

**Balancing the Roles of
Panchayati Raj Institutions
and Civil Society in
Environmental Governance**

for

Lead India

2007



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"Parallel structures (which marginalise PRIs) should not be set up. The objective has to be to implement the Constitutional provisions in letter and spirit in order that Panchayats are enabled to effectively address the challenges of socio-economic backwardness and rural poverty."

The Prime Minister of India¹

Introduction

There is an enormous pressure on the natural resource base of India, due to industrial penetration of rural areas, rapid urbanization, population growth, among a myriad of other global and local factors. As a result, there is a massive exploitation of forest, water, land and energy resources. Consequently, today less than 10% of the national territory is under "good" forest cover.² Tank irrigated land has decreased from 38% in the 1960s to only 18% today.³ Furthermore, "Soil erosion and land degradation coupled with declining per capita availability of land and freshwater are posing serious threat to environment."⁴

Unfortunately, the rapid depletion of these resources that have been traditionally managed and controlled by the communities who depend on them the most is now not in their control. Communities are in the best position to manage their own natural resources, but this power and ownership was taken away and handed over to government.

There are two competing approaches to environmental management to remedy this situation. The first is the donor-driven approaches that center-stage community participation and set up community user-groups, side-stepping the panchayats altogether. The other is the move toward decentralization, which grants panchayats the power to govern their local communities and to manage the natural resource base through the 73rd and 74th Constitutional Amendments.

This paper reviews the role of panchayats in environmental governances and critically examines ways to balance empowerment of panchayats without compromising the participation of the community.

Legislative Context

Global Legislation that Influenced India:

¹ Letter, dated April 27, 2001, addressed to all Chief Ministers of India. <http://www.rlek.org/study.html>

² "Proceedings of the Policy Dialogue: Natural Forest Regeneration and Community Management, Research Network Report #5."

³ Asian Development Bank, 2006.

⁴ Yoganand and Gebremedhin, 2006.

In 1972 the UN Conference on Human Environment brought the issue of the degradation of the environment to the attention of the world and placed responsibility for addressing environmental issues squarely with citizens, communities, enterprises, and institutions at every level. On the global stage, India has signed the convention on Bio-diversity (1992) and the UN Framework on Climate Change (1992) and India is a signatory on the Montreal Protocol on Ozone Layer Protection and its London amendment (1992).⁵

Environmental Legislation in India

The Stockholm Conference in 1972 proved to be a turning point in India's perception on the environment because it catalyzed the creation of the National Committee on Environmental Planning and Co-ordination (NCEPC) in 1972. The NCEPC reviewed policies and programs from an environmental perspective. The creation of the NCEPC sparked a surge in environmental legislation, beginning with the Water Conservation (Prevention and Control of Pollution) Act of 1974 which created boards for the prevention and control of water pollution that were both technically capable and legally empowered to enforce the law. The Water Cess Act of 1977 was passed to financially support these boards through the levying of a cess on the water consumption of industries.⁶

The Water Pollution Control Boards were also empowered to deal with air pollution with the Air (Prevention and Control of Pollution) Act of 1981 and as a result the boards are now called "Central/State Pollution Control Boards." These boards set and enforce emission standards of industries and automobiles.⁷

In 1984 the Bhopal Gas tragedy served as a wake-up call to the nation and the nation responded by upgrading the Department of Environment (DOE) into the Ministry of Environment and Forests (MEF) and passing The Environment (Protection) Act in 1986, which offered an integrated legislation that covered air, land, water, and the linkages between them. In addition, the standards of existing regulations were tightened and expanded (The Air Pollution (Amendment) Act 1988 covered noise pollution), the Public Liability Insurance Act was passed in 1991 to provide relief to victims of hazardous substances (such as those in Bhopal), and Environmental Tribunals were created to specifically deal with cases involving the environment. In 1992 the MEF made The Policy Statement on Abatement of Pollution, which encouraged the integration of environmental concerns at every level of decision making.⁸

The 73rd Constitutional Amendment Act (1992) also served as a piece of landmark legislation that signaled to the country a new revolutionary commitment to democratic and decentralized governance in rural areas.⁹ According to Chitlangi, (1997), the Panchayati Raj Act came into place to devolve power into the hands of people to

⁵ Nadkarni, 2001, 49

⁶ Nadkarni, 2001, 47

⁷ Nadkarni, 2001, 48

⁸ Nadkarni, 2001, 48

⁹ Datta 2003

determine their own destiny, enhance capabilities of people to plan, and decentralise development activities to ensure people's participation. Of the 29 mandated functions of the panchayats, the following serve towards better environmental governance: (i) agriculture (ii) Land improvement, implementation of land reforms, and soil conservation (iii) Minor irrigation, water management and water shed development (iv) Social forestry and farm forestry (v) Minor forest produce (vi) drinking water (vii) Fuel and fodder (viii) Non-conventional energy resources (ix) Health and sanitation.

However, the 73rd Constitutional Amendment Act could not be extended into tribal (scheduled) areas because all local self-governance was constitutionally mandated to be in accordance with tribal customs and traditions. Therefore a new act came into being, the Panchayat (Extension to Scheduled Areas) Act, 1996 (PESA) whose aim was to facilitate participatory democracy in tribal areas by empowering the Gram Sabha to manage and control its own resources.¹⁰

The Biological Diversity Act 2002 another significant piece of legislation aims at the conservation of biodiversity; the sustainable use of biological resources and equity in sharing benefits from such use of resources. It responds to ongoing erosion of biological diversity and concerns arising out of commercial developments in biotechnology and information technology. The Convention on Biological Diversity (CBD) has two stipulations which resonate with this Act – one of the sovereign rights of countries of origin over their biodiversity resources and the other of the acceptance of the need to share benefits flowing from commercial utilisation of biodiversity resources with holders of traditional knowledge.¹¹

Critique of the Acts and Decentralization

The major problems with decentralization is the bypassing and delegitimization of the panchayats Datta (2003) through a range of measures. First, the increase in the number of centrally sponsored schemes to 70 percent of total schemes compared to 30 percent in the 1980s whose implementation has been thrust on PRIs has resulted in their being reduced to mere implementing bodies. Second, elections are delayed due to political indifference in several states. Third, the lack of transfer of funds and devolution of functions to the panchayats, combined with the lack of planning due to the District Planning Committees existing in many states on paper only. Fourth, the lack of bottom up planning mechanisms complemented by District Planning Committees not being set up in several states has not allowed autonomy in decision making for the PRIs.

Inadequacies of the 73rd Constitutional Amendment Act: The 73rd and 74th Constitutional Amendment, 1992 led to the expectation of decentralized planning and financial autonomy for PRIs. In reality there is no regulatory control on ensuring that allocated funds are actually reaching the panchayats. Evidence shows that the fund flow is irregular and in recent years only amounts to 10 percent of allocated funds. The PRIs also are overly dependent on government grants and do not have a sufficient tax base or

¹⁰ Ojha, 2004

¹¹ Madhav, 2003

the right to revenue raising powers or have access to alternative source of funds to make independent financial conditions.

The problems with PRIs include lack of autonomy, corruption, and being reduced to implementation bodies due to the state's reluctance to give up control over implementation and funds. Furthermore being an institution of "self government" the Gram Sabha becomes a crucial instrument for people's voices. However, the powers and functions of the Gram Sabha are undefined and consequently, Gram Sabhas are not held regularly.

Another major concern is given the importance of environmental issues in the lives of women, women themselves do not have a voice, despite there being constitutional provision for reservation.

Inadequacies of PESA: The loophole that renders PESA irrelevant is the fact that the Minor Forest produce is not clearly defined. This resulted in several state governments establishing monopolies and taking control over important MFPs, denying access to MFPs to the tribals and therefore lowering the financial benefits that they are legitimately entitled to. The Act is less effective also because of lack of awareness, and consequently Gram sabhas themselves not being organized¹².

Inadequacies of the Bio Diversity Act: While this act is a significant piece of legislation the danger lies in this act being rendered ineffectual due to the institutions and authorities set up by this Act having to accept all directives of central and state governments.

There are a number of environmental laws and policies enacted in India. There are approximately 30 enactments, which include the Forest Conservation Act (1980), Wildlife Protection Act (1972), Environment Protection Act (1986), among others.¹³ A study conducted by TERI concluded that the problem with so much legislation is that it results in a confusing and often contradictory set of legalities.

Actors in Environmental Governance

There are many actors involved in environmental governance and not all of them necessarily coordinate or corporate with each other. At the national and state level there are the ministries and departments and going down to the district and taluk level there are the various line departments. From the district level to the village level there are also the panchayats who have the jurisdiction of protecting the environment. At the village level the communities too are involved in protecting and managing the environment. There are traditional community groups such as the orans and other groups that have been created such as the Van panchayats, the Pani Panchayats, and the user groups formed under the Joint Forest Management programme and the watershed programme among various others.

¹² Ojha, 2004.

¹³ Chitlangi, 1997

National and State Governments

At the National and state government are the ministries and departments who have a number of laws governing their powers. There is the Ministry of Environment and Forests, The Forest Department, the Department for Water Supply and Sanitation, Watershed Department, Pollution Boards and so on. As there are different agencies involved there is often a lack of coordination among them. Also there are two lists dividing the jurisdictions of various areas. There are some which come under the jurisdiction of the central government and some that come under the jurisdiction of the state governments. At the same time there is also a concurrent list which comes under the jurisdictions of both the central and state governments. For example water supply and irrigation are in the state list while interstate rivers are on the central list and forests and wildlife protection are on the concurrent list. Despite decentralisation the central government through its control over resources exercises a great deal of power in environmental issues in India.

Panchayati Raj institutions

The 73rd and 74th Constitutional Amendment Acts have decentralised governance up to the village level. They are mandated to be responsible for village development including the management of the natural resources. The PRIs are already mandated to manage the natural resources. Among the 29 functions of the PRIs are common lands, social forestry, fuel wood, plantations and management of NTFPs, land consolidation, soil conservation, water management and watershed development. They are not just implementers of central schemes but are also supposed to plan for such activities at the local level. Yet, the role of the PRIs in environment protection is not defined clearly and these need to be defined.¹⁴

Traditional actors (van panchayats and pani panchayats)

Traditionally there have been bodies at the local level who have been managing their natural resources. There are the Orans in Rajasthan who have managed the common land between villages and the sacred groves in Tamil Nadu where the communities have protected the forests where they believed forest gods resided.

In Uttaranchal the Van panchayats were formed in 1921 with the communities protesting against the British. They are not a part of the panchayat but actually only a user group. But now it is seen as an illegal institution because they are running parallel to the panchayats.¹⁵ Recently they have been reinstated by the forest department in a hurry because they wanted to ensure that they get World Bank funding. Now many of the van panchayats have been integrated into the JFMs.¹⁶

Water Users' Associations have been in existence in India for a long time even before the British rule. more emphasis was given to users' participation in water management only

¹⁴ Bose, 2006

¹⁵ Bose, 2006

¹⁶ <http://www.rlek.org/study.html> as on March 5, 2007, Rural Litigation and Entitlement Kendra

after the announcement of the National Water Policy: 1987 & 2002. The 'Pani Panchayat' began due to the severe drought of 1972-73 in the State of Maharashtra. The basic philosophy of Pani Panchayat is to share water on certain commonly agreed principles. Every one in the group is involved in the principles agreed upon and therefore there are very few violations.¹⁷

User groups (VFCs, watershed committees and VWSC)

In the recent past government has formed user groups to involve the community in protecting and managing the environment. These groups include the Joint Forest Management Committees, the Watershed Committees, Tank user groups, and the Village Water and Sanitation Committees among others.

Joint Forest Management (JFM) program of the Government of India was created to build relationships between the community and the forest department. It is a partnership basis where both of them share responsibility to protect and manage the forests and both of them enjoy the benefits of the forests. Similarly watershed committees have been formed in the village to manage the watershed under the watershed programme.

There are also Village Water Supply & Sanitation Committee (VWSC) who are supposed to be an extended arm of the gram panchayats and are responsible for activities related to water and sanitation.

Environmental Programmes

While there are a myriad of programmes that relate to the 29 functions of the PRIs for the purposes of this paper only programmes focusing on forests and water have been examined in this paper. These include the Joint Forest Planning and Management, Watershed Development, Tank Restoration and Drinking Water Supply and Sanitation. Using Dharwad as a case study¹⁸, the actual implementation of these programmes have been critically examined.

Programmes Related to Forestry: The Joint Forest Management Programme

Out of the 1988 Forest Policy, a national resolution on JFM was passed in 1990, which led to the Joint Forest Management (JFM) program of the Government of India implemented in 22 states. The objectives of the policy was to initiate a process of joint management of forests by the state governments and the local people. The programme forged a partnership between the forest department and communities both of which were expected to share responsibilities and the benefits generated. Under this programme village communities form village forest committees (VFCs), which are entrusted with protection and management of neighboring degraded forests and degraded lands under the jurisdiction of the village. General Body consists of all adults in the village including

¹⁷ A. Narayanamoorthy and R S Deshpande (2004)

¹⁸ Interviews with NGO staff involved in the implementation of JFM and Sujala watershed development programmes in Dharwad.

all women and an executive committee manages day to day affairs. There are clear guidelines on the sharing of benefits that accrue from the afforestation programmes. These vary across states. However in Karnataka 50% of the revenue from the forests goes to the forest department and the remaining 50 percent goes to the VFC. As per the recent guidelines if there is a new plantation formed by the VFC then 75% of the produce goes to the VFC and 25% to the forest department. The VFC has to use 50 percent of the funds received for village development activities and the remaining is distributed among the general body members who pay a membership fee of Rs.2 per annum. The VFC also gets 90% of the Non Timber Forest Produce and 10% goes to the Forest Department.

First, the village communities engage in micro-planning as facilitated by the NGOs involved. This begins with PRA exercises conducted with the communities where resources are mapped and needs identified. Once the micro plan is developed an Memorandum of Understanding (MoU) is signed between the VFC and the Forest Department.

The Karnataka Experience: JFPM

In Dharwad, one major achievement of the JFM as seen in Karnataka included encroachment in several forests was stopped by the people. The role played by the VFC in watching and protecting the forest from fire, theft and illegal felling has been seen to be fairly effective. A second achievement was wherever there were no forests people have identified wasteland which is classified as revenue land and got it transferred to the Forest Department, and then used the VFC to develop this land, which has resulted in the development of a new natural resource base. A third benefit was in some cases poor families who were organized into SHGs were brought onto the executive committees of the VFCs and they were able to shape the activities and decisions in a manner that benefited the poor. This was achieved in areas where NGOs were operating but in areas where the government organized the VFCs this participation was less effective. Entry-level activities of the JFM allowed for any community development activity to be undertaken by the VFC. Amounts of 30,000 Rupees were allocated on community development activities of the village and 5,000 Rupees was allocated as seed money for the VFC to start functioning. Finally women's participation was an integral component of the JFM. Towards this women constituted 50% of the executive committees of all VFCs through bringing on SHGs representatives on to these committees. Further this has also led to the constitution of a few all women's VFCs in places like Banasgera in Halyal taluka in Karnataka state.

However several problems emerged in the actual implementation several problems emerged:

Transparency: In initial years costs of the plantation and other activities undertaken for the micro plan were made transparent by the Forest Department to the community. This stopped in later years and today the VFC is completely unaware of the expenditure patterns on the plan.

Understaffing: The ratio of forest officials to the number of VFCs they have to handle is unrealistic. The officials concerned not only have to attend the meetings but also have to

supervise the planned activities for which there is simply no time. Consequently meetings cannot be held regularly.

Irregularity of Meetings: The irregularity of meetings often results in people becoming disinterested and the VFCs disintegrating and becoming defunct institutions. To overcome several suggestions were made to the department of personnel who could attend the meetings in their place such as any other government grassroots official from other departments such as the GP secretary or the Gram Sevak. But these suggestions were not accepted by the Forest Department.

Renewal of VFCs: Another major problem has been the renewal or registration of the VFC after the tenure of the MoU expires for which there are no explicit guidelines. Wherever NGOs are working, in those areas VFCs are renewed, but in other areas, the Forest Department is known to visit irregularly and often times this results in the VFCs not functioning beyond a certain period of time, certainly after the tenure lapses. This then results in the benefits not being shared by the Department with the communities once the harvests are finally reaped.

Formation of VFCs: Under certain donor driven JFM projects, like the JBIC, VFCs were formed in Karnataka in the first phase. Here NGOs were recruited for a short period of three months with the extensive mandate of formation of VFCs, training of the VFCs, conducting PRAs, preparation of microplans and signing of the MoUs in communities which were not already organized. This did not allow the formation of SHGs of the poor and women, which meant that the poor were either left out or were involved without the capacity building needed for them to have a real voice. The NGOs were also withdrawn after 3 months not allowing any follow up. This planned lack of follow up also resulted in large numbers of defunct VFCs across the state. This was corrected after the state came under heavy criticism and NGOs were paid to follow up on VFCs. But this was impractical except in the case where VFCs were clustered. Otherwise wherever the VFCs were scattered over large areas, the funds offered by the Department per VFC were too low to cover the costs of travel or staff to scattered VFCs.

Involvement of PRIs in Forest Activities and JFM:

The basic conflict between PRIs and VFCs arises from the fact that the mandate of the panchayat is to manage the natural resources under its jurisdiction which is partly being also managed by the VFC. The role of the PRIs have been somewhat tempered by the mandate of the VFCs, which is also to manage the forest area falling under the jurisdiction of that village. Because PRIs and the VFCs are accountable to line departments.

Accountability of the VFC: The VFC is accountable primarily to the Forest Department and not to the panchayat. While the funds are not large or very visible, there are three kinds of benefits the VFC receives from the Forest Departments:

- The VFC can decide on what they want in the microplan, the implementation costs of which are born by the Forest department.
- The VFC also gets small amounts of financial assistance in the form of seed money and for entry point activities.
- The forest dependents in the VFCs have access to Minor Forest Produce.

- After harvest the VFCs are entitled to their share of the benefits.

Hence the VFC is far more likely to be accountable to the Forest Department than to the GP. However in the case of Orissa the state also has allocated the PRIs a supervisory role by constituting a sub-committee on JFM by the Gram Panchayat which reviews quarterly the functioning of the JFMC (Bose, 2006).

Jurisdiction of Panchayats: The Panchayat has control over the forest area falling under its jurisdiction only and this cannot be extended to the protected and reserved forest areas which are under the control of the Forest Department. However tribal living in these areas have traditionally used all these forests not distinguishing between jurisdictions and this becomes a source of conflict.

Programmes Related to Water

The programmes focused on in this section include watershed programmes, tank restoration and rehabilitation programmes and programmes related to drinking water and sanitation.

Drinking Water Supply and Sanitation Programmes

The Karnataka Experience: Jal Nirmal Programme

The primary objective was to ensure drinking water supply and sanitation to the village. The state introduced rural water supply and environmental sanitation programme with the assistance of the World Bank, which is being implemented under the name **Jal Nirmal** project. Under this project, along with the objective of providing improved access of communities to safe drinking water, sanitation and indoor air quality were recognized as important goals. Under the water and sanitation project (Jal Nirmal project) the Government has so far (since 2002) assisted over 30,000 families in acquiring an improved stoves.

The Karnataka Rural Water Supply and Sanitation Agency [KRWSSA] is implementing rural water supply and sanitation projects in the state of Karnataka. It is an extended arm of the Department of Rural Development and Panchayat Raj (RDPR). KRWSSA is implementing the World Bank-assisted second Karnataka Rural Water supply and sanitation project – Jal Nirmal Project - in 11 northern districts of Karnataka. These districts are: Bagalkot, Belgaum, Bijapur, Dharwad, Gadag, Gulbarga, Haveri, Uttara Kannada, Bidar, Koppal and Raichur.

Village Water and Sanitation Committees were formed to work as an extended arm of the Gram Panchayat (GP) and be responsible for all activities related to water supply and sanitation in the village. The committees were responsible for creating plans to identify the source of drinking water and then create a budget to cost out the amount of funds it would take to transport water to the village. About 15 percent of this budget had to be

contributed by the GPs which in turn could collect the entire amount or some part of it from the community. For drinking water, the community contributes 10% while the GP contributes 5% whereas for roads and drainage the reverse is the case. Depending on how close the water source is, the costs are more or less. However the problem that typically arose was in identifying the ground water source. If the source was to channelize water from an irrigation canal to the existing village tank then this required obtaining permission from the authorities concerned. Obtaining contribution was a major problem since people did not see the existence of a viable water source and alternatives were proving to be expensive due to the distances or required paper work and permissions, which may not have finally materialized.

NGOs are given targets to complete within 18 months. In the first six months the communities are organized and plans prepared, followed by nine months of implementation and three months for post implementation follow up. Once the plans are prepared by the GPs and NGOs, the government technical staff need to approve the plan and begin the implementation. But on the ground delays take place because the government technical staff do not perform on time.

All GP members belong to the VWSC and the president of the VWSC is a GP member belonging to the area. If that particular GP member is illiterate or uninterested then that has been found to further hinder the work. Even if other VWSC members are more capable the GP member has to be the president. This has led to the poor performance of the VWSC in some cases. When there are more than one GP member in the VWSC local politics also plays a factor in determining who among them takes over leadership of the committee.

These problems indicate the need for flexibility and some performance based indicators that should determine the choice of leadership rather than local politics or their being a GP member alone.

Watershed Programmes:

Watershed¹⁹ programmes historically in India began in the 1970s and have undergone a paradigm shift moving from biophysical frame work of watersheds with top-down approaches towards more participatory methods over time. In fact the recognition of the importance of participation was enshrined in the 1994 guidelines for implementing watershed programmes issued by the Ministry of Rural Development (MoRD) which was people centered in that it incorporated concepts such as awareness raising, bottom-up planning, partnerships with NGOs, and community participation. India spends a large amount of resources on watershed development, close to 1,000 crores or 200 million US\$ annually²⁰. Participatory watershed management has roots in the non-government

¹⁹ According to Yoganand and Gebremedhin (2006) “A watershed is a logical, natural planning unit for sustainable agricultural research and development particularly when environmental considerations are emphasized. Hydrologically, watershed could be defined as an area from which the runoff drains through a particular point in the drainage system.”

²⁰ Yoganand and Gebremedhin, 2006, p.3.

sector initiatives started by Anna Hazare in Ralegansiddhi village in Maharashtra. The resulting paradigm shift was accompanied by new institutional arrangements that center staged partnership based community participation in the form of water user groups. Multi stakeholder groups at both district and village levels were encouraged. For instance, watershed associations which were village wide involving membership from all households residing or having land in the watershed area. Watershed committees were formed involving Gram Panchayats, and other local institutions such as self help groups, farmers associations, fishermen's associations among other user groups.

The later watershed programmes had as its over arching goal to enhance sustainable rural livelihoods to reduce the incidence of rural poverty.

The advantages of such participatory approaches over conventional ones included the validation of local knowledge, evolution of new technologies with local communities instead of the conventional methods involving straight technology transfer, institution building and support, and livelihood generation for off farm production through value addition to products from watersheds. Other advantages included a greater focus on people's participation at every stage and long term collective management of resources towards sustainability.

Impact assessment studies of participatory watershed projects showed improved crop productivity, which were greatest in the case of rain-fed crops whose average yield increased by 280%.²¹ Improved yields have in turn resulted in higher incomes and better livelihoods for the poor. Environmental gains included increased soil moisture levels, control of soil erosion, and a higher cropping intensity of as much as 13-25%. Soil and water conservation methods of these watershed projects include improved local water resources, increased water storage capacity, decreased rate of runoff, and increased groundwater recharge. Greater availability of water and diversified cropping has generated additional employment for the rural laborers, which has also contributed to checking migration.

The Karnataka Experience: The Sujala Watershed Programme

The Sujala Watershed Programme in Karnataka is a world bank funded programme which was initiated in 2000. It created a new set of institutional arrangements where a separate department was created at the state and district levels to implement whose focus was soil and water conservation, agriculture, horticulture, forestry, wasteland development and veterinary services. Expertise from the different departments were drawn upon to create this new department at state and district levels. At the village level to implement the programmes village watershed committees were formed consisting of 14 members representing rich, medium and marginal farmers, five SHGs and 2 GP members, one man and one woman all of whom reside or have land in that area. In addition there is a watershed assistant and an NGO representative. Within a single sub-watershed covering approximately 5,000 hectares of land there could be about 10-15 micro watersheds. Further each micro-watershed is divided into area groups for every 20

²¹ Yoganand and Gebremedhin, 2006, p.10.

farmers. Therefore each micro-watershed would have one watershed committee but several area groups. Each watershed committee was registered as a society and subject to regular audits like any other NGO.

Funds were provided directly from the department to ZP who in turn provided funds to the watershed committees. Each watershed committee prepares a plan with the user groups which is consolidated for the micro-watershed and the total planned amount is released to the watershed committee in installments. These plans had budgets ranging from 40 lakhs to 3 crores rupees depending on the area of the micro-watershed.

NGOs were allocated an amount of 1 lakh rupees for entry point activities. These funds were initially routed through NGOs in the first phase in 2002. Since NGOs found handling these funds to be difficult, and there was objections raised by the GPs as to why they were being left out. So it was decided to route the funds through the panchayats in the second phase in 2003. Some panchayats completed these activities while others did not, did not maintain good financial records and several spent the funds on other activities and till date several entry point activities remain incomplete.

The positive impacts of the Sujala watershed programme were several:

The capacity building was across the board for all stakeholders, NGOs, user groups, SHGs on the technical aspects of watershed treatment, community organization, accounts and account keeping for the watershed committees, SHGs and income generation, among other areas. To achieve this, NGOs were involved at every level from the state level to the sub-watershed level. Implementation was easy as there was large scale awareness across the community, the local committee met regularly, the plans of the committees were fully funded and committees were supported completely by the NGOs.

There was a separate component called Vulnerable Groups Sub-Plan for the landless. SHGs of landless women were supposed to get 35,000 rupees per SHG to take up income generation activities. Thus rather than getting involved in monitoring watershed activities they waited for these funds. Later these funds were released and this component helped the poor with income generating activities and SHGs savings were leveraged to provide their end of the contribution.

Another ground breaking good practice of this programme was the element of transparency brought about by regular reporting out of the work done and the expenditures to the Gram Sabha. Furthermore written reports specifying the name of each farmer who received funds and activities carried out was publicly displayed for the entire community to see.

Finally monitoring was a key component of the entire programme under which several aspects got separate focus and was conducted by independent agencies like ISRO for social audits, YCK associates for financial audits and Ravi and Iyer, a private company for maintenance of project accounts while KRSAC provided GIS data and information.

Problems included:

Equity concerns: A certain percentage of funds was contributed by the farmers. Bunds and water bodies required 10-20 percent contribution, while the horticulture activities had 35 percent contribution by farmers. Rich farmers jumped at these opportunities.

However the poor farmers took a longer time to come into the project's fold because of the need of the contribution. By the second phase it was identified that the poor were being behind and differential contribution rates were initiated. Another problem was that plans for prepared for rich and poor farmers. Since it was contribution driven several of the rich farmers in a given sub-watershed got the work done and claimed the funds against their contribution. The poorer farmers found it harder to come up with the contribution and took longer. Later when the poor farmers came forward they were told that the funds were exhausted and it was too late. This was largely because the monitoring was driven by criteria of spending of funds rather than issues of equity. Account-keeping: The sub-watershed committees were audited annually and many did not keep accurate accounts and bills. They had to be trained to manage their accounts. Many farmers with low levels of education found this function difficult and secretary was a village youth who was supposed to keep accounts and NGO staff had a difficult time ensuring these accounts were accurately maintained.

Involvement of PRIs in Watershed Programmes

The involvement of PRIs in watershed is marginal even though soil and water conservation is their responsibility. GP members are part of the watershed committees and in some cases even headed the committees although in Karnataka they were not supposed to. This at times led to corruption on a small scale. As a part of the withdrawal strategy the committees are supposed to become a standing committee of the GP. However the committees are registered as independent societies and would have to lose their independent status if they are to become a standing committee of the GP. While this has been proposed no guidelines have been issued to the GPs on this matter.

The nature of watershed areas being large, results in the existence of more than one GP and more than one committee in a given watershed. This has created confusion in the withdrawal phase where it is unclear which watershed committee will become a part of the GP sub committee.

Large amounts of funds came to the watershed committee which far exceeded the GP budget for the entire village several times over. Because these funds were large there was competition to head the committees. The accountability of the committee was to the District Watershed Department and not to the GP.

Tank Restoration Programmes

The Karnataka Experience: Jala Samvardhane Yojana Sangha (JSYS)

The Government of Karnataka, with financial support from the World Bank, facilitated the handover of tank development and management from the state to the communities by creating Jala Samvardhane Yojana Sangha (JSYS), a registered society within the framework of Registration of Societies Act, 1960. The government set up JSYS as an autonomous society at the state level in order to simplify procedures and expedite decision making for the effective implementation of World Bank projects. The main

purpose of JSYS was to strengthen the water sector, particularly minor irrigation, through a participatory tank and groundwater system that was to improve the livelihoods of rural people. JSYS will promote and organise activities of capacity building, provide strategic resource and logistic support for training and orientation, promote and undertake efforts for integrated, multi-dimensional interventions in related sectors and ensure timely and adequate flow of funds from all possible sources, including from the World Bank. Project partners are involved at various levels in ensuring organising of capacity building programmes, review meetings at village, cluster, district and State levels, interactions with Panchayat Raj Institutions and line departments and implementation of Integrated Tank Development Programmes. The Tenth Plan allocation is 50,484.71 lakhs. The allocation provided for 2005-06 is Rs. 24,500 lakhs.

The major benefits of this programme include the rejuvenation of water bodies and enhancement of people's participation in managing the tanks.

Problems reported by practitioners included:

Poor Grassroots Mobilization: JSYS has no grassroots staff and there existing SHGs are utilized only and no new mobilization of the community and the poor has taken place. Consequently training and capacity building at this level is low compared to other programmes.

Classification of tanks: The government classifies tanks based on its width based on which different tanks fall under different departments such as the GP, ZP, and Minor Irrigation. However the departments do not know their roles and responsibilities as far as the tanks are concerned. Therefore when plans were proposed from below because of the lack of knowledge on whether they could be approved or not these plans were vetoed and consequently this resulted in a lack of responsiveness to local needs.

Relationship with GP

As per the project guidelines the tank users committees could be registered bodies or could become sub committees of the GP based on GP endorsement. Since the funds went directly to the tank users committees by passing the GPs currently in the withdrawal phase, GPs do not own this process and are silent on the issue of these committees.

Best Practices in Environmental Management and Governance

Environmental management and governance practices in India date back to traditional methods used where communities managed their own natural resources. Practices that have been highlighted include those with community participation and women's participation in managing natural resources. Finally practices where there have been public private partnerships and where the panchayats have played a role in environmental issues are examined in this section.

Traditional community management methods

Environment protection in India was in existence for a very long time. Kautilya's Artha Sastra (fourth century B.C.) say that the kings are to protect forests and wildlife, particularly elephants. *The cultural values in favour of protection of environment were strong enough to give rise to the institution of the sacred groves or Devara kadu (literally, forests reserved for God), where exploitation of forest produce including wildlife was severely restricted or prohibited.*²² These can be found in many parts of India.

In Rajasthan, there are the Orans or Devi Bani which are protected by the community in the name of a goddess. There are more than 1,100 major orans covering 100,000 hectares of land. These protected forests provide vital grazing land, water, minor forest produce, medicinal plants and a green cover for the village. The decline in the forests came about when the community lost control of the forests. The Oran land was divided into revenue and forest land without the consent of the users. The land was then distributed among the landless or earmarked for conservation. Once they were designated as reserved forests they came under the Forest Conservation Act and the Wildlife Conservation Act, which in turn prevented the people from accessing the land.

Historically other user groups that have emerged where the community has taken a lead in environmental management include the Van Panchayats that emerged during British rule and the Pani Panchayats that arose during the drought period in 1972 in Maharashtra.

Current Community Management

There are several instances where the community has played an important role especially in forest protection and in the JFM programme. However the following case highlights the difficulties faced by the community from the Forest Department authorities and from the fact that communities do not have tenure rights over the forest lands.

Forest protection activities started in the Deulgaon village in 1990 because the villagers felt the need to stop the indiscriminate felling by the neighbouring villagers, taking place in the adjacent forest. But the villagers were not sure whether the forest was within their village boundary or not. After the land survey in 1988, the villagers decided that all that forest that was in their revenue boundary would be protected from outsiders. The decision was also influenced by the spurt of forest protection activities taking place in a nearby village called Mendha. In 1990, during one informal meeting, the community finally decided to not only stop neighbouring villagers from harvesting from their forest, but also for impose restrictions on itself. It was decided that each household would have to harvest according to its genuine requirement, and would not sell any forest product. No formal forest association was formed. Day patrolling by the community members began.

These informal efforts of the community continued in the form of 'protection' work allowing natural regeneration alone, with no access to funding or technical know how for increasing the stock and quality of the resource. Mr. Gedam was elected as the '*Sarpanch*' (chief of the local public body) of the village in 1992. He happened to attend

²² M.V. Nadkarni, 2001

a meeting was for setting up of a Forest Protection committee (FPC) under JFM in the presence of the Range Forest Officer (RFO). A visit by the RFO to the village and the meeting with him generated further interest within the community to consider joining JFM. The villagers took time in taking a decision, and only after consensus was reached, it was decided that they would register under JFM. The community was appreciative of the benefits like the fifty percent of the proceeds from the sale of timber that they would share under JFM, and right to harvest non-timber forest products from the forest. It was only then that the villagers discovered that under the state ownership, their traditional rights to harvest did not hold good at all. In 1998 the Forest Protection committee under JFM was formed. Under the wings of JFM, the self-initiated attempt of forest management got a boost in the form of technical know-how and funds that they lacked. From the year of the initiation of the Forest association, plantation on 85 hectares of forestland has been done by the Forest Department, where species that the forest lacked or the villagers desired, were planted.

The association, independent of the rules under JFM, has developed a rule structure regarding harvesting of forest products, determining who is authorized to harvest from this forest, monitoring forest condition and conformance to rules, and sanction rule breakers. A penalty was charged to those who broke the law and if the offence was repeated, they were taken to the police and not the Forest Department, because communication with them was not very satisfactory. The rules and regulations formed are the ones the community has developed over the years, through experience. Almost everyone in the community is aware of these rules and considers them as clear to understand, flexible to the needs of the people, fair, and legitimate.

These attempts by the community to protect 'their' precious resource are often met by hurdles. The major discouragement came from the Forest Department. Lack of cooperation is clear from the way the department deals with the poachers. Earlier when the offenders were taken to the forest office, the officials although confiscated the products that were caught, the tools used by the offender were released a few days later. The villagers of Deulgaon were neither informed about it nor was the penalty amount shared with them. Deulgaon community also suffers from confusion of revenue boundaries with a neighbouring village. The department has done little to solve the dispute, which is basically over collection of forest products. Despite such discouragements the people of Deulgaon continue to protect 'their' forest. For them it is both a source of livelihood and water. They do realize that more forest means more rainfall and more forest produce for sustenance.²³

Women's Participation in Environmental Management

Women's involvement in environmental issues has been highlighted by the literature starting with the Chipko movement. In the following case women's roles in forest protection has been highlighted where a great deal was achieved informally in the absence of an official Forest Protection Committee which was put in place well after the

²³ Deepshikha Mehra Talwar and Rucha Ghate

community had made several successful inroads in participatory environmental governance and management.

Ranvahi village was settled approximately in the 1800. The name of the village came from the dense forest that existed then, called 'Ran' in Marathi. The forest had many streams flowing ('vahi' in Marathi) through it, thus the village next to the forest with flowing streams, came to be known as 'Ranvahi'. The seeds of change in the attitude of the community of Ranvahi towards 'its' forest were sown by a local NGO, 'Amhi Amchya Arogya Sathi'(AAA). In a 'Sakhi mela' (an all women get together). organized in 1995, where women from villages all over Maharashtra had come. Women spoke of the positive developments of forest protection work taking place in the neighbouring village. The local NGO called a meeting of the community and spoke to them about the need of forest protection, JFM and its advantages. The community sent its application to the Forest Department in 1995. In the meantime, inspired by the NGO, Ranvahi community had already started protection work on its own. There was this incident where poachers sneaked in unnoticed, but they were caught on their way back with logs of wood filled in a tractor, by the women of the village who stopped them and did not allow them to leave with the timber. While the outsiders were prevented successfully from cutting down trees from this forest, wasteful harvesting by the Ranvahi community itself, continued. Encouraged by the suggestions coming from the NGO (AAA), some villagers tried to estimate the usage of forest products by each household. It was found that they were using forest products like timber and fuel-wood much more than what was required. The community decided to stop this immediately and that people would be allowed to collect only what was genuinely required. More such decisions took place either in the '*Gram Sabha*' (village meetings) that were held on regular intervals, or in informal meetings as and when the need to get together to take a decision, arose. All this went on without any forest protection association or committee. In 1998, the application to register under JFM was finally accepted and a Forest protection committee was informally set up. In 2001 it was formally registered under JFM.²⁴

Thus clear distinctions need to be made on when the natural resource base is being used for subsistence purposes and not for generating revenue or profit. Women have a clearer understanding of the nature of dependency on the forests for the subsistence of themselves and their families. Thus, they are also in the best position to decide what resource use is essential and what is wasteful. Thus women can play a substantive role in decision making on the use of natural resources for household and subsistence purposes.

In several cases what emerges is the fact that often communities are unclear about which lands come under the jurisdiction of their villages. Even when this is clear not having clear land tenure rights precludes their greater investment in terms of time and labour in improving the productivity of the forests and the community's role gets restricted to just forest protection.

²⁴ Deepshikha (Mehra) Talwar Rucha Ghate

JFM can however become instrumental in building awareness and social capital through creating and strengthening local grassroots institutions. Furthermore the relations between the forest department and local communities, particularly with tribal communities, tends to be fraught with tension at times bordering on hostility. This is a major barrier in the implementation of JFM and in the genuine participation of the communities in natural resource management especially in the scheduled areas.²⁵

Involvement of Panchayats

Case where the panchayats have taken a lead role in bringing an issue to the attention of the Pollution Control Boards and the courts and where they won the right to shut down a private multi-national corporation.

In Plachimada, a remote village in Kerala, after a doctor declared the water in the wells unfit for consumption, the people began a protest against Coca Cola who had set up a factory there. The Panchayat cancelled the plant's operating licence for mining water and a single judge ruled that the state government had no right to allow a private party to extract large quantities of ground water which it deemed "property held by it (the government) in trust". The company went to the high court who initially said that they could not mine water from deep bore-wells but could only use as much water as would be used for agricultural purposes. Later the court ruled that they could extract 500,000 litres of water a day, which angered the people of Plachimada village who protested outside the company. The company started production again but 10 days later the Kerala State Pollution Control Board (KSPCB) ordered the company to shut down as the waste produced had high levels of cadmium and the company had failed to provide the local people with piped drinking water as their wells were contaminated due to this. In 2004 there was global recognition of the problem and activists from all over the world came to join and support the people of Plachimada. In 2005 there was a conference where a 'Plachimada Declaration' was adopted which asserted that people everywhere should "resist all criminal attempts to market, privatise and corporatise water".²⁶

Because of the decentralization programme in Nepal, the panchayat has to give approval for the implementation of any development projects.

In Kakani village, Nepal, district level projects cannot be taken forward without the Kakani Panchayat leaders taking the initiative due to the decentralisation act. The panchayats are involved in the implementation of projects and support the district office. Kakani Panchayat has undergone changes in the condition of its natural resources. With the implementation of afforestation programs the Kakani farmers are minimising soil erosion from terraces by water management practices and the scraping of risers. They are keen to protect their natural resource base as their livelihood depends on it. Due to the intervention of the government with its afforestation program, the conditions of natural resources have improved and the Kakani hills have become greener. After the project was

²⁵ Deepshikha (Mehra) Talwar², Rucha Ghate³

²⁶ Dr. Rajeev (2005)

implemented the government handed back the forests to the Kakani communities for a sustainable management of the forests. The role of the Department of Forests has now changed to one of an advisor to its users. The Kakani Panchayat members can play a vital role in bringing back of the traditional forest management committee. *An healthy partnership between the government, panchayat and the communities will lead to a better management of natural resources.* For this to happen the voices of the panchayat leaders have to be strong and there must be the political will to execute the projects. But due to a scarcity of trained manpower and finances, many compromises are made during the planning stages.²⁷

Public Private Partnerships in Environmental Governance

The following case represents an excellent practice of a public private partnership involving the private sector, the panchayats and the community. It can serve as a model of corporate social responsibility where the private sector has partnered with a local panchayat and the community to initiate wasteland management.

The coastal belt of Kodinar is known for its horticulture produce and the famous Gir forest. There was over grazing on common land, which was also encroached upon for illegal soil mining. Managing common property is difficult because *everybody's property is nobody's property*. An private organisation called Ambuja Cement Foundation (ACF) started a wasteland development project with the participation of people.

People were involved from the planning to the implementation and management of the project. They decided to plant horticulture plants so that they would get an income from it. The village panchayat was involved in the project from the very beginning. A village water committee and association have been formed to manage the project. Also the association has been registered so that funds can be routed through the association. The panchayat members were elected to be the committee members but the committee remains an apolitical body. This panchayat also received Rs 60,000 from the government for their *exemplary collective action under the head of "Samaras Panchayat"*. Four acres of wasteland has been developed into horticulture, two acres of land has been developed as forest land and fodder was also grown on the remaining land. The money received by the panchayat was used to build a boundary wall and to build a cowshed and a fodder storage building.

In the project farmers were also given training on improved agricultural practices. The plantation orchards was handed to the panchayat who then leased it out for the sale of fruits which in turn provides an income for the panchayat. Other issues taken up in the project include soil and moisture conservation, microfinance and income generating activities.

The case of Valadar is a classic example of how strong institutions can enable a community to facilitate its own development. The existing formal institutions of

27 Saroj K. Basnyet (1989)

*Panchayat exhibited cohesion keeping aside their rivalry, to bring about changes in their immediate environment. This also facilitates easy withdrawal of the development agency since the villagers themselves can take up steps for improvement in livelihood.*²⁸

These cases point to the key role played by the community and suggest that joint control and management by the government and local people is possibly the most optimum method for conservation. The advantage of involvement of multiple stakeholders in the above case study shows how issues of legitimacy, adequacy of finances and sustainability are more easily dealt with.²⁹

Pros and Cons of Involving Panchayats

The panchayats, the user groups, and the line departments concerned with natural resource management have identical mandates to manage and govern natural resources under their respective jurisdictions, which often overlap. This creates conflicts which need to be resolved. Roles and responsibilities should be defined for each of these groups.

Bose (2006) has conducted a detailed analysis of the advantages and disadvantages contextualized in the case of the JFM but several of these lessons are applicable to other programmes.

Disadvantages of Involving Panchayati Raj Institutions

The general belief is that involving the panchayats results in having to deal with issues of corruption or mismanagement of funds and the fact that panchayats are political bodies. This results in party politics factoring into the success or failure of projects. Furthermore panchayats typically are composed of the more powerful local elites and they may hamper the very community participation of weaker sections that user groups seek to promote.

The second major issue relates more historically to the autonomy of decision-making powers resting with the GP and their lack of a financial base or financial autonomy. This situation is now changing slowly with the programmes being devolved to the PRIs. However the perception persists, especially among the line departments of the government, that panchayats are dysfunctional bodies that do not meet regularly, lack the technical expertise for natural resource management, and many, especially the forest department, do not trust the panchayats to govern natural resources with large commercial implications at stake. Forest officials also assume that if panchayats are given the authority to manage forests they will go for quick results that result in long-term losses.

²⁸ “Integrated Development of the Village Valadar Through Wasteland Development Initiative.” Srtt.org. 1 Mar. 2007 <<http://www.srtt.org/downloads/wasteland.pdf>>.

²⁹ Deepshikha (Mehra) Talwar², Rucha Ghate³

There is also a lack of clarity between panchayats with common boundaries on the jurisdiction and land rights of forest lands and watershed areas, and this is further compounded by the fact that one watershed may encompass several panchayats. In the case of watersheds, microwatershed committees are created and many of these committees comprise an umbrella sub-watershed which may consist of several panchayats. At the time of project withdrawal, these many micro-watershed committees need to be constituted into a standing committee of the panchayat – but there are no guidelines as to which committees will be involved and which panchayat will house the standing committee.

While watersheds struggle to bring together stakeholders across panchayats, the opposite problem plagues forest management. Since each panchayat consists of several villages, each with their own JFMs, it is argued that the panchayats are too remote of a governing body and the forests should be managed by the local JFMs.

Although the line departments are quick to point out the weaknesses of the PRIs and accuse them of being universally corrupt, the experience of Schedule V Areas shows that the government departments are not beneath reaping commercial gains either. State monopolies have been established by capitalizing on the legal fuzziness of PESA surrounding the definition of MFPs. More lucrative MFPs (Tendu leaves, Sal seeds, forest fruits, and Gum) have been earmarked by the government for state monopolies, denying local communities of their right to reap the benefits of their traditional occupations.³⁰

Advantages of Involving Panchayati Raj Institutions

Panchayats are elected bodies of the people that have legal status, a tax-base they can collect from, an official mandate to govern, and linkages to other programs which user groups do not have. Most user groups are created by donor-driven programs and when the programs end they do not have the capacity to sustain activities beyond the life of the project and dissolve shortly thereafter. User groups consist of nominated, not elected members, and they have no legal status to govern outside of the context of a time-bound project. Typically panchayats are not involved from the beginning of the project and they are only seen as relevant when it is time to withdraw and activities need to be handed over; by this point, panchayats have lost interest because they never had a stake to begin with.

In addition, the arguments that panchayats are too large to handle smaller jurisdictional areas are unfounded because panchayats are empowered to create sub-committees to manage natural resources on the same local level as user-groups.³¹ Also the counter-point to the argument that PRIs are political is that JFMs are not apolitical bodies themselves, and are said to be controlled by the Forest Department. A stark illustration

³⁰ Ojha, 2004; Prasad, 1999

³¹ In fact, a precedent has been set by Madhya Pradesh, where the Panchayat Raj Avam Gram Swaraj Adhiniyam 2001 provides for a 4th tier within the hierarchical structure of the PRIs. The Adhiniyam stipulates that the *Gram sabha* is to constitute Standing Committees comprising 8 to 9 members.

of this is that the Forest Department has the power to arbitrarily terminate JFM committees because the members of these committees are appointed and not elected.

Rather than being forced to grudgingly concede to panchayats, one can argue that there is more to be gained by involving the panchayats than in attempting to sideline them. Panchayats have access to resources from other environmental programs that have the potential to address environmental issues more holistically and on a larger scale by combining them towards convergence. This convergence is essential as the needs of the community evolve and different environmental requirements impact on each other and connect to other issues such as livelihoods and more integrated approaches become necessary. Furthermore, the panchayats may offer a more cost-effective route because they offer existing infrastructure and the ability to raise revenue. Rather than write the panchayat off as totally ineffective, if proper checks and balances are installed, through community mobilization and capacity building, communities can hold the panchayats accountable.

Potential Roles of the Panchayats in Natural Resource Management

All environmental projects should involve the panchayati raj institutions since it is their mandate to protect and manage the natural resource base within their jurisdiction. The potential roles they can play include:

- *Identification of the natural resource management issues in their communities:* Identification could include the topography of the area, the type of watershed activities based on which the type of plantation activities, tree species as per the need of the people that could foster soil and water conservation and also help enhance people's livelihoods. For forest based activities the panchayats can identify the wastelands in the area where afforestation can be done.
- *Awareness Raising:* With proper capacity building of the elected members they in turn can spread awareness of the importance of protecting and managing the natural resource base and the judicious use of the resources within the community.
- *Community Mobilization:* If made aware of the importance of community participation and the need for the effective involvement of grassroots organizations, the GPs can play an instrumental role in building and supporting local village level organizations.
- *Coordination:* Panchayats can coordinate with these community groups to conduct activities related to Natural resource management programmes and activities

Women's Roles in Natural Resource Management

Women were seen to be the primary users of natural resources everywhere. In several of the NRM projects be it joint forest management, tank rehabilitation or the watershed programmes women have been given a role through the involvement of sanghas. Thus while it have ben recognized that women should play a role in NRM this role varies by each programme. In all the programmes 50% of the committees had to be constituted by

women. Women's sangha representatives were brought on to these committees and thus played a leadership role in decision making.

The main problem identified was that women do not have rights to land and are often dependent on common pool resources, for example to common grazing lands, or common forest resources. Yet the pressures on these resources and their erosion has had serious consequences for women's livelihoods and their overall status. Women's dependence on these resources has suffered. For example making leaf plates, has proved unsustainable, as women found that they had to travel further and further to obtain the necessary leaves. Women involved in basket weaving found their access to bamboo from the nearby forests had declined and several had stopped weaving baskets.

A second problem is the closure of access to forests and the impact on livelihoods of women. According to Sarin (2001) "In a rare assessment of overall impact of community forest closure by 45 villages, an NGO estimated that about 19,000, mostly poor adivasi women of Churchu, Mandu and Sadar blocks of Hazaribagh district in Bihar, had been acutely affected." For many of the women who are dependent on forests for livelihoods such as "headloading", JFM has now resulted in them being labeled as forest offenders without any consideration of what other livelihood alternatives they can undertake given the sudden loss of their traditional livelihoods.

The studies on areas under PESA have reported increased state control and monopoly over MFPs and consequently low remuneration rates for NTFP collectors. This has resulted in affecting traditional livelihoods of tribals, particularly tribal women.

A third problem is the fact that dependence on natural resources for sustenance of the family is also affected due to their degradation and lack of access. Not only is this access declining but now women also have to pay for these resources. Gender roles are also changing as more men are migrating out for work, which has increased women's role in the subsistence sector.

Conclusions

Several major issues facing panchayats, communities and civil society institutions engaged in environmental management and governance. First, there is a lack of information and awareness on India's biodiversity and the need to protect it. Development has largely prioritized profits over the protection of natural resources and in doing so has also ignored the importance of the community's dependence on natural resources and their steady impoverishment as a consequence. Any conservation measures should recognize that rural communities depend on these natural resources for their livelihoods, so they should innovate solutions that protect and preserve both the natural resource base and the livelihoods of the community.

Some gaps identified in the literature include a lack of analysis on institutional arrangements for NRM. There is also very little documentation of best practices on involvement of PRIs in environmental management and governance. These two areas

would need more focus for clear future directions and clarity on roles of PRIs in environmental governance.

Overall, the findings point towards the need for an increased commitment to decentralization which requires devolution of power and finances to the panchayats. This need must be balanced with a commitment to transparency and accountability of local governments to their communities. While corruption exists at all levels, it is easier to locate and fight at the GP and local levels. However, this is only possible by empowering the gram sabhas through capacity building and community mobilization to monitor panchayats and check against corruption.

An equally strong commitment is required to strengthen community organizations as well. Community participation is especially essential when it comes to NRM so that those who are most dependent have the greatest say.

Community organizations and panchayats have often been presented as mutually exclusive methods for governing and managing natural resources when in fact they have complementary roles to play and distinct functions. Community organizations should set the priorities and plans for natural resource management, panchayats should implement, and community organizations should in turn monitor and participate in the implementation.

Greater participation of community organizations have been shown to be more efficient as well. Programs implemented without community participation are more prone to corruption, so the results become only a percentage of the investment. However with community participation, communities contribute in kind and are committed to the sustainability of the natural resource, therefore multiplying the impact of investment.

PRIs should be trained on the importance of community participation and thereby of the need to strengthen civil society institutions. If PRIs are motivated to invest in their community groups, this will lend to the creation of models and best practices for partnerships between PRIs and CBOs and create the demand for such partnering from below. However it has been said that if the partnership between PRIs and community organizations is strengthened, it may lead to a serious questioning of the line departments and bureaucracy, which may be the real reason why community user groups and PRIs are pitted against each other rather than encouraged to partner.

In addition, a fundamental commitment to the participation of women in NRM would require center-staging women's groups. Women who are the most dependent on natural resources are also in the best position to make decisions on the judicious use of the natural resource base. Also for those women whose livelihoods and sustenance is affected by the access to forests, their needs must be prioritized by the user groups. Sensitization of user groups, panchayats and the forest department on women traditional occupations, roles and rights would be essential, if they are not to be labeled as "forest offenders" and "thieves".

While it is important to create awareness on the ground on the need to protect natural resources, awareness alone without a voice in decision making at higher levels may not have an impact. Therefore one solution could be the decentralization of decision making to the district level so people's voices can be more easily heard than they can be at state and national levels.

However, even if decision making occurs at a local level with more community participation, the primacy of economic development may still hold. In these cases, at the very least industry should adhere to conditions that require them to regenerate any natural resource that it compromises and to invest in community based activities for environmental management.

Ostensibly, all the stakeholders involved have the same goal of the preservation of natural resources through community participation. However, the best way to ensure community control over natural resources may not be achieved through choosing one stakeholder to dominate the process. Rather, each stakeholder should play their own role so natural resources are protected, livelihoods are ensured, and communities own all decision making processes.