

Joint Forest Management (JFM) and Role of NGOs: Cases from Rajasthan, India

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Abstract

Despite various weaknesses, joint forest management (JFM) has become a dominant forest management mechanism in India during last two decades, and has spread across the country. Although a sizeable literature exists on JFM, little attention has been paid to understanding the role of non-governmental organizations (NGOs) in strengthening JFM as an institution for common-pool resource (CPR) management. Based on a comparative analysis of four JFM committees from Rajasthan, two of which were supported by an NGO and the other two by the forest department of the government, this paper highlights the critical role that NGOs can play in making JFM successful. The paper provides an in-depth analysis of several institutional aspects of these committees, and discusses the factors that enabled the NGO-supported institutions to perform better than the other ones. Finally, it argues for an effective integration of NGOs in JFM implementation, and also recommends nesting of JFM within the Panchayati Raj Institutions.

Key Words: Joint forest management, institution, decentralization, community, NGO, Rajasthan.

Introduction

Joint Forest Management (JFM), arguably one of the most progressive forest policies of independent India, enacted in 1990 by the Government of India, has spread across the country covering almost 30% of the country's total forestlands (Pai and Datta, 2006). JFM has not only enhanced forest cover and livelihoods of rural population in different parts of the country, but also brought "participation" into the day-to-day discourse on forest management within the forest department. By creating spaces for participation of NGOs in forest protection and management, arguably implying a greater representation of communities, JFM strived to facilitate democratic processes of forest management. However, JFM has generated much debate among scholars and practitioners over last two decades. While, on the one hand, forest department, some donor agencies, and many NGOs considered the program as pivotal for improving forest cover in the country; on the other hand, many activists, scholars, and NGOs found JFM to be old wine in a new bottle, and, thus, a continuation of state hegemony over ownership and control of forest lands.

Much of the criticism of JFM has focused on the question of decentralization or participation. Lele (2000) criticized JFM as being a "a 'sleight of hand' carried out by the state to satisfy donors and coopt activists while retaining primary control over resources and even expanding it in new ways" (p. 2). Because the state, by nature, is interested in accumulating more power and resources, scholars have raised skepticism about the "jointness" of the joint forest management (Agrawal, 1998; Lele, 2000; Sundar, 2000). Some other criticisms of JFM are: limited increases in product rights; limited coverage of common lands through JFM; insecurity of tenure; attitudinal problem in FD staffs or their lack of capacity; conflicts within FD regarding agreeable level of decentralization; lack of economic incentives for community participation; lack of consultative networks at the national and state level to monitor and guide JFM; lack of adequate spaces for NGOs; and JFM being largely a project-driven program (Kurien & Bhatia, 1997; Saigal, 2000; Thin et al., 1998; Lele, 2004; Kumar, 2007; Bhattacharya et al., 2009). Saxena (1992) criticized JFM for the imbalance of power in the program, and its inability to recognize the need for autonomy and democratic processes at the community level. Nayak and Berkes (2008) contrasted JFM with traditional community forestry management (CFM) and found the former as means of "co-optation" of communities and their traditional institutional practices. JFM has been also criticized for being less inclusive of women in forest management (Sarin et al., 2003; Ogra, 2000; Locke, 1999; Agarwal, 2001). On the other hand, certain scholars and studies have recognized potentials in JFM for decentralization and livelihood enhancements of local communities, and, thus, argued for a more pro-active stance of the government to implement these potentials effectively (Jodha, 2000; Poffenberger and McGean, 1998; RMoL, 2006). With the recent enactment of the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act of 2006, popularly known as the Forest Rights Act¹, which aims at

¹ While the Forest Rights Act is a radical step towards ensuring community rights over forest resources, and it has potentials for conservation, I avoid discussing this Act and its implications in this paper. This is simply because I want to remain focused on the NGO –JFM discussion in this paper; however, I

vesting ownership rights of forest resources to traditional forest dwellers, JFM has once again reemerged in the conservation versus community rights discourse, and the general tendency is to see JFM as antithetical to the Forest Rights Act (Mahapatra, et al., 2010).

Despite such wide ranging criticisms, it is important to recognize that JFM is there to stay, which, therefore, implies that we also focus our attention on how to make best use of the program. This requires exploring both appropriate legal provisions to strengthen JFM, as well drawing lessons from various success stories so that relevant aspects can be replicated elsewhere. This paper attempts the latter by presenting case studies of four Village Forest Protection and Management Committees (hereafter VFPMCs) in Udaipur in southern Rajasthan. While two of these VFPMCs have been supported by an NGO – Foundation for Ecological Security (hereafter FES) – the other two have been supported by the forest department (hereafter FD). The objective of this paper is, however, not to make a case for or against either of these two models – NGO-supported or FD-supported VFPMCs; instead, by presenting a nuanced analysis of these two distinct models, I emphasize how a facilitating agency² can play a critical role in shaping the JFM institutions, and, thus, I argue for more spaces in JFM policies for such agencies, especially NGOs. Taking a step forward, I further argue for a synergy between FD and NGOs instead of a dualism that is often the case. Finally, I also argue for a much stronger role of Panchayati Raj Institutions (PRIs), so that JFM can become a tool for democratic local-governance of forests.

The structure of the paper is as follows. In the next section, I will present a brief description of the socio-cultural and biophysical profile of the study area. Here I also present a brief profile of the four VFPMCs. This will be followed by a section on research methodology. In the following section, I will present the findings of my research. These are organized under 4 broad categories – memberships, protection mechanisms, decision-making processes and management systems, and conflict resolution. Then I proceed to analyze some of the salient factors that contributed to the successes of the FES-supported VFPMCs, and argue for a greater involvement of NGOs in JFM. Finally, I also draw attention to the critical role that PRIs can play in strengthening JFM.

recognize the complementarity between JFM and the Forest Rights Act, and the former should be used to facilitate the larger vision as laid out in the latter.

² By 'facilitating agency' or 'support agency', I refer to either FD or NGOs that provide technical, financial, and managerial assistance to VFPMCs in their forest conservation efforts. It is important to note that even while an NGO is the facilitating agency, FD still plays some role since it is the legal owner of the forestlands; however, my reference here is strictly to the primary involvement, i.e. the agency that provides technical, financial, and managerial assistance to the VFPMCs.

Study Area Context

My research focused on four VFPMCs – Chitravas, Karech, Rawach, and Kundlawas – located in the Gogunda tehsil of Udaipur district in southern Rajasthan. These VFPMCs, which also happens to be revenue villages³, are located in a contiguous landscape, and, thus, share similar socio-ecological characteristics. The first two villages fall within Chitravas Gram Panchayat and the other two in Rawach Gram Panchayat; and all four villages/VFPMCs were in the same forest range and division.

The area is located adjacent to the Kumbhalgarh wildlife sanctuary, and, thus, plays a critical role as a buffer for a number of valuable floral and faunal species. The forest type in this area is tropical dry deciduous forest. The village forests provide timber and fuelwood to the communities, non-timber forest produces (NTFPs), and fodder for their cattle. Udaipur as a whole demonstrates significant conservation efforts, both government driven and NGO driven, compared to many other parts of the state. The district has the highest share of the total forestlands in the state (14.1%), and it also has the highest number of JFM committees, i.e. 507 VFPMCs in 2007, which protect about 1141 square km. of forestlands (Forest Department website, Government of Rajasthan).

The communities in all four villages were tribal – Garasias and Gametis being the two communities (see table 1). These two communities are predominant in the neighboring villages as well; thus, strong social and cultural networks exist across villages in this area. Livelihood in the area is primarily comprised of income from common lands, agriculture, livestock, and wage labor. An internal study conducted by FES (2003) showed that as high as 25% of the total household income in these villages comes from common lands directly, and common lands also contributes indirectly to the incomes that come from agriculture and livestock. Thus, the common lands, most of which is forestlands, play an important role in this area, although these are mostly degraded lands.

Besides providing timber, forests also provide the local communities with a variety of non-timber produces, such as honey, wax, flowers of Mahua (*Madhuca indica*), oil seeds of Ratanjot (*Jatropha curcas*) and Karanj (*Derris indica*); various fruits such as Sitafal (custard apple), Amla (*Emblica officinalis*), Jamun (*Syzygium cumini*), Mango (*Mangifera indica*), and Ber (*Zizyphus jujuba*); leaves of Palash (*Butea monosperma*); medicinal species such as Bahera, Aritha, and safed musli; and several fodder species. This region is one of the richest in the state in terms of NTFP availability, although it

³ 'Revenue village' is the official term for a village that is recognized in the government record. It is the last administrative unit in the hierarchy of revenue generation of the state. Hamlets are below the revenue villages, but are not recognized in the government records and are, therefore, parts of some or other revenue villages. While this recognition enables the state to collect tax from the citizens, it also benefits the village, since a revenue village has to be provided with certain basic infrastructure and amenities by the government.

does not necessarily mean a higher income for local communities, since there are bureaucratic barriers in the NTFP marketing channel, which is, however, not the subject for discussion in this paper. Women and children are mainly involved in collection of non-timber forest produces.

Table 1: A descriptive profile of the four JFM committees

Name of institution	Types of communities	Support Agency	Organized (Yr)	Total land (ha) under JFM	Land (ha) enclosed	No. of households	No. of members/ individuals
Chitravas VFPMC	Garasia & Gameti ⁴	FES	2002	276	190	485	1275
Karech VFPMC	Garasia & Gameti	FES	2002	339	200	255	1074
Rawach VFPMC	Garasia & Gameti	FD	2005	110	110	231	833
Kundlawas VFPMC	Garasia & Gameti	FD	2005	50	50	55	140

Source: JFM agreement papers & VFPMC documents

As the above table shows, the study villages varied in the size of forestlands under JFM agreement, and number of households involved in the institutions. While the former mainly depends on the availability of the resource, the latter, i.e. the number of households involved in the VFPMC, is largely a management choice as articulated by the facilitating agency, which has implications for the performance of the VFPMCs, as we will see in a later section. Since two of the VFPMCs were constituted in 2002 and the other two in 2005, I have considered 2005 as the baseline year for analyzing the performances of the institutions as well as the roles of the facilitating agencies.

Methodology

The research methodology used for the study was qualitative - participant observation, semi-structured one-to-one interviews, and focus-group interviews being the main research methods. In addition, extensive use of secondary sources, e.g. the documents available with VFPMCs, FES, and FD helped in data triangulation.

As an employee of FES during 2002-2008, I worked closely with Chitravas and Karech VFPMCs, and had the opportunity of being a participant observant in various processes

⁴ The Garasias & the Gametis belong to the indigenous communities or the scheduled tribes. Scheduled Tribe is a term stated in the Indian Constitution to describe the indigenous people. As per the caste hierarchy in the Indian society, the Scheduled Tribes are at the lowest rung of the society.

in these two institutions. At the same time, I was also able to interact with the communities at Rawach and Kundlawas VFPMCs in various occasions, and was, thus, aware of some of the institutional processes in these two VFPMCs as well. This previous experience provided me with deeper insights about these institutions, which enriched my research. In addition, as a part of this research I went back to these communities and conducted fieldwork for six weeks, during which I interacted with different members of these communities – both in formal and informal settings, and participated in the general assembly meetings (locally called “Aam Sabhas”) of the VFPMCs. Because the communities were already familiar with me, it helped them opening up and share their personal experiences with me without much apprehensions.

I have conducted 16 individual interviews – 2 in each of the VFPMCs, and 4 each with the FES and FD staffs; and 6 focus-group interviews – 1 in each VFPMC and facilitating agency. Attempts were made to ensure a diverse representation of samples. Thus, the interviewees in the FD included high ranking officials like the Conservator of Forest (CF) and the Divisional Conservator of Forest (DCF), as well as field-level employees, such as the Range Forest Officer (RFO), Forester, and the forest guards. Similarly, in the NGO the interviewees included Senior Project Officer (SPO) as well as Field Associate (FA). At the community level, this included Presidents of the respective VFPMCs, and other members active in the institution. One of the interviewees of FES was a female employee; however, due to some practical difficulties no female members could be interviewed in case of both FD and communities, although there were female members in focus-groups in the communities. I have attended 2 ‘*aam sabhas*’ – one in each of the FES-supported VFPMCs, although it was not possible in the FD-supported VFPMCs since ‘*aam sabhas*’ were not common in these institutions, and these were not scheduled during this period.

In addition to the above, secondary sources were also extensively used. Some of these documents included meeting minutes of the VFPMCs, ‘*hakdari*’⁵ or membership list, microplans, perspective plan⁶, byelaws⁷, social observation books⁸ (SOBs), technical

⁵ Derived originally from Urdu, ‘*hak*’ means ‘right’, and ‘*hakdar*’ refers to the ‘right holder’. Although the term ‘*hakdar*’ is loosely considered a synonym for ‘member’, thus the term used in FD-supported villages is ‘membership’ list instead of ‘*hakdari*’ list, in reality ‘*hakdari*’ has much deeper meaning for the communities – it signifies their ‘right’ or ‘control’ over the forests as opposed to being just ‘members’. In fact, the FES supported villages, the term ‘*hakdari*’ list was coined by the communities, as they related to the forests as owners or someone with customary rights.

⁶ A ‘perspective plan’ is a comprehensive village development plan that includes more than forest management. The FES team facilitates the village institutions in preparing such plans, which are usually for 5 years, and then submit these to local Panchayats for further ratification and action.

⁷ Byelaws are set of rules and regulations for management of the forest, which the village institution decides based on consensus. Byelaws are in congruence with the larger conservation laws of the government, and they complement the provisions under the Panchayati Raj Act to empower local communities. Byelaws are village specific, and they are also dynamic.

⁸ A social observation book is a document that the FES team maintains for each of its village institution, which captures the social-institutional processes going on in the village. This documents socio-cultural

observation books⁹ (TOBs), and books of accounts available with the VFPMCs. Not all these documents were available in all the VFPMCs, as we will see in table 3 later. Documents available with FES, such as internal study reports, training reports, maps and photographs, and the meeting minutes were also important sources of information. Similarly, government documents, such as the National and State level JFM Resolutions, State level JFM Guidelines, Rajasthan State Forest Policy 2010, and various information available in the official website of the Forest Department, Government of Rajasthan, were useful for the research.

The following section discusses the key findings of my research.

Memberships in VFPMCs: customary rights vs. legal provisions

As per provisions of the Rajasthan state JFM resolution (GoR, 2002), all adults residing within the revenue boundary of the village or hamlet in which the VFPMC is organized are eligible for membership in a VFPMC. Since the resolution does not mention anything about communities who do not live within the boundary of the village or hamlet, but live in proximity to the forest and have been traditionally using the forest, it is often perceived and/or interpreted as “No” to their membership in the VFPMCs. Thus, most VFPMCs tend to be quite exclusionary.

However, it is often noticed in tribal areas that traditional resource-use transcends administrative boundaries. Resource use patterns in such areas depend on a variety of factors, such as community’s proximity to the resources, availability of resources and alternatives, historical management practices of the resources, and the socio-cultural ties among communities, which often transcend administrative boundaries of villages or forest blocks. Logically, an effective governance of the resource then necessitates inclusion of all these users, which will help prevent conflicts and benefit those who are actually dependent on these resources.

Customary use of forests was at the heart of the membership decision in Chitravas and Karech VFPMCs. These institutions went through meticulous processes of analyzing traditional land-use patterns, historical claims, and preparation of ‘hakdari’ list based on these factors. At times, there were conflicting claims by communities, which, nonetheless, strengthened the institutional processes as it spurred rigorous

characteristics of the village, issues addressed and resolved in the village assembly meetings, and any other important development related to the village institution. This document is also useful in reviewing the progress of an institution and planning for the future.

⁹ A technical observation book is a document that contains various biophysical information about the village, such as soil types, rainfall pattern, drainage system in the village, inventory of the forest, information on well and other water resources, various physical infrastructures created by FES and other agencies in the village, and pictures of some of those. FES staffs maintain this document and periodically update it, which is available at the village level for the community’s access.

deliberations among the communities based on reviewing old documents, collective memories, and discussing across sections in the communities. Drawing from my first-hand experience as a participant-observant in Chitravas VFPMC in 2002, the following is a detail account of the dynamic processes involved in finalizing VFPMC memberships at Chitravas: -

A VFPMC was organized by the Forest Department in Chitravas in the early 1990s, which, however, remained almost non-functional. It was constituted of members from Chitravas village alone, since the forestland fell within the legal boundary of Chitravas. So, when the FES team began organizing the community through JFM, FD staffs and some leaders from Chitravas village suggested continuing with the existing committee. Without knowing much about the internal dynamics of the village, the FES team followed this advice and began reorganizing the same committee. It soon led to serious conflicts. In the first public gathering at Chitravas, a large group of people protested against the formation of the institution because they were excluded from it despite being *hakdars* of the forest. These were people from two other villages- Richwara and Kyara Khet- located next to the forest proposed for JFM. They shared their stories about how they contributed labor (*shramdaan*) towards protection of the forest for years, even while people from Chitravas did not do so due to their geographical distance from the forest and their access to alternative resources. Although the meeting was disrupted due to heated debates and disagreements among the community, it taught the FES team that more homework was necessary to organize the VFPMC. In the next few months, the team conducted a series of meetings in different hamlets that either claimed rights or were located adjacent to the forest. The team had also cross-checked some of these claims with legal records available with the Forest Department. It was a laborious and intensive process, but after months of hard work it finally resulted in people from all the 14 hamlets (from three main villages) coming together, and having agreed to protect and manage the forest jointly, and distribute its benefits equally. It led to a drastic increase in the number of membership in the institution, but at the same time, the communities also devised intricate management systems, clearly stating roles and responsibilities of different hamlets, and it put in place effective internal monitoring mechanisms. Besides, when the VFPMC reorganized its Executive Committee after two years (October 15, 2004), it constituted a committee with 18 members instead of an 11 member committee as stipulated by the state JFM resolution, in order to include representation of all hamlets. This was also a learning experience for FES, which thereafter mandated a careful study of customary use patterns before constituting an institution.

Upon being asked why they insisted on inclusion of such a large community in the JFM committee, Mansaramji from Kyara Khet articulated:

“Forest Department and NGOs came now; but we have protected this forest for years. ... Now if the Forest Department or people of Chitravas decide to keep us out of it, do you think we will listen to them? And besides, who do you think can safeguard the forest better than us? It is Richwara, Kyara ka Khet, and Sakria [he referred to the villages that are adjacent to the forest] that can closely watch if there is any illegal felling or grazing or fire incident in the forest; Chitravas is too far from the forest to protect it from any of these.”

Memberships in Rawach and Kundlawas VFPMCs were, on the other hand, strictly based on the provisions in the JFM resolution, thus, only the households residing within the revenue boundary of the villages were included in the VFPMCs. This resulted in exclusion of some of the traditional user-communities from these newly constituted institutions, e.g. Nalwania, a hamlet of Kundlawas, located just along the forest boundary, was excluded from Kundlawas VFPMC, because the former was not a part of Kundlawas revenue village. When I asked a field-level FD staff about it, his response was – *“you cannot include anyone from outside the revenue village in the VFPMC, since that is against the law. Besides, a huge committee will not last. Instead, we organize smaller VFPMCs for different hamlets...”*

While a small size of the user group is favored by the department across the board, and some officials in fact recognize it as one of the “preconditions” for JFM (Ghose, 2005), this exclusionary measure creates ground for potential conflicts in the communities. Already such inter-village and inter-community conflicts, arising out of exclusionary memberships in the institutions, have been reported in many communities in different parts of the country (Sundar, 2000). VFPMCs constituted on the basis of customary rights appear to be more viable than the ones based on legal provisions, since the former maintains the existing social relations around usages of the resources, and, thus, preempts future conflicts.

Protection mechanisms: self-regulation vs. government guards

Given the extent of degradation of the forestlands and excessive anthropogenic pressure on these resources, it is critical to protect these resources from grazing and illegal felling so that the systems restore. Stone-wall fencing around forestlands is the dominant protection mechanism in the region, which is complemented with human patrolling. While all four VFPMCs had stone-wall fencing around their forests, their human patrolling system varied.

Chitravas and Karech VFPMCs had what they called a *‘lathi system’* for protection. *‘Lathi’* literally means ‘a stick’; so this system involves use of a stick as a symbolic device for guarding the forest. This is a rotational system of protection, wherein two persons (each representing a different household) patrol the forest with a stick in their hand for the whole day and at the end of the day transfer the sticks to the next two households, which then follow the same routine the next day. *‘Lathi system’* has several advantages, such as every household has its turn, as a contribution of labor it does not put direct economic pressure on the community, and it builds a sense of shared responsibility and control over the common resource. Shankarji from Chitravas rightly commented, *“Today’s guard gets to see if there was any damage to the forest yesterday, and he can then report it to the community. Thus, our protection is a continuous process.”* Although these two VFPMCs tried other measures, such as appointing a guard from the village on a monthly salary basis, but this did not last, and the communities reverted to the *‘lathi system’*. My argument here is not to claim the

'lathi system' as the best protection mechanism; in fact, 'social fencing'¹⁰ may be the most desirable protection mechanism. Nonetheless, I intend to show that the *'lathi system'* has been a locally devised mechanism, it has been subject to periodic assessment and modifications by the communities, and due to its communal and democratic nature, this system has been functioning well in the two VFPMCs discussed here.

In contrast, protection mechanisms in Kundlawas and Rawach VFPMCs did not change due to JFM initiatives. The forest guards, also known as cattle guards, remained largely responsible for patrolling the forests. As evident from the VFPMC meeting minutes, focus group interviews, and informal interactions with some members of the communities, the FD staffs hardly facilitated any discussion in these VFPMCs around the issue of protection. On the contrary, the forest guards retained their authority of patrolling, which allowed them to directly penalize the villagers if found guilty in any forest related offence, and, thus, the overall authority of FD was maintained. The forester informed me that a villager was appointed as guard in Rawach VFPMC who was paid by FD for his duty. While the forester might have shared this with me to highlight 'decentralization' in forest management, to me it remains as centralized as ever since a villager paid by FD for patrolling would be much more accountable to the FD than to the village community.

It is often argued that patrolling by the forest guard is more effective because it generates some fear among the evil-doers of the communities, and help protecting the forests. While there may be some truth in this argument, this is still not a desirable measure as it contradicts the purpose of "joint" forest management. Protection mechanism, like most other systems, must also evolve locally from within the communities, and only then it can be sustainable in the longer run. Given the shortage of field staffs in FD in Rajasthan, participatory protection mechanisms become even more urgent. This will also help cultivate a sense of ownership among the village communities.

Decision-making processes and the effects on management systems

It was observed that decision-making processes, especially the extent of participation in these processes, varied widely between both types of institutions, which resulted in different management systems in both types of institutions. In the following section, I discuss the role of meetings and planning as decision-making processes followed by their impacts on some of the key management systems in these institutions.

Meetings: meetings are important platforms where communities can discuss and debate over issues concerning their forests and CPR in general, resolve conflicts, and

¹⁰ By social fencing I refer to a system of protection of the forests which does not involve any physical patrolling; instead the members of the institution abide by the rules, and prevent the lands from open grazing or illegal felling through a general consensus and self-regulation of behavior.

share new ideas for future directions. While more number of meetings does not necessarily imply a stronger institution, it, nonetheless, reflects greater degree of participation and deliberations in community affairs, thereby, indicating greater chances for a stronger institution. According to the JFM resolution of Rajasthan, 2 general assembly meetings and 4 executive committee meetings in a year are mandatory for a VFPMC (GoR, 2002). However, as the table 2 shows, the four VFPMCs presented very different scenarios regarding meetings.

Table 2: VFPMC meetings & agendas (2005-2009)

The VFPMCs	Number of times various issues figured in meeting agendas (2005 – 2009)						
	Protection mechanism	Management Systems ¹¹	Regeneration & other biophysical interventions	Conflict Resolution	Training & Capacity Building	Other related issues	Total meetings
Chitravas	17	38	9	10	4	5	83
Karech	8	21	14	3	2	18	66
Rawach	1	2	6	0	0	0	9
Kundlawas	3	2	0	0	0	0	5

Source: Meeting minute books of the VFPMCs.

As the above table shows, Rawach and Kundlawas VFPMCs failed to conduct an already low required number of meetings. Both these VFPMCs had less than two meetings in a year, which casts doubts on the democratic decision-making processes in these institutions. On the other hand, Chitravas and Karech VFPMCs met at least once a month, and sometimes even twice. Moreover, it was not just about the number of meetings, but the issues discussed in these meetings also varied widely between these two types of VFPMCs as we can observe in the table.

Some of the community members at Rawach and Kundlawas that I spoke to even denied the meetings that were documented in the VFPMC minutes. They felt that these meetings might have held at the VFPMC President's residence in presence of select few individuals and the forest guards or the foresters. A community member at Rawach commented, *"I am also one of the members in the executive committee. But I never took part in any meetings, because there are no meetings. People will definitely come for meetings and participate in the processes; but there has to be some information, some announcement... nothing is happening in our villages."*

¹¹ By 'management systems', I refer to a number of mechanisms, such as planning and budgeting, payment systems, sanctions, rules for fodder and fuelwood appropriation, roles and responsibilities of general body members and the executive committee, and monitoring mechanisms.

Planning: Microplanning is one of the common activities in JFM across the country. A microplan is a detail plan of a VFPMC that articulates various biophysical activities for the restoration of the degraded forestlands, with specific time lines and budgets, and socio-institutional measures that facilitate these biophysical interventions, and it is subject to approval of the FD. A copy of this plan is supposed to be available at the village level so that the VFPMC can use it as a guiding document for various interventions on the land. The micro-planning process must be a participatory one so that these plans are not mere list of activities, but they become means of empowering the village communities.

Vast differences were, however, noticed between the FES-supported and FD-supported VFPMCs in both planning processes and, as a result, effectiveness of these plans. Based on my conversations with VFPMC members as well as the field level FD staffs, it appeared that microplans in Kundlawas and Rawach were prepared primarily, perhaps entirely, by the FD staffs, and the process lacked elements of community participation. Upon being asked about the planning process, a field level FD staff commented – “*We focus on being technically sound in our planning; we follow the RDF [Rehabilitation of Degraded Forest] model – there’s RDF I or RDF II. So, we make the plans. Village people consent to these plans.*” There is little doubt about the technical expertise of FD and, thus, technical efficacy of its plans; however, the issue to ponder is whether JFM strives for technical efficiency of plans or participation of communities in the planning processes. Not only that the microplanning process was top-down, the plans were not available with the village communities either. In both Kundlawas and Rawach, the VFPMC microplans were kept at the FD office and, as I was told by the VFPMC members, most members have never seen or heard of “*something called a microplan.*”

On the other hand, microplanning at Chitravas and Karech was an intensive and a participatory process, facilitated by FES staff members. It was an intensive and meticulous process involving FES, village communities, and other stakeholders over a period of 2-3 months in each village. The FES team organized various in-house and external training programs for its staff and community members on techniques of participatory rural appraisal (PRA), and various biophysical measures. House-to-house survey, PRA exercises at hamlets, tree enumeration on site, physical verification of drainage lines and preparing their treatment plan, series of meetings with communities, talking to elders about history of the forest and the village, cross-verification of field data with government records, etc. were some of the roles of FES in facilitating micro-planning at villages. Local school teachers were also involved in some of these activities. Once the plans were ready, they were submitted to the Forest Department for approval, and also to the Gram Panchayat. Copies of these plans are available in the villages and are revisited and modified periodically. During this planning period, FES staff members spent substantial amount of time in the villages to understand various aspects of the communities and their local politics, resource use and management patterns, and the community-government relations.

These participatory plans were available at the village level, which the VFPMCs could refer to whenever necessary. Although these plans may not always be strictly implemented in both these institutions too due to changing biophysical or other conditions, such as occurrence of drought, change in rainfall patterns, and fund crisis or availability, the fact that the plans were prepared through participatory processes and communities have access to these plans is in itself a symbol of empowerment of the communities. Besides these microplans, the FES team also facilitated preparation of what is known as the ‘perspective plan’ in these villages, which is a much more comprehensive village development plan, subsequently submitted to the Gram Panchayat for its integration in the Panchayat’s development plan for the area.

Effects of these different decision-making processes are seen in distinct management systems that have evolved in both types of institutions. The table 3 below presents an overview of some of the critical mechanisms that exist in the VFPMCs.

Table 3: Key management systems in the VFPMCs

Management systems	Chitravas and Karech VFPMCs	Rawach and Kundlawas VFPMCs
Meeting	A monthly date for meeting is fixed, although the communities sometimes meet more than once a month. The meeting venue is a public place, i.e. either a school building or in the forest. Before every meeting, they read out the minutes of the previous meeting to cross check the progress on the previous resolution, and also to help everyone to be on same page. The secretary or some other member of the committee maintains the minutes of the meetings.	4 dates are fixed for meetings during the year. However, these institutions did not meet in all these dates. While some people denied that they ever met, some other complained that meetings take place in the Chairman’s residence in front of forest guard and without any public participation. The FD staff writes the minutes.
Payments	Payments for physical activities are transferred from FES to the village account; three village representatives (who are bank signatories) withdraw the money on a date as decided by the ‘ <i>aam sabha</i> ’; and labor payment is made in such an ‘ <i>aam sabha</i> ’. Once the money is transferred from FES, all the processes are handled by the	Payments are transferred from FD to the village account; since FD staff is one of the bank signatories, he is present in the withdrawal and payment processes; and payment is usually made either at the forest ‘chowki’ (lowest unit of the FD offices, located close to the forest) or at the President’s residence.

	village committee.	
Sanctions	Specific sanctions have been agreed upon; e.g. Chitravas: Rs. 25 for grazing of cow, bull, and goat, 125 for buffalo, and 551 for illegal felling of trees; Karech: Rs. 10 for cow, bull, and donkey, 11 for buffalo, 15 for sheep, 25 for goat, 50 for camel, 551 for anyone found with an axe in the forest. Similarly, there are sanctions for not attending meetings for three consecutive times, or not participating in 'shramdaan' (contributing labor). The money collected through these sanctions goes to the village common funds.	Communities do not have specific sanctions, except the general norm that there should be no grazing or illegal felling in the forest. The forest guard or the forester penalizes any defaulter of law as per the forest laws, and the money is deposited in the government account.
Work norms	The VFPMC decides (within the available budget of the NGO) on the type and scale of the activities, work schedules, supervision, special attention to different sections of society, payment requisition and disbursement, and assess the activities against biophysical parameters.	The field-level FD staff decide these norms as per the government models for forestry activities.
Conflict resolution	Communities resolve conflicts within themselves- through deliberations in the general assembly; next they approach the Gram Panchayat, then the NGO, and finally the government agencies (FD and/or police) if all other means fail.	No mechanisms at the community level exist; and the responsibility for conflict resolution lies with the FD staffs.
Use of village funds	Not yet used, but it is dedicated for upkeep of the forest resources or any other community work. A large section of the community was aware of the available amount in their village funds.	Not yet used, but it is dedicated for upkeep of the forest resources or any other community work. Information about these funds was restricted to the VFPMC President and the forester alone.

Documentation	Microplan; annual workplan-budget; perspective plan; hakdari list; meeting minutes; copy of the MoU between the VFPMC and the FD; social and technical observation books; byelaws; maps and other documents prepared through PRA; books of accounts; yearly audit report; and visitors' comment book. Certain members of the VFPMCs were trained by FES to maintain these documents, and some of these documents were also updated by the VFPMCs.	While no document was available with the VFPMCs at the village level, the forester informed me of some documents that were available at the FD office: microplan, annual workplan-budget, MoU between VFPMC and the FD, meeting minutes, and the books of accounts. I could only see the meeting minutes, as these were available with the forester.
Resource harvest	Since harvesting is limited to fodder at this point, the VFPMCs are yet to develop mechanisms/norms for harvesting resources other than fodder. For fodder harvesting, each member household needs to pay a nominal fee (which could be Rs. 15, Rs. 25, etc.), as determined by the community, for the season after which it can harvest as much as it requires for sustaining its own cattle and not for selling in the market. The 'aam sabha' takes account of how much money is collected before it deposits the money in the VFPMC's bank account.	Harvesting is limited to fodder at this point, and, therefore, the VFPMCs are yet to develop any detail mechanism for harvesting. Fodder harvesting norms are similar to the FES-supported VFPMCs, although the fee amount might vary. Also, the fee amount is not determined by the communities; instead, it is determined by the VFPMC President and the forester or forest guards. The money collected is deposited in the VFPMC accounts for future use of the community; however, there is no system of collective sharing.

Source: village level documents, and interviews with community members & FES/FD staff.

Conflict Resolution

As observed in many other parts of the country, conflict resolution is a challenge for VFPMCs due to a variety of reasons, such as competing objectives of stakeholders, short-term needs of people and long-term ecological consideration, structural conflicts within institutions, overlapping roles among actors, legal constraints, and cultural practices versus resource conservation (Rastogi, 1998). Nevertheless, conflicts must be

recognized as part of the institution building processes, and they need to be brought to common platforms for discussions and democratic resolutions.

Conflicts took place in both Chitravas and Karech VFPMCs a couple of times mainly around issues of resource use, and violation of byelaws by some members of the VFPMCs. However, these institutions were able to resolve these conflicts peacefully and without dividing the community. To prevent and/or resolve conflicts, these two institutions undertook a number of initiatives, such as discussing on potential areas of conflicts and possible mechanisms to resolve those in the 'aam sabhas'; documenting these mechanisms/norms in the VFPMC byelaws for future reference; and discussing any kind of conflict in the 'aam sabhas' so that conflicts are resolved democratically. As per the byelaws of these VFPMCs, conflict resolution should be attempted first within the community/VFPMC, then at the Gram Panchayat level, and if it is still not resolved, the community should then approach NGO, FD, and other relevant government agencies. Despite such systematic mechanisms, both these VFPMCs had reported a number of instances of conflict, although they also reported peaceful resolution of these conflicts – mostly at the first two levels. Below mentioned is an account of a conflict that took place in Chitravas VFPMC and the institutional involved in its resolution.

Lala Bhujji, a villager from Chitravas, illegally ploughed a small portion of the protected forestland in the year 2003. The entire village community got furious; they immediately organized an 'aam sabha' and passed a resolution to remove Lala's encroachment and teach him a lesson. They sent him a message inviting him to the next meeting before the community demolishes his encroachment. But Lala did not care for such pressures and he never showed up for any of the three meetings that the villagers organized on this issue. He did not even step out of his house when the villagers gathered just outside of it. The community then approached the Gram Panchayat and the FES team for assistance. As per the advice of the sarpanch (Chair of the Panchayat), some community leaders, the sarpanch, and a representative of FES went together to Lala's house – almost like a last chance- to catch him and discuss the matter with him. As Lala met the group this time, the community leaders asked him to remove his encroachment immediately in order to avoid harsher punishment, which might include burning his house and sending him off from the village. Lala agreed to remove his encroachment, but pleaded to the community to allow him to take that crop since he had already ploughed and sowed the seeds of maize. After some internal meetings and discussions among the community, they had finally agreed to allow him that crop – in the condition that he would repair the fencing that he had damaged, and he would never repeat such act. Lala complied with the community's norm and never attempted such act again.

On the other hand, Rawach and Kundlawas VFPMCs lacked institutional mechanisms for conflict resolution. Conflict has not figured as an important issue of discussion in these VFPMCs' meetings, and, thus, they have not yet devised any mechanism or norm to preempt or resolve conflict. Although the forester and the respective VFPMC Presidents took pride in the absence of conflicts in these VFPMCs, this issue requires

deeper analysis. Why has there been no conflict in these two VFPMCs, despite dissatisfaction of large sections of these communities, as I observed during fieldwork, with the non-participatory ways the VFPMCs are functioning? Many arguments can be made to explain this lack of conflict in these two VFPMCs: because there are no platforms or spaces where different opinions or interests can be articulated; conflicts are suppressed by community leaderships or FD staffs; people are not participating in the institutional processes due to lack of incentives, and, therefore, there are no conflicts. Whatever may be the argument, the important point is that spaces and adequate incentives for participation should be created in these VFPMCs. Instead of denying the possibility of conflict, such spaces for participation would allow the communities to come together and discuss their different ideas and interests, which would also strengthen them as a collective and prepare for any internal or external conflict in the future.

A case for effective integration of NGOs in the JFM program

As we have seen in the above analysis, there are vast differences between the VFPMCs supported by FES and the ones supported by Forest Department. As described earlier, all four VFPMCs are located close to each other, and they share similar socio-cultural and biophysical features. Besides, all four VFPMCs are functioning within the same policy environment. What, then, accounts for such vast differences between both types of institutions? In trying to understand this question, I attempt to highlight some of the critical roles played by FES, as opposed to FD, which helped strengthen the VFPMCs it supported. Thus, I make a case for more effective integration of NGOs in the JFM program.

One of the important aspects of FES' interventions was that its focus on institutional processes was much more "comprehensive" – not limited to JFM and forestlands. Various institutional processes, such as perspective planning, membership based on customary rights, facilitating in byelaw preparation, conflict resolution mechanisms, and monthly meetings, are integral elements of FES' interventions in any community regardless of JFM. It can be also argued that such a "comprehensive" approach, although in its varying degree, is characteristic of most NGO interventions, as it might also help finding more spaces for interventions – something that NGOs also require for their own sustenance. Such comprehensive interventions help strengthen grassroots institutional processes, which was seen missing in the FD interventions discussed in this paper.

Another critical aspect of the FES intervention was the role of its field-level staffs in facilitating various participatory processes. This draws attention to a number of factors – size of the field level staff and their capacities, their attitude towards rural communities, and incentives that might affect the performances of these staffs. It was observed that FES had a large size of field staffs (one field associate looks after activities in 2-3 villages), which allowed for attentions to village/community specific issues. Again, such trend of larger size of field level employees is seen in many other NGOs as well,

because it makes economic sense for the NGOs since the field level employees cost less, and it also help them in reaching out to communities. By undertaking various training programs and exposure visits for its field level staff, FES was also able to strengthen the capacities and skills of these employees, which resulted in effective delivery at the village level. It was also observed that most of FES' field staff were local and/or tribal, and, thus, were familiar with and sensitive to various socio-cultural dimensions of the local communities. Most of these factors were missing in case of the Forest Department and its field-level staffs. Not only does the department lack adequate number of staffs in the field, but it also lacks enough investment in their capacity building and adequate incentives for these staffs to be creative. As a senior bureaucrat of the department told me during interview, *“for most of the employees, it is just a job that supports their livelihoods; they have no other reason to make an extra effort.”* Thus, many field level staffs of the department are still embedded in a pre-JFM attitude, which affects the JFM initiatives negatively.

The FES intervention was further marked by its emphasis on context-specific institutional mechanisms, and, thus, flexibility of its interventions. Instead of strictly implementing the provisions mentioned in the state JFM resolution as ‘one-size-fits-all’, the FES team took local contexts into consideration and modified its interventions accordingly. Thus, we see context-specific measures, such as customary rights based memberships, locally devised protection system, and village specific conflict resolution mechanisms in case of Chitravas and Karech VFPMCs.

Lastly, the significance of maintaining various documents at the community level in FES' interventions must be noted. For the communities, it meant a lot that they had access to their own plans, and, more importantly, that they had a signed copy of the JFM agreement (MoU), which ensured them various (usufruct) rights. Having access to such documents was unprecedented for these communities, and this gave them a sense of empowerment. As one of VFPMC members at Karech commented – *“we have it in written with us now; so the Forest Department cannot take away our resources.”*

As the cases of Chitravas and Karech VFPMCs showed, the role of FES was instrumental in shaping the institutional mechanisms in these two institutions. When the FES team began its intervention in these two villages in 2002, there was hardly any collective mechanism in either of the villages for forest management. But it was through the processes of continuous meetings, discussions, and experimentations that the communities revived some of the traces of collective action that they once practiced and they invented some new mechanisms to suit the changing socio-political and biophysical environment. Although the FES team did not prescribe any particular mechanism over another, its role remained critical in so far as it inspired and facilitated various community practices, and informed the communities about important legal aspects.

Unfortunately, there has been inadequate involvement of NGOs in the JFM program across the state. While this may be partly due to lack of interested and capable NGOs in

various parts of the state, it is, however, largely due to a resistance in Forest Department to include NGOs in the program. Thus, although JFM has spread across the state, the number of JFM institutions supported by NGOs remains limited. NGO involvement in the program is a voluntary option dependent on the interests pursued by an NGO, which is then subject to FD approval. Because the bureaucratic process of FD approval is not quite encouraging, many NGOs tend to shy away from the program.

I argue that instead of being a voluntary option, NGO involvement should be made constitutive of any JFM implementation. There should be a “tripartite” model of FD-Community-NGO involvement in any JFM initiative, and the FD must proactively look for NGO involvements. Specific roles for each of the agencies could be defined based on its capacities and skill, so that they complement each other. It must be acknowledged that being a government agency, FD may not be able to play certain role as flexibly as an NGO does, as we observed in the cases discussed in this paper. A combined model would, thus, enable convergence of various tactics and strategies, which would strengthen the JFM program as a whole. NGO involvement is also particularly useful in eliciting women’s participation in JFM initiatives. Although not discussed specifically in this paper, it needs mentioning that there were qualitative differences between FES supported and FD supported VFPMCs as far as participation of women was concerned, which was, again, largely due to the role played by the respective facilitating agencies.

Other areas that need attention

Role of the Panchayati Raj Institutions (PRIs) in JFM is still not adequately explored by both NGOs and FD. As constitutionally mandated institutions for local self-governance, the PRIs have an overarching role for natural resource management within its territory. With the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act of 2006, roles of PRIs gained more prominence in natural resource management as well as all other spheres in the territory within its jurisdiction, which has its direct implication on JFM. This paper does not delve into questions of the role of PRIs and the Forest Rights Act, which are, however, extremely important issues that deserve special attention; nonetheless, it is important to recognize here that the role of PRIs is immense to strengthen the JFM initiatives. JFM should not be in spite of PRIs, as is the case currently; rather it should be through and within the PRIs. The Gram Panchayats should be functioning as fertile grounds for convergence of different initiatives and agencies involved in natural resource management in areas that fall within its jurisdiction. This would require amendments in the JFM resolutions, changes in NGOs’ policies, and changing attitudes in FD, NGOs, village communities, and PRI representatives.

Lastly, JFM – in both Rajasthan and the country as a whole – also needs policy amendments to address certain important issues, such as tenurial security, effective decentralization, creating incentives for participation of different sections of the society, and creating adequate spaces such participations (Upadhyay, 2003; Lele, 2000;

Agarwal, 2001; Sarin et al., 2003; Ghate & Mehra, 2004; Bhattacharya et al., 2009; Sundar, 2000; Kumar, 2007).

Conclusion

This paper highlighted some of the key differences in JFM institutions, which were largely shaped by the roles played by different facilitating agencies. It was observed that the NGO supported VFPMCs were much more participatory and active than the ones supported by the Forest Department. The paper presented a brief analysis of what were some of the distinct roles played by the NGO and what facilitated those roles. Because I was personally involved in the NGO supported VFPMCs – Chitravas and Karech – for several years, I tried to weave my own experiences into the narratives by presenting a few anecdotes. Despite presenting a comparative analysis of NGO-supported and FD-supported VFPMCs, the paper did not attempt to argue for an “either or” case; instead, the objective of the paper was to present a case for a more effective convergence between the Forest Department and NGOs, which could strengthen JFM in the longer run.

In a country as large and diverse as India, it is impossible to make a sweeping generalization on what works and what does not in forest management based on a small study. Besides, performances of VFPMCs might vary depending upon the nature of particular NGOs involved, role of FD officials in a specific area, and the historical and geographical specificity of a particular community. However, through this inductive study, I attempted to highlight some of the salient institutional mechanisms that worked in one particular context, the processes that facilitated the evolution of these mechanisms, and, thus, made a case for larger role of NGOs in JFM. Further studies of similar cases in more areas will provide us with deeper understanding and a more generalizable claim.

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Bibliography

Agarwal, B. (2010). Does Women's Proportional Strength Affect their Participation? Governing Local Forests in South Asia. *World Development*, 38 (1), 98-112.

Agarwal, B. (2001). Participatory Exclusions, Community Forestry, and Gender: An Analysis for South Asia and a Conceptual Framework. *World Development*, 29 (10), 1623-1648.

Agrawal, A. (1998). Group Size and Successful Collective Action: A Case Study of Forest Management Institutions in the Indian Himalayas. In C. Gibson, M. McKean, & E. Ostrom (Eds.), *Forest Resources and Institutions. Forests, Trees And People Programme, Working Paper 3*. Rome, Italy: FAO.

Bhattacharya, P., Pradhan, L., & Yadav, G. (2009). Joint Forest Management in India: Experiences of Two Decades. *Resources, Conservation and Recycling*, (30).

Chakrabarti, M., & Datta, S. K. (2009). Evolving an Effective Management Information System to Monitor Co-Management of Forests. *Economic & Political Weekly*, XLIV (18), 53-60.

Dewalt, K. M., & Dewalt, B. R. (2002). *Participant Observation: A Guide for Fieldworkers*. Lanham, MD: Altamira Press.

Emerson, R. M. (Ed.). (1988). *Contemporary Field Research: a Collection of Readings*. Prospect Heights III: Waveland Press.

Gadgil, M., & Guha, R. (1992). *The Fissured Land: An Ecological History of India*. Berkeley: University of California Press.

Ghate, R., & Mehra, D. (2004, August). *Ensuring 'Collective Action' In 'Participatory' Forest Management*. Paper presented at The 10th Biennial Conference, Mexico under theme- Governance, Conflict and Institutional Reforms. Oaxaca city: Mexico.

Ghose, A. (2005, March 18). *Report of the State Level Workshop on Joint Forest Management*. National Bank for Agriculture and Rural Development, Jaipur.

Hobley, M. (1996, June). *Institutional Change within the Forestry Sector: Centralized Decentralization* (Working Paper 92). London, UK: Overseas Development Institute.

Jodha, N. S. (2000). Joint Management of Forests: Small Gains. *Economic and Political Weekly*, 35 (50), 4396 – 4399.

Kumar, C. (2007). Perceptions of Incentives for Participation: Insights from Joint Forest Management in India. *International Journal of Sustainable Development & World Ecology*, 14 (5), 532-542.

- Kurien, M., & Bhatia, J. (1997). Forest Guards as Partners in Joint Forest Management. *Ambio*, 26 (8), 553.
- Lam, W. F. (1998). *Governing Irrigation Systems in Nepal: Institutions, Infrastructure, and Collective Action*. Oakland, CA: ICS Press.
- Lele, S. (2004). *Decentralizing Governance of Natural Resources in India: A review*. Nairobi: UNDP Dryland Development Centre.
- Lele, S. (2000). Godsend, Sleight of Hand, or Just Muddling Through: the Joint Water and Forest Management in India. *Natural Resource Perspectives* (53), 1-6.
- Locke, C. (1999). Constructing a Gender Policy for Joint Forest Management in India. *Development and Change*, 30, 265-285.
- Mahapatra, R., Kumar, S.S., Narayanan, S., & Pallavi, A. (2010, November 15). How government is subverting forest right act. *Down to Earth*.
- Nayak, P. K., & Berkes, F. (2008). Politics of Co-optation: Community Forest Management versus Joint Forest Management in Orissa, India. *Environmental Management* (41), 707-718.
- Ogra, M. (2000, May 31- June 4). *Who's Participating in "Participatory" Forestry? The Promise and Pitfalls of the Joint Forest Management (JFM) Model in India*. Paper presented at the Eighth Conference of the International Association for the Study of Common Property, in session – Constituting the Commons: Crafting Sustainable Commons in the New Millennium. Bloomington, Indiana: USA
- Ostrom, E. (1990). *Governing the Commons: The Evolution of Institutions for Collective Action*. New York: Cambridge University Press.
- Ostrom, E. (2007). Institutional Rational Choice: An Assessment of the Institutional Analysis and Development Framework. In P. A. Sabatier (Ed.), *Theories of the Policy Process* (2nd ed., pp. 21-64). Boulder, Colorado: Westview Press.
- Pai, R., & Dutta, S. (Eds.). (2006). *Measuring Milestones*. Proceedings of national workshop on joint forest management. New Delhi: Winrock International India and the Ministry of Environment and Forests.
- Poffenberger, M., & McGean, B. (Eds.). (1998). *Village Voices, Forest Choices: Joint Forest Management in India*. New York: Oxford University Press.
- Rasmussen, L. N., & Meinzen-Dick, R. (1995, August). *Local Organizations for Natural Resource Management: Lessons from Theoretical and Empirical Literature* (EPTD Discussion Paper No. 11). Washington DC: International Food Policy Research Institute.
- Rastogi, A. (1995). Impact of Culture on Process of Joint Forest Management in India. *Ambio*, 24 (4), 253-255.

- Rastogi, A. (1998, May-July). Conflict Resolution: A Challenge for Joint Forest Management in India. *Wastelands News*.
- Rubin, H. J., & Rubin, I. S. (2005). *Qualitative Interviewing: The Art of Hearing Data*. Thousand Oaks, CA: Sage Publications.
- Sahays, R. R. (2003). *Joint Forest Management: the Need for a Fresh Approach*. Paper presented at the XII World Forestry Congress. Quebec City: Canada.
- Saigal, S. (2000). Beyond Experimentation: Emerging Issues in the Institutionalization of Joint Forest Management in India. *Environmental Management*, 26 (3), 269-291.
- Sarin, M., Singh, N. M., Sundar, N., & Bhogal, R. K. (2003, February). *Devolution as a Threat to Democratic Decision-making in Forestry? Findings from Three States in India* (Working Paper 197). London, UK: Overseas Development Institute.
- Saxena, N. C. (1992). *Joint Forest Management: A New Development Bandwagon in India?* (Paper No. 14). London: Rural Development Forestry Network, Overseas Development Institute.
- Sundar, N. (2000). Unpacking the 'Joint' in Joint Forest Management. *Development and Change*, 31, 255-279.
- Thin, N., Peter, N., & Gorada, P. (1998). *Muddles About the Middle: NGOs as Intermediaries in JFM* (Edinburgh Papers in South Asian Studies No. 12). Center for South Asian Studies, University of Edinburgh.
- Upadhyay, S. (2003). JFM in India: Some Legal Concerns. *Economic & Political Weekly*, 38 (35).

Government documents

- Gol. (2000). *Guidelines for Strengthening of Joint Forest Management (JFM) Programme*. No. 22-8/2000-JFM(FPD). New Delhi: Ministry of Environment and Forests (Forest Protection Division), Government of India, New Delhi.
- Gol. (1990). *Involvement of Village Communities and Voluntary Agencies for Regeneration of Degraded Forest Lands. Memorandum to Forest Secretaries of All States and Union Territories*. No. 6-21/89-F.P. New Delhi: Government of India.
- Gol. (1988). *National Forest Policy, 1988*. No. 3-1/86-FP. New Delhi: Ministry of Environment and Forests (Department of Environment, Forests & Wildlife), Government of India .
- Gol. (2001). *Proceedings of the JFM (JFM) Nodal Officers Meeting*. New Delhi: Van Vigyan Bhavan, Government of India.

GoI. (2006). *The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006*. DL-(N) 04/0007/2006-08. New Delhi, India: Ministry of Law and Justice (Legislative Department).

GoR. (2002). *JFM Circular*. No. F 21 (22) 2000/JFM/Dev/676. Jaipur, Rajasthan: Forest Department (Office of the PCCF), Government of Rajasthan.

GoR. (2002). *Joint Forest Management: Operational Guidelines*. Jaipur, Rajasthan: Forest Department, Government of Rajasthan.

GoR. (2000). *Programme to Ensure Participation of Village Communities and Nongovernmental Organizations in Regeneration of Degraded and Deforested Forest Lands*. Office Order No. F 7(39)forest/90. Jaipur, Rajasthan: Forest Department, Government of Rajasthan.

GoR. (2010). *Rajasthan State Forest Policy 2010*. Jaipur, Rajasthan: Forest Department, Government of Rajasthan.

NGO documents (unpublished)

FES. (2003). *Commons & Livelihoods in Udaipur Project Area*. An MTS study conducted by Swadesh Saxena on behalf of FES.

FES, Udaipur: *Management Information System* (Electronic).

RMoL. (2006). *Livelihoods Through Joint Forest Management in Rajasthan: A Study Conducted by FES*. Jaipur: Rajasthan Mission on Livelihoods.

Village-level documents

Chitrawas VFPMC: *Microplan; Meeting Minutes; Perspective Plan; Bylaws; Social Observation Book; Technical Observation Book; Bank Passbook*.

Karech VFPMCs: *Microplan; Meeting Minutes; Perspective Plan; Bylaws; Social Observation Book; Technical Observation Book; Bank Passbook*.

Rawach VFPMC: *Meeting Minutes*.

Kundlawas VFPMC: *Meeting Minutes*.