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# MANAGEMENT OF COMMON PROPERTY RESOURCES

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### Introduction

In a wider sense, we can speak of common property resources (CPRs) at various levels, - local, regional and global. We are concerned in this paper only with the local commons, and with Indian background. According to Jodha, who has done seminal work on the role and decline of CPRs, they are, broadly speaking, "resources accessible to the whole community of a village and to which no individual has exclusive property rights. In the dry regions of India, they include village pastures, community forests, waste lands, common threshing grounds, waste dumping places, watershed, drainage, village ponds, tanks, rivers/rivulets, and river beds etc." (Jodha, 1986 : 1169). Our main interest in this paper is on common lands.

It is not necessary that the legal right of ownership of CPRs is with the village community. Even if it is legally a government property, it is a CPR for the local community if it enjoys access to it traditionally. Thus CPR is not a legal concept. This is an advantage in so far as it gives flexibility to suit varying purposes and circumstances and cover lands of a variety of legal or tenure status for use as CPRs. But is also a disadvantage in so far as community rights cannot be enforced legally. What matters, however, is that by convention, the access to a given CPR is exclusive to the concerned community in the sense that only the identified community has access to it and not others. This would also mean that the community not only uses the resources but also monitors its use by convention if not through explicit or formal management. Some times exclusion of others may be relaxed, for example in grazing their cattle, but it is by a clear permission thus, acknowledging the right to exclusive use.

Such a characteristic of CPR differentiates it from open access resources where people's use is on a free rider basis and none has any responsibility in regulating such use. Hardin (1968 : 1244) had mainly such an open access in mind in his well-known article and not strictly CPRs managed by local communities, though he painted them all with one brush under 'commons'. In his words : picture a pasture open to all. It is to be expected that each herdsman will try to keep as many cattle as possible on the commons..... Each man is locked into a system that compels him to increase his herd without limit - in a world that is limited. Ruin is the destination toward which all men rush, each pursuing his own best

\* Thanks are due to the Ford Foundation for financial support to undertake a series of studies on Uncultivated Lands at ISEC, which served as a base for writing this article, apart from other important research on CPRs. The studies at ISEC conducted under the Ford Foundation grant are marked with \* in the references at the end. The author is grateful to Uma Lele and N.C. Saxena for comments which helped in improving the earlier draft. Usual disclaimers apply.

**Table 1 : Diversity of Situations of CPR use in India**

<u>CPR Regime</u>	<u>Examples</u>
1. Community use on private property	Grazing on off season fallows and on allocated but uncultivable land; drinking water from private wells.
2. Legally recognized private and exclusive usufructuary rights on state property	Shamilat, Soppina bettas, Benas, Ghasinis and Tree pattas.
3. Occupation of state property for cultivation, without due legal sanction	Encroached lands; shifting cultivation in forests.
4. Community management on state property	Sacred groves, Aurans, Community forests, community grazing lands and pastures, village ponds and rivulets, threshing and dumping grounds.
5. Joint management of state property, village as partner in access, control and produce	Van Panchayats, State Forests under joint Management - Village Protection Committees, Hill Resource Management Societies.
6. State property; constrained individual rights	'Reserved' forests; Social forestry wood lots.
7. Open access state property with few controls on access	'Protected' Forests, Wastelands, Revenue Land, poramboke

Source : Adapted from Arnold and Stewart, 1991 : 3 (with slight modifications)

<sup>1</sup>The modifications relate to the addition of some examples and also of Regime No.3, and shifting of 'Protected' forests from Regime 6 to Regime 7. The difference between the 'Reserved' and 'protected' forests is that while the former prohibit all local use except what

breakdown of community management and conversion of CPRs from a managed resource to an open access resource. It is pertinent to discuss how this situation came about. In a substantive work involving 82 villages spread over 21 districts in the dry regions of India, Jodha has documented how the decline in the area under CPRs has varied from 31 per cent in Maharashtra to 55 per cent in Rajasthan between early 1950s and early 1980s. The decline has been both in quantity and quality. Jodha has presented several physical indicators of degradation of CPRs like the decline in the number of products collected, of ponds or water points, and number of trees (Jodha, 1990 : 7-8).

Damodaran (1987) has documented how in a Karnataka village the area under CPRs declined from 527 acres around 1966 to a mere 60 acres in 1985. The bulk of this decline was due to a take-over by the FD for commercial plantations (385 acres), extension of cultivation coming next (98 acres), and the rest being sold to a factory. The main brunt of the resultant fodder crisis had to be borne by the poor in the village, the rich being able to buy their requirements from the market. A study of 25 villages in Gujarat by Iyengar (1989) showed that there was a decline of CPRs both in quantity and quality, mainly due to encroachments as well as through legal privatization. The author notes that the decline hit the poor hardest who were dependent on CPRs for collection of firewood, raw material for rope making etc.

In a ISEC survey of 14 villages mainly in dry regimes of Karnataka, it was found that the total area under CPRs declined from about 2800 hectares during the early sixties to about 1800 hectares during the late 'eighties in the selected villages (Pasha, 1992 : 2500). This includes not only gomals (grazing lands of villages officially earmarked for the purpose), but also government waste lands, tank beds and foreshores and forests. Interestingly, quite a few villages still had considerable uncultivated public lands in a state of neglect. The CPR per village ranged from a mere 6 hectares to as high as 673 hectares both in dry regions. As per Jodha's data, the average size of CPR per village during early 'eighties ranged in dry region villages from 59 hectares in Tamil Nadu to 168 hectares in Rajasthan.

How does the picture look at the macro level? Table 2 below gives the pertinent details. Forests, cultivable wastes, permanent pastures and grazing lands and fallows other than current fallows could be considered as being under community use for grazing and to meet other biomass needs, though some of the cultivable wastes and even forests may be privatized and fallows are generally part of private holdings. Contrary to the impression gained from micro level studies of villages, the official land use statistics at the aggregate level shows no decline in the total CPRs under the four categories (see Row 6 in table 2). On the contrary, there is an increase from 29.5 per cent in 1955-56 to 31.7 per cent in 1989-90. There is some decline in the area under cultivable wastes, and fallows other than current fallows, but not in grazing lands, as compared to 1955-56 level. The significant increase in area under Forests could be due to transfer of cultivable wastes under Revenue Department to FD to some extent.

Source: **Indian Agriculture in Brief**, respective editions. Directorate of Economics and Statistics, Ministry of Agricultural Government of India.

Note: Figures in brackets are percentages to total geographical area.

The extent of encroachments was by no means insignificant even in relation to total geographical area of the villages studied. The encroachments were more in developed villages than in others. On the other hand, the extent of CPRs declined as we go from backward to developed villages (see table 3). 'Development' here is as per our judgement based on availability of irrigation and other infrastructure. Most of the encroached areas were not available for community use, as they were put under cultivation of annual crops.

**Table 3 : CPR Area in Selected Villages as per Level of Development**

	<u>Type of villages</u>			<u>All</u>
	<u>Developed</u>	<u>Medium</u>	<u>Backward</u>	
1. Number of villages	6	5	3	14
2. Geographical area (Hect)	3788	1812	2353	7953
3. CPR area as per our survey (Hect)	654	336	817	1807
(3) as per cent of (2)	17.3	18.5	34.7	22.7
4. Area encroached for cultivation	360	121	203	684
(4) as per cent of (2)	9.5	6.7	8.6	8.6

Source : Nadkarni and Pasha, 1991, Table 1 on p.546.

The decline of area under CPRs in the course of economic development has been documented also in another study at ISEC (Kanbargi and Kanbargi, 1991). The authors have observed that in the course of time, a developed and prosperous village witnessed almost a complete disappearance of land under CPRs, and also a similar disappearance of at least absolute poverty. On the other hand, a neighboring village, which did not so develop, faced a decline neither in CPRs nor in poverty. Both these villages are in a drought prone district of Karnataka (Tumkur). The authors argue that it is the poverty which makes people

Apart from the State and powerful commercial forces from outside the local community, the elite within the local communities have often contributed to the decline in CPRs. They have not hesitated to use their power to privatize CPRs and also to help their relatives and followers in doing the same. In a historical study of a village about 60 km from Bangalore, spanning several decades since 1920s up to the present based on village records and oral history gathered from village people, Karanth has several interesting observations to make (Karanth, 1992). In the early decades when CPRs (cultivable wastes) were ample, 'the hereditary headman ('patel') and the village accountant ('shanubhog') specifically asked a few of their respective relatives to apply for land and after paying the specified amount, to take possession. The shanubhog had a tenant cultivator... who was advanced a small loan by the former to enable him to buy the land'. (p.1682). Of course, this happened along side land grants by the government to poorer sections of people belonging to the scheduled caste and tribes. It could not be said, however, that the poor also benefited equally.

"Free grants of land were being made to the favorites among the dominant caste, more as an act of patronage. Secondly, mere granting of land to the landless and the weaker sections did not end their plight. As some of those who 'lost' their land said, they had to first work on their master's lands before taking up any work on their own land..... Thirdly, there were several ways and means of circumventing not only the regulations involved in land grants but also the successive land laws. Consequently several beneficiaries of land grants had sooner or later alienated their property.' (Karanth, 1992 : 1684).

This is quoted at length mainly to show that privatization of CPRs hardly helped the poor. Though encroachments were regularized by giving title deeds on the excuse of helping the poor, it was found during our survey of villages that the poor were often used as a front by the elite, who get the land ultimately transferred to themselves. The exact magnitude of such transactions could not, however, be estimated. Often the rich did not even need such a front - and could encroach directly. In a study of four villages in a forest region of Karnataka (Uttara Kannada district), the rich farmers who constituted 30 per cent of all households accounted for as much as 66 per cent of total land encroached in the villages. Illegal encroachment has been the main mechanism of reducing the availability of CPR areas.

It may look paradoxical but true that even while there has been a decline in the area and productivity of CPRs, there has been an increase in the number of livestock in India. Viewed in relation to the available area under forests, pastures, cultivable waste and other fallows even as per official statistics (which as we saw underestimate the decline in CPR area), this increase in the size of livestock is quite significant (see Table 4).

source of fodder, particularly in the case of large ruminants. To some extent, increasing productivity of cultivated lands has been compensating for the degradation of CPRs. But this benefit is available only to those who have lands. For others, including small holders, degradation of CPRs must have been adversely affecting their livelihood.

### **Role of CPRs : Need for and Concerns in their Management**

To appreciate the need for a more effective management of CPRs to counteract the decline of CPRs, we need to make a critical assessment of their role. For some, the privatization of CPR has been no cause for concern (eg. Singh and Bhattacharjee, 1991; Kanbargi and Kanbargi, 1991). More than privatization per se, it is the degradation of vast stretches of land which causes concern. Neglect of land whether under private ownership or government ownership is undesirable and needs proper management to counteract degradation. The scarcity of land which is felt at the level of the economy as a whole need not at all be felt equally intensively by a large farmer, who has relatively abundant land (Nadkarni, 1986 : 32). Such farmers tend to leave less fertile lands degraded and uncared for.

The 'positive considerations supporting the case of CPRs' have been listed by Jodha as (a) 'ecological imperatives of the natural resource base of the dry regions, (b) the CPR - PPR complementarities, and (c) the sustenance needs of rural poor' (Jodha, 1990 : 20-21). They constitute not only the role but also the central concerns in the management of CPRs, in the sense that these roles are not played automatically; proper management has to ensure that CPRs play these roles. These roles and concerns are inter-linked and not separate. We add two more: (d) reconciling conflicting interests between contiguous villages sharing the same CPRs; (e) developing a 'communitarian ethos even in a commercialized society and community leadership.

The ecological imperatives are important in regimes with good rainfall as well, since forests there serve as a rich source of bio-diversity. Lands subject to serious soil erosion due to heavy rainfall and winds should better be under tree and grass cover rather than under annual crops from the point of optimal land use. In the dry regions also there are vast stretches of cultivable wastes which are not under proper tree and grass cover and are being denuded. Their productivity under private cultivation is so low that most of these lands cannot support farm families. Such lands are more suitable for low intensity use as CPRs under community care and management, in which case they can fulfil their ecological role of conserving the natural resource base of local communities. Well managed CPRs maintain and enrich ground water in the villages, and prevent land degradation. Denudation of CPRs and their conversion to regularly cultivated areas in catchment areas of irrigation projects have created problems of soil erosion to such a grave extent that the rate of siltation of reservoirs increased more than expected (Reddy, 1993).

No amount of persuasion can induce communities to manage and maintain CPRs on ecological grounds alone. They must also benefit the local communities significantly. Fortunately, it is possible to reconcile these two roles by ensuring that conservation of CPRs

Table 5: Extent of People's Dependence on Common Property Resources (CPRs) in Dry Regions of Indiaa

CPRs contribution to household supplies, employment, income, etc.

States (no. of districts/villages)	Household Categories	Fuel Supplies	Animal Grazing	Employ ment days	Annual income	CPR income as proportion	Gini Coefficient (all income)	Gini Coefficient (excluding CPRs)
(a)	(b)	(c)%	(d)%	(e)no.	(f)Rs	(g)%	(h)%	(h)%
Andhra Pradesh (1,2)	Poor	84	-	139	534	17	0.41	0.50
	Others	13	-	35	62	1	0.41	0.50
Gujarat (2,4)	Poor	66	82	196	774	18	0.33	0.45
	Others	8	14	80	185	1	0.33	0.45
Karnataka (1,2)	Poor	-	83	185	649	20		
	Others	-	29	34	170	3		
MadhyaPradesh (2,4)	Poor	74	79	183	733	22	0.34	0.44
	Others	32	34	52	386	2	0.34	0.44
Maharashtra (3,6)	Poor	75	69	128	557	14	0.40	0.48
	Others	12	27	43	177	1	0.40	0.48
Rajasthan (2,4)	Poor	71	84	165	770	23		
	Others	23	38	61	413	2		
Tamil Nadu (1,2)	Poor	-	-	137	738	22		
	Others	-	-	31	164	2		

- This and all other tables in the paper are based on village/household data from study villages reported by Jodha (1986).
- Numbers of sample households from each village varied from 20 to 36 in different districts. 'Poor' are defined to include agricultural laborers and small farm (<2 ha. dryland equivalent) households. 'Others' include large farm households only.
- Fuel gathered from CPRs as proportion of total fuel used during three seasons covering the whole year.
- Animal unit grazing days on CPRs as proportion of total animal-unit grazing days.
- Total employment through CPR product collection.
- Income mainly through CPR product collection. The estimation procedure underestimated the actual income derived from CPRs (Jodha (1986)).
- CPR income as % of income from all other sources.
- Higher value of Gini-coefficient indicates higher degree of income inequalities. Calculations are based on income data for 1983-84 from a panel of households covered under ICRISAT's village level studies. The panel of 40 households from each village included 10 households from each of the categories, namely large, medium and small farm households and labor households.

Source : (Jodha 1990 : 5).



invariably concentrated on the village periphery (Sastry 1991). Technically, peripheral rather than interior lands may be suitable for development as CPRs, the latter being more suitable for cultivation. If such lands are large enough, the inter-village conflicts could be easily reconciled, but not if they are inadequate. The more tragic aspect of inter-village conflicts is that the poor get hurt more in the crossfire. It is difficult to suggest *a priori* solutions or guidelines for resolving these conflicts. Often, areas are demarcated for exclusive use of respective villages. Sometimes, more complex conventions are evolved whereby exclusion is not stressed, but exchange of concessions and privileges is. The rural people are ingenious enough to develop solutions based on reciprocity and equity.

Finally, another major factor in favor of CPRs and in bringing them under community management is the encouragement this gives to revival of a communitarian ethos which has been adversely affected by the forces of commercialization. In these days of advancement of market forces based on privatization, there should at least be some secular activities which induce shared interest, common goals, collective activity and care, so that a tradition of interaction between human being for the common good of all is continued and strengthened. Religious fairs and festivals may have provided a common forum to some extent, but religion also stratifies and divides. There should also be secular interests which unite people, mobilize them for collective good, make them aware of concerns of both equity and sustainability, and yet benefit them by meeting their basic needs and strengthen their ability to survive crises. Reviving commons is also to transcend narrow self-obsessed pecuniary interests, to keep alive nobler aspects of human nature, and to confirm that man is essentially a social being too.

### **Revival of CPRs: Models and Lessons Learned**

The first attempts at regeneration of CPRs through social forestry were, however, hardly made in this spirit during the latter half of 'seventies and 'early eighties. They were officially sponsored programs by the FD without any participation of the local communities and the species grown were also commercial like eucalyptus and casurina. The FD was not prepared for anything other than 'scientific forestry'. This meant actually depriving the locals of their CPRs, and generated a lot of protest movements particularly in Karnataka. It was a mockery of the word 'social' by which such 'forestry' was prefixed. It must be said to the credit of the FD, however, that it has been responsive to this criticism and has shown a marked tendency to learn from the past mistakes and to correct them (Nadkarni and Pasha, 1993).

This correction was in two main ways. First, the FD started actually consulting people and wherever possible even trying organize local village committees for the management of social forestry projects. Where such committees could not function on their own, the FD started convening meetings of local people, and consulted them about the type of species to be planted. This led to the second correction, namely, the adoption of a model of mixed species instead of a mono-culture commercial species. A variety of trees

watch and ward are withdrawn, the village panchayats have no confidence that the trees would be maintained by people and not cut stealthily. The community organizations have not yet so developed in these projects that they can take over the task of distribution of timber or its sale proceeds to the satisfaction of all. It could also be said that they have not grown because such responsibility has not been entrusted to them in social forestry projects under FD. Out of the 13 social forestry projects randomly selected for study by us in Karnataka covering 14 villages, only two had some village committees, one being promoted by the FD and another by a NGO. Thus the progress in social forestry is slow in both respects - only a small fraction of uncultivated land available for regeneration is taken up so far; and even in villages where such projects are taken up, only a small fraction of them have local level organizations (Nadkarni and Pasha, 1991).

Where, however, there is more clarity about the sharing of forest produce by the local communities including timber, the level of community participation and management is much higher even under the auspices of the FD. This is evident from the experiments in Joint Forest Management (JFM) of reserved forests initiated in the early 1970s in West Bengal, which is now spreading to other states as well. Since there are two more papers of JFM at this Workshop, this point need not be elaborated further. The two major lessons from JFM experiments need, however, to be noted here. One is that if communities are clear that they will gain and are given the responsibility and stake in the management of CPR, they will measure up to the task. The second lesson is that forest officials can also stimulate communitarian ethos and leadership. We cannot everywhere depend upon leaders of the moral stature of Annasaheb Hajare who brought about a revolutionary transformation of Ralegaon Shindi in Ahmednagar district of Maharashtra, since such persons are rare. (For an account of Ralegaon Shindi Watershed development, see Deshpande and Nikumbh 1993 : 7-8). It is the experiments of change which more ordinary people can bring about that are more interesting from the point of view of replicability.

There are by now quite a few examples of regeneration of CPRs by ordinary forest officials and NGOs. The successful cases have used the principle of equity - equal rights over or equal distribution of benefits from the commons through collective or participatory management. A prominent example in this respect is that of Pani Panchayats in Maharashtra where water was considered a community asset, with all households having equal but transferable rights over it irrespective of the size of private holdings of land and livestock. A similar principle was applied in other instances of regenerating community grazing lands where all households were given equal rights to their produce. To operate the principle of equity, it required a socio-political environment in villages wherein the villagers could meet, talk and settle matters of management of community assets on an equal footing. Such an environment could be achieved in spite of inequalitarian agrarian structure through local leadership, and in its absence by voluntary agencies and forest officials who acted as catalytic agents to create Village Associations and orient them to take up management of community assets. It is

In terms of indicators of the nature of popular involvement as also of the level of involvement, the study found that village C was most successful, followed by B, with A at the bottom. In village C, people were directly involved in both making and implementing decisions. After initial success, the NGO operating in village A (which was also operating in 21 other villages) started functioning through a few local leaders arbitrarily selected by it, - a mistake which bureaucrats are supposed to be prone to make. This caused a feeling of alienation and also a perception that the NGO was accountable neither to the locals nor to the government. In Village B on the other hand, people's representatives - duly elected by them - made the decisions, but accountable to people. In village C, the decisions were made by all people together in general meetings and allowed maximum involvement. Its another advantage was that Village Forest Committee, being constituted by the State, had a certain legitimacy and authority which the committee formed by NGO in village A did not have. The authors argue that an 'integrated' approach involving joint efforts of people's own organization and the government has maximum chance of success.

Ultimately, the test of success of NGOs or government officials acting as catalytic agents consists in whether they enable the people to be self-reliant through their own organization and efforts, so that when the catalytic agent leaves, the people can go on unaffected. In managing the commons equitably and sustainably on their own, the people would find a satisfaction, self-respect and a feeling of strength that cannot come from any top-down approach and would constitute a noble path to democracy at the grass roots level. The empowerment of people which comes about in the process and the inculcation of spirit of co-operation and sharing instead of competition and racing would be in larger interests of the environment and peace.

In conclusion, we bring together the policy implications and issues for further work arising out of this paper. The policy implications are :

- (a) The State governments should stop indiscriminate regularization of encroachments on forests and other common lands, and ensure that each village has a minimum level of CPRs to meet its bio-mass needs, depending on the size of village population;
- (b) CPRs should be entrusted to community management which in turn should be guided by the principles of equity and sustainability in using them; appropriate kinds of groups should be promoted by voluntary agencies or Forest Department acting as catalytic agents; the rural poor ought to have a proper voice in the formation and operation of such local groups;

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