# DETERMINATION OF ENVIRONMENTAL COMPENSATION: THE ART OF LIVING CASE

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*In nearly a decade of its existence, the National Green Tribunal ('NGT' or 'Tribunal') has positively changed environmental adjudication in India. The push for its creation came from the judiciary rather than the legislature, as the former is not adequately equipped to tackle complex environmental issues involving a high degree of scientific uncertainty. While the NGT – having technical expertise – may be better equipped to handle complex environmental matters, it lacks an effective framework for determining compensation. This is primarily due to three reasons, as will be discussed in this paper. First, despite the wide discretion provided by the NGT Act 2010 with respect to determining compensation, the NGT's unreasoned trend of pegging initial compensation at five percent of the project cost or at INR five crore does not bear semblance with ground realities and intricacies of a case. Second, the NGT, in many cases, fails to establish an environmental baseline condition prior to the alleged damage and accordingly is unable to quantify environmental damage. Third, the NGT frequently fails to hold the governmental authorities accountable. In this paper, we endeavour to demonstrate this lack of framework through the relevant case laws. In particular, we will analyse Manoj Mishra v. Delhi Development Authority ('the Art of Living Case') – arguably one of the most controversial cases decided by the NGT–and will demonstrate how it exemplifies this.*

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# I. INTRODUCTION

Through the 1980s, the Indian Supreme Court dealt with environmental degradation and governmental inaction through public interest litigation.[1] This allowed the Court to provide wider remedies by expanding *locus standi* and introducing a non-adversarial procedure. Accordingly, public spirited citizens were able to file petitions through letters based on news reports.[2] While this led to significant improvements in environmental adjudication such as reading the right to clean environment in the right to life under Article 21 of the Constitution, it also posed serious challenges.[3] For instance, the Supreme Court frequently found itself indulging in fact-finding, weighing evidence, and in effect conducting a trial.[4] These are exercises which are supposed to be done by the lower judiciary as it is better equipped to investigate facts. While the Court applied the principle of sustainable development along with the polluter pays and precautionary principles, there was no pro-environment consistency in their application.[5] With the increasing need for scientific and technical expertise, judges found it increasingly difficult to keep abreast with the latest scientific and technological developments and adjudicate on complex scientific matters involving a high degree of scientific uncertainty.

Accordingly, the Supreme Court, through three significant judgments, voiced the need for the creation of a "Green Tribunal".[6] This judicial push was supplemented by the 186th Report of the Law Commission of India, which recommended the establishment of "environmental courts" in every state.[7]

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1 *See generally* Municipal Council, Ratlam v. Vardichan, (1980) 4 SCC 162 : AIR 1980 SC 1622; Indian Council for Enviro-Legal Action v. Union of India, (1996) 3 SCC 212 : AIR 1996 SC 1446; Deepak Nitrite Ltd. v. State of Gujarat, (2004) 6 SCC 402; M.C. Mehta v. Kamal Nath, (2000) 6 SCC 213 : AIR 2000 SC 1997.

2 Bandhua Mukti Morcha v. Union of India, (1984) 3 SCC 161 : AIR 1984 SC 802.

3 Rural Litigation and Entitlement Kendra v. State of U.P., 1989 Supp (1) SCC 504 : AIR 1988 SC 2187. (This case recognised the right to clean environment under Article 21 of the Indian Constitution.)

4 *See, e.g.*, T.N. Godavarman Thirumulpad v. Union of India, 2013 (8) SCC 198. (The Supreme Court constituted an expert body called Central Empowered Committee in May 2002 to investigate and dispose of interim applications based on the directions of the Court.)

5 On one hand, cases such as T.N. Godavarman Thirumulpad v. Union of India, 1996 (9) SCR 982 demonstrate a pro-environment stance of the Supreme Court wherein the Supreme Court sought to interpret and define the forest policy for the entire country. On the other hand, cases such as Narmada Bachao Andolan v. Union of India, (2000) 10 SCC 664, reflect deference to development over strong environmental concerns based on the justification that India is a developing and economically weaker country. *See also* Vellore Citizens' Welfare Forum v. Union of India, (1996) 5 SCC 647 : AIR 1996 SC 2715 (For a discussion and understanding on principle of sustainable development, the polluter pays principle and the precautionary principle.)

6 M.C. Mehta v. Union of India, (1986) 2 SCC 176; Indian Council for Enviro-Legal Action v. Union of India, (1996) 3 SCC 212 : AIR 1996 SC 1446; A.P. Pollution Control Board v. M.V. Nayudu, (1999) 2 SCC 718.

7 Law Commission of India, *Proposal to Constitute Environmental Courts,* Report No. 186 (September 2003).

It further recommended that these courts should have both judges and experts.[8] Thus, while the legislature enacted the National Green Tribunal Act, 2010 ('NGT Act' or 'the Act') to give effect to India's obligation under the Stockholm[9] and Rio[10] conferences, the underlying reason for its enactment was to ensure effective adjudication, given the increasing scientific uncertainty[11]. To ensure this, the NGT Act provides for the establishment of an independent statutory panel that includes expert member having expertise in, *inter alia*, physics, chemistry, botany, zoology, engineering, environmental economics, social sciences and forestry.[12]

The environmental adjudication under the NGT has certainly been an improvement over the Supreme Court led public interest litigation regime. Between 2010 and 2017, out of a total of 23,626 cases that were filed, nearly 19,066 cases were disposed.[13] Certainly, the disposal of cases has become more expeditious.[14] However, whether the NGT has been able to adjudicate more effectively is a question that is still to be answered conclusively. This is because the Tribunal lacks an effective methodology to determine environmental compensation.

The determination of compensation is significant as it not only compensates affected stakeholders but it also reflects the quality of scientific analysis undertaken by the Tribunal. It demonstrates both the accuracy of the Tribunal's assessment of environmental damage in a case and how effectively it dealt with scientific uncertainty. Given the fact that the Tribunal is equipped with members possessing the technical know-how, it is reasonable to assume that the Tribunal's determination of compensation is proportionate to or bears a reasonable nexus with the environmental damage in most cases. However, as will be demonstrated in the Part II of the paper, the NGT lacks a clear methodology for quantitative assessment of environmental damage. Frequently, it unduly relies on the Supreme Court's approach in mining cases, taken out of context, to determine the initial environmental compensation in considerably different cases. In Part II, we will

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8 *Id*., 165.

9 Declaration of the United Nations Conference on the Human Environment, Stockholm, 1972.

10 The Rio Declaration on Environment and Development, 1992.

11 *See generally* European Commission, *The Precautionary Principle: Decision-Making under Uncertainty*, 8 Science for Environment Policy 5 (September, 2017) (Scientific uncertainty is more than a simple lack of data or inadequate models of assessing risk. It can exist in the form of indeterminacy (where we do not know all factors influencing a causal chain), ambiguity (where there are contradictory certainties), and ignorance (where we are unaware of what we do not know)).

12 Armin Rosencranz & Geetanjoy Sahu, *Assessing the National Green Tribunal After Four Years*, 5 (Monsoon) JILS (2014).

13 *NGT disposed of over 19,000 cases from 2011-2017*, The Economic Times, April 11, 2017, available at https://economictimes.indiatimes.com/news/politics-and-nation/ngt-disposed-of-over-19000-cases-from-2011-17/articleshow/58128891.cms (Last visited on October 5, 2019).

14 In contrast to NGT's disposal of 19,066 cases till 2017, only 3,457 environmental cases were disposed in 2016 by all other courts in India. *See* Kiran Pandey & Rajit Sengupta, *Courts must dispose of 57 environment cases a day to clear backlog in a year'*, Down to Earth, available at https://www.downtoearth.org.in/news/environment/courts-must-dispose-of-57-environment-cases-a-day-to-clear-backlog-in-a-year-60654 (Last visited on October 8, 2019).

analyse *Manoj Misra* v. *DDA* ('the Art of Living Case'),[15] which aptly exemplifies this. In doing so, we will highlight how the NGT's drastic reduction of the compensation amount from an initial estimate of INR 120 crore to a mere INR 5 crores was a natural result of the unscientific manner in which it conducted the investigation and quantified the compensation. Thereafter, we shall conclude by summarising the trends highlighted.

## II. ANALYSING NGT'S FRAMEWORK FOR DETERMINATION OF COMPENSATION: THE ART OF LIVING CASE

The legislative intent to confer wide discretion on the NGT in determining and awarding compensation is explicit in the NGT Act.[16] Due to this wide discretion, the NGT has been able to award unprecedented sums of environmental compensation. For instance, in February 2016, the NGT ordered companies involved in illegal mining along the River Yamuna to pay INR 252.5 crores as environmental compensation.[17] More recently, in February 2018, the NGT has awarded INR 195 crores as compensation payable to compensate the environmental damage caused on account of illegal construction activities.[18] While these high compensation amounts are a much-needed change, further scrutiny through analysis of case laws on the recent trends of the NGT in rewarding compensation will reveal that the same is only an exception and not the norm.

### *A. TRENDS OF THE NGT IN AWARDING COMPENSATION*

The NGT Act, 2010 does not prescribe any minimum or maximum amount of compensation that needs to be given. In fact, the only guidance it provides with respect to determining compensation is in §20, which requires the Tribunal to apply the principle of sustainable development, polluter pays principle, and the precautionary principle while passing an award or order.[19] Nevertheless,

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[15] Manoj Misra v. DDA, 2017 SCC OnLine NGT 966.

[16] The only guidance provided under the NGT Act, 2010, with respect to determining compensation is under §20 wherein it simply states that the Tribunal shall apply the principle of sustainable development, polluter pays principle, and the precautionary principle while passing an award or order.

[17] *Inside the NGT as it turns Seven*, The Indian Express, June 26, 2018, available at https://indianexpress.com/article/india/ngt-national-green-tribunal-delhi-smog-pollution-swatanter-kumar-inside-the-ngt-as-it-turns-seven-4943859/ (Last visited on October 11, 2019).

[18] *NGT slaps ₹ 195 Cr. fine on Pune's Goel Ganga Developers for Environmental Damage*, The Hindustan Times, January 9, 2018, available at https://www.hindustantimes.com/pune-news/ngt-slaps-195-cr-fine-on-pune-s-goel-ganga-developers-for-environmental-damage/story-eHVl8micvPT7X3Bp58ZEcO.html (Last visited on October 11, 2019).

[19] The principle of sustainable development has been defined as, "development that meets the needs of the present without compromising the ability of future generations to meet their own needs". *See* United Nations General Assembly, Brundtland Commission, *Our Common Future* (1987), 43. The polluter pays principle endeavours to ensure that the polluter should, in principle, bear the cost of pollution with due regard to public interest. In other words, it refers to the internalisation

the recent trend of the NGT with respect to determining environmental compensation seems to be to make the project proponent pay from five to ten percent of the project cost. This trend was started in 2014 when the NGT arbitrarily adopted the Supreme Court's approach to determining compensation in *Goa Foundation* v. *Union of India* ('Goa Foundation').[20]

In Goa Foundation, the Supreme Court was faced with the issue of determining the environmental damage caused due to certain illegal mining in Goa. In arriving at the compensation amount, the Court held that the project proponents would have to pay 10% of the sale proceeds as compensation.[21] The Court felt that this was an appropriate compensation given that mining could not be completely stopped due to its contribution towards employment and revenue generation for the State.[22] Accordingly, it held that if mining had to continue, determining compensation on the basis of sale proceeds would be apt as it would directly affect the profitability of the project.[23]

However, this approach was not intended to act as a precedent for determining environmental compensation in all cases. This is evident from the fact that the Court created a special purpose vehicle "Goan Iron Ore Permanent Fund" for depositing the compensation and relied on its earlier decision in *Samaj Parivartana Samudaya* v. *State of Karnataka*,[24] wherein it had held that ten percent of the sale price of the iron ore during an e-auction should be used as compensation. Thus, the approach, at best, can be a precedent for cases involving illegal mining in regions such as Goa. Clearly, considerations of the state's dependency on mining for revenue and employment generation had gone into arriving at the compensation. Thus, had the considerations been different – in that the Supreme Court was concerned with an activity which did not contribute largely to the State's revenue – and had the Supreme Court had banned mining altogether, the approach to determine compensation would have been significantly different.

However, the NGT has, without paying heed to the context in Goa Foundation, co-opted this approach in several cases that have very different

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of environmental costs by the polluter. *See* The United Nations Conference on Environment and Development, *Rio Declaration on Environment and Development*, June 1992, Principle 16. The precautionary principle in the context of municipal law requires that, first, environmental measures undertaken by governmental authorities must anticipate, prevent, and attack causes of environmental degradation. Second, where there are threats of serious and irreversible damage to the environment, the lack of scientific certainty should not be used as a reason for postponing measures to prevent environmental depredation. Third, the onus of proof is on the polluter to demonstrate that the measures taken are environmentally benign. *See* Vellore Citizens' Welfare Forum v. Union of India, (1996) 5 SCC 647 : AIR 1996 SC 2715, ¶11.

20 Goa Foundation v. Union of India, (2014) 6 SCC 590.

21 *Id*., 63.

22 *Id*.

23 *Id*., 66.

24 Samaj Parivartana Samudaya v. State of Karnataka, (2013) 8 SCC 209

considerations.[25] A good example of this is found in *Forward Foundation* v. *State of Karnataka* ('Forward Foundation').[26] The case dealt with unauthorised construction in a Special Economic Zone ('SEZ') by two companies, before receiving the Environmental Clearance ('EC').[27] Even after receiving the EC, the companies continued to flout the conditions stipulated therein.[28] The NGT, in its judgment, observed that the project fell under the ecologically sensitive area between the Agara and Bellandur lakes and was a threat to the entire ecosystem.[29] Additionally, the project activities affected the wetlands and storm water drains.[30] Despite the serious environmental damage involved, the NGT unduly co-opted the Supreme Court's approach in Goa Foundation and imposed an environmental penalty amounting to a mere five percent of the project cost.[31]

This is problematic on two accounts. First, even though the Tribunal claimed to rely on Goa Foundation's precedent, it arbitrarily reduced the compensation percentage from ten percent to five percent. Without adducing any reasons for this reduction, it simply held that "10 per cent of the project cost may be somewhat on the higher side".[32] Additionally, it held that five percent compensation was appropriate "to maintain the equitable balance between the default and the consequential liability of the applicant".[33] However, the Tribunal did not provide any reasons for why ten percent was on the "higher side" and how an equitable balance between the environmental damage and the consequential liability of the project proponent was being maintained. Second, in contrast to Goa Foundation where the Supreme Court had used a percentage of "sale proceeds" for determining compensation, the Tribunal used a percentage of the "project cost." As noted above, the Supreme Court had used sale proceeds as they reflected the earnings of the project proponent. The Tribunal provided no reasons as to why the use of project costs was preferred over sale proceeds. Thus, while the NGT overtly relied on Goa Foundation for determining compensation, it departed materially in terms of the quantum of compensation and the approach adopted. This begs the question,

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[25] *See generally* S.P. Muthuraman v. Union of India, 2015 SCC OnLine NGT 169; Manoj Misra v. Union of India, 2015 SCC Online NGT 840; Krishan Lal Gera v. State of Haryana, 2015 SCC OnLine NGT 194 Appeal No. 22 of 2015; Sunil Kumar Chugh v. Secretary Environment Department, Appeal No. 66 of 2014 (September 3, 2015); Chandra Bhushan et al, *Green Tribunal, Green Approach: The Need for Better Implementation of the Polluter Pays Principle* (2018), ¶8.

[26] Forward Foundation v. State of Karnataka, 2015 SCC OnLine NGT 5.

[27] *Id*., 2.

[28] *Id*., 43.

[29] *Id*., 4.

[30] This section of the paper contains paraphrases from authors' previous work titled *Determining Environmental Compensation in India: Lessons from a Comparative Perspective* submitted to Environmental Law Reporter.

[31] *See supra* note 26, 84.

[32] *Id*.

[33] *See supra* note 26, ¶84; s*ee also* Sunil Kumar Chugh v. Secretary Environment Department Appeal No. 66 of 2014 (September 3, 2015); Chandra Bhushan, Srestha Banerjee and Ikshaku Bezbaroa, *'Green Tribunal, Green Approach: The Need for Better Implementation of the Polluter Pays Principle'*, Centre for Science and Environment (2018), ¶9.

why would the Tribunal continue to overtly state that its approach to compensation is based on Goa Foundation?

Nevertheless, the NGT was clearly concerned with the profitability of the project proponent while determining the quantum of compensation. This is evident from its reliance on its decision in *Krishan Kant Singh* v. *National Ganga River Basin Authority*,[34] wherein the Tribunal was concerned with the "magnitude, capacity, and prosperity of the unit".[35] This is antithetical as in several cases the compensation levied is extremely low in comparison to the project proponent's annual revenue/turnover.[36] A recent study conducted by the Centre for Science and Environment highlights this disproportionate relationship between the compensation levied and the annual turnover of the project proponent in cases involving pollution by the sugar distillery industry in the State of Uttar Pradesh (please see Table 1 below).

**Table 1: Analysis of compensation awarded and turnover of sugar distillery industry in Uttar Pradesh**

| Case and Company | Compensation | Annual Turnover of Project Proponent | Relation between Compensation and Annual Turnover |
|---|---|---|---|
| **Case:** Krishan Kant Singh v. Daurala Sugar Works Distillery Unit, 2015 SCC OnLine NGT 468. **Company:** Daurala Sugar Works Distillery Unit (a wing of DCM Shriram Industries Ltd.) | ₹ 1 crore | ₹1329 crore (As per the Annual Report of the company 2014-15) | The penalty levied is negligible and amounts to a mere 0.07% of the annual turnover of the company. |

[34] Krishan Kant Singh v. National Ganga River Basin Authority, 2014 SCC OnLine NGT 5640.
[35] *Id*., ¶51.
[36] Bhushan, Banerjee & Bezbaroa, *supra* note 25, ¶12.

| Case and Company | Compensation | Annual Turnover of Project Proponent | Relation between Compensation and Annual Turnover |
|---|---|---|---|
| **Case:** DSM Sugar Distillery Division v. Shailesh Singh, Review Application No. 13 of 2015 in OA No. 35 of 2015, decided on 10-12-2015. **Company:** DSM Sugar Distillery Division | ₹ 1 crore | ₹ 1864 crore (As per the Annual Report of the company 2014-15) | The penalty levied is negligible and amounts to a mere 0.05% of the annual turnover of the company. |
| **Case:** Krishan Kant Singh v. Triveni Engg. Industries Ltd., 2016 SCC OnLine NGT 851. **Company:** Triveni Engineering Industries Ltd. | ₹ 25 lakh | ₹ 2061 crore (As per the Annual Report of the company 2014-15) | The penalty levied is negligible and amounts to a mere 0.012% of the annual turnover of the company. |

Source: Centre for Science and Environment.[37]

As is evident from Table 1, due to the lack of rationale behind the calculation of compensation, the polluter only pays a token amount for the pollution and only a fraction of the large clean-up costs. Thereby, the costs of pollution are not internalised by the polluter. This becomes more problematic when seen in light of the fact that in 2015 the NGT had ordered the Uttar Pradesh Pollution Control Board to issue notices to 956 grossly polluting industries ('GPIs') for releasing effluents directly into the Ganga.[38] Out of these 956 GPIs, 687 were in Uttar Pradesh. Thus, by levying such less compensation after issuing notices, the Tribunal not only missed out on the opportunity to set a strong precedence for the other GPIs in Uttar Pradesh but it also did not adequately address the pollution in Ganga.

The trend of unduly deferring to the Supreme Court's approach in Goa Foundation or simply levying an initial penalty of INR 5 crores has been subsequently followed by several NGT cases.[39] This is problematic as it allows the

[37] *Id.*, ¶39.
[38] *See supra* note 34.
[39] *See supra* note 25.

potential polluter to do a cost-benefit analysis before undertaking a project. Given that the initial compensation, irrespective of the level of pollution, is likely to be around INR 5 crores or pegged at a mere five percent of the project cost, it is likely to incentivise the potential polluter to proceed with the project if the project can be reasonably profitable after accounting for a five percent or INR 5 crores pollution fee. We believe that this trend should be discouraged and the NGT should, instead of having a blanket practice of awarding a certain percentage of the project cost, determine initial compensation on a case by case basis. This will not only dis-incentivise the potential polluter from polluting but also allow the Tribunal to award stringent and appropriate provisional penalties in cases where the pollution is more significant.

Further, it is evident that the NGT's determination of compensation is not based on any methodology or calculation. Awarding initial compensation based on set parameters rather than the intricacies of each case leads to a situation wherein the compensation either grossly underestimates or overestimates the environmental damage involved. This is aptly demonstrated in *Ajay Kumar Negi* v. *Union of India* ('Ajay Kumar Negi').[40]

Ajay Kumar Negi involved damage to the forest cover in the Tidong basin in Himachal Pradesh due to construction of a hydroelectric project.[41] The project proponent had violated several conditions of the EC with respect to forests.[42] In response, in line with the trend discussed, the Tribunal imposed an initial penalty on the project proponent of INR 5 crores.[43] However, this amount bore very little semblance with the ground realities of the case as the company had already paid all costs required under forest laws and had compensated the *gram panchayat* (Village Council) and the Forest Department whenever asked by the governmental authorities before the matter came up to the NGT.[44]

This is evident from the fact that the Tribunal, in its later decision dated April 4 2016, completely changed its stance with respect to the initial penalty levied and held that the "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".[45] The reason for this sudden change was that the same Expert Committee, which was instrumental in the levy of the initial compensation, subsequently held that the livelihood of the people was "least likely to be affected by the project operation" and that there was no apparent threat of irreversible damage to the forest cover.[46]

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40 Ajay Kumar Negi v. Union of India, 2015 SCC OnLine NGT 666.
41 *Id*., 2.
42 *Id*., 3.
43 *Id*., 22.
44 *Id*., 7.
45 Ajay Kumar Negi v. Union of India, 2016 SCC OnLine NGT 457, ¶16.
46 *Id*., ¶25; *see also* The National Green Tribunal Act, 2010, §4 (It states that the Tribunal must have a minimum of ten expert members.)

Further, the NGT failed to adequately hold the governmental authorities accountable. Despite holding that the Forest Department did not perform its duties and could not explain the discrepancy between the number of trees allegedly damaged by the project proponent (398 trees) and its estimate (4815 trees), the Tribunal did not impose any punishment on it.[47] Moreover, the Tribunal overlooked that fact that the sums of money deposited by the project proponent over years as compensation to the Forest Department had not been used for any environmental restoration.[48]

Accordingly, the Tribunal went on from holding that there was serious environmental damage, levying an environmental compensation of INR 5 crores –to holding that the stage for damages had not arisen.[49] The NGT ought to have answered why had the initial compensation amount been levied in the first place. Further, instead of proceeding with an arbitrary amount and later drastically reduce the compensation, the NGT should have admitted upfront that it did not have adequate data to arrive at a compensation amount. Moreover, the Tribunal ought to have adequately punished the governmental authorities which admittedly abnegated their duties and did not use the compensatory amounts deposited by the project proponent for environmental restoration. In furtherance of this, we shall now discuss the Art of Living Case.

## *B. THE ART OF LIVING CASE: AN ANALYSIS*

The Art of Living Case is arguably one of the most controversial cases in the history of the NGT. The case became highly publicised and several news channels covered it due to the alleged penalty amount involved as well as its substantial reduction subsequently by the Tribunal.[50] The case involved a cultural event organised by the Art of Living, a non-governmental and not-for-profit organisation, called the 'World Cultural Festival' ('WCF') on the banks of River Yamuna from March 11 to 13, 2016.[51] While the preparation of the event began several months before, an application was filed in the NGT in February 2016, raising concerns regarding the environmental impact of the WCF on the riverbank and floodplain.[52]

The initial estimate of the Expert Committee based on a simple "visual assessment" was approximately INR 120 crores.[53] This estimate was later

47 *Id.*, 17.
48 *Id.*, 15.
49 *See supra* note 40.
50 *See generally* Indian Express, *Full text of NGT judgment on Sri Sri Ravi Shankar's World Culture Festival*, March 10, 2016, available at https://indianexpress.com/article/india/india-news-india/ngt-sri-sri-ravi-shankar-world-culture-festival/ (Last visited on October 15, 2019).
51 *See supra* note 15, 3.
52 *Id.*
53 *Id.*, 42.

changed to INR 28.73 crores.[54] Finally, the Tribunal asked the Art of Living to deposit INR 5 crores (not as a penalty),[55] out of which only INR 25 lakhs was required as a condition precedent for going ahead with the event. It has been suggested that the substantial reduction in the compensation amount was due to the fact that politically influential people, including the Prime Minister of India, had attended the WCF.[56]

However, through our analysis below, we shall highlight that this reduction in the estimated compensation was a natural result of the lack of scientific analysis undertaken by the NGT and its general practice of not holding the governmental authorities accountable. In doing so we will analyse the preliminary and final report submitted by the Expert Committee set up by the NGT. We will analyse the significant points contained in these reports, along with the general approach of the Tribunal in the case, below.

## 1. Alleging the "complete destruction of all vegetation"

In both the reports, the Expert Committee has stated that the entire floodplain has been "completely destroyed" and that, "the natural vegetation consisting of reeds and trees has been completely removed".[57] The reports further claimed that the ground is "totally devoid" of water bodies and that, "no plant cover was visible anywhere".[58] However, it was a matter on record that illegal agriculture was being practiced on the event site prior to the event, and that all the vegetation had already been cleared to make room for growing crops.

In fact, the Tribunal in its judgment had noted that the petitioner first learnt about the event from the local farmers practicing agriculture on the event site.[59] Apparently, this illegal farming was being carried out with the acquiescence of the Delhi Development Authority ('DDA'), which is the governmental agency responsible for overseeing the event site.[60] Further, after receiving permission from the DDA to hold the event, the Art of Living compensated the farmers of village Kilkori – to whom the land belonged – by paying a fee in lieu of their harvest.[61] This is also evidenced by the fact that the farmers that wished to retain their agricultural land filed a petition in the Delhi High Court, which was subsequently

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54 *Id.*, 72.

55 *See id.*, 29 (In the order dated 11 March 2016, the Tribunal clarifies that INR 5 crores is not a penalty in terms of Section 26 of the NGT Act, 2010).

56 Gitanjali N. Gill, Environmental Justice in India: The National Green Tribunal133 (2016).

57 *See supra* note 15, 41, 51, 54 & 88.

58 *Id.*, 51.

59 *Id.*, 7.

60 *Id.,* ¶ 8.

61 *Id.*, ¶3.

dismissed, as the High Court held that the occupation of land by the farmers was illegal.[62]

Contrarily, the same members of the Expert Committee namely, Prof. Brij Gopal, Prof. C.R. Babu, and Prof. A.K. Gosain – that had conducted the initial site visit wherein an estimated compensation amount of INR 120 crores was proposed (based on a mere visual assessment) – had conducted an extensive research on the same floodplain area in 2013. As a result of this research, they had concluded that the area of the event was already devoid of natural vegetation and biodiversity. Based on these conclusions, these members of the Expert Committee had submitted a report in 2013 to the NGT titled, "Restoration and Conservation of River Yamuna", wherein they unequivocally stated that the life supporting potential of the river had already been lost and that "the flowing water, the river bed, the floodplain forest and grassland ecosystems are *locally extinct*" (emphasis supplied).[63] Additionally, the report stated that, "the floodplain biodiversity has been significantly altered and reduced such that the natural functions of the floodplains are lost".[64] Furthermore, it stated that

> "Delhi urban stretch of 22 KM in the downstream of Wazirabad barrage up to Okhla barrage [This is the site of WCF] is *critically polluted* and dry weather flow is almost the treated and untreated sewage from 22 drains and the fresh water flow from upstream or lateral connection and it is perhaps *the most polluted river stretches in the country with zero DO* [dissolvable oxygen] and over 30 mg/1 BOD levels."

Accordingly, on one hand, the Expert Committee members in the 2013 report stated that there is zero dissolvable oxygen in the stretch of the river Yamuna adjacent to the event site, and thus, no fish can survive in that portion of the floodplain. On the other hand, the same Expert Committee members in the report submitted to the NGT in the Art of Living Case held that Art of Living will be responsible for the "restoration of the fauna such as fish".[65] Further, while the same members had previously concluded in 2013 that the floodplain biodiversity had already been significantly reduced and that the floodplain ecosystems were locally extinct, in 2016, they concluded that "*all* the vegetation has to be restored"[66] by Art of Living.

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[62] Ram Singh v. Government of NCT of Delhi, Civil Misc. Petition No. 1988 of 2016 and Writ Petition (Civil) No. 483 of 2016.

[63] Brij Gopal et al, *Restoration and Conservation of River Yamuna – Final Report*, submitted to the National Green Tribunal with reference to Manoj Mishra v. Union of India, 2013 SCC OnLine NGT 2633.

[64] *Id*.

[65] *See supra* note 15, 56, 64.

[66] *Id*., 56.

This begs the question that if according to the same Expert Committee members, the area of the floodplain where the WCF was held was already so polluted three years prior to the event, why would they inflate the compensation costs and hold the Art of Living responsible for the "complete destruction of all vegetation"? Moreover, why would they not hold the other governmental authorities such as DDA accountable for the environmental degradation that had already happened prior to the WCF?

This becomes more problematic given that the Expert Committee, while explaining the loss of vegetation and biodiversity in the floodplain, held that the total loss "cannot be readily visualised and documented" and that "this is an '*invisible loss*' of biodiversity, which cannot be easily assessed."[67] In fact, the Art of Living presented evidence by way of satellite images demonstrating that the total number of trees before and after the WCF were exactly the same.[68] However, this was not addressed by the Tribunal.

The NGT does not answer what is an "invisible loss". Further, it remains silent with respect to why does this loss seem invisible and not capable of being documented given that just three years prior to the WCF, the same members of the Expert Committee were able to succinctly quantify the damage done to the same floodplain area. More significantly, it did not address how a compensation estimate of INR 120 crorescan be based on an invisible loss that cannot be visualised or documented. Unlike other cases where it has unequivocally admitted that it has resorted to "some kind of guesswork",[69] the NGT in this case made no such admission and proceeded to base the environmental compensation on a non-attributable loss. Therefore, the investigation conducted was unscientific and the NGT should not have put forth any compensation amount unless it could base the same on some evidence of damage in the form of a deviation or deterioration in the environmental condition that can be assessed.

## 2. Compaction and levelling of the floodplain

The Expert Committee, in both the reports, held that the floodplain on the event site had been compacted and levelled due to the event. As a result, it recommended that an estimated compensation of INR 28.73 crores was required for undoing the compaction of the soil.[70] However, this assessment too was not based on any scientific inquiry. For any scientific analysis to be done, the NGT ought to have determined the baseline condition of the of the event site prior to the

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67 *Id*., 53.
68 *Id*., ¶14.
69 Krishan Kant Singh v. Triveni Engineering Industries Ltd., OA No. 317 of 2014 (December 10, 2015), ¶27; *see also* Bhushan et al, *supra* note 25, ¶36.
70 *Id*., 72.

WCF to quantify any deviation from it. This is both logical and is internationally recognised as the most appropriate method for determining compensation.[71]

The NGT, however, did not conduct any scientific analysis apart from the visual assessment to determine the pre-event baseline condition. The most widely acknowledged and used test for determining soil compaction is the California Bearing Ratio ('CBR') Test.[72] It involves taking soil samples before and after a specified date and then taking the test to determine the compaction, if any.[73] Since the Expert Committee did not collect any soil samples to arrive at a factual conclusion for the level of compaction, the Art of Living requested the NGT allow it to voluntarily conduct the CBR test before the WCF. However, the NGT denied permission for conducting the test and disposed of the application without providing any reasons.[74]

Further, the soil type of the northern floodplains, including the event site, is predominantly sandy. This has been admitted by the 2013 Report on Yamuna referred to above, which characterises the soil in the area and being primarily made up of sand and gravel.[75] The pressure-void ratio curves for sand show that over 90% of compaction of loose sand takes place within two minutes of it being deposited.[76] Invariably, further compaction of the sand in the event site, if any, took place years ago due to construction of roads and illegal agriculture forming dense sand which is present at the event site. Therefore, even if there appeared to be compaction caused to the sandy soil in the event area during the visual assessment it ought to have been evidenced by taking soil samples, determining the deviation from the baseline condition, and estimating the level of compaction scientifically.

## 3. Selection bias

Selection bias refers to the selection of individuals, groups, or data in a manner that adequate randomisation is not achieved.[77] In this section, we will demonstrate how the Expert Committee, by drawing conclusions from certain images without their seasonal context and not relying on other available images,

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71 *See* European Union, Environmental Liability Directive, Directive 2004/35/EC of the European Parliament and of the Council, April 21, 2004, available at www.ec.europa.eu/environment/legal/liability/index.htm (Last visited on October 14, 2019).

This section of the paper contains paraphrases from authors' previous work titled *Determining Environmental Compensation in India: Lessons from a Comparative Perspective* submitted to Environmental Law Reporter.

72 Muralidhara et. al., *Effect of California Bearing Ratio on the Properties of Soil*, 5 American Journal of Engineering Research 4, ¶¶28-37.

73 *Id*.

74 *See supra* note 15, ¶32.

75 *See supra* note 64.

76 V.N.S. Murthy, Text book of Soil Mechanics and Foundation Engineering (4th ed., 2015).

77 National Cancer Institute Dictionary, available at https://www.cancer.gov/publications/dictionaries/cancer-terms/def/selection-bias?redirect=true (Last visited on October 14, 2019).

committed this error. As noted, the NGT ought to have determined the baseline condition of the event site prior to the WCF. Instead, the Expert Committee conducted a simple visual assessment wherein it held that there was an "invisible loss" of biodiversity that could not be readily assessed or documented.[78] While it was evident that this was inadequate to determine the quantum of the environmental damage, if any, the Expert Committee supplemented its visual assessment with only a single satellite image dated September 5, 2015 (despite the availability of several images) for determining the condition of the event site prior to the event.[79] This pre-event image (please refer to Image 1 below) was taken during the peak monsoon season and was compared to a post-event image (please refer to Image 2 below) taken during the dry season of March 2016, from Google Earth. On looking at these pictures individually, it is observed that there has been a significant loss of green cover. However, when the seasonal context is considered, it shows an entirely different picture (please refer to Images 3 and 4 below).

| Image 1: September 5, 2015 (pre-event) | Image 2: March 15, 2016 (post-event) |
|---|---|
|  |  |
| Source: Google Earth and written submissions filed in the Art of Living Case | Source: Google Earth and written submissions filed in the Art of Living Case |

| Image 3: January 2008 (pre-event) | Image 4: September 2016 (post-event) |
|---|---|
|  |  |
| Source: Google Earth and written submissions filed in the Art of Living Case | Source: Google Earth and written submissions filed in the Art of Living Case |

[78] *Supra* note 15, 53.
[79] *Id*., ¶56.

When Images 3 and 4 are seen in isolation, the likely conclusion that follows is that the WCF helped revive the floodplain. This is because Image 3 is a pre-event picture taken during the dry season while Image 4 is a post-event picture taken during the monsoon season. Thus, keeping the seasonal context in mind while relying on the images, it becomes imperative to supplement the analysis of degradation in the baseline condition. Accordingly, the appropriate comparison that the Tribunal ought to have undertaken should have been of the same season across the years. The images taken in September 2015, during the monsoon season, should have only been compared to the images taken in September 2016 to eliminate the seasonal effect.

Although these images were used to supplement the visual assessment conducted by the Expert Committee, they become important because of the unscientific nature of the visual assessment. This is evident from the fact that the Chairperson of the Expert Committee, Mr. Shashi Shekhar (then the Secretary of the Ministry of Water Resources, River Development, and Ganga Rejuvenation), in a letter dated March 3, 2016 addressed to the Tribunal, unequivocally rejected the conclusions drawn by the Expert Committee and stated:

> "One of the suggestions by the Committee that inadvertently got recommended was regarding penalty of Rs. 120 crores on AOL for restoring the Yamuna floodplain destroyed for their function. This inadvertent mistake was largely due to the fact that I was running high fever and I could not see the entire report prepared by the experts… Rs. 120 crore as assessed by the experts was tentative and the figure emerged as spontaneous suggestion. It was not based on any scientific assessment."[80]

Thus, the Chairperson of the Expert Committee denounced the report along with the estimated compensation put forth by his own committee as it was unscientific. As noted, all conclusions drawn by the Expert Committee in the case were based on this visual assessment, without any scientific evidence or quantifiable data evidencing them. Further, in the final report, the Expert Committee stated that it was unable to differentiate between the compensation required to restore the floodplain and the compensation required to undo the damage caused by the event.[81] Additionally, it stated that, "the area impacted near the mouth of Barapullah was due to Public Works Department ('PWD') activity and also to *some extent* by AoL activity."[82] Thus, it admitted that there was damage already caused to the event site due to past construction by the Public Works Department resulting in the dumping of debris. In other words, the Expert Committee admitted that it was unable to differentiate between the damage already done to the

[80] Letter from Mr. Shashi Shekhar to the National Green Tribunal, D.O. No. 5 (UIR, RD 1 GR)/ Misc./2016 (March 3, 2016).

[81] *See supra* note 15, ¶¶64-65.

[82] *Id*., ¶71.

floodplain before the event and the damage caused due the event. This is evidenced by the fact that the Expert Committee substituted the term "ecological restoration" in its first report to "ecological rehabilitation" in the final report. This was done as the Expert Committee was unable to clearly attribute costs required for restoration due to the WCF.

In fact, in the final report the Expert Committee stated that ecological "restoration" was not possible as the ecological damage attributable to Art of Living due to the WCF could not be ascertained.[83] This is ironic as not only could have the baseline condition been determined prior to the event, it could have been determined post the event as well. This is because the entire floodplain area is 9,300 hectares, out of which only twenty-five hectares was used for the event. Thus, had the Expert Committee desired, it would have been possible to determine the baseline condition of the event site by comparing it to similar areas on the floodplain post the event. At the least, this would have yielded a better analysis, backed by some scientific data, when compared to the conclusions drawn from the visual assessment. Nevertheless, the primary reason that the Expert Committee provided for not being able to quantify the damage was that the "Estimate of the costs of restoration requires the preparation of a Detailed Project Report that may take several months to a year besides financial resources."[84]

Thus, the Expert Committee admitted that while it was possible to do a scientific analysis and arrive at the damage attributable to Art of Living, if any; it thought it better to make Art of Living responsible for "rehabilitation" of the entire floodplain, including the damage done prior to the event. Therefore, it is not that the NGT lacked the expertise to quantify the environmental damage involved. Rather, the NGT lacked the will to quantify the same.

Additionally, the NGT, like in Ajay Kumar Negi, failed to hold the governmental authorities accountable. Despite holding that the DDA erred in granting permission to Art of Living to hold the event and that the Delhi Pollution Control Committee ('DPCC') failed to discharge its statutory obligations, the Tribunal did not impose any penalty on the former and levied a paltry penalty of INR 1 lakh on the latter.[85] Additionally, prior to the event, the Art of Living had also taken permissions from, *inter alia*, the Ministry of Environment, Forest and Climate Change ('MoEFCC'), the Uttar Pradesh Irrigation Committee ('UPIC'), Delhi Disaster Management Authority ('DDMA'), and the Irrigation and Flood Control Department of Delhi ('IFCD'). However, despite holding that these departments had wrongly granted the permission, the NGT did not impose any penalty on them and did not hold them accountable in any manner. Further, like in Ajay Kumar Negi where the compensation amount deposited for environmental restoration was not utilised at all, till date, the INR 5 crores compensation amount

[83] *Id*., ¶¶64-65.
[84] *Id*., ¶¶57, 61.
[85] *Id*., ¶23 (Order dated March 11, 2016).

deposited for the ecological rehabilitation of the floodplain by the Art of Living has not been used by the governmental authorities.

Thus, the NGT based its conclusions on an unscientific visual assessment, did not determine the baseline condition of the event site prior to the event, erred by committing selection bias in relying on supplementary evidence, and admitted that the damage done to the floodplain area could not be specifically attributed to Art of Living. In light of this, it is not difficult to see why the environmental compensation was eventually reduced from INR 120 croresto INR 5 crores. In fact, due to the complete lack of methodology in quantifying environmental damage coupled with the unscientific determination of compensation, any amount levied as compensation seems arbitrary.

## III. CONCLUSION

The NGT was created to revolutionise environmental adjudication in India by effectively dealing with complex and technical scientific matters involving scientific uncertainty. In almost a decade of its existence, it has certainly made environmental adjudication more expeditious. However, as demonstrated in the paper, despite the technical expertise, there are inherent flaws in the methodology adopted for calculation of environmental compensation and quantitative assessment of ecological damage. These include disregarding the underlying considerations of a case by unduly deferring to the Supreme Court's approach in Goa Foundation for determination of compensation, failure by the NGT to establish an environmental baseline condition prior to the alleged damage for quantifying environmental damage, and failure to hold governmental authorities accountable. This has yielded in the recent trend of arbitrarily pegging the initial environmental compensation between five and ten percent of the project cost or at five crore rupees.

While the NGT has overtly adopted the Supreme Court's approach, it has significantly altered its application in two respects. First, instead of taking the "sale proceeds" as determined by the Court, it takes a percentage of the project cost. Second, it has arbitrarily reduced the percentage from ten percent– as used by the Court – to five percent of the project cost. The Court, in Goa Foundation, had specifically highlighted that considerations of the revenue that mining brought to the State went into determining compensation. Nevertheless, the NGT has adopted this approach for most cases and as a result, the compensation awarded is usually disproportionate to the annual turnover of the project proponent. This has been exemplified through the case of Ajay Kumar Negi, where the Tribunal initially awarded compensation and later held that the time for awarding compensation had not yet matured.

In furtherance of these trends, we analysed the Art of Living Case wherein the NGT's levy of initial compensation bore no resemblance with the

underlying realities of the case. The Tribunal drastically reduced its estimated initial compensation from INR 120 crores to INR 5 crores. Unlike the popular media narrative that the reduction was due to external political pressure on the Tribunal, we demonstrated that it was a natural result of the unscientific manner in which the proceedings were carried out.

Not only did the Tribunal admit that it based its estimated compensation on an invisible loss, it unequivocally admitted to not determining the baseline condition of the event site prior to the event as it would be too time consuming. Accordingly, the primary reason for the reduction in compensation was that the estimates and conclusions were based on a mere visual assessment of the event site conducted by the Expert Committee, which were denounced by the Chairperson of the Expert Committee as being unscientific. The NGT did not conduct any scientific analysis to determine the environmental damage, if any, and simply concluded that there was an invisible loss which was incapable of being assessed or documented. Further, like in Ajay Kumar Negi, despite holding that the DDA and DPCC had failed to perform their duties, the NGT only awarded a paltry sum of INR 1 lakh as penalty on the latter and did not hold the former accountable.

It is not that the NGT lacks the expertise to quantify the environmental damage. Rather, as demonstrated, it lacks the will to determine the baseline condition on account of it being either too costly or time consuming. If this trend in determining compensation continues, it is likely to erode the general confidence that the public has in the NGT's capacity to effectively adjudicate on environmental issues. After all, the NGT was created to effectively deal with scientific uncertainty. The NGT has to address the arbitrariness of the initial compensation levied by it by determining it on a case by case basis so that there is a nexus between the compensation levied and the environmental damage involved. It has to determine the baseline condition of the environment before the alleged damage happened to determine any deviation from it. This will enable it to develop a methodology for determining compensation which yields compensation amounts that bear semblance with the actual environmental damage.