

**ADAPTIVE COMMUNITY FOREST MANAGEMENT:
AN ALTERNATE PARADIGM**

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Introduction

Over the last couple of decades the increasing instances of community action in restoring degraded forests has remained a unique phenomenon. This took shape on the backdrop of large-scale depletion of forests due to centralization of forest administration leading to exclusion of local communities, politics of land distribution, maximization of forest revenue resulting in exploiting of timber and incoherent forest policies. In India, as in other parts of the world, a vast majority of the rural population depends on forests critically for a vast range of forest products and services. This critical dependence shapes and defines the relationship of people with forests. On one hand, these dependencies drive resource dependent poor to exploit forests for subsistence and livelihood and often abets the process of degradation, while on the other, it also prompts local people to take positive steps to conserve these resources. Many forest neighbouring communities have responded to the process of forest degradation by evolving local arrangements to conserve and manage forests. These local arrangements seek to regulate access and control over neighbouring forest patches and in effect bring open access forests under CPR regime of the communities. As they evolve these local arrangements also start adapting to the changing complexities in the micro as well as macro policy environment and, today in India, thousands of such community efforts have laid the foundation of an alternate forest management system. This is commonly known as ‘adaptive community forest management’.

Basis of Adaptive Community Forest Management

1. Changing resource conditions

The single largest factor for initiation of community forest management (CFM) is the degrading resource base and its manifold consequences on local livelihoods and micro ecosystem. Several documents on community forestry processes in India indicate that forest protecting groups initiated active protection only when the local forests were severely degraded warranting immediate action. Nayak (2002) has analyzed that degraded forest and its impacts were the key to the designing of response mechanisms by village communities to restore local forests. The Forest Survey of India (FSI) which outlines state wise information on different categories of forest cover (as per their crown density) also substantiates this argument.

Degradation is a stark reality for majority of the forest protecting communities and their initial strategies for protection are oriented towards addressing this issue. Since these areas have gone through a phase of extreme degradation, almost bringing an end to the original character of the forests, the beginning of protection is also the time to estimate what is going to be possible as a result of community efforts. Whether efforts on the current state of degradation could result in restoring back the forest vegetation and biodiversity or some alternate approach needs to be brought in place. Much would also depend on how does the community look at the forests and the network of connections it could establish between the forest vis-à-vis other natural resources of the village. A large chunk of degraded forest lands in the semi-arid areas of western India have now been converted into grass lands and imagining of reverting back to a forest situation here is definitely impossible. There is an inherent realization in the community that the point of reversal is not an attempt to go back to the point of originality. However, depending upon the status of the forestland and its capacity to respond to certain interventions, the CFM groups set for themselves a course of action. The manifestation of this could be in shape of the communities actually integrating various

elements such as soil, water, agriculture, floral and faunal diversity, timber and non-timber forest products, animal husbandry, etc., with forest development and working towards it.

Once the degraded forests come under community regulation a process of incremental growth gradually replaces degradation. Due to the extreme conditions of degradation the forests are put under a period of complete or regulated ban in the initial years of protection which leads to restoration of the existing rootstocks and assists natural regeneration. The slow process of forest growth owing to the successive years of degeneration makes the community and forest interface rather more delicate requiring utmost caution and care. Adaptive forest management is oriented towards assisting the natural process of forest growth, both in terms of vegetation as well as restoration of other species of flora and fauna, making critical interventions wherever necessary. This is also a crucial period for the community to decide on the species to be allowed to grow in the forest either through selectively facilitating the growth of certain valuable species and cutting others which are not required or introducing species that have already lost its roots in the protected forest. CFM groups have made lists of desirable and undesirable species, which forms an important part of their local silviculture methods. While the desirable species are facilitated to grow, the undesirable ones are selectively cut during the thinning and pruning operations and used by the villagers. In adaptive management the silvicultural practices are oriented towards the twin objective of facilitating forest growth as well as meeting local needs to the extent possible. Adaptive management also recognizes that forests cannot grow in isolation and, hence any management arrangement needs to combine and integrate various other natural resources with the management of forest resources. The overall orientation is towards evolving a proper land use habit in the forest managing community.

2. Dynamics of local situations

We have already discussed that emergence of community forest management is a societal response to certain critical conditions of forest resources. Once the problem of degradation is addressed and the community is able to put certain initial regulations to arrest the pace of forest degradation, it embarks on a process of defining the user group through constant negotiation on the basis of historical, cultural and space factors. Nayak (2002) has analysed that forest managing communities in India have often defined themselves before they have actually brought a forest patch under their control. As long as the actual users are not defined properly to constitute an appropriate and acceptable user unit over a specific forest area the chances of conflict and contestation for rights over resources would mar the local initiatives in regenerating degraded forests. No doubt, the task of defining the user unit is complex and ridden with several local dynamics, but in adaptive forest management this acts as an important determinant of successful local initiative and it remains a serious endeavour by most CFM groups to constantly pursue this to some logical end. Nayak (2002) observe that members who would form forest management unit and in whose favour the tenurial rights shall be settled must be identified to constitute an appropriate and acceptable user unit. 'So long as the boundaries of the resource and/or the specification of individuals who can use the resource remain uncertain, no one knows what is being managed and for whom' (Elinor Ostrum).

A definite boundary of the forest under community management is an essential element that helps forest communities to avoid situations of extreme conflicts, which are otherwise common in cases where forests have been left with improper demarcation. In adaptive management what holds importance is the manner in which the process of forest demarcation is achieved. Though it may be a long drawn and conflict ridden process CFM groups attempt

forest area specification through estimation of the historical and current relationships and interaction of the local community vis-à-vis the forest resources. In some cases it has been found that protection arrangements have broken down and communities have carved out fresh arrangements of protection by redefining the forest boundary and redistribution of forest areas even after 10 - 15 years of protection. While there is no definite time period through which communities could achieve agreeable resource boundary that is free of conflicting claims, adaptive management recognizes that the communities need to distinguish their forest areas as against others by setting physical limits within which they can make arrangements for protection, management, use, and restrict the interference and free access habits of neighbours. Successful CFM groups achieve this through a process of long drawn negotiation with all other probable users finally either including or excluding them. Forest communities in India have formed varying levels of user units by overcoming several complexities. While moving away from the rigid administrative boundaries as units of forest management, most CFM groups have formed user units based on socio-cultural, historical, livelihood and geographical determinants.

Basis for collaboration: Rational for user unit formation

Situation 1 (Three villages jointly)	Situation 2 (Five village jointly)	Situation 3 (Users from four villages jointly)
<p>Cultural links: Three villages commonly observe “Kartika Purnima” (local festival) and “Mela” (fair) near the temple situated at the hub of the three villages.</p> <p>Favourable geographical location: The forest area starts with the boundary of Lunisahi and ends with Dengajhari boundary. Mardhakot is situated in between.</p> <p>Mardhakot village has no forest in or near its own boundary. The inhabitants are landless and extremely forest dependant. For Dengajhari and Lunisahi villages, excluding Mardhakot would have meant taking the daily trouble of containing their pressure on the forest.</p> <p>A common Middle English School stands as a symbol of their unity since 1945.</p> <p>Protection by all nearby villages had already started when these three villages started protection.</p> <p>High pressure on the forest: The pressure on forest was high and it would not have been possible for one single village to protect it alone.</p>	<p>The five villages have traditional socio-cultural ties. They commonly observe “Pani Jantala”, a local festival once in three years to satiate rain God, in the forest which was later brought under common protection.</p> <p>Common village school initiated by the five villages.</p> <p>A joint committee of all the villages, to coordinate common festivals and the school, existed prior to forest protection.</p> <p>All villages situated in close proximity to the forest.</p> <p>A combination of small and big villages: The forest is situated along the boundary of the small villages and the big villages joined in to form a strong group.</p> <p>All the villages are in the same Gram Panchayat</p>	<p>No formal historical links between the groups: 33 families of Juniani, 33 families of Badasahajbahal, 34 families of Sanasahajbahal and 5 families of Rajamunda villages.</p> <p>33 forest dependent families of Juniani initiated forest protection. Other villagers did not join because they were either doing business or service and, hence, no contacts with forest.</p> <p>Strategic alliance: 33 families of Badasahajbahal and 34 families of Sanasahajbahal were included in the protection arrangement after prolonged negotiations because these families were major destroyers of the forests and poised threat to the forest under protection.</p> <p>The forest was situated at a distance of 2.5 miles from these villages which created problem in regular protection. 5 families from a village at 3 miles distance were included as their agricultural field was close to the protected forest. Their presence in the agricultural field served the purpose of forest protection.</p>

Source: Field Studies in Ranpur and Bonai Forest Region of Orissa, India

In spite of best efforts to include all during the formation of user groups there would always be a few “late comers”. An appropriate user unit would mean one that has not closed its doors immediately after formation and leaves the scope for a set of “late comers” to join the user unit subsequently. However, the user unit has rights to negotiate and establish that the “late comers” and their claims are genuine before they are formally included. Similarly, there may be a few members who might decide to withdraw from one user unit to join some more convenient user unit. In this context the adaptive nature of the forest management system facilitates user units to define and redefine themselves as and when the purpose becomes critical. This is crucial, as such a process would help the user units to gradually consolidate and formalize over a period of time.

Rural society has evolved in such a fashion that it includes a whole set of diversities into it. The existing social fabric influences the evolution of the local forest management arrangements. The forest management systems need to be socially justifiable by bringing in a certain degree of balance between many forces in the society, which may contradict each other or work in synthesis. The challenge is how effectively and logically the management system integrates and fits into the prevailing social systems. One source of internal conflict stems from the social structure of the community itself. Local forest protection efforts are embedded in highly stratified and iniquitous social context. Thus, caste and gender inequities can become significant friction points. Often, an elite group dominates the village decision-making process - invariably men - that may marginalize women and lower-status sections of the community. Also, the very act of protecting forests by limiting access to them tends to adversely affect the poorer and more forest-dependent members of the village, who have few other options for fuel and livelihood. Adaptive community forest management tries to deal with these equity issues by allowing greater concessions and also alternate income sources for the poorest members of the community to reduce tension on this front.

Singh and Nayak (2002) observe that in many cases the early starters have taken up large areas of protection, leaving little areas for other villages. The completely degraded state of the forest might not have attracted anybody’s attention initially but once regeneration comes up neighbouring villages also want a share, which the protecting village feels morally justified to refuse. Such situations create tensions that sometimes lead to serious conflicts.

One of the dominant arguments believes that a homogenous social system facilitates the right kind of management system to prevail. However, this is not found to be universally true as a lot would depend on how sensitive and practical are the forest management mechanisms towards the existing social systems. In many instances the CFM arrangements are a cohesive unit of a large heterogeneity. Forest protection effort by a community can be seen as a coalition of different factions and interest groups with the village coming together for a common cause.

3. Emerging issues of institutional evolution

In adaptive CFM the local institution forms a very essential basis of sustainable forest management. The members of the user unit exercise their rights to craft their own local institution and make persistent attempts to sort out vexing issues and inculcate the positive elements from their immediate environment. Community institutions and institutional mechanisms are essential basis for adaptive management as they provide a critical link between the forest resource and the people. It acts as a platform for members to exercise their rights as a collective rather than individuals and encourages the elements of concurrence and consensus through formulating norms and rules.

Two factors such as the unit of local institution and its type have always influenced adaptive management practices. While prescriptive government policies and programmes on participatory forest management have broadly confined the level of forest management institution to administrative boundaries of revenue villages, most self-initiated CFM groups have established themselves at levels such as hamlet, village, habitation, Panchayat or combination of these depending upon various strategic factors.

Adaptive CFM has been found to be most suitable in giving space to a range of community institutions in forest management. Though antithetical to the predominant policy provisions of creating uniform institutions across villages, this is seen as most suitable to accommodating specific local contexts. Field studies on CFM have recorded an increasing trend towards the principles of democratic governance of forest resources. Values of universal membership, where all adults are automatically members in the forest management institution, are inculcated and attempts are made at structural, functional and normative levels to implement this in practice.

At a structural level the community gradually creates multiple layers of institutions where the supreme authority rests with the General Body of the village. The General Body forms different functional committees, delegate responsibility and functional authority, monitors their functioning, receives recommendations and make these committees accountable for better functioning of the institution. It becomes instrumental in effective decentralization and allows for processing of decisions at different levels of the institution. Supremacy of GB is an instrument to broad base decision making processes and to value the principles of rule by majority. General Body as the apex institution has legislative, executive and judiciary power within the institutional boundary and it also assumes the responsibility of delegation of power through functional groups.

Principles of democratic management and local governance ensure equality of members by meeting the needs of a variety of people and accommodate sub-group interests as well as context specific concerns. It also relies upon open debate, persuasion, compromise and thereby guarantee basic freedom to its members. Further, it allows periodic renewal of the institution in terms of its composition and rules. Poised in an unevenly stratified social structure the CFM institutions also face the challenge of proper representation in various layers of the forest management institution. While proper representation could mean at least proportional representation, it has to have a greater focus on the representation from the disadvantaged and weaker sections including women, marginalised groups, to different layers of the institution. The representatives ensure that the interests of the people they represent are protected.

Institutional mechanisms in adaptive CFM also entail making rules to govern members, the forest resources as well as outsiders. Each village is unique in its characteristics and functions in its own specific context, which primarily determines the nature of governance rules. The process of rule making ensures that the institutional and forest management rules and norms are framed in the right context, after examination of the local circumstances, and that the village, resource and people realities are adequately addressed. It also provides space for timely change and modification of the rules and norms thereby allowing these to evolve rather than getting rigidly fixed or externally ordained. An adaptive process of forest management not only rules out any external enforcement, but creates conducive environment for self-enforcement of rules by the local institution.

A self-sufficient and successful forest management institution would not mean creating a closed system of forest management. The forest management institution of one user group is a small component of a larger system comprising more forest areas, user institutions, governance rules and mechanisms of management and monitoring. The institutional basis of adaptive community forest management argues that the user and their institutions must collaborate with similar institutions on issues of strategic importance.

4. Uncertain livelihood conditions

Forests have always been a rich source of livelihood support to the rural people, especially the poor. However, with degradation the options of forest based livelihood becomes severely limited. In such situations while people gradually shift to alternate means of livelihood, the poor and landless still remain dependent on the degraded forests for whatever little they could provide in terms of fuelwood, bamboo, grass and a list of seasonal forest products including mushrooms and leafy vegetables. With the start of protection the forests come under community regulation and any such dependence is banned completely leaving a section of the community in a situation of total livelihood loss. Either they have to travel to far off forest areas to fetch a bundle of fuelwood to sell or seek additional wage opportunities in the locality or migrate out. In many cases there is opposition to forest protection by these dependent groups, as they fear that initiation of protection would mean ban on the forests. In such situations the CFM groups go through a series of negotiations and in many cases agreeing to lift the ban and allow benefits to people once the forest regenerates. Adaptive CFM recognizes that while need fulfillment remains a significant motivation for communities to self-initiate protection of adjoining forests, any arrangement that does not adequately address this issue is bound to fail miserably. It also upholds the value of conservation of the forest ecosystem, as local livelihood remains consequent to the proper development of the forest.

5. Dynamics of policy change

In spite of the long history of community forest management in India the forests under community protection do not belong to the communities nor do they have any definite rights of tenure. All through the history, starting from the period of Kings and the Princely States² to the British administration and the post Independence, forest administration has remained centralized in India. Even though there is a move towards decentralized forest administration in the country, the legacy of centralized forest régime seems difficult to break. In contrast, the forest neighbouring village communities have gradually set precedence by taking de facto control of many forests in India by way of simple protection and management. This has established a larger stake of these communities in the forests. However, as long as the forest administration continues to be centralized and the de facto control over forests by local communities is not adequately covered under policy provisions; the centralized approach to forest management would have the potential to “upset centuries of traditional patterns of resource control and the village governance structure over resource use” (Bromley and Chapagain 1984).

In India, in the shadow of participatory forest management, centralization remains as an all pervasive force. When there is a need to legitimize the existing traditional forest management groups, the State sponsored joint forest management (JFM) has become an

² Princely States were feudatory kingdoms, which had semi-independent status during the British periods.

instrument for co-option of the same groups. Over the last decade, hundreds of such local groups have been converted into JFM committees with alien structures and rules of forest management imposed on them. The State laws must create a conducive environment for devolution of rights and set in place a decentralized forest management system. This would mean modifying the existing laws governing forests and enacting new legislation that recognizes community rights over forests as the cornerstone of decentralized and sustainable forest management in India (Nayak 2002). This would remain a continuous challenge for the adaptive forest management groups in India.

6. Influence of external environment

In the recent decades the external environment has been active in shaping the national policies and forest management priorities in India. Till the end of the Fourth Five Year plan (1969 -1974) India used its internal resources for development of forestry. Massive deforestation leading to crisis of food, fodder and fuel, recommendations of various committees and commissions like the National Commission on Agriculture, 1976, growing international concern for environmental degradation forced the government to look at forest development in a project mode. Several such forestry projects attracted foreign funding on a large scale by exposing the forestry sector to the influences of the external environment. The country has already passed through an active phase of Social Forestry before the advent of the National Forest Policy of 1988 and the 1990 JFM circular. However, results of the social forestry plantations have not been supportive to the growth of the natural forests as well as the long-standing demand for more tenurial rights by the forest protecting communities in India. Saxena 1996 observed that the funding availability for forestlands became quite precarious during the Social Forestry phase. As state funds were reserved to meet the matching contributions required for external assistance for projects on non-forest lands, forestlands were starved of funds, with several adverse effects.

Subsequently, the JFM approach also fell into the trap of project mode. The concept of Participatory Forest Management attracted international funding and large forestry (JFM) projects with external assistance came into existence. Recently, many Indian states have completed the implementation of such forestry projects and the results have been found not very encouraging.

Phases of Forest Management and Control

Absolute State Control to Increasing Community Control of Forests	Renewed State Control to Dual Control by both Community (de facto) and the State (de jure)
<ul style="list-style-type: none"> ▪ Degradation: Good forest cover decreased to 10% in 1999 	<ul style="list-style-type: none"> ▪ Large scale external funding to the forestry sector
<ul style="list-style-type: none"> ▪ Decreasing interest of the State in depleted forests leading to lax vigil and regulation 	<ul style="list-style-type: none"> ▪ A financially and administratively active forest department
<ul style="list-style-type: none"> ▪ Generation of forest revenue was no more possible 	<ul style="list-style-type: none"> ▪ Concept of natural forests undermined and promotion of plantation and farm forestry
<ul style="list-style-type: none"> ▪ Financially and administratively weak forest department 	<ul style="list-style-type: none"> ▪ Instances of official involvement of communities in plantation forestry activities
<ul style="list-style-type: none"> ▪ Precarious situation so far as forestry requirements of local communities were concerned 	<ul style="list-style-type: none"> ▪ Increasing community control over degraded forests through protection and management
<ul style="list-style-type: none"> ▪ Increasing instances of community protection and control of forests 	<ul style="list-style-type: none"> ▪ Concept of participatory forest management introduced by the government

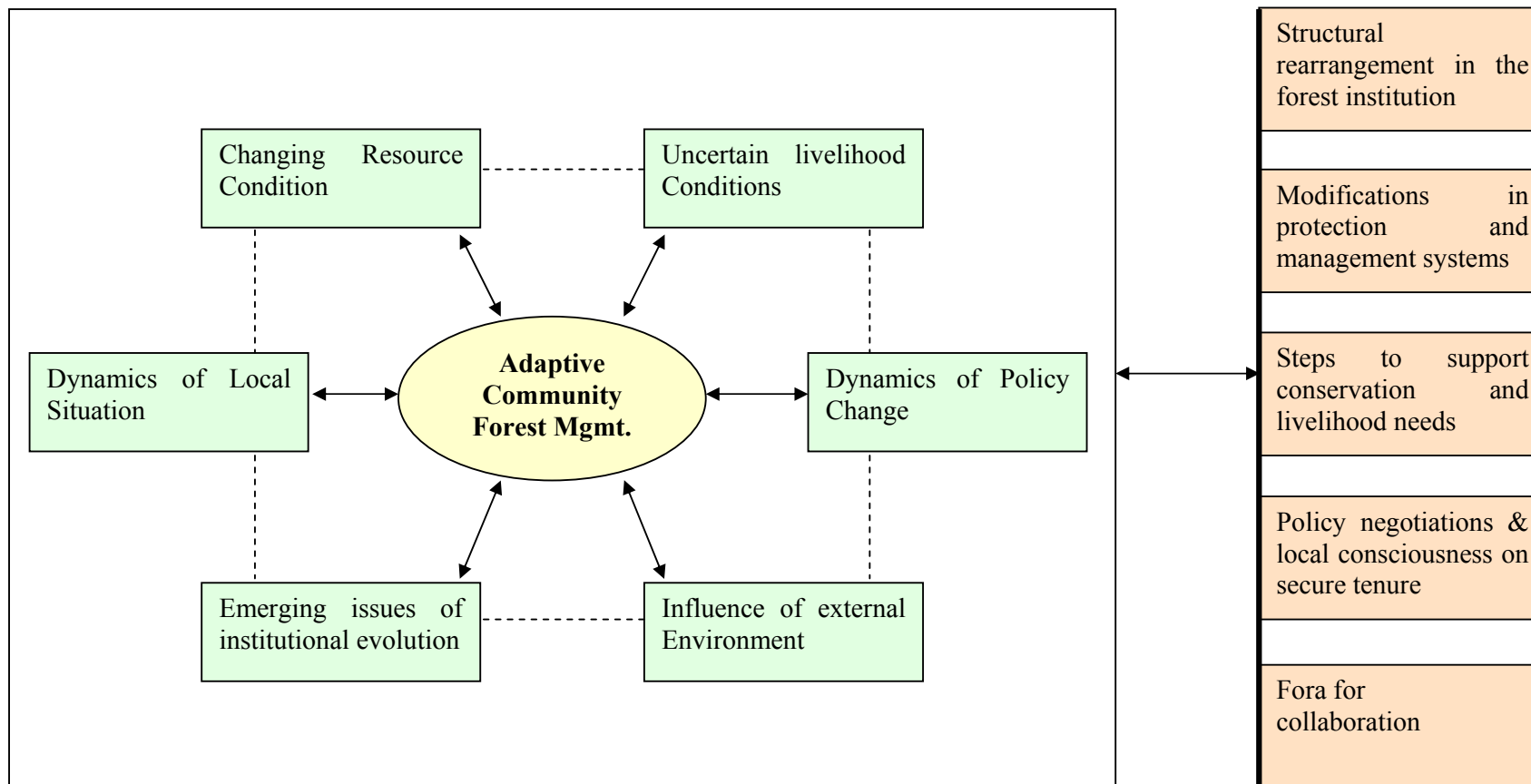
Project appraisal reports and independent studies have shown that the forest managing rural communities in India have been marginalized further as a direct result of these large forestry projects. As shown in the table above the forest department which had weakened with the degradation of forests leading to loss of its interest in the depleted forests, suddenly grew financially and administratively stronger with the inflow of huge external funds. While Social Forestry had focused primarily on the non-forest lands, these externally supported Forestry Projects even targeted forestlands for plantations forestry by reducing the existing community efforts in conservation to a mere token.

In the externally supported forestry projects, despite the stated goals of local participation and social development, many local people were excluded from the decision-making and tribal people suffered adverse impacts to their welfare. There were complaints from these groups that they had only learned of the project once implementation began. The new village committees have failed to facilitate local participation in forest management and do not address the concerns of the indigenous families who have got major livelihood dependence on forests. This was contradictory to the objective of involving the local community in forest protection, regeneration of degraded forests and developing alternative income generation resources. These projects often lacked baseline studies of indigenous rights and access to forest resources and most of them have failed in securing customary resource rights and instead accepted the existing national legislation and local regulations that curtail indigenous rights. Many have also criticized the projects for favouring business and state agencies and discriminating against forest dwellers. Despite directives regarding security of land tenure, no steps had been taken in this regard. As a result, the projects have intensified the conflict between the communities and the State bureaucracy instead of working towards ensuring the survival of both forests and the forest dependent.

ADAPTIVE COMMUNITY FOREST MANAGEMENT: A FRAMEWORK

BASIS OF ADAPTIVE COMMUNITY FOREST MANAGEMENT

MODES OF ADAPTATION



Modes of adaptation in Community Forest Management: *How adaptive management is achieved through a series of community action?*

1. Structural rearrangements in the forest institution

The institutions in adaptive community forest management follow a process of evolution rather than getting rigidly programmed. This evolution is an integral part of their growth since these institutions continuously adapt to changing situations at both the levels of internal and external environment involving resource conditions, policy modifications, new government programmes and other dynamics, etc. In the process of adaptation these internal and external forces influence the structural, normative and functional arrangements of the community institutions. It remains a challenge for them to develop within a dynamic context which most of the time brings in elements that could be detrimental to the institution building process if not meticulously dealt with.

At a structural level, the community institutions have been found to be growing into various sub-layers over a period of time. Field studies have shown that these institutions begin with a two-tier structure, i.e., a General Body and an Executive Committee. While the General Body has the decision making authority, the Executive Committee takes up a supervisory role. The General Body also meets very frequently in the initial period of protection giving space for everyone to get involved and in the process builds up a larger stake of all individuals in the matters concerning forest management. Since the resource is at a degraded state and some sections of the community are still dependent on it for livelihood purposes, frequency of General Body meetings provides opportunities to discuss and negotiate issues of common importance and find alternative. It is also instrumental in projecting a combined strength to the immediate neighbours who pose a threat to the forest. At this stage the structure of the institution also includes a full time forest protection group to patrol the forest against any threat. Once there is some progress in the protection initiative, when the existing root stocks have started to establish and the forest is in a regenerating state, the institution has received a certain degree of recognition from the adjoining villages and it is beginning to interact with other similar institutions including the forest department, and take up primary silvicultural operations in the protected forest the structure undergoes certain changes. Many communities have increased the number of members in the Executive Committee at this stage which is aimed at distributing the increasing responsibility of forest protection among a selected group of members who in turn would report back to the General Body.

It is also found that most of the community forest management institutions create an Advisory Committee consisting of senior and experienced members of the community. There are two purposes of forming such a layer of institution. One, the wide range of experiences in the community, especially the old people, could be effectively integrated into the ongoing protection initiatives. Two, after renewal of the membership in the institution's Executive Committee the dropout members generally chose to stay out of the affairs of the institution as they are no more in charge of any direct responsibility so far as the forest institution is concerned. In some cases it also results in unhealthy power dynamics within the village. In order to cope with these negative trends as well as accommodate all the positive energies within the community the Advisory Committees are formed with specifically assigned functions. Around this time, community institutions also constitute several sub-committees or special committees to deal with conflict resolution, deciding forest offence cases, forest benefit sharing, etc., which enhances the functional efficacy of the institution. Separate Accounts and Audit committees have also been formed in some cases to deal with finances of the institution. These arrangements are generally found in places where the community

efforts in protection have resulted in establishment of species and good forest vegetation. Places where the forest has improved further and the signs of floral and faunal diversity are visible the community institutions have created special Squad Parties to check poaching and safeguard wildlife.

Evolution of CFM Institutions at Different Stages of Resource Growth

Stage 5 Established forest with good crown cover and return of biodiversity	In addition to stage 1, 2, 3 and 4 arrangements: <ul style="list-style-type: none"> ▪ Squad Party to control poaching 	<ul style="list-style-type: none"> ▪ Forest management rules ▪ Rules pertaining to access and use ▪ Conflict management rules ▪ Boundary rules ▪ Monitoring and sanction rules
Stage 4 Establishment of species and good resource condition	In addition to stage 1, 2 and 3 arrangements: <ul style="list-style-type: none"> ▪ Special committees on conflict resolution, forest offence cases, etc. ▪ Increase in Executive Committee members ▪ Audit and accounts Committee 	<ul style="list-style-type: none"> ▪ Forest management rules ▪ Rules pertaining to access and use ▪ Conflict management rules ▪ Monitoring and sanction rules
Stage 3 Stabilization of degradation and establishment of ground cover	In addition to stage 1 and 2 arrangements: <ul style="list-style-type: none"> ▪ Advisory Committee with old and experienced community member 	<ul style="list-style-type: none"> ▪ Forest management rules ▪ Protection rules ▪ Monitoring and sanction rules
Stage 2 Regenerating	In addition to stage 1 arrangements: <ul style="list-style-type: none"> ▪ Number of members in the Executive Committee increased 	<ul style="list-style-type: none"> ▪ Protection rules ▪ Monitoring and sanction rules
Stage 1 Highly degraded	<ul style="list-style-type: none"> ▪ Strong and active General Body for decision making ▪ Vigilant Executive Committee to supervise ▪ A full time protection committee with more members 	<ul style="list-style-type: none"> ▪ Boundary rules ▪ Protection rules ▪ Monitoring and sanction rules
Resource Condition	Institutional Structure	Institutional Rules

2. Modifications in the protection and management systems

Developing newer methods of forest protection and management remains a continuous challenge for the community institutions. Because the protection is initiated on a degraded forest patch which gradually improves into a good vegetation cover, the communities modify their protection and management mechanisms at every stage of the resource growth. At the beginning of the protection initiative they face the dual challenge of protecting the forest from both internal as well as external threats. While it is community regulation, which contains the internal matters, the external threats need more negotiations. The forest communities inform the neighbours immediately after the start of protection through sending copies of General Body resolution, public announcements, visiting them and conducting meetings in other villages. The purpose is to take these neighbours into confidence and seek their support in forest protection activities. It has been observed that resource rich neighbours often respond positively, while villages who do not have sufficient forest areas tend to ignore such requests. ‘Villages that have made traditional use of a forest area yet have not been part of the efforts to protect it sometimes resist when a community group tries to limit free access

to the forest. The conflict may remain latent as long as the forest is degraded, but once the forest regenerates, neighbouring villages want a share of the replenished flow of forest products' (Singh and Nayak, 2002).

Adaptive management practices have responded to such threats by a variety of ways. In predominantly forest areas, where almost every village would have some forest to bring under protection, the early starters help other communities, who are in conflicting claims with their protected forests, to start protecting their own piece of forest. In some other areas, where forest is somewhat limited, there are instances that the protecting communities have also taken their neighbours as members in the forest institution. Field studies have also confirmed that neighbouring communities are allowed to take forest benefits even if they are not members in the forest institution.

Inclusion of outsiders as members in the forest institution is also a strategic issue for the community. Studies have shown that community institutions take up specific households from other habitations as members because they have got agricultural land adjoining to their protected forest. By including these households in the protection arrangement two objectives are achieved. Firstly, the immediate threat of destruction of forest by these people, as they are historically dependent on it, is contained. Secondly, communities are able to reduce the protection costs as these households, by their presence in the agricultural fields, also watch the forest.

Watching and guarding the forest is another area of concern which the adaptive management deals with. The methods of safeguarding the forest differ from community to community at different points of time. The institutions adopt the protection mechanisms depending upon the status of the forest, existing and perceived threats to the resource, economic status of the members, and their preference for a particular method of protection. Following is an excerpt from a report by Singh and Nayak (2002), which explains how community forestry groups adapt to alternate methods of forest protection.

“During the initial years of forest protection a group of 25 villagers (five from each member village on rotation basis) patrolled the forest on daily basis under Thengapalli³ system. This large group was felt necessary keeping in view the extent of pressure on the forest. Once the pressure declined the number was decreased to two persons per village on rotation. Thus, a total of 10 villagers patrolled the forest daily.

However, after 3 - 4 years of rotational patrolling the villagers were no longer keen to go on *Pallia* (patrolling duty). There were lapses in *Palli*. The poor and landless found it impossible to spend the entire day in the forest at the cost of daily wages for the day. This lax in patrolling, led to increase in forest offences by 1991.

Following this, the committee decided to appoint a paid watcher towards the end of 1991. It was also decided that the villagers would provide all possible help (to the paid watchmen) at the time of need. A second paid watcher was also appointed in 1992. Remuneration for the watchmen was initially arranged through household contribution (in the form of a handful of rice per day for some time and after that in form of cash for some time). With the increase in income of

³ 'Thengapalli' is a system of voluntary patrolling where in a stick (thenga) is used to signify the turn (palli) of a person to go for patrolling duty.

the Forest Protection Committee, by taking up Cashew harvesting rights, the system of household contribution was no longer necessary.”

3. Steps to support conservation and livelihood needs

Large-scale degradation of forests and the resultant scarcity of forest-based products are the two most important factors for the growing intensity of adaptive community forest management in India. Consequently, adaptive management aims at combining the values of forest conservation with the significance of local livelihood. On one hand, it recognizes that the protecting communities require a range of forest products including agricultural implements, house repair and construction materials, food items, wood for fuel and several other fruits, flowers, barks, branches and roots from their forests, and, it also appreciates the importance of forest conservation and sustainable forestry practices, on the other. The simple understanding is unless the community is successful in maintaining a sustained forest cover, neither the forest would fulfill the basic forestry requirements nor would it be able to perform the ecological functions such as maintaining soil and moisture regime, improving ground and surface water, supplying essential nutrient to the agriculture, nurturing the floral and faunal diversity, and developing the micro ecosystem as a whole. Studies have recorded that under adaptive forest management systems the communities have developed practices which combine both conservation and local livelihood needs.

In some communities, depending upon the growth and the total area of the forest, annual forest cleaning and thinning operations are taken up before the rainy season. One objective of such a practice is to ensure proper supplies of fuelwood to the villagers which becomes scarce during the rains. The other objective maintains that the forest would regenerate back during the monsoon. In communities where the forests are in a good condition and more in area, they are in the practice of undertaking forest cleaning and thinning operations twice a year, i.e., before monsoon and after the harvest of paddy. In a predominantly agricultural society this practice of combining forest operations with harvesting of paddy ensures supply of fuelwood for parboiling, which is a dominant practice. Moreover, these communities either take up separate forest areas during pre-monsoon and post-harvesting periods, or the increased growth of the forest due to rains make it possible to go for a second cleaning in a year. Many CFM groups take up forest thinning and cleaning operation once in two years and the frequency changes depending upon the status of the forest. However, in all cases, there is a clear ban on cutting of green trees during any such forest operations. Only shrubs of miscellaneous species, dead/fallen branches and trees, tree parts with undesirable growth are allowed to be extracted.

As a general practice grazing is not allowed in the community managed forests during rainy season (July - September) to facilitate regeneration. However, certain communities also allow grazing facilities in the protected forests throughout the year. It is observed that these CFM groups divide the village cattle into different herds for supervised grazing and decide grazing routes in the forest. In rainy season these village herds are allowed to follow different grazing routes in the forest. This is found to be a fine example of combining conservation and livelihood needs under adaptive community forest management.

Forests of India are prone to frequent fire hazards and this remains a major concern for the forest protecting communities. Prohibition on entering the forest during summer (March - June) is a common precaution against fire across communities. Variations in this practice have also been recorded during a series of field studies. Forest communities in certain parts of the country intensify forest protection measures during summer months in order to prevent

incidents of forest fire, while other communities impose a total ban on entry into the forest during the same period. Such decisions are taken based on the availability of manpower, distance of forest from habitation, type of species in the forest, etc. However, summer season is also an important NTFP period. Most communities permit collection of forest produces during the summer months but impose restrictions on carrying combustible material into the forests. The frequency of forest patrolling is increased and the entire community remains alert to respond to forest fire.

In community managed forests, which have achieved dense vegetation cover and recorded return of biodiversity, the forest institutions have initiated steps to conserve wildlife through complete prohibition on hunting in the forests. Many CFM groups in Orissa have also reported that the increasing number of bears and wild bores has automatically controlled the instance of forest offences. A number of other measures like restricting collection of some seeds at certain point of time in order to facilitate the coming of new plants, regulation on collection of forest produces to ensure that they are not only properly harvested but all community members also get their share, specifying what species can and what cannot be cut to allow the important species to grow, are regularly taken up by the adaptive CFM groups.

In adaptive community forest management local arrangements of sharing forest benefits are possible both at intra as well as inter community levels. Studies in different part of India including Orissa, Rajasthan, Uttaranchal, Andhra Pradesh and Karnataka have shown that the forest managing institutions have evolved specific rules, which allow outsiders to derive certain forest produces from their protected forest. It is a general practice across forest managing communities in these states to allow free wood and other forest products to outside villages during natural calamities, village fire, death and religious functions. Many of these community-based forest management systems have evolved into a state of maturity where their mechanisms of benefit sharing include certain concerns for neighbouring communities.

4. Policy negotiations and local consciousness on secure forest tenure

The history of community forest management in India could be traced back to about a century back. In the course of the field studies it was found that since the second half of the 1990's there has been a move by the forest department towards converting the existing self-initiated community forest management groups into Joint Forest Management arrangements. Such an action has adversely affected the already existing CFM groups by disturbing their institutional arrangements, redefining the user groups, redistributing and reallocating the forest area, creating confusions on forest benefit sharing and changing the priorities of forest management. Nayak (2002) has observed that the JFM resolutions are prescriptive so far as the structure and functioning of the local institutions are concerned. They suggest:

- A uniform structure of JFM institutions by substituting the pre-existing-self-initiated traditional forest management arrangements;
- Confining the unit of management to a revenue village or administrative boundary by breaking the historical links between the forest and several user groups;
- Restricting the membership to individuals or households by undermining the value of universal adult membership;
- Creating ex-officio posts in the village JFM institutions to be held by departmental representatives by excluding the community leadership;

- Limiting the tenure of the institution to one or two years or till the end of project period (Tamil Nadu) by risking the continued existence of the institutions.

The adaptive management groups get into policy negotiations through the help of the NGOs and forest federations to influence changes in the existing policy deficiencies. The effectiveness of the adaptive community forest management institutions lies in their uniqueness rather than an uniform institutional arrangements. They represent immense variety in approach, methods and institutions that suit their local needs and specific problems. Having uniformity in the structure of the institution might help the government in better and simpler monitoring and reporting, but it may ruin the very spirit of these self initiated groups. It is the responsibility of the state to create adequate space for the community institutions to function independently. Adaptive management groups advocate that flexibility in policy framework to accommodate the existing forest management patterns is important and they try to influence the government in this direction.

Local communities realize that benefit sharing arrangement between the government and the village communities is arbitrary in nature. They argue that JFM has largely been initiated on degraded forest land and putting in a provision for timber or revenue sharing in such a preliminary stage seems to have defeated the purpose of long term forest management for ecological as well as local livelihood needs. Because of the sharing provision, the communities look upon JFM as an encroachment by the Forest Department of forests which have been protected by the village communities even before the advent of JFM. The benefit distribution systems that these village communities have evolved over time largely pertain to the specific need based requirements. In this context, final felling presupposes a one-time harvest and might again leave the land at square one. It has an inherent message of commercial production forestry, which is incompatible with village forests, or with sustained forest cover.

5. Fora for collaboration: Joining and building affinity groups

We have discussed that in their process of evolution the adaptive community forest management systems remain alive not only to the internal demands but also to the dynamics of the external environment. In order to ensure that the local community institution does not evolve into creating isolated islands of forest areas, the adaptive management practices facilitate channels of communication with similar institutions on issues of strategic importance.

This collaboration occurs at varying levels depending upon the immediate pressing issues.

- First, there are several users from different habitations who, based on their historical dependence on a common forest patch, collaborate to form one user unit.
- Two, a number of user units form a second level of collaboration either because all of them are located around a larger contiguous forest area or because they are constituents of an administrative body like the Panchayat or because of certain cultural links. They deal mostly with protection and boundary related matters and other critical issues as and when they come up. This approach ensures that the collaborators regulate the behavior of their respective members on behalf of other collaborators thereby reducing threats to the forest area as a whole.

Fora for Collaboration in Adaptive Community Forest Management

Level 5 State	<ul style="list-style-type: none"> ▪ Advocate favourable policy changes ▪ Take up issues of critical importance concerning forest management and user institution
Level 4 Forest Division / District	<ul style="list-style-type: none"> ▪ Take up issues with district / divisional administration ▪ Issues of forest management and community right
Level 3 Forest Range / Taluka	<ul style="list-style-type: none"> ▪ Conflict management ▪ Resolving issues with local FD ▪ Other issues of common interest
Level 2 User Units around a common forest area or Panchayat	<ul style="list-style-type: none"> ▪ Protection and Boundary related issues ▪ Occasional need fulfillment ▪ Regulating behaviour of members through peer pressure at a larger level
Level 1 Different Users at a User Unit	<ul style="list-style-type: none"> ▪ To formalize their historical and traditional dependence on the common forest resource ▪ Formation of user unit and crafting of local institution
LEVELS OF COLLABORATION	NATURE OF COLLABORATION

- Third, the community institutions interact at a larger level, mostly based at the forest range or Taluka, which involves collaboration on conflict resolution, pending issues with the local forest department and dealing with issues of common interest.
- Fourth, at a division or district level community institutions formalize their collaboration to take up various issues with the district administration.
- At a fifth level, the representative of all the institutions collaborate at the state level to advocate policy changes in their favour and to deal with other issues of critical importance concerning forest management.

Beyond this there are several collaborative fora at the regional and national levels which are represented by the state level fora. By participating in several levels of fora of collaboration the community institutions achieve greater balance in power equations amongst themselves. Monitoring becomes easy and more frequent while the cost of monitoring remains low. Increased collaboration strengthens the element of mutual respect and recognition towards each other's forest area, local institution and governance rules. Members behave responsibly knowing well that any infraction on their part may expose one to these several layers of authority.

Summing up

The idea that the local communities can protect and manage forests has gained momentum in the present day. Traditionally, the village communities have used forests even though it had remained under the custody of the ruler. The coming of the forest department and the strict control on the forests as national resources did not yield much result. Soon vast forest resources were depleted. As a result of the growing scarcity of forest based needs efforts were made by the local communities to protect and regenerate degraded forests. With the increasing number of such instances of forest protection by village communities the concept of community forest management has established itself as a strong alternative to the earlier forest management practices. Community forest management means involvement of local communities in the protection, management and conservation of forest resources based on local expertise, knowledge and need. This implies a need based management system that has come to be known as a viable means to achieve sustainable forest management.

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