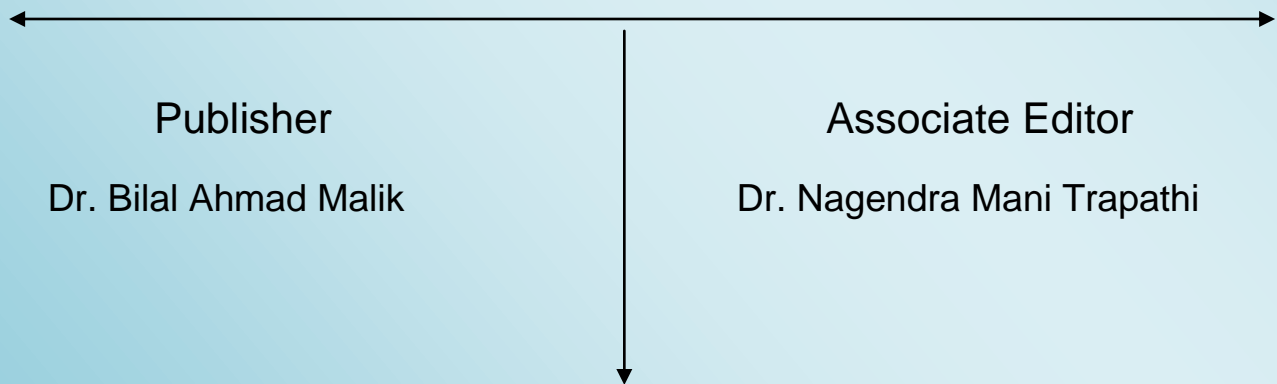


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# ENVIRONMENTAL GOVERNANCE IN INDIA: A LONG HAUL

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## ABSTRACT

*In the present paper an attempt is made to study the environmental governance in India and how it will be helpful in controlling the problem of environmental degradation in India. The study is based upon the secondary source of information collected from Forest Survey of India for the year 1989, 2009 and 2011 and annual report of ministry of environment and forest 2015-16. From the results it is clear that environmental governance is rather imperative step in India. It requires strong institutional reforms so that it can combat diverse environmental problems including the ecological conservation in India. The study also reveals that at the country level forest cover has increased recently but few states have recorded the decreasing trend. Apart from it environmental protection law and various agencies are not able to control the environmental pollution and it is continuously increasing.*

**Key Words:** Environmental Governance, Long Haul, India, Forest Degradation, Environmental Pollution.

## INTRODUCTION

Climate change is prompting an unprecedented questioning of the fundamental bases upon which society is founded. Businesses claim that technology can save environment, while politicians champion the role of international environmental agreements to secure global action. Economists suggest that we should pay developing countries not to destroy their forests, while environmentalists question whether we can solve ecological problems with the same thinking that created them. As the process of steering society, governance has a critical role to play in coordinating these disparate voices and securing collective action to achieve a more sustainable future (Evans, 2012).

Governing our planet's rich and diverse natural resources is an increasingly complex challenge. In our globalised world of interconnected nations, economies and people, managing environmental threats, particularly those that cross political borders such as air pollution and biodiversity loss, will require new global, regional, national and local responses involving a wide range of stakeholders (<http://www.unep.org/environmental-governance>). Effective environmental governance at all levels is critical for finding solutions to these challenges. Environmental Governance comprises the rules, practices, policies and institutions that shape how humans interact with the environment. Governance means "the purposeful effort to steer, control or manage sectors or facets of society" in certain directions (Kooiman, 1993). In the most basic form, governance involves actors beyond the state in the practice of governing by securing the conditions to enable collective action. While the shift from government to governance has not been restricted to the environmental domain, the complex nature of environmental problems suited them to the governance approach. High levels of uncertainty, surrounding environmental change, the global or trans-boundary nature of many problems, and the lack of global institutions to make and enforce decisions, create an obvious need to include broader sets of actors in the process of decision making (<http://www.unep.org/environmentalgovernance>).

Good environmental governance takes into account the role of all actors that impact the environment. From governments to NGOs, the private sector and civil society, cooperation is critical to achieving effective governance that can help us move towards a more sustainable future. UNEP's mandate is to be the leading global environmental authority. From delivering expert scientific assessments to providing international platforms for negotiation and decision making, UNEP has been fulfilling this mandate since 1972. UNEP's Environmental Governance sub-programme promotes informed environmental decision-making to enhance global and regional environmental cooperation and governance. Working with States and all major groups and stakeholders, UNEP helps to bridge the science and policy gaps by keeping the state of the global environment under review, identifying threats at an early stage, developing sound environmental States successfully policies, and helping and implementing these policies. (<http://www.unep.org/environmentalgovernance>).

Many researchers from India and abroad had worked upon this very urgent and basic issue environmental governance of human survival on this planet i.e., environmental governance. An environmentalist Evans in 2012 had discussed the concept of environmental governance. Lele et al, 2009 had proposed the structure of environmental governance. Trends of Environmental governance are highlighted by Quitzow et al in 2011. However, forest degradation in India is studied by Chopra et al in 1998. Reddy et al in 2001 had explained the

determinants of forest degradation in India. Raghupati in 2002 had given the idea about the extent of forest degradation. But perhaps there is no such macro level study which deals with environmental governance and environmental degradation in India. Therefore, in this paper an attempt has been made to visualize the state of environmental governance in India.

## **OBJECTIVES**

The major objectives of this research paper are:

To discuss three major types of environmental problems in India namely forest degradation, air pollution and water pollution in the light of legal procedure laid down for its protection.

To highlight the efforts made by different stake holders for effective environmental governance in India.

## **DATA BASE AND METHODOLOGY**

The entire study is based upon the secondary sources of data which have been collected from Forest Survey of India publications, New Delhi, for the years 1989, 2009 and 2011 and the annual report of the Ministry of Environment and Forest for the year 2015-16.

## **DISCUSSION**

### **Environmental Governance in India**

The rapidly industrializing countries of Asia like India have undergone a remarkable process of economic development. This rapid economic expansion is accompanied by corresponding pressure on natural resources including the forest resource. Rapid economic development, fuelled by high levels of resource consumption, has taken precedent over the long term need to preserve the environment as a whole. Over the years legislation has evolved with the enactment the of Indian Forest Act 1927, Environment Protection Act 1986, National Forest Policy 1988 National Environment Policy 2006 and many others but the environmental problems are increasing day by day.

## A. Various Unsolved Environmental Problems in India

The regulatory regime for environmental protection in India is a picture of sharp contrast. The country has elaborate statutes and regulations on almost every conceivable area from hazardous waste to forests and wildlife. Yet, monitoring and enforcement capabilities remain weak. This section examines the major environmental problems like forest degradation, air pollution and water pollution and available laws for its protection.

### i. Forest Degradation

The growing concern for conserving the natural resources has resulted in the formulation of long term perspective plans for conserving forests. These forests facilitate the conservation of ecological balances, biodiversity, enhance the quality of environment by checking soil erosion, water retention and conservation, regulate water cycle, act as carbon sink which balances the carbon dioxide and oxygen in the atmosphere and facilitate the reduction of green house gases effect etc (Raghupati,2002 and Nagadeva, 2002). Out of all the ecological and economic benefits the reckless cutting of trees in the forested area is causing shrinkage in the forested area and finally the forest degradation.

**Table: 1 Regional Distribution of Actual Forest Cover in India, 1989-2009**

Actual Forest Cover in Km <sup>2</sup>		
States	1989	2009
Andhra Pradesh	47911	46670
Bihar	26934	6804
Goa	1300	2212
Gujarat	11670	14620
Himachal Pradesh	13377	14668
Jammu and Kashmir	20424	22537
Karnataka	32100	36190
Kerala	10149	17324
Madhya Pradesh	133191	77700

Maharashtra	44058	50650
Orissa	47137	48855
Punjab	1151	1664
Rajasthan	12966	16036
Tamil Nadu	17715	23551
Uttar Pradesh	33844	14341
West Bengal	8394	12994
Haryana	563	1594
Sikkim	3124	3359
Arunachal Pradesh	68763	67484
Assam	26058	27692
Manipur	17885	17280
Meghalaya	15690	17321
Nagaland	14356	13464
Tripura	5325	7985
Mizoram	18178	19183
Uttarakhand	0	24495
Chattisgarh	0	55678
Jharkhand	0	22894
<b>All India</b>	<b>640134</b>	<b>692394</b>

**Source;** State of Forest Report, Forest Survey of India, 1989 and 2009

To cope up with such problems of global climate change, environmental governance seems to play a vital role. Thus it can be safely said that for sustainable future it is mandatory to conserve natural resources including the forest resource because forest degradation will disturb the fragile ecological balance and in turn will intensify the problem of global climate change. Degradation is a disinvestment in the stock of forests if more value than

replaced (by nature or man) is extracted (Reddy et al, 2001). The enormity of forest stock scarcity in India can be judged from India's position in the world in terms of population and forest resources. India possesses around 16 per cent of the world's population. Overall the forest cover has been decimated from nearly 40 per cent of India's geographical area a century ago (Guha, 1983) to 22 per cent in 1951 and to 19 per cent in 1997 (MoEF, 1997) after 2001 forest cover area has increased and now it has become 21.1 per cent (FSI, 2011). But still it is less than the desired level i.e., 33 per cent of the total geographical area. From the above table it is clear that at all India level the actual forest cover has increased.

But when this table is analysed in detail, it is observed that among all the twenty eight states, seven states namely, Andhra Pradesh, Bihar, Madhya Pradesh, Uttar Pradesh, Arunachal Pradesh, Manipur and Nagaland have reported a decline in the forest cover. In case of Andhra Pradesh forest cover has reduced from 47911 Km<sup>2</sup> in 1989 to 46670 Km<sup>2</sup> in 2009. In case of Bihar the decline in the forested area is very sharp but this mainly because of the separation of its larger forested area in the name of the construction of new state i.e, Jharkhand. In case of Uttar Pradesh and Madhya Pradesh the steep decline in the forested area is also associated with formation of new states Uttarakhand and Chattisgarh respectively. But when the data of the parent states and newly constructed states are combined for the year 2009, it was found that the forest cover has marginally declined in these states. Apart from it three of the north eastern states namely, Arunachal Pradesh, Manipur and Nagaland have recorded decreasing trend in forested area. From the above discussion it can be said that forest cover has been decreasing mainly in the hilly tracts of the country. This reduction in the forested areas in these regions may be associated with the construction of infrastructure facilities in these remote areas.

## ii. Air Pollution

The primary statute in this area is the Air (Prevention and Control of Pollution) Act of 1981. Air Act was based on the decisions of a supranational body, namely, the 1972 UN Conference on Environment. The Act is nationwide in its scope and states that had not set up pollution boards establish them. Under this Act all industries have to obtain consent from state boards to operate within air pollution control areas delineated by the boards. In practice, however, all states have declared themselves as entirely air pollution control board. ([econdse.org/wp-content/uploads/2016/07/chapter-1-gupta.pdf](http://econdse.org/wp-content/uploads/2016/07/chapter-1-gupta.pdf))

The latest urban air quality database released by the World Health Organization (WHO) reconfirms that most Indian cities are becoming death traps because of very high air pollution levels. India appears among the group of



countries with highest particulate matter (PM) levels. Also, its cities have the highest levels of PM10 and PM2.5 (particles with diameter of 10 microns and 2.5 microns) when compared to other cities. Of the 20 most polluted cities in the world, 13 are in India, says the database. Delhi is among the most polluted cities in the world today. In addition to this, Narain points out, 18 million years of healthy lives are lost due to illness burden that enhances the economic cost of pollution. Half of these deaths have been caused by ischemic heart disease triggered by exposure to air pollution and the rest due to stroke, chronic obstructive pulmonary disease, lower respiratory tract infection and lung cancer. <http://www.cseindia.org/>

### iii. Water Pollution

It was not till the 1970s that the federal government started enacting more wide-ranging and comprehensive environmental laws starting with the Water (Prevention and Control of Pollution) Act of 1974, which was notable for the degree of consensus between the centre and the states. Six states had passed resolutions in 1969 urging parliament to legislate on water pollution. By the time the Act came into force in 1974, a total of twelve states had joined the consensus in a remarkable instance of voluntary surrender of legislative authority to the central government. The Act is very much in the nature of a "command and control" regulation: it prohibits the discharge of pollutants into water bodies beyond established standards (Section 24) and requires generators of all new and existing sources of discharge into water bodies get the prior consent of pollution control boards (Sections 25 & 26). It also lays down penalties including fines and imprisonment for non-compliance. Prior to 1988, enforcement was through criminal prosecutions initiated by state boards and by seeking injunctions to restrain polluters. After amendments to the Act in 1988, boards were given more teeth in that they can shut down errant factories or cut off their water or electricity by administrative orders. ([1.econdse.org/wp-content/uploads/2016/07/chapter-1-gupta.pdf](http://1.econdse.org/wp-content/uploads/2016/07/chapter-1-gupta.pdf) [2.www.archidev.org/spip.php?article597](http://www.archidev.org/spip.php?article597))

Out of all these laws and acts, the availability of freshwater resources is declining in India on per capita basis due to increase in population decades from 345 million during 1947 to 1130 million during 2007 in six decades. Depletion of available freshwater resources, falling ground water levels and deteriorating water quality are all posing a variety of challenges in managing India's water resources. Competing demands from the diversified needs of a growing population are quite often leading towards disputes among users. The per capita water availability in India is raising concerns. The annual per capita availability of renewable freshwater in the country has fallen from around 6042 cubic meters in 1947 to 1845 cubic meters in 2007. Given in projected increase in population by the end of 21st century, the per capita availability is likely to drop below 1000 cubic meters a

situation labeled as water scarcity. ([www.cpcb.nic.in](http://www.cpcb.nic.in) e-mail: [cpcb@nic.in](mailto:cpcb@nic.in)) The report, based on latest data from the ministry of urban development (2013), census 2011 and Central Pollution Control Board, estimates that 75-80% of water pollution by volume is from domestic sewerage, while untreated sewerage flowing into water bodies including rivers have almost doubled in recent years. (<http://www.cseindia.org>)

## **VARIOUS AGENCIES AND THEIR EFFORTS FOR ENVIRONMENTAL GOVERNANCE IN INDIA**

To meet out various environmental problems like forest degradation and environmental pollution, environmental governance may play a vital role as it encompasses the involvement of the localities' along with the cooperation of government and non government bodies. The strength of environmental governance in India can be analysed in the light of the efforts taken by different bodies in India.

### **i. Government Efforts for Environmental Governance**

In June 2008, the prime minister of India Dr. Man Mohan Singh released the country first National Action Plan for climate change which outlined existing and future policies and programs that address climate change mitigation and adaptation, chief among them being the setting up of eight national missions to work on various important sections as solar power, sustainable agriculture, strategic knowledge on climatic change and others (Narayana, 2011). On 17 februray 2016 our minister of forest, environment and climate change has launched the environment information system portal (ENVIS) for environment protection and sustainable development. <http://envfor.nic.in>

### **Efforts of the Apex Government Bodies of the Environmental Issues**

India has the second fastest growing economy in the world. This rapid development could exacerbate the already severe environmental problems the nation faces. There is a growing recognition that India's existing structure to enforce environmental laws are in adequate to tackle the scale of pollution problems. As a result Indian civil society and Indian environmental ministry have put forward the proposals to strengthen environmental governance in India including government proposals to create a new agency focused on compliance and enforcement like the report of steering committee on environment and forest sector for the 11<sup>th</sup> five year plan (2007) recommended the setting up of a National Environment Clearance Authority ([docs.nrdc.org/international/int\\_10051901](http://docs.nrdc.org/international/int_10051901)). In February 2012, the state of West Bengal was directed to draft a policy for wetlands by the Kolkata High Court after India became a signatory of the Ramsar Convention for

protection of wetlands ([econdse.org/wp-content/uploads/2016/07/chapter-1-gupta.pdf](http://econdse.org/wp-content/uploads/2016/07/chapter-1-gupta.pdf)). In Jan 2014 MoEF has implemented a scheme named Climate change Action Programme to create and strengthen the scientific and analytical capacity to assess the climate change in the country. (<http://envfor.nic.in/> Annual Report of MoEF, 2015-16)

## ii. Efforts Taken by Public

Public participation is a decisive factor in success of policies. In U.S., U.K., Sweden, Canada the public pressure brought environmental issues to the policy arena in contrast to India where policy came before people. The public has a rooted interest in making sure that environmental laws are properly carried out, because local communities are directly harmed by environmental problems ([docs.nrdc.org/international/int\\_10051901](http://docs.nrdc.org/international/int_10051901)). Public participations in the administrative process ranges from individuals to larger, expert nonprofit organizations. Chipko Movement started in Tehri Gharwal region, Save Narmada Movement, Jal Sathyagrah Movement are some of the efforts taken by the local public to save their native natural resources including the forests.

## CONCLUSIONS

The challenges of ecological conservation and management are immense in a country as large and diverse as India. But institutional mechanisms and implementation have not kept pace with the legislative and policy evolution as evident from the continuous degradation of forest resource (Tab.1) and quality of air and water. Here environmental governance is supposed to help in forging new identities and versions for the environment in which we want to live. But it has not sufficient potential to link people, place and resources in the radical new ways. It is creating only a rippling effect and requires institutional reforms and strong linkages. Quite clearly, there is a need to reassess the entire ambit of environmental governance in the country. At the end it can be said that environmental issues in are just like the old wine sold in the old bottle with new brand.

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## ABBREVIATIONS

NEPA	National Environmental Protection Authority
UNEP	United Nation Environmental Programme
FSI	Forest Survey of India
Mo EF	Ministry of Environment and Forest
ENVIS	Environment Information System Portal
NECA	National Environment Clearance Authority

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