officials at Daurala Sugar Works of Meerut, UP, 'we do not want to remain caught up in disputes and litigation at the NGT'. Similar is also the case with DSM Sugar of UP, who has also made payment to the UP PCB within a period of one month from the time a fine was imposed.

Payments are also generally made by the company/industry in cases where a payment was to be made or affected communities or people. In such cases, even if the matter got challenged before the Supreme Court, the Apex Court directed the payment to be made.

It is to be noted here that since the penalties have been ordered in 2015–17, fund are still to be disbursed and utilized in many cases for the period of this review.

C. Are compensatory orders being complied with?

Effective disbursement and utilization of payments is a core issue with regard to the functioning of the ERF. For cases where payments are made into the ERF or to concerned authorities as directed by the NGT, effective utilization of the money remains a question. While follow-up on this has remained a challenge due to the absence of a centralized system and poor response of authorities when contacted on a case-to-case basis, use of funds deposited with the ERF was reviewed. For certain cases, the views of the concerned departments supposed to carry out environmental measures on the ground have been taken into account.

I. FINES INSTITUTED BY ADMINISTRATION ARE NOT PROPERLY IMPLEMENTED

The Tribunal has ordered several states to introduce environment fines, and concern remains about the effective execution of these orders. In most cases analysed for the environmental levy, it was observed that while fines have officially been instituted by the authorities, actual collection of fines remained poor and ran into hurdles. The cases of air pollution in Delhi and Himachal Pradesh or throwing of materials in rivers such as the Yamuna are cases in point.

Though all of these schemes had started off ambitiously, within a short period their implementation failed as informed by concerned implementation authorities and stakeholders.

II. FINE SYSTEMS ORDERED BY NGT NOT IMPLEMENTED BY STATES

In many cases, fine systems were not even imposed due to administrative lethargy. For example, let us consider the levy to combat air pollution in Himachal Pradesh. In the matter of *Permanand Klanta vs. State of Himachal Pradesh*,⁵⁹ where the NGT in December 2015 ordered an environmental compensation of Rs 500 to be levied for vehicles entering particularly heavy-traffic areas in Shimla (such as Mall Road), the levy still remains to be implemented. According to the Commissioner of the HP Department of Transport, there has been no implementation of this so far.⁶⁰

To illustrate the point that execution is not effective, cases where water pollution have been sought to be addressed through spot fine are equally relevant. In the matter of *Manoj Mishra vs. Union of India and Ors*⁶¹ concerning pollution in the Yamuna from various sources close to Delhi, the NGT had ordered among various other measures an environmental compensation to be charged for dumping of debris (Rs 50,000) and throwing of various wastes—municipal solid wastes, pooja materials, used oil etc.—(Rs 5,000) in the river. However, according to DDA officials, the agency charged with implementing this, the fine was initially being levied and challans issued. However, the DDA ran into problems because it was becoming difficult for them to prove violations. They were also accused of corruption and their authority to impose the fines was challenged. Despite efforts to use the help of law enforcement agencies and instal on-site cameras to capture polluters in the act, effective implementation of the order has remained inefficient.⁶²

III. PENALTIES ARE STOPGAP MEASURES AND LACK LONG-TERM EFFECTIVENESS

Even for cases where a levy has been actually imposed by the state, ensuring effectiveness of policy has remained ineffective. Vehicles entering Delhi, which should pay an environmental compensation, find a roundabout way to evade payment by travelling through small towns and villages and therefore polluting those areas. In Rohtang Pass, although the state has initiated a levy system and a cap on tourists visiting the area, operators and touts often illicitly sell slots to the highest bidding passenger and/or routinely skirt rules by operating illegally.⁶³

D. Is there a mechanism to monitor orders being implemented?

I. NO SYSTEM TO MONITOR PAYMENTS MADE INTO THE ENVIRONMENT RELIEF FUND

The problems illustrated so far indicate the need for a systematic monitoring process to ensure that the payments directed by courts are actually being paid and utilized. There is so far no clear mechanism to show or understand how orders are being implemented. Section 35 (1) of the National Green Tribunal Act 2010 grants the executive the power to frame rules regarding the manner and purpose for which relief amounts are to be credited to the ERF. However, there are no subsequent rules describing such a methodology.

II. BUREAUCRATIC PROCESS TO FIND INFORMATION

In many of the cases studied, as we have seen, payments were directed to entities other than the ERF. In order, therefore, to study the efficacy of payments so far, the authors of this report first identified cases where ERF payment was demanded by the courts. Efforts were then made to contact the Ministry of Environment and Forests and the United India Insurance Company Ltd (UIICL) to inquire into the status of payments made into the fund. However, the contacted persons at the UIICL expressed reluctance to share information without official sanction. After that, a PIL was filed with the relevant authority requesting information about whether payments were made into the fund as directed, and also whether any of the deposited money had been disbursed. There has so far been no response to the filed PIL.

Evidently, there is no clear oversight mechanism to evaluate whether payments have been made or not. The process of gaining information is bureaucratic and ambiguous. In the absence of any clear centralized mechanism, tracking and reviewing ground implementation of NGT directions becomes a case-to-case pursuit by individuals.

CHAPTER 4

Best practices for implementing Polluter Pays

To elaborate better strategies for courts to implement the Polluters Pays Principle (PPP), it becomes important to identify best practices from a range of sources, both domestic and international.

This chapter analyses Supreme Court orders, international case law from domestic courts and some rationale-based directions of the NGT. International laws and policies on prescriptive pollution charge and damage-insurance systems also indicate approaches as well as factors for compensation determination. The objective of this chapter is to show how arbitrariness may be removed in NGT orders. We have discussed this in three parts:

- A. Approaches for determining compensation**
- B. Factors and methods to be considered for calculating compensation**
- C. Putting in place institutional and policy mechanisms**

A. Approaches for determining compensation

There are approaches and tools that the NGT could use to better determine compensations. These methods are key to eliminating arbitrariness and opaqueness from the calculation process. These also ensure that appropriate entities are penalized and the objectives of the Polluter Pays Principle effectively achieved.

I. DETERMINING PENALTY THROUGH A CONSULTATIVE APPROACH INVOLVING PARTIES AND EXPERTS

Key points: *Taking the help of experts to calculate compensations can help make compensations more commensurate with the harm caused. Therefore a process of mediation or negotiation towards a settlement figure is a useful approach for arriving at more accurate compensation amounts.*

To manage and administer pre-emptive charging systems, many countries make use of a range of personnel and investigating authorities. These include police, installation inspectors, regional water authorities, supervision authorities, public prosecutors, environment protection agencies and even fishery bodies for fish-kill events. The evidence provided by these personnel include photographic evidence, testimonies of the accused/witnesses as well as inspection of company records and water sampling on site and in the neighbouring environment.⁶⁴

Cases in foreign courts also rely on professionals from various fields in the process of determination of compensation. In the case of *BTI 2014 LLC vs. Sequana S.A.*⁶⁵ contested in an English court, courts took the assistance of professionals and experts in its calculation process. The case was about liabilities incurred with respect to cleaning up some waterways that were polluted, with pollutants discharged over many years. The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980 was applied to the proceedings.⁶⁶ Under this law, parties are encouraged to reach settlements with the government. For the case at hand, parties accordingly entered into non-binding mediation proceedings moderated by an experienced external mediator to try to arrive at a consensual compensation amount. The proposals put forth by the mediator became a useful reference point to determine the amount and shares of cleanup costs the concerned parties were responsible for.

Even while recognizing that the process of estimating damages is imperfect, the judges valued the process of discussion and involvement of professionals in differing capacities to arrive at a likely settlement figure that would ultimately be negotiated by the government. Although one of the experts was not qualified as a lawyer in USA, the judge accepted his suggestions on the basis that he had comprehensive and detailed knowledge of the legal situation. Further, the judges expressed their satisfaction with the proof that the vested parties had indeed convened and discussed compensation amounts despite there being no evidence at hand as to the exact method of arriving at the figure. Therefore the judges were concerned only with whether experts were knowledgeable and the parties had deliberated in a consultative participatory manner.

This approach clearly demonstrates a judicial deference to consultative processes between parties and experts, as well as a restraint from embarking on calculations the judiciary might not be suited to. For the bench, it was enough that the parties had engaged professionals to mutually agree on the terms of the compensation order—*‘there is plenty of evidence, as I have described, showing the \$35 million figure being discussed. Although there are other figures also referred to, it was open to the management of the company in arriving at a best estimate . . . to conclude that \$35 million was the best estimate . . . there is no reason to doubt that the . . . figure of \$35 million was the best estimate of all those involved in calculating the provision on the basis that this was the likely settlement figure that would ultimately be negotiated with the Government’*.⁶⁷

II. PERFORMING RISK ASSESSMENT

Key points: *Harm and risk assessments are a scientific and data-driven means of understanding the harm caused and therefore the compensations that would be commensurate.*

In order to impose a suitable compensatory order for environment harms caused that is appropriate, there has to be an understanding about the kind and nature of harms caused. This can be successfully done through a process of risk-assessments.

Risk assessments are based on scientific data and depend on professional judgment based on scientific expertise. Because professional judgment is so important, specialized knowledge and experience in the various phases of risk assessment is required. The United States Environmental Protection Agency has provided guidelines that expound scientific processes to follow to understand harm caused to the environment as well as to people.

i. Human-health risk assessment

Human-health risk assessment is undertaken specifically to understand the nature and probability of adverse health effects on humans who would be, or currently are, exposed to contaminations. The purpose is to better understand the various health problems people would suffer from at different levels of stressors present in the environment. It helps policymakers better understand the human impact of pollution.⁶⁸ Human-health assessments comprise three broad steps, including:⁶⁹

- **Planning and problem formation**

A technically specialized group frames the issues sought to be answered as well as determines in a participatory manner the scope of the study. For instance, a meeting may be conducted to get inputs from a variety of stakeholders and compile main issues. Based on the issues emerging from the multi-stakeholder discussion, the body or committee that will be undertaking the assessment will frame a plan of action on how to tackle the stated problems, which factors to study and how to go about it.

- **Effects and exposure assessment**

Once the process is decided, a process of effects and exposure assessment is undertaken. Two parameters are assessed—the health effect of hazardous substances, as well as the likelihood and level of exposure to the pollutant. The effects assessment describes how the likelihood and severity of adverse health effects are related to the amount and condition

of exposure to an agent. The exposure assessment on the other hand finds out how much pollutant is in the environment, as well as how many people are exposed or will be. This is typically undertaken through a field social impact study.⁷⁰

- **Risk characterization**

This final step involves the integration of effects and exposure assessment to determine the risk. It provides a picture of the probability and likelihood of damage that can be caused to a demographic group by a specific amount of pollutant in the environment.

ii. Ecological risk assessment

Ecological-risk assessment is a scientific approach to determine the risks of an environmental harm by human activities. Common examples of ecological risks caused by humans include discharge of industrial effluents/chemicals, alteration of waterbodies and alteration of forest habitats. Depending on the evaluation, the costs that such harm bears can be estimated, and the party causing the harm can be penalized accordingly.

As in human-health risk assessment, ecological risk assessment comprises three major steps.⁷¹ Also as in human-health risk assessment, an interactive multidisciplinary team of professionals from various relevant disciplines should be developed to undertake a successful ecological risk assessment.

The three major steps of ecological risk assessment include the following:⁷²

- **Problem formulation**

Information is gathered to help determine what (in terms of plants and animals) is at risk and what needs to be protected, what kind of data should be looked at, and the analysis required.

- **Analysis of exposure**

This is to determine what the factors that organisms (plants and animals) are exposed to are, degree of exposure, and whether the exposure is likely (or not) to cause adverse ecological effects. These factors are called the 'stressors' and can include chemical or physical factors. Adverse ecological effects may include a wide range of indicators ranging from mortality of organisms to loss in ecosystem function.

- **Risk characterization**

Risk characterization includes two major components—risk estimation and risk description. Risk estimation combines exposure profiles and exposure effects. Risk description provides information important for interpreting the risk results and identifying the level for harmful effects on plants and animals of concern.

B. Factors and methods for calculating compensation

Specific factors assist the NGT, or any calculating authority, arrive at charges in calculating compensation with a scientific rationale and commensurate with harm caused.

No system for calculating compensation is complete without identifiable and consistent parameters. One may look to various systems to understand the parameters on which charges for pollution are computable. From a review of cases filed under the CERCLA⁷³ legislation in the US, international directives and EU systems, specific solutions emerge for our domestic courts to take into account when determining compensation.

I. TECHNICAL FACTORS

Key points: *Charging policy systems from EU member states demonstrate technical factors used in calculating compensations.*

The Water Framework Directive⁷⁴ passed by the European Union (EU) requires member states to abide by certain quality standards for waterbodies. Annex III of the Water Framework Directive suggests parameters to take into account when conducting an economic analysis. It indicates economic analyses that factor in aspects like the recovery costs for polluted waters, long-term forecasts of supply and demand for water, estimates of volume, pricing and costs associated with water services, and estimates of relevant investments in future water services.

Systems of EU member states also indicate well-distinguished pollution parameters to take into account in assessing pollution charges. The Netherlands' Water Act⁷⁵ specifically imposes a charge on the amount of polluting substances discharged in the course of a calendar year. The unit of measurement is a 'pollution unit', defined in terms of fixed amounts of a chemical substance.⁷⁶ These chemicals include gases, metals, chlorides and sulphates. With respect to metals, for instance, a pollution unit is defined as 1 kilogram of chrome, copper, lead and zinc. With respect to sulphates, 650 kilograms amounts to one 'pollution unit'.

According to Article 3 of the Waste Water Charges Act (Germany),⁷⁷ the charge depends on factors such as the noxiousness of water. This is 'determined on the basis of the oxidisable substances of phosphorus, nitrogen, organo halogens, metals mercury, cadmium, chromium, nickel, lead, copper and their compounds as well as the toxicity of the waste water to fish'. Germany's Effluent Charge Law (ECL) of 1976,⁷⁸ also imposes charges based on pollutants like 'settlement solids', chemical oxygen demand, cadmium, mercury and toxicity for fish. It is specified in terms of pollutant per cubic metre or per tonne of product produced. Further, Article 20 of the newly amended Federal Water Act (19 August 2002) says that the compensations payable will be based on the extent to which the usage of the damaged property is hindered.

II. TOTAL POLLUTION COSTS METHOD

Key points: *To determine the penalty for industries that have been operating without consents and violating pollution standards, total pollution costs (TPC) can be taken into account.*

As per scholarly sources, TPC combines the costs of abatement of environment pollution (or AC), and cost of pollution induced environmental damage (ED) within the range of different pollution (abatement) alternatives.

Therefore, $TPC(z) = AC(z) + ED(z)$, where z denotes the pollution level⁷⁹

The Tribunal should harness the support of its expert members and external experts as required to determine AC and ED. The TPC should also reflect the cost over the period that the violation has been happening.

III. 'APPROXIMATE COST OF CLEANING WASTE' METHOD

Key points: *Clean-up cost/remediation cost of pollution estimated to be incurred by authorities can be used to determine the liability of compensation. If multiple parties contribute to the pollution, apportionment is required.*

In *Beazer East, Inc. vs. The Mead Corporation*⁸⁰ case, a challenge was posed to a lower court's deliberations as to the share of the corporation's response costs to environmental pollution. Pertinent observations were made about factors to be considered in calculating compensations.

The factors considered by the original magistrate were indicated: *'The Magistrate Judge's proposed allocation turned chiefly on three factors: 1) volume of waste should be the pre-eminent equitable factor given CERCLA's over arching*

“polluter-pays” principle; 2) Mead was responsible for approximately 90% of the waste. In weighing these factors, only the second is reasonably related to a ‘computation of damages.’

The *USA vs NCR*⁸¹ decision elaborated further on this method. The court made pertinent observations about the factors to be taken into account by the judiciary in determining compensations. The case came to the court as an appeal from the NCR Corporation, challenging the interim obligations which had been imposed on it regarding cleaning up the Fox River which it had polluted at Wisconsin, USA.

Although the NCR corporation argued that they were responsible for a fraction of the sediment pollution caused in the river, the court said that this did not necessarily mean that the corporation was responsible for only that fraction of the cleanup costs. The judges took note of the fact that the real problem was the cleanup. They found that the sediment deposit contained toxins above a threshold level and were thus dangerous to human life and hence the entire river would need to be remediated.

‘It is impossible to draw a logical connection between the amount of oil each company discharged into the stream and the ultimate injury... it does not necessarily follow that NCR is responsible for only 9% or 6% of the cleanup costs. Even if all that were present in the river were NCR’s contributions, the Lower Fox River would still need to be dredged and capped, because EPA has set a maximum safety threshold of 1.0 ppm of PCB. Anything above that amount is dangerous to human life and requires... remediation... Although the district court was focused on the cost of dredging (and NCR argues passionately that cost of remediation is a bad surrogate for harm inflicted), the court’s analysis necessarily recognizes that a cubic yard of sediment would need to be dredged whether it contained 10 ppm or 100 ppm, because that cubic yard of sediment contains PCBs above the maximum threshold.’

The court then said that even though cleanup costs on their own might not equal to the harm caused, they do indeed assist in approximating the harm caused by the pollution. Nonetheless, an evidence-based approach would always be preferable to an equity-based one.

‘Cleanup costs reflect the damage caused by the pollution. But we are not persuaded that taking into account remediation costs to approximate harm caused by pollution is so far off the mark. If EPA has determined that the harm from leaving a certain pollutant in the environment exceeds the costs required to clean up that pollutant, then under standard cost-benefit analysis we might think of clean-up costs as setting a lower bound for an approximation of the amount of harm. If other assessments of injury show that the costs of cleanup significantly exceed the expected benefits, that would require further investigation... The Court upheld a district court’s rather rough, ‘sua sponte’ calculation of apportionment. But we do not agree with NCR that lower courts must always take such an approach. Such a rule would in essence replace an evidence-based apportionment calculation with a rougher appeal to equity.’⁸²

The case of *USA vs. NCR* was also about the process of apportionment of liabilities between multiple independent polluters of a river. In tackling the complicated question of dividing liabilities between two parties, the judges recognized that it must first be determined whether the harm at issue is theoretically ‘capable of apportionment’. The judges said that the underlying findings of fact on which this apportionment will rest include the type of pollution at issue, who contributed to that pollution, and how the pollutant presents itself in the environment after discharge. Also, if the harm is capable of apportionment, the fact-finder must then determine how to apportion the damages between the parties.

European case law has demonstrated a similar approach. In the case of *the Queen vs. Secretary of State for the Environment and Ministry of Agriculture*⁸³ (aka the Standley case), the issue for consideration was whether charges could be calculated on the basis of estimates rather than the actual waste generated. The Court reiterated that the costs of disposing of wastes should be borne by the polluter and that the Polluter Pays Principle was closely reflected in the principle of proportionality. Given that it is difficult to determine the precise volume of waste generation, the Court makes reference to the European Council Directive 2006/12 on waste⁸⁴ to advocate for national laws imposing a waste charging system

based on estimations of the waste generated by the polluter. The system could use criteria such as (a) waste production capacity based on property surface areas and the use thereof, or (b) the nature of the waste produced.⁸⁵

Citing from another case,⁸⁶ the court in *Standley* quotes ‘the “polluter pays” principle does not preclude the Member States from varying, on the basis of categories of users determined in accordance with users’ respective capacities to produce urban waste, the contribution of each of those categories to the overall cost necessary to finance the system for the management and disposal of urban waste.’⁸⁷ However, the judges were quick to clarify that this freedom of allocation is limited. They said that the polluter should not be burdened by costs which are ‘manifestly disproportionate to the volumes or nature of the waste that they are liable to produce’, thereby requiring that the cost is related to the volumes or nature of the waste that a polluter is liable to produce.⁸⁸

IV. ‘ECONOMIC BENEFIT TO COMPANY RESULTING FROM VIOLATIONS’ METHOD

Key points: *Evaluating the economic benefit resulting to the company because of violations is often more easily calculated. This amount provides a better estimation of the cost of avoiding such violation/pollution in the first place and thus makes the compensation impactful upon the company.*

The case of *United States of America vs. Allegheny Ludlum Corporation*⁸⁹ case was brought to the appellate court by the Allegheny Ludlum Corporation (ALC), challenging the imposition of a civil penalty sum of \$8,244,670 for violating the clearance requirements of a legislation called the Clean Water Act (CWA). The court indicated a calculation approach that involved considering the economic benefit to a company resulting from violations of environment standards. The purpose of such a calculation is to identify the benefit enjoyed by the violator of pollution standards. This benefit is calculated by establishing the costs that have been spent and should have been spent, and then applying an interest rate reflecting the current value of avoided costs.⁹⁰ The court said that the case ‘Section 1319(d) of the CWA requires that the District Court, when determining the amount of a civil penalty under the CWA, consider “the economic benefit (if any) resulting from the violation,” so as to “level the playing field.”’

The court further went on to suggest approaches for the calculation of economic benefit. ‘We conclude that there are two possible approaches to calculation of economic benefit: (1) the cost of capital, i.e., what it would cost the polluter to obtain the funds necessary to install the equipment necessary to correct the violation; and (2) the actual return on capital, i.e., what the polluter earned on the capital that it declined to divert for installation of the equipment. Because these factors are so variable, depending upon market conditions and the financial soundness of the polluter, we leave it to the District Court, in the sound exercise of its discretion, to decide which approach to apply and how to apply it (there are a variety of models) ... In the course of this determination, we clarify that the proper method for determining economic benefit is to base the calculation on the least costly method of compliance.’

C. Putting in place institutional and policy mechanisms

The final section talks primarily about alternative policy structures that evolving jurisprudence should incorporate in order to ultimately achieve the objective of incentivizing polluters to minimize pollution.

In significant decisions of the NGT, judges have demonstrated the intention to set in place a more systematic approach to discourage potential polluters. This complies with one of the objectives of the Polluter Pays Principle, which is to discourage polluters from causing pollution. Instead of responding to specific issues, orders of the NGT could introduce more long-term interventions and be directed at pre-empting the harms likely to be caused.

I. INTRODUCING OVERSIGHT MECHANISMS

Key point: *Oversight mechanisms provide for communication between enforcement agencies and potentially responsible parties, and thus introduce accountability.*

Although the NGT Act 2010 provides for a centralized fund for compensatory orders, there is no oversight mechanism in place to ensure that court orders are complied with. The process of getting information about payments is unclear and arbitrary.

The CERCLA law (1980) of the USA, on the other hand, has systems to ensure compliance with financial commitments. Financial commitments ensure that a ready source of funds is available to efficiently deal with pollution damages. These commitments are called financial assurances (or FAs) and emerge from settlement agreements and unilateral administrative orders. A common FA mechanism is a trust fund wherein the potentially responsible party acts as a guarantor and a designated trustee holds funds to pay for EPA-approved cleanup expenses. Surety bonds and letters of credit are a form whereby the potentially responsible party provides an assurance that it would pay for cleanup work as and when it arises. Similarly, insurance policies, financial tests and corporate guarantees are other forms of FAs.⁹¹

With respect to oversight of these mechanisms, if a potentially responsible party (PRP) determines that it would not be able to meet its financial commitments, it is usually obligated to notify the US Environment Protection Agency (EPA). The EPA also has a monitoring role and notifies PRPs of non-compliance. Both PRP to EPA and EPA to PRP notifications initiate a limitation period before which alternative financial arrangements must be made by the PRP. It is also important to note the provision that if limitation periods are not complied with, penalties accrue.⁹²

At instances, administrative authorities are also encouraged to maintain contact with personnel from the third-party authorities who would meet the PRP's financial obligations. They also ensure that contact information including name and address are included in settlement documents. The EPA is also authorized to request various types of information from the PRPs to facilitate cleanups including information about the ability of any persons to pay or perform the cleanup.⁹³ Section 104(e) of the CERCLA grants the EPA the authority to issue 'information requests', while Section 122 (e)(3)(B) of the legislation authorizes the EPA to issue administrative orders⁹⁴ as a means of demanding information.⁹⁵

II. POLLUTION CHARGING SYSTEMS

Key point: *Charging systems are a useful way of encouraging polluters to find the least-cost method of compliance.*

A commonly used approach is that of pollution charging systems, which countries like Lithuania⁹⁶ and Germany use. Explaining the benefits of charging systems, the Recommendation of the Council on the Implementation of the Polluter Pays Principle⁹⁷ says that pollution prevention is most effective when it achieves a desired improvement of environment quality at the least possible social costs. Such charges, if placed in the form of a comprehensive policy, would make charges relatable and commensurate to environment policy objectives. This incentivizes polluters to find cheaper treatment costs rather than incur charges for producing effluents. In effect, this pushes polluters to treat pollution at the least social cost as well as incentivizes them to continue pollution abatement. Alternatively, charges may be used to cover the costs of collective-waste treatment.

However, the problem with administrative approaches as a means of discouraging pollution is that they are less efficient since there is no incentive for companies to go beyond the minimal mandates in the law. They are also more costly as they involve significant investment, such as in law-enforcement personnel.

III. MARKET-BASED POLICY MODELS TO INCENTIVIZE COMPLIANCE

Key point: *Market-based instruments include a variety of methods, such as recruiting private parties for waste management, trading pollution permits and honouring bank guarantees. They achieve the objective of the Polluter Pays Principle by incentivizing potential polluters to monitor themselves and so avoid pollution in the first place. As opposed to pollution-charge systems, they are easier to monitor and much more efficient.*

Given the hurdles of administrative approaches such as the charging-system approach, many countries have opted for market-based or incentive-based strategies to disincentivize pollution. These essentially form the nature of agreements between the private sector and the State. In Ireland, for instance, many municipal authorities have opted to engage private contractors for waste disposal since doing so is both administratively easier as well as cheaper.⁹⁸ Another popular tool is that of emissions trading. These often involve a ‘cap and trade’ format, where an allowable limit is placed on emissions and tradable permits created up to the level of this limit. The idea is that the market trade in permits ensures that emissions cuts happen at the lowest possible cost, allowing the cap itself to be reduced every year.⁹⁹ The USA is one of the countries to develop this to combat acid rain as early as 1990.¹⁰⁰

Aside from emissions trading, other methods used are taxes and permits. Taxes are imposed on things like fossil fuels and carbon dioxide emission, while chargeable permits are granted for a certain level of pollution above which incremental costs incur.

The justification for market instruments is an economic one based on efficiency. As opposed to the traditional command-and-control approach, economic policies encourage polluters to find the lowest-cost methods for reducing emissions to avoid penalties and liabilities that could emerge. The Polluter Pays Principle was initially a principle of economic policy, a means to ensure that the polluter is responsible for the cost of pollution prevention. It was introduced in 1972 by the Organization for Economic Co-operation and Development (OECD) through a recommendation.¹⁰¹ Over time, it came to be commonly implemented by making polluters liable for payments in courts. Such a method, however, had to by definition be implemented only after the pollution occurred. In order to avoid the difficulties of imposing penalties after pollution, policy was introduced in some countries to incentivize compliance from beforehand.¹⁰²

The idea of requiring states to establish financial security instruments is another market approach that seeks to delegate oversight powers and the responsibility of imposing compensations to executive government.¹⁰³ It is also supported by Article 14 of the Directive 2004/35/CE of the European Parliament,¹⁰⁴ which allows member states to establish the financial security instruments they deem appropriate. These can include protections/compensations against pollution to the victims, based on promises or guarantees made by corporate entities seeking to embark on a potentially hazardous enterprise. The NGT has already allowed SPCBs to require polluters to submit bank guarantees as a condition for complying with directions.¹⁰⁵ However, in order to better ensure that potentially responsible parties meet their liabilities, there are a wider range of financial instruments in the CERCLA law. Permissible assurance mechanisms include trust funds, letters of credits, surety bonds and others.¹⁰⁶ Moreover, both settlement agreements and administrative orders provide authorities with the option of requiring financial assurance even when there is mere apprehension of imminent and substantial endangerment to human health of the environment. Therefore, financial assurances are not limited only to cases where the pollution has already occurred.¹⁰⁷

CHAPTER 5

Conclusion and recommendations

Few people will disagree with the proposition that those who cause damage or harm should also pay for the damages. It appeals directly to our sense of justice. The Polluter Pays Principle also evokes a sense of confidence among the community about the delivery of justice when an industry or individual is made to pay for environmental harm.¹⁰⁸

As evident from the review of cases in this report, in recent times the Principle has been used as a key instrument by the NGT to tackle various environmental nuisances as well as its impact on people. The Tribunal has used this instrument primarily in three ways—to impose a direct penalty on the polluter after the incident, to draw out a structure of fines and taxes for future pollutions and, in a few instances, to direct the state to more long-term policy instruments to internalize the costs of environmental pollution.

A. Concerns regarding NGT decisions

There is no doubt that the Principle remains the cornerstone for adjudicating on environmental violations. However, as seen from the analysis of NGT cases, important concerns remain about the decisions of the NGT. To summarize, the key concerns are as follows:

I. IN DETERMINING PENALTIES, CLARITY AND CONSISTENCY IS LACKING

The biggest problem with the penalties/compensation costs imposed by various benches of the Tribunal is that there remains a lack of clarity on how the penalty amount has been determined.

i. No scientific method

Though the decisions sometimes provide explanations, specific methods are rarely provided for how an amount has been arrived at. The lack of such clarity can render the NGT's order subjective.

ii. Guesswork

Equally problematic is the reliance on guesswork, which makes the Tribunal's orders seem arbitrary. This is evident in the matters of Ganga pollution from industrial sources. The reliance of guesswork and lump-sum penalties imposed is peanuts when compared to company turnovers.

iii. Reliance on inappropriate case-precedent

Even in cases where it was noted how the specific amount was determined, the derivation remains inappropriate. This is particularly true for cases where project developers start work violating requirements of statutory clearances. In such cases, the penalty amount determined on the basis of 5 per cent of project cost remains problematic as it is not the appropriate parallel. The Tribunal also relied on two major cases of the Supreme Court while determining the penalty for developers in cases of clearance violation—the Goa Foundation judgment and the Sterlite judgment. Drawing parallels to both these, as discussed, does not suffice in the cases.

iv. No consistency

There is also lack of consistency in using a rationale for determining penalty. For instance, while the NGT has sometimes used 5 per cent of the project cost to determine the penalty amount for the company, similar criteria have not been used when the Western bench of NGT observed EC violations for Adani's port activities in Hazira. In fact, there was no clear estimate provided for how the penalty amount has been arrived at. Similarly, at variance with the logic of 5 per cent of the project cost, the Southern bench of the NGT noted 10 per cent of the annual turnover of the company as the penalty amount. While deciding on cases for EC violations,

II. INCONSISTENCY IN COMPLYING WITH ORDERS ENSURES THAT THE PURPOSE OF PRINCIPLE IS NOT ACHIEVED

i. Delayed payments

In several cases, the NGT has imposed an initial fine/provisional penalty and then constituted a Committee to investigate the situation further. The final amount is adjusted following the Committee's observation. The initial amount is typically asked to be paid within three to four weeks of pronouncement of the NGT's order. However, in almost all the cases the industry or individuals have never made a payment until the submission of the Committee's report as, for example, in the cases of Forward Foundation and S.P. Muthuraman. For others, payments were stalled because the NGT orders were challenged at the Supreme Court.

ii. Low deterrence value of penalties

There also remains uncertainty about the adequacy of the penalty amount. Even if on the face of it the imposed sum seems high, such understanding is barely qualitative and the penalty can be grossly inadequate. This is clearly evident from the analysis of Ganga pollution cases caused by sugar and distillery units. The adequacy question also remains for compensating communities affected adversely by project activities.

While deliberating on matters using the Polluter Pays Principle, the NGT, as can be seen, needs to take the aforementioned concerns into account.

B. Recommendations

Compensatory orders must ultimately achieve the objectives of the Polluter Pays Principle. Besides ensuring that parties pay for the environmental and ecological harm caused, developers/companies have to be effectively deterred and affected communities be delivered justice. This requires that the NGT follow and ensure an effective and rational process, right from determining compensations to executing payments and further when pre-empting future harms.

Based on our analysis of NGT cases (see *Chapter 2*) and best practices (see *Chapter 4*) of the Polluter Pays Principle, the recommendations for the NGT to employ to better realize the objectives of the Polluter Pays Principle are divided into the following four categories:

I. Methods for determining compensation

II. Factors to be considered for calculating compensation

III. Utility of centralized payments and monitoring of fund utilization

IV. Employing an activist approach to create alternative systems that can pre-empt potential pollution

METHODS FOR DETERMINING COMPENSATION

I. Arbitrariness needs to be avoided in determining compensations

The Tribunal must avoid any possibility of arbitrariness for determining penalty or environmental compensation. While making the polluter pay is important, the penalty should not just be a lump sum amount or appear to be arbitrary.

The Tribunal in some cases has demonstrated awareness of the danger of arbitrary application of the Polluter Pays Principle. In 2012, the bench chaired by A.S. Naidu, then acting chairperson of NGT, had cautioned against applying the PPP arbitrarily. In the matter of *Hindustan Coca Cola Beverages Pvt. Ltd vs. West Bengal Pollution Control Board*, the bench while discussing poorly contemplated penalty imposed by the SPCB on the industry brought up the issue of the Polluter Pays Principle. The bench of A.S. Naidu and G.K. Pandey (expert member) in their judgment dated 19 March 2012 noted that *'before applying the principle of "polluter should pay", an authority has to first ascertain and determine the damage caused by the polluter and the amount which is necessary to rectify the damage. Even otherwise the amount so realized is required to be utilized for the purpose of restoring the environment and not otherwise. On the absence of such assessment, it would not be justified to arbitrarily direct a person to deposit a lump sum amount'*.

This approach should reflect in all future decisions of the NGT and it should be ensured that such uncertainties and arbitrariness do not underlie compensation calculations.

ii. The Tribunal should defer to consultative processes

An increasingly consultative approach should be used in determining compensations. The judiciary could allow parties to negotiate a settlement amount while retaining only oversight of the process to ensure that the parties are equally represented and that due diligence is maintained. If no solution or settlement is arrived at, the Tribunal could embark upon deliberating the compensation amount. However, allowing parties to first negotiate their own terms of settlement allows for more acceptable solutions.

iii. Experts should be relied upon to help calculate penalty

The NGT panel contains expert members since one of the objectives of creating the Tribunal was to lend technical expertise to deliberations on environment matters that often require scientific assessment. There is need, therefore, for a proper process to emerge. Experts from relevant fields are important at various stages of the compensation process. For one, experts like police and other officers provide data and evidence necessary for any sort of environment impact assessment, including photographs, documents, testimonies etc. Secondly, scientists are better suited than judicial professionals to undertake risk assessments to understand the detailed and future impact of pollution on humans and ecosystems. Thirdly, experts assist in complicated economic analyses or mathematical calculations inherent in determining a proper compensation amount.

In fact, in some cases the Tribunal has considered that a Committee be setup to investigate a matter and determine the quantum of damage and penalty amount. In many of these cases, the suggestions of the expert committee were not relied upon. Instead of setting up the Committee after imposing an initial fine, the NGT should set up the Committee in the very beginning and determine the final penalty based only on these expert observations and recommendations. This will not only bring about preciseness in the penalty/compensation awarded, but will ensure parties do not wait indefinitely to make the payment.

II. FACTORS TO BE CONSIDERED FOR CALCULATING COMPENSATION

i. Technical factors should be used

Given the type of cases the Tribunal typically has to deal with, general benchmarks can be developed as precedent for different cases. For pollution cases, cleanup costs or total pollution costs could be used as factors to evaluate damage caused and the compensation amounts. Similarly, for violation of clearance cases, the benefit accruing to the company by dint of violations should be looked at to evaluate penalty.

ii. Quantitative estimate of damages should be undertaken

Although it is true that determining the penalty amount with exactitude is not possible even with the use of technical criteria, it is enough that at least some determination is done. This determination should be a quantitative estimation. In most cases, an approximate calculation or method can be followed. With the expertise the NGT has and with the support

of various experts in the concerned fields, an approximate evaluation can be followed. Even if not exact, the focus should be on having a quantitative estimate of damages or loss.

iii. Penalties should be sufficient to deter industries from polluting

The other important point to keep in mind is that the penalty or compensation amount should meet the purpose of the Polluter Pays Principle. The Tribunal must thus ensure that the penalty imposed has sufficient deterrence value. Otherwise the penalty will just remain as a slap on the wrist, and even if the industry concerned has to bear a cost, such a measure will fail to create deterrence for hundreds of other industries who can potentially contribute to environmental harm. The penalty must therefore be adequate and not merely marginal.

III. UTILITY OF CENTRALIZED PAYMENTS AND MONITORING OF FUND UTILIZATION

i. Compensation amounts should be deposited in ERF

As mandated by the NGT Act, all compensations should be deposited with the Environment Relief Fund (ERF). The NGT in many instances has been directing the money to be directly deposited with authorities who are to undertake the final disbursement or utilization of the money. This is akin to fast tracking of the process with the added casualty of reducing accountability as the legal authority (ERF) is bypassed. A centralized repository to deposit the money is important for proper accounting and audit purposes of fund disbursement and utilization.

ii. Orders should be clear and comprehensive

One approach is for orders to ensure that payments are mandatorily made into the ERF rather than various other entities such as the State Pollution Control Boards or District Collectors. Clear directions need to be given as to *how* and *by when* the money is to be paid into the fund. Further, clear direction must be provided about the *manner* and *purposes* for which the money is to be used.

iii. Oversight mechanisms need to be introduced

To improve accountability for the money deposited in the ERF, oversight mechanisms should be introduced to ensure that polluters make payments. Our follow-up on ERF payments demonstrated that there is no information forthcoming on payments in many cases.¹⁰⁹ Companies directed to pay into the fund often did not do so and there is no accountability about why this is so. The model of the CERCLA oversight process demonstrates that both the polluter and monitoring agency have the responsibility to provide information on time and demand information relevant to compliance. The rules also require that clear contact information of third-party guarantors are provided so as to facilitate follow-up. Failure to comply with limitation periods for depositing money also invokes penalties.

Similarly, in the Indian context, a system could be introduced whereby the designated fund manager is required to remind polluters to deposit the required amounts in the ERF. An obligation could be imposed on the polluter to inform the fund manager about their ability or inability to make a payment (see *Chapter 3, A*).

IV. EMPLOYING AN ACTIVIST APPROACH TO CREATE ALTERNATIVE SYSTEMS THAT CAN PRE-EMPT POTENTIAL POLLUTION

Alternative policy structures should be developed by evolving jurisprudence in order to ultimately achieve the objective of incentivizing polluters to minimize pollution. Courts have a role to play in this larger movement through the orders and directions that they make.

Given the growing burden of pollution from various sources, the need of the hour is to use market instruments to incentivize pollution reduction at the front end rather than dealing with it at the end of the pipe. Since legislation and policy formulations can take time, the courts in the process should adopt an activist role in pre-empting and therefore preventing damage to the environment. This includes introducing long-term solutions that achieve the purpose of the Polluter Pays Principle by discouraging polluting activities. These may be done by passing orders that lay down guidelines

that indicate how polluting entities will compensate victims of pollution based on a reference or standard based on proportionality. Security instruments may also be laid down and market-based instruments introduced.

In this regard, the NGT has delivered some decisions, such as imposing a charge on vehicles entering Delhi and on vehicles passing through Rohtang Pass. Orders like these will not only help internalize the costs of pollution, but can potentially also create long-term deterrents to unnecessary pollution. However, as we have seen, stop-gap orders can cause implementation- and execution-related problems.

Framing objectives and thereby compelling states (or concerned authorities) to come up with their own systems, might therefore be more sustainable. It will also help authorities move away from just a command-control approach for dealing with environmental pollution on a case-to-case basis. For this, the NGT needs to make relevant directions to the state (or concerned authorities) after consulting with them on the best possible way forward.

Annexures

Annexure 1

NGT COURT CASES

A. Project activities carried out without obtaining the required permissions for work (i.e. environmental or forest clearances) affecting environment and ecology

Case #1 Forward Foundation vs. State of Karnataka

The principal bench of the NGT chaired by Justice Swatanter Kumar slapped on 7 May 2015 a fine of Rs 117.35 crore and Rs 22.5 crore on two companies, Mantri Techzone Pvt.Ltd and Core Mind Software and Services Ltd respectively. The amount, as noted by the NGT, is equivalent to five per cent of the project cost. At the time, the NGT had further noted that the developers have to pay the stipulated amount 'at the first instance compensation for their default' and the final amounts for restoration of environment and ecology would be determined by the Committee based on their observations.

The penalty was imposed on the companies for unauthorized constructions in a Special Economic Zone (SEZ) project by Mantri Tech Zone Pvt.Ltd and another project by Core Mind Software and Services Ltd. The bench observed that the companies had commenced development work of a large mixed-use SEZ before obtaining Environmental Clearance (EC) and also failed to comply with EC conditions later. It was further noted that the project fell in the ecologically sensitive land between the Agara and Bellandur Lakes, exposing the entire ecosystem to the major threat of degradation and damage. Development activities also encroached on wetlands and storm-water drains. The order of the NGT came in the wake of a complaint filed by the Forward Foundation, a Bangalore-based charitable Trust, Bangalore Environment Trust, and Praja RAAG and Citizen's Organization of Bangalore.

The bench also formed an eight-member committee, with the Member Secretary of the Karnataka State Pollution Control Board (SPCB) deputed as convener of the committee. When the Committee gave its report to the NGT, however, the Tribunal expressed frustration with the committee's observations and deemed the report to be unfit for determining the final penalty. In its order dated 10 September 2015, the NGT referred to the report as '*vague*' and incomplete in many other aspects. Following this, it was decided that the NGT's own expert members would investigate the matter on ground, during which the 'committee' members would be present.

The company in the meantime had appealed before the NGT to reduce the penalty amount, but not to effect. In its order of 4 May 2016, the bench decided to stick to the fine as was imposed, noting *that the environmental compensation imposed upon the company 'calls for no variation'*. The fine for Core Mind was however reduced from 5 per cent to 3 per cent of the project cost, making the payment amount Rs 13.5 crore. This followed the observation that the company had not commenced any actual construction but carried out various preparatory steps.

Case # 2: S.P. Muthuraman vs. Union of India (OA No. 37/2015); along with Manoj Mishra vs. Union of India

In 7 July 2015, the Principal bench of the NGT imposed a total fine of about Rs 76 crore on seven builders in Tamil Nadu for undertaking unauthorized constructions. The developers were observed to be carrying on the activities on

the basis of ex post facto ECs. This was made possible through two Office Memorandums (OM) of the MoEF&CC dated 12 December 2012 and 27 June 2013. In its deliberations,¹¹⁰ the NGT considered these two OMs to be ultra vires to the Environment Protection (EP) Act of 1986 and the EIA Notification of 2006. Quashing the OMs, the developers were also asked to pay.

The seven developers were Y. Pondurai (Rs 7.4 crore), Ruby Manoharan Property Developers (Rs 1.8 crore), Jones Foundations (Rs 7 crore), SSM Builders and Promoters (Rs 36 crore), SPR and RG Construction (Rs 12.6 crore), Dugar Housing (Rs 6.9 crore) and SAS Realtors (Rs 4.5 crore). Individual fines were determined as 5 per cent of the project cost. This was noted as an initial compensation amount that was stipulated *'to prevent further damage to the environment on the one hand and control the already caused degradation and destruction of the environment and ecology by these projects on the other hand'*.¹¹¹ The Tribunal also made reference to the Forward Foundation matter.

At that time the NGT also constituted a Committee comprising the Member Secretary of SEIAA, Tamil Nadu (TN), Member Secretary of TNPCB and other relevant officials to assess the ecological and environmental damages caused by the developers. The Committee was also asked to investigate the pollution-control measures that the developers had undertaken (if any) and submit a comprehensive report.

The initial penalty amounts remained unchanged on submission of the report. As informed by MoEF&CC officials and understood from subsequent NGT orders, the Committee made primarily qualitative observations. These were related to issues such as illegal and unauthorized activities carried out by developers, ecological and environmental damage by the projects, alteration of land use and its effect on natural topography, installation of sewage treatment plants (STPs) and anti-pollution devices, discharge of effluents and other untreated waste, use of energy-efficient devices, violations of conditions of statutory permits etc.¹¹²

Observing similar violations about carrying on development activities on the pretext of ex post facto clearance, the NGT on 10 July 2015 also imposed a fine on Akshardham Temple authorities for expansion activities on the Yamuna floodplains in Delhi. The amount noted was 5 per cent of the expansion project cost.¹¹³

B. Violations of clearance conditions impacting ecology and environment

Ajay Kumar Negi vs. Union of India

While no particular method was specified about how the Tribunal arrived at the amount of Rs 5 crore, reference to certain cases indicate that the amount was quoted based on the 'magnitude, capacity and prosperity of the unit' which are viewed as 'the relevant considerations for determining the extent of the liability'.¹¹⁴ The NGT further indicated the amount to be 'an initial deposit for environment conservation subject to final adjustments'. The final compensation amount will be used for restitution and restoration of environment and ecology, and also payment to people who have lost livelihoods because of cutting trees.

The bench also constituted an expert committee comprising the Additional Chief Secretary of Environment and Forest of Himachal Pradesh, Member Secretary of HP PCB and other officials to develop a comprehensive report on the matter. The Committee was specifically asked to look at compliance of forest and environment clearance conditions, tree felling, compensatory afforestation, biodiversity conservation and management plan etc.

However, when the Committee submitted its report, the imposed amount became contestable. The observations of the report indicated that the cost imposed by the NGT was not the right measure when ground realities were considered. The company thus contested the fine. As noted by the Tribunal on 4 April 2016, the company had said that '1897 trees were felled as compared to estimated felling of 4815 trees and there is no possibility of further damage as per the observations made by the Expert Committee'. The Committee also noted that the company had made payments regarding various issues related to forest management, such as towards compensatory afforestation, Net Present Value (NPV), reclamation plan, cost of trees felled etc. to the concerned authorities, though that money has not been put to use by the authorities.

Following such observations, the NGT remains undecided about whether relief can be granted for the payment which the company had sought. The Principal bench has now put the payment on hold saying *'that stage is not yet matured for relief as solicited, particularly damage to environment, if any, arising out of the project activity is yet to be completely assessed'*.¹¹⁵

Though NGT considers a relief cannot be granted just now, advocate A.D.N. Rao, the counsel in the matter, remains positive. 'The company should not be required to pay what was stipulated,' he says. 'It is clear that there is no possibility of any further tree felling or damage to the area because the project is already in the final phase of installations. Even when NGT gave the order construction was done,' he added.

C. Industrial units operating without consents and violating pollution standards

Krishan Kant Singh vs. Triveni Engineering Industries Ltd

The Principal bench of the NGT imposed a fine of Rs 25 lakh on Triveni Engineering Industries. The sugar and distillery company in UP was accused of contributing to polluting the Ganga along with various other industrial units along the UP stretch of the river.

During the time of the judgment in December 2015, it was noted that the company had taken anti-pollution measures to treat effluents and dispose of waste. But the Tribunal considered that the company is *'liable to pay environmental compensation'* for being a polluting unit in the past for a considerable time. The NGT observed that *'undisputedly, the industry has polluted the ground water and air, has operated without consent of the Board (at times), and has breached the conditions of the consent order'*.

However, the bench found it difficult to ascertain the compensation. The Principal bench noted that *'at this stage it is not possible to determine with certainty the extent of pollution caused and consequences of the violations committed by the industry and therefore some kind of guesswork has to be applied by the Tribunal to direct payment of environmental compensation'*.¹¹⁶ The amount was directed to be paid in equal share to CPCB and UPPCB, and be used for preventing and controlling pollution as well as for restoration of the environment, ecology and groundwater around the industry.

Referring to the Triveni Engineering matter, the NGT went on applying such 'guesswork' for deciding on another matter in Sambhal district of UP. In this case, a sugar distillery unit, DSM Sugar Distillery Division, was found to be operating while flouting the conditions and pollution parameters stipulated in the Consent Order of the State Pollution Control Board (SPCB) for years. Such operations have especially resulted in contamination of groundwater and soil in the area. The bench, chaired by Justice Swatanter Kumar, imposed an environmental compensation of Rs 1 crore on the company and asked to furnish a bank guarantee of Rs 10 lakh.¹¹⁷

However, the amount of fine imposed does not specify any calculation with regard to what was arrived at. There seems inconsistency in the logic used, and the fine was arbitrarily rendered as a lump-sum amount.

D. Development activities directly affecting livelihoods of communities etc.

Case study #1: Raigad fisherman families to be compensated by Rs 95 crore

The Western bench of NGT of Justice V.R. Kingaonkar and Ajay A. Deshpande (expert member) on 27 February 2015, directed JNPT, ONGC, CIDCO to pay compensation to the tune of Rs 95 crore to the 1,630 fisherman families in Raigad district of Maharashtra.

The order was given in response to a petition filed by Ramdas Janardan Koli of Paramparik Macchimar Bachao Kruti Samiti of Raigad district. The application was filed on behalf of fisherman families of Uranand Panvel talukas of Raigad, whose livelihoods have been severely affected due to the activities of the companies, particularly JNPT. It was alleged

that due to port expansion activities of JNPT, regular tidal water exchanges were affected and ingress of and egress to the sea was impaired. The mangroves along the beaches were destroyed, robbing the fish of their usual breeding and spawning grounds and depleting fish stock. CIDCO and ONGC were also brought into question due to their negligence of environment while carrying out related activities. The applicants claimed 'compensation and right for rehabilitation'. The Rs 95 crore was to be shouldered by the three companies in proportion to the damage caused—70 per cent to be borne by JNPT, 20 per cent by ONGC and 10 per cent by CIDCO. The entire amount was to be distributed equally within three months among the 1,630 affected families. If it was not paid, the companies would incur an interest at 12 per cent per annum until the money was realized by the concerned fishing families. The respondents were also asked to pay Rs 50 lakh in environment restoration costs as well the litigation costs of the applicants.¹¹⁸

While imposing the fine, the bench gave an estimate of the penalty amount. The primary determining criteria was the period for which fisherman families would suffer loss of earnings due to activities of the companies, which was noted to be at least three years. Additionally, it was assumed that each family comprised four members (two male and two female), all of whom earned about Rs 800 per day even if pro rata income was assumed to be Rs 200 per day, which is the income normally earned by someone in the lower socioeconomic strata. Therefore, the yearly loss of income per family was estimated to be Rs 292,000. Further, assuming mere subsistence at one third of this amount, the gross loss per family per year is Rs 194,666. The bench estimated that each family would need a period of about three years to switch over to another livelihood. Therefore, the total loss for three years for 1,630 families was estimated to be Rs 951,920,000.

The NGT order was challenged before the Supreme Court by the companies. However, the Supreme Court in May 2015 asked both JNPT¹¹⁹ and ONGC¹²⁰ to make the payments to it within a period of two months and six weeks respectively. The Supreme Court had further directed the Registry that once the money was deposited, it should be invested in an interest-bearing fixed deposit in UCO Bank for a period of one year.

According to the D.R. Deshmukh of JNPT, the company made the payment within the stipulated time. The companies ONGC and CIDCO (aside from JNPT) also made the payments to the SC, said advocate Divya Jyoti Jaipuria, counsel in the matter at the Supreme Court. 'However, the money remains in the account as deposited,' stated Ramdas Janardan Koli, who actually considered the fine imposed by NGT to be inadequate. 'The amount takes care of the loss of livelihoods, but the rehabilitation cost will be much more,' he said.¹²¹

Case study # 2: Adani Hazira Port pays for environmental destruction and impact of fishing communities

On 8 January 2016, the Tribunal imposed a fine of Rs 25 crore on Adani Hazira Port Private Ltd (AHPPL), a wing of the Adani Group, while setting aside the EC given to its port expansion project in Hazira, Gujarat. The other party in the matter, Hajira Infrastructure Pvt. Ltd (HIPL), was also to bear the costs.¹²²

The judgment delivered by the bench of Justice V.R. Kingdonkar and Ajay A. Deshpande (expert member) imposed the fine as a cost for the environmental degradation and mangrove destruction that have been caused by port activities. The order was passed in response to a petition filed by the Hazira Fishermen Association, which challenged the multi-crore infrastructure project on the ground that besides damaging the ecology, the project also impacted the fishing community, who cannot do fishing in the inter-tidal areas. It was also alleged that the EC for expansion was granted by the Union environment ministry without reviewing if the company had complied with the conditions of the first EC. The company had got its first EC in June 2003 and the impugned EC for expansion was granted in May 2013.¹²³

NGT asked the company to deposit with the District Collector of Surat within four weeks the amount of Rs 25 crore, which was to be kept in an escrow account till the NGT gave further directions for its utilization. The NGT did not clearly say how exactly the money must be used, loosely stating that it 'may be towards compensation and restoration'.

The Tribunal's order however does not provide clarity on the Rs 25 crore penalty calculated. What comes across only is annoyance with the company's conduct. While levying the amount, the bench noted that '*undaunted by absence of EC*

GREEN TRIBUNAL, GREEN APPROACH

and absence of CRZ clearance, the AHPPL proceeded with expansion work after 2007 and did not care for any adverse order or adverse impact on environment. Such irresponsible attitude of the AHPPL must be deprecated’.

Adani had initially challenged the order of the NGT in the SC. However on 28 January 2016, the SC asked Adani to pay the penalty, and the company subsequently made the payment to the District Collector of Surat. As clarified by Shilpa Chouhan, the counsel in the matter, the company also paid the Rs 2 lakh as litigation fee to the applicants in May.

The money is, however, still to be disbursed by the Collector. As clarified by Chouhan, this is because further directions of the NGT are now awaited as was noted by the bench while awarding the penalty in January.

Annexure 2

CASE STUDIES: RIVER POLLUTION FROM SUGAR INDUSTRIES

Case/company	Penalty amount	Annual turnover and PAT	Capacity of operation	Comments	Purpose for penalty
<p>Case: <i>Krishan Kant Singh vs. National Ganga River Basin Authority and Ors.</i> (OA No. 299/2013 Judgment dated October 2014)</p> <p>Company: Simbhaoli Sugar Mills (and Gopaljee Dairy Pvt. Ltd)</p>	<p>Simbhaoli Sugar Mills—Rs 5 crore; Gopaljee—Rs 25 lakh</p>	<p>Simbhaoli Sugar— Total turnover of the company for 2013–14 is about Rs 864 crore, combining sugar and alcohol (sugar about 90%, equal to about Rs 783 crore; and alcohol about Rs 81 crore).</p> <p>Net (loss) after tax for 2013–14 = Rs 172 crore, (Rs 17,223 lakh); and for 2012–13 = Rs 39 crore (Rs 3,946 lakh)¹²⁴</p>	<p>As can be noted from the deliberations, the capacity of sugar mill= 10,000 TCD;¹²⁵ distillery unit = 90 KL/day.</p>	<p>The penalty amount of Rs 5 crore coincides with 5 per cent of the turnover of the company for alcohol which is about Rs 81 crore</p>	<p>Pay to UPPCB. NGT noted that <i>'the amount of compensation shall be utilized for the cleaning of Syana Escape Canal, preventing and controlling ground water pollution, installation of an appropriate ETP or any other plant at the end point of Phuldera drain where it joins river Ganga'</i>.</p> <p>The amount was also to be utilized for restoring the quality of the groundwater.</p> <p>A special Committee comprising the Member Secretary, CPCB; Member Secretary, UPPCB and a representative of MoEF was further directed to be set up for this purpose.¹²⁶</p>
<p>Case: <i>Krishan Kant Singh & Ors vs. Daurala Sugar Works Distillery Unit</i> (OA No. 328/2014 Judgment dated November 2015)</p> <p>Company: Daurala Sugar Works Distillery Unit (a wing of DCM Shriram Industries Ltd)</p>	Rs 1 crore	<p>According to the 2014–15 annual report of the company, for 2014–15 the turnover was Rs 1,305 crore. In 2013–14 turnover stood at Rs 1,329 crore.</p> <p><i>Sugar constitutes about 49 per cent of the total turnover.</i></p>	<p>In 2015 the sugar unit produced 1.62 lakh MT of sugar.</p>	<p>This penalty amount is negligible compared to the annual turnover of the company (2014–15 figures), i.e. about 0.07 per cent.</p>	<p>Pay to UPPCB. To be used for taking preventive measures, removing the various materials and pollutants in the area and taking steps for restoring the environment and ecology.</p>
<p>Case: <i>DSM Sugar Distillery Division vs. Shailesh Singh & Ors.</i> (Review application no. 13/2015 in OA No. 35/2015 Judgment dated December 2015)</p> <p>Company: DSM Sugar Distillery Division</p>	Rs 1 crore	<p>Income from operations in 2014–15 was Rs 1,863.52 crore.</p>	<p>According to annual report of 2014–15,¹²⁷ the capacity of The distillery unit is 300 KL/day. The company is also one of the largest refined sugar producers of India with a capacity of 1,700 TPD; refined sugar constituted 40.70 per cent of the total sugar produced.</p>	<p>This penalty amount is negligible compared to the annual turnover of the company (2014–15 figures), about 0.05 per cent.</p>	<p>Pay to UPPCB. Amount to be used only for the improvement of the environment of the area in question.</p>
<p>Case: <i>Krishan Kant Singh vs. Triveni Engineering Industries Ltd.</i> (OA no. 317/2014 Judgment dated December 2015)</p> <p>Company: Triveni Engineering Industries Ltd.</p>	Rs 25 lakh	<p>According to annual report of 2014–15, net turnover of the company was Rs 2061 crore.¹²⁸</p> <p>2012–14 (18 months reported together) = net turnover Rs 3,154 crore; PAT Rs 153 crore in 2014–15.</p>	<p>Sugar production was 0.49 million tonne.</p> <p>The industry is engaged in the production of extra neutral alcohol, absolute alcohol, rectified spirit and industrial alcohol. Distillery capacity 160 KLD. During 2014–15, distillery operated at 100 per cent capacity.</p>	<p>The penalty amount is negligible considering the turnover of the company.</p>	<p>Amount to be paid in equal share to CPCB and UPPCB. The amount shall be used for preventing and controlling pollution as well as for restoration of the environment, ecology and groundwater around the industry.</p>

Annexure 3

KEY CASES WHERE NGT ORDERS WERE CHALLENGED AT THE SUPREME COURT

Case	Central issue	NGT direction on penalty	Supreme Court status
Payment not made/Supreme Court stay order given			
Krishan Lal Gera vs. State of Haryana (Appeal no.22 of 2015) Judgment pronounced on August 2015	<ul style="list-style-type: none"> Mantri Techzone Pvt. Ltd and Core Mind Software and Services Pvt. Ltd started project activities without EC. Even where later ECs were obtained, cleared conditions were violated. 	<ul style="list-style-type: none"> At the first instance the project proponents, Vivekanand Ashram Society, Haryana, would pay 5 per cent of the project cost, which is to the tune of Rs 6.8855 crore. They would also pay a sum of Rs 5 crore, specifically for violation with respect to statutory permits. 	Similar matter before the SC. ¹²⁹ As noted by the NGT in order dated 19 October 2015, the SC has halted operation of the judgment passed by the Tribunal in September 2015. Matter to be next heard in NGT in 11 July 2016.
Sunil Kumar Chugh vs. Secretary Environment Department, Govt. of Maharashtra and Ors. (Appeal no.66 of 2014) Judgment pronounced on September 2015	<ul style="list-style-type: none"> Building project in Mumbai by Priyali Builders commenced before obtaining EC and thus environmental safeguards compromised. The project also violated Town Planning laws and Development Control Regulations such as inadequate recreational space and parking space provided. 	<ul style="list-style-type: none"> The developer Priyali Builders fined Rs 3 crore, which is to be credited to Environment Relief Fund. This is 5 per cent of their project value. Additional Rs 3,263,600 to be deposited with the SPCB. 	An interim stay has been granted on the execution of the NGT order (on 28 September 2015).
Centre for Environment Protection, Research and Development vs. State of M.P.& Others—OA no. 1/2013 (CZ) Manish Sharma vs. State of MP & Ors. – OA No.8/2015 (CZ) Order dated 3 August 2015	<ul style="list-style-type: none"> Persistent vehicular pollution in Indore city over years. The pollution level was so critical that Indore was noted as critically polluted by the CEPI score. However the state government has not taken any effective measure for almost a decade. 	<ul style="list-style-type: none"> Asked the state government to give a Rs 25 crore security before the Registrar of NGT Bench (matter dealt by Western bench of NGT). The state of MP was given a 60-day period to make the necessary efforts for compliance with the law. By failing to do so, the bench noted, 'the security shall be liable to be attached and utilised for environmental need under the NGT Act, 2010'. 	Execution of NGT order stayed by SC. The order dated 21 December 2015 of the NGT notes that the applicant has placed on record the order passed by the SC staying the earlier order passed by this Tribunal. Final decision from SC awaited. ¹³⁰ (Last heard on 10 April 2017, respondent not appearing, no order)
Rayons-Enlighting Humanity & Anr. vs. MoEF OA No. 186/2013	<ul style="list-style-type: none"> Dumping of solid waste in Bareilly district UP (near Razau Paraspur village) in unscientific and unlawful manner. Bareilly City Municipal Corporation was held liable for not taking action and violating earlier directions passed by the NGT. 	<ul style="list-style-type: none"> Rs 1 lakh per day to be paid by the municipality. A fine of Rs 5 lakh each imposed on the Mayor and the Commissioner of the Municipal Corporation. 	The order of the NGT has been challenged in the SC and a stay order has been granted on execution of the NGT order. ¹³¹

Case	Central issue	NGT direction on penalty	Supreme Court status
Gurpreet Singh Bagga vs. MoEF&CC (OA no. 184 of 2013) Judgment pronounced on February 2016	<ul style="list-style-type: none"> Miners and stone crushers were operating without the consent of the State Boards, EC, CGWA or any other competent authority, and violating conditions of permits where obtained. This caused air and water pollution, degraded environment and ecology in the river Yamuna and its bed.. 	<ul style="list-style-type: none"> A sum of Rs 50 crore to be paid by each of the five miners in Saharanpur district of UP Rs 2.5 crore to be paid by Pradhan Stone Crushers of Saharanpur district. 	SC has given a stay on the execution of the NGT order. Matter under consideration. ¹³²
Full or partial payment made			
Hazira Macchimar Samiti vs. Union of India Appeal no. 79/2013	<ul style="list-style-type: none"> Hazira Fishermen Association challenged the multi-crore infrastructure project of Adani Hazira Port Private Ltd (AHPPL) in Gujarat's Surat district. It was alleged that besides damaging the ecology, the project also negatively impacted the fishing community. 	<ul style="list-style-type: none"> AHPPL asked to pay Rs 25 crore. 	Paid
S.P. Muthuraman vs. Union of India OA no. 37/2015	<ul style="list-style-type: none"> Developers started activities without ECs, on the basis of ex-post facto clearances. 	<ul style="list-style-type: none"> Seven developers to pay a sum of Rs 76 crores.¹³³ The varied penalty as imposed is estimated at 5 per cent of their project values. 	Paid by all except two. Officials at MoEF&CC confirmed the rest are also likely to make the payment soon.
Naim Sharif Hasware vs. M/s Das Offshore Co. Application no. 15(THC) of 2014 Judgment pronounced in December 2014	<ul style="list-style-type: none"> Environmental violations observed by company in several respects—flouting of various steps of EIA (site selection, ToR, public hearing etc. The company knowingly skirted all these. Mudflats and mangroves have been destroyed by land reclamation and project implementation. 	<ul style="list-style-type: none"> Rs 25 crore to be paid by Das Offshore Company, Rs 20 crore to be credited to the state environment department and Rs 5 crore to be transferred to Maharashtra Coastal Zone Management Authority. 	<p>Partial payment made.</p> <p>The company filed an appeal in the SC.¹³⁴ In an order dated 17 April 2015, SC directed a stay of the NGT order. The SC order noted, <i>'there shall be interim stay of the impugned judgment and order, subject to the appellants' depositing Rs 12 crore in this Court within four weeks' time from today'</i>.</p> <p>The company deposited Rs 12 crore, and for the rest of the amount the stay order remains.¹³⁵</p> <p>On 27 May 2015, NGT disposed of the case, noting that the fate of this will depend on further orders of the Supreme Court.</p>

Notes and references

1. *Hazira Macchimar Samiti vs. Union of India* (Appeal No. 79/2013) National Green Tribunal; no specific estimate is given how the imposed penalty amount of Rs 25 crore was been calculated.
2. *Goa Foundation vs. Union of India and Ors* (Writ Petition (Civil) No. 435 of 2012), Supreme Court of India, 21 April 2014.
3. Except for *Sunil Kumar Chugh vs. Govt. of Maharashtra and Ors* (Appeal no. 66/2014), and *Hazira Macchimar Samiti vs. Union of India and Ors*. (Appeal no. 79/2013),
4. For *Krishan Lal Gera vs. State of Haryana* (Appeal no 22/2015), there is no mention of Committee report, as the NGT order being challenged at the SC, the apex Court gave a stay order on the execution of NGT order. This was noted in the Order of the NGT dated 19 October 2015, and till the time of the report it follows.
5. *The Forward Foundation vs. State of Karnataka* (O.A. 222/2014), *S.P. Muthuraman vs. Union of India* (O.A. 37/2015), and *Manoj Misra* (O.A. 177/2015) cases which is investigated by the same Committee as the S.P.Muthuraman matter.
6. In the Forward Foundation case, though there has been a revision for the lesser penalized developer—Core Mind Software and Services Ltd.—the Committee reports mostly made qualitative observation. See Order dated 4 May 2016, available at: <http://www.indiaenvironmentportal.org.in/files/water%20bodies%20lakes%20Bangalore%20NGT%20order.pdf> (last accessed in November 2017).
7. For example, see Order dated 10 September 2015, available at: [http://www.greentribunal.gov.in/Writereaddata/Downloads/603-2015\(PB-I\)MA10-9-2015.pdf](http://www.greentribunal.gov.in/Writereaddata/Downloads/603-2015(PB-I)MA10-9-2015.pdf) (last accessed in December 2017).
8. *The Forward Foundation vs. State of Karnataka* (OA No. 222 of 2014), National Green Tribunal, 7 May 2015, p. 100.
9. Supra n 2
10. Supra n 8, p.100.
11. Ibid., p. 103
12. Ibid., p. 100
13. *Sunil Kumar Chugh vs. Secretary Environment Department, Govt. of Maharashtra* (Appeal No. 66/2014), National Green Tribunal.
14. Masoom Khwaja, 2014, *The Entrepreneur's Dictionary of Business and Financial Terms*, Partridge Publishing, Singapore, p. 478
15. *Ajay Kumar Negi vs. Union of India*, (OA No. 183 (THC) of 2013), National Green Tribunal, 7 July 2015.
16. Ibid.
17. *Mohammed Kabir vs. UoI*, MANU/GT/0088/2016
18. Ibid., para 44.
19. *Naim Sharif Hasware vs. M/s Das Offshore Co.* (Application No.15(THC)/2014), National Green Tribunal
20. Civil appeal no(s). 3218/2015.
21. *Sarav Shikshit Evam Berojgar Janhit Sangharsh Samiti Barmana vs. State of Himachal Pradesh* (OA No. 157/2014) National Green Tribunal, December 2015.
22. These include cases decided by the Southern bench of the NGT.
23. See, for example, *Srinivasa Blue Metal vs. Tamil Nadu Pollution Control Board*, (Application No.-214/2013) National Green Tribunal, September 2015.
24. Ibid., para 16.
25. Central Pollution Control Board, January 2011, *National Ambient Air Quality Status 2009*, Ministry of Environment and Forests, available at: <http://cpcb.nic.in/openpdffile.php?id=UHVibGljYXRpb25GaWxlLzYzMF8xNDU3NTA2Mjk1X1B1YmXPY-2F0aW9uXzUxNF9haXJxdWFsaXR5c3RhdHVzMjAwOS5wZGY=> (last accessed in December 2017). It may be noted that the standards for industrial emissions/effluents are developed based on best practicable treatment technology (BPT) and it is generally seen that the ratio of annual burden to the industry on treatment (AB) to its annual turnover (AT) is about 3 per cent. However, many industries find it difficult to invest on treatment to the level of 3 per cent of AB/AT ratio and many of them would prefer it to be about 1 per cent. If the location of the industry has high environmental sensitivity, it is required to comply with stricter standards and employ best available technology (BAT) that can put an unaffordable high burden on the industry.

26. *Court on its own Motion vs. State of HP* (MANU/GT/0009/2014)
27. *Permanand Klanta vs. State of Himachal Pradesh* (OA No.253 (THC)/2013), National Green Tribunal, 10 December 2015.
28. *Centre for Environment Protection, Research and Development vs. State of Madhya Pradesh*, (OA No. 1 of 2013 [CZ]), National Green Tribunal
29. Along with *M.C. Mehta vs. Union of India, 2015* (OA No.200 of 2014), National Green Tribunal.
30. *Indian Council for Enviro-Legal Action vs National Ganga River Basin Authority* (OA No.10 of 2015); and *M.C. Mehta vs. Union of India, 201* (OA No.200 of 2014), page 150
31. *Jalbiradiri vs. Ministry of Environment and Forests*, Appeal no. 7 of 2015; available at: <http://www.indiaenvironmentportal.org.in/files/Mithi%20river%20NGT%20Judgement%202016.pdf> (last accessed in January 2018).
32. Ibid.
33. *Kudrat Sandhu vs Govt. Of NCT* (OA No.281 of 2016 (M.A.NO.1007/2016)); available at: [http://www.greentribunal.gov.in/Writereaddata/Downloads/281-2016\(PB-I\)OA30-11-16.pdf](http://www.greentribunal.gov.in/Writereaddata/Downloads/281-2016(PB-I)OA30-11-16.pdf) (last accessed in December 2017)
34. There was a follow up clarificatory order (23 December 2016) allowing arbitration proceedings, and stating that the amount of Rs 10,000 and other prescriptions prescribed in the earlier order (dated 2 December 2016) were interim arrangements only.
35. See generally, *NGT announces fine of Rs 10k for throwing solid waste in public places*, *Hindustan Times*, available at: [Chttp://www.hindustantimes.com/india-news/ngt-announces-fine-of-rs-10-000-for-throwing-solid-waste-in-public-places/story-kBBi2O-8dglJFmzEmTXzCRP.html](http://www.hindustantimes.com/india-news/ngt-announces-fine-of-rs-10-000-for-throwing-solid-waste-in-public-places/story-kBBi2O-8dglJFmzEmTXzCRP.html) (last accessed on December 2017)
36. Supra n 33, p. 17.
37. *Almitra H. Patel vs Union of India*, MANU/GT/0150/2016
38. Ibid., para 19
39. Ibid.
40. Supra n 37.
41. Ibid., para 3.
42. Barbara Luppi, Francesco Parisi, Shruti Rajagopalan, 2012, *The rise and fall of the polluter-pays principle in developing countries*, *International Review of Law and Economics*, 32 (2012) 135-44; available at: <http://www.sciencedirect.com/science/article/pii/S0144818811000640> (last accessed in December 2017).
43. *Ramdas Janardan Koli vs. Ministry of Environment and Forests*, (Application No.19/2013); *Mukesh Yadav vs. State of Uttar Pradesh*, (O.A No. 133/2014); *Vajubhai Arsibhai Dodiya & Ors. vs. Gujarat Pollution Control Board, i*; *Lokmangal Sansthan vs. Sanjay Wadettiwar & Ors.*, (Application No 22/2013(WZ)); *Shri Sant Dasganu Maharaj Shetkari vs. The Indian Oil Corporation Ltd. &Ors.*, (Application No.42/2014 (WZ)).
44. *Ramdas Janardan Koli vs. Ministry of Environment and Forests*, (Application No.19/2013), National Green Tribunal.
45. See cases *Ramdas Janardan Koli vs. Ministry of Environment and Forests* (Application No.19/2013) and *Shri Sant Dasganu Maharaj Shetkari vs. The Indian Oil Corporation Ltd. & Ors.* (Application No.42/2014).
46. Supra n 44.
47. Ministry of Rural Development, April, 2012, *State-wise notified wages for MNREGA*, Government of India; available at: http://nrega.nic.in/nerega_statewise.pdf (last accessed in January 2018).
48. Notification S.O.1205 (E), Ministry of Rural Development, March, 2016, Government of India; available at: <http://www.hprural.nic.in/cir344.pdf> (last accessed in November 2017)
49. Supra n 1.
50. Ibid.
51. Environmental Impact Assessment Report, as used in *Hazira Macchimar Samiti vs Union of India* (Appeal no.79 of 2013); available at: http://gpcb.gov.in/pdf/AHPPL_INTEGRATED_EIAREPORT1.PDF (last accessed in December 2017).
52. Rule 35(4), National Green Tribunal (Practices and Procedure) Rules, 2011
53. Notification, Ministry of Environment, Forest and Climate Change, 27th January 2016, available at: <http://www.moef.gov.in/sites/default/files/Public%20Liability%20act%201991.PDF> (last accessed on November 2017)
54. Section 3, National Green Tribunal Act 2010.
55. Section 15 of the National Green Tribunal Act 2010 specifies that the NGT may only provide relief and compensation to victims of environmental damage arising under various enactments, for restitution of property damaged as well as for restitution of environment for such areas.
56. Section 14, National Green Tribunal Act 2010.

57. H. Nithyakala, as per RTI response dated 18 July 2017.
58. The orders of NGT have been challenged at the High Courts (HC) too at few instances. For instance, the matters of *Kunjoon-jamma Jose vs. Kerala Pollution Control Board & Ors.*, and *Mathew Thomas vs. Kerala Pollution Control Board & Ors.*, where the Southern bench of the NGT stipulated a fine to the tune of 10 per cent of the annual turnover of the company, are currently pending before the Kerala HC, informed Kerala PCB officials in May 2016.
59. *Permanand Klanta vs. State of Himachal Pradesh*, (OA No. 253 (THC)/2013), National Green Tribunal.
60. As per communication dated 24 July 2017.
61. *Manoj Mishra vs Union of India* (OA no. 06 of 2012), National Green Tribunal.
62. As said by Chief Engineer East Zone, DDA, as per communication dated 25 July 2017.
63. Ibid.
64. See generally Wenke Hansen, Eduard Interwies, Stefani Bär, R. Andreas Kraemer, Petra Michalke, *Effluent Charging Systems in EU Member States*, Environment Series ENVI 104 EN; available at: <http://ecologic.eu/749> (last accessed in December 2017)
65. *BTI 2014 LLC vs Sequana S.A.*, [2016] EWHC 1686(Ch), [2016] WLR (D) 388
66. The Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. §9601 et seq. (1980), available at: <https://www.epw.senate.gov/cercla.pdf> (last accessed in December 2017).
67. Supra n 65, paras 396–400.
68. U.S. Environmental Protection Agency, *About Risk Assessment*, available at: <https://www.epa.gov/risk/about-risk-assessment#whatisrisk> (last accessed in January 2018).
69. U.S. Environmental Protection Agency, *Human Health Risk Assessment*, available at: <https://www.epa.gov/risk/human-health-risk-assessment> (last accessed in November 2017).
70. U.S. Environmental Protection Agency, *Framework for Human Health Risk Assessment to Inform Decision Making*, available at: <https://www.epa.gov/sites/production/files/2014-12/documents/hhra-framework-final-2014.pdf> (last accessed on December 2017)
71. U.S. Environmental Protection Agency, *Conducting a Human Health Risk Assessment*, available at: <https://www.epa.gov/risk/conducting-human-health-risk-assessment> (last accessed in December 2017).
72. U.S. Environmental Protection Agency, *Ecological Risk Assessment*, available at: <https://www.epa.gov/risk/ecological-risk-assessment#self>, (last accessed in December 2017).
73. Ibid.
74. Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy, Official Journal L 327, 22/12/2000, P0001- 0073
75. Water Act 2009, Netherlands.
76. Ibid., Section 7.3
77. *Waste-Water Charges Act (Abwasserabgabengesetz)*, Germany; available at: <http://germanlawarchive.iuscomp.org/?p=329#13> (last accessed in December 2017).
78. *The Effluent Charge System in the Federal Republic of Germany*, Germany; available at: <https://nepis.epa.gov/Exe/ZyPDF.cgi/900C0D00.PDF?Dockey=900C0D00.PDF> (last accessed in December 2017).
79. Linas Cekanavicius, 2011, *The Cost of Pollution - Environmental Economics*, available at: http://www.balticuniv.uu.se/index.php/component/docman/doc_download/756-chapter-19-the-cost-of-pollution-environmental-economics. (last accessed in December 2017)
80. *Beazer East vs. The Mead Corporation*, 412 F3d 429, Court of Appeals for the Third Circuit.
81. *United States Of America And The State Of Wisconsin, vs. NCR Corporation*, 688 F3d 833 (7th Cir.2012)
82. Ibid.
83. *Queen vs Secretary of State for the Environment and Ministry of Agriculture*, Case C-293/97, Standley, [1999] ECR I-2603
84. DIRECTIVE 2006/12/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 5 April 2006, Official Journal of the European Union; available at: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2006:114:0009:0021:en:PDF> (last accessed in December 2017).
85. Petra E. Lindhout, Berthy van den Broek, 2014, *The Polluter Pays Principle: Guidelines for Cost Recovery and Burden Sharing in the Case Law of the European Court of Justice*, Volume 10, Issue 2 (May) 2014, Chapter 3.4, page 51; available at: <https://www.utrechtlawreview.org/articles/abstract/10.18352/ulr.268/> (last accessed in December 2017).
86. Case C-254/08, *Futura Immobiliare vs Comune di Casoria*, [2009] ECR I-0000

87. Ibid., para 52.
88. Supra n 83.
89. *United States of America vs Allegheny Ludlum Corporation*, 366 F3d 164, Court of Appeals for the Third Circuit
90. Ibid., see page 9 onwards, *The Penalty Calculation—Economic Benefit*
91. U.S. Environmental Protection Agency, 2015, Memorandum: 'Guidance on Financial Assurance in Superfund Settlement Agreements and Unilateral Administrative Orders', Chapter III A; available at: <https://www.epa.gov/sites/production/files/2015-04/documents/fa-guide-complete-2015.pdf> (last accessed in December 2017).
92. Ibid., Chapter II. G, p. 12–14.
93. Ibid., Chapter III. E, p. 20.
94. This is similar to the 'writ of mandamus' used by Indian courts to direct the performance of a legal duty
95. U.S. Environmental Protection Agency, 1988, Memorandum: 'Guidance on Use and Enforcement of CERCLA Information Requests and Administrative Subpoenas', Chapter I: Introduction; available at: <http://www.law.uh.edu/faculty/thester/courses/Environmental-Practicum-2017/cerc-infreq-mem.pdf> (last accessed in January 2018).
96. See Law on Financial Instruments for Climate Change Management, 2009 (Lithuania).
97. Recommendation of the Council on the Implementation of the Polluter-Pays Principle, 14th November 1974- C(74)223, Organization for the Economic Co-operation and Development; available at: <http://acts.oecd.org/Instruments/ShowInstrumentView.aspx?InstrumentID=11&InstrumentPID=9&Lang=en&Book=False> (last accessed on January 2018)
98. Doreen Mc Gouran, *Waste Cost: The Implementation of the 'Polluter Pays' Policy in Ireland*, Department of Sociology, Trinity College, Ireland; available at: http://ewmce.com/Resources/Documents/Doreen_McGouran_-_Waste_Cost_-_Implementation_of_the_Polluter_Pays_in_Ireland.pdf (last accessed in December 2017)
99. See 'What is emissions trading?', *The Guardian*; available at: <https://www.theguardian.com/environment/2011/jul/05/what-is-emissions-trading> (last accessed in January 2018)
100. See Clean Air Act (amended) 1990 (USA).
101. Organization for Economic Co-operation and Development (OECD), 26 May 1972, *Recommendation of the Council on Guiding Principles concerning International Economic Aspects of Environmental Policies*, C (72)128.
102. Petra E. Lindhout and Berthy van den Broek, 2014, *The Polluter Pays Principle: Guidelines for Cost Recovery and Burden Sharing in the Case Law of the European Court of Justice*, Utrecht Law Review, 10 Utrecht L. Rev. 46 2014, Chapter 2, p. 47.
103. See generally, Anisia-Teodora DONIGA, 2016, *The Polluter Pays Principle*, 2016 Law Annals Titu Maiorescu U. 79 (2016).
104. Article 14, 2004/35/CE of the European Parliament and of the Council of 21 April 2004 on *Environmental Liability with Regard to the Prevention and Remedying of Environmental Damage*
105. See Shibani Ghosh, December 2015, *Reforming the liability regime for air pollution in India*, Center for Policy Research, last para, p. 18, available at: http://www.cprindia.org/system/tdf/working_papers/Shibani%20Ghosh_Reforming%20the%20liability%20regime%20for%20air%20pollution%20in%20India_WPDEC2015.pdf?file=1&type=node&id=5006&force=1 (last accessed in January 2018).
106. U.S. Environment Protection Agency, *Financial Assurance in Superfund Settlements and Orders*; available at: <https://www.epa.gov/enforcement/financial-assurance-superfund-settlements-and-orders#fa> (last accessed in January 2018)
107. U.S. Environmental Protection Agency, *Guidance on Financial Assurance in Superfund Settlement Agreements and Unilateral Administrative Orders*; available at: <https://www.epa.gov/sites/production/files/2015-04/documents/fa-guide-2015.pdf> (last accessed on December 2017).
108. Roy E. Cordato, 2001, *The Polluter Pays Principle: A Proper Guide for Environmental Policy*, The Institute for Research on the Economics of Taxation (IRET), Washington DC, USA; available at: <http://iret.org/pub/SCRE-6.PDF> (last accessed on November 2017)
109. Supra n 60.
110. *S.P Muthuraman Vs. Union of India*, (OA no. 37/2015), National Green Tribunal, 7 July 2015.
111. Ibid., p. 195.
112. Ibid. See also, *Manoj Mishra vVs. Union of India* (OA no. 177 of 2015), National Green Tribunal, p. 7.
113. According to the SEIAA letter, the expansion cost was Rs 10 crore.
114. In such context the Tribunal refers to its own judgments in the matters of *Krishan Kant Singh vs. National Ganga River Basin Authority* (2014), and *Rayons Enlighting Humanity. vs. Ministry of Environment & Forests* (2013)—cases where the Tribunal had referred to the Sterlite judgement of the Supreme Court for determining the penalty.
115. Supra n 15, p. 29.

116. *Krishan Kant Singh vs. M/s. Triveni Engineering Industries Ltd.* (OA No.317 of 2014), National Green Tribunal, 10 December 2015, p.27.
117. *M/s. DSM Sugar Distillery Division vs. Shailesh Singh and Others* (Review application no.13 of 2015 in OA No.35 of 2015), National Green Tribunal, 10 December 2015.
118. A charge of Rs 1 lakh was also imposed on the MoEF&CC and Maharashtra Coastal Zone Management Authority (MCZMA) to be paid to the Collector of the District, which he was directed to use for environmental awareness and education activities within the next two years.
119. See *The Chairman Jawaharlal Nehru Port Trust vs. Ramdas Janardan Koli and Others*, (Civil Appeal Nos. 4455–56 of 2015), Supreme Court of India, 22 May 2015.
120. See *The Chairman Oil and Natural Gas Corporation Limited vs. Ramdas Janardan Koli and Others* (Civil Appeal No.4117 of 2015), Supreme Court of India, 12 May 2015.
121. As per communication dated 11 May 2016.
122. Supra n 1.
123. While setting aside the EC, the bench also remanded the Expert Appraisal Committee (EAC), noting that the EAC did not deliberate in several of the key matters of compliance of previous EC while recommending the expansion. The bench noted that 'it is indicative of casual approach of EAC' with regard to how they treated the project. Through the 8 January judgment, the NGT asked for a report from the DSLR and Conservator of Forest, as to whether afforestation of mangroves was actually implemented as per the conditions of EC issued in 2003, as well as the impugned EC in six weeks.
124. Simbhaoli Sugars Ltd., *77th Annual Report, 2013–14*; available at: http://www.simbhaolisugars.com/pdfs/Annual_Report_2014.pdf (last accessed in December 2017).
125. According to Annual report of 2013–14, the Simbhaoli group has three business complexes located at Simbhaoli (Western Uttar Pradesh), Chilwaria (Eastern Uttar Pradesh) and Brijnathpur (Western Uttar Pradesh), having a combined crushing capacity of 19,500 TCD. Simbhaoli Spirits Limited has the capacity to produce 90 KI/day of potable alcohol and ethanol.
126. No measures taken yet as of July 2016, confirmed by UPPCB.
127. Dhampur Sugar Mills Ltd., *Annual Report 2014–15*; available at: <http://www.dhampur.com/Main/PdfViewer.aspx?FMaIj%2f0PlmbIgmZMpA71syjpcZjtIPQty3VZsUMzaGkrNnk10xQuydS%2fgvu-VSHAKE%2fRSfuAUiQXbzERerwYMWtKeH%2fEd7g4USHPNol9kraQ%3d> (last accessed in January 2018).
128. Triveni Engineering and Industries Ltd., *Annual Report 2014-15*; available at URL: http://www.trivenigroup.com/templates/corporatehome/pdf/TEIL_AR_14-15%20low%20res.pdf (last accessed in December 2017)
129. In all matters challenged and order being held from being executed by SC, no payment made says NGT registrar.
130. As confirmed by the counsel of MP state government Sachin Verma (on 8 April and thereafter also on 22 June), the matter is still pending with the SC, and the stay order on operation of the NGT order remains. Latest orders demonstrate no change.
131. As informed by the Bareilly Municipal Corporation, 29 April 2016. No further orders observed.
132. *Mohd. Inam vs. Gurpreet Singh Bagga* (Civil Appeal Diary No(s). 7484/2016 with C.A. No. 2667/2016). As informed by MoEF&CC on April 2016. No further change in situation
133. Supra n 110.
134. Supra n 20.
135. As confirmed by the counsel Mukesh Verma on 11 May 2016.



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