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Each issue of the Journal may contain up to five sections:

• Opinion on relevant issue
• Articles – on environment issues and concerns
• Lectures from Hon’ble Chairperson and Members on Environment
• Events
• Report of NGT

Book Note

The Journal aims to stimulate thought provoking process in the interest of justice, which will provide an opportunity for academics, practitioners and consultants from different backgrounds to discuss the significant legal developments in the field of environmental laws and diverse aspects of environment and ecology. We invite authors to submit original manuscripts for consideration ranging from full articles to book reviews.

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A concise and factual abstract is required. The abstract should state briefly the purpose of the article; important discussion and major conclusions. An abstract is often presented separately from the article, so it must be able to stand alone. For this reason, References should be avoided, but if essential, they must be cited in full, without reference to the reference list. Also, abbreviations should be avoided, but if essential they must be defined at their first mention in the abstract itself.

Abbreviations

Define abbreviations that are not standard in this field in a footnote to be placed on the first page of the article. Such abbreviations that are unavoidable in the abstract must be defined at their first mention there, as well as in the footnote. Ensure consistency of abbreviations throughout the article.

Acknowledgements

Collate acknowledgements in a separate section at the end of the article before the references and do not, therefore, include them on the title page, as a footnote to the title or otherwise. List here those individuals who provided help during preparation of this article.

Nomenclature and units

Follow internationally accepted rules and conventions; use the international system of units (SI). If other quantities are mentioned, give their equivalent in SI. Authors wishing to present a table of nomenclature should do so on the second page of their manuscript.
Hon’ble Mr. Justice Sudhansu J Mukhopadhaya

Judge, Supreme Court of India
Chief Guest on 4th Foundation Day Celebration of National Green Tribunal
Sh. Prakash Javadekar
Hon'ble Minister of Environment and Forests
Presided over the 4th Foundation Day Celebration of National Green Tribunal
From the Editor’s Desk

Dated: 9th October, 2014

Dear esteemed readers,

We are glad to present this 2nd Volume of our biannual journal to you—a community comprising of jurists, environmentalists, social activists, inquiring minds and last but not the least our critics. From its inception, we intended and were committed to draw attention of this community to various environmental issues facing our nation and world as a whole. We hope that in presenting this bouquet of 7 articles authored by men of eminence in their respective fields, we would be fulfilling our commitment, if not fully, but in substantial measure.

Environmental science is a multidisciplinary Science and its marriage with the law has given birth to National Green Tribunal, created by NGT Act, 2010. Hopefully, this issue will take you the reader with diverse interest on an intellectual journey through the topics ranging from state of environment at global level, its decline over the years coupled with the evolution of environmental laws, simplification of environmental regulations and its application to the Indian conditions.

Passion for knowledge, we know, like all other passions is unsatiable. Readers therefore, would certainly crave for more than what we have presented. However, what we intended to achieve is to instigate our readers to fathom the unknown and raise such questions the answers of which would help us in creating benign environmental conditions worldwide. Purpose of publishing this journal, we believe, will be served if our readers take a step in that direction.

With regards.

(Justice U.D. Salvi)
Judicial Member,
National Green Tribunal
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ARTICLES ON ENVIRONMENT ISSUES AND CONCERNS
Abstract

The paper presents a brief evolution of environmental laws in India. It highlights some landmark judgments of the Supreme Court, which helped as guiding principles for many environmental legislations and policies framed in India. Supreme Court recognized Sustainable Development, Precautionary Principle and Polluter Pays Principle as a part of our environmental jurisprudence. The paper also briefly explains specific interventions by the Supreme Court, which resulted in large benefit to the environment and society.
Air (Prevention and Control of Pollution) Act, 1981 and the Environment (Protection) Act, 1986. With this core group of three enactments, a modest beginning was made by Parliament. Unfortunately, soft laws were enacted (and they continue to remain so) at a time when strong legislation was critical for environmental conservation. Fortunately, the Supreme Court appreciated the necessity of sternness in environmental issues and seized the opportunity in Municipal Council, Ratlam’ that arose out of a problem daily faced in our country. A residential locality was subjected to extreme filth and stench, partly due to the discharge of malodorous fluids from an alcohol plant into public streets and partly due to the complete inactivity of the municipal body in maintaining basic public sanitation. A few public spirited citizens decided to constructively use the available legal resources to remedy the situation. A complaint was instituted under the provisions of Section 153 of the Criminal Procedure Code requiring the municipal corporation to carry out its statutory duties under Section 123 of the M.P. Municipalities Act, 1961. A Sub-Divisional Magistrate issued necessary mandatory orders, but the Sessions Court held them as unjustified. The High Court, however, upheld the views of the Sub-Divisional Magistrate. The Municipal Council approached the Supreme Court and one of the key questions raised was whether “by affirmative action a court can compel a statutory body to carry out its duty to the community by constructing sanitation facilities at great cost.”

The Supreme Court answered the question in the affirmative while noting the low priority granted to public health and sanitation, and the dimensions of environmental pollution. It was said that the municipality’s plea that notwithstanding the public nuisance, financial inability validly excuses it from statutory liability has no juridical basis. It was held by the Supreme Court that:

“Public nuisance, because of pollutants being discharged by big factories to the detriment of the poorer sections, is a challenge to the social justice component of the rule of law.”

A little later in the decision, it was said that, “Decency and dignity are non-negotiable facets of human rights and are a first charge on local self-governing bodies.”

Having given its raison d’etre for taking a proactive approach in matters pertaining to the general environment, the Supreme Court later entertained a letter petition from an NGO called the Rural Litigation and Entitlement Kendra. This initiated the first case that directly dealt and concerned itself with the environment and ecological balance. In a series of decisions the Supreme Court considered the complaint of the petitioner regarding illegal and unauthorized limestone quarrying and excavation of limestone deposits which apparently affected the ecology of the area, caused environmental disturbances which damaged the perennial water springs in the Mussoorie Hills, disturbed the natural water system and the supply of water both for drinking as well as for irrigation. All this was naturally a matter of grave concern and required somber reflection.

The Supreme Court was called upon, under these circumstances and in the absence of any legal framework or any precedent, to perform a creative but delicate exercise and come out with novel solutions and ideas to tackle the crisis. This was achieved by setting up enquiry committees from time to time. Various committees appointed by the Supreme Court included:

- The Bhargava Committee to look into the question whether safety standards were met by the mines, the possibility of land slides due to quarrying and any other danger to the individuals, cattle and agricultural lands due to mining operations.

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of its workmen and the residents of nearby areas owes an absolute and non-delegable duty to the community to ensure that no harm results to anyone on account of its activity. If any harm does result, then the enterprise is absolutely liable to compensate for such harm and it is no answer to say that it had taken all reasonable care or that the harm occurred without any negligence on its part. In other words, the Supreme Court evolved a principle of absolute liability and did not accept any of the exceptions in such a case as mentioned in Rylands v. Fletcher.38

The trend of activist intervention having been set by the Supreme Court, and some important steps relating to protection of the environment having been taken, a large number of cases in public interest then came to be filed in the Supreme Court which passed various orders in these cases from time to time. It is not necessary to discuss all these decisions, as indeed it is not presently possible, except those in which there was a significant development of the law or a significant contribution to the environmental jurisprudence of India.

Guiding principles

The mid nineties saw the Supreme Court recognize some internationally accepted and important principles in matters pertaining to the environment. This period also saw the Supreme Court rely more and more on Article 21 of the Constitution40 and give an expansive meaning to 'environment' taking within its fold the quality of life41 as distinguished from a mere animal existence.13 This is really the period when environmental jurisprudence began to come into its own.

In Indian Council for Enviro-Legal Action42 the Supreme Court accepted the Polluter Pays principle.39 In this case, some chemical factories in Bhihri (Udaipur District) produced hazardous chemicals like oleum etc. These industries did not have the requisite clearances, licences, etc. nor did they have necessary equipment for the treatment of discharged toxic effluents. Toxic sludge and untreated waste waters resulted in the percolation of toxic substances into the bowels of the Earth. Aquifers and subterranean supplies of water got polluted, wells and streams turned dark and dirty, water not only became unfit for human consumption but also unfit for cattle to drink and for irrigation of land. So much so, even the soil became unfit for cultivation. Death, disease and other disasters gradually resulted and the villagers in the area revolted as a result of this enormous environmental degradation. The District Magistrate of the area had to resort to Section 144 of the Criminal Procedure Code43 to avoid any untoward incident.

A writ petition under Article 32 of the Constitution was filed in the Supreme Court and the Court asked for a report to be prepared by the National Environmental Engineering Research Institute (NEERI) as to the choice and scale of available remedial alternatives. NEERI suggested the application of the Polluter Pays principle inasmuch as "the incident involved deliberate release of untreated acidic process waste water and negligent handling of waste sludge knowing fully well the implication of such acts." The cost of restoration was expected to be in the region of Rs. 40 crores. The Supreme Court examined all the available material and concluded that the industries alone were responsible for the damage to the soil, underground water and the village in general.

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40[(1988) LR 3 HI 330
41Protection of life and personal liberty. No person shall be deprived of his life or personal liberty except according to procedure established by law.
43Board of Trustees of the Port of Bombay v. Shri Nirmal Daghavranath Nadelkar, (1985) 3 SCC 524
44Indian Council for Enviro-Legal Action v. CCE v. Union of India, (1990) 5 SCC 212
45In 1972, the Organization for Economic Cooperation and Development adopted this principle as a recommendable method for pollution cost allocation.
46Power to issue order in urgent cases of nuisance or apprehended danger.
ranneries to show cause why they should not be asked to pay a pollution fine.

The Supreme Court also recognized the Precautionary Principle, which is one of the principles of sustainable development. It was said that in the context of municipal law, the Precautionary Principle means:

- Environmental measures to anticipate, prevent and attack the causes of environmental degradation.
- Lack of scientific enquiry should not be used to postpone measures for prevention of environmental degradation.
- The onus of proof is on the action, developer or industrialist to show that his action is environmentally benign.

The introduction of the "onus of proof" as a factor relevant for environmental protection was developed for the first time in this case.

The Supreme Court endorsed the Polluter Pays principle, which was earlier recognized in Indian Council for Enviro-Legal Action. It was said,

"The Polluter Pays Principle as interpreted by this Court means that the absolute liability for harm to the environment extends not only to compensate the victims of pollution but also the cost of restoring the environmental degradation."

Resultantly, the Supreme Court recognized Sustainable Development, the Precautionary Principle and the Polluter Pays principle as a part of our environmental jurisprudence.

The Supreme Court passed two significant orders in this case. One was for setting up an Environment Protection Fund. Each of the tanneries who were asked to pay a pollution fine in this case were asked to deposit the amount in the Environment Protection Fund. The other significant direction given by the Supreme Court was to set up "Green Benches" in the High Courts.

In the Calcutta Tanneries Case,35 the Polluter Pays Principle relating to relocation of industries was applied with a direction to those relocated industries to pay 25% of the cost of land. Those who did not pay for the cost of land were directed to be closed. The Supreme Court again resorted to directions earlier given in Vellore Citizens Welfare Forum for setting up efficient treatment plants.

It needs to be mentioned that a stringent interpretation of the Polluter Pays principle requires that the polluter should pay for causing the pollution and consequential costs for any general deterioration of the environment while another view is that the polluter is only responsible for paying the costs of pollution control measures. Generally speaking, the polluter must pay for:

- The cost of pollution abatement.
- The cost of environment recovery.
- Compensation costs for victims of damages if any, due to pollution.

A more than helpful discussion on the Polluter Pays principle and the Precautionary Principle is to be found in the A. P. Pollution Control Board Cases.36 In this case, the Supreme Court made a reference to the Stockholm Declaration and the U.N. General Assembly Resolution on World Charter for Nature, 1982. The principle has recently been extended and quite significantly so, in a case pertaining to the import of hazardous waste, to include the cost not only of avoiding pollution, but also remedying the damage.37 Reference was made to Principles 15 and 16 of the Rio Declaration and it was said, "The nature and extent of cost and the circumstances in

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35M.C. Mehta v. Union of India (1997) 5 SCC 411
37Research Foundation for Science vs. Union of India, (2005) 15 SCC 156
Roman law recognized the public trust doctrine whereby common properties such as rivers, seashore, forests and the air were held by the Government in trust for free and unimpeded use of the public. These resources were either owned by no one (res nullius) or by everyone in common (res communis).

In English law, the public trust doctrine is more or less the same but with an emphasis on certain interest such as navigation, commerce and fishing which are sought to be preserved for the public. There is, however, some lack of clarity in this regard on whether the public has an enforceable right to prevent the infringement of the interests in common properties like the seashore, highways and running water.

Professor Joseph L. Sax imposes three restrictions on governmental authorities as noted by the Supreme Court. These are:

- The property subject to the trust must not only be used for a public purpose, but it must be held available for use by the general public.
- The property may not be sold, even for a fair cash equivalent.
- The property must be maintained for particular types of uses.

It was noted that American Courts have also accepted the public trust doctrine and applied it in their case law and, the Supreme Court observed, it has now become a part of our environmental jurisprudence also.

Applying the public trust doctrine, the Supreme Court cancelled the lease of forestland granted in favour of Span Motels and the State Government was directed to take over the area and restore it to its original condition. The motel was directed to pay compensation (damages for restitution of the environment and ecology of the area). It was also asked to show cause why a pollution fine be not imposed.

While deciding the show cause notice regarding imposition of a pollution fine, the Supreme Court held that in law the fine could not be imposed without a trial and a finding that the motel is guilty of an offence under the Water (Prevention and Control of Pollution) Act, 1974. Accordingly, no pollution fine was imposed on Span Motels but it was asked to show cause why it should not pay exemplary damages. After considering the reply of Span Motels, exemplary damages of Rs. 10 lakhs were imposed.

Specific interventions

Air pollution

Perhaps the most important decision given by the Supreme Court and one that has affected the over all quality of air in Delhi is in connection with the Vehicular Pollution cases. This is really a great success story, which began with a White Paper issued by the Government of India which revealed that vehicular pollution contributes 70% of the air pollution as compared to 20% in 1970. Information obtained by the Supreme Court during the pendency of the case showed that air pollution related diseases in India include acute respiratory diseases causing 12% of deaths (largest fraction in the world), chronic obstructive pulmonary disease, lung cancer, asthma, tuberculosis (8% of deaths, large fraction in the world), perinatal (6% of deaths, large fraction in the world) and cardiovascular disease (17% of deaths) and blindness. There has been a considerable increase in respiratory diseases especially amongst children. There are nine other cities in India where the air quality is critical. These include Agra, Lucknow, Kanpur, Patna, and Jodhpur.

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'desired result' and in the meanwhile, industries located in Delhi were warned from discharging their effluents into the river.

The Supreme Court later looked into the matter again and found that the parameters laid down by the Government in respect of water quality were not being adhered to. The Delhi Administration was directed to file an affidavit indicating what steps it proposes to take to reduce the pollution level so as to ensure that by March 2003 no untreated sewage enters river Yamuna.

As recently as August 2004, the matter again came up for consideration before the Supreme Court and it was noted that although the Court had directed its attention to cleaning up the river almost a decade ago, there has been no improvement, but the water quality had in fact deteriorated during the last about five years on a comparison of reports filed by the CPCB.

The Supreme Court then set up a High Powered Committee chaired by the Secretary, Ministry of Urban Development and including several governmental authorities to monitor the situation.

However, newspaper reports have since indicated that despite an expenditure of Rs. 87 crores on what is called the Yamuna Action Plan I and II, the river continues to remain as dirty as it was about a decade ago (perhaps more) and most people believe it to be nothing more than a sewer.

One of the chief reasons for this state of affairs is that there has been no effective monitoring, unlike the vehicular pollution cases. The result is that orders passed by the Court are not implemented and deadlines set in the various orders are not met. The second reason is that the focus of the case seems to have partly diverted. This is clear from at least three orders passed by the Supreme Court which go to show that apart from the question of cleaning up the river Yamuna and treating the matter as a purely environmental issue, the Supreme Court has drawn within its ambit the question of unauthorized construction in Delhi and the revision of the Unified Building Bye-laws for Delhi. It is because of such a lack of focus that undivided attention has not been paid to the grave environmental issue pending in the Court.

Forests

The issue of illegal felling of timber in forests in India, particularly in the North East Region came up for consideration before the Supreme Court in a public interest litigation initiated at the instance of one T.N. Godawarman Thirumulpッド. The initial step taken by the Supreme Court in 1997 was to explain that a 'forest' for the purpose of the Forest (Conservation) Act, 1980 must be understood according to its dictionary meaning and included all forests, irrespective of the ownership or classification thereof, whether designated or reserved, protected or otherwise. Several directions relating to the timber trade, more particularly banning the felling of trees, identification and closure of saw mills were issued. Soon thereafter a High Powered Committee was set up to oversee the strict and faithful implementation of the orders of the Court in the North East Region and for ancillary purposes.

The Supreme Court has since given interim directions from time to time on various issues, including for regulating the timber trade and pricing of timber, licensing of wood-based industries, forest protection, management of forests, action against erring officials, clarifying that minor forest produce is out of its purview etc. Gradually, but fortunately only for a while, illegal mining activity in forests was also included within the scope of the public

9 Hindustan Times, The Tribune, The Times of India and The Hindu all cited 15th April 2005
in Wasim Ahmed Sareed vs. Union of India and Others. To prevent damage to protected monuments, particularly the Dargah of Moinuddin Chisti in Ajmer and the heritage city of Ferozpur Sikri, the Supreme Court directed the removal of shops within a certain distance from the monuments so that no damage is caused to them.

**Town planning**

In M.C. Mehta vs. Union of India, the Supreme Court considered the issue of industrial activity being carried on in residential/non-conforming areas in Delhi. Earlier, the Supreme Court had directed those hazardous and noxious industries, and other heavy and large industries be shifted out of Delhi. Since 'extensive' industries were also being shifted out, the question that remained to be considered was the shifting out of light and service industries.

The facts of the case as they appear in the judgment show that while there was an earlier estimate of 93,000 industries operating in Delhi, in fact there were over a 100,000 such industries carrying on industrial activity in residential/non-conforming areas. Some time in 1996, since the Delhi Government was seriously processing a project of relocating industries, the Supreme Court left the matter for implementation by the Delhi Government but directed it to file regular progress reports.

The Supreme Court noted that unfortunately the trust reposed by the Court in the Government was belied inasmuch as industrial activity continued in the areas in question and though a progress report had been filed it was clear that appropriate steps had not been taken by the Government in right earnest.

On the contrary, Delhi Administration came up with an application seeking extension of time till March 2004 to comply with the order for shifting polluting industries. The application also stated that as many as 7000 families would face dislocation. The question placed before the Court was whether this would be adequate justification to throw to the wind the norms of environment, health and safety insofar as the residents of various localities in Delhi are concerned.

The Supreme Court noted that effectively the Delhi Government had done nothing. For as long as 5 years there was no explanation why industrial activity was continue in non-conforming areas. On the other hand, the Delhi Administration had recommended in situ regulation of the industries. The Supreme Court naturally disapproved this on the ground that the bona fide residents of the area would have to suffer pollution emanating from the industrial units and this would violate their right of life enshrined in Article 21 of the Constitution. In fact not only would this be the direct impact on the residents but they would also suffer because of the stress and strain on infrastructure facilities. It was noted that the entire planning activity had gone haywire; persons who abide by the law are the actual sufferers and polluting industries continue in the city at the cost of health and in utter violation of the Article 21 of the Constitution. The Supreme Court observed that no serious activity had taken place over a period of over a decade since the litigation commenced.

The range of activities associated with town planning is enormous. A mere shifting of industries brings with it displacement of workers, necessity of creating new infrastructure facilities, an increase in the cost of transportation results in an increase in the cost of goods and if the goods are too highly priced, closure of uneconomical units etc. While the Supreme Court may have anticipated this, the...
environmental issues, if not more so. Municipal Council, Railams a clear pointer to this. It must also be recognized that all citizens of various districts of the country are obliged to chip in their bit to preserve and protect the environment as a part of their fundamental duty – and in fact efforts are being made in this direction by various local interest groups and NGOs. Van Panchayats, for example, have been in existence in large parts of Uttarakhand where the local populace is managing the forests. Similarly, class actions can be initiated by NGOs working in particular districts and areas.

The focus must shift, therefore, from approaching the Supreme Court for remedial measures to involving the local people and approaching the local courts for relief, for it is they who are in a better position to appreciate the problems and requirements of the area. The Supreme Court has given us adequate guidelines and solutions to macro problems, but we must not forget of overlook micro level problems that also need solutions. Without the active involvement of the people at the base level, solutions to environmental issues would be difficult to come by and jurisprudential concepts will remain good in theory, but having no practical utility. It is this change that we must strive for in the next couple of decades to develop environmental jurisprudence to make it more effective and people-oriented.
Abstract

This paper attempts to suggest simplification of EIA and consent process being issued by regulatory bodies. Efforts have been made to suggest ways and means to adopt less cumbersome EIA Process and review of consent procedures with a view to smoothen the system. Emphasis has been made on self-compliance of stipulated conditions through adoption of automatic monitoring and surveillance system leading to better transparency and outreach to the public. There is need to revisit EIA Regulation, 2006, the Water Act, the Air Act & the Environment Protection Act and Rules framed there under. Use of economic instruments may be promoted instead of traditional reliance on command & control system.
required to take 'Consent to Operate' year to year in case of polluting industries and in case of non-polluting units or less polluting units the consent is required to be renewed every after 23 years. There is need to introduce a uniform consent procedure as at present it is varying from Board to Board. In order to overcome these problems, the following strategy is suggested:

- Simplification of EIA Process for grant of Environmental Clearance (EC).
- Automatic Monitoring and Surveillance System.
- Effective Management of Hazardous Waste.
- Strict Monitoring of conditions stipulated by MoEF/SEIAA.
- Liberalised grant of "consent to establish" and "consent to operate".
- Cluster Approach/Zoning based development.
- Introduction of 'Go' and 'No Go Areas' Concept

Simplification of EIA process for grant of EC.

4.1. EIA notification 2006, has laid down a cumbersome, time consuming and costly process in place for seeking prior environmental clearance for the specified categories of the projects as listed in the schedule. Basically, the EIA process involves 4 stages which are given below in the sequential order.

- Screening (Only for category B projects and activities)
- Scoping
- Public consultation
- Appraisal

4.2. The projects are categorised in 2 categories i.e.

(i) Category A projects require clearance from MoEF and
(ii) Category B projects require clearance from the concerned SEIAA in the State/UT. Category 'B' projects have been further classified into 2 categories i.e. category 'B1' and category 'B2'. The category 'B1' projects will require EIA report whereas as Category 'B2' projects will not require submission of EIA report for appraisal of the project. As prescribed in the EIA notification, in the first instance, the MoEF prescribes TOR for preparation of EIA/EMP Report which is often same and appears to be stereotypical for the similar category of projects i.e. thermal power plants, hydroelectric projects, mining projects, industrial projects, etc. Based on the TOR, the project proponents are required to prepare draft EIA report which is then submitted to the concerned SPCB for arranging public hearing in consultation with MoEF. SPCB then gets in contact with the District Administration to hold a public hearing meeting which has to be presided by the District Collector or his nominee after giving wide publicity through the newspapers and other media as laid down in the EIA notification. Often it has been observed that public hearing gets influenced by the political agenda rather than discussing the environmental related issues pertaining to the project. Also there are a no. of instances that law and order problems have been created by the local people or those coming from outside the area resulting in to severe law and order situation including lathi charge, firing incidents in few cases leading to even death and significant injuries. If the project proponent is lucky enough and is able to complete the process of public hearing, the EIA report is then to be updated based on the inputs received during the public hearing and the same is sent to MoEF for appraisal of the project along with the proceedings of the public hearing. MoEF then places the EIA report and other relevant information including the comments/suggestions received as part of public consultation process as defined in the EIA Regulation, 2006 before the duly constituted respective Expert Appraisal Committee (EAC) for seeking its recommendations. Based on the recommendations of the EAC the project is processed and the approval or rejection is conveyed.
with the ultimate idea of protection of environment & human beings. The above said order of the Apex Court is quoted as below.

“Para 7: Hence, the present mechanism under the EIA Notification dated 14.09.2006, issued by the Government with regard to processing, appraisals and approval of the projects for environmental clearance is deficient in many respects and what is required is a Regulator at national level having its offices in all the States which can carry out an independent, objective and transparent appraisal and approval of the projects for environmental clearances and which can also monitor the implementation of the conditions laid down in the Environmental Clearances. The Regulator so appointed under Section 3(3) of the Environment (Protection) Act, 1986 can exercise only such powers and functions of the Central Government under the Environment (Protection) Act as are entrusted to it and obviously cannot exercise the powers of the Central Government under Section 2 of the Forest (Conservation) Act, 1980, but while exercising such powers under the Environment Protection Act will ensure that the National Forest Policy, 1988 is duly implemented as held in the order dated 06.07.2011 of this Court in the case of Lafarge Unimam Mining Private Limited. Hence, we also do not find any force in the submission of Mr. Parasaran that as under Section 2 of the Forest (Conservation) Act, 1980 the Central Government alone is the Regulator, no one else can be appointed as a Regulator as directed in the case of Lafarge Unimam Mining Private Limited.

Para 8: We, therefore, direct the Union of India to appoint a Regulator with offices in as many States as possible under sub-section (3) of Section 3 of the Environment (Protection) Act, 1986 as directed in the order in the case of Lafarge Unimam Mining Private Limited and file affidavit along with the notification appointing the Regulator in compliance with this direction by 31st March, 2018.

Para 9: It is understood that MoEF is in the process of working out the details of the revised EIA scheme keeping in view the direction of the Hon'ble Apex Court.

Self-compliance through automatic monitoring and surveillance system

The industries should realise their social and environmental responsibilities and should come forward to implement the stipulated environmental conditions. For this purpose, it would be better to adopt more transparent, fool proof and reliable automatic monitoring systems in place for continuous monitoring of stack emissions and discharges of effluents. In particular for stack emission monitoring, online monitoring system or equipment may be provided for continuous monitoring of sulphur dioxide, oxides of nitrogen, and particulate matters with data logger and display system in addition to any specific parameters which may be prescribed by the regulatory authorities. The real-time data so generated could be uploaded to the website of the industrial units having net working with the regulators. Further improvement in the emission monitoring and applying polluter pays principle could be made by finding out the non-compliance in relation to the stipulated standards and simultaneous online billing by the regulator. The details in this regard would have to be worked out as to how much emission charges are to be imposed over and above the prescribed threshold limit. The concept of trading of emissions may also be thought of to encourage the industrial units for better adoption of pollution abatement measures as it is already being practised in some of the developed countries abroad. The industries should also upload periodically the compliance status with respect to various stipulated conditions in the ‘consent to operate’ and ‘EC’ and be connected to the regulators website through proper networking. It is hoped that the above proposed system would go a long way in making the pollution control compliance more transparent and dependable and also would safeguard the project proponents from the unnecessary harassment of the public, politicians and regulators. This would also be helpful in reducing the workload pertaining to monitoring and surveillance being done by the various State
the complying units to the extent of access credits available with them so as it would provide a technoeconomically more feasible option. Introduction of emission trading will provide fiscal incentives to the industries.

Cluster/ zoning approach

Cluster / Zoning approach for industries would be desirable so that similar production units may be located in the designated industrial complexes which would have adequate infrastructure in terms of common effluent treatment plant and also would be equipped with automatic ambient air and water quality monitoring and surveillance systems. It would be easier and practical to tackle pollution problems for such industrial complexes.

‘Go’ and ‘no go areas’

The policy makers such as MoEF should come forward with the identification of areas where industries can be located and such areas may be designated as ‘Go Areas’. Similarly, a detailed exercise would be helpful to identify such areas which are close to the National Parks and Sanctuaries, ecologically fragile and sensitive areas, reserved and protected forests, critically polluted areas, monuments of national importance, religious sites etc. where environmental development can’t be allowed should be declared as ‘No Go Areas’. Developmental projects should normally be not allowed in ‘No Go Areas’ unless and until it is absolutely essential keeping in view the defence needs of the country.

Conclusion

At present the process of obtaining environmental clearance, consent to establish and consent to operate in respect of industrial projects is very complex and time consuming and as such there is need to revisit EIA Notification 2006, the Water (Prevention and Control of Pollution Act) 1974, Air (Pollution and Control Act) 1981 and the Environment (Protection) Act, 1986 and the rules made there under. There is need to simplify EIA process as also to do away with the cumbersome process of grant of consents by the regulatory authorities without compromising with the environment. It is hoped that the approach suggested towards simplification of the EIA process and proposed modifications in the consent mechanism, installation of automatic monitoring system and adoption of self-discipline will lead to better compliance of stipulated environmental conditions and would also reduce pressure of work on regulatory bodies which are already short of adequate infrastructure for undertaking effective monitoring & surveillance of industries. Fiscal incentives and use of economic instruments may also be encouraged for better compliance of stipulated environmental standards.
Abstract

The paper highlights earlier concept of high technique and strict logic in judging environmental disputes. It explains in brief the state of environment at global level and need for its improvement. The paper elaborates that in environmental disputes the final outcome should not be dependent on individual views but on scientific rational. The paper explains in brief three steps involved in environmental jurisprudence. Finally the paper concludes with a statement that the judges must adjudicate environmental cases in accordance with principle and reason, technique and logic, to ensure consistency and predictability, and public confidence, in the administration of justice.
of environmental protection and ecologically sustainable development rather than against then. 10
To avoid ad hoc decision making, judges ought to employ accepted technique and logic in arriving at their decision. By conforming to such standards of decision making, decisions will have an explicit rationality. Furthermore, the decisions will contribute to a body of law that has integrity. One social need is for a reasonably logical and consistent system of law.11
In this short article, I will outline techniques and logic that judges can apply in determining disputes involving environmental issues. I will illustrate the judicial method with examples of judicial decisions regarding ecologically sustainable development.

Differing functions of the judge in environmental disputes

A range of disputes involving environmental issues come before the courts. Some disputes call for the exercise of a judicial function, but others call for the exercise of an administrative or executive function. There is a contest as to whether judges, in making their decisions, exercise a legislative or law-making function.

The role of the judge, and the technique used, will vary with the nature of the function being exercised. Adjudication of disputes, in the strict sense, involves exercise of the judicial function. Adjudication involves the determination of a dispute by the reasoned application of a legal rule or principle to the facts of the matter.12 The judge acts, not as an arbitrator, but strictly as a judge. The judge's task is to determine not what in the judge's view may be fair as between the parties in a given case, but what, according to the applicable rule or principle of law, are the respective rights or obligations.13 I will elaborate on the scope in the adjudication process below.

Adjudication, and the exercise of the judicial function, is employed in the determination of civil claims, including judicial review claims, and criminal prosecutions. However, in adjudication there may also be a discretion vested in the court as to the remedy, relief or punishment to be granted. The exercise of this discretion involves an administrative or executive function. But even here, such discretion needs to be exercised judicially, within accepted parameters laid down by precedent or the statute imposing the discretion.

Other environmental disputes that come before the courts involve, more completely, the exercise of an administrative or executive function. Many courts or tribunals are vested with the function of reviewing on the merits exercises of power by officers and bodies of the executive branch of government. An example is the function vested in planning and environment courts or tribunals to review decisions of local or state government in relation to applications for approval to carry out development.

In undertaking merits review, the court may exercise all the powers and discretions that are conferred on the original decision maker. The court is not confined to the material that was before the original decision maker but may receive and consider fresh evidence or evidence in addition to, or in substitution for, the material that was before the original decision maker. The decision of the court is substituted for the original decision maker; it

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12See, for example, s 59(2) (5) of the Land and Environment Court Act 1979 (NSW).
13The Art Of Judging Environmental Disputes, Justice Brian J Preston.
relevant rule of law which is the major premise. The rule of law typically states that in a given factual situation certain rights, obligations or liabilities exist. The third step, of applying the law so found and interpreted to the matter, involves two stages. The first stage is finding the facts relevant to the identified rule of law, which identify the minor premise. The second stage involves taking the rule of law as the major premise, employing the facts found as the minor premises, and, in theory, coming to a judgment by a process of syllogistic reasoning.

Such a syllogistical model works better in theory than in practice, for a variety of reasons. The rule of law may not be able to be expressed neatly as a categorical proposition so as to form the major premise in the categorical syllogism. The third term in the syllogism, the conclusion, may not be able to be reached by pure, syllogistic reasoning from the first two terms (the major and minor premises) because of the applicable law. For example, the applicable law may vest a judicial discretion as to whether to grant relief, even if by application of the law to the facts a right, obligation or liability is found to exist. And, in the reality of actual judging, judges may work back from conclusions to principles, however heretofore obscure.

Nevertheless, the model has a simplicity and logic and, therefore, will be used to structure the following discussion of the judicial method in adjudicating environmental disputes.

Finding the law

The first step involves ascertaining which legal rule is to be applied. At times, this involves no particular difficulty. The legal rule to be applied may be prescribed by statute, either primary or subordinate, or be settled by precedent.22 If a legal rule is applicable, it must be applied and the answer it gives must be accepted.23 Having found the applicable law, the court must proceed to the subsequent steps in adjudication of determining the meaning of the rule and applying it.24

In many cases, however, this first step of finding the law is not so simple. There might be more than one legal rule or principle which might apply and the parties are contending which should be made the basis of the decision. In that event, the several rules or principles must be interpreted in order that a rational selection may be made. If none of the existing rules or principles are adequate to cover the case, then a new one must be supplied.25 It is this task of supplying a new rule or principle, and whether this involves law-making, that is controversial.

Under the classical, declaratory theory of judicial decision making, of which Blackstone was the chief exponent, judges do not, and cannot, make law, they merely discover and declare it.26 The classical declaratory theory has been trenchantly criticized as a fiction or myth.27

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23Forsch, An Introduction to the Philosophy of Law, note 19 at 50.
24Forsythe, An Introduction to the Philosophy of Law, note 19 at 50. See also Forsythe, note 6 at 103 and Cardozo, note 23 at 14-16.
28Hunt, note 26 at 372.
political and jurisdictional boundaries. The value of foreign judgments depends on the persuasive force of their reasoning.40

The increasing globalisation of environmental law and the harmonisation of international and national environmental law make reference to international and other national sources of law of assistance.41 This is particularly the case in relation to the principles of ecologically sustainable development. These principles have developed in international law but have been domesticated into national laws throughout the world. The precautionary principle, for instance, is found in international conventions and in soft law, such as Principle 15 of the Rio Declaration on the Environment and Development. The formulation of the precautionary principle in Principle 15 of the Rio Declaration has been adopted in many national laws, including in New South Wales.42 This harmonisation of principles between international and national law, and between the laws of different nations, facilitates a judge drawing guidance across borders and jurisdictions and the cross-fertilisation between laws of different nations and jurisdictions.

Thus, courts in Australia have been able to draw on foreign judicial decisions and learned academic writings to elucidate the content of the principles of ecologically sustainable development or, to use a metaphor, to provide flesh to the skeletal form in which the principles are expressed in domestic planning and environmental statutes. A clear example is the decision in Telstra Corporation Ltd v Hornsby Shire Council,43 where guidance was sought in international and foreign sources of law, as well as domestic decisions in other jurisdictions, to elaborate on the content and process for application of the precautionary principle.44

Having considered the existing law on related topics in both domestic and foreign sources of law, the judge develops competing logical extensions of the potentially applicable rules to meet the new circumstances of the case at hand and makes a choice.45

A means of developing logical extensions is reasoning by analogy. Edward Levi posits that the basic pattern of legal reasoning is reasoning by example, that is, reasoning from case to case.46 Where a precedent is binding, the rule of law derived from the precedent is applied to the case at hand. Where no binding precedent applies, a rule of law described in an earlier case or line of cases might be extended so as to apply to the case at hand because of "resemblances which can reasonably be defended as both legally relevant and sufficiently close".47 It is the judge's task to determine the legally relevant similarities and differences.

Such analogical reasoning has a logic about it in the sense that it follows "the line of logical progression".48 The new formulation will be seen as

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40 See, e.g., s 32(1)(a) of the Protection of the Environment Administration Act 1989 (NSW).
43 Jaffé, note 5 at 70.
44 Levi, note 5 at 70.
45 Levi, note 5 at 77.
46 Levi, note 5 at 77.
47 Levi, note 5 at 77.
48 Levi, note 5 at 77.

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The Art Of Judging Environmental Disputes
Justice Brian J. Preston
An illustration of development of a rule or principle along the line of logical progression, that is, the use of the rule of analogy, is the series of decisions of the Land and Environment Court of New South Wales holding that the principles of ecologically sustainable development (ESD) are relevant matters to be considered in determining an application for approval to carry out development that is likely to impact the environment.

The first case in which one of the principles of ESD, namely the precautionary principle, arose was Leach v National Parks and Wildlife Service. A local council granted development consent to itself to construct a link road through native vegetation. The road construction was likely to take or kill endangered fauna. The Council applied to the National Parks and Wildlife Service for a licence to take or kill endangered fauna under the then applicable provisions of the National Parks and Wildlife Act 1974 (NSW). The Service granted the licence but an objector appealed to the Court against the decision.

The appeal was by way of merits review of the Service's decision to grant the licence. One issue on the appeal was whether the Court, exercising the functions and discretions of the Service, could take into account the precautionary principle.

The National Parks and Wildlife Act 1974 at that time did not expressly refer to any of the principles of ESD, including the precautionary principle, either in the specification of the matters required to be considered or in the objects of the Act. Nevertheless, the then applicable s 92C of the National Parks and Wildlife Act 1974 required the Court to take into account on an appeal the public submissions made, some of which had argued that the precautionary principle was appropriate to the case, and any other matter which the Court considers relevant, which, having regard to the subject matter, scope and purpose of the Act, would include the precautionary principle. In addition, the Land and Environment Court Act 1979 provided that the Court on an appeal is to have regard to "the circumstances of a case and the public interest".

Stein J held that, while there was no express provision requiring consideration of the precautionary principle, nevertheless it was a relevant matter to be considered by means of these statutory provisions and having regard to the subject matter, scope and purpose of the Act.

The issue subsequently arose under a different enactment, the Environmental Planning and Assessment Act 1979 (NSW), in Conseco v Pittwater Council. By this time, that Act had been amended to add the encouragement of ESD as an object of the Act. However, the list of matters in s 79C(1) that a consent authority (including the Court on a merits review appeal) is required to take into account in determining a development application did not expressly refer to the principles of ESD, although the list did include "the public interest" (s 79C(1)(e)).

A commissioner of the Court had dismissed the applicant's appeal against the refusal of the local Council to approve a dwelling house and ancillary works. Critical to the commissioner's decision was his holding that the Act required the principles of ESD to be a factor in the consideration of a development application under the Act. The applicant appealed on a question of law to a judge of the Court. To succeed in establishing an error of law, the applicant had to show that the
Esd are relevant matters, McClellan J had regard to a variety of sources of law, both domestic and international. Domestic sources of law included other statutes referring to the principles of EsD, quasi-legislative policy documents, persuasive precedents in prior decisions of the Court and of courts in other Australian jurisdictions while the international sources of law consisted particularly of international soft law on the principles of EsD.

Subsequent cases have affirmed the rule that had now been articulated by these cases, that the principles of EsD are relevant matters to be considered by a consent authority when determining a development application under Part 4 of the Environmental Planning and Assessment Act 1979, under the rubric of the "public interest."

The next phase in the evolution of the rule came when the issue had to be determined with respect to applications for approval under a different part of the Environmental Planning and Assessment Act 1979, namely Part 3A concerning major infrastructure and other projects. The prior decisions had concerned development applications under Part 4. As noted, one of the matters that a consent authority is required to consider in determining a development application is the public interest in a 79C(1)(d). In contrast, Part 3A is sparse in its express specification of matters to be considered by the Minister in determining an application under that Part. There is no express specification of the public interest as a relevant consideration.

In Gray v Minister for Planning, Pain J held that, notwithstanding the absence of express specification that the public interest or the principles of EsD are to be considered, nevertheless there is an implied obligation to consider these matters. In Gray, the decision challenged was that of the Director-General to accept the proponent's environmental assessment as adequately addressing the Director-General's requirements. Pain J held that the Director-General was required to exercise the discretion as to whether to accept the proponent's environmental assessment, in accordance with the objects of the Act, which include the encouragement of the principles of EsD. Pain J also accepted the applicant's argument that the Director-General was required to take into account the public interest and that consideration of the public interest included encouragement of the principles of EsD.

By this decision, the rule was extended from decisions under Part 4 of the Environmental Planning and Assessment Act 1979 to one type of decision under Part 3A of that Act. The next extension came in Walker v Minister for Planning. Biscoe J held that the principles of EsD were relevant matters to be considered in another type of decision under Part 3A of the Act, namely that of the Minister in approving a concept plan. Biscoe J's reasoning was upon the rule developed in prior decisions concerning Part 4 of the Act that the public interest can include the principles of EsD, and extended this to the circumstances of the exercise of the statutory power there in. Biscoe J noted that a 75O of the Environmental Planning and Assessment Act 1979 mandates that the Minister must consider, when approving a concept plan, the Director-General's report on the project and the reports and recommendations contained in the report. Clause 85 of the Environmental Planning and Assessment Regulation 2000 requires the Director-General to include in the report "any aspect of the public interest that the Director-General considers relevant to the project". Biscoe J held that the reference to
result, Stone observes, is that "[i]n such cases if these standards are properly administered the 'propositions of law' will vary in content from time to time."^\textsuperscript{90}

Finally, there is indeterminacy inherent in the common law system of precedent.\textsuperscript{97}

The task of interpreting the law is a necessary incident of the judicial function. As Marshall CJ memorably pronounced in Marbury v Madison,\textsuperscript{93} "[I]t is emphatically the province and duty of the judicial department to say what the law is."\textsuperscript{94} This task includes stating authoritatively what the words of a statute mean.

In undertaking the task of interpretation, the Court will be guided by the principles of statutory interpretation.\textsuperscript{99} There have been, and still are, different judicial approaches to statutory interpretation. The three main ones are the literal rule, now called textualism, the golden rule, now called contextualism; and the mischief rule, now called purposive interpretation.\textsuperscript{86} Austin and Pound have discussed the distinction between genuine or proper interpretation, and spurious or improper interpretation.\textsuperscript{89} Genuine interpretation includes determining which of two or more co-ordinate rules to apply and what the law-maker intended to prescribe by a given rule. Spurious interpretation includes meeting deficiencies or excesses in rules imperfectly conceived or enacted.\textsuperscript{89} Spigelman has explored the ramifications of legitimate and spurious interpretation in the context of statutory interpretation and human rights.\textsuperscript{99}

In the environmental context, it would be spurious interpretation for a court to cure what it perceived to be deficiencies in the statute by making, unmaking or remaking the law to promote or better implement environmental goals, however worthy, such as achieving ecologically sustainable development. However, this is not to say that a court cannot adopt a construction of the statute which promotes or better implements environmental goals, if to do so is consonant with and required by the principles of genuine interpretation. Indeed, courts have, through genuine interpretation, construed many planning or environmental laws to require consideration of the principles of ecologically sustainable development. The line of decisions referred to earlier is an illustration.\textsuperscript{100}

The effect of the exercise by the court of its interpretative role may be to make law, even though this may be interstitial.\textsuperscript{102} As a result of this incremental process, Fuller observes, "no enacted law ever comes from its legislator wholly and fully 'made'".\textsuperscript{103}
government in trust for the benefit of present and future generations. The concept of the public trust was invoked by Stein J in Willoughby City Council v Minister Administering the National Parks and Wildlife Act in relation to national parks. His Honour used this concept to reject the submission made by the government agency that had been found to have acted ultra vires in approving a building in a national park, that the Court should withhold declaratory and injunctive relief.

Conclusion

Adjudication of environmental disputes does not stand in a unique position, separate from the adjudication of other disputes. The art of judging environmental disputes involves the same technique and logic as judging other disputes. The role of the judge is, simply, to uphold and apply the law. This task involves the steps of finding, interpreting and applying the law. There are, in each of these steps, leeways of choice. But the choices are constrained. Judges must adjudicate in accordance with principle and reason, technique and logic, to ensure consistency and predictability, and public confidence, in the administration of justice.
Abstract

This article focuses, in the first instance, on the writing of Harry T. Edwards, Emeritus Circuit Judge, United States Court of Appeal for the District of Columbia, Washington Circuit, by specifically addressing his paper entitled, “The Effects of Collegiality on Judicial Decision Making” (2003)151 Pennsylvania Law Review 1639. Thereafter the article proceeds to apply to his theory the empirical data recorded in the interviews conducted with bench members in Delhi, Pune, Bhopal, Chennai and Kolkata. This combination of theory and practice offers an account of the processes by which NOT Benches reach their conclusions through a process that Edwards describes as “collegiality”. This article deals with the issues that contribute towards the composite of collegiality: leadership, the bench (composition and team work practice), dissent, precedent and interpersonal communication.
Collegiality

Edwards is clear that 'collegiality' reflects best practice that results in good appellate judgments. He bases his conclusion on his bench experiences over a period of twenty-three years. Collegiality results in a 'process' that creates conditions that ultimately produce a principled agreement: the judgment. He does not accept that collegiality is founded simply upon friendship, homogeneity or conformity. Instead it is a matter of common concern to get the law right. To quote, "collegiality plays an important role in mitigating the role of partisan politics and personal ideology by allowing judges of different perspectives and philosophies to communicate with, listen to, and ultimately influence one another in constructive and law-abiding ways." 

This is not to deny that individuals have personal, social or political positions that might influence their decisions but rather the overriding process of collegiality helps ensure that decisions are not pre-ordained as a consequence of these extraneous relationships, thoughts and influences. This process is not unstructural. It is a sophisticated combination of rules, customs, routines, legal obligations, leadership skills, mutual trust, personal confidence and the shared belief in common goals. Together, they create the process of collegiality.

The elements of collegiality are as follows:

Leadership

Successful companies reflect the decisions of informed CEO's, organisations similarly benefit from the guidance of able chairpersons as do courts from strong leadership. Professor David Danelski applied 'small group' analysis to the decision making process in the US Supreme Court. He identified two roles associated with a leader seeking effective decision making. The first is 'task leader' and the second is social 'leadership.' Tasking requires the "exercise of effective leadership concerning decisional outcomes. Leadership is affected by personality, esteem within the court, intelligence, technical competence and persuasive ability." On the other hand, social leaders look to the emotional needs of the court and tend to be warm, receptive, responsive and respected. He argued that it is possible for the 'leader' to undertake both roles successfully.

I now apply this analysis to the NGT and in particular to the role of the Chairperson. Justice Swatanter Kumar. Justice Swatanter Kumar told me that he saw himself as the leader of a team that he was involved in selecting. He sought experience, character and awareness that would make them effective judges of environmental matters throughout India. Justice Swatanter Kumar stated "I am really very happy with the experts. All the experts have been picked up by me. I was a judge of the Supreme Court and the Chairman of the Selection Committee. So I have made some contribution in this regard. I find these people extremely good in their field."

Justice Swatanter Kumar's standing is described by the members of the bench and the bar in the following terms: "He is a great judge. He is well known for his honesty, integrity and excellent behaviour. In his court the scales of justice have
Deliberation is one of the most valued components of collegiality. The rules that structure this activity bring the judges together as a group. Collegiality has a function in institutionalising judges into shared understanding and action particularly if the size of the bench is small. Chief Judge James Harvie Wilkinson of the Fourth Circuit argued that “one engages in more fruitful interchanges with colleagues whom one deals with day after day than with judges who are simply faces in the crowd.... Smaller courts by and large encourage more substantial investments in relationships and in the reciprocal respect for differing views that lie at the heart of what appellate justice is about.”[9] For example, Edwards cites that the senior judge may preside and either commence discussion or conclude it or both. A draft opinion might be written, circulated in advance and then considered by the bench members. His point is that a structure is established by agreement and thereafter applied. These procedures and deadlines promote a routine and understanding of how to work together. Thereafter, new members of the bench are introduced to an established procedure based upon collaboration and collegiality.[10]

The NGT is collegial as illustrated by its deliberative process of drafting a judgment. Conformity and cohesion is reflected in the team work and collective practice exercised throughout the five benches. The lead provided by Justice Swatanter Kumar to the team work practice is based upon a collaborative approach. According to the Chairperson “what we do is to have a pre-hearing conference and a post hearing conference. Normally even while passing a small order, I like to interact with the judicial and expert members so that there is complete cohesion and unanimity because sometimes what you think may be wrong and what the other person may suggest is right. I give full margin to that possibility. Secondly, whenever authors the judgment, we have a pre-writing session where we discuss the facts and I and other judicial members state what is the law and the legal position. Then the experts tell us the technical aspects. I ask the technical members to give me a short note. Then we consider it. Then I or another judicial member or expert member prepares a draft. Next we deliberate the draft. Then we get in writing an agreement by each expert and judicial member. Ultimately, the judgment is finalized. It is a process so far we are handling well. I hope that things will go even better with time.”[11]

The three experts, Mr R C Trivedi, Mr D K Agarwal and Mr G K Panse sitting on the Principal Bench in Delhi find this process of drafting a judgment extremely valuable. All agreed that “we always have a discussion before we go to the court on the important issues in the morning at 10.00am in the Conference Room. We sit together and talk. This is one platform. But also for writing every judgment a technical note is required by the judicial member who is writing the judgment. Many a time the entire technical note is reproduced and forms part of the judgment. We have never had a dispute as we always discuss and have an agreement before we pronounce the judgment. The final judgment is always written in a draft form circulated to all the members who will sign the judgment. Every member reads it and has a right to correct or delete or modify even if it is a major part of the judgment. This is allowed at this point. Finally the judgment is signed and pronounced. This is a practice followed in NGT and is a procedural requirement as stated by our Chairperson. Though there are no written rules it is a practice we follow. The Chairperson always says that you have the full right to make any correction, or addition or deletion or suggestion. Everything is allowed.”[12]

The Kolkata Bench follows a similar procedure. According to Justice P Jyothimani and Prof (Dr) P C Misra “before the matter is taken up, the papers are circulated to us. Individually we go through the papers. Both of us come prepared. We sit in the court with an open mind. We hear the parties. In a case where technical issues are raised, we discuss the
Dissent

Edwards claims that inter-personal attrition and fixed positions are likely to produce ideological differences, intrasense and thereafter dissenting judgments whereas what litigants and the public request is a clear statement of the law rather than a collection of differing opinions.  

With this point in mind it is important to note that the NGT has yet to carry a dissenting judgment. For instance, the judges of the southern bench, Chennai, stated "As we are of the same mind, frequency and are on the same track there is no reason for dissent. We go through the papers, in detail, have discussions and thereafter we reach agreement. We have on no occasion dissented from one another. We hope that it will continue. We do not know the meaning of dissent in this context! We work towards our goal and see no reason to dissent. Both of us are interested in the environment and sustainable development. Dissent has never come and should not come."

According to the Pune bench "there is no dissent per se. What we try to do is discuss the matter and see that there is no controversy. There should be confidence of thought. We should give proper direction to the thinking process resulting in the delivery of justice. This is the proper methodology to apply to the matter. However, if disagreements ever come up, then they are sorted through discussions prior to writing the judgment."

The same procedural view was expressed by the Kolkata bench, "we arrive at a consensus. As per the NGT Act 2010 every member gives his opinion. There has been no situation where there is dissent. However, if there is disagreement we discuss with the other members to solve the matter. Dissent may happen in course of time but at present there is consensus."

Bhopal bench members reported "It is not that we don't disagree. We have to arrive at a conclusion. Therefore, we consult and arrive at a conclusion. Till this time we have not come across dissent. We are making law. We cannot say that everybody is 100% correct. Our judgments are going to be tested by the Supreme Court. So ultimately, the best thing will come out. In some cases, we may not agree on some points, but ultimately in the interest of environment, we come to an agreement."

Precedent

For Edwards the importance of precedent is associated with collegiality.  

Collegiality functions as a catch phrase that captures these norms of judging. Justice Cardozo said "precedents fix the point of departure from which the labor of the judge begins." In Allegheny General Hospital v. National Labour Relations Board the United States Court of Appeals for the Third Circuit stated "a judicial precedent attaches a specific legal consequence to a detailed set of facts in an adjudged case or judicial decision, which is then considered as furnishing the rule for the determination of a subsequent case involving identical or similar material facts and arising in the same court or a lower court in the judicial hierarchy."

The NGT applies precedent in deciding cases. In Nirma Limited v. Ministry of Environment and Forest, Justice Swantantra Kumar Chairperson stated "from the above dictum declared by the larger Bench of NGT which is binding upon this Bench..." All the zonal benches unequivocally affirmed the binding nature of the doctrine of precedent. The
surveillance, the final degree of order comes from human institutions. This applies equally to the disciplines of environmental studies, environmental management and environmental law.

Conclusion

The nature of judge craft is that ultimately the court is constrained to arrive at a decision and thereby establish the law. Over time judges become more confident in their roles and in their colleagues. They may become more flexible, open to persuasion and less entrenched. They may also become more ambitious in their thinking and thereby in their decisions. Initially, a new court such as the NGT may commence with narrow statutory interpretations and strict rule application. However, over time such thinking might be joined by purposive interpretations of statutes, policy-based decisions and even policy development suggestions or requirements. Edwards' assessment is that an experienced court, led by a strong leader, with a small, diverse bench that has worked together over a period of time, enjoying a clear understanding of purpose and of the internal court rules will through the process of collegiality find common ground and arrive at better and better decisions. Such an analysis appears to this author to identify the NGT as "collegial" in terms of its establishment, strong leadership, small, diverse bench membership, its decision making processes and ultimately its decisions which reflect commitment to the environment and sustainable development and also to the larger interests of the people.


NGT, Judge Craft, Decision Making and Collegiality
Dr. Goutam K. Giril
Abstract

State lawlessness has put India on a path of unconstitutional economic development. The Constitution of India mandates that primary education, public health, nutrition and an adequate means of livelihood shall be principles "fundamental in the governance of the country". Under the international economic model marking a country as developed on the basis of the percentage of its population in agriculture, industry or services, official economists of India's Planning Commission have successfully pushed through successive Central Governments, the pushing out of the majority of India's village population from agriculture to city slums without any information, consent, law or executive order. Even though the official economists knew this consequence of driving millions into illegality to occupy any urban land, yet no planning/resource allocation was done for this massive migration. This defeats each of the constitutional principles, leaving no hope for sustainable development based on official quantification, research and advertising of the Indian way of life of living with and not against nature. The officially documented corruption of the political class explains why sustainable development is never an issue in Parliament or in the elections. Official legal aid for the poor has still to wake up to this unconstitutional treatment of India's villagers and the fundamental rights issues of sustainable development that it raises. Consequently the 1995 Supreme Court's binding judgment on how any ruling political party is to allot natural resources for ensuring sustainable development, remains unimplemented. The Supreme Court in 1999 reaffirmed the sustainable development and precautionary principles but its subsequent judgments in 2000 and 2006 clouded these. With the Supreme Court refusing to find time for the Ganges and the Taj Mahal pollution cases there is little hope of revival of even the legal debate on sustainable development.
Planning commission

The lawless State has been created by the
Government of India's Planning Commissionª
pursuing economic development minus this
mandatory requirement of social justice in Art. 37
as the beginning point and as an integral part
of economic planning. This mandatory constitutional
obligation required the Planning Commission to
publicly state in each of its Five Year Plans for the
economic development of India, the social justice
implications of each segment of the plan. It also
required the Union Government to state the social
justice implications of each segment of its annual
financial statement (budget), monetarily quantifying
its proposed expenditure outlays and revenue
raising proposals, before Parliament, as correlated
to the Five Year Plans. In short, the Constitution
mandated social justice for all Indians beginning
with the expected social justice deliverables of
each segment of the Plan correlated to the annual
budget and ending with the social justice impact
or actual outputs of official economic planning.
The Directive Principles mandated an economic
development based on such planning and the raising
and spending of money for this purpose through
Consolidated Fund of India under Art. 266 and
 Appropriation Bills under Art. 114 of COI.

This sole and mandatory constitutional method
has never been adopted by the Indian State since
independence. The Indian State through its Planning
Commission and Annual Budget has kept economic
developmentª and social order in two separate
compartments instead of as one integral unit
which required it to think out what is a just social,
economic and political order required and then
tailor economic development policy accordingly.
Instead, the mandatory constitutional principle of
Art. 37 has been turned on its head by executing
an economic development policy and dealing
with its adverse social consequences as and when
they become politically visible or internationally
embarrassing.ª Accordingly, the Indian State's
economic development policy, proposals, planning
and funding rests on unconstitutional economics by
taking social justice out of economic development to
render such development inherently unsustainable
for all Indians.

This duality continued the pre Constitution British
culture of the governing culture, language and
decision having nothing to do with the Indians as
subjects and was reinforced by the constitutional
continuation of existing British laws, British
power and privileges for the governing class, the
British cabinet system run through the British style
administration, British police and armed forces and
British court systems without any accountability,
meant for subjects and not for citizens. Hence
national governance and economic planning system
in independent India had nothing to do with the
political system of elections in independent India
based on the vernacular and the local in which
people demanded economic goods to end their
suffering, as part of their share of justice social.

ªExercising its executive power under Art. 73 of the Constitution of India read with Entry 20 "Economic and Social Planning", List III, VIIIth Schedule of GOI, the Union Government by a Resolution on March 13, 1950 constituted the Planning Commission with functions inter alia of assessing the material, capital and human resources and determination of the provision and allocation of resources for completing each stage of the Five Year Plans formulated by it. For
constitution of the Commission into a political body, see Prasanna Franks, India's Political Economy 1947-2004, 2nd Ed., Oxford University Press, New Delhi at pages 150-156.

ªOn August 12, 1952, the Union Government constituted the National Development Council (NDC), consisting of the Prime Minister as Chairman, Union Cabinet
Ministers, Chief Ministers of States and Members of the Planning Commission. The Planning Commission prepares the Draft Five Year Plans in accordance
with the guidelines of the NDC. The Union Govt. constitutes through the Planning Commission the giving of print-in-aid under Art. 282 to the States, according
to the Revised Quota formulas approved by the NDC on Dec 23-24, 1991, the granting or guaranteeing of loans to States under Art. 299 and the Central Govt.
assistance for Component Sponsored Schemes over and above the assistance to State Govt. for the Plan. The Formula provides a basis of Art. 300 that social order
for ensuring sustainable development through the financial transfers to State. Meanwhile the Planning Commission has effectively supplanted the quasipopular
constitutional body, the Finance Commission under Art. 265 in terms of its functions under Art. 282(3).

ªThe entire agricultural plan of the Fourth Plan (1969-74) was based on the dictates of the U.S. President Lyndon Johnson's administration for particular
adjustments in indigenous food policy, after India's Agricultural Minister, Shri C.S. Subramaniam had traveled in Nov 1963 to the U.S. to study the U.S. Dept of
Agriculture and then in Dec 1963 to Rome for an item by item studying by U.S. Secretary of Agriculture Orville Freeman, including plans for greater foreign

Sustainable Development in A State
Of Unconventional Economics.
Professor Kiritan Mohagin
This example recurs in local materials based house construction by local methods and local architecture, local foods for their natural nutritional and protection against disease value, washing of clothes by local plant based materials, customized production of cloth, leather, shoes, clothes using water for morning ablutions instead of paper, vegetable dyes instead of chemical, indigenous methods of keeping houses cool in extreme tropical temperatures indigenous methods of water storage and conservation, of dispute settlement and so on.

The Planning Commission or the Union Ministry of Culture have never ensured under Art. 29 of COI, the quantification, recording and investigation of the ecological cum health benefits of this varied culture of living with nature to make this national funding and revenue raising resource for ensuring a just socio-economic and political national order based on the composite national culture of consumption and demand in India. As this Art. 29 cum Art. 38 approach of the COI was never quantified by the Planning Commission, there was no possibility of Art. 38 becoming the fundamental principle of governance of Indian economic planning. This is clearly shown by the various growth models used from the First Five Year Plan onwards.

The First Five Year Plan, 1951-56, had declared that “the future of land ownership and cultivation constitutes perhaps the most fundamental issue in national development. To a large extent the pattern of economic and social organization will depend upon the manner in which the land problem is resolved and that sooner or later the principles and objectives of policy for land cannot but influence policy in other sectors as well.” The way of life and social order revolves around land. But since the Planning Commission simply ignored Articles 29 and 38, culture and the social order as the basis of social political and economic justice, the land reforms, after some initial success at zamindari abolition, ended in failure.

Consequently the sprawling official Indian science establishment of agriculture and industry was never turned to apply research and scientific methods to improve the living cultural heritage of India with its livelihoods and felt economic and ecological benefits. In short, the modern scientific knowledge of that minority segment of the population, called the highly qualified Indian, was used to extravagantly chemicalize and plasticize Indian consumption, demand and life style by calling it modernization.

Research, the application of science and advertising was turned only towards this modernization and completely away from the Indian way of life and its products. At the most such products were given a separate slot by the State under the Khadi & Village Industries Act to create long supply chains from villages to urban concentrations. The mandatory Directive Principle of governance by the State – a social order for all of social, economic and political justice—thus stands unconstitutionally bypassed, as no such social order is possible which ignores the cultural heritage or the evolved social organization of the Indian people.

The cultural base of sustainable development for all Indians exists but remains unrecognized by the State. When the State recognizes a portion of it by law or by funding a scheme the integrity of socio-economic planning is broken as only some part of the social is recognized as a stand alone item. In the absence of a social policy that drives economic policy, as required by the directive principles, the Indian state is only an economy driven by the demonstration effect and the demand for western style of living by about 200 million urban Indians out of 1.2 billion, regardless of the differences of climate, numbers and ways of life, as compared to the advanced countries.

17Fourth Five Year Plan (1969–1974): The High Yielding Varieties programme, the key component of agriculture sector planning, was dependent on fertilizers and pesticides.

Sustainable Development in A State Of Unconstitutional Economies
Professor Kirit Mani Mehta
Consequence of effacing Art. 29 & 38

Having created these problems by violating the directive principles, the retention of legality of the legal system has become highly problematic. The mandatory directive principle of free and compulsory primary education for all children in India till the age of fourteen was not implemented. The Supreme Court while dealing with a case of college technical education addressed this issue of illiterate children in India despite the Directive Principle. Without any facts before it of the scale of the problem and the finance required for it and without any analysis of the economic development model that had led to this state of national illiteracy, the Supreme Court declared that free primary education was a fundamental right.

This conversion of the Directive Principle for free primary education into a Fundamental Right meant that India's 0-14 children and their parents could now move the court for enforcement of this Directive Principle, since the Constitution declares that the Directive Principles are not enforceable in a court of law but the Fundamental rights can be enforced. This further meant that against State violation of this fundamental right the victims of the violation, children and their parents, could claim compensation from the State. While declaring primary education to be a fundamental right as without such education the fundamental right to life becomes meaningless, the Supreme Court shut its eyes to the question as to how an admittedly illiterate and poverty ridden population will enforce this declaration made by it.

The National Legal Aid Scheme administered by the Supreme Court itself, under the Legal Services Authorities Act, 1987, was not directed by the Supreme Court to ensure the enforcement of the newly created fundamental right by the Supreme Court. When petitions were filed before it against the non-compliance with its order on primary education as a fundamental right, the petitioners were orally told to go from high court to high court throughout India and seek orders for implementation of the Supreme Court's order. Their petitions were dismissed.

As the official language of the Supreme Court, even sixty years after independence, continues to be only English, the order making primary education into a fundamental right against the Indian State was in English. The Supreme Court while recognizing the illiteracy and the need for a literate population at the base of democracy, did not direct the countrywide machinery of publicity to translate its order in various languages and communicate the same to rural India.

Triply illiterate India—in the vernacular, in English and in elementary law of fundamental rights under the Constitution—was deprived by the Supreme Court of the knowledge of an order that could have enabled its citizens to understand the development process, which reduced them to subjects from the constitutionally guaranteed status of citizens and thereby to claim their right to sustainable development based on their culture, their way of life enriched by in situ application in the villages of the State funded modernizing science and technology.

Twin consequences

Having excluded citizens effectively and without their knowledge or consent from the economic development process initiated through the Five Year Plans, two consequences arose. Firstly that of corruption and secondly of organized violence against the State. To counter the violence, the Five Year Plans now started speaking of inclusive growth and several schemes by Union or Central...
of no right to be informed and no right to legal help from the State to ensure the receipt of all this by those for whom it is legally meant.

Ruling politicians and cabinet consisting of smart internationally educated economists, lawyers and business administrators as Ministers, do not bother to educate the voter in their election campaigns to seek alternative constitutional development, to tell them what unconstitutional economics has done to them, to mentor them towards demanding the right to be informed and not merely the right of information.23 Politics in India is not the logic of ideas but the logic of getting votes somehow through competitive shaming, running down and unaccounted funding. Unquantified suffering at the hands of official economists and quantified voting attracting welfare schemes, through politicians seeking votes from the sufferers of economic planning, completes the political economy of Bharat.

Efficient legality: corruption

The logical result of this is another blow to sustainable development—large scale corruption. Almost every single scheme to catch the voice of the voters kept uninformed and without legal help to secure their entitlement under the schemes, ends up in public money disappearing in the execution of these schemes by the ruling politicians and their civil servants, even though India has one of the most educated, trained and skilled administrative services at the all India and State levels for delivering these schemes to Bharat.18 The reports of the constitutional authority called the Comptroller and Auditor General document the scheming away of such schemes, whether for the allocation of natural resources to private enterprise for tackling water pollution or for taking care of poverty under the National Rural Employment Guarantee Act, or of constitutionally protected categories like women, children, Scheduled castes and Scheduled tribes.24

But can anything be done if the entire election system on which democracy is based, becomes corrupt. According to the publication "Urgency of Electoral Reforms" Dr S.T. Qureshi, former Chief Election Commissioner of India, stated on April 1, 2013, during the Vaiphei Memorial Lecture of the Media India Center for Research & Development, Gurgaon, Haryana, that the money for political parties comes from "a nexus with black money, money of the criminals with a specific purpose wanting a return on the investment. Obviously, the day such a Member of Parliament becomes a Minister, he will call his bureaucrats and say, I have spent Rs 5-10 crore on election and have to return this money, so please start paying me. Obviously a bureaucrat who will collect money for the minister will pocket some and that is how the nexus between the bureaucracy and the politician begins. When that happens there is no stopping corruption. Unfortunately and ironically, election has become the root cause of corruption".

The main speaker at the Memorial Lecture, Dr Subhash C. Kashyap, former Secretary General of the Lok Sabha, declared: "During recent years, the composition of our legislatures, the conduct of our legislators and Ministers and the goings on in..."
private development projects converting thousands of hectares of agricultural land into roads and projects under the State of Uttar Pradesh without the prior consent of the Union Agriculture Ministry's agriculture land use boards.

Corruption and environment were found in the Taj Mahal case when the Supreme Court convicted the Chief Minister of Uttar Pradesh in the Taj Mahalsa case. The court dismissed the case because the informer filed an FIR against the Chief Minister of Uttar Pradesh for the illegal occupation of the Taj Mahal. The court directed the Central Bureau of Investigation (CBI) to conduct a full investigation and report on the facts of the case. The CBI submitted its report, which concluded that the Chief Minister was not involved in the case. The court accepted the report and dismissed the case.

State responds to violence

Some of India's educated young concluded that the Indian State was so structured as to be unable to deliver justice to the poor, despite its laws and despite orders of court. A Naxalite movement started in the State of West Bengal advocating overthrown of the Indian State. This spread to the forest, mining and tribal areas of India, resulting in the formation of armed cadres which attacked the security forces of the Indian State. The response of the Indian State was to counter this by heavy deployment of special security forces and provisioning for infrastructure as also Intensive Area Development which earlier, had never been delivered to these areas. After having ignored Art. 29 and 38 for an economic development that would usher in a just social order, the same Planning Commission now made schemes for the same purpose under the compulsion of this "internal security threat".

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unconstitutional economics, some persons turn to the Supreme Court. The Supreme Court is in serious problems concerning its appointments, transparency of its judges, its administration, and conduct of its judges. It passes glorious orders if and when it chooses to hear on a priority basis cases reflecting suffering or corruption. It does this by even Claiming the right to legislate via interim guidelines till Parliament passes a law on a subject. Like the grand laws of Parliament, the glorious orders of the Supreme Court are not implemented. Nothing effective can now be done through the constitutional institutions of governance since the Constitution of India gives powers privileges and immunities to those manning these institutions without any provision to hold them accountable for the constitutional obligations in their own jurisdiction. Hence sustainable development interrogates the constitutionalism of the Indian State in terms of the fundamental principle of constitutional governance of having an economic development that ensures a social order of social, economic and political justice for all Indians.
Abstract

For sustainable development, it is absolutely necessary to have effective environmental policy design with in-built control mechanisms such as Environmental Impact Assessment (EIA), to minimize the hazardous impacts of the developmental activities on the environment. Keeping this in mind Govt of India, made EIA mandatory in 1994 and subsequently amended and elaborated its scope in 2006. However, there are large deficiencies in the procedures resulting in weak assessment, improper decision and poor implementation. A major weakness of EIA is the general lack of follow-up monitoring, which results in EIA exercise ineffective and futile. The EIA are generally carried out on individual projects, their cumulative impacts are hardly assessed. Impact of agriculture on environment is very large, is not in purview of EIA. EIA is carried out by the project proponent or a consultant hired by him whose primary interest is to procure clearance for the project proposed and thus chances of EIA being biased is high. There are large number of procedural deficiencies pointed out in the present practice of EIA in the paper.
Guiding principles of EIA good practice

Purposive - EIA should meet its aims of informing decision making and ensuring an appropriate level of environmental protection and human health.

Focused - EIA should concentrate on significant environmental effects, taking into account the issues that matter.

Adaptive - EIA should be adjusted to the realities, issues and circumstances of the proposals under review.

Participative - EIA should provide appropriate opportunities to inform and involve the interested and affected publics, and their inputs and concerns should be addressed explicitly.

Transparent - EIA should be a clear, easily understood and open process, with early notification procedure, access to documentation, and a public record of decisions taken and reasons for them.

Rigorous - EIA should apply the 'best practicable' methodologies to address the impacts and issues being investigated.

Practical - EIA should identify measures for impact mitigation that work and can be implemented.

Credible - EIA should be carried out with professionalism, rigor, fairness, objectivity, impartiality and balance.

Efficient - EIA should impose the minimum cost burden on proponents consistent with meeting process requirements and objectives.

Present practice of EIA in India

Environmental impact assessment (EIA) was first introduced in India based on the Environmental Protection Act (EPA), 1986. But formally it came into effect, when Ministry of Environment and Forest (MoEF) has passed a major legislative measure under EPA in January 1994 for Environmental Clearances (EC) known as EIA Notification, 1994.

Subsequently, EIA processes have been strengthened by MoEF by a series of amendments. The legal regime of EIA in India is said to have developed through three important phases namely, phase I consisting of the pre-1994 era, phase II consisting of 1994-2006 era and phase III consisting of post 2006 era. Since its inception, the scope of EIA norms in India, has gone through massive transformation. The current practice is adhering to EIA Notification, 2006 and its amendments. The pieces of evidence collected and analysis in the present assessment suggest that, despite a sound legislative, administrative and procedural setup EIA has not yet evolved satisfactorily in India. An appraisal of the EIA system against systematic evaluation criteria, based on discussions with various stakeholders, EIA expert committee members, approval authorities, project proponents, NGOs and consulting professionals, reveals various drawbacks of the EIA system. These mainly include, inadequate capacity of EIA approval authorities, deficiencies in screening and scoping, poor quality EIA reports, inadequate public participation and weak monitoring. Overall, EIA is used presently as a project justification tool rather than as a project planning tool to contribute to achieving sustainable development. The EIA system in the country is undergoing progressive refinements by steadily removing the constraints. The paper identifies opportunities for taking advantage of the current circumstances for strengthening the EIA process.

Procedure for EIA

The entire procedure of EIA is summarised in Figure 1 and 2 as follows (the details are available on MoEF Website).

Major drawbacks in existing EIA procedure

7.1 EIA studies responsibility

The Impact study is to be carried out by the project proponent. He may hire consultant or institution for the service. This is a big drawback. Since the consultant is hired by project proponent,
the consultant always tries to defend the project proponent and justify the project site. He may not include the most vulnerable aspects of environment in the EIA.

7.2 EIA applicability:
There are many projects having high impacts are exempted from the EIA as follows:

- Agriculture
- Projects with investments less than what is provided for in the notification
- Defense-related road construction
- Railway projects are explicitly exempted from the EIA notification
- Nuclear establishments

7.3 Compliance monitoring, institutional arrangements.
While granting environmental clearance several conditions are imposed on the project proponent. The compliance of these conditions has to be
- Are the impacts important?
- What are the remedial options?
- How decision makers can be communicated on appropriate remedial options?
- In order to answer the above questions various impacts through the use of checklist, matrices, networks, overlays, models and simulations are identified.
- Compilation of a list of key impacts
  - Impacts on air quality,
  - Impact on water quality,
  - Impact on land use,
  - Impact on soil quality,
  - Noise levels,
  - Wild life habitats,
  - Species diversity,
  - Landscape views,
  - Social and cultural systems,
  - Settlement patterns and
  - Employment levels etc
- Due to lack of reliable data both primary and secondary, not consulting the indigenous knowledge and doubtful credibility of data collected by study team, this exercise is always weakest in the whole EIA.
- The impacts are predicted scientifically based on the various relations that are established through research all over the world and considering the complexity of the synergetic/antagonistic consequences under the prevailing environmental conditions. Many times the predictions are based on simulation models using single environmental parameter into many permutation combination conditions.
- The predictions are on physical, chemical, biological, socioeconomic and anthropological environment. In quantifying impacts, different mathematical simulation models, physical models, socio-cultural models, economic models, experiments or expert judgments are employed. So along with each attempt to quantify an impact, the assessment should also quantify the predictions uncertainty in terms of probabilities or margins of error.
- The next step is to assess and predict the nature and magnitude of impact. The impacts are predicted scientifically based on the various relations that are established through research all over the world and considering the complexity of the synergetic/antagonistic consequences under the prevailing environmental conditions. Many times the predictions are based on simulation models using single environmental parameter into many permutation combination conditions.
- The predictions are on physical, chemical, biological, socioeconomic and anthropological environment. In quantifying impacts, different mathematical simulation models, physical models, socio-cultural models, economic models, experiments or expert judgments are employed. So along with each attempt to quantify an impact, the assessment should also quantify the predictions uncertainty in terms of probabilities or margins of error. Any prediction technique by its nature involves some degree of uncertainty and large number of assumptions. Moreover, these models are developed in Western Countries may not have good relation to the condition prevailing our country.
- Once the impact is assessed, it is important to evaluate the impact in terms of its significance enough to warrant mitigation. The judgment of significance should be on comparison of impacts with laws, regulations or accepted standards, consultation with the relevant decision makers, reference to pre set criteria such as protected sites features of species, and
For environmental appraisal and clearance the Ministry of Environment and Forests, Govt of India is the nodal agency. The Environment Division plays a key role, but the Forest and Wild Life Divisions are consulted when projects involve diversion of forestland or the alignment of roads and highways along or within the wild life areas. For environmental clearance the project proponent has to submit an application to the ministry of Environment and Forests, New Delhi in the standard Proforma specified in the EIA notification.

The application is assessed by the Impact Assessment Department in the MoEF. The Department may consult a committee of experts constituted by it or other body authorized by it in this regard, if necessary. The committee can enter or inspect the project site during or after the commencement of the project. The Department prepares a set of recommendations based on technical assessment of documents and data furnished by the project authorities or collected during visits to sites or factories and details of public hearing. The assessment shall be completed within 90 days from receipt of documents and data from the Project authorities and completion of public hearing and decision conveyed within 30 days thereafter. If granted, the clearance shall be valid for a period of five years for commencement of the construction or operation of the project. For the projects that require site clearance, it is generally assumed by proponents that if site clearance is granted, environmental clearance will follow and they start construction like housing colonies, roads etc, even before the environmental clearance is granted.

Many times the affected peoples are informed just few days before the stipulated date of public hearing and they may not be able to understand the impact or may not be able to participate. It is very important to give importance to the opinion of the public. Many times the public particularly the tribal people are ignorant about the adverse impacts. Many projects are proposed in the resource rich tribal and rural areas. Due to lack of awareness and the inherent social conditions in such areas, such as lack of literacy and the simple nature of Tribal, people are easily convinced and lured by the prospect of money and jobs. Many projects of significant environment impacts have been excluded from the mandatory public hearing process. Many times it takes long to educate the people about the true nature and impacts of the project and getting them to forcefully raise objections and issues of concern. In many cases it is found out that the owners of the project employs antisocial peoples to suppress the voices of people during the public hearing. The local administration may also support the project owner. The Pollution control boards, which are responsible for conducting the public hearings, are not equipped in terms of manpower or infrastructure. The notification does not prescribe clear and well defined guidelines for conducting the public hearing. The hearing of the expenses involved in conducting the public hearing are not dealt with by the notification. This is another problem with no clear answers. The documents which the public are entitled to are seldom available on time. The notification prescribes a number of places where one can access these documents, but does not stipulated who is responsible for ensuring that the documents are made available at these locations. The mentioned websites are often not updated. The result is that one seldom finds the documents available at the designated locations. In many cases minutes of public hearing or recommendations of the public hearing panels do not reflect the actual proceedings and objections raised. Further the recommendations of the public hearing panel are only advisory and it is not mandatory for the impact assessment agency to even consider these while granting environmental clearance to projects.
Central Courtyard, National Green Tribunal
Principal Bench, Ferozepur House, New Delhi
Abstract

Pesticides are group of chemicals that are purposely applied to the environment with aim to suppress plant and animal pests and to protect agricultural and industrial products. However, the majority of pesticides during their application also affect non-target plants and animals. Repeated application leads to loss of biodiversity. Many pesticides are not easily degradable, they persist in soil, leach to groundwater and surface water and contaminate wide environment. Depending on their chemical properties they can enter the organism, bioaccumulate in food chains and consequently influence human health. Overall, intensive pesticide application results in several negative effects in the environment that cannot be ignored. Several steps have been taken to regulate the use and restrict the concentration in the environment. This paper summarises some of the important regulations on pesticide use and also spells out the effects of the pesticides on environment.
get into water via drift during pesticide spraying, by runoff from treated area, leaching through the soil. In some cases pesticides can be applied directly onto water surface e.g. for control of mosquitoes. Rapid transport to groundwater may be caused by heavy rainfall shortly after application of the pesticide to wet soils.

During 1990, herbicide Atrazine and Endosulphan were found more often in surface waters in the USA and Australia due to their widespread use. Other pesticides detected included Pronofos, Dimecoate, Chlorodane, Dimuron, Prometryn and Phenamuron (Cooper 1990).

More recent studies also reported presence of pesticides in surface water and groundwater close to agriculture lands over the world. High levels of pesticides chlordane were detected in coastline, rivers, sediments and groundwater in the Caribbean island of Martinique due to its massive application on banana plantations (Boquené and Franco 2005).

### 3. Effects on organisms

#### a. Soil organisms

Soil microorganisms play a key role in soil. They are essential for maintenance of soil structure, transformation and mineralization of organic matter, making nutrients available for plants. Although soil microbial population are characterized by fast flexibility and adaptability to changed environmental condition, the application of pesticides (especially long-term) can cause significant irreversible changes in their population. Inhibition of species, which provide key process, can have a significant impact on function of whole terrestrial ecosystem.

A few studies show that some organochlorine pesticides suppress symbiotic nitrogen fixation resulting in lower crop yields. Researchers found out that pesticides Pentachlorophenol, DDT and Methyl parathion at levels found in farm soils interfered signalling from leguminous plant such as alfalfa, peas, and soybeans to symbiotic soil bacteria. This effect, loosely comparable to endocrine disruption effects of pesticides in human and animals, significantly disrupt N2 fixation. As consequence increased dependence on synthetic nitrogenous fertilizer, reduced soil fertility, and unsustainable long-term crop yields occur. The observations also may explain a trend in the past 40 years toward stagnant crop yields despite record high use of pesticides and synthetic fertilizers worldwide (Fox et al., 2007, Potera 2007).

#### b. Soil invertebrates

Nematodes, springtails, mites and further microarthropods, earthworms, spiders, insects and all these small organisms make up the soil food web and enable decomposition of organic compounds such as leaves, manure, plant residues and they also prey on crop pests. Soil organisms enhance soil aggregation and porosity and thus increasing infiltration and reducing runoff. Earthworms represent more than 80% part of biomass of terrestrial invertebrates and play an important role in soil ecosystem. They are used as bio indicator of soil contamination providing an early warning of decline in soil quality. They serve as model organisms in toxicity testing. Earthworms are characterised by high ability to accumulate a lot of pollutants from soil in their tissues, thus they are used for studying of bioaccumulation potential of chemicals. A recent review of pesticides effects on earthworms showed on negative effects on growth and reproduction by many pesticides (Shahla and D'Souza 2010).

Decrease in number of spiders and diversity, and species richness of Colembolan after application
Laws safeguarding against pesticides

Pesticides regulations are governed in India under following Acts/Rules:

- The Insecticides Act, 1968 and Rules, 1971
- The Environment (Protection) Act, 1986
- Hazardous Waste (Management & Handling) Rules, 1989
- Water (Prevention & Control of Pollution) Act, 1974
- Air (Prevention & Control of Pollution) Act, 1981
- Prevention of Food Adulteration Act, 1954
- The Factories Act, 1948
- Bureau of Indian Standards Act.

Use and Regulation of Pesticides

The Ministry of Agriculture regulates the manufacture, sale, import, export and use of pesticides through the 'Insecticides Act, 1968' and the rules framed thereunder. Central Insecticides Board (CIB) constituted under Section 4 of the Act advises Central and State Governments on technical matters. The Registration Committee (RC) constituted under Section 5 of the Act approves the use of pesticides and new formulations to tackle the pest problem in various crops. The monitoring of pesticides residue levels in food comes under the purview of Union Ministry of Health and Family Welfare.

Conventions on pesticides

Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade was adopted on 10 September 1998 by a Conference of Plenipotentiaries in Rotterdam. The convention promotes open exchange of information and calls on exporters of hazardous chemicals to use proper labeling, include directions on safe handling, and inform purchasers of any known restrictions or bans. Signatory nations can decide whether to allow or ban the importation of chemicals listed in the treaty, and exporting countries are obliged to make sure that producers within their jurisdiction comply.

The Stockholm Convention on Persistent Organic Pollutants, a global treaty entered into force in May 2004, aims to eliminate the production and use of twelve priority POPs including organochlorine pesticides such as aldrin, dieldrin, DDT and metabolites, endrin, heptachlor, chlordane, mirex and toxaphene. In August 2010, lindane, hexachlorocyclohexane, chlordane, chlordecone and pentachlorobenzene were added.

Under Montreal Protocol, is declaration of obligation to take appropriate measures to protect human health and the environment against adverse effects resulting or likely to result from human activities which modify or are likely to modify the ozone layer.

The Basel Convention is convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal. The principal goal is to reduce transboundary movements of hazardous wastes to a minimum consistent with their environmentally sound management. The convention sets up strict operational controls based upon prior written notification procedures.
LECTURES
ON
ENVIRONMENT
Inaugural Address by 
Hon’ble Mr. Justice Swatanter Kumar
On the occasion of International Conference on
"Mitigation of Climate Change: Law, Policy and Governance"

organized by
Campus Law Centre, Delhi University
at New Delhi on 25th April, 2014

Dr. Dinesh Singh, Vice Chancellor,
University of Delhi.

Ms. Pinky Anand, Senior Advocate,
Supreme Court of India.

Dr. Usha Tandon, Professor, Campus Law Centre,
University of Delhi.

Dr. S.C. Raina, Professor, Campus Law Centre,
University of Delhi.

Respected Faculty members of the University, 
Participants, Delegates, ladies and gentlemen and,
most importantly, my dear students.

'Law, Policy and Governance' are simplistic terms. 
Often held to be the modus through which a 
civilised state and its citizenry is obliged to adhere 
to a code of conduct which would empower them to 
enjoy their rights, fundamental and otherwise, to the 
best of their abilities while, making sure that such 
enjoyment does not give rise to or infringe the rights 
of others.

Law, for instance, traditionally came as development 
To avoid what the famous Social Contract Theorist
"John Locke" termed as the 'state of nature', a state 
in which each individual enjoyed his right with little 
regard to others, leading to total anarchy. Hence, 
Law and Policy are aspects to curb the apprehended 
damage to state, its citizenry and the society at large.

Governance, on the other hand, relates more to the 
execution of such law and policy. Law, and policy 
without proper governance, would hardly solve the 
object, or the mischief that is trying to be curbed.

However, all of us present here, are aware, that 
Law is dynamic in nature, changing as per the 
societies’ needs, changing as per the policies that the 
government or the state deem fit to be implemented 
to help the society better. This is because the society, 
the environment and the needs of the people are ever 
changing.

Change, ladies and gentlemen, is inevitable. So 
they say. And it is an accepted fact that everything 
in this world is dynamic in nature. The climate, 
being one of them, is no exception. With the advent 
of industrialisation, of development, the rug of war 
between economies of the world, the environment 
started taking a back seat. Today, climate change is a 
reality and it must be dealt with head on. In an ideal 
world, in a world that is healthy, whose inhabitants 
are in the pink of health, in a world where flowers
shifting to bio-degradable waste etc., in order to better preserve the nature, environment and atmosphere of the pristine glacier. However, the problem is a lot larger than a single issue.

As per the Second National Communication submitted by India to the UNFCCC, it is projected that the annual mean surface air temperature rise by the end of the century ranges from 3.5 to 4.5°C whereas the sea level along the Indian coast has been rising at the rate of about 1.3 mm/year on an average. These climate change projections are likely to impact human health, agriculture, water resources, natural ecosystems, and biodiversity.

These are serious statistics. And what should concern us further is that this is just the tip of the iceberg. The impact of climate change and global warming is even more evident in other parts of the world. According to NASA, Global sea level rose about 17 centimeters (6.7 inches) in the last century. The rate in the last decade, however, is nearly double that of the last century. All three major global surface temperature reconstructions show that Earth has warmed since 1880. Most of this warming has occurred since the 1970s, with the 20 warmest years having occurred since 1981. Even though the 2000s witnessed a solar output decline resulting in an unusually deep solar minimum in 2007-2009, surface temperatures continue to increase. The Greenland and Antarctic ice sheets have decreased in mass. Data from NASA’s Gravity Recovery and Climate Experiment show Greenland lost 150 to 250 cubic kilometers (36 to 60 cubic miles) of ice per year between 2002 and 2006, while Antarctica lost about 152 cubic kilometers (36 cubic miles) of ice between 2002 and 2005. The Arctic has been heating up, and studies show that is happening at two to three times the global average. This rising temperature in the Arctic has served to reduce the region’s floating ice layer by more than 20%. And as you would expect, when the reflective ice and snow layer is stripped away, it leaves a dark blue sea.

Now, what does the effect of the dark blue sea being exposed have on the Arctic area? Well, the ice and snow layer reflects the majority of the sun’s rays harmlessly back into space. But the dark blue of the exposed sea absorbs the rays, aiding the heating process.

These are just some of the instances which show us how Global Warming and Climate Change is menacing not just the quality of life around the globe, but by virtue of its magnitude, the very existence of life on planet earth.

The need of the hour is to devise policies, and as stated previously, implement them through clear, unambiguous laws and good governance to slow down the rate of climate change as much as possible, keeping concepts of sustainable development, intergenerational equity and doctrine of balancing at the very core. I sincerely feel, that the next age of legal and economic developments should and will be, with the interests of environment at heart. As Francis Bacon, the famous English author and jurist once said ‘Nature, to be commanded, must be obeyed’.

I hope that this remains the mantra of the times to come, while congratulating Campus Law Centre for organizing a conference on an issue of such grave significance.

***Thank You***
Hon'ble Mr. Justice Swatanter Kumar, Chairperson, with Hon'ble Members, (Principal Bench, New Delhi) National Green Tribunal.

Sitting Left to Right: Hon'ble Dr. Ramesh Chandran Tiwari (Expert Member), Hon'ble Prof. A.R. Young (Expert Member), Hon'ble Prof. (Dr.) P.C. Mohan (Expert Member), Hon'ble Mr. Justice M.S. Narahari (Judicial Member), Hon'ble Mr. Justice P. Jothimani (Judicial Member), Hon'ble Mr. Justice Swatanter Kumar (Chairperson), Hon'ble Mr. Justice U.D. Sah (Judicial Member), Hon'ble Dr. D. K. Agrawal (Expert Member), Hon'ble Dr. Gopal Krishna Pradey (Expert Member), Hon'ble Mr. B.S. Sayama (Expert Member), Hon'ble Sri Ramon Chatterjee (Expert Member).
Hon'ble Mr. Justice Swantaner Kumar, Chairperson, National Green Tribunal with Hon'ble Members, National Green Tribunal

Standing, Left to Right: Hon'ble Dr. Ajay A. Dashbhanday (Expert Member), Hon'ble Mr. B. S. Soywan (Expert Member), Hon'ble Mr. P. S. Raw (Expert Member), Hon'ble Dr. G. K. Pandey (Expert Member), Hon'ble Prof. (Dr.) R. Nagendra (Expert Member), Hon'ble Prof. A. R. Yuvrao (Expert Member), Hon'ble Mr. Justice M. S. Mandir (Judicial Member), Hon'ble Justice (Dr.) P. Jotirmani (Judicial Member), Hon'ble Mr. Justice M. Chakrabong (Judicial Member), Hon'ble Mr. Justice Swantaner Kumar, Chairperson (NGT), Hon'ble Mr. Justice V. R. Kirti (Judicial Member), Hon'ble Mr. Sanjan Chatterjee (Expert Member), Hon'ble Mr. Justice U. D. Saha (Judicial Member), Hon'ble Mr. Justice Dilip Singh (Judicial Member), Hon'ble Dr. D. K. Agarwal (Expert Member).
PROFILE
OF
HON’BLE CHAIRPERSON
NATIONAL GREEN TRIBUNAL
Hon’ble Judicial Members
National Green Tribunal

Hon’ble Mr. Justice M. Chokalingam
Judicial Member

Hon’ble Mr. Justice V.R. Kingsonkar
Judicial Member

Hon’ble Mr. Justice P. Jyothimani
Judicial Member

Hon’ble Mr. Justice Unnath Darbaraya Salvi
Judicial Member

Hon’ble Mr. Justice Dalip Singh
Judicial Member

Hon’ble Mr. Justice M.S. Nambiar
Judicial Member

Hon’ble Mr. Justice Pratap Kumar Roy
Judicial Member
Hon’ble Expert Members
National Green Tribunal

Hon’ble
Prof. A. R. Younus
Expert Member

Hon’ble
Mr. Bikram Singh Sajwan,
IFS (Retd.)
Expert Member

Hon’ble
Dr. Ramesh Chandra Tripathi
Expert Member

Hon’ble
Mr. Ranjan Chatterjee,
IFS (Retd.)
Expert Member

Hon’ble
Dr. Ajay Ashutosh Deshpande
Expert Member
Deputy Registrars
National Green Tribunal

Ms. Sheetal Sharma
Deputy Registrar
Principal Bench
National Green Tribunal.

Ms. Sindhu Krishna Kumar
Deputy Registrar cum
PPS to Hon'ble Chairperson
Principal Bench
National Green Tribunal.

Mr. S. Kumar
Deputy Registrar
Southern Zone Bench, Chennai
National Green Tribunal

Mr. Subhash Sharma
Deputy Registrar
Eastern Zone Bench, Kolkata
National Green Tribunal
Inauguration of Kolkata Bench
National Green Tribunal

Hon’ble Mr Justice Madan B. Lokur, Hon’ble Mr. Justice Purnali Chandra Ghosh, Hon’ble Mr. Justice Arun Mishra along with Hon’ble Mr Justice Swatanter Kumar, Chairperson National Green tribunal at the Ceremonious ribbon cutting ceremony on inauguration of kolkata bench, National Green Tribunal on 24th May 2014

Hon’ble Mr Justice Swatanter Kumar, Chairperson National Green tribunal delivering inaugural address at the inauguration of Kolkata Bench National Green Tribunal on 24th May 2014
NGT Bar Association, Executive Committee (New Delhi, 2014)

Sitting, Left to Right: J. Mr. Yagnya Agnihotri, Advocate (Member Executive), Mr. Aaranya Sain, Advocate (Joint Secretary), Mr. Ritesh Dixit, Advocate (Hony. Secretary), Mr. Raj Panjwani, Sr. Advocate (President), Ms. Meelam Rathore, Advocate (Vice President), Mr. Rahul Chaudhary, Advocate (Treasurer), Mr. R. Sreedhar, Scientist (Member Executive), Mr. Abhimanyu Srivastha, Advocate (Member Executive).
GREEN REPORT

Sanjay Kumar

Matta parataram naanyat kinchicdaci chananjaya:
Mayi sarvaanadat prabho maha maya.

Know that these two (My higher and lower Natures) are the womb of all beings. So,
I am the source and dissolution of the whole universe.

Rasa ' hamapaa zu kunteya prabhoami sashisooryayoh;
Prenavah sarvavodcasu ehoodh kac puruasham nisahu.

There is nothing whatsoever higher than Me, O Arjuna! All this is strung on Me as clusters of gems on a string.
There is no other cause of the universe but Me. I alone am the cause of the universe.

Punya gangah prithvyaam cha tejashchaaami vibharavanam;
Jeevanam sarvahootaahu tapasthchaanami tapaswah.

I am the sapidity in water, O Arjuna! I am the light in the moon and the sun; I am the syllable Om in all the
Vedas, sound in ether, and virility in men.

Becjan naam sarvahootaaham vedhich paarthaa sanastaham;
Buddhir bucchimataanami tejastajwinnanaham.

I am the sweet fragrance in earth and the brilliance in fire, the life in all beings; and I am austerity in ascetics.

---

1* Sanjay Kumar, Registrar General, National Green Tribunal, Principal Bench, New Delhi
2 (Bhagavad Gita 7.16)
The principal bench in Delhi covers the northern zone\textsuperscript{12}, the Pune Bench handles the western territory\textsuperscript{12}, the Central Zone Bench is based in Bhopal\textsuperscript{12}, Chennai covers the southern part of India\textsuperscript{12}, and the Kolkata bench is responsible for the eastern region\textsuperscript{12}. Currently, there are five benches dealing exclusively with environmental issues. All benches are operational.

**COMPOSITION OF TRIBUNAL**

**CHAIRPERSON**

Hon'ble Mr. Justice (Retd.) L.S. Panta was appointed as first Chairperson of National Green Tribunal on 18th October, 2010 who held office till 31st December, 2011.

Hon'ble Mr. Justice A. S. Swarajarajana Naidu was appointed as the Acting Chairperson w.e.f. 01.01.2012 to 19.12.2012.

Hon'ble Mr. Justice Swarajarajana Naidu, a Sitting Judge of Supreme Court of India assumed office as Chairperson w.e.f 20th December, 2012.

**JUDICIAL MEMBER**

The following Judicial Members were appointed from time to time with the approval of Central Government:

<table>
<thead>
<tr>
<th>S.No.</th>
<th>NAME</th>
<th>DATE OF JOINING/TENURE</th>
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<tbody>
<tr>
<td>1</td>
<td>Hon'ble Mr. Justice M. N. Kejriwal</td>
<td>(Did not join)</td>
</tr>
<tr>
<td>2</td>
<td>Hon'ble Mr. Justice A. S. Swarajarajan Naidu (Acting Chairperson w.e.f. 1.1.2012 to 19.12.2012)</td>
<td>(02.06.2011 - 31.01.2013 AN)</td>
</tr>
<tr>
<td>3</td>
<td>Hon'ble Mr. Justice C. K. Ramulu</td>
<td>(16.05.2011 - 20.09.2012 AN)</td>
</tr>
<tr>
<td>4</td>
<td>Hon'ble Mr. Justice M. Chokalingam</td>
<td>04.05.2012</td>
</tr>
<tr>
<td>6</td>
<td>Hon'ble Mr. Justice V. R. Kingan</td>
<td>01.08.2012</td>
</tr>
<tr>
<td>7</td>
<td>Hon'ble Mr. Justice Dr. P. Jyothi</td>
<td>24.12.2012</td>
</tr>
<tr>
<td>8</td>
<td>Hon'ble Mr. Justice U. G. Prakashan</td>
<td>14.02.2013</td>
</tr>
<tr>
<td>9</td>
<td>Hon'ble Mr. Justice S. N. Hussain</td>
<td>22.07.2013</td>
</tr>
<tr>
<td>10</td>
<td>Hon'ble Mr. Justice Dalip Singh</td>
<td>24.07.2013</td>
</tr>
<tr>
<td>11</td>
<td>Hon'ble Mr. Justice B. S. Reddy</td>
<td>(12.09.2013 - 24.10.2013 AN)</td>
</tr>
<tr>
<td>12</td>
<td>Hon'ble Mr. Justice M. S. Namdeo</td>
<td>09.10.2013</td>
</tr>
<tr>
<td>13</td>
<td>Hon'ble Mr. Justice Pratap Kumar Ray</td>
<td>24.09.2014</td>
</tr>
</tbody>
</table>

\textsuperscript{12} The northern zone covers the states of Uttar Pradesh, Uttarakhand, Punjab, Haryana, Himachal Pradesh, National Capital Territory of Delhi and the Union Territory of Delhi.

\textsuperscript{13} The west includes Maharashtra, Gujarat, Goa with the Union Territories of Daman and Diu and Dadra and Nagar Haveli.

\textsuperscript{14} The central zone covers the states of Madhya Pradesh, Rajasthan and Chhattisgarh. The southern zone covers the areas of Kerala, Tamil Nadu, Andhra Pradesh, Karnataka, the Union Territories of Pondicherry and Lakshadweep.

\textsuperscript{15} The east covers West Bengal, Orissa, Bihar, Jharkhand and the seven sister states of the north-eastern region, Sikkim, Arunachal and the Nicobar Islands.
SOUTHERN ZONE BENCH, CHENNAI

As per the MoEF Notification dated 17th August, 2011, Southern Zone Bench at Chennai has become functional w.e.f. 30th October, 2012, presently there is only one Bench functioning at Chennai. Its jurisdiction is Kerala, Tamil Nadu, Andhra Pradesh, Karnataka, Union Territories of Pondicherry and Lakshadweep.

The composition of the Southern Zone Bench at Chennai is as under:

- Hon'ble Mr. Justice M. Chokalingam, Judicial Member
- Hon'ble Dr. R. Nagendra, Expert Member

CENTRAL ZONE BENCH, BHOPAL

As per the MoEF Notification dated 17th August, 2011, Central Zone Bench at Bhopal has become functional w.e.f. 07-04-2013, presently there is only one Bench functioning at Bhopal. Its jurisdiction is Madhya Pradesh, Rajasthan and Chhattisgarh.

The composition of the Central Zone Bench at Bhopal is as under:

- Hon'ble Mr. Justice Dalip Singh, Judicial Member
- Hon'ble Sri. P. S. Rao, Expert Member

WESTERN ZONE BENCH, PUNE

As per the MoEF Notification dated 17th August, 2011, Western Zone Bench at Pune has become functional w.e.f. 25th August, 2013, presently there is only one Bench functioning at Pune. Its jurisdiction is Maharashtra, Gujarat, Goa with Union Territories of Daman and Diu and Dadar and Nagar Haveli.

The composition of the Western Zone Bench at Pune is as under:

- Hon'ble Mr. Justice V.R. Kingsoutkar, Judicial Member
- Hon'ble Dr. Ajay A. Deshpande, Expert Member

EASTERN ZONE BENCH, KOLKATA

As per the MoEF Notification dated 17th August, 2011, Eastern Zone Bench at Kolkata has become functional w.e.f. 24th May, 2014, presently there is only one Bench functioning at Kolkata. Its jurisdiction is West Bengal, Odisha, Bihar, Jharkhand, seven sister State of North-Eastern Region, Sikkim, Andaman and Nicobar Islands.

The composition of the Eastern Zone Bench at Kolkata is as under:

- Hon'ble Mr. Justice Pratap Kumar Ray, Judicial Member
- Hon'ble Prof. (Dr.) P. C. Misra, Expert Member
The present composition of the Registry is as under:

<table>
<thead>
<tr>
<th>S.No.</th>
<th>NAME</th>
<th>DATE OF JOINING/TENURE</th>
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<tbody>
<tr>
<td><strong>I. REGISTRAR GENERAL</strong></td>
<td></td>
<td></td>
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<tr>
<td>1</td>
<td>Mr. Sanjay Kumar, DNS</td>
<td>25.10.2013</td>
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<tr>
<td><strong>II. REGISTRARS</strong></td>
<td></td>
<td></td>
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<tr>
<td>1</td>
<td>Shri. M.P. Tiwari, Registrar, CEB Bhopal</td>
<td>16.03.2013</td>
</tr>
<tr>
<td>2</td>
<td>Shri. K.V. Vedane, Registrar, WZB Pune</td>
<td>27.05.2013 - 18.12.2013</td>
</tr>
<tr>
<td>3</td>
<td>Shri. K.L. Vyas, Registrar, WZB Pune</td>
<td>18.12.2013 (AN)</td>
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<tr>
<td>4</td>
<td>Shri A.K. Senapati, Registrar, EZB Kolkata</td>
<td>04.07.2014</td>
</tr>
<tr>
<td>5</td>
<td>Dr. A.D. Maria Cleto, Registrar, S2B Chennai</td>
<td>03.03.2014</td>
</tr>
<tr>
<td><strong>III. DEPUTY REGISTRARS</strong></td>
<td></td>
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<tr>
<td>1</td>
<td>Ms. Sheetal Sharma</td>
<td>02.09.2013</td>
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<tr>
<td>2</td>
<td>Mr. S.Kumar, S2B, Chennai</td>
<td>05.09.2012</td>
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<tr>
<td>3</td>
<td>Ms. Sindhu Krishnakumar</td>
<td>25.03.2013 (EZB)</td>
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<td>4</td>
<td>Mr. Subodh Sharma, EZB, Kolkata</td>
<td>05.06.2014</td>
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<tr>
<td><strong>IV. PRIVATE SECRETARY TO CHAIRPERSON</strong></td>
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<td><strong>V. OFFICERS SERVING AS ASSISTANT REGISTRAR</strong></td>
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<tr>
<td>1</td>
<td>Mr. A. V. Pradeep Kumar, SZB Chennai</td>
<td>25.10.2013</td>
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<td>2</td>
<td>Mr. Praveen Kumar, SZB Chennai</td>
<td>09.06.2014</td>
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<td>3</td>
<td>Mr. Neeraj Sinha</td>
<td>09.06.2014</td>
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<tr>
<td><strong>VI. ASSISTANT REGISTRAR</strong></td>
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<tr>
<td>1</td>
<td>Ms. Suchi Sarantr, CEB Bhopal</td>
<td>25.03.2013</td>
</tr>
<tr>
<td>2</td>
<td>Mr. S. Shankar, SZB Chennai</td>
<td>09.06.2014</td>
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<td>3</td>
<td>Mr. Abhijit Sarkar, WZB Kolkata</td>
<td>07.05.2014</td>
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<td><strong>VII. ACCOUNTS OFFICER</strong></td>
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<tr>
<td>1</td>
<td>Mr. Chetan Chawla</td>
<td>28.09.2012</td>
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<td><strong>VIII. SECTION OFFICER</strong></td>
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<td>1</td>
<td>Ms. Suchi Sarantr, CEB Bhopal</td>
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<td>Mr. S. Shankar, SZB Chennai</td>
<td>09.06.2014</td>
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<tr>
<td>3</td>
<td>Mr. Abhijit Sarkar, WZB Kolkata</td>
<td>07.05.2014</td>
</tr>
<tr>
<td><strong>IX. PRIVATE SECRETARY</strong></td>
<td></td>
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<tr>
<td>1</td>
<td>Mr. Immanuel Alexander, P&amp;H New Delhi</td>
<td>09.03.2014</td>
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<tr>
<td>2</td>
<td>Mr. Sanjib Kumar Ghosh, EZB Kolkata</td>
<td>06.05.2014</td>
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<tr>
<td><strong>X. ASSISTANT</strong></td>
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<tr>
<td>1</td>
<td>Mr. Kamal Jain Yadav</td>
<td>14.02.2013</td>
</tr>
<tr>
<td>2</td>
<td>Mrs. Anamika Singh</td>
<td>10.04.2013</td>
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<td>4</td>
<td>Mr. Achal Sakhuja</td>
<td>18.11.2013 (WZB)</td>
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<td>5</td>
<td>Mr. Shalish Kumar Sharma</td>
<td>26.03.2014 (EZB)</td>
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<td>6</td>
<td>Ms. Kavita Deepak Kadam</td>
<td>13.02.2013 (P&amp;H)</td>
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## Activities

### Disposal of Cases

#### 2011 (Principal Bench, New Delhi)

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<tbody>
<tr>
<td>Transferred Cases from NEAA/Appeal/Application/</td>
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<td>163</td>
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<tr>
<td>Misc. Application Including Review Applications</td>
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#### 2012

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<tr>
<td>Principal Bench, New Delhi</td>
<td>503</td>
<td>438</td>
<td>65</td>
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<tr>
<td>Southern Zone Bench, Chennai (1st November, 2012)</td>
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<td>Total</td>
<td>548</td>
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#### 2013

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<tr>
<td>Principal Bench, New Delhi</td>
<td>503</td>
<td>438</td>
<td>65</td>
</tr>
<tr>
<td>Southern Zone Bench, Chennai</td>
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<td>45</td>
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<tr>
<td>Central Zone Bench, Bhopal (7th April, 2013)</td>
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<td>Western Zone Bench, Pune (29th August, 2013)</td>
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#### 2014 (upto 31.08.2014)

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<td>Eastern Zone Bench, Kolkata (24th May, 2014)</td>
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The way forward

National Green Tribunal is becoming more vibrant and increasing its ambit of activities with every new day. The metamorphosis of India's environmental jurisprudence reflects the judgement of the National Green Tribunal. It has opened the discourse through environmental decisions that have brought participation, standing and address sustainable development involving economics and environment. It is contributing plurality of environmental justice. It is enhancing access to justice route for both economic growth and protection of environment. In very short span National Green Tribunal has able to attract expectations of all stakeholders of environmental justice.

National Green Tribunal has been growing vertically and horizontally under the dynamic and multi-dimensional guidance of Hon'ble Chairperson Justice Swatanter Kumar, whose motivational force and energy contributes all the achievements till today. I am certain that the passion with which our Chairperson leading the team, it would covet many a milestones in future.

However, National Green Tribunal is still to enhance its status and popular expectations of the citizens of the country.