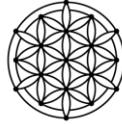


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Urban Ecology: Governance Institutions

Aditya Prasad

Version: May 2020



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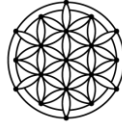
International Conference on Conservation of Biodiversity and Sustainable Energy: Law and Practice

"Protecting the Green Cover in India: Problems in Implementation and Enforcement of Laws"

I. INTRODUCTION

The issue of Environmental Protection is not new and has been a heated topic of debate since the middle of the 20th Century. But it is perhaps only now that the results of our actions and inaction have shown their true face in terms of global warming, rising sea levels, climate change and so on. In this context this paper seeks to highlight various environment protection measures which are aimed at protecting the green cover as adopted in India, completely divorced from scientific approach and implemented without so much as a policy which can be uniformly applied to all.

It is needless to mention that the green cover is intrinsically related to the larger issue of bio diversity and water conservation, for example, different variety of trees are known to attract different variety of birds and other fauna and a harmonious integration of various species creates a unique ecosystem, be it in a forest or a city park. If the natural green cover is removed and in the name of compensatory plantation, trees of a redundant variety are planted then the same would naturally destroy the existing biodiversity, and may not harbor a new one. This dearth of scientific application of measures for sustainable development has resulted in failure to stop degradation of environment which supports biological diversity in various ways and has also led to a false euphoria among the bodies responsible for



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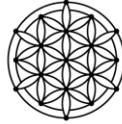
implementing these measures. The paper also brings out the lack of adequate infrastructural support for protecting existing flora and fauna. Using authentic data obtained from the Government, the paper then highlights the adequacy of judicial activism, or the lack of it, to introduce corrective steps when sought recourse to and the practical implementation of laws, absence of specific laws etc.

The paper is therefore based on primary level data coupled with study of cases adjudicated by the courts in Delhi and highlights the concept of ‘sustainable development’ as enforced by the judicial bodies in India. Adopting a critical approach this paper seeks to answer important questions regarding the reasons behind failure of sustainable development and environment protection measures. The absence of all such methods and implementation of laws proportionately affects the environment including development of conventional generation of energy. After analyzing the prevailing scenario, the paper attempts to analyse best practices from various states in India and other countries which can be emulated in the Indian context to preserve its green cover and the biodiversity that it supports.

Sitting in a classroom, studying Environment Law, legal arena seems rosy. But unfortunately gone are the days when Courts were proactive and the state was obedient. Yet we believe in the administration of justice for the environment for that is the only way we can hope to save ourselves. I am attempting, through this paper, to bring to the forefront a major issue which seems to have been forgotten under the glowing facade of legal praise for that all “has been done”, diminishing the fact “all that needs to be done”.

II. DEVELOPMENT OF ENVIRONMENT PROTECTION LAWS IN INDIA

It was in 1972 when the United Nations Conference on Human Environment took place at Stockholm. The Stockholm Declaration of 1972, to which India is a signatory, proclaimed, *“we see around us growing evidence of man-made harm in many regions of the earth; dangerous levels of pollution in water, air, earth and human beings; major and undesirable*



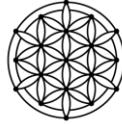
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disturbances to the ecological balance of the biosphere; destruction and depletion of irreplaceable resources and gross deficiencies harmful to the physical, mental and social health of man, in the man-made environment, particularly in the living and working environment” . Man it is stated is both creature and moulder of his environment. Both aspects of man's environment, the natural and the man-made are essential to his well-being and to the enjoyment of basic human rights, even the right to life itself. One of the principles enunciated at the convention is that the natural resources of the earth, including the air, water, land, flora and fauna and specific representative samples of natural ecosystems must be safeguarded for the benefit of present and future generations through careful planning and management as appropriate.

This was followed by the Report of the World Commission on Environment and Development, also known as the Brundtland Report, 1987, aptly titled as *“Our Common Future”*. Apart from other things, the report gave birth to one of the most fundamental principles of Environment Management- *“Sustainable Development”*. Sustainable Development is supposed to mean, *“Development that meets the needs of the present, without compromising the ability of future generations to meet their own needs.”*

Sustainable Development, Precautionary Principle, Public Trust Doctrine, Principle of Intergenerational Equity, Polluter Pays Principle, all have together tackled the growing menace of environmental degradation. Four decades down the line, from the Stockholm declaration, both sides of the scales have gained in weight, the effort to protect the environment as well as the actions for its destruction.

To give effect to the various concepts of environment protection, various laws have been enforced. The mother of all environment protection laws i.e. the Environment Protection Act, 1986, has also witnessed considerable judicial discussion and debate. The law and its implementation is the focus of any progressive society. But inaction can easily ensure that even though law remains on the ground, so as to show that there is compliance with international agreements and protocols and probably to satisfy global conscience, but very



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little or perhaps nothing is done to ensure that it achieves the goal it envisions. In a recent judgement¹ the very issue came to the forefront and startled the National Green Tribunal, which showed its concern when stating, “Law does not take effect in a “Vacuum”.

Another important piece of legislation that needs to be mentioned at the outset is the National Green Tribunal Act, 2010 (NGT Act). The preamble to this legislation is very detailed and descriptive in nature. It reads: -

“An Act to provide for the establishment of a National Green Tribunal for the effective and expeditious disposal of cases relating to environmental protection and conservation of forests and other natural resources including enforcement of any legal right relating to environment and giving relief and compensation for damages to persons and property and for matters connected therewith or incidental thereto.”

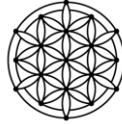
And whereas India is a party to the decisions taken at the United Nations Conference on the Human Environment held at Stockholm in June, 1972, in which India participated, calling upon the States to take appropriate steps for the protection and improvement of the human environment;

And whereas decisions were taken at the United Nations Conference on Environment and Development held at Rio de Janeiro in June, 1992, in which India participated, calling upon the States to provide effective access to judicial and administrative proceedings, including redress and remedy and to develop national laws regarding liability and compensation for the victims of pollution and other environmental damage;

And whereas in the judicial pronouncement in India, the right to healthy environment has been construed as a part of the right to life under article 21 of the Constitution;

And whereas it is considered expedient to implement the decisions taken at the aforesaid conferences and to have a National Green Tribunal in view of the involvement of multi-

¹ Aditya N Prasad & Ors. v Union of India & Ors, O.A. No. 215 of 2014



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disciplinary issues relating to the environment.”

Thus, the NGT Act, is also a product of India’s commitment to the International declarations and agreements, lays down that the NGT is to be guided by principles of Natural Justice, the international principles evolving out of the International Commitments i.e. the Stockholm declaration the Bruntland Report would naturally have a role to play in the decisions. NGT in the present day is the leading judicial forum which seeks to enforce the environmental protection laws.

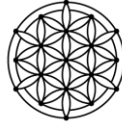
III. PROBLEMS IDENTIFIED

A. Treating Environment protection as synonymous with protection of forest or designated green areas over-looking the local environmental enhancing features.

New Delhi is gifted with vast areas of vegetation and forests, but the epitome of this lies in History. It was the British, which by way of numerous notifications in the year 1913 declared an area of 796.25 hectares as a Reserved forest under the Indian Forest Act, 1878. Over the years and post-Independence the coverage of the Ridge increased as there were judicial interventions by the Supreme Court and the total area today stands at 7,784 hectares. This is further divided into various patches, namely, Northern Ridge, Central Ridge, South-Central Ridge and Southern Ridge.

Any discussion about protecting the environment of the city gets confined to these green patches popularly called the ridge areas. In taking this myopic view of the environment protection and protection of the green cover we overlook the environment which flourishes much closer home, i.e. in our neighborhoods.

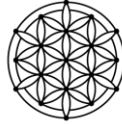
Even though the reserved and notified forests of Delhi are protected under the Indian Forests Act, the question about the welfare of an average lone tree standing on a roadside remains unanswered.



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In Delhi, the Delhi Preservation of Trees Act, 1994 (herein after “DPTA”), has been enforced since 1996. The objective of the DPTA is to protect trees in the capital. The Preamble of the act reads thus, “*An act to provide for the preservation of Trees in the National Capital Territory of Delhi*”. The words “preservation of trees” is a clear glimpse of the intent of the legislature while enacting this legislation. The aim as we understand it to be is to protect all existing trees with stringent regulations and planting new ones. This has been a product of the National Forest Policy of 1988, which envisions having a national average of having 1/3rd of the total Geographical area under Forest cover, Delhi is hardly even close to this goal.

So, according to this statute any branch or “woody plant” having a diameter of more than 5 centimeters cannot be cut without permission from the Forest department. According to the scheme of the Act damaging trees in any manner would constitute an offence. However, it doesn’t even require mentioning that there is hardly any prosecution taking place under this Act despite the fact that the authorities themselves resort to large scale cutting of trees in the name of pruning the trees or developmental projects. Again, to state the obvious there is no policy guideline for carrying out this exercise of pruning and the timber obtained is sold to contractors for illegal gains. As an example, about 1500 trees were cut for an elevated road corridor between Vikas Puri and Mukarba Intersection on the outer ring road of Delhi. These trees were neither transplanted nor even thought of being saved, only the mere fact that they appeared to come in the way of the working of the project, they were earmarked for felling. These trees were then auctioned off to the highest bidder, the highest bid being close Rs. 32 lacs. Thus when money comes to play a dominant role, in our ‘economics’, trees are just a commodity. The reason for this is complex yet simple. Delhi has no commercial forestry, thus wood has to be sourced from other states, which would entail duties and overhead charges like transportation etc. However, when one can get a hardened tree within the city and that too for a trifling price then the real game begins. Money is pressed at various levels and more and more trees in the name of developmental projects are cut and auctioned



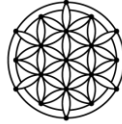
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off. The forest department in such matters is reduced to a post office, merely receiving applications for felling of trees and approving them, sometimes under pressure.

If an order for felling has been given, it can be appealed to the Appellate Authority, which in the case of Delhi is the Secretary, Department of Environment. However, it is the Secretary himself who sanctions permission to fell trees. This procedural lapse of the Secretary being a judge in his own cause, further ensures that the process is favored towards destruction and not conservation of Trees.

However, when permission to fell trees is not given, they are mercilessly pruned to such an extent that they die naturally. The wood acquired from pruning or felling is supposed to go to the nearest public crematorium. But even not a single piece of wood reaches the crematoriums. It is eventually sold to wood merchants and crematoriums as well. Now even though certain species of trees are considered under pressure to be saved by transplantation, they are just pulled out from the ground and planted somewhere else. The workers engaged for carrying out the process usually have no sympathy or concern for the trees and a majority of trees perish. There are no transplantation guidelines of the Centre or the States. There are no guidelines as to which species of trees can stand the rigors of transplantation and how the process should be carried out.

Another major problem that arises is the feasibility of compensatory plantation. For every tree that is to be cut, the developer or the responsible authority is supposed to plant 10 trees to compensate for the loss to the environment. In the implementation of this well-meaning scheme, a number of problems arise, first and foremost is the job of ensuring that compensatory plantation is undertaken without fail and land for the same is available. Land being a scarce resource, it is not easy for the authorities to find such stretches where the trees can be planted. To complicate the situation further, it is almost never taken into account that when trees are cut and planted in a locality which is far away from the affected area, the

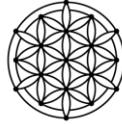


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compensatory plantation will have no effect in balancing the environment of the area whose green cover is denuded. Not only this, there is no guideline which will be instructive about the variety of trees which should be planted or what should be maximum distance between the affected area. Even though adoption of compensatory plantation scheme has helped large development projects in obtaining quick approval, dearth of scientific approach in implementing this policy has barely helped in protecting the environment. In Delhi alone, between 2005 and 2010, 65,241 trees were legally permitted to be cut and ten times the amount were required to be planted as compensatory plantation. However, till date a total of 3, 72,944 trees remain to be planted. Therefore, less than 50% compensatory plantation was reported and that too was subject to verification on the ground. In fact the Directorate of Audit of the Delhi Government observed that the Forest Department was not maintaining proper records for compensatory plantations and sometime the same plantations were shown over and over again.

B. Development in disregard to the health of trees

Most trees in our towns and cities are now choked from all sides with concrete or tiles, sometimes the concrete or tiling is done upto the trunk of the tree with little or no space left for percolation of water or aeration of soil, thereby effectively slowly suffocating the tree to death. The genesis of this problem lies in the fact that the city dwellers have started considering “soil” as dirt or rubbish and have a heart for covering all open surfaces into paved ones. Even though this would very well be an offence under the DPTA, no action has been taken by the Forest department and the violations have continued unabated. In the year 2000, the Ministry of Urban Development, Government of India came out with the “Guidelines for Greening of Urban Areas and landscape”, which prescribed that paving/concretization should take place only where necessary and a minimum of 1 meter space to be left around trees. At the cost of repetition, it may be said that the said guideline has not been followed. This further gives rise to Urban Heat Islands as the concrete surface traps the heat



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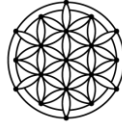
absorbed by the earth and does not let the same be released during night.

The urban heat island effect refers to areas that are hotter than surrounding areas due to the abundance of man-made materials there. These materials, such as concrete, brick, and asphalt, absorb the sun's energy much more than trees or other plants, and in turn warm the air around them. In addition, vehicles and buildings in urban areas generate heat from burning energy.

In this context the most important data is made available by *ASTER Satellite i.e. the Advanced Space borne Thermal Emission and Reflection Radiometer*, which provided advanced imagery of thermal land surface temperature, reflectance, and elevation. The data collected from the Jet Propulsion Laboratory of NASA has been collated in the detailed study for Delhi titled “*Modeling urban heat islands in heterogeneous land surface and its correlation with impervious surface area by using night time ASTER satellite data in highly urbanizing city, Delhi India*”². The Study analyzes the spatial structure of the thermal urban environment and subsequent formation of Urban Heat Islands in relation of the urban surface characteristics. The study indicates that built up land exhibits the highest surface temperature implying that urban development increases the surface temperature by replacing natural vegetation with non-evaporating and non-transpiring surfaces such as stone, metal and concrete.

However it was observed that areas having more vegetation had lower heat signatures as compared to areas with impervious surfaces, this is because of dense vegetation being able to reduce the heat through transpiration. A Significant difference between the surface temperature in urban impervious surface and rural surface temperature is observed. The

² Javed Mallick et al, “*Modeling urban heat islands in heterogeneous land surface and its correlation with impervious surface area by using night time ASTER satellite data in highly urbanizing city, Delhi India*”, Volume 52, Issue 4, Advances in Space Research, Pages 639-655 (2013)



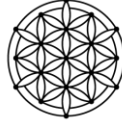
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study shows that there has been an increase of 5 to 7.22 degree Celsius in the mean surface temperature between the year 2001 and 2005. Thus concluding that *“the long-term impact of UHI effect may modify climate condition in the region. Therefore, urban planning should be adopted to avert and alleviate the effect of urban heat islands.”*

C. Short of adequate infrastructure for environment protection

The Forest Department of Delhi is entrusted with the protection of each and every tree in Delhi and wildlife. Each tree irrespective of its geographical location, be it in a reserved forest or outside our homes, is supposed to be protected and the duty to protect them is entrusted with the Forest Department. The department has over the years been plagued with dire shortage of manpower and essential equipment. This has resulted in poor management of protected and reserved forests. The sole wildlife sanctuary in Delhi i.e. the Asola Bhatti Wildlife Sanctuary has an entire colony within its fold, the encroachment is so rampant. Illegal roads have been constructed inside the Rajokri Forests. Illegal felling of trees has become so easy that no one in Delhi fears of any reprimand while doing so. During the week the forest department tries to protect the environment with whatever little staff they have between office working hours i.e. 9AM to 5 PM. While during the nights and weekends there is absolutely no monitoring or protection as no staff is on Duty. Years of neglect have ensured that there has been no recruitment for regular staff. The sanctioned strength has also not been filled.

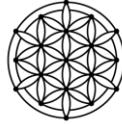
The following table will illustrate the various shortcomings in the infrastructure as available with the authorities; data has been collected from various government authorities under the Right to Information Act, 2005. This information reflects the ground realities of Forest Management and Wildlife/ Environment protection in Delhi alone. The data is an eye opener, on the seriousness of the Government to maintain and preserve the ecological balance of the Nation. The research found that the following protocols, equipments and manpower were



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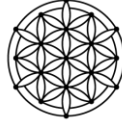
either missing or is miniscule in comparison to the mammoth task at hand:-

S.No.	Activity/ Equipment	Status
1.	Drinking Water	Unavailable at all three field offices of the Forest & Wildlife Department
2.	Working Space/ office for Forest staff	Two offices working in hutments. One office, which has 80% of the area under its jurisdiction, is working out of shipping containers.
3.	Perambulation of Forests/ Wild life Sanctuary by Forest Guards. Demarcation of Beats and Beat Routes	None whatsoever
4.	Maintenance of Beat Books, including Beat Maps/ Beat Diaries – to record observations during patrolling, includes recording of encroachments, and other injury to the forest from fire or other causes.	Not practiced
5.	Guards Hammer – this is a metal hammer having a particular number for Marking any intercepted logs/timber or legally felled timber etc. The number signifies a particular guard/ beat route in the protected areas.	None available



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6.	Preliminary Offence Report – where ever offences are detected the same are to be recorded through a POR and submitted to the Range Officer for immediate action.	Not practiced
7.	Working Plan - It is a written document describing the forests including trees outside forest areas, results of the past management practices and proposal for the future forest management interventions for a forest or forest area.	Never prepared till date
8.	Uniforms	Never issued
9.	Wireless Equipment	All defunct – only carried around to give a semblance of authority.
10.	Weapons	None
11.	Flying Squads/ Interceptors	None
12.	Night vision Equipment (The forest staff literally laughed when a inquired about this)	None
13.	Patrolling vehicles	None
14.	Transport vehicles for seizing and transporting seized timber/ materials.	None (There was one tractor – but it was



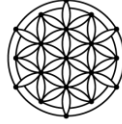
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		mysteriously stolen)
15.	Vacancies in Sanctioned strength	244 posts lying vacant
16.	Additional Strength recommend by the National Forest Commission in 2003.	319 posts (Only 17 posts sanctioned by the Government in 2013 – but not filled till date)

It may be reiterated that the issue of infrastructural shortage etc. as highlighted above have time and again been in discussion at the highest levels in the executive. Under the Chairmanship of the Hon'ble Prime Minister of India, the Indian Board for Wild Life at its meeting held on 21st January 2002 recommended that a Forest Commission should be set up to look into re-structuring, reforming and strengthening of the entire forest set up and affiliated institutions in the country. Pursuant thereto, by a Resolution dated 7th February, 2003 the National Forest Commission was established, with Hon'ble Justice B. N. Kirpal, Former Chief Justice of India, as its Chairman. This Commission made various observations in its report, some important observations are:-

[25] In order to ensure that forests meet the emerging and increasing needs of society, their conservation and management on scientific principles to enhance their ecological contribution and to increase their productivity is necessary. A well conserved and managed forest is very efficient in ensuring ecological security. For intensively and sustainably conserving and managing forests and improving their productivity, required resources, both physical and financial, should be made available in accordance with the provisions of the approved Working Plans.

[26] Perhaps the most important contributions that the Central and State Governments can make to achieve the above objective, is to give forest conservation unstinted political support,



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without which financial and infrastructural support, crucial though they are, will not achieve the objective.

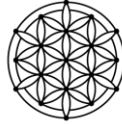
The Commission made a specific recommendation for the National Capital Territory of Delhi:-

“Pattern of staffing in most of the States and union territories is similar, but for the National Capital Territory (NCT), Delhi, where IFS officers are posted as Conservator and Deputy Conservators as per cadre allocation of the AGMUT (Andaman, Goa, and Mizoram Union Territory) cadre, there is no well-developed structure of forest rangers and others. It is recommended that cadre strength, and recruitment rules of all categories of frontline staff be framed by government of the NCT, Delhi by making them at par with the other States / union territories; but ensuring that personnel presently working here are not put to any hardship in this process.”

However the recommendations of Forest commission were never given effect. Even the then Hon’ble Prime Minister of India, Sh. Atal Bihari Vajpayee, vide his letter dated 29.03.2001 to the Chief Minister of Delhi observed:-

“One of the major reasons for decline in standards of wildlife protection is the large number of vacancies at various levels in the field formations of the Forest Dept, and need for greater commitment on part of the officials. Certain states have made drastic cuts in the number of sanctioned posts in the department and have also banned filling up of vacant posts. Allocations to this sector have also been grossly inadequate. There is also need for up gradation of the skills of the staff both in respect of prevention of wildlife crime and successful prosecution of the offenders. An effective mechanism for intelligence gathering needs to be developed and steps for designating special courts for trying wildlife offences taken.

Further, effective infrastructure for communication, adequate mobility and sophisticated weapons have to be made available to the forest staff if we want to protect and conserve our



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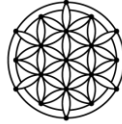
flora and fauna.”

Subsequently the then Prime Minister of India, Sh. Manmohan Singh, vide his letter dated 18.06.2005 to the Chief Minister of Delhi directed the following:-

“To aid the efforts of the forest officials, adequate number of home guards and police should be deployed immediately around Wildlife reserves and wildlife sanctuaries. Fill the vacancies in the filed staff as soon as possible. To aid the forest officials in dealing with people illegally removing forest produce and illegal hunting, the help of local population, especially tribals living in forest areas should be encouraged and trained and their assistance taken.”

Unfortunately the Government did not even heed to the letters of two successive Prime Ministers. Taking cue from the data accessed the concerned authorities of the Executive were informed of the same including the Lieutenant Governor of Delhi, the Chief Secretary of Delhi, the Secretary (Ministry of Environment, Forests & Climate Change), Director General of Forests (Ministry of Environment, Forests & Climate Change). But surprisingly not even single authorities responded, let alone take any action in the matter. Over two hundred and forty four posts remained vacant in the Forest department of Delhi and a request for creation of 319 additional posts was summarily reduced to merely seventeen, which were never filled.

In view of the basic structure being absent, for protecting the environment, i.e. the Forest Department, the Pollution Control Boards etc. need to be in a fit working condition so as to face the challenges presented in front of them with the changing times. The only thing necessary for any Government to ensure that Environment protection does not happen - is to that the ensure enforcement arms of the state for this particular purpose are left handicapped and remain mere spectators to the ensuing destruction. This may not be done intentionally but with tacit disinterest towards rising needs for environmental conservation.



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III. Seeking judicial intervention into the problems identified

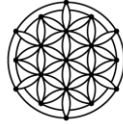
A. Seven years after the Guidelines was issued by the Government to prevent concretization of trees and damage thereto, in the year 2007, Kalpavriksha, an NGO working for conservation of the environment filed a Writ Petition before the High Court of Delhi titled **Kalpavriksha v Union of India**³. In this matter, the Hon'ble High Court of Delhi, vide order dated 19.09.2007 directed the civic authorities to remove concrete around trees and follow the Ministry of Urban Development guidelines in toto. This order as we shall see in the coming paragraphs, was never enforced despite assurances given under oath to a Division Bench of the High Court.

Upon non- implementation of the abovesaid order, another writ petition came to be filed, titled, **SC Jain v Union of India**⁴, before the same court two years later. Even in this petition, the Hon'ble High Court gave similar directions, but unfortunately neither the Court nor the Petitioner was aware of the orders in the Kalpavriksha case, however the counsels which appeared for the Civic authorities were the same, even the officers who were briefing the counsels and filing the affidavits were same, yet nobody informed the court of the previous order. At the cost of precious judicial time the same issue was adjudicated again and another order of the same tone and tenor was issued.

In this background it is important to state that in the year 1999 the New Delhi Municipal Council (NDMC), which was a party in both the above cases, found that Tamarind (*Tamarindus indica*) trees on the Akbar Road avenue were dying in large numbers. The Forest Research Institute (FRI), Dehradun, and the Central Integrated Pest Management Center (CIPMC), Faridabad, were requested to conduct an investigation vis-a-vis these dying trees. The Forest Research Institute deputed experts from the fields of Forest Pathology, Forest Ecology, Plant Physiology and Botany. The Report observed that the trees were surrounded concrete by pavements, soil compaction was determined as the common and

³ W.P (C) No. 1772 of 2007 before the Delhi High Court

⁴ W.P (C) No. 11162 of 2009 before the Delhi High Court



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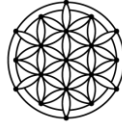
main cause of decline of the trees. Compaction of soil leads to imperviousness of the surface and disrupts the gaseous exchange between living plant parts and existing beneficial micro-organisms. Aeration and water supply to the roots are also severely restricted as a result of concreting, hindering the growth of feeding roots and ultimately resulted in root mortality. The Central Integrated Pest Management Center (CIPMC), Faridabad (Ministry of Agriculture, Government of India) also conducted their investigations and vide their report dated 04.10.1999 concluded that the death of trees was due to the following primary reasons:-

- (a) Soil around the trees had been covered with stones and cement.
- (b) The aeration of the soil was completely stopped which also affected the microbial activity in the soil.
- (c) Damage was caused to the roots due to widening of roads, laying of various kinds of utility pipes/ cables etc.

Despite the directions from the High Court of Delhi, and studies conducted by the authorities themselves, nothing was done on the ground and the brazen attitude of the government authorities and the citizens alike is apparent in the numerous trees which remain buried under concrete at every road and park in the city.

This issue has therefore, in 17 years, been litigated twice in the Delhi High Court. The orders of the High Court have been disregarded various commercial reasons as well. In public areas when tiling or concretization is done, the payments to the contractors for carrying out the work is directly proportional to the area being concretized. The more civil work i.e. concretization/ tiling etc. is carried out; more money is made by all parties concerned in the transaction. So if a contractor had to leave 10 square meters of area on a footpath for 10 trees, the billing amount would be reduced by the same measure and proportionally the “cut” being received by various parties.

Interestingly, despite two High Court orders giving clear and specific directions the problem



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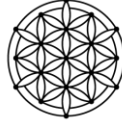
continues and in 2013 another Petition came to be filed before the National Green Tribunal to stop indiscriminate concretization of areas around trees titled **Aditya N Prasad & Ors. Vs. Union of India**⁵. This was perhaps one of the cases where the order granting the main prayer was given on the second date of hearing itself. However, three years down the line, the case is still pending before the Tribunal for implementation of its orders. This entire exercise has shown us but one thing, that what the law says is one thing, what the courts say is another, and the ground truth is totally different.

Litigation surrounding this small issue of de-choking the trees highlights how seriously the executive takes the directions of the judicial forums, even though these judicial forums are vested with powers to punish for its contempt. Though the issue is very simple to resolve and much attention has perhaps not been given to it, but with the recent hue and cry of air pollution in the Capital city, the protection of existing green has a significant part to play.

In three years, since the case has been pending before the NGT, the 16 departments involved in the process of de-concretization have been unable to de-concretize even three colonies of Delhi viz. R.K. Puram, Ashok Vihar and Hauz Khas, let alone the entire city. The NGO Kalpavriksh, which had filed the first writ petition in the High Court, has impleaded itself in the case and voiced its support to the cause. Individuals impleaded themselves taking up the issue of concretization of trees in Bangalore and Vishakapatnam.

The above description of facts also brings out yet another question which pertains to the difficulty of Courts in ensuring that their decisions are followed scrupulously. Ensuring strict implementation will lead to saving re-litigation of the same issues again and again. Once the authorities realize that the courts are active when it comes to environment protection, they themselves would take a measure of caution before taking any steps that may harm the environment.

⁵ O.A. 82 of 2013 before the National Green Tribunal



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B. The result of poor levels of man & material has sought to be placed before the judicial forum in various matters pending adjudication before the National Green Tribunal such as **Sonya Ghosh v Govt. of NCT of Delhi & Ors**⁶, where roads were cut through protected forests of Rajokri in Delhi and **Pavit Singh v The State (NCT of Delhi) & Ors**⁷, which brought to the lime light illegal encroachments in the Asola Bhatti Wildlife Sanctuary. In the case of the latter, an entire colony exists inside the declared wildlife sanctuary. This exhibits the highest levels of neglect over decades. A case in point is the forest Department of Delhi.

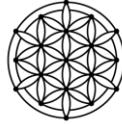
The question that arises consistently is as to how the staff is expected to undertake such an overwhelming task of protecting each and every tree when there is no infrastructural support. The men of the department appear to be working solely on the basis of their motivation, which of course is hindered with the lack of support from the Government itself.

The National Green Tribunal, Principal Bench, New Delhi was once again approached, in November 2014 in the matter of **Aditya N Prasad & Ors. v Union of India & Ors.**⁸. The Matter was taken up by the Principal Bench, which after hearing the preliminary submissions about the effects of shortage of staff and equipment, issued notices to seven departments which included the Ministry of Environment, Forests & Climate Change, Ministry of Home Affairs, Government of Delhi etc. The case has highlighted that to ensure that the environment is not protected; all that is required to be done is that the staff and equipment is curtailed in spite of increasing demands for protection in a rapidly growing metropolis. The Madhya Pradesh Forest department, which was party to the current proceedings, took a positive step by affirming an affidavit before the National Green Tribunal, that they would be very happy to provide all technical assistance and guidance to the forest department of Delhi. The Madhya Pradesh forest department has been instrumental in utilizing latest technology to map forest offences and forest fires, to effectively curb them. The first question that arose

⁶ OA No. 58 of 2013 before the National Green Tribunal

⁷ OA No. 10 of 2014 before the National Green Tribunal

⁸ O.A. 215 of 2014 before the National Green Tribunal



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was whether the Tribunal had jurisdiction to deal with the matter and could it direct the Government to ensure that proper manpower and equipment is provided to the Forest Department.

It was argued that in the matter of Lafarge Umiam Mining (P) Ltd. v. Union of India⁹, the Hon'ble Supreme Court held that the principles/guidelines mentioned in the National Forest Policy, 1988 should be read as part of the provisions of the Environment (Protection) Act, 1986 and read together with the Forest (Conservation) Act, 1980. The violations of the National Forest Policy are therefore the violations of the Environment Protection Act. Thus, in the absence of requisite and adequate manpower and resources, the Forest Department is unable to fulfil its mandate under various Statutes, including those listed in Schedule I of the National Green Tribunal Act, 2010.

The acts and omissions of the departments in not providing requisite manpower and equipment commensurate with the task at hand with the Forest Department violated various provisions of the National Forest Policy 1988 which are enumerated below :-

The Preamble to the National forest Policy clearly mentions that :-

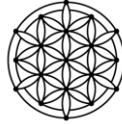
The need to review the situation and to evolve, for the future, a new strategy of forest conservation has become imperative. Conservation includes preservation, maintenance, sustainable utilisation, restoration, and enhancement of the natural environment.

.... 2. BASIC OBJECTIVES

2.1 The basic objectives that should govern the National Forest Policy - are the following:

- *Maintenance of environmental stability through preservation and, where necessary, restoration of the ecological balance that has been adversely disturbed by serious depletion*

⁹ (2011) 7 SCC 338



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of the forests of the country.

- *Conserving the natural heritage of the country by preserving the remaining natural forests with the vast variety of flora and fauna, which represent the remarkable biological diversity and genetic resources of the country.*

3. ESSENTIALS OF FOREST MANAGEMENT

3.1 Existing forests and forest lands should be fully protected and –their productivity improved. Forest and vegetal cover should be increased rapidly on hill slopes, in catchment areas of rivers, lakes and reservoirs and ocean shores and, on semi-arid, and desert tracts.

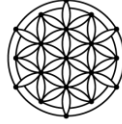
a) The word “Conservation” is synonymous to preservation, saving, preservation, all entailing the meaning “protection”. The repeated use of such terms is a command of the statute that the environment, flora and fauna need full protection. Such protection of the natural flora and fauna is the mandate of all the Scheduled Enactments listed in Schedule I of the National Green Tribunal Act, 2010.

4.8 Damage to Forests from Encroachments, Fires and Grazing

4.8.1 Encroachment on forest lands has been on the increase. This trend has to be arrested and effective action taken to prevent its continuance. There, should be no regularization of existing encroachments.

4.13 Personnel Management

Government policies in personnel management for professional foresters and forest scientists should aim at enhancing their professional competence and status and attracting and



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retaining qualified - and motivated personnel, keeping in view particularly -the Arduous nature of duties they have to perform, often in remote and inhospitable places.

4.15 Legal Support and Infrastructure Development

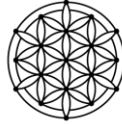
Appropriate legislation should be undertaken, supported by adequate infrastructure, at the Centre and State levels in order to implement the Policy effectively.

Thus, unless there is requisite manpower, equipment and adherence to well laid down protocols/ procedures of forest protection, there can be no effective “protection” as mandated by the scheduled Enactments of the NGT Act. All steps that need to be taken to further the cause of “protection” are ancillary and incidental to the mandate of the enactments.

In the matter of *Centre for Public Interest Litigation v Union of India*¹⁰ the Hon’ble Supreme Court held that :-

“There cannot be any quarrel with the proposition that the Court cannot substitute its opinion for the one formed by the experts in the particular field and due respect should be given to the wisdom of those who are entrusted with the task of framing the policies. We are also conscious of the fact that the Court should not interfere with the fiscal policies of the State. However, when it is clearly demonstrated that the policy framed by the State or its agency/instrumentality and/or its implementation is contrary to public interest or is violative of the constitutional principles, it is the duty of the Court to exercise its jurisdiction in larger public interest and reject the stock plea of the State that the scope of judicial review should not be exceeded beyond the recognised parameters.”

¹⁰ (2012) 3 SCC 1



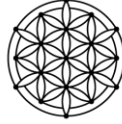
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Resultantly the National Green Tribunal pronounced the judgement in the above matter on 10.12.2015, making the following observations, while allowing the Petition:-

It has been further averred that the existing strength of officers and staff under the Department is 546, of which about 499 are the labourers, leaving only about 47 officers, office and field staff of various levels in the Department. An analysis of the strength shows that there are 7 Indian Forest Service Officers of middle and senior level in the Forest Divisions and the Head Quarters, including the Head of the Department. However the strength of Forest Rangers, Wild Life Inspectors, Deputy Forest Rangers and Forest Guards is 0, 3, 13 and 28 respectively. In fact, all the 6 post of Forest Rangers, 3 posts of Wild Life Inspectors and 38 posts of Forest Guards, 3 post of Deputy Forest Rangers and 10 post of Wild Life Game watchers are lying vacant at present. It goes to show that while the forest department is adequately staffed in terms of manpower at the level of 12 IFS Officers, there are virtually no executive and field staff in the category of Forest Rangers, and downwards, for regulatory, developmental and field functions at the cutting edge level available in the Department to carry out the multifarious staff under the various Acts.

It is also further averred that though a proposal for 319 staff was submitted to the Government only 17 posts were created. Even these 17posts have largely remained unfilled due to various administrative bottlenecks as on date. This creates a dysfunctionality in the working of Department. While on the one hand the mandate and the volume of work is increasing due to increasing pressure on the Forest and Trees in an around the territory of Delhi, the manpower strength of the executive staff is either virtually absent and grossly inadequate.

The law does not take effect in a vacuum. It requires an organization, authority or institution to implement and enforce the various provisions through professional manpower using equipment machinery and financial resources. In the absence of any or all the above ingredients, it would be futile to expect to achieve its stated object of the Act. In the process forests of Delhi will not receive the protection that is essential to a clean and healthy

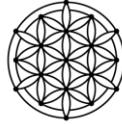


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environment leading to adverse health impacts. Although in the Affidavit the Department has stated that it proposes to engage 225 civil defence Personnel to save the forest and the ridge from the encroachment, the question that remains unanswered is whether such personnel will be authorized under the law to take cognizance of various offences and implement their provisions.

After evaluating all the arguments made, the NGT was pleased to pass the following directions,

- 1. Necessary administrative action be taken to fill up all the existing vacant posts in the Forest Department.*
- 2. A compliance Report on the above direction be submitted within 3 months particularly on the issue relating to the strengthening of manpower and filling of all the existing post in the Department including other allied aspects required for better protection of forest and environment in the NCT Delhi.*
- 3. The Chief Secretary of NCT of Delhi is directed to undertake a meeting with the Secretary of the concerned Ministry, the Principal Chief Conservator of Forest and the Senior most officers for field staff in the Forest Department and consider the issues in relation to preservation and conservation of forest in NCT of Delhi.*
- 4. We further direct him also to consider appropriate enhancement in the strength of the forest department and provision of proper infrastructure and such electronic or other gadgets that would ensure that all cadres of the forest department are able to discharge their duties and functions as required under the above Acts.*
- 5. The Forest Department should submit a report to the concerned Secretary in relation to shortcomings or difficulties that the department is facing for performing their duties in compliance to the provisions of the above two statutes.*



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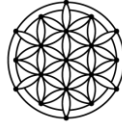
Even though the Court took a reasoned approach and directed to Government to do the needful, the question that arises is as to whether the government would actually respect the Court and follow the directions.

C. Another issue that plagues the city is that during planning of infrastructure projects, the existing environment, tree cover etc is not kept in mind. Shocking as it may seem, the principle of sustainable development remains as a principle and not as a practice. The apex body in Delhi constituted for planning and approval of infrastructure project i.e. the Unified Traffic and Transportation Infrastructure (Planning & Engineering) Centre (UTTIPEC) did not look into the environmental aspects of any infrastructure projects. The projects are simply conceptualized and approved without looking into the existing greens of the area concerned.

To remedy this, another case was filed to ensure that there are environmental experts and forest department officials on the panel of the UTTIPEC. In the matter of **Aditya. N. Prasad v Union of India & Ors**¹¹, it was prayed that that all proposed projects be looked into from environment point of view at the planning stage itself. This has been ordered by the NGT and the UTTIPEC now has an Environmental Expert and the Conservator of Forest on its board. Shouldn't sustainable development have been on the minds of the country's planners since 1972? This has shown that the country is not yet accustomed with such principles or that it is more of an academic exercise rather than a practical one. The fact that for each and every small step towards environmental protection, the courts need to be approached is in itself a frightening proposition.

The Delhi Preservation of Trees Act, 1994, mandates the constitution of a Tree Authority which as one of its tasks has to undertake critical study of the proposals of various government departments and private bodies for construction of buildings, roads, factories etc. with regard to protection of existing trees. But since the legislation came into effect in 1996,

¹¹ O.A. 169 of 2013 before the National Green Tribunal



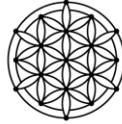
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twenty years down the line, not a single project has been evaluated by them. The central theme that is coming out of these examples is that the policies of the Government are not at all made keeping in mind the Environment and the needs of the future generations. Environment seems to be restricted to the individual ministries at the Centre and state levels. It is perhaps only when ordinary people start taking their own Environment seriously, the Governments, which are our representatives, might follow suit. It is only when we start realizing that nature is not a credit card which we can use on and on without realizing the impending consequences, that is when the idea of using less and conserving what is left will dawn upon us. Economics today is fundamentally disconnected from the real world, from the raw materials to the end products, the environmental cost of projects or products are never imagined. It is because our economies are propelled by money, there is a clear disconnect. You can put a price on cutting down forests, on catching fish, on making roads, flyovers and so on, but in this cycle the economy is unable to make a place for things such as a wetland, an underground aquifer, ocean currents or soil.

There is therefore an urgent need to ensure that the environment in all its cognate expressions is protected, the protection needs to become the dominant factor rather than the destruction. The Forests and wildlife departments need to be equipped with state of the art equipment and adequate manpower to ensure that the existing forests and wildlife are protected and their survival ensured.

IV. National Experience

It is pertinent to mention the good practices adopted by Indian states, which may be few and far in between, for protecting and conserving the Environment including forest resources. The Madhya Pradesh Forest Department leads in this endeavour. The department has utilised ICT initiatives to monitor its key activities in real time, both spatial and temporal, and to disseminate information to all stakeholders in an easy and visual format for facilitating social audits. It has introduced “*The Strategic Planning Implementation Monitoring & Command Room*”, which acts as an eye in the sky. This is a real time control room, where various

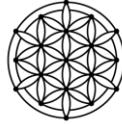


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activities including illegal felling of trees, fire reports, poaching events, suspicious sightings and other forest protection measures are fed as and when they occur. This intervention facilitates surveillance of key works and activities of the frontline staff engaged in important assignments. This is also particularly useful for data analysis and for creating a pattern for specific events such as felling of trees, poaching, forest fires etc, which makes certain events predictable and thus preventable. In the Command Room, all the land based activities can be watched and monitored. The important detections are published on dashboards for all stakeholders. Primarily based on GIS, remote sensing, GPS and hand held devices, twelve specific applications have been developed by the department:

- a) Wildlife Management System
- b) Fire Alert Messaging System
- c) Forest Dwellers Survey System
- d) Forest Offence Management System
- e) Forest Financial Management System
- f) Forest Planning & Geo Mapping System
- g) Selection cum Improvement Management System(SCIMS)
- h) Improvement Felling Management System (IFMS)
- i) Rehabilitation of Degraded Forests Management System (RDFMS)
- j) Plantation Management System (PMS)
- k) Protected area network management System (PANMS)

This has helped in enforcement of laws, adequate and focused protection measures of vulnerable resources and has enabled real-time transfer of crucial data between necessary



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stakeholders, thereby improving the overall scenario of environment protection in the State. This model can be easily replicated by other state forest departments and an integrated network of protection and monitoring can be created.

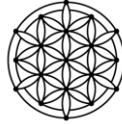
V. International Experience

An international example of another third world country is IBAMA *Instituto Brasileiro do Meio Ambiente e dos Recursos Naturais Renováveis* or Brazilian Institute of Environment and Renewable Natural Resources. It is a wing of the Brazilian Ministry of environment. It uses state of the art equipment, trained and armed manpower to put a check on deforestation within the Amazon and protection of wildlife. It uses satellite imagery, heat signatures and helicopters to find out spot deep within the jungles where deforestation may be taking place. Environment and the health of people including the economy, which are so deeply connected with each other, have to be seen as interrelated factors and not in contra distinction.

VI. Conclusion

In view of the above it is reasonable to conclude that in essence what is missing is a concerted effort towards Environmental Protection. There's no dearth of technological solutions and manpower management. The Hon'ble High Court of Rajasthan in the matter of *Girraj Goyal And Ors. vs The State Of Rajasthan And Ors. RLW 2007 (4) Raj 2875* summed up the prevailing thought process on environmental protection and observed that "*It has become an unfortunate tendency of the Governments and the enforcement agencies to act only when some directions are issued by the courts and not to take effective measures of their own.*"

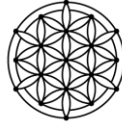
But the courts aren't always thinking in this mode. Walk into any environmental court and one can see individual citizens trying to secure justice for their environment. What must be appreciated is the when an individual files a petition before an environmental court, it is



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usually never to satisfy any personal goals. It is not a commercial transaction where one party may lose to the benefit of the other. The objective of the Court needs to be to protect and investigate the allegations of the Petitioner. This principle has been laid down by the Supreme Court of India in a catena of judgements. However time and again Petitioners are asked about their *locus standi*. There is also a contrast between the effectiveness of orders given by the NGT and those given by the High Court. The orders of the High Court seem to be followed more stringently and with a fear of reprimand.

What is essential is individual responsibility. Each and every person, whatever level in the socio-economic sphere they might be, where ever they might be in the life be a student, professional etc., each individual person must take some care of his immediate environment. The task of protecting the environment is so gigantic that the Government cannot be expected to do it alone. Everyone must contribute. People of any particular geographic area are the keepers of their environment. The idea of environment and forests cannot be counter to the idea of progress. The Earth is now reaching a stage at which technological progress, growth in our economies, and our ever growing population threaten our very existence. We have to understand our environment as a Natural Capital, more we destroy it by consuming it for our own needs or luxuries the lesser there would be, and it would be like someone who thinks he is rich because he is spending the money that has been left in his inheritance, not spending the interest but eating the capital away. This is the very concept of inter generational equity, which has to be leading principle in protection of environment. Precautionary principle, sustainable development etc. will all fall into place if we get this one point ingrained in our heart and minds, which is that this Earth and the resources on it have been given to us by our previous generations as a Natural capital and we can use only so much that Nature can itself regenerate. The more we use the more we take away from our progeny, to an extent that there might not be able enough for a few generations down the line. Like human beings have a level till which they can manage toxins in their bodies, Nature also has a similar process; the hydrological cycle is but a mere example of self renewal. But like humans, Nature also has a saturation limit, so when you keep polluting the air more and more it essentially loses the



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ability to re-vitalize itself. Civilization as we know it should not reach a point where Civilization itself becomes a trap.

This thus makes it essential for us to protect whatever that is left wherever it has been left. Things like inadequate manpower, little or no equipment to the forest and wildlife department should become a thing of the past. Too many broad-chested Indians will say we need to look at all the wonderful things we've achieved in these so many years rather than what we have not, when dealing with issues of environment. But that's a complete cop-out. It's a disaster to set a low bar in principles just because there's a low one in practice. Unless a comprehensive and prioritized effort is made to solve this lingering problems and inadequacies, the protection of environment will remain a distant dream and future generations will sans forgive us for our blunders.

Thus, for effective implementation of environmental laws, it is essential that enforcement agencies are strengthened, the Courts are sensitized towards the issues – probably through legislation, awareness among school children and individual responsibility for environmental protection is the key.