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Title of the Paper: **Methodological Issues in the Management Practices of the Commons:
A Case of Jharkhand in Eastern India**

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Methodological Issues in the Management Practices of the Commons: A Case of Jharkhand in Eastern India

Abstract: The concept of ‘commons’ is as old as the natural resources, but its quantitative measurement is of recent origin. In the middle of the twentieth century, the commons as a physical phenomenon started to be used repeatedly by scientists from other disciplines to close the interdisciplinary gap. As we have moved into the 21st century, more methodological choices have been made in support of the study of commons and its management practices. This is mainly due to growing range of commons and particularly the emergence of ‘new commons’ and ‘digital commons’ that benefit our communities.

The paper analyses methodological issues concerning selection of indicators and construction of composite indices within the framework of measuring ‘commons’. It reviews the existing literature in the area and highlights the key areas of concern from the view point of methodology of aggregation. It discusses the implications and assumptions underlying different techniques currently being used in Jharkhand, a state in eastern India. Jewitt (1996) considers local agricultural and forest management practices in two tribal villages in the Jharkhand region and throws some light on the ‘potential of participatory and populist approaches’ as alternatives to more traditional ‘top down’ forms of development. Sinha (2004) proves that centralized forest management system paid little interest to community welfare through qualitative and quantitative research, structured interviews and case studies methods. Both these case studies question the relevance of existing models of commons degradation to the Jharkhand region, arguing that it is possible to re-establish community based forest management in areas where local people have strong subsistence related and socio cultural links with forest plus an interest in protecting them. However, the important questions which have been examined here are: 1. Why commons emerges, persists and declines at particular points in time and in particular places?, 2. Will better commons management guarantees the incremental entitlement for each actor?, 3. What are the determinants of capacity to manage commons?, and 4. How does institution influence the pattern of social interaction in a given commons regime at different phases?

A set of study indicators is designed to measure the objective questions. 30 percent of the villages studied retained traditional practice of regulated grazing of village pasture land causing serious fodder scarcity. As a result, commons has had an increasingly distinctive effect on environment. The study reveals that outcomes were unsustainable where there had been no attention to institution development and local participation. This study is designed to serve as an introductory for future scholarly works.

Keywords: Methodological Issues, Management Practices, Commons, Jharkhand in Eastern India.

Philosophical and Theoretical Foundations of ‘Commons’

Traditional society does not change until modernity arrives with its dynamics and turns everything upside down. On the contrary, seen in the long perspective, the past always seem to have changed and thus always contained seeds of the future. At least after the 10th century onwards, we have enough historical evidence to compare the behaviour of ‘**homo sapiens**’ over time and that we can show how both their individual and collective behaviour can be explained a matter of circumstances – whether ecological, economic, social and cultural, rather than a result of some grand evolutionary design.

Historians tending to be rather descriptive and often interested the theoretical implications of their research. Among 19th century commons[†] – historians, then was a clear interest for the origins of the commons, but here again the individual motivations to own and use land collectively were largely ignored. Historians have for a long time primarily focused on the dissolution of the commons, whereas external factors like industrialization and production growth were considered as the motors of this process. However, sociologists and economists generally put the main responsibility for the dissolution of the commons with the individual. Historian – commons hardly search to benefit from the commons – models and frameworks repetitively tested by sociologists, economists and others. Europe, been the area of the world with the most extensively studied history of commons – from common arable to common wood land, but other regions could be at least as interesting to test the possibility of co-operation between disciplines. This is missed opportunity. However, this connection between the arable land and the common was vital for the pre-industrial revolution and expansion of the market economy. However, the evolution of cooperation over a mere 1000 years in Europe suggests a multitude of new paths of analysis for sociological and anthropological studies of present day commons.

Over time, and in particular since the middle of the twentieth century the term ‘commons’ has been used in many ways. Previously, in the historical documents ‘commons’ referred to common land, often in the form of pasture, or meadowland. Commons in the historical sense refer to land that was used and managed by several people or households during a certain period, in distinction to land that was used by only one person or household throughout the whole year. The variety of alternative namings in English (e.g., open field, common meadow, common waste) and in other languages started to be used for the scientific comparison and functioning of commons. Later on, the commons as a physical phenomenon started to be used repeatedly by scientists from other disciplines to indicate collective property. Hardin’s the **‘tragedy of commons’** the commons can be considered as a bench mark in the evolution of the discourse on the commons. Later on both Hardin’s (1968) and Putnam (1990s) had conceptualized the historical commons in a very scientific manner.

The emergence of free-market capitalism and the Industrial Revolution which fundamentally changed social relationships and the way that exchanges of goods and commodities were done. These two phenomena affected the nature of social interactions in very significant ways. Firstly, the mechanization of production processes rendered the factory/industrial production paramount in people’s lives rather than the agricultural (or other) communities in which people lived in, during which production was aimed at more or less the local consumers or for self-consumption. Secondly, mechanization enabled the accumulation of surplus premised upon a higher level of extraction of natural resources. The higher demand on natural resources required a change in the way which local communities managed their resources and adapted to the community as well as industrial pressures.

[†] The commons, formerly known as the common property resources (CPRs), implies as a ‘*resource*’, as an ‘*institution*’ and as a ‘*property regime*’ that is commonly owned, managed and used by the community itself. Decisions about what crops to sow, how many cattle wide graze, which trees will be cut, which streams will irrigate which field at what time, are made jointly and democratically by the members of the community.

Institutional theory tells us that it is possible to change the rules of the game, indeed, people do that all the time. However, it is also possible to change the nature and objective of the game itself, and by extension the rules of the game.

Natural resources no longer belonged to the communities, they belonged to the state. Communities were relegated to custodians of the environment, and had to follow state initiatives that were often very much against the traditional concepts of forests, land, and water. How did people and local communities justify or come to terms with such exploitation? What is the role of local communities, the role of leaders (widely defined) in shaping the discourse of exploitation and hence successfully challenging externally-imposed rules on their communities? The same people who practiced sound resource management at one point in time destroyed those same resources at a later date. Researchers who also seek to explain why collective action and commons management emerge, persist and decline at particular points of times and in particular places. These are questions that are frequently-asked these days in the development literature.

However, the studies on management practices of commons by and large were relied on the historical and ethnographic research methodologies in the past. As we have moved into the 21st century, more methodological choices have been made in support of the study of commons and its management practices. This is mainly due to growing range of commons and particularly the emergence of “new commons” and “digital commons” that benefit our communities – whether material, like water or land and forest resources, or knowledge based, or even probabilistic risks to health or hearth.

No wonder the subaltern people like tribals have a special relationship with nature and the resources. This relationship is filial like the relationship of mother and child. This relationship is also spiritual like the relationship between God and human persons. That is why the tribal people though dependent on the *jal*, *jangal*, *jamin* and *janwar* do not deplete them or exploit them, but use them to meet their basic needs unlike most non-subaltern people who would not hesitate to finish off the resources for the sake of creating more and more wealth. How can a sensible person ill treat or exploit his/her dear ones and relatives? Similarly, the subalterns would not ill treat or exploit the natural resources to which they are related like mother, sister or brother, unless of course, he/she is out of his or her mind. If today tribal people are seen to exploit the natural resources, it is because the so called civilized and modern society has first exploited and depleted their very source of livelihood. Therefore, if the villagers resort to cut the forests today, they do so in great desperation; it is only to eke out their living. Speaking of deforestation, none other is primarily responsible for the same but the forest department itself, which is supposed to take care of the forests through conservation, protection and regeneration. But in collusion with the timber mafias, the forest department has destroyed much of India’s forests. Tribal people are not to be blamed for deforestation; on the contrary, it is because of them that the existing forests have survived so far.

Review of Literature

Much of the natural resources like forest, pasture, water management systems, and fishing zones are used in common in India. Farming households have collaborated on water management, labour sharing and markets; pastoralist co-managed pastures; forest dependent communities collectively managing the forest; and fishing families managing aquatic resources jointly. Such

collaborations have been institutionalized in many forms of local associations through clan or kin or village groups, traditional leadership, water user's association, tree growers co-operatives, grazing societies, youth clubs, self help groups, temple committee, etc. These common property resources (CPRs) currently contribute some US\$ 5 billion a year to the incomes of poor rural households in India, or about 12% of household income of poor rural household (World Bank, 1998). This is about two and half times of total World Bank lending to India in fiscal year 1996.

Although constructive resource management rules and norms are embedded in many cultures and societies, from co-operative water management system of western and northern India; *Gouchar* (cattle grazing land) land management of Saurashtra; shifting cultivation system of north eastern India; to forest management of tribal groups, it has been rare for the importance of such local groups and institutions to be recognized in recent agricultural and rural development. Developmental policy and practice have tended to be preoccupied with changing the behaviour of individuals rather than of groups or communities. As a result, agriculture has had an increasingly destructive effect on environment (Huxley, 1960; Palmer, 1976; Ostrom, 1990; Kothari et. al., 1998). In some context, loss of institutions has provoked natural resource degradation. In India, the loss of management systems for CPRs has been a critical factor in the increased overexploitation, poor upkeep, and physical degradation of natural resources during the past half century. Jodha (1990) reported that only 10% of the studied villages retained traditional practice of regulated grazing in village pastureland causing serious fodder scarcity. Elsewhere, when collective irrigation management system was replaced by private ownership or operation system it resulted in substantial degradation of both surface and ground water resources (Pretty, 1995; Singh & Ballabh, 1997; Kothari et al., 1998). One study of 25 completed World Bank agriculture projects found that continued success was clearly associated with institutional building (Cernea, 1987). In this study it was found that twelve of the projects achieved long term sustainability, and in all these projects local institutions were strong. In the others, the rates of return declined markedly contrary to the expectations at the time of project completion. The outcomes were unsustainable where there had been no attention to institutional development and local participation.

Like all public goods, it is difficult to say who is at fault when natural capital (nature's goods and services – Costanza et al., 1997) declines. Without rules, individuals tend to overuse and under-invest in it; they are tempted to take benefit without contributing anything – in effect free ride (Hardin, 1968). When such public goods and services are considered free and valued at zero, the market indicates that they can be made valuable by converting into something else. So the profit from converting forest into timber is counted on nation's balance sheet, but all lost services (wild foods, fodder grasses, climate regulation, biodiversity, medicinal herbs) tend not to be subtracted. Social institutions based on trust, reciprocity, and agreed norms and rules for behaviour, can mediate such kind of unfettered private action. New thinking and practices are required, particularly to develop forms of social organization that are structurally suited for natural resource management and protection at the local level. This means more than just reviving the old institutions and traditions. It calls for formation of new forms of organizations, associations and platforms for common action.

Since the study of Garrett Harding (Hardin 1968), there has been a great deal of research interest on commons. The concept has been used to explain detrimental effects on economy, ecology and environment. These effects could be more discernible in the fragile ecosystem of a hilly region

where degradation of commons land would cause socio-economic unrest not only in hills but also in plains. With increasing human and livestock pressure, the size and quality of commons is dwindling. Jodha (1986) reported a decline of 41 to 55 per cent in the area of village commons over a period of 30 years. The declining trend was also noticed by Vashist and Pathania (1999) in Himachal Pradesh and also noticed by Jewitt (1996) and Sinha (2004) in Jharkhand State. The factors responsible for it are land reforms, development programmes, unlawful encroachments and commercialization of agriculture (Jodha 1985, Iyengar 1988).

The foundation of free market economics stems from the Scottish moral philosopher, Adam Smith's assertion that the pursuit of individual selfishness can lead to public good. To free market believers, if government gets out of the way, individual freedom to do selfish things would create the greatest prosperity. This is exactly what Wall Street has preached and practiced, leading to the greatest crash since the 1930s. In 1968, the ecologist, Garrett Hardin, wrote an influential essay titled "the Tragedy of the Commons". It challenged the Smith's assertions. He demonstrated how the selfish behaviour of individual farmers resulted in overgrazing of the common fields and, therefore, destroyed the public good and the environment. We have observed how wanton destruction of forest for short-term gain has denuded our ecological heritage and led eventually to global warming.

Basically, there were two conventional solutions to stop the 'tragedy of the commons'. One was the imposition by the state of rules to stop encroachment of the public good; the other was privatization of the commons. The free market school favoured privatization, but as experience has shown, privatization has tended to become "privatization", in the sense that some privileged few have gained from the exercise. But (Ostrom, 1994), a behavioural and empirical analyst, pointing out that there is plenty of evidence in history and real life that collective action problems (such as the Tragedy of the Commons) are not solved by more government or privatization but through self-governance. This means that the altruistic behaviour of individuals can lead to protection of the common good. Many communities have solved collective problems through the public spirited individuals, civil society and non-governmental organizations (NGOs).

Ostrom argues that what makes society work together are the core relationships of reciprocity, reputation and trust. Most people use reciprocity to acquire a reputation by taking short-term action that costs, but creates long-term net benefits. Trust is the valuable asset that creates social cohesion. Without trust, societies break up because people vote with their feet. The tragedy of the commons occurs because individuals do not trust each other and, therefore, elect to do their own thing selfish.

In order to break these collective action traps, Ostrom emphasizes the importance of communications and also civic education. Ostrom also suggests that the role of the state has to change, because she feels that "national governments are too small to govern the global commons and too big to handle smaller scale problems". She argues for governments to work with civil society, giving them enough space and support to handle the small problems that government bureaucracies cannot handle efficiently. In other words, she argues against the simplistic view that world problems are solved only by governments or private enterprise. There is a major role for citizen participation for the public good.

Today, there is a new class of civil society, in which citizens want to work with each other to look after their common interest, such as environmental protection, education, public health or social welfare. There is increasing awareness that governments cannot solve all problems and bureaucracies can often be the problem, not the solution of our social ills. Governments need to work with civil society to create social cohesion. Most bureaucracies around the world are not equipped to think or function like that. But that is the way of the future.

Objective of the Study

The purpose of this paper is to provide an overview of methodological approaches to study the relationships between socio-culture knowledge systems to local communities on the one hand and management practices of commons on the other hand. The paper provides certainly not a complete overview, rather, it will try to point at opportunities and constraints for research on commons from a methodological perspective, and emphasizes feasibility. The structure of the paper is centred on potential of participatory and populist approaches as alternatives to more traditional ‘top down’ forms of development to the study of commons and its best management practices. However, the important questions which have been examined here are: 1. Why commons emerges, persists and declines at particular points in time and in particular places?, 2. Will better commons management guarantees the incremental entitlement for each actor?, 3. What are the determinants of capacity to manage commons?, and 4. How does institution influence the pattern of social interaction in a given commons regime at different phases?

Methodology (Selection of Research Site in the Jharkhand State of Eastern India)

Universe of the Study

The State of Jharkhand in eastern India is rich in terms of natural resources with a total geographical area of over 79.7 thousand sq. kms comprising two distinct hilly regions namely: (i) Chhotanagpur, and (ii) Santhal Paraganas. The state is an “Ethnological Museum” with 32 different tribes including 9 primitive tribes with non-uniform socio-economic condition, different culture and economic development. The total population of the State is 3.29 crores spreading over into 24 districts (2011). The State has 26.1% of tribal population constituting 8.6% of the

tribals of this country. The State is recognized as part of the ‘Vth Schedule Areas’ and PESA in the Constitution of India. Under these the State of Jharkhand has 13 Scheduled Area Districts such as: Dumka, Godda, Deoghar, Sahabganj, Pakur, Ranchi, Singhbhum (East & West), Gumla, Simdega, Lohardaga, Palamu, and Garwa (with some districts having only partly Tribal Blocks). However, it is a matter of concern that almost all these districts are educationally backward and are poverty stricken. The literacy rate of Jharkhand is 66.4% as compared to the national literacy rate of 73% (2011). Of the 36.89 percent below the poverty line people, Jharkhand has BPL figures of 54 percent (Planning Commission July, 2013).

The Jharkhand’s geology consists of a mixed metamorphic and sedimentary rock structure which contains rich deposits of iron ore, manganese ore, mica, copper, coal and limestone. The existence of such a geographically concentrated supply of minerals has provided a basis for large scale heavy industrial development in the region since the late nineteenth century and has offered an alternative source of employment for a significant (though declining) number of local people.

Indeed, the national importance of the region's mineral resources and industrial output has caused the Jharkhand to be known by many as the 'Ruhr of India' (Corbridge, 1986).

Lying within India's central tribal belt, the Jharkhand region has a significant, but not predominant *adivasi* population. Over thirty two different Scheduled Tribes make up around 26% of the region's population. Another 50% or so is made up of various 'artisan castes' or *sadans*, many of which have developed a close reciprocal relationship with the *adivasis* and share a common cultural (and often religious) outlook (Nathan, 1988; Kelkar and Nathan, 1991).

From the above brief description of some of the Jharkhand's main characteristics, it is clear that the state is neither ethnically, socio-economically or politically as homogeneous as both the British and the post-colonial governments have tended to suggest. Quite obviously, this presented problems in terms of finding a fieldwork area that was both 'representative' (to enable my 'findings' to be generalized) and conducive to in-depth village level research.

Therefore, I chose to prioritise the need for in-depth research over that for representativeness and aimed to select two tribal villages of Jharkhand that were reasonably of similar 'characteristic' in terms of their size, ethnicity and subsistence base. In fact, I was looking for villages that had good forest cover, having a predominantly *adivasi* population and were located in the Fifth Schedule and PESA area that were fairly underdeveloped but where Jharkhand politics were important. I became very interested in the issues of autonomous and 'official' systems of management practices of commons and their link with methodological choices and made this a central focus of my research.

Selection of the Study Villages

The research paper considered local agricultural and forest management practices in two *adivasi* (tribal) villages – one from Chhotanagpur region and another from Santhal Parganas region of Jharkhand State in Eastern India. Moreover, fieldwork area examines in more detail paying particular attention to inter an intra – village wealth differentials and the influence that these have on household subsistence and survival strategies.

Ambatoli Village

On further investigation, I found out that the village, which is situated in Bero Block (Ranchi district of Chhotanagpur region), is fairly large (1,547 hectares) and fringed to the east by a large area (555 hectares) of protected (but degraded) sal forest. Its population according to the 2011 census was 2266 people, the majority (76.5%) of whom are of Scheduled Tribes (63.7% Oraon, 17.3% Mahli, 9.4% Munda, 8.8% Lohar and 0.8% Chik Baraik according to my data). The remaining 23.5% of the population is made up of Scheduled Caste (17.5%) and Backward Caste (6%) families. In short, the village has a fairly representative ethnic mixture for the region that was almost perfect for the type of research that I wanted to do on agro-ecological knowledges, forest use and forest management by (and socio-cultural importance to) *adivasis*, *sadans* and non-*adivasis*.

Tumbo Village

The Tumba village is situated in Madhupur block of Deoghar district of Santhal Paragans region of Jharkhand. Its population is 1507 as per 2011 census. Entire population is of scheduled tribes. Tumbo, which was drawn to my attention by a helpful employee of *SANVAD*, a voluntary organization of national repute. Broadly speaking, the research methodologies that I used in Tumbo were quite similar to those used in Ambatoli. The main difference was that in Tumbo, my main priority was to conduct in-depth research on common property resource (particularly forest) management and protection systems rather than to undertake a more broadly focused village survey. As a result, I conducted only twenty one formal questionnaire surveys and used to make up the shortfall in basic census information with the use of participatory rural appraisal techniques and over twenty five group interviews.

Additional fieldwork techniques such as group discussions and participatory rural appraisal techniques including social mapping, wealth and preference ranking (Conway et al, 1988; Ruth Alsop, Ford Foundation, New Delhi, personal communication, January 1993) were used to fill in any data gaps and to cross-check the accuracy of the information obtained through the questionnaire survey (Chambers, 1983; Casley and Lury, 1987) in both the research villages.

Proposing Attention New Model Participatory Model

My first fieldwork village was Bero Block (Ranchi District, Jharkhand) is fairly large (1,547 hectares), the has a fairly representative ethnic mixture for the research criteria. These sample villages were 'representative' and conducive to in-depth village level research on the research objectives. During this time, I undertook a variety of research techniques including a questionnaire cum census survey, structured, semi-structured and informal interviews, group discussions, participatory rural appraisal, direct observation and participant observation. I decided to opt for a purposively chosen rather than randomly. Two villages were selected from each zone of Jharkhand state, India. In administered the questionnaire in 50 households per village. Thus, 200 households were interviewed along the study this mixture of techniques was designed to maximize 'triangulation' and minimize the danger of 'ethnographic immersion' associated with long-term participant observation (Chittor and Marcus, 1986; Burton et al, 1986; Casley and Lusy, 1987).

The present study beginnings by reviewing the methodological literature on the subject and highlights the key areas of concern. It then discusses the implications of the assumptions underlying different techniques in the context of the empirical reality. It also analyses the advantages and disadvantages of alternate methods and proposes improvements therein for bringing them closer to empirical reality and thereby increasing their acceptability among the planners and policy makers.

Comparison of Ambatoli and Tumbo Villages of the Study Area

An underlying assumption of this section is that socio-political factors, in the form of an ability to assert local silvicultural knowledes and rights to forest produce, are responsible for the success of forest protection in Tumbo and its failure in Ambatoli. Before launching into a comparison of the fieldwork villages, however, it is important to first establish that there are no major

ecological or management-related differences that could account for the disparities between them. It is also necessary to confirm the 'area type' of the two research villages with reference to information on population: resource ratios, cultivation intensity and the extent of common land.

Looking first at the ecology of the two forests, there are very few differences to be found. Both forests belong to a continuous belt of moist deciduous sal forest and their species composition would, if their management systems and levels of exploitation had been roughly the same, be expected to be very similar (Sanjay Kumar, April 1993). The soils in both villages are lateritic interspersed with sandy loam, but the soil in Ambatoli is of an overall better quality as the relief in the village is more undulating, giving a greater average depth of soil than in Jamtoli, which is rather hilly and rocky to the east with quite shallow soils. The forest on this rocky area is rather degraded now, but used to have a similar species composition to the lower-lying areas (Sanjay Kumar, April 1993).

Autonomous Forest Protection in Tumbo

When autonomous forest protection was established in the early 1960s, Tumbo would still have been classed as an 'area type three' village with no true commons, no swidden and all agricultural land held in permanent registered plots. Prior to its reservation in 1944, however, Tumbo forest was managed by the village community as a kind of commons and this may well have been influential in the later development of community-based forest protection. The village also had many other features that were favourable for the establishment of community-based forest management.

Firstly, the fact that the Ambatoli village is home to Simon Oraon, one of the area's most influential Parha Rajas, certainly supports the emphasis in the common property resource management literature (Blaikie et al, 1986; Wade, 1986; Berkes, 1989; Mehrotra and Kishore, 1990; Kant et al, 1991; Stevenson, 1991) on the importance of a strong leader as a catalyst for the establishment of forest protection committees. Simon's efforts to maintain the role of his Parha as a local administrative and developmental as well as a social institution also fits with Mehrotra and Kishore's opinion that traditional decision-making institutions are important pre-conditions for community-based forest protection and management.

Indeed, it was primarily around the issue of forest protection that Simon started to reorganize his Parha following the introduction of the Gram Panchayat system.

The establishment of Forest Protection in Tumbo

The actual incident that stimulated the establishment of a forest protection committee in Tumbo occurred in the early 1960s when a group of contractors came to Tumbo forest with instructions from the Forest Department to undertake routine felling operations. After seeing the contractors fell more than the allocated area and foreseeing the long term difficulties that such illegal forest exploitation would cause local villagers if continued, villagers gathered together many of the inhabitants of Tumbo's three tolas (hamlets) to challenge the contractors. Carrying bows and arrows, the villagers succeeded in chasing away the contractors and confiscating the four truck loads of timber that they had cut.

Since the formation of a formal system of forest protection in Tumbo, wood from the protected area has been distributed to the villagers of each tola during an annual coupe in which the whole community participates. Usually, the trees to be cut are selected in advance by the committee, to ensure that the required number of good timber trees are cut for house building purposes. Crooked and otherwise deformed trees, or 'single crop' species such as asan (*Terminalia tomentosa*) that are used only for wood, are felled for fuel purposes. Fruit trees are almost never cut unless there is something wrong with them and other trees (mostly sal and asan) are chosen primarily on the basis of their ability to regenerate rapidly through coppicing.

In Tumbo, women's silvicultural knowledges are slightly more developed than in Ambatoli because women work alongside men during the annual coupe and are involved in both three felling and coppicing activities. Women in Tumbo and Bertoli also help to guard their forest areas on a rota basis as these hamlets do not employ a guard.

Contrary to Shiva's claim that "it is primarily women who use and manage the produce of forest and trees" (Shiva, 1988 p. 60), evidence from the Jharkhand suggests that it is men and not women who have the most comprehensive silvicultural knowledge systems and the local-level political power to make use of them. As a result, the "job of (forest management) is essentially a male one" (Kelkar and Nathan, 1991 p.116) as it is men and not women who have the greater role in village-level decision making.

Autonomous Forest Protection in Ambatoli

An Ambatoli, by contrast, the tradition of community-based forest management is much more remote and the village has a far lower degree of internal unity. In addition, there is no strong leader to promote forest protection whilst at the same time attempting to alleviate some of the poverty that contributes so heavily to forest decline. As a result, forest protection has been hindered by the existence of dominant elites who can afford not to be interested in the forest and a group of poorer villagers who cannot afford not to exploit it (Shepherd, 1992a; Sarin, 1993; Reardon and Vosti, 1995).

In spite of these problems and Ambatoli's classification as an 'area type three' village where common property resource management would be very unlikely, a number of attempts have been made to establish forest protection within the village. They have not been particularly successful, but their existence does suggest that in villages where forests are important for practical and socio-cultural reasons and local people are very concerned about forest decline, there may be potential for village-based forest management if the necessary unity can be achieved.

The Reasons for Ambatoli's Lack of Success

In spite of these problems, Ambatoli still has certain conditions favouring community-based forest management, notably a strong sense of the practical and socio-cultural importance of forests, concern about forest loss and a perception that the Forest Department has neglected both local forests and the rights of local people to them (Mehrotra and Kishore, 1990). Compared to Tumba, on the other hand, it has relatively few of the characteristics that could enable it to overcome its 'area type three' characteristics and establish autonomous forest protection.

Conclusions

The main aims of the research paper have been to examine local agricultural and forest management practices in the Jharkhand region and to throw some light on the potential of participatory and populist approaches as alternatives to traditional development blueprints. A major theme that runs through both the theoretical and empirical parts focuses on the recent shifts away from ‘transfers of technology’ to ‘bottom up’ approaches to development and the dangers of accepting uncritically the radical views of some of their ‘supply side’ populist supporters.

Data from the research area suggest that such a conclusion would not be justified in the Jharkhand as local people have a strong subsistence-related and socio-cultural attachment to forests. Indeed, when asked what they would do if the forest disappeared altogether, they answered that they would plant trees on their farm land, not that they would extend their farm land into the forest.

With respect to the causes of forest decline in Ambatoli, for example, the simple binary tensions (Pathak, 1994) over access to forest produce that existed between local people and the Forest Department were only part of the story. More significant were the intra-village community, wealth, gender and even individual actor-related conflicts over both forest felling and perceived favouritism from the forest guard as these factors inhibited the development of a wider sense of village unity and opposition to the Forest Department. Tumbo, by contrast, is a village with greater initial community homogeneity which was united with the help of an energetic local leader (Simon Oraon) who was respected for his ‘expert’ agro-ecological and silvicultural knowledges and trusted for his honesty.

Although relatively little work seems to have been done on the topic, these approaches can also help to draw attention to gender-based differences in the possession and control over agro-ecological and silvicultural knowledge. In Ambatoli, for example, women’s natal to marital village transfers of agro-ecological knowledge were very ‘actor-oriented’ in that they reflected the personalities and experiences of the women concerned and the extent to which they wanted or felt able to discuss their agricultural knowledges within the household.

Recommendations

Common Property Resources (CPRs) are important natural resources which enhance and stabilize the income, employment and sustenance of a village community. The multistage stratified random sampling technique has been used. The average size of operational holding was 0.69 ha, indicating the increasing importance of common access resources (land). The net returns could be increased substantially in low and mid hills zones with the optimum mix of farm enterprises and proper management of CPRs (land and water). About 56 to 88 per cent of the sample households used CPR lands for collection of leaves for litter, grazing of animals and fuel wood. Cross cropped area, land quality index, per capita agricultural land, per capita standard cattle units and distance of crop lands to CPRs were important factors influencing land quality. Sharing of grass and grazing lands among the villagers would help in raising good quality grasses, protect new plantations and reduce weed infestation. Farming system in the hills is

inextricably linked with CPRs. There is a need to frame prudent strategies for their proper management.

Management practices of commons are not solved by more government or privatization but through self-governance. The study emphasizes the importance of communications and also civic education. It also needs to shed its romanticization of traditional knowledge systems, adopting instead of more 'demand side' populist awareness of the linkages between technical a socio-cultural knowledge systems; particularly local people's aspirations about development. At the same time, it needs to be sensitive to local variations in knowledge possession and control over resources and be aware of the role that different local sectors and power structures can have in assisting or preventive development goal from being met. Therefore, governments need to work with civil society to create social cohesion. However, most bureaucracies around the world are not equipped to think or function like that but that is the way of the future. This study is designed to serve as an introductory reference for future scholarly work.

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