Review of Environmental governance in India: Cataloguing of the current initiatives

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Abstract

Environmental resources are increasingly coming under the pressure from various facets of development. Institutional as well as non-institutional mechanisms for ensuring that the long term sustenance of environmental resources does not get hampered therefore assume greater importance. In this context, improving the governance process of development is considered as a means of improving performance on the above. This can primarily emanate from the setting up of new institutions, from, the strengthening of existing institutions, from providing a policy framework and from undertaking the initiatives that lead to the conservation of environment and its resources. This paper discusses the concepts of governance and good governance in relation to environmental management first; it then provides an overview of select environmental governance measures undertaken by government departments in a catalogued manner. It discusses the initiatives under the broad categories of: commitments to global treaties, transparency and accountability, sensitive ecosystems, conservation projects, water resource management, research, education and training capacity building. It thereby provides an abstract state of environmental governance, which needs to be developed much deeper by incorporating further details and making refinements.

Key words: Governance, environmental management, decision making, institutions

1. Introduction

Environmental resources are an important ingredient of economic progress and improvement of quality of life of the society and good environmental management is an important means of ensuring it. Environmental resources are increasingly coming under the pressure from various facets of development. The consumption of natural resources viz., air, water, land and biota, in the production process of economic activity, the discharges from it and the quality of life improvement shall have to keep in mind the finite resource base, the rights of people, legal framework and the implications of one’s actions (UNEP 1996). Essentially, the economic development of society has to be sustainable from several points of

view – socio-economic, ecological, legal and environmental\textsuperscript{1}. Institutional as well as non-institutional mechanisms for ensuring that the long term sustenance of environmental resources does not get hampered therefore assume greater importance.

Governance is broadly the process of decision making and their implementation\textsuperscript{2} and larger connotations to the interaction between government (or, state), markets (or, private sector) and civil society. It is defined here as the dynamic interaction between people, structures, processes and traditions that support the exercise of legitimate authority in provision of sound leadership, direction, oversight, and control of an entity in order to ensure that its purpose is achieved, and that there is proper accounting for the conduct of its affairs, the use of its resources, and the results of its activities. Governance also refers to government structure, functioning, institutions and power relations that lead to decisions\textsuperscript{3} and good governance should ideally lead to sustainable improvement in the quality of life of all citizens.

Initiatives have been taken autonomously by various government departments in India to improve the governance process of environmental management, which need to be put in proper perspective. However, still there exists a large vacuum in the governance of key natural resources like surface and ground water resource management, social and environmental forestry, land use/land cover management. It is in the form of: lack of institutional mechanisms, institutional fragmentation, and the lack of appropriate implementation frameworks. Literature, which is diverse on them, has richly discussed each of them in detail. The lack of attempts made towards decentralisation of local natural resource management in spite of 73\textsuperscript{rd} Constitution Amendment Act assumes significance in this context.

2. Good Environmental Governance

Both environmental governance and good governance ideally lead to sustainable development, a major departure, however, comes in the form of good environmental governance reflecting sustainable quality of life improvement not only from the view point of human/community needs, but also from the larger societal point of view while keeping in mind the finite resource base and the implications of actions within and between the generations (Pearce 1992). However, given the common objective of sustainable development, it can be affirmed that the principles of good governance can also usher in good environmental governance. The common goal of sustainable development of the society has several aspects, which include laws, policies and mechanisms of implementation, institutions, equity, gender sensitivity, national and international conventions, democratic processes, participatory decision making and respect for diversity.

Box 1 provides the constituents of good governance promoting and supporting sustainable development.

\textsuperscript{1} The concept of sustainable development was first brought out by the Brundtland Report (1992)
\textsuperscript{3} This concept leads to the mire of government processes and performance and the need for their streamlining through reforms (D. Osborne and T Gaebler, \textit{Reinventing Government}, Addison Wesley Publishing Co., New York, 1992
Box 1: Constituents of Good Environmental Governance

- Social and political leadership and bureaucracy that are well informed and concerned about sustainable development, that prepare the people at large for sustainability imperatives, and that keep the distant future in focus as much as present;
- Institutions that are functioning democratically with transparency, accountability and synergy;
- Participation of stakeholders at different levels in decision-making and, where possible, in implementation;
- Focus turned on the basic development needs e.g., poverty eradication and protecting the environment;
- Laws and policies reflecting viable reconciliation of the country’s development needs and conservation imperatives, geographical and cultural diversity, equity and gender concerns.

3. Good Environmental Governance: Catalogue of Major Government Initiatives

Towards achieving environmental governance, the Government of India made several attempts through its arm – Ministry of Environment and Forests. The following is an attempt to trace some of the initiatives that are relevant and significant from the viewpoint of protecting environment and sustainable development.

3.1 National Environmental Policy 2006

Preparation of a new Policy

Good environmental governance requires a strong policy of the State in place that supports the initiatives to achieve the objective and provide a strategic direction as well as suggest major actions that could be taken. Recognising the importance of this important instrument which would provide a broad framework for the plan of actions of all key stakeholders, the UPA government has drafted a new environmental policy, which has been approved by the Union Cabinet on May 18, 2006. The policy document is an outcome of extensive consultations with experts, ministries, members of parliament, state governments, industry associations, academic and research institutes, civil society, NGOs and the public; it was finalized after receiving inputs from various sections on the draft placed for public consultation.

Background to the Policy and Its Scope

At the backdrop, the attainment of sustainable development is enshrined in development policies and institutions, but the policies that promote it through guidance of the activities to be promoted and/or contained is fragmented in different policies e.g., National Forest Policy, 1988, National Conservation Strategy and Policy Statement on Environment and Development, 1992, the Policy Statement on Abatement of Pollution, 1992 and a few other sectoral policies. The National Environment Policy (NEP), 2006 sought to extend the coverage, and fill in the gaps that still exist, in light of present knowledge and accumulated experiences; it sought to build on the earlier policies rather than displacing them. The NEP is also a response to the nation’s commitment to a clean environment, mandated in the Indian
Constitution in Articles 48A and 51A (g) and strengthened by judicial interpretation of Article 21.

Policy Coverage
The National Environmental Policy is intended to be a guide to action: in regulatory reform, programmes and projects for environmental conservation; and review and enactment of legislation, by agencies of the Central, State and Local governments (Box 2 lists the objectives of the policy). The dominant theme of the policy is that while conservation of environmental resources is necessary to secure livelihoods and well-being of all, the most secure basis for conservation is to ensure that people dependent on particular resources obtain better livelihoods from conservation, rather than from degradation, of the resource. The policy also sought stimulating partnerships between different stakeholders in harnessing their respective resources and strengths for environmental management.

<table>
<thead>
<tr>
<th>Box 2: Objectives of the National Environmental Policy</th>
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<tbody>
<tr>
<td>⇒ Conservation of Critical Environmental Resources</td>
</tr>
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<td>⇒ Intra-generational equity: livelihood security for the Poor</td>
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<td>⇒ Inter-generational Equity</td>
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<td>⇒ Integration of Environmental concerns in Economic and Social Development</td>
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<td>⇒ Efficiency in Environmental Resource Use</td>
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<td>⇒ Environmental Governance</td>
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<td>⇒ Enhancement of Resources for Environmental Resource Conservation</td>
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Policy Features
The Policy has outlined some actions, both ongoing activities, functions and roles, as well as new initiatives, to be taken under the Strategic Themes mentioned below:

- **Regulatory Reforms**
  - Revisiting the policy and legislative framework
  - Process related Reforms
  - Substantive Reforms
- **Enhancing and conserving environmental resources**
  - Land degradation
  - Desert ecosystems
  - Forests and wildlife
  - Biodiversity, Traditional Knowledge and Natural heritage
  - Freshwater Resources
  - Mountain Ecosystems
  - Coastal Resources
  - Pollution Abatement
  - Conservation of Manmade Heritage
  - Climate Change
- **Environmental Standards, Management Systems and Certification**
  - Environmental Standards
  - Environmental Management Systems, Ecolabeling & Certification
- **Environmental Awareness, Education and Information**
- **Partnerships and Stakeholder Involvement**
- **Capacity Building**
- **International Cooperation**
3.2 Continued commitments to national and international treaties signed in the past

**Global Environment Facility**

Good numbers of initiatives have been undertaken within the broad national and international commitments towards sustainable development. The Global Environment Facility (GEF) is an international co-operative financial mechanism that provides grants and low interest loans to developing countries to help them carry out programmes to relieve pressures on global ecosystems. India has also begun receiving assistance for the projects under it, which are under various stages of implementation and completion. The Ministry of Environment and Forests has formulated the National GEF Strategy to facilitate the diagnosis of various problems and to evolve an effective mechanism for planning, formulating, implementing, monitoring and coordination of GEF projects in the country. An Empowered Committee has been set up for identification of GEF projects, formulation, implementation and monitoring for GEF activities in the country.

**Clean Development Mechanism**

India has set up the National Clean Development Mechanism (CDM) authority, which started functioning since 2003 and approved 25 projects from sustainable development point of view. A ‘Climate Technology Bazaar’ was organized to showcase the environmentally sound and climate friendly technologies from developed countries and India in the fields of renewable energy, energy from waste, resource conservation and energy efficiency etc. India is also a signatory of the Conference of the Parties (COP) to the United Nations Framework Convention on Climate Change.

**Montreal Protocol Treaty**

India is also a signatory of the Montreal Protocol Treaty and it established Montreal Protocol Multilateral fund for approving investment and non-investment projects of replacing Ozone Depleting Substances (ODS) from atmospheric environment. Several activities were undertaken to bring about awareness regarding the harmful effects of ODS, particularly through the joint Workshops held with State Environment Department and Pollution Control Boards in Six States and four Union Territories. The National Phase out plan for production and consumption of CFC was approved and the CFC phase out projects in foam, commercial refrigeration and aerosol sectors have been approved. Likewise, the National Refrigeration & Air Conditioning Service Sector Strategy & Policy and Customs Training Strategy were prepared, submitted and also approved.

3.3 Promotion of transparency, accountability and citizen services

**Citizens’ Charter**

A Citizens’ Charter for the Ministry of Environment and Forests has been prepared on the guidelines provided by Department of Administrative Reforms and Public Grievances (DARPG). The Charter includes the Ministry’s vision, aims and objectives, operational details, statement of services provided, details of clients, customers and grievance redress mechanisms, expectations from the client/citizen and the contact points in the Ministry for citizens’ grievances, etc. The Citizen’s Charter is now available in the Ministry’s website at http://envfor.nic.in.

**EIA Notification**
The Environmental Impact Assessment (EIA) is an important means for identifying, assessing and mitigating the impacts of development project proposals so that they can be addressed during planning/clearance stage itself. The scope of EIA is now proposed to be extended to include new projects relating to construction of townships, industrial townships, settlement colonies, commercial complexes, hotel complexes, hospitals, office complexes for 1,000 persons and above or discharging sewage of 50,000 liters/day and above, or with an investment of Rs. 50 crores and above, and new industrial estates having an area of 50 hectares and above, and the industrial estates irrespective of area if their pollution potential is high. Draft notification inviting suggestions/objections from all concerned, including the members of public, on the proposed amendment to the EIA Notification 1994 has been issued.

Streamlining Environmental Clearances

Environmental site clearance has been made mandatory for mega projects such as green field airports, petrochemical complexes and refineries; in item 4 of schedule 1; petroleum refineries including crude and product pipelines, and isolated petroleum product storages. However, Public Hearing has been exempted for offshore exploration activities, beyond 10 km from the nearest habitated village boundary, gaothans and ecologically sensitive areas such as mangroves (with a minimum area of 1000 sq. m.), coral reefs, national parks, marine parks, sanctuaries, reserve forests and breeding and spawning grounds of fish and other marine life. Further, widening and strengthening of existing canals with land acquisition upto a maximum of 20 metres (on both sides put together) along the existing alignments has been exempted from EIA, provided such canals do not pass through ecologically sensitive areas from the purview of EIA Notification. The distance criteria, which was 25 kms in case of reserved forests and ecologically sensitive areas, was revised to 50 kms in both the cases. As a result, power projects of co-generation plants, captive power plants upto 500 MW using fluidized bed technology, coal based power plants upto 250 MW using conventional technology, gas / naphtha based plants upto 500 MW and not falling within a critically polluted area or within a radius of 15 kms of boundary of reserved forests, ecologically sensitive areas in any state can be considered and accorded environmental clearance by the State Governments themselves.

3.4 Continued programmatic support to the conservation of sensitive ecosystems

Biosphere Reserves

Biosphere Reserves are important sensitive ecosystems and Thirteen Biosphere Reserves have been set up in the country to protect representative eco-systems and serve as laboratories for evolving alternative models of development. Moreover, three Biosphere Reserves from India are now included in the World Network of Biosphere Reserves, namely, Sundarbans (West Bengal), Gulf of Mannar (Tamil Nadu) and Nilgiri (Kerala, Karnataka and Tamil Nadu). Likewise, Management Action Plans have been prepared for twenty two out of twenty six wetlands, which are also important sensitive ecosystems. Two new wetlands have been added to the national list namely; Pt. Calimer from Tamil Nadu and East Kolkata from West Bengal.

Ramsar Sites

India is also a signatory of Ramsar convention of wetlands. Nineteen sites have already been declared as Ramsar sites of international importance in India and Six sites are in the process of being designated as Ramsar sites. A Directory of Wetlands covering 2,107 natural and 65,253 man-made wetlands, occupying an area of 4.1 million hectares and
information on the status of 183 Wetlands of national/international importance was prepared. Furthermore, Twenty four wetlands, 35 mangrove and four coral reef areas in the country have been identified by the Ministry for conservation and management. Financial assistance was extended for implementation of the Management Action Plan for 11 identified mangrove areas. Under the Management Action Plan for conservation and management of coral reefs, financial assistance for Gulf of Mannar, Gulf of Kuchchh and Andaman & Nicobar Islands were released.

3.5 Continuing with conservation projects with national identity

National Board of Wildlife

The Government has activated the National Board of Wildlife under the chairmanship of Hon’ble Prime Minister and the Standing Committee of the Board was also constituted which meets frequently to overview the wild life management in India. There are 92 National Parks and 500 wildlife sanctuaries in the country covering an area of 15.67 million hectares and the financial assistance for development of National Parks and Sanctuaries is provided to 269 National Parks and Sanctuaries in 28 States (including North-Eastern States) and Union Territories in the country.

Project Tiger

Project Tiger is one of the major national initiatives undertaken to serve as a role model and is considered to be one of the 56 events that changed India since independence. Twenty eight Tiger Reserves have so far been set up in 17 States covering an area of about 37,761 Sq. Km. in the country. Eight potential areas in the country have also been identified for inclusion under Project Tiger. The Government has also put in place a Tiger Task Force for improving the management of Project Tiger. As apart of this initiative, information and communications technology is being used for linking important tiger reserves in the GIS domain for evolving a management support system including crime detection, dissemination of information through web and evolving a “National Tiger Monitoring and habitat Evaluation System” with regional protocols.

Project Elephant

Project Elephant is another prestigious project undertaken towards wild life conservation in India. The total number of Elephant Reserves in the country stands at 30. An initiative has been undertaken for the regular and systematic monitoring of wild elephants under the MIKE (Monitoring of Illegal Killing of Elephants) programme of CITES (Convention on International Trade in Endangered Species of Wild Fauna and Flora). Ten sensitive sites have been identified for this purpose in different parts of the country. MIKE also provides a forum for collaboration with other South Asian countries (viz. Nepal, Bhutan, Bangladesh and Sri Lanka ) for protection of elephants. Moreover, financial allocation has also been made to the elephant range states for the purpose of habitat management, mitigation of man-elephant conflict, payment of ex-gratia relief for loss of life human and crop caused by wild elephants, strengthening of anti-poaching measures, capacity building of the field staff, registration of domesticated elephants using microchips etc.

3.6 Promotion of research, education, training and capacity building.

GLOBE Programme

The pilot project for strengthening environmental concepts in school curriculum launched by the Ministry last year made good progress. The Global Learning and
Observations to Benefit the Environment (GLOBE) Programme was included in the Environment Education in school program to provide hands-on learning experience to the students. This World Bank supported project has been designed in two phases.

**NEAC Programme**

The National Environment Awareness Campaign (NEAC) started in 1986 for creating environmental awareness at all levels was continued and the action oriented component introduced last year was further strengthened. Further, an initiative has been taken to introduce environmental concepts and issues in the education syllabi of various professional management courses. The course content was examined and workshops have been conducted to develop new curriculum and also to develop resource base for teaching material. Workshops were also conducted to sensitize the faculty of management colleges towards environmental issues.

**Centres of Excellence**

Nine Centres of Excellence have been set up so far with a view to strengthen awareness, research and training in priority areas of environment management:

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<thead>
<tr>
<th>Centre of Excellence</th>
<th>Activity</th>
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<tbody>
<tr>
<td>Centre for Environment Education (CEE),</td>
<td>Multi-stake holder consultation for documenting efforts on Sustainable</td>
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<tr>
<td>Ahmedabad</td>
<td>Development; Training and awareness programmes on environmental education</td>
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<tr>
<td>CPR Environmental Education Centre</td>
<td>Multi-stake holder consultation for documenting efforts on Sustainable</td>
</tr>
<tr>
<td>(CPREEC), Chennai</td>
<td>Development; Training and awareness programmes on environmental education</td>
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<tr>
<td>Centre for Ecological Sciences, (CES),</td>
<td>Research in the areas of animal behaviour and ecology</td>
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<tr>
<td>Bangalore</td>
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<tr>
<td>Salim Ali Centre for Ornithology and</td>
<td>Research and archival activities in ornithology and conservation of</td>
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<tr>
<td>Natural History (SACON), Coimbatore</td>
<td>endangered birds</td>
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<tr>
<td>Centre for Mining Environment (CME),</td>
<td>R&amp;D and training in environmental management in mining areas</td>
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<tr>
<td>Dhanbad</td>
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<tr>
<td>Centre for Environmental Management of</td>
<td>Research activities of maintenance of bio-diversity in protected areas,</td>
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<tr>
<td>Degraded Eco-system (CEMDE), New Delhi</td>
<td>ecological restoration of degraded lands and valuation of ecosystems</td>
</tr>
<tr>
<td>Research Institute (TBGRI), Thiruvananthapu</td>
<td>services.</td>
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<tr>
<td>Madras School of Economics (MSE)</td>
<td>research activities in the area of trade and environment development of</td>
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<tr>
<td></td>
<td>economic instruments, etc</td>
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<tr>
<td>Foundation for Revitalization of Local</td>
<td>Documenting and reviving various biological resources</td>
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<tr>
<td>Health Traditions (FRLHT)</td>
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**ENVIS Portal**

Environmental Information System (ENVIS) was formed as the focal point and the ENVIS centers focused on the development of home page, websites and e-newsletter and laid stress on the strengthening of databases. The ENVIS focal point and the ENVIS Centres respond to queries. A new portal on Environmental Information System at [http://www.envis.nic.in](http://www.envis.nic.in) was developed and launched under the EMCBTA Project. It acts as a mother portal for all the 85 operative ENVIS Centres and Nodes, and as a catalyst for inter
nodal interaction and information on seven broad categories of subjects related to environment, under which the Centres and Nodes have been classified.

3.7 Water resources management

Repair, renovation and restoration of water bodies

A national project for repair, renovation and restoration of water bodies used by farmers (with command area of 40 to 2000 ha), especially in dry land, remote and tribal areas has been launched to augment the storage capacity of water bodies and restore their lost (or, wasted) irrigation potential, beginning with a pilot project covering 23 districts in 13 states. About 20,000 water bodies with a command area of 1.47 million hectares have been identified for being taken up in the first phase in 2006-07 with estimated expenditure of Rs 4,481 crores.

Regulation of ground water extraction – model bill

Given the fact that ground water resources are increasingly coming under pressure from both urban and rural areas, the government proposes to regulate the development of ground water through constitution of Ground Water Authority (GWA) in the states and union territories with representation of State Government/ Union Territory and its concerned departments, the Central Ground Water Board, technical and management experts. The GWA has to closely monitor the status of ground water and advice the state government/ union territory with respect to necessary regulations/ controls. The model proposes the mechanism of issuing “extraction permits” after starting with the registration of current extraction units

3.8 Afforestation, Eco-development and Conservation Activities

Afforestation and Eco-development

The National Afforestation and Ecodevelopment Board (NAEB) was established as umbrella body. The NAEB has seven Regional Centres (RCs) located in Universities/National level Institutions. During the year, the RCs conducted a number of training programmes on Joint Forest Management (JFM), interactive workshop on forestry programmes, micro-planning exercise. Under the India Eco-development Project, 572 eco-development committees have been formed in seven protected areas covering 75,600 families. Under the afforestation programme with people’s involvement for the sustainable management of the country’s forests, five hundred and fifteen projects in 23 States have been operationalised for treating an area of 7.61 lakh ha.

Combating Desertification

The Ministry of Environment and Forest is the National Coordinating Body for implementation of UNCCD in India. Under UNCCD, a Regional Action Programme for Asian countries has been formulated to strengthen the existing capacity of the parties and to network each other for effective measures to combat desertification. Six Thematic Programme Networks (TPN) have been identified for this purpose. India is the host country for TPN-2 “Agro-forestry and Soil Conservation in Arid, Semi-arid and Dry Sub-humid Areas”. The Central Arid Zone Research Institute (CAZRI), Jodhpur has been identified as National Task Manager.
Conclusion

With the increasing pressure on environmental resources from various facets of development, institutional as well as non-institutional mechanisms assume importance for ensuring their long term sustenance. Improving the governance process of development is considered as a means of improving performance on resource conservation and environmental management. The Government of India has chosen a multi–pronged approach to environmental governance which has been reviewed in this paper in a catalogued manner. The initiatives of Government of India come under the broad categories in relation to global commitments, transparency and accountability, sensitive ecosystems and conservation, water resource management, and research, education and training capacity building.

The abstract state of environmental governance needs to be developed much deeper by incorporating further details and making refinements, especially in terms of decentralisation. The current governance framework is yet to extend to the areas of (public) participation, delegation (of powers) and prudent resource management. The enactment of Panchayat Extension to Scheduled Areas (PESA) Act 1996 and the National Environmental Appellate Authority (NEAA) Act 1997 are considered as a step in that direction. The proposed Environmental Protection Authority (EPA) to act as a hub for environmental management (through project permissions and target initiatives) from a multi-dimensional perspective involving current institutions into the operational framework may strengthen the environmental governance in the country.

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