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Degradation of Common Property Land Resources in Odisha: Causes and Consequence

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ABSTRACT

In this study, an attempt has been made to examine the trends in common property land resources (CPR land) during the last six decades and to identify the causes of such trends. The analysis is based on the secondary data collected from various volumes of 'Agricultural Statistics', 'Statistical Abstract of Odisha' and 'State forest Report'. The published data pertaining to land are available only on the basis of land use categories and to which the actual extent CPR land can be estimated. The shrinkage in CPR land at all Odisha level is attributed mainly to the expansion of land put to non-agricultural sector for various developmental activities like mining, irrigation, industry etc., increase in reserve forest area and current fallows over the period from 1950-51 to 2012-13.

KEYWORDS

Introduction

Over the years, environmental resources have been categorized into four types based on the relationship between the resources and the resource user. They are: (a) private property resources, (b) state property resources, (c) open access resources and (d) common property land resources (CPR land). The present study is confined to common property land resources. This paper is, thus, devoted to present the trends of CPR land in Odisha during 1950-51 and 2012-13 and their determinants at macro level. An attempt has also been made to examine the trends in CPR land during last six decades and to identify the causes of such trends. The analysis is based on the secondary data collected from various volumes of, 'Statistical Abstract of Odisha', 'Odisha Agricultural Statistics' and 'State Forest Report'.

The published data pertaining to land area are available only on the basis of land use categories, on the basis of which actual extent of CPR land (Chopra et al., 1990; NSSO[54th] Round, 1999; Jodha et al., 2012) is imputed. Resources accessible to and collectively owned/held/managed by an identifiable community and on which no individual has exclusive property rights are called CPR land (NSSO, 54th round, 1999). The partial or complete rights of access to the community is generally either de facto followed or de jure permitted on the land use categories of 'barren and unculturable land', 'permanent pastures and other grazing lands', 'culturable waste land', and fallow land other than current fallows'. As far as land use category of area under forest is concerned, the forest policies and Acts, from the very beginning of their implementation, provide partial or full rights of access to the forest dwellers and other local communities on the protected and unclassed forests, but the reserved forests have remained largely inaccessible to the people (Chopra et al., 1990; NSS[54th] Round, 1999; Jodha et al., 2012).

Trend in CPR land in Odisha

The area of CPR land is derived from the land utilisation pattern and classification of forest use statistics in Odisha between 1950-51 and 2012-13. Table 1 shows that the area of CPR land has continuously declined from 8691 thousand hectares in 1950-51 to 5046 thousand hectares in 1990-91; thereafter it registered an extremely sluggish expansion, reaching only 5211 thousand hectares in 2000-2001 and finally it has declined to 5118 thousand hectares in 2012-13. The area of CPR land as a proportion of total geographical area has declined from nearly 56 per cent in 1950-51 to 33 per cent in 2012-13 in the state as whole. CPR forest land has continuously declined from 4074 thousand hectares in 1950-51 to 3180 thousand hectares in 2012-13 due to rise in the area of reserve forests as shown in Table 1. CPR forests cover in the state dwindling at a fast pace, though forests are an important source of life and livelihood of weaker section of the society in general and tribal's in particular. In spite of decline in CPR forests, CPR-based activities create substantial wage employment opportunities. They provide a wide variety of products of commercial value such as timber, lac, resins, oil seeds, kendu leaves and medicinal plants. CPRs also provide protection against, and reduce impact of natural calamities like droughts, floods and cyclones.

Table 1: Trend in CPR land in Odisha During 1950-51 and 2012-13 (Area in '000 hect.)

Year	Geographical area	CPR forest land (protected +unclassed)	Barren & unculturable land	Permanent pastures &other grazing land	Culturable waste land	other fallows	Total CPR land
1950-51	15575 (100)	4074 (26.2)	1852 (11.8)	672 (4.3)	1872 (12.0)	221 (1.4)	8691 (55.8)
1960-61	15575 (100)	3806 (24.4)	1399 (8.9)	737 (4.7)	1349 (8.7)	183 (1.2)	7474 (48.0)
1970-71	15571 (100)	3714 (23.9)	840 (5.6)	537 (3.4)	512 (3.3)	270 (1.7)	5873 (37.7)
1980-81	15571 (100)	3597 (23.1)	897 (5.8)	560 (3.6)	249 (1.6)	189 (1.2)	5492 (35.3)
1990-91	15571 (100)	3210 (20.6)	499 (3.4)	726 (4.7)	597 (3.8)	214 (1.4)	5046 (32.5)
2000-01	15571 (100)	3193 (20.5)	843 (5.1)	443 (2.8)	392 (2.5)	340 (2.2)	5211 (33.5)
2010-11	15571 (100)	3180 (20.4)	840 (5.1)	494 (3.2)	375 (2.4)	229 (1.5)	5118 (32.9)
2012-13	15571 (100)	3180 (20.4)	840 (5.1)	494 (3.2)	375 (2.4)	229 (1.5)	5118 (32.9)

(Figures in parentheses are percentage of geographical area)

Source: (i) Statistical Abstract of Odisha (1960 to 2012), Directorate of Economics and Statistics, Odisha, Bhubaneswar

(ii) Odisha Agriculture Statistics (2012-13), Directorate of, Agriculture and Food Production, Odisha, Bhubaneswar

(iii) State Forest Report, Principal, Chief Conservator of Forests, Odisha, Bhubaneswar

But in case of the barren and unculturable land, the area is volatile. The area has declined from 1852 thousand hectares in 1950-51 to 840 thousand hectares in 2012-13 due to change in the size of other than CPR land in Odisha as shown

in Table 3.6. Similarly, permanent pastures and other grazing lands have fluctuated, the area has increased from 672 thousand hectares in 1950-51 to to 494 thousand hectare in 2012-13. Culturable waste lands have continuously declined from 1872 thousand hectare in 1950-51 to 375 thousand in 2012-13. Fallow land other than current fallow remained constant during 1950-51 and 2012-13 except in 2000-01 as shown in Table 1. Culturable waste lands have continuously declined from 1872 thousand hectare in 1950-51 to 375 thousand in 2012-13. Fallow land other than current fallow remained constant during 1950-51 and 2012-13 except in 2000-01.

Trend in Other than CPR land

It can only be inferred from rates of change presented in Table 2 that reserve forests has continuously increased from 2226 thousand hectares, constituted around 14 per cent of the total geographical area in 1950-51 to 2633 thousand hectares, about 17 per cent of the total geographical area in 2012-13. The expansion of area under reserve forest was mainly due to the government policy of reserving the protected and unclassed forest area for utilisation of forest dwellers and local people. The area under current fallows has declined from 784 thousand hectares in 1950-51 to 150 thousand hectares in 1990-91, which might be less impact of green revolution in Odisha. Thereafter, the area under current fallows showed a increasing trend from 150 thousand hectares to 849 thousand hectares over a period from 1990-91 to 2012-13 of the state due to positive impact agricultural policy and green revolution in Odisha.

Table 3.5 :Trend in other than CPR land Area in Odisha (1950-51 to 2012-13)(in '000 ha)

Year	Geographical area	Reserve forest area	Current fallows	Land put to non-agricultural uses	Net area sown	Area under misc. tree crops and groves	Total area other than CPR land
1950-51	15575 (100)	2226 (14.3)	784 (5.0)	857 (5.5)	2551 (16.4)	466 (3.0)	6884 (44.2)
1960-61	15575 (100)	2375 (15.2)	465 (3.0)	1013 (6.5)	3787 (24.3)	461 (3.0)	8101 (52.0)
1970-71	15571 (100)	2387 (15.3)	475 (3.1)	623 (4.0)	5601 (36.0)	616 (4.0)	9702 (62.3)
1980-81	15571 (100)	2261 (14.5)	452 (2.9)	723 (4.6)	6220 (39.9)	423 (2.7)	10079 (64.7)
1990-91	15571 (100)	2466 (15.8)	150 (1.0)	746 (4.8)	6304 (40.5)	859 (5.5)	10525 (67.6)
2000-01	15571 (100)	2620 (16.8)	430 (2.8)	999 (6.4)	5829 (37.4)	482 (3.1)	10360 (66.5)
2010-11	15571 (100)	2633 (16.9)	773 (5.0)	1298 (8.3)	5407 (34.7)	342 (2.2)	10453 (67.1)
2012-13	15571 (100)	2633 (16.9)	849 (5.5)	1298 (8.3)	5331 (34.2)	342 (2.2)	10453 (67.1)

(Figures in parentheses are percentage of geographical area)

Source: Same as in Table no. 1

Land put to non-agricultural uses has witnessed a steady enhancement in area from 857 thousand hectares (about 5 per cent) in 1950-51 to 1289 thousand hectares (about 8 per cent of the geographical area) in 2012-13. The expansion of area under land put to non-agricultural uses was mainly due to the development of infrastructural facilities such as road, railway, transport etc. to meet the demand of the expanding the economy and urbanisation. The magnitude of net area shown shows a positive trend from 2551 thousand hectares in 1950-51 to 6220 thousand hectares in 1980-81 due to expansion agricultural sector through government policies. Thereafter, the area has declined mainly because of expansion of an industry, mining, migration, urbanisation and creation more employment opportunities over a period of time. Area under miscellaneous tree crops and groves showed declining trend because of clearing groves and felling of trees between 1950-51 and 2012-13. While the area of current fallows has increased from 773 thousand hectares to 849 thousand hectares during 2010-11 to 2012-13, and the net area sown has exhibited a steady decline from 5407 thousand hectares to 5331 thousand hectares during the same period as shown in Table 2. It is attributed partly to terrain and soil conditions in these states, which provide less potential of putting more area under cultivation, and partly to the lower level of agricultural development, which creates demand for the privatization of CPR land.

If the present CPR use structure is allowed to continue unaltered, then the future for CPR land in Odisha appears bleak. The degradation of CPR forest increased the time required for fuel wood collection and resulted in the neglect and overexploitation of forest CPRs. Thus, there has been a vicious circle of degradation and overexploitation of CPRs. If this vicious circle is not broken, then the 'tragedy of common property resources' is certain to occur.

Conclusions

CPR land occupies quite a considerable proportion of total area at aggregate level in Odisha during 2012-13. The area under CPR land has declined continuously over the period from 1950-51 to 2012-13. The ecological factors have been found playing more significant role in determining the pattern of extent of CPR land. The shrinkage in CPR land at all Odisha level is attributed mainly to expansions in the non-agricultural sectors, diversion of forest area to non-forest uses for developmental programmes like mining, irrigation, infrastructure, increase in reserved forest area and current fallows over the period 1980-81 to 2012-13,which has adversely affecting their livelihood of forest dwellers.

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