



# Building on Poor People’s Capacities: The Case of Common Property Resources in India and West Africa

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**Summary.** — This article examines the relation between poor women and men and common property resources (cprs). It locates poor people’s use of cprs within a wider focus on sustainable livelihoods, which argues that development initiatives need to build on people’s assets and strengths, and identifies cprs as a crucial element of poor people’s coping and adaptive strategies. The article considers evidence from India and West Africa with a particular focus on poverty reduction, equity, gender and management issues. Development agencies and governments which have re-focused their attention on poverty in recent years will find that cprs provide an entry point to understanding poor people’s perceptions of poverty and for building on their capacities. © 2000 Elsevier Science Ltd. All rights reserved.

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## 1. INTRODUCTION

### (a) *The value of cprs*

Common property resources (cprs) currently contribute some US \$5 billion a year to the incomes of poor rural households in India, or about 12% to household income of poor rural households.<sup>1</sup> This is about two and a half times total World Bank lending to India in fiscal 1996, about twice foreign direct investment in India in 1996, and more than twice the amount of official development assistance in the same year. Figures from West Africa, while less available and conclusive, suggest a similar scale of contribution to income of the poor by cprs. Additional literature makes it clear that cprs are of crucial importance to the poor in most rural areas in developing countries. It is unlikely that many other informal sources of income provide such significant benefits to poor people. Moreover, the importance of cprs is not only economic; cprs are also central to many cultural and social activities of poor rural women and men. In this paper, cprs include the

range of natural resources to which there is some degree of communal access; the poor include those who experience vulnerability, social marginalization, exclusion from a sustainable livelihood, self-perception of poverty, as well as income poverty.

There is also reason to suggest that cprs play a particular redistributive role, in that they are of greater importance and relevance to the poor than the nonpoor. Access to and use of cprs by

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the poor can be considered an indigenous system which works through unequal power structures to provide significant benefits to the poor. Poor people, and in particular poor women who are mainly responsible for accessing cprs, are increasingly being excluded from this key source of their livelihoods. In this article we first situate cprs in relation to debates on sustainable livelihoods, and then present findings from our literature survey of two regions: India and West Africa. The final two sections provide a comparative analysis of the two regions, and conclusions and policy recommendations.

We argue that far greater attention needs to be paid to both the quantitative contribution of cprs to poor people's livelihoods, and how access to cprs is negotiated and eroded. A wider understanding of the ways in which poor women and men systematically gain access to cprs can help inform development interventions by building on systems already in place that provide benefits to the poor, or, at the very least, not disrupting these systems. It can feed into a wider debate about the ways in which the poor can participate in the eradication of poverty and environmental degradation as actors, rather than as beneficiaries of state or development agency programs.

#### (b) *Sustainable livelihoods and cprs*

A substantial literature on the coping and adaptive strategies of rural people and sustainable livelihoods provides a strong conceptual framework for the focus on cpr use (e.g., Inter-Agency Forum, 2000; Carney, 1998; Hoon, Singh, & Wanmali, 1997; Chambers, 1994; Mackenzie & Taylor, 1992). This literature explores indigenous systems that promote a better quality of life for the poor, and in some cases examines policy options for working with, or building upon, these indigenous systems. The literature has identified a bias against poor people's knowledge and activities in development studies and practice. The focus on sustainable livelihoods (SL) questions the notion that civil servants, elected officials, academics or development practitioners "know best" in terms of planning for eradicating poverty.

Poor people's knowledge and abilities, must be understood within the context and socio-economic structures that reproduce poverty, and then incorporated into development planning. A number of studies related to this need

were carried out in the 1980s and early 1990s, many from an anthropological perspective.<sup>2</sup> Parallel literatures also developed with reference to farmers' knowledge, indigenous knowledge of the environment, and participatory development in general.<sup>3</sup> Perhaps most important, the SL literature focuses on positive contributions that poor women and men can make to their own, and their communities' lives. This is in sharp contrast to the many studies which have attempted to develop measures or indicators of rural poverty based on knowledge or priorities external to the rural scene, and which tend to conceptualize the poor in a negative fashion, as malnourished, underemployed or oppressed (Beck, 1994a). How poor people are conceptualized (as protectors or destroyers of the environment, for example) plays a major role in the formulation of anti-poverty strategies.

An alternative paradigm and reconceptualization of poverty-environment relations within the SL framework is proposed in the concept of environmental entitlements. Adapted from Sen's work on entitlements in the context of famine (e.g., Sen, 1981), the approach shifts the emphasis from questions of resource availability to those of access, control and management. Forsyth *et al.* (1998) challenge the dominant view which sees environmental degradation and poverty linked in a downward spiral: poor people are forced to overexploit their environments, which become increasingly degraded, leading to further impoverishment of the poor dependent upon those environments (WCED, 1987). Recent research such as that by Fairhead and Leach (1996) in Guinea, West Africa, identifies local forest patches, not as mere relics of previous extensive forest cover, but as actively managed forest which has increased over the past century, not declined, as revealed by local history and archival sources. Poor people and communities are thus reconceptualized positively as contributors to environmental regeneration rather than degradation.

The SL approach has had a direct impact on policy within development agencies. For example, the World Bank's *World Development Report* for 2000/1 plans to position "perceptions of the poor" at the starting point of the report, and the World Bank has commissioned "perception" studies from a number of countries for this purpose. The World Bank's Participatory Poverty Assessments fall within the category of SL studies, aiming as they do to assess poor people's strategies and perceptions

(see Holland & Blackburn, 1998). Coping and adaptive strategies are also a central feature in the UNDP's SL program, which notes that "(S)ustainable livelihoods are derived from people's capacity to access options and resources and use them to make a living in such a way as not to foreclose options for others to make a living, either now or in the future" (UNDP, 1998, p. 1). The Department for International Development of the UK (DFID) is "mainstreaming" SL (Carney, 1998), and the ILO and FAO are also taking the concept on board.<sup>4</sup>

Cprs are a central part of poor women and men's coping and adaptive strategies, contributing to sustainable livelihoods, and playing a major role in poverty reduction. Development practitioners and decision-makers who are committed to understanding poverty from poor people's perspective thus need to have a good understanding of cprs.

## 2. EVIDENCE FROM INDIA AND WEST AFRICA

### (a) *Methodology*

The data for this article were gathered through an extensive literature review. For both regions we examined for the most part literature after 1990, except in cases where there were studies of particular note. India was selected as the central case study for this paper for two reasons. The first is the authors' regional expertise, and the second is the literature available about India *vis à vis* other countries or regions. With its long social science history and strong current research capacity, studies about India offer perhaps the most detailed account of the cpr-poverty nexus. India also evidences a high incidence of poverty and a high degree of environmental degradation (Vyas & Reddy, 1998; Agarwal, 1995; WRI, 1994). West Africa was chosen as a supplementary case study due to: the availability of literature from this region, the lack of data from other regions (e.g., Southeast Asia), and the large differences between India and West Africa in terms of agro-ecology, power relations, and culture. By selecting West Africa for study the authors have attempted to corroborate the findings from India with those from a very different region.

While the authors did analyze data from a large number of studies, the methodologies of

these studies were not always directly comparable. Some were small-scale studies dealing with one village, while others were regional in nature. Having said this, it should be noted that the 30 main studies considered, from which the authors drew their central conclusions, provided fairly similar results in terms of findings on cprs and poor women and men. It could be argued that as so many studies with quite different methodologies (ranging from small-scale qualitative approaches to larger scale regional studies) came to similar conclusions concerning cprs and poor women and men, the studies verify each other's findings from different perspectives.

### (b) *India*

Jodha (1986, p. 1169) identifies cprs as:

the resources accessible to the whole community of a village and to which no individual has exclusive property rights. In the dry regions of India, cpr gathering areas include village pastures, community forests, waste lands, common threshing grounds, waste dumping places, watershed drainages, village ponds, tanks, rivers/rivulets, and riverbeds, etc.

To this can be added Agarwal's list of cprs (1995, p. 2a):

a wide variety of essential items (that) are gathered by rural households from the village commons and forests, for personal use and sale: food, fuel, fodder, fibre, small timber, manure, bamboo, medicinal herbs, oils, materials for house building and handicrafts, resin, gum, honey, spices, and so on.

A gap in the cpr literature on India is analysis of cprs that are gathered from privately owned land, such as gleaned grains, the right to collect cow dung or graze cattle on private fields. Access rights may not be clearly defined legally in the case of these spaces, but rather depend on a process of negotiation, bargaining or conflict between poor and elites, and on a system of customary rights whereby the poor access the land of the elites. Thus these resources gathered from privately owned lands are part of the following analysis.

As Table 1 indicates, there is a wealth of evidence to support the contention that cprs are critical to sustainable livelihood strategies of the poor in India.<sup>5</sup> Jodha's various studies produced three major findings related to cprs, income and equity, which we hypothesized

Table 1. *Findings from studies addressing cpr use and management in India*

Study	Main findings
Jodha (1986), 82 village survey in 7 states in dry tropical west and south India	Cprs constitute between 15% and 23% of poor people's income, and contribute substantially to improving village equity. Poor households are losing access to cprs, and the extent of decline between the mid-1950s and 1980s was between 26% and 52%.
Jodha (1985a), six village survey in arid Rajasthan	Between the early 1950s and early 1980s, all types of cprs in the arid zone both declined in area and deteriorated in quality. Main causes of decline were land reform and commercialization.
Jodha (1985b), three arid districts in Rajasthan and two districts in Madhya Pradesh	A far greater reliance on cprs for the small farmer and landless than for large farmers in the areas of grazing requirements, collection of fuel and fodder and consumption of cpr-food.
Jodha (1990, 1986)	For small and marginal farm households, between 31 and 42% of total own farm inputs are contributed in cash and or kind inflows from cprs. Employment generated by cprs for the poor was higher than on-farm work or public works. A drastic decline in the number of products, and increased time involved in collection, over a 30-year period was noted.
Iyengar and Shukla (1999), survey of 15 villages in Gujarat	Cprs made up 0.1 to 11% of consumption expenditure of farm and between one and 22% of nonfarm households.
Iyengar (1997, 1989), 25 Gujarat villages with a focus on nonforest products.	Dependence on cprs was largely grazing and fuel wood. Dependence on cprs was higher in drought prone areas.
Beck and Ghosh (2000), Ghosh (1998), Beck (1998), survey of seven villages from across the agro-ecological zones of West Bengal.	Cprs made up between 10 and 15% of poor households income, and were more important the poorer the household. Poor people are being systematically excluded from cprs by processes of "modernization."
Chen (1991), single village study of 59 poor households in Ahmedabad District of Gujarat	The poor collect over 70% of their fuel and 55% of their fodder requirements as cprs and these resources are more important to the poor than the better off. There has been a gradual decline in cprs in the village over the last thirty years, mainly through privatization. Conflict over cprs increases in times of crisis.
Singh, Singh, and Singh (1996), study of eight villages in the semi-arid region of Punjab	Cprs contributed about 27% to the total gross income of landless and 22% to that of cultivating households.
Agarwal (1997), Agarwal (1995), Agarwal (1991), literature reviews and field work throughout India	30 million or more people depend wholly or substantially on nontimber forest products, which are of particular importance in the lean season. Women and children play a central role in accessing cprs, and have a more detailed knowledge of cultivated and wild crops than men in some cases. Access to cprs has declined across India over the last 30 years.
Beck (1994a), study of three villages in West Bengal	Cprs constituted between 19 and 29% of household income of very poor villagers. Conflict over cprs is central to poor households experience of poverty.
Pasha (1992), study of three villages in Karnataka	Cprs made up 10% of gross income of poor households. The area under cprs has declined by about 33% over the last 20 years.

would hold across all of the agro-ecological zones of India. The findings are:

- cprs contribute between 12% and 25% to poor households income;
- the poorer the household, the more important the contribution of cprs;
- cprs contribute to rural equity because they are accessed more by the poor than the rich.

The findings in the table verify these hypotheses, and indicate that cprs contribute up to 27% of the income of poor households. Estimates of returns from cprs to the poor are necessarily

rough; the point here is not to pin down an exact number but to point out that in almost all cases reviewed returns to the poor were significant.<sup>6</sup>

Chen's (1991) case study of a Gujarat village is illustrative of the central role that cprs play in the sustainable livelihood strategies of poor households. She notes that: "virtually all households supplement their primary and secondary occupations with a significant daily volume of routine, primarily subsistence-oriented activities, notably the gathering and collection of fuel, fodder and water, generally

carried out by women" (p. 111). Chen comments that these resources are of particular importance for the poor, and are gathered not only from common lands but also from what she terms open access PPRs, that is, property that is privately owned to which the poor gain access. Some 35 products were reported to be collected or harvested, the largest number relating to fuel and fodder supplies. The poor collect over 70% of their fuel, and 55% of their fodder requirements from free sources (cprs or open access PPRs), while for other households the figures are 50% and 25% respectively (see Beck, 1994a; Pasha, 1992 for other micro-level field studies).

It is unlikely that other informal sources exist that provide a similar scale of benefits to the very poor. Cprs also provide substantial benefits during the lean season (Beck & Ghosh, 2000; Jodha, 1986). Whether the relationship between the degree of poverty and dependence on cprs holds needs to be further tested.

Exclusion of the poor from cprs across regions of India is a common feature of the literature reviewed (Nesmith, 1991; Agarwal, 1995; Iyengar & Shukla, 1999; Arnold & Stewart, 1991; Jodha, 1985a; Jodha, 1986; Jodha, 1992; Prasad & Rao, 1997; Shanmugaratnem, 1996; Babu, Chandara, & Dent, 1996; Blaikie, Harriss, & Pain, 1992; Pal, 1990). Unwritten, traditional rights are being increasingly overruled by processes that the poor cannot control. Between the 1950s and 1980s in seven districts of western and southern India, the extent of cpr lands in 82 study villages declined by between 26% and 52%, mainly because of privatization through land reform; the number of products drastically decreased, and time involved in collection increased (Jodha, 1986, 1990). Similarly, in his seven-village study of West Bengal, Ghosh (1998, p. 65) found that the area and status of cprs has declined over the previous 50 years, and "rights of access of the common people to these resources has also been gradually curtailed." Pasha (1992) in his study of 14 villages in Karnataka found a steady decline in cprs from about 36% to 24% of the total geographical area of the village over about the last 20 years, due to encroachment of the rich and government schemes such as tree plantations.

Exclusion of the poor from cprs is being facilitated by a number of processes:

- liberalization, commodification, marketization and agricultural intensification,

- which have been going on for decades (Freese, 1998);

- related to the first point, elites are increasingly cornering cprs previously used by the poor, partly through privatization or enclosure of formerly "common" land, and partly through refusing access to cprs to which poor people previously had access;

- while systems of regulation of cpr lands existed in the past, these systems appear to be breaking down;

- increase in population has led to greater pressure on resources.

- general degradation of cprs, caused by the factors noted above.

Put together, these factors have led to a gradual but systematic exclusion of the poor from cprs. Given the importance of cprs to the poor, this is likely to have a severe impact on poor people's livelihoods.

A number of authors (Iyengar & Shukla, 1999; Chakravarty-Kaul, 1998; Gadgil & Guha, 1995, 1992; Guha, 1989; Jodha, 1985a) have attested to the ability of "communities" to manage local natural resources. There is evidence from the grazing lands and hill regions of India that sophisticated indigenous systems of management of natural resources have been in place for some time. One of the most often cited examples is mutually beneficial agreements made between pastoralists and cultivators; after the harvest, pastoralists are invited to graze their cattle for a fixed period on cultivators' land in exchange for the cattle manure.

Questions remain, however, about how widespread and equitable such indigenous institutions were (Hobley, 1996). For example the types of community organization which Wade (1992, 1988) analyses, mainly for management of irrigation and grazing lands, provide little or no direct benefit to the poor in the villages he studied (1988, pp. 107–108): "...the point is clearest in the two main services the [village] council is concerned to provide: common irrigators and field guards, who benefit crop and animal owners. Many households in the village own no crops or animals." Women are also excluded from this "public" domain of management (Wade, 1988, p. 113). Similarly Berkes, Davidson-Hunt, and Davidson-Hunt (1998, p. 129) in their study of two Himalayan villages, describe how local organizations are controlled by village elites and that: "... poor women who needed commons for gathering grass or firewood for cash sale (as opposed to household use) had no

voice in the *mahila mandal*, (women's organisation) and their needs were not incorporated into the local management of common lands." Agarwal (1997) argues that many of the recent moves toward establishment of user groups for the management of natural resources represent a move toward re-establishing some degree of communal property rights, similar to those that have gradually been broken down in the last several hundred years. She supports the view that "the old communal property systems,... in one way or another, recognized the usufruct rights of all residents of the village [however], the new ones represent a more formalized system of rights dependent on membership in the emergent institutions" (1997, pp. 2-3), and therefore, they are less inclusive than earlier structures.

Inclusive or not, "traditional" management systems have tended to break down under the pressures of modernization; combined with the increasing exclusion of poor women and men from cprs, control over cprs is likely to become a central axis of class conflict as it was in 18th and 19th century agrarian Europe (Beck, 1994a). The literature on this topic in India is limited, however, two studies were found that detailed intra-village conflict between poor and rich concerning cprs. Beck's (Beck, 1994a,b) study noted considerable conflict over cprs within his three study villages in West Bengal, in particular between very poor women and better-off farmers. Rights of access were continually renegotiated between holders of the resource and those attempting to access it, particularly in the case of access to private property. Gleaning is a good case in point; while not particularly significant in terms of quantitative gain for poor women, gleaned grains were of considerable symbolic importance to the poor, as they represented a connection to the land for landless households, no matter how tenuous. Attempts to refuse this "right" of access were greeted with derisory, behind the back, comments about the miserliness of the rich.

Conflicts over cprs gathered from either common resources or private property were evident in Chen (1991) Gujarat village study; the "rights" of the poor to the latter were rescinded by the property owners during times of stress. In the drought year of 1987, Chen notes that (178-179):

Farmers no longer permitted other villagers to collect grass or weeds from their cultivated fields or to graze

cattle on their fallow fields... As the price of cow-dung cakes rose, women began to quarrel over rights to collect dung from public spaces in the village... Many villagers lopped twigs and branches from both private and public trees at night.... Four major conflicts over grazing rights, some ending in physical violence, were reported.

These conflicts were mediated either by veterinary doctors or in one case in court. Chen notes that (pp. 2, 13-14) "Because of the strain placed on common property resources during droughts or other crises, areas of traditional *reciprocity* or cooperation become areas of *conflict*...." But, such conflict over what Chen terms open access PPRs has probably always been common in rural societies (Thompson, 1963).

Little research has been carried out into either the equity nature of indigenous institutions for resource management, or into conflict over cprs. Yet conflict over cprs, as part of a wider intra-village conflict between elites and the less powerful, must play a major role in poor people's relations to cprs, even in regions where villages display relatively greater equity.

### (c) *West Africa*

The importance of cprs to rural West Africans as sources of income and subsistence provisions is clearly documented at the regional as well as local case-study levels, with substantial evidence pointing toward heavier reliance on these resources by the poor, although not as carefully quantified as in the India case (Osemobo, 1991, 1993; Abbiw, 1990; Arnold & Townson, 1998; Baumer, 1995; Becker, forthcoming). The sources of cprs in West Africa include: rangeland, bushland, uncultivable fields, fallow fields, forests, inland waterways, seasonal ponds, and low-lying wetlands, which may be on state, private, communal, or open-access lands. "Across the region, common pool resources continue to be a significant component of the land resource base and are widely used by farmers, pastoralists and other rural dwellers" (Williams, 1998, p. 1). Cprs provide food sources in times of drought, and the sale of nontimber forest products and items made from these, as well as, leaves, fruits, fodder and firewood are important income sources. Fodder and water for livestock are mainly drawn from cprs. The literature reviewed here covers mainly forests

and farm bush products, but also pasturelands, fisheries, and salt mining (see Table 2).

A study, by the International Fund for Agricultural Development IFAD (1995), which developed from a program to protect and increase the agricultural incomes of the rural poor in sub-Saharan Africa, provides a useful context for understanding cprs in West Africa. The program had not involved common property resources and it became apparent "that no approach to sustainable resource use and income improvement could be comprehensive unless it addressed these resources and their use" (p. x). IFAD argues that cprs are particularly important to the rural poor and that common management regimes can be economically rational forms of management (particularly under conditions of low resource productivity), and that the failure of such management forms is often the result of outside forces. IFAD make the critical point that cpr regimes have worked to the benefit of the poor because they have also benefited the rich.

The vital role played by cprs in West Africa is illustrated in Dei's (1992) case study of 412 households in Ayirebi town in Eastern region in southeastern Ghana. This is one of the few studies located which attempts to differentiate village households according to wealth (also see Becker, forthcoming). Recession and drought in 1982–83 combined to exacerbate the existing pre-harvest lean season. Using a smaller sample of 20 households, Dei's data show that the poorest households rely on "bush" sources to meet 20% of their food requirements during the lean season, compared to bush sources providing 2% and 8% of wealthy and middle income households needs respectively. During 1982–83 households revived strategies for seasonal food supply shortages. "A wide variety of... wild products, such as roots, fibres, leaves, bark, fruits, seeds, nuts, insects, molluscs, sap and syrup was exploited largely by Ayirebi women and children to satisfy basic household needs" (Dei, 1992, p. 67). Men undertook hunting and trapping of small mammals, reptiles, aquatic species, and birds to provide other food sources.

The importance of cprs to rural West Africans is demonstrated in the literature, however, issues of equity are not prioritized. There are some references to the relative reliance on these resources of the poor, and some discussion of how community management institutions have worked toward ensuring equitable access for community members, and there are implicit

equity issues in many of the studies reviewed. Explicit discussions of poverty, marginalization, and cprs are rare, however. Another significant theme is the continuing importance of cprs as means to meet seasonality stresses and contingencies (Arnold & Townson, 1998; Dei, 1992). As in India, at both the regional and local levels researchers and respondents have identified a decline in availability of these resources. Factors cited include commercialization of cprs, changing land tenure and regulation, government policies, agricultural development, and changing cultural values. These will be examined in more detail below in the section on indigenous management institutions for cprs.

There are a number of examples of indigenous institutions for cpr management in the West African literature. It is here that the mechanics of equity issues can be located, as well as some understanding of the evolution of community management over time, and what elements of "traditional" management structures may be most useful to support today, in order to support marginalized groups.

Freudenberger *et al.* (1997) detail the *tongo* system and similar regional systems which define "open" and "closed" seasons for particular resources, to ensure that they reach full maturity before harvesting, in areas of The Gambia, Guinea and Sierra Leone. *Tongo* restrictions evolve and dissolve according to the value a particular resource has to the community at a particular time. "... *tongo* currently occurs around economically useful trees (and their fruits) and shrubs, thatch grasses, fish ponds, and drinking water sources..." (p. 389). The timing of the *tongo* is determined by a rural institution such as a council of elders, highly respected individuals, or religious societies, within which the authors claim that respected elder women's voices are heard, though not on parity with men. The monitoring and enforcement is the responsibility of village youth, which ensures the transfer of community knowledge to youth. The retention of community control and rule-making is enhanced by the lack of government interest in these resources. The *tongo* serves the purpose of reducing conflict between community members that could arise over theft. In relation to equity, in many cases once the ban on collection of a product is lifted all community members could partake in its harvest, no matter where it is located.

Table 2. Findings from studies addressing cpr use and management in West Africa (with some reference to sub-Saharan Africa)

Study	Main findings
IFAD (1995), survey paper on cprs and the poor in sub-Saharan Africa	Cprs are of central importance to the rural poor, and should be an important part of development strategies, with projects aimed at benefiting both the rich and the poor.
Arnold & Townson (1998), compiles data from surveys of seven sub-Saharan African countries	Estimates that approx. 15 million people in the region are involved in forest-based income activities. This income is particularly important for the poor, and is critical in meeting contingencies and seasonal fluctuations.
Abbiw (1990), catalogues uses of plants and trees in Ghana Osemeobo (1993), gathered data from 15 rural settlements in rainforest areas of Edo, Ondo and Ogun states in Nigeria Osemeobo (1991), gathered data from 21 rural Nigerian settlements with dominant forest or savanna vegetation Becker (forthcoming), case study of differentiation of forest users in Soro village, Mali	There are many uses for species including food, fodder, building, furnishings, crafts and tools, fuels, medicines, dyes and poisons. Main uses of cprs were for food, fuelwood, income generation, and traditional medicine. All strata in the communities used cprs, but the poor were more dependent on them. Individual earnings from cprs ranged from US\$817-5200 per annum. Rural women earned between US\$ 53 - 750 annually through sale of collected products such as seeds and nuts, mushrooms, wrapping leaves, and snails. Forest products are vital to the rural economy. All households relied on cprs to some extent, reliance was greatest amongst women and poor households who sold products derived from cprs to purchase daily food. Women earned 79% of their personal income from sale of firewood and shea butter, collected from cpr sources.
Dei (1992), study of 412 households in Ayirebi town, Ghana	Poorest households rely on "bush" sources to meet 20% of their food requirements in the lean season, compared to 2% and 8% for wealthy and middle income households respectively.
Williams (1998), survey of cpr management in semi-arid West Africa	Historically successful indigenous cpr management systems have been weakened. Governments should return control to local institutions and provide support and dispute resolution services. The <i>tongo</i> defines "open" and "closed" seasons for valuable resources to ensure their maturity, equitable access, and minimize disputes. Timing of the <i>tongo</i> is determined by local leaders.
Freudenberger, Carney, & Lebbie (1997), study of the <i>tongo</i> resource management system in the Gambia, Guinea, Sierra Leone Olomola (1998), study of fishing rights, conflicts, and resolutions in Ondo and Rivers states, Nigeria Manuh (1992), study of indigenous management and commercialization of salt mining, Ada district, Ghana	Artisanal fisheries are governed by community rules of access with traditional leaders as dispute resolvers. Access rules equalize access for locals and exclude non- <i>indigenes</i> . Community access to local salt, a cpr, was lost via dam development, and local leaders and government ceding rights in the resource to private companies. Intense conflicts resulted as community struggled to regain rights.
Afikorah-Danquah (1997), study of food cropping, charcoal, and fuelwood in Wenchi district, Ghana Carney (1993), study of changing land use rights on communal land in the Gambia. Carney & Farrington (1998), survey of rangelands management in Africa.	State regulations with regard to forests are in conflict with customary land and tree tenure arrangements, which results in conflict amongst user groups and regulators. Commercialization of wetlands/swamplands under various development projects led to loss of women's control over the products of their labour on those lands. Indigenous rangeland management is poorly understood, and project interventions involving in "ranching" and fencing of cprs have been unsuccessful.
Scoones (1995), survey of pastoral development in Africa.	Notes failure of development programs aimed at pastoralists. Need is to support pastoralists' adaptive strategies, and provide conflict resolution and institutional support.
Skinner (1992), study of one project in Mali to reconcile conflicting interests of woodland users.	Implementation of a woodland management strategy is aimed at stabilizing use and minimizing conflict, however, it will result in the exclusion of some current resource users.
Blench (1997), survey of resource conflicts in sub-Saharan Africa.	Resource conflicts are more prevalent than earlier in the century, and will likely increase, but can be used as sources of innovative management solutions.



Rivers, creeks, lakes, and fishing pools provide an important livelihood source for people in coastal areas of Nigeria including Ondo and Rivers states, the areas in Olamola's (1998) study. The majority of ownership rights are communal, with the rights of use accorded to each *indigene* member of the community (though the discussion only refers to male fishers). Rules to equalize community access restrict the transfer of use rights of any lake to one year, and prohibit an individual accessing any of the lakes for two consecutive years. Conflicts occurring over fisheries focus on breach of tenancy regulations or common property rules, and are a result of increasing scarcity of fishery resources, rising commercialization, and the need to protect an important livelihood source. As in the case of the *tongo*, there is heavy reliance on local traditional leadership mechanisms for dispute resolution. Of interest in terms of access, is the relative disadvantage and exclusion from cprs experienced by immigrants to the area. Regardless of length of residence in an area, a stranger remains unable to access the communal or lineage rights to use of local fisheries, although they may rent fishery sites. The authors note that even this level of access to fishery cprs is decreasing (Olamola, 1998, p. 127). Does exclusion amount to a "successful" community strategy—who are the strangers, how do they attempt to negotiate access, and what are their other options (also see Osemobo, 1991 on *indigene vs. stranger access*)?

An example of local cpr use, an indigenous management system, and its erosion by commercial and state forces is in Ada district in the Greater Accra region of coastal Ghana (Manuh, 1992). After the Volta river flood waters retreated, brackish water was left in the lagoon; the lagoon dried out, leaving a deposit of about 2.5 cm of salt. At the direction of the local chief, the priest and priestess would place a ban on the gathering of salt until all of the salt exuded. After removal of the ban, access was equal for all, however, a toll on salt gathered was shared between chiefs and priests. Salt production was negatively affected in the 1960s with the creation of the Volta Lake and Akosombo dam which disrupted the wetting/drying out cycles of the lagoon. In the 1970s two private companies were given leases by local chiefs, with government approval, to win salt from the lagoon, to the virtual exclusion of the customary rights of access of local people. During the 1980s there were significant conflicts

between local people attempting to exercise customary rights of access to the lagoon, and the armed guards of the salt companies. It was not until the death of a local woman in 1985 that the government investigated the complaints of local people, and reinstated universal community access to the lagoon. Another result of the conflicts was the formation of the Ada Songor Cooperative Society of salt winners, and other subsequent salt coops. The Ada Songor Society membership consisted largely of women salt collectors, yet, the society leadership was largely male.

Overall it is evident that powerful indigenous management systems have been in operation and still operate in West Africa. They tend to involve chiefs, religious leaders, or councils of elders as decision-makers, and are intended to work for the benefit of the whole community, though not necessarily to their equal benefit, through preserving the resources, and ensuring some level of universal access. Questions insufficiently answered in the literature include: to what extent can traditional forms of sanction—such as community exile or ritual penitence, serve to maintain these institutions as communally held values are challenged by encroaching urban society? The introduction of market values, concepts of Western individualism, and the option of migration are reasons for the decline of local management strategies because there is no "buy in" by youth, and less authority held by traditional authority figures (Baland & Platteau, 1996, pp. 275–277). But, while exile means living without resource access rights in another community, and regarded permanently as a "stranger," there would be a strong incentive to uphold cpr management restrictions. In addition, to what extent are indigenous management structures capable of addressing the needs of marginal groups in the community, such as "strangers," young women, or the poor? How can quality local leadership be supported?

### 3. COMPARISON—INDIA AND WEST AFRICA

Despite differences in population density, land types and tenure systems, and the presence of diverse cultures in both regions, there are some notable similarities in cpr regimes, as well as some interesting differences. It is clear that there are common forces leading to the degradation of cprs and loss of access to them,

particularly by the poor. These include: commodification of cprs, agricultural intensification, breakdown of community management systems and associated changing community values, and land privatization. In both regions the poor rely most on cprs, although class-differentiated use of cprs is more well-documented in India. Similar types of cprs are used in India and West Africa—particularly in relation to forest and nontimber forest products. Parallel indigenous management strategies developed between pastoralists and agriculturalists in both regions, where grain and crop residues as fodder are exchanged for the benefits of live-stock manure on the fields.

(a) *Land tenure*

Land tenure issues have some similarities but there are also notable differences between the two regions, which have implications for access by the poor to cprs. In both regions there is a colonial heritage in relation to land, where forests and some other communally-owned lands were, and have continued to be, vested with the state. This has had profound implications for the demise of indigenous communal management strategies, degeneration of common pool resources, and exclusion of local users. Both areas have also experienced increasing privatization of common lands through expropriation by individuals, the state, and commercial interests. In terms of existing communal lands, however, there are more categories of such lands, and thus more opportunities for legitimate access to those resources, in West Africa. For instance, Osemeobo (1993) identifies four types of communal land tenure in Nigeria, each with different rules of access, different land use decision-makers (e.g., family head, or elders of family group, etc.), and different relationships through which right of access is asserted. The four types are: extended family land, group-family land, village land, and clan land. In contrast, in India, rights in communal land are less well-defined, and therefore the poor and marginalized in the community must continually negotiate to retain their access rights.

(b) *Rural differentiation*

In sub-Saharan Africa and South Asia around 50% of the population was estimated to be living below the poverty line in 1990 (Heyer, 1996). The poor are a clear group, repeatedly

identified in the Indian literature on cprs, however, the poor are on the edges of the discussion in the West African cpr literature. Clearly, the poor are not less numerous in sub-Saharan Africa, but why are they less visible in relation to cprs? Heyer (1996) makes the case that in India, the structural forces operating on the poor are different than those affecting the rich, while in rural Africa, she argues, the same forces are affecting all residents, the poor are just experiencing those conditions more harshly. She also adheres to the "...well-supported view that poverty in sub-Saharan Africa is more a matter of the existence of poor rural areas than of inequality within them" (p. 2). Mackenzie (1992, p. 27), in a critique of World Bank and IMF Structural Adjustment Policies in sub-Saharan Africa suggests that it is oversimplifying to view African communities as undifferentiated entities. It is beyond the scope of this article to assess whether there is indeed less differentiation in rural West Africa, but it is clear that in terms of research on cprs and environment, social differentiation has not been a focus. From a policy perspective are the needs of the poor, in our broad definition including marginalized groups, in West Africa less visible because of assumed egalitarian communities? Who are the "strangers" in communities and what access do they have to resources?

(c) *Gender*

Evidence from India shows that gathering and use of cprs is largely women's and children's work (see Ghosh, 1998; Agarwal, 1995; Nesmith, 1991; Pasha, 1992; Chen, 1991). This gender division of labor is articulated in studies on West Africa as well (Dei, 1992; Osemeobo, 1993, 1991; Becker, forthcoming); though in both regions men play a role, particularly in relation to hunting or trapping. The age and gender hierarchies of rural West Africa clearly place older men in powerful positions in cpr management, with women and youth in peripheral roles, despite the primary role that women play in collection of products from cprs. Similarly in India, state sponsored (Agarwal, 1997) and indigenous management institutions (Wade, 1988), often exclude women from overt participation. Baland and Platteau (1996, p. 342) suggest, in relation to Africa, that successful contemporary community management institutions may evolve through reliance on committed, educated younger community members for dynamic leadership, while

including a consultative role for traditional elder-led councils. But, women as well as youth will need a role in order for systems to be inclusive, despite the often unproven claim that traditional councils meet the needs of all.

A second cross-regional concern is contemporary enclosure of the commons which has weakened women's customary rights to rural resources. In India,

given their limited rights in private property resources such as agricultural land, rights to communal resources such as the village commons have always provided rural women and children (especially those of tribal, landless, or marginal peasant households) an independent source of subsistence (Agarwal, 1995, p. 2).

In the Gambia (Carney, 1993), commercialization of wetlands/swamplands under various development project initiatives has resulted in the shift from women having rights to cultivate and individually control the products of their labor on communally-owned lands, toward male rights of control over the products of women's labour on those lands. Privatization of "common" resources may worsen the relative position of women within the household. The review also found that attention to the relations between cprs and gender relations in most studies was minimal, an important gap which needs to be addressed by further research.

#### 4. CONCLUSIONS AND POLICY ISSUES

Notwithstanding the differences between India and West Africa, and the differences within the study areas themselves, the evidence suggests that across the two regions:

- (a) cprs are vital resources for the poor. Cprs are of particular importance to the poor in the lean or pre-harvest season, or other times of stress, when other sources of income are not available;
- (b) women in particular are involved in accessing and using cprs, but often not in management;
- (c) cprs likely have a redistributive effect. Cprs are of greater importance to the poor than to the rich, in that they usually make up a larger share of poor people's income;
- (d) poor people are being progressively excluded from these livelihood resources by privatization and commercialization;
- (e) indigenous institutions for cpr management are under strain due to modernization

and globalization pressures, and conflicts amongst users are apparent. The extent of influence of the poor on such institutions is, where understood, limited.

If we want to understand cprs from the poor person's viewpoint then we need to examine power relations in more detail, both processes of exclusion, how the poor negotiate for resources, and how these negotiation capabilities can be built upon. Such an understanding requires a "worm's eye view;" it is likely to be missed in most rapid survey techniques such as Participatory Poverty Assessments or Participatory Rural Appraisals, unless these approaches specifically set out to examine power relations. But it is the branches of the tree cut down at night, the stolen fruit, the cow impounded for eating a standing crop while grazing on the field boundaries, the imputed stains on the reputations of the rich for disallowing access to "traditional" resources, that are central to poor people's experience of their local natural resource base.

An important area for future research is issues of equity, community differentiation and cpr access. There is a lack of micro-level studies, particularly in the West Africa region, which quantify social and economic differentiation in communities and address access and reliance on cprs. A related issue is the question of how indigenous resource management systems address equity issues, including gender equality. The current literature contains some detailed descriptions of management systems, with some reference to the contributions of the systems to community well-being. More research is needed, however, to understand the extent to which such management regimes successfully equalize access to community resources, and to clarify the status of marginalized groups and "strangers" who are resident within a management area, but are frequently excluded from resources. Intra-village relations and conflict about cprs should also be included in this area of study. In order to do this, the definition of cprs should be extended to include resources that the poor access from private land.

A related question is whether poor people gain more access to cprs when they are better organized, for example, into agricultural labor unions that represent the interests of poor women and men. The focus on "people's participation" needs to extend beyond the analysis of user groups to include a study of activist groups and their ability to support poor

people's capacity in this field. The process of exclusion of the poor from cprs through processes of economic growth and commercialisation was found to be common across the two regions studied. Other research shows that these processes are widespread (Freese, 1998). Future research on cprs therefore needs to be located within a wider analysis of political economy and other causes for environmental degradation, such as wide scale logging and mining, that weaken or remove poor people's customary rights.

Accessing cprs should be seen as a strength of the poor, and should be studied in the context of the ways in which poor people construct livelihood systems, often in situations of great inequality and injustice, to their own advantage. It is necessary for donor agencies who want to address cprs to work toward a policy environment where interventions support, rather than hinder, poor people's access to cprs. Jodha (1992) sees a key role for donors in sensitizing national agencies to the importance of cprs, and supporting relevant research. Accessing information on cprs in different regions is, compared to the cost of programme interventions, relatively inexpensive, and will yield long-term results by establishing an understanding of anti-poverty mechanisms. IFAD (1995) operational guidelines for projects to support cpr development for the benefit of the poor in sub-Saharan Africa advise a country level poverty review to ascertain the status of the rural poor with respect to cprs, including the extent of reliance on specific cprs and participation in cpr management

institutions. Cpr management regimes frequently benefit the poor in relation to the extent that they have also benefited the rich, and it is this possibility of universal benefits that can be built upon in order to address the needs of the poor (IFAD, 1995). Minimally, external interventions must work toward an environment where policies, such as agricultural intensification, do not hinder current cpr "rights" of the poor, even if direct support of these rights is difficult to provide.

The recent policy shift toward re-allocating control over local cpr management from government to communities, has resulted in a number of initiatives throughout the developing world (Baland & Platteau, 1996), including joint forest management schemes and watershed development programs in India, and terroir village programs in West Africa. Our evidence suggests that policy options to explore include supporting indigenous management institutions for cprs, notably through the provision of conflict resolution assistance (Olomola, 1998; Williams, 1998; Freudenberger *et al.*, 1997); while also seeking "... to enhance the claims-making capacity of poor people in relation to the(se) institutions... including addressing the power relations by which certain elite groups are able to dominate legal and institutional frameworks to their advantage." Forsyth *et al.* (1998, p. 3). Our evidence (reviewed in Beck & Nesmith, 1999) suggests that unless management regimes are specifically designed to include poor people, and particularly poor women, then "community"-based natural resource management may be externally supported control by elites.

## NOTES

1. This estimate is necessarily rough, and probably low, given as an estimate only to illustrate the importance of cprs. It is based on the following. Of the total Indian population in 1997 of 960 million, about 75% live in rural areas, or 720 million. Of this 720 million, about 37% (in 1994) were below the head count poverty line, or about 266 million. The average dollar per capita income of poor people is about \$350, and if there are an average of five persons in each poor household, average dollar household income is \$1, 750. Using a low estimate of 12% (Jodha, 1986, minimum estimate is 15%) of household income contributed by cprs (including direct income from sale of cprs, their in-kind value and cash employment generated from cprs), that is \$210 per household. The total contribution of cprs per year is

thus about \$5 billion. These calculations are based on figures in World Bank (1998), UNDP (1997), and Haq and Haq (1998). These calculations do not include the contribution of cprs to those rural households above the head count poverty line. If this contribution was added the figure is probably nearer \$10 billion total contribution a year to the rural economy. If "real GDP per capita" based on PPP calculations was used in the calculations, cprs worth for the population as a whole would be about \$40 billion.

2. See among many others Forsyth, Leach, and Scoones (1998), Beck (1994a), Mackenzie and Taylor (1992), Chen (1991), Chambers (1989), Richards (1985), and Watts (1983).

3. For example, among others, Chambers, Pacey, and Thrupp (1989), Davis (1993), Sen (1992), Holland and Blackburn (1998), Gujit and Shah (1998), Blackburn and Holland (1998), and Nelson and Wright (1995).
4. Personal communication, Naresh Singh, UNDP, February 1999.
5. Supplementary information on the importance of cprs to rural communities can be found in Jena, Seeland, and Patnaik (1997), Ham (1997), Mukherjee (1997), Prasad and Rao (1997), Godoy, Lubowski, and Markandya (1993), Pal (1990), Srivastava and Chaturvedi (1989), Banerji (1987).
6. Most studies include in-kind, cash and employment income in their estimates. The sum of returns in these areas is then calculated as a percentage of total household income. But, opportunity costs, for example, time taken for collection of cprs, are not usually included.

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