

## REVIEW ESSAY

# Changing Scenario of Common Property Resources and the Role of Community in the Management of Common Property Resource

Rajni Bala

### **Abstract**

*This paper has presented an overview of the present condition of common property resources in India and the role of the community in the management of these resources. This thematic paper is divided into the three parts; first deals with the present and past role of CPRs in rural economy, second with the changing scenario of these resources in Indian context and third with community based approaches and efforts in the management of these resources.*

**Keywords:** - CPRs Role in Rural Economy, Changing Scenario of CPRs in India, Community based Management and CPRs

### **1. Introduction**

Common property resources constitute all such resources which are meant for common use of the villagers. It includes village pastures, grazing ground, village forest, woodlands, protected and unclassified government forest, fishery, waste land, common threshing grounds, watershed drainage, ponds, tanks, rivers, rivulets, water, Groundwater, reservoirs, canals and irrigation channel. The concept of CPR is highly complex, complicated and has its different meaning, scope and coverage. But the most accepted concept is that Common Property Resources are accessible to the whole community to which no individual has exclusive property right, but sometimes they are owned and governed by such institutions.

In the pre British period India had a large part of natural resources which were under the control of local communities. After independence these resources are also freely used by communities. The contribution of CPR's is not based on numerical factor but also on other more factors. The older generation in villages feels that the use of CPR land was much strict and efficient during the pre-independence period. Over a period of time the common land has degraded extensively; over 40 percent common land areas have become less productive or unproductive due to excessive grazing, soil erosion caused by felling of bushes trees by the neglecting of community (Mishra and Kumar, 2007). There are several reasons for the depletion of CPRs in India. Firstly, the exploitation by the common people for their own interest. The second reason is the ineffective

policies of state government and the ineffective role of Panchayats. Hardin (1968) described the position of the commons in his article 'Tragedy of the commons'. This situation is also continuing in India, this claim can be proved from some examples as like CPRs of land are degraded due to water erosion, salinity, water logging, careless dumping of mine water etc. (ii) community pastures are depleted due to over-grazing, community forests due to indiscriminate coping and illicit felling. (iii) Rivers and lakes are polluted by human careless, when it's dry, their banks and beds are encroached by common peoples; (iv) community fisheries are over-exploited and have already destroyed in many areas. (v) Groundwater basins are also being depleted in many arid and semi-arid regions due to population growth and development activities. There was basically needed to manage these resources at that time. Different theories had captured the important aspects of CPRs management regarding the solution of management problems. Elinor Ostrom's institutional model, Oakerson's model, Chopra's participatory model, Kartar Singh developmental model and Jodha's study mentioned technical factors to describe these problems. This essay will explore the importance of CPRs, its changing scenario and role of community based management to control these problems.

## **2. CPRs Role in Rural Economy**

Keeping the variety of conceptual approaches and their implications in mind, two distinctly different approaches were adopted for the collection of data on CPR's in the present inquiry. First, called de jure approach was used for collection of data on the size of CPR's. In this approach, only those resources were treated as CPR's which were within the boundary of the village and were formally (i.e. by legal sanction or official assignment) held by the village Panchayat or a community of the village. The second approach, called the de facto approach was adopted for collecting information on the use of CPR's. In this approach, the coverage of CPR's was extended to include resources like revenue land not assigned to Panchayat or a community of the village, forest land, or even private land in use of community by convention. Common property resources have great contribution to rural economies. The rural poor are more dependent on CPRs than rich. They receive the bulk of their food, fuel, fodder and drought from CPRs. These are also the main sources of income, employment and livelihood for the poor (Schlager and Ostrom, 1992).

Jodha (1986) mentioned the importance of CPR, is in the rural economy. He stated that CPRs are not only a source of physical supplies to the rural people, but also contribute the opportunity for employment and income for rural people. He collected the data a sample of 82 villages in 7 states (Andhra Pradesh, Madhya Pradesh, Rajasthan, Gujarat, Karnataka, Maharashtra and Tamil Naidu), he estimated that CPRs contributed Rs.530 to Rs.830 to the annual household in different dry regions. He further estimated that between 84 to 100 percent of the

poor households gathered food, fodder, fuel and fiber from the CPRs; in contrast, just 10 to 20 percent of rich farmer depend on the CPRs for these items. CPR's became the source of income and employment generation for the rural poor. A number of families spent most of their time on collecting the CPR's products in different season.

Sengupta (1995) explored some facts on the CPRs position in India. According to her that CPRs have limited significance in the economy of India because less area is under cultivation than the total land area. The remaining area consists of forest, woodlands, grassland, desert, rivers and lakes. Lastly she concludes that these estimates proved that on an average 20-25 percent of rural income is obtained from these CPR, s.

Common property resources are helpful for environmental and ecological balance. CPRs provide the source water for irrigation, drinking water and such other for village people.

### **3. Changing Scenario of CPRs in India**

However CPRs have played an important role in the community welfare but their present position is not too good. There are various causes of their decline such as (i) the human factors like socioeconomic, legal, political and technical as well as environmental factors (ii) shrinkage of common property resources due to illegal accessing, distribution of CPRs for welfare purpose, sale or privatization of CPRs of government of a local community and side effect of other development activities etc. (iii) Increasing pressure on CPRs due to population, poverty and marketing of CPRs etc.

Although the privatization of CPR was promoted in the name of helping the poor but it is less helpful for the poor. Forty percent CPR land was not owned by them in dry regions because they sold, mortgaged or leased on a long term basis as a first step towards an eventual sale (Jodha, 1986). This policy of privatization implemented by the Indian government in dry regions but cannot prove successful for rural economy because most of the given land was not fertile. Bokil (1996) argued that such a situation has arisen in the Marathwada region of Maharashtra where the dalits have encroached upon the village common lands to establish their ownership. This will lead to a number of important agrarian issues in rural areas. According to him in Marathwada, problem of migration among Dalits also happened due to the Ambedkar Movement. Dalits migrated from villages to cities in order to get out of the oppressive social relationship. This situation created a scarcity of labor in the village market and did upset the peasantry system.

Iyengar (1989) examined the size, status, and use of the CPRs land over the period of 1961 to 1981 in 25 villages located in five different Agro-climatic regions of Gujarat State. He used taluka level data on the size and use of the CPR land, classifying it for the purpose of analysis into five productivity classes as delineated by the Gujarat State Land Commission. He found (i) the size and status of the CPRs land had both declined over the period of the study; (ii) the higher productivity potential of land, but the lower proportion of the area under the CPRs land; (iii) legal privatization of the CPRs land had taken place in 9 villages' and encroachment in 12 villages out of 25 sampled villages. The author highlighted the encroachment done by all caste groups and income groups, but he is not completely successful in assessing the extent of encroachment.

Bardhan (1993) critically examined the role of privatization in developing countries. According to him privatization often creates problem from the point of view of efficiency, nationalization of the local common property resources and its management by a distant bureaucracy is better in some cases actually much worse. In his essay he explained several documented examples of successful and autonomous local community level cooperation in the management of CPR, is in the poorest countries.

Sometimes this type of encroachment or privatization also becomes the reason of class conflict in rural society. Beck (1994) argued that in West Bengal access to CPRs in many villages is not clearly defined legally but depends on the process of negotiations, bargaining or conflict between poor and rich on a system of customary rights. The author presented the picture of a customary right of Gleaning (a process of collecting paddy which fell during harvesting) in three selected villages named Fonogram, Bithigram and Keshipur where class conflict in created between communities .The author had two main purposes behind it: - to show enormous importance of CPRs in West Bengal and put a question 'why class conflict over CPRs is likely to increase in future? Iyengar (1989) argued that illegal privatization always emerged whenever legal privatization takes place in a particular area. According to him encroachment is done by all; the poor, rich and backward caste peoples. The author gave some reasons for this problem: -first growing population, second inactive role of revenue department and gram Sabha in the rural economy.

Jodha (1985) explored the factors that in the absence of regulatory institutions, rapid population growth may lead to degenerative pattern of use and their gradual depletion of common property resources. Indeed, as popularly conceived, depletion of such resources is a consequence of rapid population growth. Jodha founded this type of situation in the arid zone of Rajasthan where population pressure and large scale adoption of tractor played an important role in the resource depletion.

Apestequia and Maire-Rigaud (2006) presented an analytical framework of public and common goods. According to them public goods have two essential attributes: non-excludability and non-rivalry in consumption but common-pool resources have non-excludability but rivalry. The possibility of non-rival consumption by multiple consumers is the major difference between both. Wade (1987) described that all the resources are potentially subjected to congestion, depletion and degradation. Groundwater is an obvious example of common-pool resources which is facing a lot of depleting positions because it can be used jointly. Water, grazing and trees are vital to livelihood in developing countries but these resources are overexploited due to population growth and lack of development policies.

Iyengar (1989) explained that 'The Tragedy of the Commons' had occurred due to increase in human and livestock population, indirect encouragement of privatization of government, lack of will to regulate the use of the commons. Imperfect knowledge of CPR user is only one aspect of the problem and they are forced by various economic and institutional factors to behave the way they do. NGO and Government should play a catalytic role in creating a good environment for them as well as CPR user. Motivating village Panchayat might become diffident in accepting the responsibility of wasteland development. (Bokil, 1996)

Jodha, Singh and Bantilan (2012) focused on the aspect of changes with special reference to arid and semi-arid tropical areas of India. They included 90 villages, 23 districts, 7 states in their comprehensive study during 1982-86. They added some additional areas with greater focus on issue-based qualitative information, verification and plots of farmer's different years over the period of 1995-2010. Longitudinal VLS carried out by ICRISAT and CRIDA on this issue. They discuss the changing status of CPR, s in present time and also give the reason for it (i) lack of collective action (ii) State policies (iii) market forces and rural community. They mention some macro level development factors, mining policies, industrial activities and population which became the major reason for the decline of CPR, s. They had given preference to a disaggregated approach in their investigation of CPR, s.

Jodha (2008b) mentioned in his article that through balancing intensive (by cropping) and intensive land use system (through provision of pastures and community forest etc) as required by the natural resources features became a part of collective strategies for risk management and production enhancement to sustain livelihood. Twyman (1998) mentioned that conventional literature on rural people and the environment often presented a deterministic view of the relationship between poverty and the environment: poverty leads to environment degradation.

Declining position of the CPR, s will also lead to another emerging trend in rural economy which is migration from villages to urban area for better status. Jodha (2010) discussed this problem that when the people will not get better opportunities to negotiate their livelihood with policy-makers, it will create the problem of migration to urban areas rather than engage in agriculture and CPR management in rural areas. But the question arises, why this encroachment happened in the rural areas. Bokil (1996) answered in his article that dalit movement creates awareness among dalits so they want their appropriate share with force. Secondly they do bargain for their better economic condition. Political mobilization of Dalits and assertion of equality creates this feeling and in many villages feeling of encroachment creates conflict. This condition is not good for the social and economic condition of CPRs in villages.

Wade (1987) discussed the collective action and critically evaluates the Mancur Olson's collective action model for the solution of CPRs problems. To him Olson was not entirely clear on whether the source of selective punishment or reward was in the group or outside. But he can be read to mean that penalties must be organized from outside the group. He advised to form water user associations on each canal system for better water management. The collective action depends on : - (i) Resources-the smaller and more clearly defined the boundaries of the common resources. (ii) Technology: - the higher costs of exclusive technology, the relation between resources and users. (iii) Boundaries: -the more clearly defined the boundaries of the groups. (iv) Existing arrangement for discussion of common problems.

There are various reasons which are responsible for the declining position of CPRs: - Lack of participation and inclusive management, ignoring traditional ways of protecting CPRs without replacing better ways, lack of good ownership and effect of structural change etc.

#### **4. Community based Management and CPRs**

In the decade of the nineties, more holistic natural resource management policy like Joint Forest Management (JFM) and Watershed Development Guidelines constitute for more participatory approach to management of land and water in the common and governmental domains. The Joint forest management originates in the failure of a centrally driven policy in the past and its consistent criticism. In the case of forest resources the department/state continues to be the sole owner with people being involved at best as partners without any ownership rights over the assets concerned. The resource is not at the disposal of the community and the state continues to exercise the right to choose the beneficiaries to whom use rights are to be granted, and also reserves the right to withdraw the benefits extended. It was a kind of 'centralized decentralization' constituting a partnership between the forest department and the people through

the setting up of committees for forest protection. The resource sharing mechanism aimed at poverty alleviation for local communities and complementary conservation of forests. Watershed Development Guidelines, on the other hand, was aimed at holistic development of land in a watershed, seen as a possible vehicle for rural development. It was aimed at bringing together the concerns of different agencies owning land in the watershed i.e. the department of forests, the revenue department, private owners, village bodies and communities with rights of access.<sup>1</sup>

Sengupta (1995) had raised some important questions regarding CPR management. "Who should have intellectual property rights on this knowledge?" The nation state, the ethnic or regional communities, Gramsabha, village Panchayats or the traditional caste community. Chopra, Kadekodi and Murty (1989) argued that historically ownership and management of these resources rested with the state, government's failure to preserve CPRs together. Under people's participation the beneficiary groups had made responsive to the cost of preservation. They had cleared their assumption through the case studies of five villages where people's participation had played an important role in the management of water and forest. They had given successful people's participation model to Sukhomajari and the comparative study of other four villages. They also presented the relationship between private property resources and common property resources theoretical models of bargaining between people and government with cluster sampling.

Efforts in this direction have already begun both at national and the micro regions. The national wasteland development board (NWDB) was set up in 1985 for promoting the development of wasteland. Tree planting projects and programs were funded by NWDB (Iyenger, 1998).

Agrawal (2003) explored the facts that most of the scholars focused just only on producing case studies of successful community management in agriculture, fisheries, forest, pasture, irrigation and groundwater. Many of them delegated limited authority and often communities gain only limited share. In his article the author had done an analytical study of three books; Ostrom 1990; Wade 1994; Baland and Plateau 1996 properly. These three books analyzed local community based efforts to manage and the governance of common-pool-resources. Each presented a summary set of conditions critical to the sustainability of commons institutions. According to him these authors have found out 36 important conditions but still 24 are avoided. The large number of variables are affecting the sustainability of institutions that govern common resources.

Sengupta (1995) advocated some theoretical and institutional approaches and criticized some old approaches for CPR, s. It is true that there are many valid

theoretical questions which can be raised against CP based institutional possibility but a closer scrutiny reveals that some of these problems all endemic to all theories of organization, which is still in its infancy. She further explained that a group of CPR studies belongs to new institutional approach but it showed excessive concern about some unresolved problems. These new theories may differ from individual to individual.

Tang (1991) had made a distinction between bureaucratic and community system. He had given preference to a community system than bureaucratic. He presented the case of irrigation management in which the role of community was efficient. These 22 community institutions had done their work in proper rules than 14 bureaucratic institutions. He described two type of rules (i) operational (ii) collective choice. He also counted the benefit of this system in villages: - Farmers get more water, they used allocation rule for CPRs and set operational rule, farmers solved their collective action problems effectively.

Mishra and Kumar (2007) in their special article discussed critically the institutionalization of common pool resource management through several successful and unsuccessful case studies regarding pasture management in Rajasthan. The cases discussed in their paper indicate the role of village institutions and community. They took 32 villages where pasture development was undertaken by National Watershed Development Project (NWDP). The department of Watershed and Soil Conservation of the Government of Rajasthan was the Project Implementer Agency for NWDP. Data was collected through discussions, checklist, interviews and observation methods in selected villages. It was found that pasture development management was not successful in some villages due to the impartial role of Panchayats, rural people and facilitating agency. Lack of any rigid guideline of village institutions is a likely cause for failure in establishing management system.

Grafton (2000) examined property regime and common pool resource governance. The author had given an example of state owned forests of Uttar Pradesh where individuals from nearby villages are prohibited from the sale of timber. The state as a facilitator or coordinator of the resource of the action of the resource user is a desirable model of governance. The state should recognize its limits and divergence of rights over stock and flow from resources. Private, community and state based rights are property regimes which have developed to help address the difficult problem associated with the use of common pool resources. Case study from private rights based was fishery, community based was forest and state based was conservation. Common factor for successful governance is the active participation of resource users in the management of resources. Traditionally, systems of community management of CPR's and forest land had existed in different forms in many parts of the country till the end

of the 19<sup>th</sup> century. The process of extending state control over the common resources, which began with the declaration of “reserved” and “protected” forests in the closing years of the 19<sup>th</sup> century, the system of community management had gradually disintegrated and is now virtually extinct.

Twyman (1998) presented the critical picture of community resource management in Botswana. He explored the debates surrounding the community resource management and participatory development using case study material from western Botswana. These community approaches are currently in vogue, as they are seen to empower those who use the resources, and to follow the directives of international agreements. Attendance at the meetings was poor and lack of coordination on both sides. The author explained that the communities have ‘little or no experience’ to manage the resources in their areas. He suggested reconstructing the community and homogenous community. The author used field work for doctoral research which was conducted from 1995-1997 in the Ghanzi district with the mixed method approach, participatory and ethnographic methods. He used primary and secondary data to prove his argument.

Wade, Robert (1987) had shown with the reference of Mancur Olson’s “logic of collective action” that the analytical basis for this pessimism is weak for the village based CPRs management. There can be no general presumption that collective action will fail in the management of common property resources. The author analyzed 41 villages in South India (Kurnool district, Andhra Pradesh), 31 of which are irrigated with canal systems while other ten are dry. In these villages four main institutions are working (moribund in all the 41 villages). In the sample of 31 canals irrigated villages, 8 villages have corporate institutions, 11 have some but not all and 12 have none. He described three types of management in his article (water, grazing and ecological). This article discussed how things are done in the corporate villages and institutions. He had put the question, why there was a difference between the corporate and incorporate villages?

The community based user management and other approaches can be a part of the development process, but still there is a need of sufficient research and actions to find out the forms of community organizations, legal and logistical support for such community based management. Common Property Resources had played an important role in the rural economy. CPRs have declined both in their area land and their productivity. Population growth and poverty becomes the major reason for emerging many problems such as migration, environmental degradation, privatization and class conflict in rural areas. Ineffective role of government and NGO’ also becomes the reason. These are the things that CPRs management will eradicate these problems in future. Different type of

community management systems and participatory approaches have been adopted in different parts of India. But still they are not sufficient. Imperfect knowledge of CPR users is only one aspect of the problem and they are forced by various economic and institutional factors to behave the way they do so. There will be a continuous dialogue between the community and transferring the management responsibilities. Then the question arises as to whether participating institutions can continue to survive with this secondary role? Or will they wither away, as survival is not possible without a certain minimal degree of commitment on the part of everyone? In brief, when replication of participatory institutions for resource management is being considered, several new problems in the development shall have to be tackled. The sustenance of the participatory model therefore, is a continuous process of learning and adjustments to new situations (Chopra, Kadekodi and Murty, 1989). For successful implementation of the policies, it is necessary that the policies can be translated into a set of management projects. Such experiences are not undermined while certain poorly managed instances become the sole determinants of policy and its implementation (Singh, 1994). The erosion of traditional effective CPR management system is clearly a consequence or side effect of public intervention (Jodha, 1989).

In the conclusion, it can be said that Panchayati Raj Institutions in India are taking shape in most of the states and decentralized Development planning has become a key word in the administration. It will be essential to Institutionalize the management and use of CPRs through this institutional structure. Common Property Management systems can be institutionalized through in-depth understanding of the local needs and dynamics associated with the CPR. The existing policies do not satisfactorily address the problems of CPRs and consequently these all natural resources continue to be over-exploited and degraded. So there is a need for a new national policy which can be helpful to control and manage these resources for the long term. Finally multiple layers of organization may be needed to manage common-pool resources of considerable size. A proper division of responsibilities among different levels of organization is essential for the effective management of many large –scale common-pool resources (Tang, 1991). The government should help these local systems by providing a legal framework and technical assistance.

**Notes:**

- <sup>1</sup> Chopra, Kanchan and Purnamita Dasgupta (2002). Common Pool Resources in India: Evidence, Significance and New Management Initiatives, at <http://www.nrsp.org/database/documents/706.pdf> on dated 28.12.2013.

## References:

- Agrawal, Arun (2003). Sustainable Governance of Common-Pool Resources: Context, Methods and Politics. *Annual Review of Anthropology* 32, 243-62.
- Apestequia, Jose & Frank P.Maier-Regaud (2006). The Role of Rivalry: Public Goods versus Common Pool Resources. *The Journal of Conflict Resolution*, 50(5), 646-63.
- Arora, Dolly (1994). Managing Common Resources: Principals and Case Studies by Kartar Singh. *Economic and Political Weekly*, 29(36), 2353-54.
- Bardhan, Pranab and Isha Ray (2006). Methodological Approaches to the Question of the Common. *Economic Development and Cultural Change*, 54(3), 655-76.
- Bardan, Pranab (1993). Symposium on Management of Local Commons. *The Journal of Economic Perspective*, 7(4 ), 87-92.
- Beck, Tony (1994). Common Property Resources Access by Poor and Class Conflict in West Bengal. *Economic and Political Weekly*, 29(4), 187-97.
- Bokil, M.S. (1996). Privatization of Commons for the Poor: Emergence of New Agrarian Issues. *Economic and Political Weekly*, 31(33), 2254-61.
- Chopra, Kanchan, Gopal Kadekodi & M.N.Murty(1989). People's Participation and Common Property Resources. *Economic and Political Weekly*, 24(51/52) , A189-A95.
- Grafton, R.Quenton (2000). Governance of the Commons: A Role for the State. *Land Economics*, 76(4), 504-17.
- Hardin, Garrett (1968). The Tragedy of the commons. *Science*, 162(3859), 1243-48.
- Iyengar, Sudarshan (1989).Common Property Land Resources in Gujarat: Some Finding about their Size, Status and Use. *Economic and Political Weekly*, 24(25),A67-A77.
- Jodha, Narpat S. (1985). Population Growth and the decline of Common Property resources in Rajasthan India. *Population and development Review*, 11(2), 247-64.
- Jodha, Narpat S. (1986). Common Property Resources and Rural Poor in Dry Region of India. *Economic and Political Weekly*, 21(27),1169-81.
- (2008b). Rural Commons and Livelihood Strategies in Dry Regions of India.*The European Journal of Development Research*, 20(4), 597-611.
- (1989). Depletion of Common Property Resources in India: Micro-Level Evidence. *Population and Development Review*,15(15), 261-83.
- (1990).Rural Common Property Resources: Contribution and Crisis. *Economic and Political Weekly*, 25(26), A65-A78.
- (2010). South Asia's Commons are Weakening. *Himal Southasian*, Special issue (Kathmandu), accessed from <http://www.himalmag.com/component/content/article/342-.html> on dated 12.07.2013.
- Jodha, N.S., Naveen P.Singh & Cynthia S. Bantilan (2012). The Commons, Communities and Climate Change.*Economic and Political Weekly*, XLVII (13), 49-56.

- Karant, G.K. (1992). Privatization and Common Property Resources: Lessons From Rural Karnatak. *Economic and Political Weekly*, 27(31/32), 1680-88.
- Mishra, Pardeep Kumar,&Mukul Kumar (2007). Institutionalizing Common Pool Resources Management: Case Studies of Pastureland Management.*Economic and Political Weekly*,Vol.42, 3644-52.
- Provencher, Bill.& Oscar Burt (1994). A Private Property Regime for the Commons: The Case For Groundwater. *American Journal of Agricultural Economics*,76(4),875-88.
- Schalger, Edella & Elinor Ostrom(1992). Property Rights Regimes and Natural Resources: A Conceptual Analysis. *Land Economics*, 68(3),249-62.
- Sengupta, Nirmal (1995). Common Property Institutions and Market. *Indian Economic Review*, 30(2), 187-201.
- Tang, Shui Yan (1991).Institutional Arrangement and the management of Common Pool Resources. *Public Administration Review*, 51(1), 42-51.
- Twyman, Chaska (1998).Rethinking Community Resources Management: Managing Resources or Managing People in Western Botswana?. *Third World Quarterly*, 19(4),745-70.
- Wade, Robert (1987). The Management of Common Property Resources: Finding a Cooperative Solution. *The World Bank Research Observer*, 2(2),219-34.