# COMMON PROPERTY RESOURCES AND DYNAMICS OF RURAL POVERTY

## (Field Evidence from Dry Regions of India)

**N. S. Jodha**[1]

## 1. INTRODUCTION

Despite advances in agricultural technologies, access and availability of external inputs and supplies, income transfers through subsidies, relief etc. locally available biomass continues to be an important element in the fulfillment of basic needs of rural people, especially the poor in several parts of India including the dry tropical regions. In addition to meeting the direct needs of fodder, fuel, food, timber, fencing, thatching etc., biomass plays crucial role in local resource regenerative processes of farming systems. These benefits not withstanding, the supplies and sources of biomass are rapidly depleting in India. The farm produced supplies suffered due to anti-biomass bias of new crop technologies favoring high grain - stalk ratios, short duration sole cropping systems and emphasis on cash crops (Jodha 1991). The natural supplies of biomass declined both due to decline in the areas of natural vegetation as well as their productivity. The heaviest burden of these developments have fallen on the rural poor, who do not have enough other options to meet the basic requirements of these products. This is illustrated by the changing situation of rural common property resource (CPRs) on which the rural poor depend very heavily.

The Premises:

The key issues focussed in different contexts by the present discussion on dynamics of rural poverty and CPRs are as follows:

**Head, Mountain Farming Systems Division (MFS), International Centre for Integrated Mountain Development (ICIMOD), G.P.O. Box 3226, Jawalakhel, Kathmandu, Nepal.**

of the rural poor and CPRs are quite interlinked.

(ii) The "CPR-Rural Poor" interactions represent an important dimensions of dynamics of rural poverty in dry regions of India. The degradations of CPRs and yet ever increasing dependence of the poor on CPRs represent an invisible process of pauperization: The non-recognition and non-enumeration of CPR contribution and the poor's dependence on them, by the statistical systems on the one hand and the absence of fiscal categories to incorporate changing CPR status and their contributions on the other, are the key factors responsible for the said invisibility of pauperization processes.

(iii) The dynamics of rural poverty, using CPRs as key vector, can be examined at three levels:

(a) Changing status of CPRs in terms of their area as well as physical productivity and the management of the former.

(b) Economic status and the changing situation of the groups having heavy dependence on CPRs for the bulk of their sustenance.

(c) Place of CPRs in anti-poverty programmes of the government.

This paper is based on a study of common property resources in dry regions of India covering over 80 villages in over 20 districts of 6 states. Methodological details and more detailed evidence on the issues discussed here are presented elsewhere (Jodha 1986b, 1990a,b, 1992).

In the present paper, in section 2, after briefly describing the CPRs and their potential contributions, we present the village level evidence on poor households' dependence on CPRs. In section 3, we comment on the decline of CPRs and factors behind this. Section 4 is devoted to public interventions involving rural poor and CPRs.

## 2. DEPENDENCE OF RURAL POOR ON COMMON PROPERTY RESOURCE

### Common Property Resource

CPRs are non-exclusive resources where members of the community co-share the usage rights and obligations (Bromley and Cernea 1989, Margrath 1986, Ostrom 1988). In simple terms, common property resources could be described as community's natural resources where every member has access and usage opportunity with definite obligations but no exclusive property right to them. In the dry tropical regions of India CPRs include community forest, pasture, common dumping and threshing grounds, rivers and rivulets, their banks and beds, watershed drainage, village wastelands etc. In the legal sense some of them may belong to other agencies (e.g. the village wastelands belonging to the revenue department of the state); but in defacto sense they are used and managed by the village communities. Despite differences in some of their specific uses and the legal nomenclatures in the village revenue records, most of them are less separable in terms of: (i) utility - as sources of varied biomass; (ii) the current vegetative make up consisting of sparse trees, shrubs, grasses and empty patches, seasonality of product flows; (iii) the usage regulations or rather disregard of them and consequent pace and pattern of their degradation; and (iv) the coverage of most of them without discrimination under public programmes like social forestry. Hence, one can use the term "forest-CPRs" without restricting it to community forest, but encompassing all CPRs contributing to natural biomass supplies to the village communities.

### Potential Gains

Despite rapid decline in their area and productivity CPRs constitute important component of community assets in the dry areas of India and other developing countries (Sandford 1983, Bromley and Cernea 1989, Margrath 1986, Ostrom 1986, Feeny et. al. 1990). In dry areas, CPRs represent one of the community's

responses to adjust to scarcities and stresses created by agro-climatic conditions, which call for diversified farming system involving combined uses of annuals and perennial; complementarity of the activities based on CPR and PPR (private property resources) and group action for risk sharing and resource management (Jodha 1993b). CPRs are sources of a bulk of physical products, offer employment and income generation opportunities and provide larger social and ecological grains. Table 1 provides and indicative picture of benefits of CPRs.

A glance at the whole matrix of gains from (Table 1) may reveal that if recognised as a part of development strategies, CPRs can contribute several elements for anti-poverty programmes. On the other hand with the help of the same matrix it is not difficult to visualize a process of pauperization associated with the decline in the status and productivity of CPRs and consequent loss of all the potential contributions of CPRs especially to the poor who depend on them more than the rich.

Ironically, most of the potential contribution of CPRs indicated by Table 1, form part of the goals of several public interventions, but they are rarely seen through CPR perspective.

Dependence of the Poor:

Despite the monitoring and measurement complexities, some gains from CPRs were quantified during the aforementioned studies (Jodha 1986). Highlights of the information are summarised under Table 2. Admittedly, due to their degradation and reduced productivity, the gains from CPRs are much lower today than in the past. Consequently, the rural rich e.g. large farmers (indicated by the category "others"), depend very little on CPRs, as it is not worthwhile for them to collect and use meager quantities of products from

**Table 1: Contributions of Common Property Resources to Village Economy in Dry Regions of India**[a]

| Contributors | CPRs | | | | | |
|---|---|---|---|---|---|---|
| | A | B | C | D | E | F |
| **PHYSICAL PRODUCTS :** | | | | | | |
| Food/Fibre items | x | | x | x | | |
| Fodder/Fuel/Timber etc. | x | x | x | | x | x |
| Water | | | | x | x | |
| Manure/silt/space | x | x | x | | | x |
| **INCOME/EMPLOYMENT GAINS :** | | | | | | |
| Off-season activities | x | | | | x | x |
| Drought period sustenance | x | x | | | | x |
| Additional crop activities | | | x | x | | x |
| Additional animals | x | x | | | | |
| Petty trading/handicrafts | x | | | | | x |
| **LARGER SOCIAL, ECOLOGICAL GAINS :** | | | | | | |
| Resource conservation | x | x | | | | |
| Drainage/recharge of ground water, (Sustenance of the poor) | | | x | x | x | |
| Sustainability of farming systems | x | x | x | | x | x |
| Renewable resource supply | x | x | x | | | |
| Better micro-climate/environment | x | x | | x | x | |

a) Table from Jodha (1985b)

b) CPRs: A - Community forest; B - Pasture/waste land; C - Pond/tank; D - River/rivulet; E - Watershed drainage/river banks; F - River/tank beds

**Table 2: Extent of People's Dependence on Common Property Resources (CPRs) in Dry Regions of India[a].**

| States (with no. of districts and villages) | House hold categories[b] (%) | CPRs Contribution to Household Supplies, Employment, Income etc. | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | Fuel Supplies[c] (%) | Animal Grazing[d] | Per household | | CPR-income as proportion[g] (%) | Value of Gini-coefficient of Income from[h] | |
| | | | | Employment[e] days (no.) | Annual Income[f] (Rs.) | | All sources | All sources excluding CPRs (%) |
| 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 | | |
| Madhya Pradesh (2,4) | Poor | 74 | 79 | 183 | 733 | 22 | 0.34 | 0.44 |
| | Others | 32 | 34 | 52 | 386 | 2 | 0.34 | 0.44 |
| Maharastra (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 | | |

a. This and all other tables in the paper are based on village/household data from study villages reported by Jodha (1986).

b. Number of sample household 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.

c. Fuel gathered from CPRs as proportion of total fuel used during three seasons covering the whole year.

d. Animal unit grazing days on CPRs as proportion of total animal unit grazing days.

e. Total employment through CPR product collection.

f. Income mainly through CPR product collection. The estimation procedure underestimated the actual income derived from CPRs. (see Jodha 1986a).

g. CPR income as % of income from all other sources.

h. Higher value of Gini coefficient indicates higher degree of income inequalities. Calculations are based on income data for 1983-84 from a panel households covered under ICRISAT's village level studies (Walker and Ryan 1990). 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.

these resources. The rural poor (i.e. small farmers, landless laborers) with limited alternative opportunities, continue to increasingly depend on low pay-off options offered by CPRs. In the study villages 84-100 percent of rural poor depended on CPRs for fuel, fodder and food items. The corresponding proportion of rich farmers, except in very dry villages of Rajasthan, did not exceed 20 percent. The intermediate categories of farm households (not shown in the Table 2) depended on CPRs more than the rich (Jodha 1986). A quick look at Table 2, reveals the following about rural poor: (a) the rural poor meet 66 to 84 percent of their fuel requirements, and 79 to 84 percent of their (fodder) grazing requirements from CPRs. (b) CPR product collection provides 136 to 196 man days of employment per household per year. CPR-related income accounts for 17 to 23 percent of the total household income from other sources, (c) inclusion of CPR income in household income reduces the extent of rural income inequity as revealed by the reduced value of Gini-coefficient of income distribution.

Data presented elsewhere (Jodha 1992) also suggested that CPRs not only provide input (in cash or kind) for farm operations during the normal years, but contribute 25 to 38 percents of the sustenance incomes (excluding credit) during the drought years.

Thus the heavy dependence of the rural poor on CPRs (revealed by Table 2) potentially links these resources to dynamics of poverty or the poor centered development interventions. Any change in the status and productivity of CPRs, therefore, directly influence the economy of the rural poor.

## 3. DEPLETION OF CPRs

### Public Interventions

It may be stated that neither sustenance of the poor and contributions to private resource based farming nor ecological gains from CPRs seem to form a part of the rural development strategies (Jodha 1992). This

is reflected by indifference, insensitivity or outright negative approach of the state and its development interventions to CPRs. The net result is reflected by a rapid decline in the area of CPRs; their physical degradation and little effort towards their development and usage regulations. Detailed evidence from the study villages summarised below reflects on these changes.

According to Table 3, since early 1950s when land reforms were introduced in most parts of the country, the area of CPRs has declined by 31 to 55 percent in the study villages of different states. These trends are also corroborated by other studies (Iyengar 1988, Blaikie et. al. 1985, Brara 1987, Oza 1989, Chopra et. al. 1990, Chen 1988, Arnold and Stewart 1990). As a combined result of reduced CPR area and population growth, the pressure on CPRs has rapidly increased. For instance, average number of persons per 10 hectares of CPR area ranged from 13 to 101 in villages of different states during 1951. The same has increased from 47 to 238 during 1982.

The immediate consequence of the increased pressure on CPRs is their over-exploitation and degradation (Table 4). This is more due to slackening of traditional management systems of CPRs, as will be looked at shortly. The physical degradation of CPRs is strongly felt and observed, but its quantification is difficult due to lack of bench mark information on the involved variables. However, based on case histories and closer monitoring of CPR units provides the details of physical degradation of CPRs. Decline in the number of products available and their yields are main indicators of physical depletion of CPRs. For instance number of CPR products collected by villagers ranged from 27 to 46 in the past. At present, their number ranges between 8 and 22 only. This decline in the number of CPR products also manifests the reduced bio-diversity maintained through CPRs in the past. This in turn reduces the range and diversity of production and consumption options for the poor.

As stated earlier, besides overcrowding, the important reason for degradation of CPRs is slackening of traditional management of CPRs. Due to the ineffective state interventions substituting a formal system for

informal social sanctions and customary arrangements to protect, upgrade and regulate use of CPRs, these resources have become open access resources, with everyone using them without any reciprocal obligation to maintain them. According to Table 5, nearly 90 percent of villages at present do not enforce formal/informal regulations as they did in the past. The corresponding percentages of villages not collecting formal/informal levies/taxes from CPR users for CPR maintenance, and those not enforcing other obligations towards upkeep of CPRs, are 100 and 84 percent respectively. The consequence of these changes is the overexploitation and rapid degradation of CPRs as stated earlier.

Thus, the curtailment of their area, poor maintenance and decline in their carrying capacity are clear indicators of reduced supplies of products for those who depend on CPRs. Seen in relation to earlier evidence on heavy dependence of rural poor on CPRs, decline of CPRs represents a definite step towards their further pauperization. Left with no alternatives, the poor continues to depend on increasingly inferior and insecure options offered by degrading CPRs. In the process, they over extract the CPRs and end up with still more inferior options. This is a classic case of vicious circle of poverty - resource degradation reinforcing each other. There may be few parallels to this invisible process of simultaneously pauperization of the community and its resource base.

Alternative Possibilities

What has been discussed so far may not happen, provided poor are offered alternative options, and thereby their dependency on common resources is reduced or productivity of CPRs is raised and their usage is regulated to enhance regeneration and supplies. In search for such possibilities, we examine in the next section, the relevant public interventions in dry region of India.

## 4. CPRs AND THE RURAL POOR : THE STATE APPROACH

Based on the preceding discussion, it will be wrong to conclude that the public policies in dry regions of India are completely insensitive to the problems of rural poor. In fact, ever since the initiation of economic planning in 1950s, state has undertaken several measure to help the poor. The space and thematic focus of the paper does not permit even enumerating the same. Hence, in the following discussion, we will comment on anti-poverty measures of the state where CPRs are directly or indirectly involved. The major thrusts of public policies involving the rural poor and CPRs could be put under the following categories: (a) Asset Distribution (b) Productivity Promotion (c) Formal Management System, and (d) Bio-mass Production Projects. Through these categories, we may explore the place of CPRs in anti-poverty interventions by the state.

### (a) Asset (Land) Distribution

Land to the landless or small land owners has been the key welfare element of the land reforms introduced in the early 1950s in India. Having failed to acquire surplus land from the large farmers and absentee landlords through effective land ceiling laws, (Ladejinsky 1922), the state governments in India found it easy to distribute CPR lands to the people. This was done both by regularizing the illegal encroachments as well formal distribution of CPR land to people by the government. Details already presented in Table 3, amply demonstrate the consequence (i.e. rapid decline of CPR area) of such undeclared state policy against CPRs. More serious consequences of privatization of CPRs is that, even when most of the CPR lands are fragile and sub-marginal and suited to natural vegetation, their privatization immediately leads to putting them under the plough, with low and unstable crop yields. The grain yield received from ex-CPR, lands put under crops has been 1/4 to 1/2 of the yields on traditionally cropped prime lands. Such low grain yields do not compensate the loss of bio-mass from these lands in the past (Jodha 1992).

Second and more serious aspect of privatization of CPRs is the huge gap between intended purpose (i.e. land to the landless, poor) and the reality of land distribution. Table 6, presents the details on the share of rural poor in the total beneficiaries and the total privatized CPR lands. Accordingly, not withstanding the slogan of helping the poor, large proportion of the ex-CPR land went to the non-poor, though their number as beneficiaries was less than the poor households. On an average such families received 2 to 3 hectares of additional land. The average area received by the poor household was barely one hectare. Last column of Table 6 shows that those who already had more land also received more of the privatized CPR land. Furthermore, as the received land was too poor, unproductive and difficult to develop without complementary resources (unavailable to the rural poor), 23 to 45 of the poor households in different areas dispossessed such land (Jodha 1986).

To sum up, it is quite doubtful whether collective loss of the rural poor as major user of CPRs, was balanced by their individual gains as land owners of ex-CPR lands. Thus the first anti-poverty intervention involving CPRs did not help the poor.

**Table 3: Extent and Decline of Area of CPR Land in Dry Regions of India'**

| States (and no. of districts) | No. of study villages | Area of CPRs[b] 1982-84 (ha) | CPRs as Proportion of total village area | | Decline in the area of CPRs since 1950-52 (%) | Persons per 10 ha of CPR area | |
|---|---|---|---|---|---|---|---|
| | | | 1982-84 (%) | 1950-52 (%) | | 1951 (no) | 1982 (no) |
| Andhra Pradesh (3) | 10 | 827 | 11 | 18 | 42 | 48 | 134 |
| Gujarat (3) | 15 | 589 | 11 | 19 | 44 | 82 | 238 |
| Karnataka (4) | 12 | 1165 | 12 | 20 | 40 | 46 | 117 |
| Madhya Pradesh (3) | 14 | 1435 | 24 | 41 | 41 | 14 | 47 |
| Maharastra (3) | 13 | 918 | 15 | 22 | 31 | 40 | 88 |
| Rajasthan (3) | 11 | 1849 | 16 | 36 | 55 | 13 | 50 |
| Tamil Nadu (2) | 7 | 412 | 10 | 21 | 50 | 101 | 286 |

a. Table adapted from Jodha (1986), where more desegregated details are reported.

b. CPRs include community pasture, village forest, waste land, watershed drainage, river and rivulet banks and beds other common lands. Data indicate average area per village.

Table 4: Some Indicators of Physical Degradation of CPRs in Dry Regions of India[a]

| Indicators of changed status and context for comparison | States (with no. of villages) | | | | | | |
|---|---|---|---|---|---|---|---|
| | Andhra Pradesh (3) | Gujarat (4) | Karna-taka (2) | Madhya Pradesh (3) | Maha-rashtra (3) | Raja-sthan (4) | Tamil Nadu (2) |
| No. of CPR - products collected by villagers:[b] | | | | | | | |
| . In the past | 32 | 35 | 40 | 46 | 30 | 27 | 29 |
| . At present | 9 | 11 | 19 | 22 | 10 | 13 | 8 |
| Per hectare no. of trees and shrubs in: | | | | | | | |
| . Protected CPRs[c] | 476 | 684 | 662 | 882 | 454 | 517 | 398 |
| . Unprotected CPRs | 195 | 103 | 202 | 215 | 77 | 96 | 83 |
| No. of watering points (ponds) in grazing CPRs: | | | | | | | |
| . In the past | 17 | 29 | 20 | 16 | 9 | 48 | 14 |
| . At present | 4 | 13 | 4 | 3 | 4 | 11 | 3 |
| No. of CPR plots where rich vegetation, indicated by their nomenclature, is no longer available | - | 12 | 3 | 6 | 4 | 15 | - |
| CPR area used for cattle grazing in the past, currently grazed mainly by sheep/goat (ha)[d] | 48 | 112 | 95 | - | 52 | 175 | 64 |

a. Based on observation and physical verification of current status (during 1982-84) and the past details collected from oral and recorded description of CPRs in different villages. The choice of CPRs where plot based data are reported was guided by availability of past information about them.

b. Includes different types of fruits, flowers, leaves, roots, timber, fuel, fodder etc. in the villages. 'Past' indicates the period preceding the 1950s 'Present' indicates the early 1980s.

c. Protected CPRs were the areas (called 'oran' etc.), where for religious reasons live trees and shrubs are not cut. The situation of CPR plots (numbering between 2 to 4 in different areas) was compared with other bordering plots of CPRs which were not protected by any religious or other sanctions.

d. Relates to area covered by specific plots, traditionally used for grazing high productivity animals (e.g. cattle in milk, working bullocks or horses of feudal land lords). Because of their depletion, such animals are no longer grazed there.

Table 5: Some Indications of Changes in Management of CPRs in Dry Regions of India[a]

| States (with No. of Villages) | No. of villages pursuing the following measures: | | | | | |
|---|---|---|---|---|---|---|
| | Formal/informal regulations on CPR use[b] | | Formal/informal taxes/levies on CPR use[d] | | Users' formal/ informal obligation towards upkeep of CPRs[e] | |
| | In the Past[c] | At Present[c] | In the past | At Present | In the Past | At Present |
| Andhra Pradesh (10) | 10 | -[f] | 7 | - | 8 | - |
| Gujarat (15) | 15 | 2 | 8 | - | 11 | 2 |
| Karnataka (12) | 12 | 2 | 9 | - | 12 | 3 |
| Madhya Pradesh (14) | 14 | 2 | 10 | - | 14 | 3 |
| Maharastra (13) | 11 | 1 | 6 | - | 10 | 1 |
| Rajasthan (11) | 11 | 1 | 11 | - | 11 | 2 |
| Tamil Nadu (7) | 7 | - | 4 | - | 7 | 1 |
| Total (%) | 100 | 11 | 100 | 00 | 100 | 16 |

a. Table based on field work during 1982-84 (Jodha 1986).

b. Measures such as regulated/rotational grazing, seasonal restrictions on use of CPRs, provision of CPR watchmen etc.

c. 'Past' stands for period prior to the 1950s, present stands for the early 1980s.

d. Measures such as grazing taxes, levies, and penalties for violation of regulations on use of CPRs. See Jodha (1985a) for descriptive account.

e. Measures such as contribution towards desilting of watering points, fencing, trenching, protection of CPRs etc.

f. (-) indicates nil.

(b) Productivity Promotion

Alarmed by the physical degradation and falling productivity of village forests, community pastures etc. the government attempted several measures to raise their productivity. A number of research institutions and pilot development projects were geared to this task. However, while doing so, such community resources were treated merely as pieces of physical resources located in the villages. The interventions did not involve people and the CPR-perspective (represented by relationship of a community to its natural resources). The village Panchayats (elected village councils) most of whom represented the state authority at the village level were involved, though ineffectively.

The quite related aspect of such initiatives was focus on "techniques" rather than users' needs and means, as reflected by emphasis on choice of species, planing methods, reseeding technique, scientific monitoring of plant coverage etc. The user perspectives and input from village community were not emphasised. People's participation, despite loud slogans was not a strong point of these programmes.

Due to the above features, implementation of such programmes became quite difficult. Hence, they were (and continue to be) sustained by state grants in selected pilot project areas. Thus most of the efforts in upgrading CPR - productivity (due to absence of community's involvement) proved irrelevant or ineffective to the already stated problem of reduced productivity of these resources (Gupta 1987, Shankarnarayan and Kalla 1985, Jodha 1988).

Moreover, most of these schemes involve limited and selective species (at times exotic ones), which did not meet the mixed biomass needs of the people. In most cases, such interventions implied restrictions on the people's access to their own common resources, as the pilot projects focussed on demonstrating the potential of technology under ideal (user less) situations. The lack of concern for the poor in anti-poverty measures of the above type hardly need further comment.

(c) Formal Management System for Commons

CPRs in a way represented one of the traditional forms of rural cooperation. They involved group activities guided by social sanction and conventions, enforced by the authority of village elders (or in some cases feudal landlords). This helped in protection, development and regulated use of CPRs (Jodha 1985). With the introduction of land reforms in the early 1950s, the feudal system was abolished. As a part of next democratic programme, the elected village councils (Village Panchayatsthat replaced the traditional informal arrangements) were given the responsibility to administer and implement development and welfare activities at the village level. Management of CPRs also became their responsibility. However, despite all legal provisions, the Panchayats in most cases failed to undertake any measures for CPRs as it would have annoyed their respective electorates. Consequently, even the traditional management practices (reported by Table 5), were discontinued in most of the villages. Common property resources became open access resources, inviting the well known 'Tragedy of Commons'. Panchayats often confined their role to securing government grants in the name of CPRs and using it elsewhere (Jodha 1990b).

**Table 6: Distribution of Privatized CPR Lands to Different Household Groups in Dry Regions of India**[a]

| States (with Number of Villages) | Total Land Given (ha) | Total no. of Household Receiving Land | Share of poor[b] in (2) (%) | Proportion of Poor in (3) (%) | Per Household Land received by: | | Average Land Size After Receiving New Land | |
|---|---|---|---|---|---|---|---|---|
| | | | | | Poor (ha) | Others[c] (ha) | Poor (ha) | Others (ha) |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| Andhra Pradesh (6) | 493 | 401 | 50 | 74 | 1.0 | 2.1 | 1.6 | 5.0 |
| Gujarat (8) | 287 | 166 | 20 | 45 | 1.0 | 2.6 | 1.8 | 9.4 |
| Karnataka (9) | 362 | 203 | 43 | 65 | 1.3 | 3.0 | 2.2 | 8.0 |
| Madhya Pradesh (10) | 358 | 204 | 42 | 62 | 1.2 | 3.2 | 2.5 | 9.5 |
| Maharashtra (8) | 316 | 227 | 38 | 53 | 1.1 | 1.9 | 2.0 | 6.2 |
| Rajasthan (7) | 635 | 426 | 22 | 36 | 1.2 | 3.2 | 1.9 | 7.2 |
| Tamil Nadu (7) | 447 | 272 | 49 | 66 | 1.0 | 1.5 | 1.9 | 6.7 |

a) Table adapted from Jodha (1986). Number of districts covered by the table are 3 in each of the States except Andhra Pradesh and Tamil Nadu where 2 districts each were covered.

b) 'Poor' includes agricultural laborers and small farm (<2 ha of dry land equivalent) households.

c) Unlike other tables, 'others' in this table, include both medium and large farm households.

The usurpation of communities' mandates and initiative by the state through a variety of legal, administrative and fiscal measures, further marginalised the role of communities in managing common resources. Though of late a few initiatives supported by NGOs are attempting to restore local communities' control over local resources (Oza 1989, Shah 1987).

The latest phase in the public approach to CPRs is represented by the focussed programmes for natural biomass production on community lands (including most of the CPRs listed in the beginning).

Alarmed by the emerging biomass crisis, pushed by environmentalists' lobbies, induced by donor recommendations, encouraged by achievements of small scale, scattered, NGO-supported initiatives, and workable scientific recommendations, the state, through several welfare cum production programmes and resource development projects, has initiated a number of activities to enhance biomass availability for village communities. Social/community forestry, user group projects on the one hand and integrated watershed management projects on the other are some such examples. Despite their sporadic achievements, these initiatives are yet to make a significant dent upon the problem of rehabilitation of CPRs, especially to help the rural poor (Chambers et. al. 1989). Most of them, except a few operated by involvement of local NGOs and enlightened village Panchayats continue to share the features of past interventions. For instance, most of these programmes still operate in project mode; are sustained by state subsidy; managed largely through state's administrative or technical agencies; remain 'technique dominated' and without sufficient people's participation. The very scale and magnitude of the problem is a big constraint. Inadequate understanding of CPR-dimension of these resources is another problem.

**CPR-Poverty Link: The Invisible Dynamics**

As a result of the aforesaid changes, the rural poor in most of the areas continues to depend on rapidly shrinking and depleting CPRs. This phenomenon represents a invisible process of pauperization (Jodha 1990b), where not only gains from CPRs as indicated under Tables 1 and 2 are becoming less and less feasible, but the cost of harnessing them (in terms involvement of rural poor's time is increasing). The overall range and quality of options (products and their quantity) are declining (Jodha 1985b, 1992). The decline of CPRs represents various dimensions of dynamics of rural poverty. Even at the cost of repetition the following may be stated.

towards long term unsustainability of land based activities in dry areas. This step could ensure only a meager quantity of grain output, but it involved a huge cost in terms of loss of ecologically most suited products (i.e. biomass), which help, sustain diversified mixed farming (Jodha 1991). As stated earlier, the poor faces its consequences most.

Secondly, reduced range and quality of employment and income options for succeeding generations of those depending on CPRs, amount to widening the inter-generational inequity, which is key element of unsustainability phenomenon. The degree of desperation it generates for CPR-users, as reflected by pre-mature harvesting or lopping of trees to make up for reduced plant material, is another true manifestation of unsustainability (Jodha 1993a).

Thirdly, quite related to the above, there is another manifestation of unsustainability. This is indicated by willing choice for inferior options. Despite reduced quantity and quality of products, rural poor increasingly depend on CPRs. This is so because the opportunity cost of the poor people's labor is still lower. Accentuation of this process indicates the progressive pauperization of rural masses (Jodha 1990b).

The whole process remains formally invisible, as it neither reflects in national accounts nor has fiscal dimensions (e.g. subsidy, relief etc. to the poor). This implies a situation where a community silently eats away its permanent natural assets. In the final analysis, loss of CPRs may prove costlier than alternative measures to help the poor.

Finally, the ultimate consequence of CPR degradation may result into elimination or permanent disruption of vital bio-physical processes (Table 1), nature's regenerative activities, (energy and material flows etc), in and even outside the CPR area within the overall watersheds (Jodha 1991). These disruptions may further reduce the efficacy of farmers' traditional adaptation strategies against environmental stresses in dry regions (Jodha 1990c).

This may be called 'poverty-degradation vicious circle'.

The situation described in the paper is quite depressing. However, this may become still more desperate, if positive CPR policies are not adopted. The key elements of such policies elaborated elsewhere (Jodha 1992) can be briefly indicated.

(i) At public policy level, deliberate effort to restrict further curtailment of CPR areas is required. Similarly, the side effects of welfare and development programmes need to be sensitized to CPR issues. Finally, general development policies directed to productivity with environmental stability can be made more concrete if reoriented through CPR perspective.

(ii) At action level, to protect CPRs through their rehabilitation and regulated use, the key issues to be emphasised are: Attention to investment need and appreciate technological input to raise CPRs productivity and thus reduce their "mining" by the users (due to degradation-poverty cycle).

(iii) Equally important is regulation of their usage level. This calls for involvement of user groups and mobilization of community action. A suitable strategy to complement state interventions (through technological and fiscal measures) with people's participation is essential.

The recent experiences of successful participatory natural resource management initiatives can offer useful lessons for replication (Mishra and Sarin 1987, Chopra et. al. 1990, Shah 1987, Agrawal and Narain 1990, Campbell and Denholm 1992).

An important step that can facilitate awareness and mobilize policy and programme support to CPRs is the increased visibility of CPRs contributions, the poor's dependence on them and the vicious circle of poverty and CPR degradation as an important dimension of poverty dynamics.

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