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Introduction

For all the emphasis given to community-based approaches within recent environment and development policy debates, results in practice have often been disappointing. Among many possible reasons, this paper highlights shortcomings in implicit theoretical assumptions about 'community', 'environment', and the relationships between them. Malthusian perspectives dominate conventional debate, and tend to frame problems in terms of an imbalance between social needs and aggregate resource availability. An alternative perspective starts from the politics of resource access and control among diverse social actors, and regards processes of environmental change as the outcome of negotiation or contestation between social actors who may have very different priorities in natural resource use and management. The notion of 'environmental entitlements' encapsulates this shift in perspective. In turn, specifying the natural-resource endowments and entitlements of differentiated groups of people, and the ways they are shaped by diverse institutions, offers operational clues for the practice of community-based natural resource management (CBNRM).

Community-environment linkages in current policy approaches

At least superficially, recent approaches to CBNRM appear as diverse as their varied implementing agencies and natural-resource settings. Yet they rest, we suggest, on a set of common assumptions about community, environment and the relationship between them.

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One fundamental assumption is that a distinct community exists. While definitions vary, approaches commonly focus on 'the people of a local administrative unit...of a cultural or ethnic group...or of a local urban or rural area, such as the people of a neighbourhood or valley' (IUCN/WWF/UNEP 1991:57). Such communities are seen as relatively homogeneous, with members' shared characteristics distinguishing them from 'outsiders'. Equally fundamental is the assumption of a distinct, and relatively stable, local environment which may have succumbed to degradation or deterioration, but has the potential to be restored and managed sustainably. The community is seen as the appropriate unit to carry out such restoration and care, and is envisaged as being capable of acting collectively towards common environmental interests. For instance 'Primary Environmental Care', a term coined to encapsulate a range of operational experiences in the field of CBNRM, has been defined as 'a process by which local groups or communities organise themselves with varying degrees of outside support so as to apply their skills and knowledge to the care of natural resources and environment while satisfying livelihood needs' (Pretty and Guijt 1992:22).

A common image underlying these approaches is of harmony, equilibrium or balance between community livelihoods and natural resources, at least as a goal. Indeed, frequently, the assumption is made - either implicitly or explicitly - that such harmony existed in former times until 'disrupted' by other factors. Assumptions, in this way, are linked together within what Roe (1991) has termed development narratives; 'stories' about the world which frame problems in particular ways and in turn suggest particular solutions.

Frequently, the narrative focuses on population growth as the key force disrupting sustainable resource management. Indeed, many of the analyses of people-environment relations which inform CBNRM conceive of the relationship as a simple, linear one between population and resource availability, affected only by such factors as level of technology (cf. Ehrlich and Ehrlich 1991). Population growth is seen as triggering generalised resource over-exploitation, leading to generalised poverty and further environmental degradation, which feed each other in inexorable downward spirals (e.g. Durning 1989). Other versions of the narrative modify this Malthusian model, seeing a functional community as having once regulated resource use and technology so that society and environment remained in equilibrium. But various factors - whether the breakdown of traditional authority, commercialisation, modernity, social change and new urban aspirations, the immigration of stranger populations, or the intrusion of inappropriate state policies - may have weakened or broken down the effectiveness of such regulation. In either case, what is required is to bring community and environment back into harmony: 'policies that bring human numbers and life-styles into balance with nature's capacity' (IUCN/WWF/UNEP 1991). This requires either the recovery and rebuilding of traditional, collective resource management institutions, or their replacement with new ones; for instance by the community management plans and village environmental committees so often associated with CBNRM strategies.

There are undoubtedly important elements of truth in such narratives (and in the more sophisticated and nuanced versions linked to particular cases). However, as we show below, the assumptions about community and environment on which they rest are basically flawed, as is the resulting image of functional, harmonious equilibrium between them. This is not to suggest that such images have no value from a policy perspective. As Li (1996) argues, they can serve a

strategic purpose for agencies and practitioners concerned to counter other narratives which are both more dominant and more harmful to poor people's livelihoods. In this respect, images of consensual communities should be judged more in relation to the policy discourses which produce them and which they serve, than against empirical reality. We pursue this point further in the conclusion. But whatever the broad strategic value of such narratives, their generality and the flaws in their assumptions mean they serve as poor and misleading guides for actual translation into operational strategies and programmes.

Difference, distribution and dynamics

An alternative starting point begins from the recognition that 'communities' are not, of course, bounded, homogeneous entities, but socially differentiated and diverse. Gender, caste, wealth, age, origins, and other aspects of social identity divide and cross-cut so-called 'community' boundaries. Rather than shared beliefs and interests, diverse and often conflicting values and resource priorities pervade social life and may be struggled and 'bargained' over (e.g. Carney and Watts 1991; Leach 1994; Moore 1993). Now commonplace in social science literature, and long integral to the critique of 'community development' approaches in development studies more generally (e.g. Holdcroft 1984), serious attention to social difference and its implications has been remarkably absent from the recent wave of 'community' concern in environmental policy debates.

Absent, too, has been attention to power as a pervasive feature of social relations, and to the ways that institutions, which might appear to be acting for a collective good, actually serve to shape and reproduce relations of unequal power and authority, marginalising the concerns, for instance, of particular groups of women or poorer people (e.g. Kabeer and Subrahmanian 1996; Goetz 1996). And the assumption that resource use is, or could be, regulated unproblematically by 'community structures' reflects outdated social theory, contradicted by more recent perspectives and empirical evidence of people's action and agency in monitoring and shaping the world around them (cf. Long and Long 1992; Giddens 1984).

Equally, recent work in the natural sciences has challenged many of the static, linear and equilibrium perspectives on ecological systems which underlie so much CBNRM, altering the assumptions that can be made about patterns and determinants of environmental change. Whether we are talking of the theories of vegetation succession, ecosystem functioning or species-area relationships, each have equilibrium assumptions at the core of their models and, not surprisingly, their findings and applied management recommendations (cf. Botkin, 1990; Worster, 1990; Zimmerer, 1994). Thus, for example, succession theory has emphasised linear vegetation change and the idea of a stable and natural climax. Since Clements' early work in the United States (Clements, 1916), this has become the guide for managing rangelands and forests, the benchmark against which environmental change is assessed. In the Ghana case study, for instance, semi-deciduous forest has been seen as the natural climax vegetation, and its restoration as a key management aim.

While there have always been disputes within each of these areas of theory, the period since the 1970s has seen a sustained challenge from the emergence of key concepts making up non-equilibrium theory and, more broadly, what has been termed the 'new ecology'. Three themes

stand out. First, an understanding of variability in space and time, including an interest in the relationships between disturbance regimes and spatial patterning from patches to landscapes. Second, non-equilibrium perspectives suggest an exploration of the implications of scaling on dynamic processes, leading to work on hierarchies and scale relationships in ecosystems analysis. Third, a recognition of the importance of history on current dynamics has lead to work on environmental change at a variety of time-scales.

These ecological themes have prompted increased interest in understanding dynamics and their implications for management. For example, recent thinking in ecology helps our understanding of the key relationship between savanna grassland and forest areas. In both the Ghana (Afikorah-Danguah, this panel) and South Africa (Kepe, this panel) sites this is an important issue, as different products and different environmental values are associated with forests and grasslands. Conventional equilibrial interpretations of succession theory sees forests as later successional forms, closer to natural climax vegetation, and the presence of grasslands as evidence of degradation from a once forested state. This linear interpretation of vegetation dynamics has a major influence on the way such landscapes are viewed by policy makers and others (Fairhead and Leach, 1996). But in some areas, forest and savanna may be better seen as alternative vegetation states influenced by multiple factors. As the papers by Afikorah-Danquah and Kepe suggest (this panel), despite powerful environmental narratives to the contrary, there is strong evidence, in both the forest transition zone of Ghana and the coastal grasslands of the former Transkei in South Africa, that certain forest or woodland areas have been enlarging over the century timescale as a result of a combination of disturbance events. Changes in soils, shifts in fallowing systems, manipulation of fire regimes, alterations in grazing patterns and climatic rehumidification have combined to change the relationship between forests and grasslands. This dynamic interaction is thus less the outcome of a predictable pattern of linear succession, but more due to combinations of contingent factors, conditioned by human intervention, sometimes the active outcome of management, often the result of unintended consequences.

With people viewed as differentiated social actors, and with the environment viewed as disaggregated and dynamic, a very different set of questions about people-environment relations arises from those which normally frame CBNRM policies. We need to ask, for instance, which social actors see what components of variable and dynamic ecologies as resources at different times? In particular, those with different modes of livelihood, or who carry different responsibilities within divisions of labour, may need to draw on very different environmental resources and services, and hold different views of what constitutes environmental degradation or improvement in that context. We need to ask, too, how different people gain access to and control over such resources, so as to use them in sustaining their livelihoods. And we need to ask how different people transform different components of the environment through their resource management or use.

Indeed, a view of ecology which stresses spatial and temporal variability, dynamic, non-equilibrial processes and histories of disturbance events suggests a very different view of environmental transformation from those underlying CBNRM approaches. Environments come to be seen as landscapes under constant change, emerging as the outcome of dynamic and variable ecological processes and disturbance events, in interaction with human use.

Seen in this way, the environment both provides a setting for social action and is clearly also a product of such action. People's actions and practices may serve to conserve or reproduce existing ecological features or processes (e.g. maintain a regular cycle of fallow growth or protect the existing state of a watershed and its hydrological functions). But people may also act as agents who transform environments (e.g. shorten the fallow, alter soils and vegetation, or plant trees in a watershed). Such transformations may involve precipitating shifts of ecological state which push ecological processes in new directions or along new pathways. While some actions may be intentional, constituting directed management aimed at particular goals or transformations, others may be unintentional, yet still have significant ecological consequences.

Over time, the course of environmental change may be strongly influenced by particular conjunctures, or the coming together of contingent events and actions. Practices and actions carried out at one time may leave a legacy which influences the resources available for subsequent actors. For instance, the farming practices of one group of people may enduringly alter soil conditions, and subsequent inhabitants may make use of these in their farming of different crops, whether or not acknowledging them as the legacy of past farmers. Equally, past actions influence the possibilities for agency open to subsequent actors. As present practices build on the legacies of past ones, so the causality of environmental change may need to be seen as cumulative, sequential or path-dependent.

Environmental entitlements

The discussion in the previous section has important implications for the lenses through which environmental problems are viewed. Whereas Malthusian perspectives, and conventional approaches to CBNRM, tend to frame problems in terms of an imbalance between overall society/community needs and overall resource availability, an emphasis on social and environmental differentiation suggests that there may be many different, possible problems for different people. In mediating these differentiated relationships, questions of access to and control over resources are key. Hence, the perspective shifts to focus on the command which particular people have over the environmental resources and services which they value, and the problems they may experience should such command fail.

The notion of entitlements is helpful in clarifying this shift of emphasis. The entitlements approach was first developed by Amartya Sen to explain how it is that people can starve in the midst of food plenty owing to a collapse in their means of command over food (Sen 1981). Undue emphasis on aggregate food availability, Sen argued, diverts attention from the more fundamental issue of how particular individuals and groups of people gain access to and control over food. Thus: '..scarcity is the characteristic of people not *having* enough..., it is not the characteristic of there not *being* enough.. While the latter can be the cause of the former, it is one of many causes' (Sen 1981:1). Just as with the food and famine debate, the environmental debate has, as we have seen, been dominated by a supply-side focus, often giving rise to Malthusian interpretations of resource issues. But as noted by Sen, absolute lack of resources may be only one of a number of reasons for people not gaining access to the resources they need for sustaining livelihoods. It is important not to polarise this distinction too far, however, since resource availability and access

are often interconnected. Conflicts over access often intensify when the resources in question become scarce in absolute terms.

The entitlements approach can also be mobilised in a more specific sense into a set of analytical tools which can assist the tracking of particular actors' access to, use of and transformation of environmental goods and services. The papers by Afikorah-Danquah, Ahluwalia and Kepe (this panel) all adopt the 'environmental entitlements' approach in their case study analyses, while the implications for practical research methodologies are explored elsewhere (Environmental Entitlements Research Team, 1997). As we have described in detail elsewhere (Leach, Mearns and Scoones, 1997), the central elements of the environmental entitlements approach are derived from the work of Sen and others, although certain significant adaptations are needed to address environmental questions.

In explaining how command over food, rather than overall availability, is key in explaining famine, Sen emphasised entitlements in the descriptive sense. The term entitlements therefore does not refer to people's rights in a normative sense - what people *should* have - but the range of possibilities that people *can* have. In Sen's words, entitlements represent: 'the set of alternative commodity bundles that a person can command in a society using the totality of rights and opportunities that he or she faces' (Sen, 1984:497). They arise through a process of mapping, whereby endowments, defined as a person's 'initial ownership', for instance of land or labour power, are transformed into a set of entitlements. According to Sen, entitlement mapping is 'the relation that specifies the set of exchange entitlements for each ownership bundle' (Sen, 1981:3). In Sen's work, these entitlement relations may be based on such processes as production, ownlabour, trade, inheritance or transfer (Sen, 1981:2). Sen's concern was therefore to examine how different people gain entitlements from their endowments and so improve their well-being or capabilities, a descriptive approach to understanding how, under a given legal setting, people do or do not survive.¹

Some elements of Sen's otherwise useful framework are too restrictive in the environmental context, however (cf. also Gasper, 1993; Gore, 1993; Devereux, 1996). First, at least in his early work, he focuses almost exclusively on entitlement mapping - how endowments are transformed into entitlements - and pays limited attention to endowment mapping - how people gain endowments. Instead of assuming that endowments are simply given, an extended framework would focus on how both people's endowments and entitlements arise, a possibility recognised by Sen in later work (Dreze and Sen, 1989:23). Second, Sen is principally concerned with command over resources through market channels, backed up by formal legal property rights. Although in later work (e.g. Sen, 1984, 1985, Dreze and Sen, 1989:11), the idea of 'extended entitlements' is introduced, it is unclear whether the concept is restricted only to mechanisms governing the intrahousehold distribution of resources or whether it also includes other institutional mechanisms. In

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¹ But within this descriptive framework, Sen had a broader agenda, deriving from particular moral philosophical concerns, which point to the injustice in a legal system which can legally permit people to starve (Sen, 1981:xx). In order to highlight this moral point, Sen did at times refer to 'entitlements' in a normative sense, and initially restricted the notion of entitlements to command over resources through formal legal arrangements, thus downplaying other extra-legal, informal means of gaining access to resources (Gore 1993).

our view, Sen's version of 'extended entitlements' does not go far enough. Since there are many ways of gaining access to and control over resources beyond the market, such as kin networks, and many ways of legitimating such access and control outside the formal legal system, such as customary law, social conventions and norms, it seems appropriate to extend the entitlements framework to the whole range of socially sanctioned, as well as formal legal institutional mechanisms for resource access and control (cf. Gore, 1993).

Given these concerns, we adopt the following definitions of key terms². First, **endowments** refer to *the rights and resources that people have*. For example, land, labour, skills and so on. Second, **entitlements**, following Gasper (1993), refer to *legitimate effective command over alternative commodity bundles*. More specifically, **environmental entitlements** refer to *alternative sets of benefits derived from environmental goods and services over which people have legitimate effective command and which are instrumental in achieving well-being*. The alternative set of benefits that comprise environmental entitlements may include any or all of the following: direct uses in the form of commodities, such as food, water or fuel; the market value of such resources, or of rights to them; and the benefits derived from environmental services, such as pollution sinks or the properties of the hydrological cycle. Entitlements in turn enhance people's **capabilities**, which are *what people can do or be with their entitlements*. For example, command over fuel resources - derived from rights over trees -gives warmth or the ability to cook, and so contributes to well-being.

There is nothing inherent in a particular environmental good or service that makes it a priori either an endowment or an entitlement. Instead, the distinction between them depends on empirical context and on time, within a cyclical process. What are entitlements at one time may, in turn, represent endowments at another time period, from which a new set of entitlements may be derived.

The phrase 'legitimate effective command' refers to a number of dimensions of entitlement mapping which often prove to be crucial in the situations which CBNRM addresses. An emphasis on the 'effectiveness', or otherwise, of command over resources highlights first, that resource claims are often contested; within existing power relations some actors' claims are likely to prevail over those of others. Second, certain people may not be able to mobilise some endowments (e.g. capital, labour) to make effective use of others (e.g. land).

The notion of 'legitimacy' refers not only to command sanctioned by a statutory system of legal property rights, but also to command sanctioned by customary rights of access, use and control, or by social norms. In some cases, these sources of legitimacy might conflict, and different actors may espouse different views of the legitimacy of a given activity. As Kepe shows (this panel), for instance, hunters living in the vicinity of Mkambati Nature Reserve on South Africa's Wild Coast are prevented in State law from hunting within the reserve. Yet groups of men do so regularly, justifying their actions by calling on customary rights, termed *ukujola*, based on historical claims predating the gazetting of the protected area.

Mearns 1995, 1996), which did not effectively establish the distinction between environmental endowments and entitlements (Gasper, 1993).

² These differ in certain respects from earlier work on environmental entitlements (Leach and Mearns, 1991;

Figure 1 presents a diagram showing how these analytical tools of environmental entitlements analysis might be linked together, and connected with the concepts of differentiation and dynamic environments discussed earlier. The upper ellipse represents an 'environment' disaggregated into particular environmental goods and services. Their distribution, quality and quantity are influenced by ecological dynamics which are in part shaped by human action. Through processes of 'mapping', environmental goods and services become endowments for particular social actors; i.e. they acquire rights over them. Endowments may, in turn, be transformed into environmental entitlements, or legitimate effective command over resources. In making use of their entitlements, people may acquire capabilities, or a measure of well-being.

The three case study papers presented in this panel all structure their arguments around this framework. It provides, in this sense, not a rigid analytical framework, but a guide for the external analyst in linking up the elements derived from a diverse set of methods. As will also become clear from the case study papers, the main value of such an analytical approach in particular situations is not its focus on the particular endowments, entitlements and capabilities of a given social actor at a given moment. These represent only a snapshot in time. Instead, analysis focuses mainly on the dynamic 'mapping' processes which link each set; in other words, on the multi-staged processes which structure resource access and control, and by which particular people derive benefit from particular components of the environment. As indicated in the boxes to the right of figure 1, it can be useful to consider these processes in relation to the institutions which structure them.

ENVIRONMENTAL GOODS & SERVICES Macro INSTITUTIONS **ENDOWMENTS** Macro INSTITUTIONS **ENTITLEMENTS** INSTITUTIONS **CAPABILITIES DIFFERENTIATED SOCIAL ACTORS**

Figure 1: The environmental entitlements framework

Institutions

A focus on institutional arrangements, then, provides a further, useful analytical tool for understanding the links between differentiated environments and differentiated communities. Such a focus contrasts with conventional approaches to CBNRM, where institutions generally either do not figure (for instance, in Malthusian analyses which link people directly with resource availability), or are equated with the type of 'community organisation' with which such approaches have typically found it convenient to work: the village management committee, the watershed

development committee, and so on. The papers in this panel take rather a different approach to institutions, grounded both in their empirical evidence and in certain discussions in recent social science debates.

First, institutions are distinguished from organisations. If institutions are thought of as 'the rules of the game in society', then organisations may be thought of as the players, or 'groups of individuals bound together by some common purpose to achieve objectives' (North 1990: 5). Organisations, such as schools, NGOs and banks, exist only because there is a set of 'working rules' or underlying institutions that define and give those organisations meaning. Many other institutions have no single or direct organisational manifestation, including money, markets, marriage, and the law, yet may be critical in endowment and entitlement mapping processes.

The perspectives emerging from the case studies do, however, render it problematic to define institutions as 'rules' themselves. The distinction between rules and people's practices is rarely so clear. Institutions are better seen as regularised patterns of behaviour that emerge, in effect, from underlying structures or sets of 'rules in use' (cf. Giddens 1984), and are maintained by people's practices, or indeed their active 'investment' in those institutions (Berry 1989, 1993). It is such regularised practices, performed over time, which come to constitute institutions. Yet as they consciously monitor the consequences of past behaviour and the actions of others, different social actors may choose - or be forced - to act in irregular ways. Over time, perhaps as others similarly alter their behaviour, institutional change may occur. But owing to the embeddedness of informal institutions, institutional change in society may be a slow, 'path-dependent' process, even if formal institutions such as legal frameworks or macro-economic policies change quickly.

There are also many situations in which behaviour appears to contravene the rules. In an insightful critique of Sen's narrow view of the rules of entitlement, Gore (1993) refers to such behaviour as 'unruly' social practices, emphasising the ways that different forms of protest and resistance challenge legal rules governing people's ability to gain command over commodities. But such 'unruly' practices may well be bound by different sets of moral/informal rules (Gore 1993: 446); such situations thus exemplify instances of competing notions of legitimacy, in which actual entitlements are influenced by the interplay of these competing rule sets in the context of prevailing power relations. Such an approach recognises that the law necessarily operates within a particular social context, whereby, for example, the judiciary is able to bend the rule of law to favour selective class, gender or ethnic interests, particularly in weak states.

Second, people's resource access and control, or the 'mapping' processes by which endowments and entitlements are gained, are shaped by multiple, interacting institutions. Some are formal, such as the rule of state law, requiring exogenous enforcement by a third party organisation. Others are informal, upheld by mutual agreement among the social actors involved, or by relations of power and authority between them. Multiple involvement may - as argued in the burgeoning literature on 'social capital', trust and networks of civic engagement (Gambetta 1988, Putnam et al.1993) - promote mutual assurance among different social actors, promoting co-operation and collective action (Mearns 1996, Swallow et al. 1997). Yet it is also clear that different institutions may carry very different meanings for different social actors, not least because of the power relations inherent in them (cf. Bates 1995). Many institutions, for example, patently do not serve a

collective purpose, even if they may once have done and as we suggested earlier, different actors' perception of the 'collective good' depends very much on their social position. Equally, rather than benign complementarity, involvement in some groups may be a response to inequities in others. Women's investment in resource-sharing networks with neighbours, for instance, may relate to their lack of power within intra-household resource allocation arrangements. To understand how different actors' practices are embedded in - and help to shape - such a range of formal and informal institutions necessitates an actor-oriented approach to understanding institutions (cf. Long and van der Ploeg, 1994; Nuitjen, 1992), one which takes an analysis of difference and an appreciation of power relations seriously.

Third, it is clear that institutions at various scale levels (see figure 1) interact to shape the resource claims and management practices of different social actors. At the international level, for example, the policies of donor agencies play an important role not only in directly shaping local approaches to community-based natural resource management, but also in influencing domestic macroeconomic policy and governance in ways that cascade down to affect local natural resource management. At national or state level, government policies and legislation are of key importance, including land reform legislation, or policies on forestry, wildlife conservation and tourism. And institutional dynamics at these levels intersect with the local institutions which influence rural livelihood systems, intra-household dynamics and so on. As the case studies will illustrate, it is frequently the interactions between institutions which lead to conflicts over natural resources, or to competing bases for claims. Yet it is also in the potential to shape or alter such interactions, as we suggest below, that some of the most fruitful ways forward for policy lie.

Implications for policy and practice

Formal organisations versus diverse, dynamic institutions

Conventional approaches to CBNRM are frequently centred on 'community' organisations as the main vehicle for their activities. Thus water users' associations, village management committees, forest management committees and so on are expected to represent the collective interests of 'the community', and to undertake activities on members' behalf, whether in preparing community resource management plans, liaising with government, or distributing the benefits from resource-sharing. Although such organisations are very often formed anew in the context of a particular programme or project, development agencies and practitioners frequently believe them to be grounded in elements of 'traditional' organisation in resource management. Indeed, they are expected to build on or replicate such organisations, reproducing the assumed effectiveness of a 'traditional' past.

Yet, as the case study papers show, such formal, community-level organisations may be a very poor reflection of the real institutional matrix within which resources are locally used, managed and contested. Considerable caution is therefore needed before assuming that such new formal organisations will replicate the assumed successes of indigenous systems, or enhance community involvement effectively (cf. Mosse 1997). The papers in this panel illustrate how privileging an idealised traditional past in debates on community development leads to many misapprehensions

about the actual functionings and capacities of resource management institutions and organisations.

First, the case studies show how multiple institutions are involved in resource management. Most of these are neither dedicated to the purpose of natural resource management nor dependent on it in any functional way. For instance, marriage and kinship exchange networks 'do' many other things besides mediate access to land, yet are important in mediating the environment-related endowments and entitlements of certain social actors.

Second, amid this multiplicity of institutional forms, different people rely on different institutions to support their claims to environmental goods or services. For most activities they combine sets of claims supported by different, often overlapping, institutions; rights to access trees for woodfuel may be of little use to generate income unless combined with kin-based claims on labour for wood cutting and transport, and trading networks for effective marketing. Equally, it is frequently combinations of institutions, acting at particular historical moments, which shape particular trajectories of environmental change. Thus, unravelling the tangled institutional matrix for any group of social actors or for any particular moment in time presents a complex analytical task, one that is more challenging than assuming that an idealised past can be recreated.

Third, many of these institutions are informal, and consist more of the regularised practices of particular groups of people which persist over time, than in any fixed set of rules or regulations. As such they are also dynamic, changing over time as social actors alter their behaviour to suit new social, political or ecological circumstances. Local, informal institutions or organisations are therefore continuously in flux, not static, time-bound forms as so often assumed. What once worked well in some distant time in the past may not be appropriate today. In today's fast changing world, institutional flexibility and dynamism is essential. Introduced, formal organisations which attempt to recapture an imagined past may undermine or reduce this flexibility.

Fourth, even where certain local institutions do have organisational forms, and do appear to take on major environmental management roles in the 'community' interest - panchayati raj institutions in India, for instance, or stool authorities in Ghana - these roles are not independent of the relations of power and authority which shape such organisations. In producing particular notions of a collective good, and appearing to act for it, such organisations frequently reproduce social exclusions, marginalising the perspectives and priorities of certain actors. Equally, the assumption that 'indigenous' organisations make decisions according to consensus, or to principles of democratic and equity-oriented decision-making, is frequently badly misplaced. The fact that women may be represented on watershed management committees in Rajasthan, as Ahluwalia shows (this panel), is no guarantee that their priorities for watershed development are heard or implemented.

A focus on social difference, and the diverse institutions which support different people's endowments, entitlements and environmental management, thus reveals perspectives which may be marginalised by approaches assuming a consensual community. But does it also point to ways to support those perspectives?

Institutional design

One response to the concerns raised above would be design-oriented. If certain institutions can be identified as supporting the interests of certain social actors, or as contributing to 'desired' courses of ecological change, then they can be targeted by projects or policy with specific strategies of institution-building or support. This would imply agencies moving away from generalised community support towards a far more partial and explicitly activist style; what Mehta (1997) terms 'aggressive partisanship'.

However, there is perhaps a danger in such targeting becoming, in effect, another form of imposition of formal organisation on previously informal, dynamic arrangements, and open to the same criticisms at a generalised community level. Indeed, design-oriented responses almost inevitably gloss over complexity and dynamism, assuming that steady-states - ecological or social - are achievable and supportable. Such assumptions may well be misplaced, as we examine further below.

Instead, a more flexible approach may be needed; one which, as Mosse (1997:500) puts it strategically supports subordinate groups to enhance access to and control over resources by taking 'operational clues' from ongoing struggles, knowledge and strategies (cf. Li, 1996: 515). Such operational clues could form part of a broader learning process approach (Korten, 1980), as an alternative to design-oriented responses. Learning process approaches require new skills of facilitation among development professionals, ones which encourage critical reflection linked to action (Schon, 1983). For instance, external agencies could facilitate particular social actors in reflecting on their needs and the institutional arrangements which might support them, using methodologies such as 'back-casting': stakeholders decide what their needs are likely to be at some point in the future, and then reflect backwards to see what the required institutional frameworks to achieve those needs would be.

However, strategic support to certain people's livelihood needs and preferred environmental ends cannot be achieved in a vacuum. Conflicts between different people's environmental needs, and between the institutional frameworks which support them, are pervasive. Development agencies do not engage with a steady-state ecological or social setting; things are dynamic and agencies must interact with contested local interpretations and meanings, shaped by politics and power relations. So, how might approaches to CBNRM address such pervasive conflict?

Conflict and negotiation

As an alternative to the type of 'aggressive partisanship' which sides with particular social groups in ongoing struggles, development agencies might choose to facilitate a more open and inclusive negotiation. The aim here would be to decide on desired ends through a negotiated process, whether between an encompassing range of social actors at local and State level, or between smaller groups of resource users, depending on the issue in question. Through negotiation, it might be assumed, conflicts between users' perspectives could be laid bare and worked through.

There exists a large literature on conflict, mediation and negotiation which distinguishes different types of conflict in terms of the contrasts in goals and objectives, the levels of gain or loss between parties or the degree of non-negotiable issues (such as fundamental rights or social identity) at stake (see for example Cousins, 1996; Burton and Dukes, 1990; Hendrickson, 1997). With different types of conflict, different processes are important - negotiation, mediation, conciliation, arbitration and so on (Moore, 1986; Pruitt and Carnevale, 1993; Kramer and Messick, 1995), which may, in turn, be supported by different institutional frameworks, sometimes requiring a legal basis which enshrines the right to negotiate and establishes the procedural options for doing so (Vedeld, 1992; Jenkins, 1997).

It would clearly be naive to assume that negotiation processes take place on a level playing field. Indeed, the very idea of negotiation conjures up an image of parties equally able to voice their positions and argue for them, which is very far from reality in most of the situations confronted by CBNRM. Just as power relations pervade the institutional dynamics of everyday resource use, so they would pervade any negotiation process. Different social actors have very different capacities to voice and stake their claims. Furthermore, negotiation processes would need to take account of differences in political culture and styles of expression: differences between, for instance, the language and discursive styles of state bureaucrats, as compared with the language and hierarchies characteristic of village meetings; contrasting, again, with the more subtle, informal networks and practices through which subordinate groups of women, for instance, might be accustomed to pressing their claims in everyday life (cf. Mosse 1994). All negotiation processes will reflect prevailing power relations, it could be argued; and if powerful groups do not achieve their desired outcome through open negotiation, they are likely to do so through other means.

Empowerment to subordinate groups therefore needs to accompany negotiation, through approaches aimed at enhancing the claims-making capacity of subordinate groups (cf. Bradbury et al, 1995). This is precisely the approach taken by the NGO Seva Mandir in Rajasthan (Ahluwalia, this panel), in which direct investments in adult literacy, leadership training and other capabilities have proven to be of instrumental value in building the social capital needed for natural resource management. Using the analytical tools of the environmental entitlements framework, claimsmaking capacity could even be seen as an endowment, which social actors combine with other endowments - rights to land, labour and so on - in attempts to achieve effective command over environmental goods and services. Indeed, as we saw in the case studies, entitlement failure frequently results less from people's lack of institutionally-grounded claims, but more from their incapacity to make claims 'stick' against those of more powerful actors in the context of resource struggles. The challenges for participatory development initiatives, then, can be thought of in these terms, whereby the links between local negotiating capacities and power relations are firmly made. This requires an approach to participation which takes the dynamics of power relations between social actors involved in the development process seriously (cf. Nelson and Wright, 1995). This has many methodological implications (Environmental Entitlements Research Team, 1997).

Dynamics and uncertainty

Just as approaches which aim to give strategic support to institutions must confront issues of conflict and power, so they must confront questions of uncertainty; both social and ecological. Because institutional arrangements are dynamic, influenced by the ongoing practices and agency of numerous social actors, as well as by contingent events in environment, economy and society, institutional design cannot assume predictable outcomes. Changes in land law, for instance, cannot be assumed to have predictable effects on farmers' practices, given ongoing changes in other institutions affecting agriculture: market networks and crop pricing policies, for instance, or marriage and gender relations. From this perspective, it is clear that strategic institutional changes - such as alterations of legal frameworks - do not necessarily lead to particular outcomes. Nevertheless, they can provide altered settings in which people can struggle to make their claims realised, perhaps with more chance of success.

Ecological uncertainties compound the problems already inherent in defining desirable courses of environmental change or sustainable development. The notion of environmental sustainability is problematic given the diverse, partial perspectives of different social actors: what is to be sustained, and for whom? This is not to argue that there is no place for consideration of overall resource availability, and for management processes which aim at increasing it. Indeed, in some circumstances this might be essential to reduce resource conflicts triggered by fundamental resource scarcities. However, different people will have different views as to which resources or services should be given priority within overall attempts to enhance 'natural capital'. Any such attempts, therefore, should not divorce themselves from the underlying social meanings and interpretations of environment and natural resources which inform different perspectives on appropriate courses for environmental rehabilitation or management.

Recent thinking and non-equilibrium perspectives in ecology, however, question the notion that future environmental states can be planned for in such a way (Holling, 1986; Ludwig et al, 1993). Historical conjunctures of change processes, and contingent ecological events, can bring about quite rapid, and unpredictable, shifts in landscape ecology. The arrival of *Acheampong* weed and its interaction with fire in Ghana's forest-savanna transition zone is a case in point (Afikorah-Danquah, this panel). In this context, management needs to seek to influence processes or transitions rather than to define states, and to be adaptive rather than pre-planned (Walters, 1986). As Holling (1993: 554) notes: 'there is an inherent unknowability, as well as unpredictability, concerning these evolving and managed ecoystems and the societies with which they are linked. There is therefore an inherent unknowability and unpredictability to sustainable development'. Given such uncertainty, environmental management policies and programmes cannot be fixed, expecting to achieve a pre-defined sustainable form of resource management; they must be responsive, adaptive and open to the unexpected, continuously testing, examining and monitoring the unknown implications of different trajectories of environmental change.

Strategic uses of 'community' imagery

We have argued repeatedly that the image of consensual communities so frequently presented in the literature on CBNRM is misleading as a guide to empirical reality, and hence for practical strategies. However, this is not to argue that they have no value in a broader policy context at a strategic level. There may, as Li (1996) has recently emphasised, be contexts in which static, idealised representations of communities successfully managing equilibrium environments - and of harmony, equality and tradition in this context - can have great strategic value. As counternarratives, planners, analysts and policy-makers may be able to use them in making the case against other, more dominant narratives or orthodoxies (Leach and Mearns, 1996); to counter emphases on State control over resources, or neo-liberal agendas stressing privatisation and market liberalisation. Indeed, images of consensual communities can, in part, be seen as being discursively produced within this context. By countering orthodoxies and providing a legitimating vocabulary for alternative approaches, such images may be argued to have an important role in opening up a space for policy shifts and new programme directions within agencies which otherwise favour an exclusively top-down style of intervention (Li 1996: 506).

Images of consensual, ecologically-harmonious communities are also created (or invented) by local social actors, as part of ongoing political struggles over resources in contexts of uneven power relations. As Ahluwalia's research in Rajasthan shows (this panel), land users may invoke such representations of community strategically in their interactions with the State and NGOs, whether to present a contextually-unified opposition to external, politically powerful actors (in this case a landlord and mine owner) or to secure development benefits by presenting an image of community cohesion which implementing agencies like to hear. Such temporary, contextual representations, of course, gloss over the profound cleavages of caste, gender and wealth in the study area, again making a more detailed analysis of the type carried out with the aid of the environmental entitlements approach an essential precursor to any programmatic activity.

An emphasis on the use of representations of community in institutional dynamics serves to highlight that external development interventions do not confront a static reality. Rather, such representations 'offer material and symbolic resources for use in the on-going renegotiation of social relations' (Mosse 1997:500). Agencies need to acknowledge their positioning in these dynamics, and amid many dynamic and contested meanings of 'community' invoked by different social actors, and to work from such a starting point.

Conclusion

The environmental entitlements framework presented here represents an effort to move beyond the linking of static, undifferentiated 'communities' with an equally static 'environment', which has tended to underlie many practical attempts to support CBNRM. An entitlements approach situates 'a disaggregated (or "micro") analysis of the distinctive positions and vulnerabilities of particular [social actors] in relation to the "macro" structural conditions of the prevalent political economy' (Jenkins 1997:2). The relationships among institutions, and between scale levels, is of central importance in influencing which social actors - both those within the community and those at some remove from it - gain access to and control over local resources. And this perspective uses the insights of landscape history, and of historical approaches to ecology, to see how different people's uses of the environment in this context act, and interact with other's uses, to shape landscapes progressively over time.

Intervening agencies, whether government or non-government, are also actors within this complex nexus of multi-layered, institutional dynamics. The type of analysis attempted here and in the case study papers may potentially be most helpful in helping agencies involved in CBNRM initiatives to reflect critically on their own roles, and on the ways they become embroiled - wittingly or unwittingly - in the struggles of other actors. By making institutional interactions explicit, and by situating these within an understanding of the dynamics of both social and environmental realms, the environmental entitlements approach offers one route to a more reflective, analytic and, hopefully, effective intervention in this important and challenging area of development endeavour.

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