

Environmental Governance and Policy: Water

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Abstract---The related terms, "sustainable" and "sustainability" are popularly used to describe a wide variety of activities in the environment which are generally ecologically laudable but which may not be sustainable. The sustainable development agenda has introduced a number of principles to guide policy-making – for example, long-term planning horizons should be employed, equity implications should be considered, and opportunities for international cooperation should be sought. One of the principles that has been relatively easy to agree upon is environmental governance and policy (EGP). It refers to the “the sum of organizations, policy instruments, financing mechanisms, rules, procedures and norms that regulate the processes of global environmental protection. The purpose of this paper is to provide a literature review of the EGP concept and how it has been studied and evaluated in practice, in order to identify the key reasons due to which we are not able to sustain our environment properly. Following a brief overview of EGP initiatives at the national and domestic level in India, three questions have guided the literature review. First, what is meant by EGP? The examination of a range of conceptions suggests that the two most important differences at the conceptual level are whether a weighting criterion giving ‘principled priority’ to environmental objectives or not, and whether it is seen as process or an output. . Second, how make EGP work to obtain sustainable environment? The review of both theoretical and practitioner-oriented literature suggests that variables and measures for EGP can be roughly divided into three broad and inter-related categories: normative. Leadership, overall policy framework, change of policy-making culture), organizational (e.g. integrating non-governmental organization, change of the budgeting process), and procedural factors (e.g. EGP strategies and action plans, regularly monitoring on plans, systematic impact assessment procedures).). Thirdly, what criteria can be used to evaluate the degree of EGP? While there are a few different sets of procedural criteria for evaluating specific EGP measures, there is a lack of criteria for evaluating the degree of EGP in substantive policy outputs resulting from ‘normal’ sector policy-making. The paper is concluded by highlighting key conceptual choices and making recommendations for further EGP study, including more theory-driven and explorative approaches.

Keywords: Sustainable environment, sustainability, EGP, policy, act, degree of EGP

I. INTRODUCTION

We understand environmental governance and policy (EGP) as the sum of organizations, policy instruments, financing mechanisms, rules, procedures and norms that regulate the processes of environmental conservation and protection. Since environmental issues entered the international agenda in the early 1970s, global environmental politics and policies have been developing rapidly. The environmental governance and policy system we have today reflects both

the successes and failures of this development. There is great awareness of environmental threats and numerous efforts have emerged to address them globally. At the same time—and partly because of the rather spectacular growth in awareness and initiatives—the EGP system has outgrown its original design and intent. The system’s high maintenance needs, its internal redundancies and its inherent inefficiencies have combined to have the perverse effect of distracting from the most important EGP goal of all—improved environmental performance.

The reason behind why we are dealing with inefficiencies in implementing present environmental policies is that even if we know so much more about environmental conditions and environmental processes, we also know more about what is not going well with the global environment but still we are not implementing new methods to get a positive output. This state of affairs is well documented in the *Millennium Ecosystem Assessment* (2006). For example, despite the feverish discussions about global climate change, carbon emissions continue to rise; global atmospheric CO₂ levels that were around 300 parts per million (ppm) in the early 1900s have now reached approximately 380 ppm. The *Millennium Ecosystem Assessment* also found that approximately 60 per cent of the ecosystems that it examined were either being degraded or used unsustainably. Taking another instances that shows the perverse effect of the EGP-A decade after the signing of the Biodiversity Convention, the species extinction rate is still 1,000 times higher than what would be occurring naturally, without human impact.

Given increasing evidence of environmental degradation, the system needs reform urgently. However, it should be noted that the system needs reform not because it has “failed,” but because it has outgrown its own original design. Much like children who outgrow their clothes as they mature, or small towns that need new infrastructure as they blossom into large cities, the GEG system needs to be rethought so that it can meet the challenges of its own growth, respond to future issues and move from its current emphasis on awareness-raising and treaty creation to actual environmental action and implementation.

This paper seeks to identify a number of practical steps that can foster a more efficient and effective environmental regime, making better use of the resources available and designed in a way that will be more helpful to the implementation of international environmental agreements for developing as well as developed countries. The paper objectives are:

- (a) To analyze past and current efforts at Environment governance and policies reform;
- (b) To outline a practical overall direction for rationalized EGP in a bottom-up reform of the international environmental governance system; and

(c) To propose a set of realistic and desirable steps to achieve meaningful reform.

We begin from the obvious but important premise that the objective of EGP reform is not simply institutional harmony and efficiency; it is to bring about tangible environmental improvement and positive movement towards the ultimate goal of sustainable development. To make this a manageable exercise, we will focus on environmental governance. However, we understand and very much identify with the needs to contextualize environmental governance within the framework of sustainable development.

We are convinced that the efficiency of environmental governance and policies will ultimately depend on implementation at global and domestic levels. National implementation is the ultimate key, both to the efficiency of the EGP system and to meaningful environmental improvements. However, for the purpose of this paper, we will focus principally on the national and institutional aspects of EGP reform, including efforts to create the support for domestic implementation.

II. WATER POLICIES AND ACTS

The increasing population along with the associated developmental activity has played havoc with freshwater sources the world over and India is no exception. The estimated utilizable freshwater resources of the country - both surface and groundwater put together - are 1086 km³ and are expected to be able to meet the demands up to the year 2050. The water quality of the surface water sources is, however, a cause of grave concern as in most of the rivers and lakes it does not even meet the bathing quality standards let alone those for human consumption. This realisation by the Government of India resulted in the formulation and implementation of the National River Action Plan and the National Lake Conservation Plan. The aforesaid plans, however, covered the major rivers important lakes and concentrated on treating the municipal wastes finding their way from large towns, which may be considered as gross polluters. While these have resulted in reasonable improvement in the quality of the water, they have not been able to meet the aspirations of the people to the desired extent. Further, it must be appreciated that conservation of rivers and lakes implies much more than treating municipal wastes alone. Projects dealing with river/lake conservation have therefore to address wider issues of environment. This calls for taking a holistic view of the conservation and formulation of integrated projects.

III. REGULATORY FRAMEWORK FOR PREVENTION OF POLLUTION

Even before India's independence in 1947, several environmental laws existed but the real impetus for bringing about a well-developed framework came only after the UN Conference on the Human Environment (Stockholm, 1972). After the Stockholm Conference, in 1976, environmental concerns were incorporated into the Directive Principles of State Policy and Fundamental Rights and Duties. Since the 1970s an extensive network of environmental legislation has grown in the country. The MoEF and the pollution control boards (CPCB i.e. Central Pollution Control Board and SPCBs i.e. State Pollution Control Boards) together form

the regulatory and administrative core of the sector. To complement the legislative provisions and to develop and promote initiatives for the protection and improvement of the environment, The Policy Statement for Abatement of Pollution and the National Conservation Strategy and Policy Statement on Environment and Development were introduced in 1992. The EAP (Environmental Action Programme) was formulated in 1993 with the objective of improving environmental services and integrating environmental considerations in to development programmes. Other measures have also been taken by the government to protect and preserve the environment. Water specific measures are briefly mentioned below.

IV. WATER

Water quality standards especially those for drinking water are set by the Indian Council of Medical Research. The discharge of industrial effluents is regulated by the Indian Standard Codes and recently, water quality standards for coastal water marine outfalls have also been specified. In addition to the general standards, certain specific standards have been developed for effluent discharges from industries such as, iron and steel, aluminium, pulp and paper, oil refineries, petrochemicals and thermal power plants etc. Enactments to control water pollution are listed below.

A. *Water (Prevention and Control of Pollution) Act, 1974*

The Act prohibits the discharge of pollutants into water bodies beyond a given standard, and lays down penalties for non-compliance. The Act was amended in 1988 to conform closely to the provisions of the EPA, 1986. It set up the CPCB (Central Pollution Control Board), which lays down standards for the prevention and control of water pollution. At the State level, the SPCBs (State Pollution Control Board) function under the direction of the CPCB and the state government.

B. *Water (Prevention and Control of Pollution) Cess Act, 1977*

It aims at augmenting the resources of the central and state boards for prevention and control of water pollution. Following this Act, The Water (Prevention and Control of Pollution) Cess Rules were formulated in 1978 for defining standards and indications for the kind of and location of meters that every consumer of water is required to install. Environmental Protection Act 1986 is an Act to provide for the protection and improvement of environment and for matters connected therewith. "Environment" includes water air and land: In 2004 the government made EIA mandatory under the EPA for construction projects. It applies to all Building/ Construction projects/Area development projects and Townships (Residential and Non-Residential). This provision implies that such projects will have to get environmental clearance which would ensure putting in place effective, efficient and sustainable arrangements for safe disposal of solid and liquid waste including sewage and will not create a liability for the Governments - local, State and Central - in future to make arrangements. The latest measure for the protection of the environment is the declaration of the

C. National river conservation programme

Objectives of National River Conservation Plan

The objectives which were adopted in National River Conservation Plan are:

- To improve the water quality of rivers to the Designated Best Use (DBU) Standard, which in most cases will be bathing standard Class B
- Undertake research in consonance with the above objectives.
- Gain experience of taking up similar action plans in grossly polluted stretches of other rivers.

The important works being undertaken under NRCP include:

a) Core Schemes

- Interception and diversion works to capture the raw sewage flowing into the river through open drains and divert them for treatment.
- Sewage treatment plants for treating the diverted sewage.

b) Non-Core Schemes

- Low cost sanitation works to prevent open defecation on river banks.
- Electric and improved wood based crematoria to conserve the use of wood and help in ensuring proper cremation of bodies brought to the burning Ghats.
- River front development works such as improvement of bathing Ghats etc.
- Other minor miscellaneous works like plantation, public awareness etc.

D. National lake conservation plan

The National Lake Conservation Plan (NLCP) was initiated in June, 2001 with approval of 3 lakes namely, Powai (Maharashtra), Ooty & Kodaikanal (Tamil Nadu). The funding pattern under NLCP was 70:30 cost sharing between Central and State governments w.e.f. Feb 2002.

Broad Objectives

The objective of the scheme is to restore and conserve the polluted and degraded lakes of the country. To begin with, NLCP proposed to cover urban lakes. The scope of work under NLCP has, however, been expanded during the X Plan to include rural water bodies also

E. National wetland conservation programme

Background

Realising the importance of water bodies for providing food, fodder, fuel and water for domestic, irrigation and industrial purposes; their role in supporting fisheries; number of rare and endangered species of flora and fauna etc; Govt of India operationalised wetland conservation programme in 1985-86 in close collaboration with concerned State Government. These steps were taken mainly due to their degradation and shrinkage, encroachment, siltation, weed infestation, catchment erosion, surface runoff, carrying pesticides & fertilizers from agricultural fields and discharge of domestic sewage and effluents which resulted in deterioration of water quality, prolific weed growth, decline in biodiversity and other associated problems.

V. OBJECTIVES

The scheme on conservation and management of wetlands was initiated in 1987 with

The following broad objectives:-

- To lay down policy guidelines for implementing programs of conservation and Management of wetlands, mangroves and coral reefs in the country.
- To identify priority wetlands for intensive conservation, management and Research,
- To prepare an inventory of Indian wetlands, mangroves and coral reefs
- Conservation and protection of the wetlands, Mangrove Ecosystem from further degradation;
- A forestation of degraded wetlands, Mangrove and coral areas;
- Restoration of degraded coral reef areas;
- Maintenance of genetic diversity especially of the threatened and endemic species;
- Creation of awareness among the people on importance of Wetlands, Mangrove Coral Reef Ecosystem and the need for their conservation.

VI. SOLUTION

We have seen lot of policies and act to prevent water from contamination but is it really helping to attain our goals. The answer is simply no, so what a miss with us. The problem is we only have acts but there is no proper implementation and monitoring of the same. So we came to some solutions which are as follows:

- A rightful committee should be established that create a proper linkage between the state and central government related to same river.
- After the program is introduced a monitoring committee should be present which analyse and report the working of the program at fix interval of time to the higher authorities.
- Transparency in the introduction and implementation of new plan is a must.
- There should be a participation of the local people in policy and decision making.
- Pollution norms should be made according to the international norms and should be revised in every three years.
- There should be a awareness program so that the river can attain there mythological and cultural same as in olden times.
- NGO's should be created that works in collaboration with the government for capacity building and promotion of community participation in environmental awareness and protection.

These are some of the steps that can be easily implemented to improve the present condition of water.

VII. CONCLUSION

Environmental organizations, in recent years, have grown in size and in number as a result of governmental negligence towards the environmental crisis.. By interrelating global and local concerns, they are able to not only emphasize important ecological issues, but also raise consciousness

about the environment.

It can be assessed by the above discussion that the very existence of the Environmental monitoring committees and the role played by them in the protection of the environment is not only important but also necessary because no government alone with any amount of laws and acts can achieve the objectives of environment protection without individual and public participation which can be achieved only through a network of motivated and dedicated organizations.

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