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The Role of Indigenous Knowledge in Forests and Woodland Management in India's Conflicting Cultures

Klaus Seeland and Franz Schmithuesen *

ABSTRACT: The legacy of India's still persistent forest culture has entered a new phase, in which its age-old traditions are challenged by societal and environmental changes of the modern state. India's forests bear the conflicting symptoms of such a transition. The dilemma of economic development and the preservation of natural resources based on cultural values are reflected in the conflicting demands of the state forest administration and those of various tribal communities inhabiting the forest. This paper is an account of core results, based on a ten year project of empirical woodland management research in the State of Orissa, Eastern India. It refers to ethnographic information of selected tribal groups, analyses the cultural significance of trees, woodlands and forests, and provides information with regard to traditional knowledge in ethno-botany, ethno-pharmacopeia and local land management practises. Whereas in a tribal-non-tribal-state interface there are no immediate solutions to forest-related problems in the strict sense, the findings indicate, however, that important contributions can be made to tackle transitional inadequacies of using or managing renewable natural resources. The paper concludes that a contribution of the Indian civilisation to overcome the emerging forest crisis is the political and social acknowledgement of indigenous knowledge of its forest dwelling tribal communities. As long as indigenous knowledge of forests is valued and considered to be important, there is an opportunity to counterbalance improper land management. Regulations on the use and management of forest resources have to be mediated in a political arena between customary lifestyles, cultural traditions and age old local expertise of the directly concerned population, and the rapidly expanding economic interests of other societal groups.

Keywords: Indigenous knowledge, India, forest culture, customary lifestyles

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Introduction

The findings of the research project "Indigenous Knowledge of Forests in a wider Himalayan context" undertaken by the Chair of Forest Policy and Forest Economics, ETH Zurich in cooperation with an Indian NGO has been conducted in the light of a more decentralized policy. It has been set-up to see its strategic value in a scientific resource management capacity, in a local cultural as well as a political perspective of a future social development of India's tribal areas. Seven volumes of research results have been published until 2007 in the newly created series "Man in the Forest".** From the experiences of the research project some generalizations can be made as far as the overall exposure of tribal communities with their modes of using forests and managing their environment in times of rapid societal changes are concerned.

In a tribal-non-tribal-state interface there are no immediate solutions to forest-related problems in the strict sense. Regulations have to be mediated in a political arena between the directly concerned population and the interests of other sections of the society using forest resources. A new forest law called "The Scheduled Tribes and other Traditional Forests Dwellers (Recognition of Forest Rights) Bill, 2006 (No. 158-F)" passed both houses of Indian Parliament, the *Lok Sabha* and the *Rajya Sabha*, in December 2006 (Government of India, 2007). The status and future of India's tribal communities is more than ever a matter of political concern. Provided it is implemented in the spirit by which that law is inspired in stating: "Scheduled tribes and other traditional forest dwellers, i.e. individuals, families or communities shall have the right (Chapter III, 4/6) to have forest land under occupation up to four hectares."

Incremental Demands on Forest in Tribal Communities of Orissa

Economic self-reliance and self-determination regarding the use and management of renewable natural resources such as forests are, as far as the degree of market integration is concerned, a prerequisite in order to maintain a socio-ecological equilibrium to face the challenges of societal change. The demands of the state forest administration and economic development in the remote parts of Orissa (*Figure 1*) over more than a century have become a threat to the wealth of the forests. Those forests which are inhabited or used and managed by tribal communities relying on their indigenous knowledge and management capacity and which at the same time are managed by the Forest Department are prone to conflict (Mohapatra and Mohapatro, 1997). Tribal communities, the non-tribal population and the forest administration have different and often contradictory objectives of woodland utilization. Due to environmental, economic and societal changes, forest dwellers have become more market-oriented. This ongoing process is directing their life-styles into the Indian mainstream society and leads to emerging clients' attitudes disconnecting them from their traditional agricultural practices which enabled them earlier to live a self-sufficient and almost independent forest life (*Figure 2*). The mode of appropriation of natural resources by many a tribal community has so far shown a great deal of prudence in their use and management of renewable natural resources. Today forest dwelling tribes live between a subsistence and market economy and are in need of an increasing amount of

** See the so far published 7 volumes of the *Man and Forest Series* (D.K. Printworld, India) published by K. Seeland and F. Schmithuesen on web-site www.sec.ethz.ch

cash income. On the other hand it is obvious that non-locals, without any attachment to or dependence on the forest they are economically exploiting or administering, lack the cultural affection and intrinsic commitment for the forest world which are characteristic for so many forest dwelling communities.

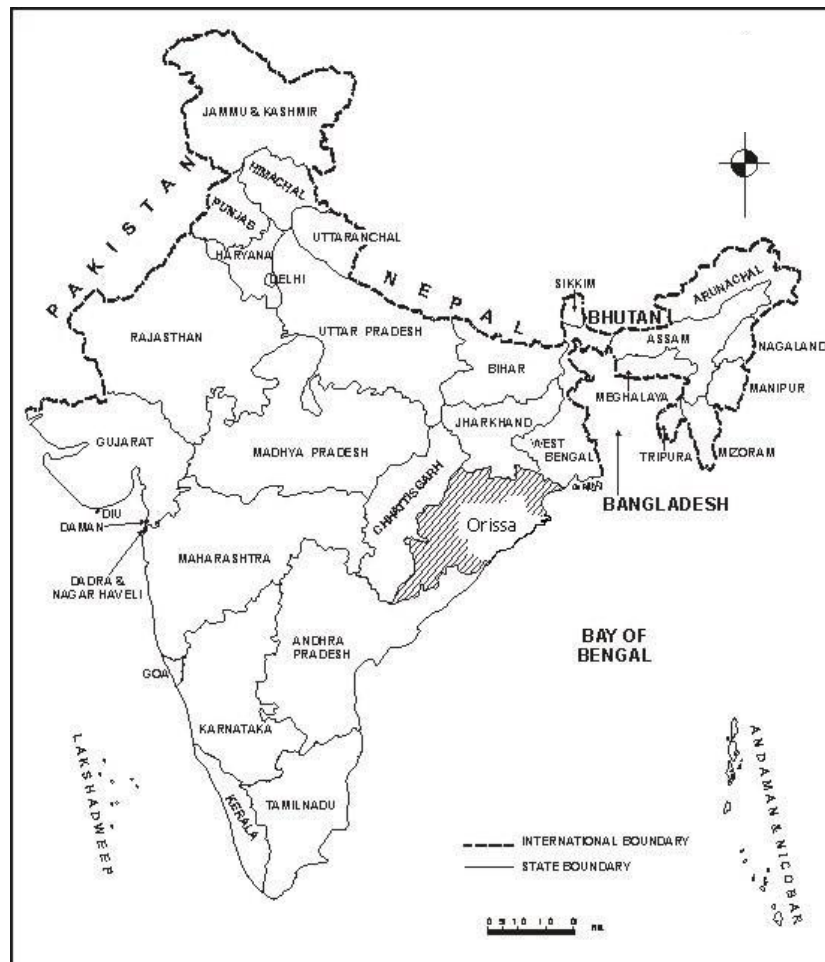


Figure 1: Location of study area

Conflicting Cultures

There are several levels of conflict over forests, their use and management as well as over the entitlements of non-timber forests products, including fuel wood (Patnaik, 2003). Different Scheduled Tribes with partly different cultural background inhabit the same area, and other traditional forest dwellers, such as *Gauda*, *Domb*, *Pano* belonging to the Scheduled Castes, compete over the access to forest products other than timber. The Forest Department is controlling and intervening irregularly into illegal trade of non-timber forest products, and most gathering is illegal beyond limited quantities for the tribal groups' own consumption. There is a clash of 'open access to nature in their own lands' between the tribal groups who perceive their customary usufruct rights to collect forest products for granted and the official government policy, represented by the forest law, restricting this use or declaring it illegal.

Tribal cultures are focused on their own livelihood support through the wealth of the surrounding forests. The non-tribal population is interested in forest resources as merchandise and the Forest Department in procuring revenue on behalf of the state. A fundamental non-synchronic development characterizes the three distinct levels of cultural performance of tribal ethnic groups, the non-tribal population and the state forest administration and thus conflicts are inevitable. For a locally bound indigenous culture it is a question of survival to make immediate use of forests and their products from day to day. In the case of Orissa a historical mediation concerning the relationship between tribal and non-tribal groups and the state power is important. This history of cultural encounter had its impact on their forest surroundings as well as on the way they lived under alien political supremacy and even nowadays the state forest administration is widely perceived in its policing role as a power that intervenes into the world of the tribes. The conflict of different cultural attitudes towards forests and their natural wealth turned after Indian independence in 1947 to a conflict over access to natural resources and between conservationists and those favouring economic development irrespective of the price that, for instance, had to be paid by declining forest wealth.



Figure 2: Tribal settlement in Central Orissa provided by the Government of Orissa

Indigenous Knowledge

The appreciation of indigenous knowledge in public political discourse is a socio-political process that strengthens local self-reliance and enhances the political bargaining power of local village communities (Seeland, 2000). In this context, the significant questions are how trees and forests are perceived by local forest dwellers, how different forest products are used, and what indigenous management practices are followed on a long-term basis. Natural phenomena are seen by the tribal communities as social resources to be appropriated in consensus in contexts of locally prevailing animism, ancestor worship and eclectic choice of Hindu cults and beliefs.

What happens at present not only inside Orissa, but in many other Indian forests as well, is a de-facto deregulation of the forest product market at a local and regional scale. Despite the ban on timber trade without concessions by the Forest Department and quantity ceilings on the extraction of non-timber forest produce, the latter is partly tolerated and partly even encouraged by a rising market demand. Water harvesting and hydro power energy projects, ore mining, large scale grazing, fuel wood extraction, replacement of local species by exotics, and tribal rehabilitation and colonization schemes contribute all together in different ways to the decline of the forest dweller's livelihood opportunities and to their management practices based on traditional knowledge. Securing biodiversity in this context can only be achieved through cultural diversity and by living different forms of knowledge by more than one tribal community. Social and political interactions between forest-dwelling tribes and the local non-tribal population as well as with the Orissa forest administration have to be taken into account with their particular outlook on future developments.

Gradual Policy Changes

The political power to make a living from exploiting their natural environment based on commercial market exchange is a privilege of a stratified society over an indigenous community. Even if tribal communities are formally represented in the political system of democratic representation, their access to the state administration is usually poor in times of scarcity when survival demands immediate relief measures for communities dwelling in remote areas of the forests. The decisions taken by indigenous communities to survive in a merciless natural environment are utmost self-reliant under severe living conditions. Forests are very often bearing the negative symptoms of cultural and political conflicts in societies in transition (Gibson and McKean, 2000). The legacy of Orissa's still persistent forest culture has reached a phase, in which its age-old traditions are challenged by social and environmental changes. The contribution of Indian civilization to overcome the emerging forest crisis could be the preservation of natural resources and cultural values in locally based woodland management.

Forest policy can take up the challenge to look at tribal development more in a perspective of social policy than just to administer revenue (Colchester, 1995). Regulations have to be mediated in a political arena between the directly concerned communities and the interests of other sections of a society using forest resources. If we look at the broad trends of forest related policy and law, we find increasingly provisions relating to environmental and social functions of forests in a more comprehensive political perspective. New or revised policy objectives address diversified local forest tenures and socially oriented management planning. They grant more flexible and multi-

functional utilization regulations for different categories of forest land, and the delegation of management competences to local communities and private farmers associations. To be effective, modern forest policies and forest legislation have to be conceived and implemented in conjunction with other policies and laws regulating economic uses, sustainable development, and preservation of the natural resource base (Schmithuesen, 2003). Policy reforms have become incremental and refer to the role of forests as multifunctional resources for their economic potential and their importance for the environment.

The promotion of community initiatives such as Joint Forest Management (JFM), which is financially supported by third donor agencies and Community Forest Management (CFM) in Orissa (Singh *et al.*, 2005), are based on self-sustained bottom-up activities by local institutions. Contractual engagements among stakeholders figure prominently in current thinking about environmental and natural resource management. In forestry, water management, fisheries, land use, wildlife and other areas the emphasis is on moving away from more or less exclusive State Forest Management (SFM) to stronger management responsibilities and property rights vested in user communities and local institutions. Policy reforms such as the change to JFM in 1990 promote the devolution of forest management to local communities, user groups or family households and facilitate co-management agreements, community forestry leases and the delineation and titling of communal or co-operative forest tenure. Recent forest policies following JFM or CFM in most of the Indian States provide for more opportunities of local stakeholders and the public to intervene and participate in woodland management.

Conclusion

Indigenous knowledge of forests and sustainable use practices of tribal cultures in Orissa have a long standing history not only in this State, but all over India. In the wake of this legacy it is still apt to secure the livelihood for about 90 million forest dwellers often living in precarious conditions outside the mainstream society. Their forest cultures represented by their indigenous knowledge spare them from being entirely dependent on external aid. Both indigenous knowledge and forest management are frameworks having the advantage to certainly improve the responsibility over the quality of the woodlands under their care and jurisdiction. More relevant is the coming-to-terms of the state administration, the non-tribal Indian society and the tribal communities with their conflicting cultures of woodland management based on different knowledge and related action and behaviour.

The challenges and chances for a successful mediation between India's hitherto conflicting woodland cultures lie, among other political developments, not the least in the survival of the vast indigenous use practices of forests. If indigenous knowledge on local woodland management is valued and considered to be an important representation of the culture of forest related communities, there is a regional, national and international interest to document and preserve what may contribute to counterbalance scarcity and improper natural resources utilization. Once, for instance, the level of economic development has improved, it might reduce the pressure on forests and forest products as well as on forest dwelling communities and their indigenous land use traditions.

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