

Social Capital in Community-based Institutions: Trends and Emerging Lessons from Western India[#]

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Introduction

In many countries, community-based institutions (CBIs) are being promoted at the village level to take responsibilities for a variety of rural development activities. Management of the natural resources that are used by community members in common is one of the key areas for which CBIs are being promoted most frequently. Most government programs are emphasizing on adoption of participatory approaches envisaging participation of village communities through these institutions. Non-government organisations involved in rural development activities are also largely operating through CBIs. In some instances, CBIs have emerged without a direct assistance from government or non-government organisations and took responsibility of managing common property natural resources. There are several such examples of self-initiated CBIs from different parts of India (see Kant et al., 1991; Singh and Singh, 1992; 1993; Sarin, 1996; Poffenberger et al., 1996; Kant and Cooke, 1999; Conroy et al., 2000). These CBIs are expected to take increasing responsibilities in due course and become autonomous institutions in themselves. Thus, CBIs could be considered as emerging third-sector organisations that could provide a mechanism for self-reliant approach to development. However, this expectation could be accomplished only if the CBIs could become effective in managing resources through collective action.

The capacity for collective action is crucial for the successful management of common property natural resources, as the communities are required to regulate the use of natural resources and adopt appropriate management practices to improve or maintain the productivity. A variety of actions are required on the part of communities. The effectiveness of these actions would depend on the processes within the communities. This would include mechanisms of deciding regulations and steps required for their implementation. Since conflicts could emerge as the restrictions are imposed on the use of resources, the process of conflict resolution has to be functional in the community. Thus, it is the community actions and processes that become important for the success of collective action in CBIs.

The capacity of a community for collective action depends on a variety of factors. If the communities have the past trends or traditions of cooperation, it becomes easier to initiate collective action in newer type of activities. Similarly, the level of social interaction and mutual dependence among the members, the type of social structure and relationships, commonness and variation of resource dependence etc. all affect the capability of communities to act collectively. Cooperative interaction on any aspects of social or economic activities of community members leads to development of norms, networks, associations or trust because of which people tend to

[#] Paper presented at the Fifth International Conference of the International Society for Third-sector Research, held in Cape Town, South Africa from 7-10 July, 2002.

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cooperate for common welfare. This is termed as social capital (Putnam, 1993; Putnam and others, 1993; Kahkonen, 1999). Although hierarchical and political relations are considered as the part of social capital (see Coleman, 1988; North, 1990), for the purpose of assessing the capacity of collective action at the community level, primarily the horizontal relations remain important. Therefore, in this study primarily the horizontal relations within the community are considered as a contributing factor of social capital.

This paper evaluates the role of social capital on the functioning of village level institutions. The primary aim is to understand the progress of sample villages towards sustainable management of forest resources, developed through regeneration investment by state forest department under Joint Forest Management (JFM) approach. This study analyses the role of initiatives for reviving community responsibility through JFM approach. This study has been carried out in Udaipur district of Rajasthan, which is one of the western states of India. Having the experience of some decline in community interest, recently some intensive efforts were initiated to strengthen the community institutions in this district. The after impact of these efforts is evaluated. The lessons emerging from this evaluation are discussed and implications for future action are derived.

Promoting community responsibilities

The forests in India had largely been managed by government agencies in colonial and post-colonial period. The people were generally forbidden from taking forest produce and this led to gradual alienation of local communities. The forests became largely an open access resource and a large part of the country's forest resources gradually got degraded severely. During the early eighties, the successful examples of revival of forests with the involvement of communities even in Government initiated programmes in West Bengal and the success of Hill Resource Management societies of Haryana (see Poffenberger, 1990) provided a stimulus for rethinking in the Government. As a follow up of the review of these successes, Government of India issued a guiding circular on 1 June, 1990 for adopting Joint Forest Management (JFM) approach in different states (GOI, 1990). JFM is an approach in which responsibilities of forest development and management are shared between government and communities. The government provides technical guidance and the investment support, while the communities are mainly expected to take the responsibility of protection and use regulation. In return, communities are provided a share in the produce from the forest area so managed.

This paper analyses the progress of selected community institutions in taking over the responsibility of collective regulation and formation of social capital that is essential for sustaining collective action.

The study area

The case study villages have been selected from Udaipur district of Rajasthan, which is a western state of India. This is a relatively dry zone of India with tropical dry deciduous forests having a relatively low productivity. Udaipur district has more than 3000 sq. km. of forests and administratively there are three forest development divisions in this district. For last two years, the first author is working as head of Udaipur (central) division, which is one of the three divisions. The forest resources in this region have been facing severe degradation over last few

decades owing to unregulated over-exploitation or what can be termed as 'tragedy of commons'. Because of enabling policy changes, the programme of forming village forest protection and management committees (VFPMCs) was started after the state government adopted a resolution in 1991.

An intensive programme of reforestation was carried out in the Udaipur (central) division under the JFM approach over last seven years. As a mandatory provision, a VFPMC was formed in each village, before taking up any forestry activities. Prior to formation of VFPMCs, village level meetings were conducted to explain the concept and implications of JFM for motivating the villagers. The level of sincerity with which villagers were sensitised and made aware of their responsibilities varied considerably owing to ability and dedication of staff.

The pace of reforestation activities declined considerably about two years before after the closure of an externally aided project, through which most of the reforestation activities in this division had been supported. In most of the villages, the strength of collective regulation also declined as no serious follow up was continued after the closure of the programmes in particular villages. An assessment was carried out in June-August, 2000 to measure the level of involvement of people in the management of forest resources in selected communities, through a scale developed by Jain and Jain (1997), the details of which are described later.

Efforts for fostering social capital

At this stage, it was considered desirable that intensive efforts are made to motivate community members and improve their capacity for collective action or in other words to strengthen social capital. In a given society, culture, conventions, the institutional arrangements, and the attributes of people's behaviour in terms of work ethics, orientation towards group action and collective concern and sharing systems, motivation profile, reward/incentive preferences, etc. affect the output of the efforts for social capital formation (Jodha, 1994). Most of these attributes are not easily amenable to change in a short period. Therefore, the best approach could be to create facilitating circumstances and greater communication for social interaction and learning (Jodha, 1994). This helps in developing systems of co-operation by people and each successful collaboration builds connections and trust or in other words social capital (Putnam, 1993).

Considering this, the efforts for fostering greater social capital were targeted to sensitise community members about the rational and benefits of collective action so that most or all the people not only understand the value of collective regulations but also abide by them in their own self-interest. The emphasis was placed on developing effective systems of enforcement of community regulations and on achieving self-sustainability and self-reliance. The awareness was raised about the technical activities and such other measures that are necessary periodically for improving the forest productivity and about the role of voluntary efforts for supporting the regeneration process. Besides, special emphasis was placed on encouraging participation of women. For covering all these relevant issues, periodic meetings were held, generally quarterly. Various participatory tools and visualisation techniques were used during this process.

It required extensive efforts and it was not possible for the authors to cover all the village committees (more than 100) in the division by themselves. Therefore, a cluster approach was

followed in which a few representatives (generally between 2-10, depending on the nature of meeting) from a group of 5-10 neighbouring village committees were invited together for a joint meeting. Some separate women workshops were also organised to provide women an environment for free expression and motivate them for participation in the affairs of community institution for addressing gender and equity concerns.

The authors and the senior staff conducted these meetings and representatives from local NGOs were also involved. These meetings were used for sensitising people, analysing the progress of different activities in these villages, discussing various problems and other relevant issues and training the local staff and community members. This also provided an opportunity to share experiences and find solutions through mutual discussion. The representatives attending such meetings along with the local staff were expected to organise follow up meetings in individual villages and share and discuss with rest of the community members.

Some of the follow up meetings or village workshops were conducted by the authors themselves, along with representatives from local NGOs and other senior staff in individual villages. In these meetings, representatives from neighbouring villages and the staff members from different areas were also invited to train or demonstrate to them how these meetings should be conducted. In addition, special training workshops were organised to motivate the staff for conducting village meetings and maintaining regular contact and follow up with the community members.

The selection of study villages

To understand the impact of the intensive efforts made for fostering social capital, an assessment was repeated during May-June, 2001, after nearly one year of initiation of these efforts. For this a sample of eight villages was selected out of more than 100 villages in the division through purposive sampling. The villages selected were those where about 2-5 years of reforestation work had been carried out covering the significant part of the forest land available in these villages. In one of the villages i.e. Palyakheda, the reforestation work had been taken every year for last five years while in rest of the villages, reforestation activities had discontinued during last 2-5 years.

In two of the villages i.e. Palyakheda and Salukheda, non-forestry development activities such as entrepreneurship training programmes, construction of water retention structures, facilities for irrigation and drinking water supply systems, health camps, and other such activities of rural utility had been taken up during the four preceding years. This was done under a special scheme of the Forest Department supported by the World Food Programme and was aimed at motivating people for taking up protection and rational management of forest resources. Watershed development programmes had been initiated in three of the villages (Palyakheda, Amleta, and Unkaliyat) during the last year by the forest department. These programmes, proposed for four years, had provisions for taking up soil and water conservation works and other activities for improving production on private agricultural lands as well as common lands.

Thus, the sample provided variation in level and timing of forestry or other development activities taken up in the villages that affected the level and continuity of contact of forestry staff with the villagers. Except for Bada Bhilwara, forestry development activities in all the villages

were supported by the Forest Department. In Bada Bhilwara, JFM initiative was started by an NGO, Seva Mandir, which carried out reforestation activities in 50 ha of land in 1995. In addition, 150 ha of forest land was regenerated by another forest division of Udaipur (south) in 1995 and 1996. Then 100 ha land was reforested by Udaipur (central) division during 1998 and 1999. Thus, this village had involvement of three different agencies in development of forest areas.

The socio-economic attributes and the extent of reforestation work carried out in the selected villages are given in Table 1. Most of the villages were homogeneous with indigenous population, but two of the villages selected were heterogeneous with the presence of indigenous and non-indigenous communities living together. The data on human and livestock (including composition) population and land statistics provide indications about the land availability per capita and the extent of pressure on forest resources and other common lands. The pressure on forests was relatively high in Amleta, Malpur and Unkaliyat and moderate in Salukheda and Damana. Nevertheless, availability of other common lands in Damana and to some extent in Unkaliyat helped to some extent in easing out the pressure particularly from grazing animals.

Evaluation of the progress

It was crucial to decide what aspects should be included for evaluating the effect of fostering efforts particularly to adjudge the progress of community institutions in managing the regenerating forest areas so that ultimately sustainability is achieved. The fundamental concept of resource sustainability implies that extraction from a resource should be limited within its capacity for renewal (ITTO, 1992; WWF, 1993; Sarkar et al., 2000). In degrading forests the efforts for regeneration and the follow up steps for reviving the potential productivity need to be made, in addition to limiting and regulating the extraction. When communities are being involved in these efforts, the activities and processes within communities become very important. These can provide early indications of whether or not sustainable management will remain the concern of communities in future and may provide pointers to the implementing agencies for suitable actions for promoting community capability and interests to achieve sustainability (Jain and Jain, 2001).

The social capital theorists have also attached an immense importance to community structure and processes (Smith et al., 1995). Jodha (1994) argued that social capital could be identified to include all those social variables, which directly or indirectly contribute to the generation of driving forces and processes affecting the use of natural resources and their impacts.

In this study, the evaluation of community actions and processes was carried out for using it as an indicator of the level of community involvement in collective management of local forest resources. An evaluation scale developed by Jain and Jain (1997) was used for this purpose that provides a measure of the effectiveness of community institutions. For the assessment of community actions and processes, three particular aspects were considered desirable to indicate the community concern for managing the resources sustainably:

1. The development of efficient mechanisms of deciding and implementing collective actions for maintaining forest and other complementary resources. This is indicated in participation

of members (including that of women), development of rules for extraction and sharing of different products from the area, and involvement of community members in managing other community resources or the development activities.

2. The community concern for any such events which may affect their interests or the resource regeneration process adversely and some appropriate action by communities to mitigate them. This is indicated in arrangements for protection of resources from illicit and unregulated use and mechanisms for resolving various conflicts.
3. The community concern for raising and maintaining productivity of forests for sustainable flow of benefits from resources. This is indicated in management activities for raising productivity, involvement in developing appropriate plans for resource management, and development of systems of community self-reliance to carry out various necessary activities for resource management or the functions of community institution.

Thus, ten broad indicators were used covering the above three aspects. For each of these indicators, the performance was judged against the desired performance standards on a 0-10 scale. For any of the indicators, the score for most desirable performance standard was given as ten and for the most undesirable performance the score was assigned as zero. The details of these standards are elaborated elsewhere (Jain, 1998: 186-189). The total possible maximum score for the ten indicators used thus became 100 and the total score was taken as the per cent level of community involvement in the management of forest resources and the overall indicator of the progress towards sustainable forest management. This could also be taken as an indicator of social capital because these indicators were resultant of actions and processes of collective action by community institution. Since these indicators are all qualitative, scoring against the performance standards helped in making the process of assessment a relatively objective one.

Semi-structured group and individual interviews with representatives of the communities and the local staff were used for the assessment. The committee records were examined. Transact walks were taken with the community members to assess the resource performance keeping in view the succession of grasses, survival and the growth of planted seedlings, natural regeneration, and the damage of resources, if any. Besides, being helpful in scoring of different parameters of the scale for the level of community involvement, this information was used for analysing the state of resources directly. The resource conditions were also scored on 0-10 scale, in which 10 score indicated no unregulated damage of resources while 0 score indicated complete open access.

Results and discussion

The assessment of resources indicated that forest regeneration process was progressing well in two communities i.e. Palyakheda and Ankhyavad (scores 9.5), as indicated from the succession of grasses, natural regeneration, the growth of the planted seedlings that had survived and almost no unregulated damage. Nevertheless there were signs of occasional unregulated or uncontrolled exploitation in rest of the six communities, although its extent varied. This was visible in terms of damage of growing plants by grazing animals, removal of mature bamboo culms, and cutting of some green wood from the area.

Among the six villages, the extent of damage was highest in Damana Talab (score 5.5) and in the plantations raised by other agencies in Bada Bhilwara (score 5), but not in the recent ones, raised

by Udaipur (central) division (score 8). The interrogations with community members revealed that this was a conscious decision of the community to keep closed the later two plantations and graze their animals after rains in the other three plantations in Bada Bhilwara, although partly this also was due to differences in the level of persuasion by different agencies in this village. The damage was moderate in villages Salu Kheda (score 6.5) and Malpur (score 7.0) and minimal in villages Amleta (score 7.5) and Unkaliyat (score 7.5).

The condition of resources did not evince any noticeable change in two assessments made at the interval of nearly one-year. Therefore, only one-time scores have been presented. No change in resource performance may be because adequate time had not elapsed after the efforts for community mobilisation were intensified to result in any perceptible change in resource conditions.

The scores for the level of community involvement (Table 2), assessed about one year before, prior to initiation of intensive efforts for fostering social capital, showed considerable variation. This was indicative of uncertainty of future sustainability in the communities scoring low (Damana Talab, Ankhyavad, and Malpur). The scores, in general, were relatively higher in the villages where forestry or other development activities had continued during the current and/or preceding years. In Bada Bhilwara, the scores were better because of the continuous presence of an NGO, for nearly last 15 years. The efforts for mobilising community action and involvement by the NGO had helped in developing a regular system of meetings and monitoring of enforcement of community regulations. Among others, the scores were better in Unkaliyat, which appears to be because of its previous experience of a leading role in associating other neighbouring communities for joint protection and management and resolving a long-standing conflict with another neighbouring powerful community about five years before (Jain and Jain, 1998). This led to development of a sense of greater involvement of community members in the functioning of this community institution.

The overall score for the level of community involvement after one year and the change in the scores for individual attributes during one-year period, also varied considerably among different communities. The improvement in the overall scores in all the communities, at least to some extent, indicates that the efforts for fostering social capital had some impact. This impact was higher in communities in which some development activities have been taken up even in the current year through watershed development programme. It needs to be stressed that the watershed development programmes had mandatory provisions for intensive training and community organisation activities. Besides, provisions for land improvement works on agricultural lands and training for different enterprises for raising income levels also generated greater community interest and involvement.

It is obvious that when development investment is continuing in a community, the implementation process and the monitoring requirements provide opportunities for greater interaction among the development agency staff and the community members. The pursuance of the agency staff with the communities is also greater in such villages during this period. People, in general, and the indigenous communities, in particular, remain concerned more for their short-term interests (Joshi, 1995; Chandra, 2000). Availability of wage employment through

development investment remains an immediate concern and people seem to be less concerned for long-term sustenance (Saxena, 2000).

This response of local communities raises a question whether or not the community interest in collective action will sustain after the investment in watershed or other development activities is over. If the investment programmes are made without ensuring commitment from communities, as is by and large a *de facto* practice now, this might promote investment dependence among the rural communities and may prove counterproductive (Saxena, 2000). This will have an adverse effect on the process of forming and sustaining social capital.

There are several instances in which development practices and the policies have destroyed highly effective social networks and norms (Putnam, 1993; 1995) or such programmes have failed to develop effective community institutions (Poffenberger, 1990; Sarin, 1996). On the contrary, there are several instances in which self-initiated community groups have revived and managed resources sustainably without the support or the intervention of development agencies (Kant et al., 1991; Singh and Singh, 1992; 1993; Poffenberger et al., 1996; Poffenberger and Others, 1996, Sarin, 1996; Conroy, 2000). This is primarily because these groups realised responsibilities of regulating and managing resources in their self-interest.

Depending upon the local conditions and the nature of resources, some development investment may be necessary or desirable, but it is important that it is made in a way that the community commitment is rewarded rather than creating investment dependence. This can be achieved by linking of rights and incentives (in the form of development investment) with the responsibilities, as elaborately discussed in a good practice manual for community-managed forestry programmes by Jain (1998). In this strategy, progressive investment is made dependent on the community commitment and abidance with collective regulations in periodic assessments.

The analysis of change in the scores for individual parameters of the evaluation scale, after nearly one year of efforts, indicates that improvement in scores was visible in most communities in the level of 'participation', more so in case of 'women'. The efforts for encouraging participation of women were specially emphasised through workshops for women, gender analysis in general meetings, and motivation of men to encourage women participation. These measures are widely recognised to be effective for gender sensitisation and helpful in improving the effectiveness of community institutions (FAO, 1989; McGean et al., 1996; Sarin and Others, 1997). Increase in women participation had effect on other several aspects of institutional functioning. In some villages such as Amleta and Palyakheda, women members specially took responsibility of occasional patrolling of the area to control women offenders, which were difficult to be controlled by male members. The women members took initiatives to form self-help groups and raise their voice in various community affairs.

The scores for the level of 'protection from illicit use' improved in most of the communities, except Bada Bhilwara and Ankhyavad. In Bada Bhilwara, the protection arrangements through community paid watchmen and rotational or group patrolling was already being done in the area kept close by the community. While in Ankhyavad, attention by agency staff was quite good in addition to community cooperation. Thus, the scope for improvement in community involvement in protection was limited in these two communities. Otherwise, involvement in protection is one

of the main responsibilities that is expected from communities in JFM (GOR, 1991; 2000) and therefore, the level of protection immediately improves as a result of realisation of their responsibilities (Poffenberger and others, 1996; Negi, 2001).

Among rest of the parameters, the improvement in capacity for 'conflict resolution' was noticeable in many of the communities. This was the effect of events of resolution of conflicts during the last one-year, with or without the support of agency staff, in several of these communities. In Palyakheda, community members fined even the committee executives, who started extracting grass from the area even before the decision in general body was taken. In Malpur, the dispute over the proposal to use community funds for the benefit of merely the members of dominant caste was resolved through several meetings and mutual discussion with some facilitation of the forestry staff. Two separate hamlets in Amleta divided the area, based on proximity and tradition of use history, for protection and management. This greatly increased the interest of the community members in implementing collective regulations. The community members in Bada Bhilwara, successfully prevented some members of a neighbouring community from encroaching a part of their forest area. This also involved sensitisation of majority of community members from both the communities, which led to isolation of the offenders, who felt the social pressure of the majority. The community members in Unkaliyat, having the past experience of resolving a long-standing conflict with a neighbouring powerful community (Jain and Jain, 1998), resolved an internal conflict with reference to enforcement of violations and protection responsibility, this year. In Ankhyavad, the people from neighbouring villages were prevented from extracting grass from the area of this village committee. The conflicts in Salukheda could not be resolved despite efforts due to differences in living style and dependence among different caste groups (Seva Mandir, 2000). Similarly, in Damana Talab factionalism that had developed over the past due to habitation and use pattern could not be amicably resolved.

Conflicts are inevitable in community institutions because of the nature of restrictions that need to be imposed for community resource management (Sarin, 1996; Kumar, 2000). Nevertheless, each event of successful conflict resolution provides learning and improves confidence in communities (Jain and Jain, 1998) and this leaves a positive influence on the overall effectiveness of community institutions (Kant and Cooke, 1999; Fisher et al., 1999). These observations are supported by the results in most of the communities in this study. However, persisting factionalism inhibit coordination, communication and collective action (Tang, 1992), and continuous support and facilitation is required to find common factors over which collaboration can be developed and the conflicts can be managed if not fully resolved (Buckles and Rusnak, 1999).

There was a little or almost no improvement in some of the parameters such as 'establishment of extraction rules', 'regulation of sharing', 'management for improving production', 'community self-reliance' etc. This was because the already established patterns of functioning on these parameters had stabilised and communities did not feel the greater relevance for any further improvement with respect to these parameters, for the present. For example, because of the tradition of such activities being taken up by the Forest Department, people were generally less involved in management activities for improving productivity and developing overall resource management plans. Similarly, regulation of extraction of products seemed to be of concern of people but developing mechanisms to ensure equitable sharing were felt relevant only when

there was a scarcity of available products or there was a market for the surplus produce. This was evident from an earlier study by the authors that communities located nearby urban areas and having market for grass and dairy products, developed an elaborate system of equitable sharing (Jain and Jain, 1997; 2001).

As far as the community self-reliance is concerned, people only took occasional repairing of fences, and rarely some voluntary seeding for supplementing regeneration. Mostly communities expected payment for even a small amount of work suggested for improving productivity, further indicating the persistence of investment dependence. The level of involvement in other aspects of community development improved considerably only in the three villages, where watershed development activities had been started which included different aspects of rural development activities, thus, expanding the role of community institutions.

Among the local factors of socio-economic conditions, heterogeneity of community groups or social factionalism appeared to have pronounced influence on the effectiveness of community institutions. Owing to the presence of different caste groups, it has been difficult to bring the community members to a common agreement for resource use and management in Salukheda and Malpur. The 'Gayaries' in both these villages constituted a predominantly grazier community, rearing mainly small ruminants. They were more interested in opening up the regenerating forest areas for grazing, while rest of the community was willing to keep them closed. In Damana Talab, most people from one of the three hamlets were less abiding by collective regulation of closure of grazing due to factionalism and lack of sensitisation.

Homogeneity of community groups is widely acclaimed to facilitate collective action (Lowdermilk, 1978; SPWD, 1992; Jodha, 1996; Sarin, 1996; Kant and Cooke, 1999; Saxena, 2000) and this is explained to be so because of closer social ties and norms (Subramaniam et al., 1997; Singleton and Taylor, 1992). Conversely, caste heterogeneity is known to contribute to disputes (Fresson, 1979; Merrey and Wolf, 1986) and may increase factionalism (Kahkonen, 1999). It becomes important to initiate activities of common interest in these communities. It also requires more rigorous efforts to sensitise them for the common good to mobilise sustainable collective action. In addition to mobilisation efforts, taking up of a variety of village development activities in Salukheda, such as drinking water and irrigation facilities, a floor mill, and improvement of school building helped this community, to some extent, to come to a common platform.

High forest dependence and scarcity of forest resource or the higher per unit area density of human and livestock population were also critical factors that appeared to have affected community response to the efforts for promoting social capital. The dependence on forest resources was high in all the villages under study. However, the scarcity of forest resources was high in Unkaliyat, Malpur and Amleta compared to other villages, causing somewhat higher level of degradation in these villages initially. Nevertheless, having felt the brunt of degradation, these communities have proven to be more responsive to mobilisation efforts as has been observed in many such other cases (Wade, 1994; Uphoff et al., 1990; SPWD, 1992; Sarin, 1996). In this study, the lower response in Malpur village do not appear to corroborate this observation, but the cause may be rooted in other factors such as heterogeneity.

Implications

The results were discussed, along the process, with a few selected members of these communities and the local staff of the Forest Department for deciding actions for further improvement in the functioning of community institutions. It was insisted upon by almost all that the communities not receiving any investment in the past few years will require some level of investment support, to create a favourable atmosphere of communication for sensitisation. It was also agreed that there is a need for stressing on greater community commitment and self-reliance. The evaluation through the scale used was considered a very effective tool by the staff as well as the community members to identify the areas for greater attention for strengthening the capacity for collective action, some of which probably would not have been realised otherwise.

The study indicates that the assessment of resource performance alone do not provide immediate indication of change in community involvement. Therefore, the resource assessment should be accompanied with a comprehensive evaluation of the community actions and processes indicating the level of social capital or in other words the capacity for collective action. Even though multiple factors affect community involvement, the aspects included in the scale in this study provided a good indication of the areas requiring further attention. A regular process of periodic assessment through this method could be very useful to provide directions to the efforts needed for fostering social capital.

The study establishes the need for continuous efforts for sensitisation and motivation of community members for fostering social capital. Such efforts often need to be combined with some development activities in villages, but this should be made in a way that it does not create dependence for continuous investment. This can be achieved by making investment only as a reward for continued community commitment about their responsibilities. This may be required for a few years till the resource being developed starts providing enough returns to sustain the community interest in regulating the resource extraction and use. This is especially important for areas dominated with indigenous communities, as they appear to be more concerned with their short-term interests and not as much with the long-term sustenance. This also calls for strengthening the extension role of change agents.

Communities often face a variety of internal or external conflicts. Each experience of conflict resolution improves learning and confidence in the community and helps in building social capital. Therefore, the facilitation role of the change agents or the implementing agency staff becomes very important. Similarly, special efforts for encouraging greater participation of women need emphasis, as this has a triggering effect on improving the overall functioning of community institutions.

Heterogeneity within the community, based on social factors such as caste, or the habitation pattern, make it difficult for people to co-operate and come to common agreement. In such situations it becomes more important to find common areas of interest to generate a feeling of cooperation and foster social capital. The local conditions of scarcity of forest resource can also become a motivating factor if the people are sensitised about the hardships caused to them due to scarcity.

It is also an imperative that a number of external factors affect the interaction patterns of community members and the overall functioning of community institutions. The motivation of change agents is important to sensitise and motivate community members for collective action. The process of globalisation manifested in several ways through market, mobility, modernisation, etc. has also affected the local traditions. The traditional practices are also affected by the adoption of election-based representation of community in the decision making process. Often the imposition of institutional structure for community institutions has acted against local autonomy and responsibility. Indigenous systems of cooperation based on local norms, traditions, culture and beliefs are gradually losing acceptance under the apparent influence of the process of globalisation. Even the emphasis on participatory policies and practices has failed to pay an adequate attention on reviving traditions and reviving or building social capital. Clearly there is a lack of evolutionary perspective to policy and practice that could have provided opportunities to local people to imbibe such values which have not prevailed traditionally. It should be stressed in conclusion that on one side the participatory policies and practices have emphasized on collective action, on the other side several other aspects of the policies and practices such as the imposition of outsiders values have adversely affected the process of formation of social capital, which is so essential for sustaining the collective action.

The crucial question remains what could be done to enhance social capital among local communities to promote collective and rational management of natural resources? It only can be concluded that communities, in general, have many inherent traditions of co-operation, which are subjected to various forces of change over time. At the same time, people possess individualistic considerations and several other factors make them to confront with others or adopt a non-cooperative attitude. Several external factors, many of which become inevitable in the era of globalisation, require communities to quickly adapt to new emerging patterns of living. Therefore, building (or rebuilding) of social capital needs to adopt "strategies for exploiting existing social capital and creating it afresh" (Putnam, 1993).

Some External Factors

The process of periodic assessment suggested in this study is aimed at providing an understanding of how the practices adopted for implementation of development programs are affecting the resource performance as well as the social capital in the community. Even though the resource performance is important to understand the overall performance of the community, it is the assessment of capability of a community for collective action that will provide pointers for future actions to improve its performance. For deriving implications for future actions, the analysis should aim to understand the impact of internal as well as the external factors on the functioning of community institutions.

The process of evaluation used in this study provides an overview of community actions and processes within communities or in other words the internal factors. The influence of external factors has not been assessed directly. Nevertheless, a brief discussion is provided below based on the broader analysis and the observations. Such factors include the efforts made by outsiders to mobilise community members for collective action. This also includes the forces outside the community such as the influence of market, mobility, and modernisation. There are several such

aspects that have the influence of the globalisation process in terms of globally accepted values of equity, democracy and autonomy.

The role of change agent is a crucial external factor. It is an obvious indication in the communities facing resource degradation that the traditions of cooperation are on the decline or the traditional practices may have lost relevance in the present context. Such communities require efforts for improving the level of sensitivity for collective management of resources. This requires a continuous process of sensitisation through participatory tools and regular interaction. The success of these efforts would depend on the level of sensitivity and involvement of the change agent or the implementing agency staff. In the study areas, the level of sensitivity of staff had varied to a great extent. Even though training programs were taken up to improve their capability, there was not enough motivation for learning and working for community mobilisation. Moreover the staff had been frequently transferred from time to time. This also led to lack of involvement of staff in motivating the communities. However, some of the self-motivated staff members have been able to achieve considerable mobilisation and community participation. Such works remain an exception than a rule. There is an obvious need for creating an environment and system in which there is a greater motivation and rewards for learning and performance for the change agents.

The exposure of villagers to a variety of developments taking place in their vicinity and changing marketing practices has profound influence on them, apart from the pressure on resources. Besides economic developments, growth of infrastructure facilities, mobility of villagers and development of media and communication facilities also influence the behaviour of villagers. The effect of industrialisation and modernisation is seen in terms of a variety of readymade and packaged products reaching to village communities that were not used by them earlier. There is also a growing tendency for physical comforts or avoiding labour intensive tasks. There is increasing monetisation of many activities while earlier these were being carried out as a respect for local members or in exchange for the reciprocal expectations.

The efforts for promoting local autonomy through locally elected bodies has also considerably influenced the way villagers tend to interact about the issues of commons. In India a system of local "Panchayats" has been promoted, particularly more intensively in last decade or so. These are local bodies generally comprising of a few villages in which local representatives are elected. These local bodies are being given some powers for administering some of the local areas of development including natural resources. However, in many instances these local bodies have run into conflicts and the process of elections has often divided people into groups. Even though the CBIs often operated at much smaller level, the community members tended to carry the experience of the functioning of local bodies and this influenced the functioning of CBIs. It was often difficult to come to consensus even on simple issues of common welfare in some circumstances as for some people the groups or factions were more important than the issues of common welfare. This was not the case always and in some communities people had learned to keep their differences separate when the matters of common property resource management were to be decided. The process of having representation of local residents also provided a voice to relatively neglected factions in some cases and to some extent controlled the unilateral decision-making behaviour of the executives in the community institutions. Nevertheless, it becomes important to explore the role and impact of election-based processes in contrast with consensus-

based processes at the community level to help understand what processes should be encouraged or even how best both the approaches can be mixed.

Influenced by the principles of democratic representation, often the institutional structures and rule formation processes are prescribed in the regulatory provisions for community institutions. In the policy of JFM adopted in India, membership rules, the process of selection of representatives, and the decision-making processes are defined providing little liberty for the people to adapt their local practices. Similarly the policy prescriptions have been uniform through out the states in which they have been adopted. Some of the provisions have even been uniformly adopted through out the country, even though socio-cultural conditions and nature of resources differed considerably. Even though in some instances, people tend to adopt their own decision-making processes in practice, the need for fulfilling the formal prescriptions is gradually affecting the traditions. This not only has affected the ownership of the institutional processes that had to be adopted by people, but this also undermined the traditional practices of village communities, which makes the foundation for sustaining and strengthening the social capital.

At the community level the process of globalisation, which is manifested in several aspects, is having tremendous influence particularly on the type of interactions among people on social as well as economic fronts. This has forced a greater individualistic oriented thinking and behaviour. This has generally led to reduction in mutual cooperation and reciprocal behaviour. The rapid changes that are occurring due to the process of globalisation are not providing adequate time to communities to adjust to changes and evolve their practices suiting to emerging patterns of living. This has often adversely affected social capital in most of the village communities.

Table 1. Basic information about the villages selected for the study

Details	Name of the village							
	Palyakheda	Salukheda	Malpur	Damana	Amleta	Bada Bhilwara	Unkliyat	Ankhyavad
Social Profile								
Population	545	624	615	1144	357	854	468	206
No. of Families	82	123	129	206	65	172	67	47
a. Scheduled caste	0	38	58	0	0	6	0	0
b. Scheduled tribe	82	60	45	206	64	161	67	47
c. Others	0	25	26	0	1	5	0	0
Live Stock Statistics								
Cows,Oxen,Buffaloes	766	588	621	737	325	560	229	356
Sheep & Goat	892	609	799	411	525	496	544	299
Others	27	2	2	0	55	0	31	7
Total (Live Stock)	1685	1189	1422	1148	905	1056	804	662
Livestock density per ha	2.47	1.74	2.79	0.71	2.58	0.84	1.61	2.55
Land Statistics								
Agriculture land								
a)Irrigated land	16	10	16	30	9	14	1	2
b)Unirrigated land	65	121	52	157	156	349	120	24
Pasture land	9.8	0	101	116	24	47	12.37	13
Forest land	511	337	218	624	104	712	175.45	212
Other land	81	87	122	695	58	139.29	191.43	9
Total land (in ha)	682.8	685	509	1622	351	1261.29	500.25	260
Forest land per capita	0.94	0.54	0.35	0.55	0.29	0.83	0.37	1.03
Area reforested (ha)								
1993	0	50	50	50	50	0	50	0
1994	0	50	50	50	50	0	0	50
1995	0	50	50	50	50	100	50	50
1996	50	50	50	50	50	100	0	50
1997	30+NF	0+NF	20	0	0	0	0	0
1998	50+NF	0+NF	0	0	0	50	0	50
1999	50+NF	0+NF	0	0	0	50	0	0
2000	50+NF	0+NF	0	0	0	0	0	0
2001	WD	0	0	0	WD	0	WD	0

Table 2. Scores for the indicators of level of community involvement in forest management in the eight communities

S. No	Village >	Palyakheda		Salukheda		Malpur		Damana Talab		Amleta		Bada Bhilwara		Unkaliyat		Ankhyavad	
		2000	2001	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001
1	Participation of members	5	8	5	5	4	5	3	5	5	9	8	8	4	8	3	5
2	Participation of women	4	7	2	4	2	3	2	3	3	8	5	6	4	7	2	4
3	Protection from illicit use	7	8	5	6	5	6	5	6	3	8	4	4	3	5	5	5
4	Establishment of extraction rules	5	5	5	5	4	4	4	4	4	6	8	8	5	5	5	5
5	Regulation of sharing	5	5	4	4	4	4	3	3	5	5	6	6	5	5	5	5
6	Management for improving production	4	5	3	4	3	3	2	2	2	5	3	5	4	4	4	4
7	Involvement in planning	4	5	4	4	2	2	2	2	1	3	4	4	4	6	2	2
8	Conflict resolution	4	6	4	4	2	4	3	3	2	4	2	5	5	7	2	3
9	Community self-reliance	3	3	4	5	3	3	2	2	2	2	5	5	2	3	2	2
10	Involvement in other aspects of community development	2	5	4	4	0	0	0	0	0	4	2	3	1	4	0	0
	Total	43	56	40	45	29	34	26	30	27	54	47	54	37	54	30	35

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