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GOVERNANCE OF FORESTS IN INDIA

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ABSTRACT

Forests are one of the major contributors to the socio-economic development of a country like India. In this paper forest policy and governance of Indian forests have been reviewed from the available literature, interactions with stakeholders, public, researchers and administrators in allied fields. The analysis reveals that demands on Indian forests have increased tremendously and presently Indian forests are highly under pressure. This includes the demands of timber, non-timber, livelihood and that of carbon sequestration. The projected demand for timber by 2020, from the forests, is 153 million cubic meters (cu.m.) whereas the projected supply is only 60 million cu. m. The population of the country has increased from 45 billion in 1960 to 1329 billion (projected) in 2016. The policy and the system of governance of the forests of India, though have been modified from time to time but has not been geared for the drastic increase in the demand from the forests. Drastic changes in forest policy and governance of Indian forests with an infusion of research and inculcation of newer ideas are required if a genuine attempt is to be made towards achieving the demands of timber, non-timber, livelihood and that of carbon sequestration. On analysis, a hypothesis has been developed and some drastic policy and governance steps have been contemplated. They are detailed under these headings- increasing professionalism in the governance, especially at higher levels of administration, setting up an efficient forest statistical institution, creating a forestry knowledge hub by providing a conducive ecosystem for generation of knowledge that should involve private players along with government institutions and economic empowerment and management of the needs of stakeholders of the forests.

Key words: Governance, Forest policy, Ecosystem, Stakeholders, Timber, Non timber, Livelihood.

Introduction

Forests are one of the major contributors to the socio-economic development of a country like India. Going through the history, the importance of forests, as a resource, is being understood and appreciated slowly over a long period of time. Initially with the advent of industrialization, forests were a very important source of timber, which was one of the important input for industry. The policy and governance of forests in India were designed accordingly with the aim of fulfilling the prevailing expectations of timber. With time, the use of forests as a source of minor forests produce (non-timber forests produce), habitat for wildlife, the source of livelihood, and their enormous role in climate amelioration, is being highlighted at the national as well as international level. Forests have an important bearing on the most pressing issues before the world today, which are poverty, global warming and climate change, biodiversity loss and ecosystem management (Foster, 1st Indian Reprint 1995). These are such issues, which may result in crisis on the earth. The crisis that may be termed as an ecological crisis because the turn of events may result in creating conditions which will make the existence of life difficult on the earth.

As per the World Bank report out of the total world population of approximately 7 billion, .767 billion lived in extreme poverty (less than $ 1.90 per day) in 2013 (Anon., 2016). FAO has reported that approximately 25 per cent of the world population (1.6 billion) depend on forest produce for their livelihood and out of this 1.6 billion population, 1.2 billion people use the tree for their food and cash (Anon., 2017). This shows that much of the lives of poor directly depend on forests. Besides this lives of all other too, depend on forests indirectly to some extent.

World Health Organization says that 12.6 million people died in 2012 due to various ill effects of climate change (Anon., 2017). One of the factors causing global warming is increasing proportion of greenhouse gasses in the atmosphere. The data shows that amount of CO_2 in the atmosphere today are more than 400 ppm, whereas it used to be around 280 ppm at the advent of industrialization. One of the known and accepted methods of carbon sequestration is through trees and forests.

Rapid loss of a huge number of known species from the earth is a loss of gene pool. The linkages of this lost gene pool in the complex food web on the earth are still not fully understood. Thus, the loss of biodiversity may result in the problems of ecosystem management, making the life difficult on the earth.

Some of the critical causes of the human society

With the increasing demand on forests policy and governance of Indian forest needs drastic changes.

stretching at a faster pace towards the threshold level in relation to the environment are population, energy, industrialization and urbanization (Foster, 1st Indian Reprint, 1995). The population of the world was around 500 million in 1600 and it is about 7.4 billion in 2016. The consumption of energy in form of petroleum has increased many folds in last 200 years. Similarly, data on the pace of industrialization and urbanization is explosive. A scan on the data related to these four areas will clearly reveal an explosion in these fields in last few years.

These drastic changes have necessitated the need of change in the policy and governance of forests. National forest policy of India was first framed in 1894. It was revised in 1952 and then in 1988. The understanding regarding the role of forests in carbon sequestration and also in ameliorating the adverse effects of climate change, besides their role in the supply of timber and other non-timber forest products, desires that the issue of forests policy and governance be reviewed and if need be drastic changes be introduced.

An attempt has been made in this paper to review and examine the present policy and governance of forests in India. Are they congruent to the present demands from the forests? If not, then what could be probable policy and governance initiatives that could be taken up so that forests are able to accomplish the desired outcome sustainably.

Review of Literature

The information and data regarding carbon sequestration, supply-demand, and production of timber were scanned from various published sources and examined. While working in the forest department for 36 years, interactions at various levels viz. public, other stakeholders, fellow forest officers, social scientists and administrators in other fields were held, certain observations were made, and insights developed.

The National Forest policy 1988, though speaks about these issues but in a tacit manner. The focus and the strategies for tackling these issues are missing. While analysing the National Forest Policy, 1988 it has been observed that though the wood has always been the most important forest produce and contributes significantly to the national economy, production of timber has been given a low priority in the National Forest Policy, 1988 (Khanduri and Mandal, 2005). As against the supply of 29 million cu.m. in the year 2000, the demand for raw wood was 58 million cu.m. It has been observed that shortfall in availability as against demand was probably being met through illicit and clandestine removal from forests either through connivance or due to lack of enforcement measures (Ganguli, 2000). The shortfall in firewood is also probably met by removal of firewood by economically weaker sections of the population in the rural areas for cooking of food. The projected demand of wood for the year 2020 is 153 million cu. m. as against this the projected supply, in the business as usual scenario, is only 60 million cu.m (Manoharan, 2011). According to the analysis of Khanduri and Mandal, 2005, the National Forest Policy, 1988 has missed the focus on the essential need of wood production for domestic, infrastructure and industrial requirements (Khanduri and Mandal, 2005). Their paper highlights the shortage of wood faced by the country and says that relying on the imports alone may not be the right course. It has been reported that India's forests could yield between 139-235 million cubic meters annually as compared to the available yield of 87 million cu.m (TERI, 1988). National Forestry Commission admitted that a preliminary examination of the demand-supply situation of timber and fuel-wood in the country presents a very alarming picture (Manoharan, 2011).

Proper, accurate and prompt availability of data is pre-requisite for appropriate planning and governance. At present Forestry Statistics Division of ICFRE is supposed to procure ground level data from the states and from other relevant sources and produce a compiled report biannually. However, there is a considerable time lag in production of the reports due to non-availability or non-reporting of data from different states. International Tropical Timber Organization ITTO has also noticed a poor response from India on providing reliable data on timber production and trade (FAO, 2002). Probably due to various logistics reasons the publication of the report is running approximately five years behind the schedule. Last report available on the website of ICFRE is of 2011 (ICFRE, NA).

The triennial average of production of timber from forest areas of reported states fell from 4.04 million cu. m. in 1990-93 to 1.42 million cu.m. in 2000-02 (Manoharan, 2011). (Fig.1).

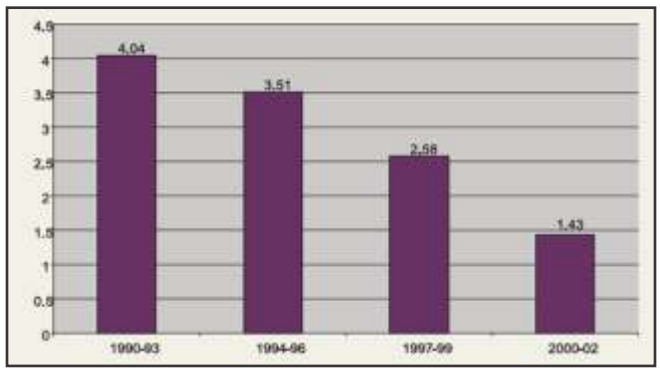

Fig. 1: India's triennial average of annual production from forests for data period 1990-93 to2000-02 (units in million cu.m.) (Manoharan, 2011).

Based on these observations the planning commission study conducted by T.R. Manharan (2011) recommended that:- (1) The availability of trees outside the forests for timber as well as for provisioning of ecosystem services should be promoted by strengthening agro-forestry and farm forestry systems and incentives to the growers. (2) Development of high yielding tree plantations should be supported if they are appropriately located and well managed. The industry should be encouraged to initiate research and development in collaboration with forest research institutes and relevant universities in India and abroad. (3) Promote the use of reclaimed wood in the manufacturing of handicrafts, furniture, and other handicrafts; this can be achieved through fiscal incentives for developing suitable production processes. (4) Promote imports from certified forests through fiscal and other incentives to business and industry. This would reduce sourcing of timber from illegal or controversial sources, including from high conservation value forests of the world's critical eco-regions such as Borneo, Congo, and Amazon. (5) Safeguard the interests of growers in taking decisions on reduction or removal of tariff and non-tariff restrictions on the timber imports, as this can influence the decisions on tree planting, agro and farm forestry. (6) Ensure optimal use of timber and value addition for maximizing social benefits. A significant share of wood that can be used for timber is currently used as fuel wood. (7) Promote forest certification in India by providing suitable support (both technical and budgetary) to the state forest departments, communities, and growers (Manoharan, 2011). The population projections for Indian population and of firewood users are as depicted in the table below (Fig.2).

The population growth and numbers of firewood users will probably have a direct effect on the quantity and density of the forest. Ganguli (2000) observed that shortfall in availability as against demand was probably being met through illicit and clandestine removal from forests either through connivance or due to lack of enforcement measures (Ganguli, 2000). Thus, it will be desirable to strive for the optimal professional management of natural forests and plantations so that desired outcome with regards to carbon sequestration from Indian forests is achieved.

S.No.	Year	Population of India (in million)	Projected population using F.W (Taking 67%)
1	1959	449.6	240.9856
2	1990	868.9	436.62225
3	2000	1042	502.6608
4	2005	1127	521.0121
5	2010	1206	541.3734
6	2016	1329	596.5881

Fig. 2: Population India
Source: (Worldometers.info,nd.) and Chandramouli, 2011)

Regarding carbon sequestration, however, projections made under a 'business as usual' scenario for the year 2011 show that carbon sequestration (at current rates of afforestation and forest succession) would offset the gross emissions. Projections under a favourable scenario show large potential for net sequestration of carbon in India (Ravindranath *et al*., 1997)

Hypothesis

Though the recommendations in the report of planning commission (Manoharan, 2011), are in the direction of meeting the concern from Indian forests, but it appears that the prevailing system of governance and policy is not an efficient vehicle to bring about any drastic change in the system. It looks important that drastic changes are necessary to the system of governance of Indian forests and in the forest policy that could help implement the recommendations at a vast scale and deliver the desired results i.e meeting the demand of timber and other forest produce and the environmental demand from the forests.

Based on above, a hypothesis of probable interventions in policy and governance is being suggested.

i) Professionalism: A social experiment done by a schoolteacher in Hazaribagh district of Jharkhand state shows the miraculous effect on not only on forest conservation but also towards its restoration. His social experiment stopped the illegal felling of trees completely. He was able to inculcate such an immense feeling of ownership and sincerity towards forests among the villagers that not only trees, even the leaf litters on the ground remain untouched. Also, the level of care and protection is so high that there is the negligible incidence of fire as well. He started advocacy for the protection of forest explaining their importance. He connected the whole narrative of forest protection with worshipping the trees and tying a band around trees. He called this “Rakshabandhan”. Once villagers of particular village organize this Raksha Bandhan with a patch of particular forest, they become religiously duty bound to protect that forest and wildlife in the area. The celebration of Raksha Bandhan is repeated every year on the same day. Most genuine needs of villagers in the form of poles and medicinal plants etc. are met by consultation among the villagers without any harm to the growth of the forest. Rather the condition of forests kept on improving. The

movement of Rakshabandhan has become very popular and is now spreading in a lot of nearby forest areas.

Analysing this Raksha Bandhan movement one finds that a social movement could protect the forests much more successfully than the professional foresters and silviculturists. Therefore social scientists competent in the field of management of common pool resource are required today when the question of protection, conservation, and growth of forests is a question of survival on the earth.

Ms. Elinor Ostrom was awarded the most coveted noble prize in the yeas 2009 on the economy of common pool resources. When a community is entrusted with the responsibility of protecting forests, much depends on their skill of cooperative management. Rochdale principles are set of principles for the operation of cooperatives. Similar expertise can only be used in the management of Indian forests only when professionals and experts in the field of social science are put at the helm of affairs. The area of social science should be one of the most important fields for the training of field foresters and forest officers. It is also important to create systems that can bring in professionals with a passion for bucolic life in the profession of forestry.

Thus, a high level of professionalism in the form of social science should be introduced in the forestry sector in India. Though the country has a separate cadre of Indian Forest Service, who are trained in Indira Gandhi National Forest Academy, (IGFNA) seeing the need of the day and the knowledge available all over the world, the training curriculum needs to be revamped, so that the by-products of the academy are one of the best in the field of forest and environment policy, forest-governance, research and development, livelihood, economic development through natural resource management. They should able to see the comprehensive picture of sustainable natural resource management going along with economic development and administration of other resources having linkages with forestry.

Policymakers and senior level executives should have in-depth knowledge of social science. Secretary forests and functional heads in the states i.e PCCFs should be well versed with the knowledge of social science. They need not be expert administrators as is the case at present. A major step in the improvement of forestry governance would be by allowing only professionally competent personnel to hold all high-level posts in the forest sector in the state a well as in the center.

ii) Forestry statistics: Data is a most important tool in today's world for understanding any issue and taking appropriate decisions. The status and output of the forest statistics division of ICFRE have been reviewed above. A time lag of five years in providing forestry statistical data, which is not reliable as per international institutes will certainly leave Indian forestry governance many years behind. Meanwhile, pressure on forestry sector keeps on increasing because of population growth. Therefore, establishing an autonomous Forest Statistics Institute, with outreach up to grass root level in all the states and capability to collect and produce meaningful data in time is a foremost important task for improving the governance in forestry sector of India.

iii) Knowledge hub: Knowledge creation and assimilation is the most important pre-requisite for development. Many developing countries all over the world are facing the problems like poverty and climate change. At many places, challenges faced are also similar in nature. In various countries, many social experiments are being done with a view to finding a way forward for sustainable development. Though some may have succeeded and some not. Benefit from such works can be obtained if we try a similar experiment in Indian socio-economic and demographic conditions. Constant action research in the field is required when a lot of new knowledge is being accumulated all over the world. The problem of a gap in timber supply and demand and the need for a quantum increase in carbon sequestration require out of the box thinking and innovative approach, which is missing in the forestry sector.

Dynamic and vibrant knowledge hubs at national as well as at regional/state level for research and knowledge creation need to be created. There is a huge requirement of knowledge creation in social, economic and scientific fields related to forestry. Besides involving government institutions and universities in the area of knowledge creation a mechanism which can incentivise the involvement of private sector institutions and universities in the knowledge creation in this field will be a proposal worth experimenting with. Therefore, a policy decision in this regard for setting up an institution which can be a think tank of social scientists, scientists, and professionals, who can be involved in action research in this field, is required so as to lay out a path for sustainable development.

iv) Stakeholders management: Sectors like environment and forest that are common pool resources can never be managed sustainably if all the stakeholders are not involved. Supporting stakeholders and involving them in better management of forest can give a synergistic and sustainable solution. The complete inventory of demographic and socio-economic data of the people and

villages dependent on the forests should be the starting point of management of any forest. The management of the forests then can be designed incorporating the needs of all stakeholders and the resources, including the human resource available by creating a winwin situation for the forests and its stakeholders. This aspect is completely missing from the philosophy behind present governance of Indian forests. The economic development of fringe area population of any forest should be the responsibility of the forests officer managing that forest area. Resources for this purpose should be channelised through him for this purpose. The introduction to this philosophy will help improve the governance of Indian forests.

Conclusion

In the foregone review of literature and information and analysis of the same, it was concluded that with increasing population of India, demands on Indian forests are increasing. It is now clear that besides the role of forests in the production of timber, non-timber forest produces, and carbon sequestration, forests have a bearing on most pressing issues of poverty, climate change and global warming, biodiversity loss and ecosystem management, being faced by the entire world today. With increasing demands on forests, the policy and governance of Indian forests need drastic changes. The interventions in the area of employing trained and professionally competent manpower (social scientists) at senior decision taking level, establishing a reliable and efficient forest statistical institute, creating a conducive atmosphere for the creation of knowledge and co-management of stakeholders along with that of forests have been suggested.

भारत में वनों का अभिशासन

बंकिम चन्द्र निगम

सारांश

वन भारत जैसे देश के सामाजिक–आर्थिक विकास के लिए प्रमुख अंशदाताओं में से एक हैं। इस शोधपत्र में सम्बद्ध क्षेत्र में उपलब्ध साहित्य, हितधारकों, जनसामान्य, शोधार्थियों और प्रशासकों के साथ पारस्परिक चर्चा करके भारतीय वनों के अभिशासन एवं वन नीति का पुनरीक्षण किया गया। विश्लेषण ने दर्शाया कि भारतीय वनों पर माँग अत्यधिक बढ़ी है तथा वर्तमान में भारतीय वन अत्यधिक दबाव के तहत हैं। इसमें प्रकाष्ठ, गैर–प्रकाष्ठ, आजीविका एवं कार्बन पृथक्करण की माँग शामिल है। वनों से 2020 तक प्रकाष्ठ के लिए प्रक्षिप्त माँग 153 मिलियन घन मीटर है, जबकि प्रक्षिप्त आपूर्ति केवल 60 मिलियन घन मी. है। देश की आबादी 1960 में 45 बिलियन से 2016 में 1329 बिलियन (प्रक्षिप्त) तक बढ़ी है। भारत के वनों के अभिशासन की नीति एवं प्रणाली यद्यपि समय–समय पर संशोधित की गई है किन्तु वनों से माँग में भारी वृद्धि के लिए तैयार नहीं की गई है। नए विचारों के समावेशन एवं शोध के अनुप्रेरण के साथ भारतीय वनों की नीति एवं अभिशासन में भारी परिवर्तन की आवश्यकता है, यदि प्रकाष्ठ, गैर–प्रकाष्ठ, आजीविका एवं कार्बन पृथक्करण की माँगों को हासिल करने की दिशा में में वास्तविक प्रयास किए जाएं। विश्लेषण पर एक परिकल्पना विकसित की गई और कुछ सशक्त नीति और अभिशासन कदमों पर विचार किया गया है। ये इन शीर्षकों के तहत विस्तार से हैं– विशेषकर प्रशासन के उच्च स्तरों पर अभिशासन में व्यावसायिकता बढ़ाना, एक सक्षम वन सांख्यिकीय संस्था की स्थापना, जानकारी के सृजन हेतु एक सहायक पारितंत्र उपलब्ध कराकर एक ऐसे वानिकी जानकारी केन्द्र का सृजन करना, जिसमें सरकारी संस्थाओं और आर्थिक सशक्तिकरण एवं वनों के हितधारकों की आवश्यकताओं के प्रबंधन के साथ निजी खिलाड़ी शामिल होने चाहिए।

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