

Natural Resource Management
and Chronic Poverty in Sub-Saharan
Africa: an overview paper

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Abstract

This paper briefly identifies some underlying premises of the 'small farmer' model that inform much rural development policy designed to address poverty. The paper then reviews recent work on processes governing the use of, and access to, natural resources. It argues that the small farmer model does not correspond to many of the processes of change that are observed in rural areas of sub-Saharan Africa. Differentiating between two scenarios, those of 'boom' and 'stagnant' rural economies, the paper explores the relationship these may have with concepts of 'remoteness' in rural areas and traces the different dynamics of agricultural production strategies and of evolving access to land in the two scenarios. It emphasises the operation of markets in influencing competition for land, and the importance of farmers' investment in productivity-enhancing technology in building their claims to land. The paper then considers the implications of these patterns of land use and access for policy seeking to improve conditions for the chronic poor.

1. Introduction

This paper aims to provide an overview of the ways natural resource management may be relevant to strategies to reduce “chronic poverty” (Hulme et al 2001). It therefore focuses upon issues of access to, and use of, natural resources that affect the livelihoods of the rural poor, in particular. In doing so, however, the paper makes no assumptions about the relationships between ‘rural’ and ‘urban’ livelihoods, leaving open the possibility that the distinction may be difficult to define in practice (Bernstein, 1992a; Ashley and Maxwell, 2001). Similarly, an assessment of the extent to which ‘chronic poverty’ is a ‘rural’ phenomenon is not a principal concern of this paper, having been considered in some detail by other papers in this series (Hulme et al, 2001; Bird et al, 2002). These have highlighted that chronic, or long-term, poverty is more likely among people who are particularly vulnerable due to their ‘life stage’ (eg children, older people), or who are discriminated against at national or local level because of caste, ethnicity, or refugee/ migrant status, or who are disadvantaged through illness or disability. To these general categories we may add that in the rural context chronic poverty is likely to involve those lacking access to land or livestock. The point of departure for this overview is an exploration of the extent to which policies on the management of natural resources, particularly land, water, forests and pastures, may reduce chronic poverty in poorer, less industrialised, countries.

The paper makes no claims to be comprehensive in its geographical coverage, drawing principally on the recent literature on natural resource management in Sub-Saharan Africa. Although a large part of the ‘chronically poor’ may be located in this region (Hulme et al (2001) estimate that 46% of people in SSA are living on less than \$1 per day), this restricted scope does not, I believe, diminish its wider relevance to debates about how natural resource management can be harnessed to improve the well-being of the poor. The themes covered in the paper are directly relevant to drought-prone and forested areas of South Asia, and, to the extent that it addresses the consequences of declining access to natural resources – most notably landlessness – the paper is also relevant to those rural areas where the landless are a significant element of the population.

The paper uses as its starting point the ‘small-farmer’ model of economy and society which has for many years underpinned development agencies’ vision for poorer countries (Ellis and Biggs, 2001). Section 2 summarises this model as set out by one of its recent proponents (IFAD, 2001). Section 3 considers alternative interpretations of rural poverty, and sections 4 and 5 respectively review how chronic poverty may be generated from changing use of, or access to, natural resources.

2. The ‘small farmer’ model.

IFAD (2001) claims that 75 percent of the poor live in rural areas, and that 60 percent are expected to do so even in twenty years time. The review of poverty studies undertaken by Bird et al (2001) also concludes that people living in rural areas are more likely to be poor than those living in urban areas. IFAD goes on to claim that “six in ten of the world’s extremely poor earn their living mainly from farming or farm labour” (IFAD, 2001:4). From this follows advocacy of a ‘small farmer’ model of poverty reduction in which smallholder production of food staples is expected to “play a critical role in the livelihoods of the rural poor” (IFAD, 2001:4).

Within this model, the key to poverty reduction is perceived as increased productivity on ‘small, private farms’ through technological change: improved seeds, more reliable moisture availability. While the model argues that technological change should be ‘labour-intensive’, it also asserts that productivity should increase faster than output prices fall, so that food producers and food consumers both gain. This, it

is argued, will release labour for non-farm diversification to meet the growing consumption demands of the smallholder households. Factors supporting this poverty-reducing transformation are identified as market liberalisation, more control over assets (land, water, technology) and institutions by the poor (especially disadvantaged groups such as women), and decentralised and participatory methods (IFAD, 2001:4-6).

Three key elements of this model are the object of the subsequent sections of this paper:

- the problem of 'rural' poverty is primarily a problem of low farm productivity;
- increases in productivity of resource use by the poor are possible using 'scale-neutral' technology in the form of improved seeds and water control;
- access to natural resources for the poor will be improved by 'decentralised and participatory' methods and "land reform to create small, not-too-unequal family farms"(IFAD, 2001:9);

A fourth important premise of the IFAD report is that engagement of small farms in (global) markets will enable income growth as well as subsistence security for the smallholders. This will not be discussed in this paper, but needs to be mentioned because it profoundly affects the economics of farming in general and the significance, in particular, of economies of scale which disadvantage small-scale farms competing in global markets. In recent decades agricultural commodities have been characterised by falling prices on the world market, with severe consequences for small-scale farmers producing crops for export (Ashley and Maxwell, 2001:404). In this context, it is unsurprising that the most dynamic element in African farming is in the production of high-value fruit and vegetables for consumers in Africa's expanding urban areas, for which international competition from industrialised producers is likely to be less strong.

Improving incomes from other types of agriculture appear to depend on obtaining access to a higher-priced market segment. One such approach has been to switch to 'organic' production methods (eg for groundnuts) or a 'fairtrade' marketing channel (eg for cocoa or coffee) - or both. While 'fairtrade' may stabilise agricultural prices for export crops, it remains to be seen whether it can significantly alter the long-term decline in agricultural commodity prices. Moreover, producing for a relatively higher-priced market niche means farmers must meet additional quality standards. This is also the case for most of the recently established commodity chains for 'non-traditional' exports from low-income countries, such as cut flowers and fresh vegetables. The challenge of new technology adoption which quality standards impose may raise farmers' production costs at farm level, but, perhaps less equivocally, also requires conditions, such as timely transport and refrigerated storage, that may not easily be met within the resources of the small farm. This implies the need for linkage to larger scale entities. These may be commercial enterprises, such as contract farming or outgrower schemes (Coulter et al, 1999), or cooperatives, but, either way, suggests an important question mark over the terms on which small farmers engage with increasingly globalised agricultural commodity chains.

3. The character of 'rural' poverty

The small-farm model, or 'agricultural development' approach to rural poverty has been one of the strongest influences on policy since the 1960s (Ellis, 2000:21, Ellis and Biggs, 2001). As exemplified by IFAD (2001), this remains the case, despite the means originally identified for its delivery – the agencies of the state – having been to some extent substituted in more recent formulations by market-based processes.

One important aspect of this model from the point of view of an agenda to address 'chronic poverty' is a tendency for it to be associated with a view of 'rural' society as relatively homogeneous – defined above all by its character of being 'non-urban'- and relatively static: a rural society of 'small farmers'. This is not to say that social differentiation and change are not acknowledged, but that they are located within an overall view of 'small farmer' society as a stable social and economic formation whose main processes of changing material wealth are perceived in cyclical Chayanovian terms: younger households having fewer assets becoming wealthier as children increase their workforce, and less wealthy again as children leave home to set up new households. Small farmer models of rural society, such as that advocated by IFAD (2001), do acknowledge differentiation between small farmers and farm labourers. However, the potential conflict of interest within the relationship between employer and employee tends to be played down by emphasis on processes that will benefit or disadvantage both groups. Thus, it is argued that change (eg through new technology) needs to benefit both farmers and labourers by prioritising 'labour-intensive' initiatives. Conversely, impoverishment affects both when profitability of small-scale farming is undermined – a problem most frequently attributed to 'external' causes': formerly to 'urban bias' in government policy (Lipton, 1977), more recently to 'globalisation'.

Where attempts are made within this perspective to discriminate between degrees of rural poverty, the 'poorest' or 'resource-poor farmers' are characterised in terms of the (less favourable) agro-ecological conditions in which they must make a living, as in the case of the farmers in 'diverse, risk-prone environments' prioritised by 'Farmer First' approaches to technology development (Chambers et al 1989). This notion that poverty is concentrated in areas with lower agricultural potential has been commonplace in the 'targeting' of international agricultural research to combat poverty, although studies in India in the early 1990s suggested "the percentage of the total population which is poor is fairly uniform across agro-ecological zones, varying from approximately 25% in the 'wet zone' to 39% in the 'seasonally dry zone'.....(E)ven in the parts of India where the green revolution has taken place, the proportion of the population living in poverty is between 30 and 40%" (Ravnborg, 1992:55-6).

This observation underlines the importance of understanding heterogeneity and change in the analysis of poverty. An approach that gives greater prominence to these dimensions of agrarian systems is that of political economy (Byres, 1996; Bernstein, 1992b: 27-32), which argues that 'small farmer' or peasant forms of production are inherently unstable: the more 'successful' farmers tending to accumulate control over resources (notably land) at the expense of the less successful, creating a class of property-owning 'farmers' and a class of landless labourers. The pace and specific forms of such changes depend on the particularities of local markets (eg those for agricultural products, for technology and for labour), and do not preclude the possibility of new forms of small-scale production coming into being, as changing markets create new opportunities (for example in peri-urban horticulture as a result of urbanisation). However, one general implication of this view is that the very poor and less poor cohabit the same communities, and, as labourers on the one hand and employers of labour on the other, have livelihoods that are not only interconnected but in certain respects (wage rates) in conflict. Where labour wage rates are low (due to lack of alternative work opportunities) it is entirely possible that large numbers of the 'chronically poor' will be living in the more agriculturally productive areas – such as the 'green revolution' areas of South Asia referred to in the quote above. This is supported by the recent review by Mehta and Shah (2001) which suggests that in India mapping poverty simply according to agro-ecological potential is not useful, if only because of the extent of migration of poor

people to work as labourers in 'wet zones'. This suggests important parallels with Sub-Saharan Africa, as detailed below. Berry (1993) has argued that in Sub-Saharan Africa the negotiation between those controlling land and those supplying labour is influenced by a tendency for markets for labour to be less ambiguous than markets for land: "access to rural land remains contested and negotiable. Contests are fought with money and influence, in the name of customary rules and prerogatives" (Berry, 1993: 132). Whether this 'negotiability' of access to land offers sufficient 'social mobility' for the disadvantaged to avoid 'chronic poverty' is questionable (see section 4.3, below), although it is evident that the availability of farm labour in SSA reflects the particular dynamics of African economies, many which have for decades experienced political and economic instability, and an underlying 'failure of industrialisation' (Lawrence, 1986:7). Berry argues that this economic context has prompted many people to diversify their income sources, often investing in a multiplicity of social networks in order to do so, but with diminishing returns: "The result is a high degree of mobility of people and resources but little tendency for institutions to coalesce into stable frameworks for collective action, resource management, or the consolidation of capital and knowledge" (1993:196).

From a political economy perspective, then, both the perceived stability of 'smallholder farming' and the role of natural resources in the creation or reduction of poverty depends on underlying social and economic trends as much as, or more than, the agro-ecological potential of a particular area. Recent research has provided a wealth of case studies which have broadened understanding of such dynamics. As a consequence, neo-Malthusian explanations of poverty in terms of 'population growth' outstripping the available land resource, and causing 'land degradation', are now challenged by alternative analyses which offer a basis to understand the very diverse patterns encountered empirically. Most obvious of these is the observation that population growth is much more rapid in some areas than in others, and in some cases population is in decline (Raynaut, 1997a). A related important observation is that differences in population growth rates (and resulting differences in population density) are – in Africa at least – often the result of population migration.

Defining mobility as a key aspect of rural livelihoods has important implications for how we understand 'small farmers'. Identifying the factors responsible for migration patterns can also give insights into the relationship between natural resources and rural poverty. Perhaps the defining feature of much recent research on natural resource use and rural poverty is recognition of the importance of a historical perspective to an understanding of current patterns of resource use. Not only has this led to a re-evaluation of whether rural poverty is the result of 'environmental degradation' (Leach and Mearns, 1996; Fairhead and Leach, 1996), but it has shown that existing settlement patterns are the result of many interacting factors. Raynaut (1997a), for example traces existing population density and distribution in West Africa back not only to the zones of economic activity (mining, cash crop production, infrastructure development) established under colonial administration, but also to areas of stable administration (and population concentration) or insecurity (and consequent depopulation) under pre-colonial states. Such studies have also identified situations where the ecology of disease vectors creates a 'threshold' of minimum human population density below which the challenge of diseases such as onchocerciasis (Raynaut, 1997a) and trypanosomiasis (Richards, 1985; Kjekshus, 1977) makes continued settlement unsustainable. In this way, disruption or insecurity of economic activity can translate into permanent abandonment of otherwise productive agricultural lands.

From the perspective of mapping the role of natural resource endowments in rural poverty, the important conclusions are:

- social and economic dynamics providing security or market opportunities may be as, or more, important than ecological characteristics in determining the population density of an area.
- Conversely, 'stagnating' areas with low and/or declining populations will not necessarily be 'resource-poor' environments in an agricultural sense, even though they may be 'remote' from state or commercial investment.
- In 'boom' rural areas immigration will be an important element of population growth, increasing competition for resources such as land, water, pasture etc.
- Very poor people may be living in both 'boom' and 'stagnating' rural economies, although the mechanisms creating their poverty may be quite different: exclusion from access to land as a result of increasing competition in boom areas; lack of labour or capital with which to exploit land in 'stagnating' areas suffering emigration.

In relation to the geographical distribution of poverty, the analytical approach set out above supports the notion of 'remoteness' (Wiggins and Proctor, 2001; Bird et al. 2002) as an important factor in determining levels of chronic poverty. In particular, it supports the notion of 'remote' areas as characterised by low or declining levels of human capital: emigration of the most able, leaving a 'residual' population of the elderly, dependent children, and the disabled, poorly served by health and education services (cf Bird et al, 2002:17). Despite these disadvantages of remote rural areas, it should not be assumed that absolute levels of poverty will always be worse in 'remote' areas than in more economically dynamic, less remote areas. For example, Marzetti (2001), comparing more and less remote villages in Morrumbala District, Mozambique, found lower household incomes but also lower levels of child malnutrition in more remote villages than in villages with better market (road) access. This she attributed to greater social fragmentation under economic 'boom' conditions, which resulted not only in competing demands on parents' time, but also less willingness on the part of neighbours to provide snacks to young children.

The path-dependence of development patterns I have emphasised above cautions against trying to 'read off' the quality of natural resources (and hence their role in the determination of poverty) from 'remoteness', as in attribution of 'remote' rural areas as 'marginal' from the point of view of soil quality or rainfall (cf Bird et al, 2002:19). This may be the case, but should not be assumed to be always so. A number of observations reinforce this view. As Wiggins and Proctor (2001) point out, agricultural activities in peri-urban areas are not primarily influenced by the underlying quality of soil or climatic conditions, but by the strength of (urban) demand. One can add that, since urban areas originate from a variety of historical circumstances (trade, military, administrative) there is no more reason to associate urban centres with 'favourable' agro-ecology than there is to associate 'remote' areas with 'unfavourable' natural resource conditions. The extent of attenuation of demand (through 'geographical friction' effects of poor transport etc) in 'remote' areas can therefore be argued to be of more importance than the underlying natural resource base in 'remote areas'. This is certainly the conclusion to which Raynaut's (1997a,b) work in the Sahel would lead. It is further reinforced by the observation that today's 'remote' rural areas can become tomorrow's centres of highly productive agriculture. The development of irrigated horticulture in Maasiland (Southgate and Hulme, 2000) and in northern Thailand are cases of agriculturally 'marginal' areas being transformed in response to changing market opportunities.

With the caveats set out in the previous paragraph there is a degree of congruence between the concepts of 'stagnating' areas of rural economy and that of 'remote rural

areas'. However, a further issue may separate the way these concepts interact analytically. This concerns the terms of access to rural resources, such as forests, particularly in conservation areas. While it is true that conservation areas are often 'remote' in terms of distance, this does not necessarily mean that they are poorly served by roads or other services, particularly where they are the focus of international tourism or significant extractive activity (forestry, hydropower etc). Here, the key question for poverty analysis is the terms under which the poor gain access to natural resources, whether as direct users or indirectly as employees of the conservation agencies. As such, the primary consideration may not be 'remoteness' in terms of 'time to reach urban markets' ('geographical friction'), but the extent to which the rural economy can be considered to be 'growing' or 'stagnating' as a source of employment.

Thus, while geographical mapping of poverty clearly serves an important purpose in the analysis and design of policy, it may not be possible to do this using purely spatially-defined criteria of 'remoteness' or 'natural resource potential'. Understanding the distribution of poverty will need, in addition, some characterisation of the local socio-economic dynamics of the rural economy. The following sections review implications for poverty of two critical aspects of these dynamics, the (changing) technology of resource use and the governance of access to resources.

4. Using natural resources: productivity and diversification

4.1 Agriculture

Although many sources continue to assert that the impoverishment of rural areas in Africa is due to declining land productivity under an increasing population using low-input farming methods (IFAD, 1994:10; World Bank, 1996: 22-5; WRI, 1998: 3-4), a growing number of authors point out that there is little direct evidence to support this (Young and Wright, 1980, Stocking, 1996; Scoones and Toulmin, 1999). Others have argued that increasing population is a pre-requisite for the intensification of farming methods and an increase of land productivity (Boserup, 1965; Tiffen and Mortimore, 1994).

However, it is not necessary to argue that agricultural productivity is declining, merely that it is not increasing, in order to identify a plausible cause for crisis. The long-term decline in the terms of trade between agricultural output and manufactured goods is sufficient to explain this. Raynaut (1997b) observes that in the Sahel an individual's annual tax obligation in the 1940s could be paid with the sale of 20kg of millet, but in the 1970s required the sale of 90kg. Under such circumstances, migration of young men to seek wages in urban areas, in mining industries, or in rural areas with higher-value agricultural output (Cocoa, Coffee, sugar, tea plantations) was economically rational as early as the 1950s (Haswell, 1963).

The effects of this emigration are double-edged. On the one hand, it constitutes a loss of the most productive farm labour and thus reduces the potential investment of labour in improving productivity, and increases the workload of those who remain, notably women with children and the old. On the other hand, where absence is brief or seasonal, or where migrants generate significant remittances, migration as a means of diversification of income source can offset the loss of labour by providing cash to invest in agriculture. The aim of such investments may be simply to secure household subsistence, as in the case of irrigation pumps purchased by Senegalese migrants in France in the 1970s (Adams, 1981; Diemer and van der Laan, 1987), or hybrid maize seed and fertilizer purchased by Swazi migrants in the 1980s (Low, 1986).

However, usually such investments also allow the prospect of increasing marketed output. In Sub-Saharan Africa, two key investments appear to have made economic sense to farmers in recent years: investments in soil and water conservation (SWC) and purchase of livestock. In fact, the term SWC is a misnomer – ‘water augmentation’ is probably more accurate – since investments in terraces, stone bunds, wetland cultivation, and so on are invariably made with a view to gaining higher returns in farming through production of higher-value crops, such as vegetables, rather than soil conservation *per se* (Boyd and Slaymaker, 2000), and hence the likelihood of such investments being worthwhile is critically dependent on access to the rapidly expanding urban markets for fresh vegetables. Where this is the case there is evidence of significant increases in farm productivity being achieved through farmers’ investment in improving water control (Tiffen and Mortimore, 1994), but with increased socio-economic differentiation between wealthier and poorer members of farming communities (Murton, 1999; Southgate and Hulme, 2000), as opportunities for more intensive production are exploited by those with better access to assets such as water, land, and non-farm income as a source of investment in new technology.

In certain circumstances, small-scale water control technology for irrigation or rainfall storage may be considered an appropriate agricultural option for poorer social groups in the well-connected ‘boom’ areas, since quite high returns to labour can be achieved on very small plots of land. Such schemes have proved popular for women’s groups in densely populated areas of South African ex- bantustans (Woodhouse, 1997). However, some access to land is needed, together with capital and labour to invest in the necessary infrastructure, and access to the market. Poorer people are unlikely as individuals to meet these requirements and it is likely that some form of ‘social capital’ – in the form of an organisational framework – is needed also.

Investment in SWC removes a major constraint to crop productivity – inadequate water availability – and conventional vegetable production may often be extended to include crops such as sweet potato, cassava, and green maize that can double as staple foods as well as high-value marketed output. In ‘remote’ areas, distant (in terms of difficulty of access because roads are poor) from urban markets, the options for intensification are much more restricted, not least because these are likely to be areas of labour shortage. Under semi-arid conditions there are few investments in increasing land productivity that are likely to be worthwhile as long as rainfall uncertainty remains a constraint. At the same time, investments in irrigation or in improving water retention by soil are unlikely to be remunerated by the production of cereals alone. Where such investments are made by the state, or otherwise appear free of cost to farmers, returns to cereal production, especially rice, can make it worthwhile for farmers to make other investments (e.g. fertiliser, hired labour) to increase productivity. The principle investment widely made in such contexts is in animal draught for ploughing, and possibly weeding, with the effect of improving labour productivity and expanding the area under cultivation. Successful farmers may diversify further with acquisition of more livestock (see below). The poorest members of communities in areas dependent on rainfed cereal production (eg in Zimbabwe and Botswana) are frequently defined by their lack of draught animals (Woodhouse et al, 2000; Clayton and Woodhouse, 2000).

Historically, customary institutions such as the *mafisa* in Botswana ensured that owners of large herds would loan draught animals to poorer households to enable them to re-enter the cattle economy. The breakdown of these customary practices (Clayton and Woodhouse, 2000) has accompanied the Botswana government’s policy of providing ploughing subsidies. Owners of larger herds, now ploughing with

tractors, prefer to claim the subsidy for ploughing their poorer neighbours' fields instead of lending them draught animals. This has meant that for 'chronically poor' households who have lost cattle through disease or drought continuation in farming depends on assistance from the state or hiring cattle from neighbours.

Considering the risks of destitution of poorer arable farmers subject to the extreme rainfall uncertainty of semi-arid climates (which predominates in most of sub-Saharan Africa), it is worth asking whether such systems were less risky in the past. There are two principle answers to this. The first, derived from work in Zimbabwe (Scoones et al, 1996) is that present-day rainfed farming is concentrated far more on drought-prone interfluvies (the higher parts of the landscape) than in pre-colonial times. This implies that, in addition to expropriation of much of the higher rainfall areas for European settlers, colonial policies prohibiting cultivation of valley lands (ostensibly to prevent erosion of drainage systems) made African farming systems more vulnerable to drought. A related development that increased vulnerability was the switch to more drought-susceptible crops. The most striking examples are the wholesale switch from sorghum to maize as the staple cereal in southern Africa in the first half of the 20th century and the substitution of millet and sorghum by rice as a staple in parts of the Sahel in the latter half.

A further, and possibly more widely relevant, answer is that farming of cereals in semi arid Africa is today undertaken by much smaller units than in the past. The system of cultivation by extended family or lineage groups has been described by many authors. The account by Toulmin (1992) makes particularly clear the tradeoffs for members of these large kinship cultivation groups: subordination to the labour demands of the group (though this does not preclude cultivation of fields of one's own, rather the priority they can be given) in exchange for the support of the group in times of hardship. Opportunities for higher cash income, from cash crops or from wage income are widely acknowledged to have led to an earlier departure of young men from the workforce of these family food cultivation systems to set up their own 'nuclear' households, and consequently to a decrease in the size of the farming unit. In this sense, increasing market orientation of agriculture during the past century may have contributed to increasing vulnerability among farming households.

These considerations suggest two scenarios for reducing vulnerability of poorer members of communities dependent primarily on rainfed farming under semi-arid conditions. First is that of diversification of management of natural resources such as water and trees to improve storage and provide reserves with which to confront the risk of drought periods. This option is potentially supported by a wealth of 'indigenous' experience (Reij et al 1996, Fairhead and Leach, 1996; Tiffen and Mortimore, 1994), but invariably involves substantial investment of capital or labour, and may hinge on whether crop values are high enough to make this worthwhile. In any event, these options may not be available to the 'chronically poor' – those least likely to command labour or capital.

The second scenario suggests that for the chronically poor the 'small private farm' may not be the basis for a reliable livelihood while at the same time not necessarily encouraging the social support needed to gain access to other assets. This is not to suggest that a return to large patriarchal kinship production units is either feasible or desirable, but to indicate that larger scale economic and/or social units may afford better protection to the more vulnerable in high risk environments. Typically, this may involve some form of cooperative effort. Examples exist of savings clubs linked to small-scale agricultural production, such as *stockfels* among women in South Africa (Woodhouse, 1997) or Maasai women saving to buy land (Southgate and Hulme, 2000), or *mwethia* terrace construction groups in Kenya (cf Berry, 1993:133).

However, these generally combine an investment in group activity to secure resources (land and water) with an essentially individualised small-scale farming activity. For some of the chronic poor, such as elderly or disabled people, individuals' work capacity is likely to be quite varied and a collective production unit will need to offer correspondingly varied types of work opportunity to its members. Processing of agricultural or other products derived from natural resources (trees, fish etc) offers such a range of different activity types, but the potential role of the chronic poor (disabled, elderly etc) in this area of activity is, as far as this author is aware, a relatively undeveloped area of rural development policy and practice. It may be one in which lessons from experience in the North need to be evaluated. The key questions would appear to be those of balancing the demands of the market with the range of different abilities and contributions available from different members of the 'chronically poor'.

4.2 Livestock and Pastoralism

Livestock production is possible where rainfall is insufficient to support reliable crop production, and in much of arid and semi-arid Africa transhumant livestock production or pastoralism has historically been the predominant form of natural resource use. In semi-arid West and East Africa pastoralist ethnic groups established considerable dominance over sedentary communities of cultivators. Since colonial administration at the start of the twentieth century pastoralists have lost ground politically, economically, and socially to cultivators. There are two principal reasons for this. Firstly, pastoralists' territorial scope for transhumance has been reduced by colonial and post-independence states' appropriation of land for other uses, such as game or wildlife reserves (e.g the Maasai in Kenya and Tanzania), or for agricultural development schemes (eg Toucouleur in the Senegal River Valley, Fulani in the Office du Niger, the Afars in the Awash Valley).

These reductions in the scope for transhumance were at least in part justified by a perception that pastoralist production methods were inefficient and environmentally destructive and a belief this could be improved by settling pastoralists on ranches managed under scientific principles. This perception is now seriously questioned (Sandford, 1983; Behnke et al, 1993; Scoones, 1994) and there is a growing awareness that, under conditions of extreme rainfall fluctuation that prevail in semi-arid Africa, pastoralist impacts on vegetation are much less destructive than earlier thought and that transhumant grazing management in which grazing 'tracks' forage availability is more efficient than scientific attempts to identify a target 'carrying capacity' for rangelands.

The second reason pastoralists have suffered in relation to cultivators is that access to key resources, such as dry season grazing, have been curtailed by changes in crop production systems. The most marked of these is the development of wetlands, river valleys and other water resources by farmers in order to intensify agriculture (Southgate and Hulme, 2000; Woodhouse et al, 2000). A related development is the accumulation of livestock by farmers, which undermines the reciprocal logic of farmers allowing pastoralists' herds to graze crop stubble in order to benefit from the fertilizer effect of the manure (Ramisch, 1999). The mobility that is essential to pastoralists' production system means that their occupation of an area is transient, and as a consequence claims over resources are often seen as weaker than more sedentary communities (Hammel, 2001). Despite international advocacy of strengthening of pastoralists' rights over land, it seems clear that pastoralists' access to land is increasingly under challenge from expansion and intensification of crop production, and that particular effort will be needed if their position is not to be made worse by land tenure reform processes currently underway in many parts of Africa.

Although poverty is often significant among pastoralists, identifying a separate group of 'chronically poor' pastoralists is problematic. This is because poor pastoralists lose their stock and effectively cease being pastoralists: either they join the stream of poor seeking livelihoods in urban areas; or they become 'sedentarised' small-scale cultivators, or they become landless labourers- often employed as herders of other people's livestock. Zaal and Dietz (1997:7) suggest this latter may be a route to accumulate cash in order to purchase livestock in order to return to pastoralism, although Southgate and Hulme (2000: 110) regard this as 'somewhat optimistic'. As mentioned above in the context of Botswana, commoditisation of the pastoralist economy may lead to the breakdown of customary institutions that previously underpinned redistribution (loan) of livestock in order to keep poorer households within the pastoral economy.

4.3 Forestry and Forest-Related Resources

Forest resources provide the basis of a wide range of uses for both subsistence and commercial purposes, including medicines, mats, baskets, furniture, timber, fuel, fruit, mushrooms, 'bushmeat' and many others. For the poor, forest resources are "part of a larger body of rural non-farm activities that act as a sponge absorbing those unable to obtain employment on their own farms or as labourers" (Arnold and Townson, 1998:3). With the exception of plantations (e.g. conifer and eucalyptus) dedicated to pulp or timber production, or forests subject to specific conservation regimes, the status of forests as public or common property under state or customary tenure means that in practice they can act as a 'commons' to which the poor have relatively unrestricted access. Use of forest resources may often be seasonal, determined by availability of household labour otherwise engaged in agriculture, by raw material availability, or by market access. Shackleton et al. (2000) argue that the importance of such resources as a 'safety-net' for the rural poor is often underestimated because their use and exchange is non-monetised and therefore unvalued. In this respect it is important to distinguish the significance of use of a resource between, on the one hand its contribution to users' livelihoods, and on the other hand the volume or value of the resource used. According to Arnold and Townson (1998), the contribution of forest use to livelihoods is highest for the poorest users, but the heaviest use of forest is by wealthier users. Shackleton et al's (2000) data from South Africa illustrates the huge disparity in benefits obtained from 'communal' grazing by richer and poorer households: net annual value of livestock products and services was US\$765 for cattle-owning households and US\$25 for households without cattle. This is consistent with Arnold and Townson's (1998) conclusion that market opportunities for forest products are most easily exploited by better-off users who can invest labour and capital to overcome entry costs. Consequently, the patterns of forest resource use of the very poor diverge from those of the less poor. Whereas the better-off resource users will exploit resources for which there are growing (ie urban) markets (eg bushmeat, furniture-making, charcoal) and therefore high returns to labour and capital invested, the very poor will concentrate on activities whose entry costs are lower but are more likely to suffer market saturation and low returns.

In terms of strategies to assist the 'chronically poor' this conclusion raises important questions about diversification as a livelihood strategy in rural areas. In particular, if the paths of off-farm diversification open to the very poor are limited to those producing low returns, this seems unlikely to offer a significant improvement in their well-being. If returns to the use of forest resource by the poor are to improve, it would appear that either they must be provided with capital to overcome the entry costs of more remunerative activities, as argued by Start (2001), or their access to the forest resources should be privileged over their wealthier neighbours. In regard to the latter, Inamdar et al (1999) have suggested protecting poorer people's access to income

from bushmeat by allocating individualised use rights, in the form of individual transferable quotas (ITQs), coupled with the promotion of local institutions (user groups) to police illegal hunting.

4.4 Poverty and livelihood diversification

Diversification of livelihoods of the rural population in Sub-Saharan Africa is both long-established and increasing (Bryceson, 1999). Berry (1993: 152) emphasises the importance of non-farm income in socio-economic differentiation in rural areas of Kenya and Zambia. Ellis (2000) suggests 'reliance' on non-farm income is 30-50 percent in Sub-Saharan Africa, rising to more than 80 percent in southern Africa. The review in the preceding sections of agricultural production and alternative natural resource-based livelihood options suggests that diversification as a strategy to improve the well-being of the 'chronically poor' depends critically upon the returns (particularly to labour) that diversified activity can generate. There appears a strong divergence between diversification into high-return activities achieved by those with higher levels of human (labour, education) or financial assets and the 'safety-net' diversification into low-entry cost but low return activities which is most commonly the pattern for the poor. In this respect, returns from diversification using forest resources are likely to reflect the patterns observed in farming: the lot of the very poor is unlikely to improve without more access to capital or labour. The answer to this problem, according to IFAD (2001), is for those who fail in agriculture to diversify their livelihoods into activities such as construction and transport to supply growing demand from those 'small private farms' which have succeeded in increasing agricultural productivity and income. Ellis (1999) suggests this assumption is 'no longer tenable' where a large proportion of farming families are no longer wholly reliant on agricultural income.

Aside from the likelihood that education will be a major determinant of the income achievable by those diversifying out of farming, the key observation in relation to the role of diversification in livelihood strategies for the poor is that diversification at the level of an *individual's* activity is likely to provide the advantages of flexibility in a context of risk. In contrast, at the level of *household* the advantages of flexibility (for the household as a whole) are increased by the possibility of specialisation, and hence higher returns to labour, for individual household members (Ellis, 1999). Specialisation in a non-farm activity by individual household members may take the form of small-scale enterprise, but this again presents entry barriers, not only of capital but also willingness to undertake investment risk. As suggested above, it is the chronically poor who are least likely to be able to overcome such barriers. Indeed, Start (2001) argues that many of the poorest will aspire to employment in formal labour markets rather than self-employment as micro-entrepreneurs. Equally, however, it is formal labour markets that discriminate against many of the chronic poor, such as the elderly and disabled. As with agriculture, therefore, while risk may be reduced by work within a larger entity, this may need to be cooperative in nature if it is to assist the chronic poor.

5. Access to natural resources: governance and property

5.1 Decentralisation and Natural Resource Management

"To manage and conserve natural-resource systems effectively and sustainably, it is essential that local stakeholders participate. Decentralization to local communities has shown that local users have a comparative advantage over government agents in managing resources; they can design more efficient rules and more easily monitor and enforce them" (IFAD, 2001:26)

“The problem of current modes of ...devolution, decentralization and participation is that rural ‘big men’ tend to run local institutions in their own interests.” (IFAD; 2001:27)

These two quotes from the same source demonstrate the deeply contradictory character of current policy on the governance of natural resources, particularly in Africa. The emphasis on decentralisation of natural resource management was founded on the perception, rooted in the agenda of structural adjustment, that state agencies were both ineffective in managing resources such as forests, and also unaccountable to the local constituency of users of those resources. This perception was reinforced by arguments attributing degradation of natural resources in Africa to the disruption of local regulatory institutions by colonial government, markets, or ‘centralising’ African states (Moorhead, 1989; Scoones, 1994, 1996; IIED, 1999:29). Decentralisation would therefore allow management to be more responsive to local users’ priorities, and make use of their local knowledge in designing and ensuring compliance with management regimes. In these terms “community-based” natural resource management held out the prospect of achieving both environmental conservation and greater security of access to natural resources for the poor (CCD, 1995; Toulmin, 1995).

In practice, decentralisation programmes tended to focus on establishing local assemblies with responsibility for service (education, health) delivery and with limited revenue-raising powers. The question of control of resources such as land, water, forests, and pasture was often dealt with under separate legislation to that on land tenure reform. One consequence was to leave unresolved the relationship between elected local assemblies and customary authorities whose control over land had been integral to colonial administration, and who, despite not being formally recognised by post-independence legislation remained the *de facto* arbiters of land rights in many parts of rural Africa. This remains unfinished business in many countries (Mamdani, 1996), and I explore the implications for the ‘chronic poverty’ agenda below. First it is worth briefly considering further the poverty implications of Community-Based Natural Resource Management (CBNRM).

5.2 Community –based Natural Resource Management

The logic of community-based natural resource management drew on evidence of long-term ‘sustainable’ management of resources held as ‘common property’ (eg fisheries, pastures) by ‘self-governing’ institutions (Ostrom, 1990). Key features of successful ‘self-governing’ institutions were held to be the use of indigenous technical knowledge (ie knowledge that did not depend on external expertise) in managing the resource, a level of social relationships (‘social capital’) among members of the community of resource users that enabled consensus on management rules and ensured compliance, and legal recognition (i.e. by the state) of the rights of the community to exclude non-members from the resource. The idea that self-governing institutions were appropriate to manage ‘common property resources’, such as forests and pastures, which were also identified as ‘safety-net’ resources for the poor reinforced the prospect of ‘community-based’ management as a basis for improving the security of the poor. The lack of formal recognition of customary land rights in many African countries was interpreted in terms of a dichotomy between customary rights on the one hand and formally registered ‘statutory’ rights on the other (IIED, 1999). Since most rural land is held under customary tenure, it was argued that strengthening recognition in law of local customary jurisdiction over resources would provide protection for community –based management from interference by the state or market.

Despite its attractions to development agencies, the CBNRM model has been undermined by a series of theoretical and empirical arguments:

- The implausibility of expecting that policies seeking poverty alleviation through community participation will be driven by communitarian values of social solidarity, that is, a different “set of rules” from those of the market which are expected to prevail elsewhere (Goetz and O’Brien, 1995), including between kin (Amanor, 2001).
- Implementation of programmes designed to formalise village-jurisdictions to improve resource management, such as the *Gestion de Terroir* in the Sahel, quickly made evident that customary authority of the village resided in the heads of lineages of cultivators, who regarded rights of pastoralists or immigrant farmers as entirely subordinate to their own, so that community-based management excluded participation by such stakeholders in decision-making (Evers, 1994; Woodhouse et al, 2000; Gray and Kevane, 2001).
- Empirical evidence from case studies suggests that state agencies’ intervention in many parts of rural Africa may be ineffective or absent, so that natural resource management is already *de facto* ‘community-based’ in the sense that land allocation decisions are largely governed by customary authority. What such cases demonstrate is that land users holding customary rights to land are capable of achieving rapid changes in land use and increased productivity in response to market opportunities. As with intensification of resource use elsewhere, however, these changes tend to be accompanied by a growing differentiation between winners and losers, and little evidence of security for the poor (Hulme and Woodhouse, 2000).
- The heterogeneity of most communities signifies divergent and possibly conflicting interests of different community members in the use of a resource, offering as much chance of conflict as consensus in resource management at the level of a ‘community’ (Leach et al, 1997). This suggests that CBNRM must be underpinned by conflict resolution mechanisms that are both state-recognised and locally legitimate. In practice, this often leads back to the problem of reconciling the local legitimacy of ‘customary’ rights with ‘constitutional’ rights of individuals. This presents particularly acute difficulties where local customary rights discriminate against individuals on grounds of sex or ethnicity, but needs to be addressed explicitly by any state-sponsored campaign in favour of the poor.

The issues of how best the interests of the poor can be protected are highlighted by debates over present land tenure regimes and the options for their reform being considered in many African countries.

5.3 Land Tenure and its Reform

The issue of land tenure in Africa has been the subject of debate since colonial administration, and a proliferating literature accompanied initiatives to reform land tenure which many African governments began in the 1990s and which in many cases remain in progress. The review below draws on the important collection of papers based on Anglo-French studies of African land tenure reform, edited by Toulmin and Quan (2000) and on a recent review by Lund (2000). Much of this recent literature is concerned with identifying ways to enhance equity and security, that is, to ensure recognition in law of rights of access to land for the poor. For many (IIED, 1999; Toulmin and Quan 2000b; Platteau, 2000) these objectives are best served by recognising and reinforcing customary rights to land. The alternative, which is integral to many government plans for tenure reform, involves some form of written register of titles to land, along the lines adopted in Kenya at independence. Opponents of land title registration argue that

- it favours the wealthy, who are best placed to deal with the bureaucratic procedures involved;

- it generally involves registration of 'primary' (ie cultivation) rights and ignores secondary or seasonal rights (eg to grazing) which are likely to be important 'safety-net' rights under customary tenure (Platteau, 2000). As a consequence access to land is likely to become more exclusive.
- Registration has generally not allowed land title to be registered in a woman's name;
- One justification for registration, that it allows land to be sold and hence to be used as collateral for loans to finance improvements in productivity, is not supported by empirical evidence, which shows no difference in rates of farm productivity across different forms of land tenure (Migot-Adholla et al. 1993).
- Conversely, the development of a land market opens the possibility of distress-sales by the poor in times of hardship, thus accelerating social differentiation and landlessness among the poor.
- The flexibility (or 'negotiability') of access to land through kinship under customary law offers the possibility of re-allocation of land to poorer community members on the basis of need.

One of the basic assumptions of these arguments, that customary tenure is characterised by allocation on the basis of kinship or membership of a community (and thus, implicitly, a refuge from market forces) has come under increasing scrutiny and challenge (Woodhouse et al, 2000). The review by Lund (2000) concludes that customary tenure is neither egalitarian nor in any way inimical to privatisation and sale of land. The perception of customary rights being 'inalienable' is attributed to their (re)constitution under colonial administration, which resulted from a convergence of two sets of interests. Upon incorporation as the base of colonial administration, the customary authorities or 'chiefs' were able to overstate their land allocation authority, a tendency that suited the colonial authorities as it strengthened administrative control over the rural population. Indeed, evidence from accounts of African agricultural development in the late nineteenth and early twentieth centuries (cf Hill, 1963 ; Bundy, 1979, Berry, 1993) suggests emerging land markets were suppressed by colonial authorities (Chanock, 1991). In fact, Lund (2000) concludes, there is widespread evidence of land markets operating informally, and in some contexts illegally, under customary tenure regimes. Although land sales are often accompanied by procedures to ensure local recognition of the transaction, such as written and witnessed documents, Lund argues they form part of a continuum of weaker or stronger claims to land that may extend to alienation by sale, and over which the formal tenure regime has no controlling role.

From the point of view of agrarian change and the dynamics of the rural economy and society discussed in section 3, above, it is worth noting the importance of investment as a factor in strengthening claims over land. At its simplest, investment in clearing land by cutting and burning vegetation forms the basis of all customary authority – usually held by (or transferred from) the descendants of the first settlers who cleared the land. Conversely, pastoralists, who clear no land, have no such customary authority over grazing areas, no matter how ancient their management of them. However, investment in boreholes by Tswana cattleowners in Botswana in the 1930s provided the basis for more exclusive rights not only to the water, but also to the pastures around them (Peters, 1994). Similarly, investments in SWC, such as irrigation infrastructure, stone bunds and terracing – even manuring to maintain the period of continuous cultivation (Gray and Kevane, 2001) - are associated with an increasing degree of exclusive control – privatisation of land. In effect, privatisation of land is therefore a consequence (not a pre-requisite, as proponents of land titling programmes argue) of investment to improve its productivity. Since it is the wealthy that are able to invest, it is they who will strengthen their rights to land, while poorer farmers will be more vulnerable to losing land rights due to their inability either to

establish visible investments, or to maintain continuous production (and therefore occupation). The resulting differentiation between those consolidating their land holdings and those losing them appears similar whether land is held under customary tenure in Burkina Faso (Gray and Kevane, 2001) or under formal registered title in Kenya (Murton, 1999).

Under the hierarchical authority of customary tenure a number of responses to this mechanism of privatisation are evident. Holders of customary rights to land may prohibit investments (eg planting of trees) on land loaned to others (Lavigne-Delville, 2000), or may prevent formal registration of land on which investments have been made (Lahiff, 2000). They may make rudimentary and unproductive investments, such as land clearing (Lund, 2000) or even irrigation (Woodhouse and Ndiaye, 1991) as a means of pre-empting competing claims to the land. They may enter into formal rental or sharecropping agreements with 'strangers' as a means of formalising their individual rights over the land and deflecting claims based on kinship (Francis, 1984; Woodhouse et al. 2000, Southgate and Hulme, 2000). They may enter into formal sharecropping arrangements with other members of their own family (Amanor, 2001). Finally, where market conditions are sufficiently lucrative, as in the case of peri-urban areas in Tamale, Ghana (Abudulai, 1996) customary authorities may simply appropriate the rights of individual owner of 'freehold' and sell plots of land to the highest bidder.

Those losing land rights under this process may challenge the holders of customary authority over land. In peri-urban villages of Ashanti region, for example: "There was hardly any village not engaged in litigation either with a rival village or within the community, where local people are battling with the customary custodians of land for accountability in respect of land disposals." (Kasanga and Kotey, 2001:17). Community members with less purchasing power may seek to invoke 'customary rights' to expropriate or demand rent from wealthier immigrants (Berry, 1993: 157). For example, in Burkina Faso, "poorer and land-short farmers (particularly the young) use political discourses (infused with the language of ethnicity) to halt incipient processes of intensification and 'privatisation'" (Gray and Kevane, 2001:583).

These accounts are not encouraging for strategies of reducing poverty through recognition of customary rights at the level of the *community*. They imply that in a 'boom' area of competition for land and investment in increasing agricultural productivity, the incipient privatisation of land will tend to reduce access to land for the poor irrespective of the formal tenure regime in place. In these circumstances, any attempt at registration of 'customary' rights will only secure access for the poor if this allows the registration of *individuals'* existing use of land and other resources, as has been proposed in tenure reform legislation (as yet not implemented) in South Africa and Uganda.

In a 'stagnant' area, with low and/or declining population, competition for land between individuals is likely to be much lower, and registration of customary jurisdiction may be adequate to secure 'community rights' in the face of competition from commercial interests such as logging or mining companies. Hughes (2001) details such a case in a 'remote' area of Mozambique.

In both 'boom' and 'stagnant' areas issues of transparency and accountability remain, however, and many of the proposals for land tenure reform (in South Africa, Uganda, Niger, and Cote d'Ivoire, for example) include provision for local institutions to arbitrate and register land claims, modelled on the Land Boards in Botswana (Quan, 2000). From the point of view of poorer land users, there are two key issues in implementing these proposals. First is that of representation, which, in addition to

customary authority and locally elected officials, must be broadened to include representatives of resource users with only subordinate rights under customary tenure, such as women, immigrants, and pastoralists and other users of 'common property'. Second, is the question of the political context within which 'land boards' will operate: "(T)heir impact in practice also depends on the policies which they are required to implement" (Quan, 2000:205).

This raises questions about the effectiveness of decentralisation as a means to reduce poverty, and rural poverty in particular. The experience reviewed above shows that local institutions cannot, of themselves, be expected to act in the interests of the poor, as they will simply reflect the priorities of the more powerful local interests or 'big men' referred to by IFAD, above. As Johnson (2001: 525) remarks "in rural areas...large numbers of people are dependent upon small numbers of local, powerful elites." He goes on to quote Luckham et al (2000): "a certain degree of re-centralisation may be needed to ensure that the needs of the poor are not neglected." (quoted in Johnson, 2001:529). The important element of any 're-centralisation' is that the politics of the (central) government will have a key role in setting out policy – that is social goals - for land boards on equity issues, such as: the rights of women; the admissibility of ethnic discrimination in land rights; the relative weight to be given to 'indigenous' holders of customary land rights compared to immigrant land users, sharecroppers, or tenants. This latter may prove to be of particular importance to the poor in 'boom' areas, for, under conditions of increasing privatisation likely in such areas, sharecropping or tenancy will become their most likely means of access to agricultural income. This is evident in recent case studies in Benin (Edja, 2001) and Ghana (Amanor, 2001), which demonstrate the importance of renting and sharecropping: 75% of women in the villages studied in Benin were farming rented land, and for 40% of them rented land was their entire cultivated area. In the southern Ghana case two thirds of farmers obtained access to land through sharecropping and for nearly half of all farmers the 'share' to the landholder had increased (from a third to a half) under conditions of increasing land scarcity. It seems clear that local 'land boards' may have a role in monitoring and arbitrating such contracts.

The decentralisation agenda has correctly identified that it is at local level that natural resource management becomes effective, and, by extension, its impact on poverty is determined. The review above suggests, however, that this is to merely to state what happens at present, rather than an aspiration for the future. Recent work by James et al (2001) on the implementation of local revenue collection by district councils in Uganda underlines how central policy intended to increase local accountability can become translated locally into its opposite. From this perspective, the challenge of reducing poverty is not to liberate 'local communities' from 'central state interference' but, rather to ensure that the central state recognises the rights and priorities of the poor, and works to make those rights 'real' in the context of local society and economy.

6. Conclusions

This paper cautions against the 'homogenising' view of rural society to which 'small farmer' models of rural poverty reduction are prone, and which emphasise limitations of soils, climate or other natural resource endowments as the reason for rural poverty. Three key elements of the 'small farmer' model identified at the start of the paper were:

- the problem of 'rural' poverty is primarily a problem of low farm productivity;
- increases in productivity of resource use by the poor are possible using 'scale-neutral' technology in the form of improved seeds and water control;

- access to natural resources for the poor will be improved by 'decentralised and participatory' methods and "land reform to create small, not-too-unequal family farms"

In relation to these three premises we have argued that poverty is better understood through an analysis of the dynamics of agrarian change, in which a historical perspective and an appreciation of population mobility are key elements. This approach suggests two contrasting agrarian situations of 'boom' and 'stagnation' that are likely to be encountered simultaneously in different regions. The difference between these two types of area can be expected to be determined by social and economic factors and the nature of linkages with the regional economy as much as, or more than, agro-ecological resource endowments.

The 'boom' situation is characterised by agricultural output with expanding (typically urban) markets. Such areas will experience competition for land, fuelled by immigration, and investment in technology (notably that related to water management) to increase productivity. Under these conditions poverty is not primarily the result of low farm productivity, but, most immediately, the result of some sections of the rural population failing to secure access to land and/or water. While investment does bring productivity increases, as predicted by the small farmer model, the lack of 'scale-neutrality' of investment in technology – in the sense that the poor are least able to afford such investments – is a key factor driving the growing differential between landless and landholders. There is growing evidence that, in addition to wage employment on farms, landless farmers in 'boom areas' in Sub-Saharan Africa obtain land through rental and sharecropping arrangements, though possibly with an increasing share accruing to the 'landlord'. In many such areas the opportunity for "land reform to create small, not-too-unequal family farms" appears to have long gone. Key issues for an agenda to help the 'chronically poor' are to seek adequate representation for marginalised groups to ensure they can negotiate for protection of 'secondary rights'; to monitor the benefits to the poor of rental and sharecropping arrangements; and to seek improved access for poorer groups to high-return non-farm (though possibly natural resource-based) employment opportunities.

In 'stagnating' areas, demand is attenuated by distance from markets, population is likely to be static or declining due to emigration, and productivity is restricted by low rates of farm investment and by scarcity of farm labour. While it is possible that investment in technology might raise farm productivity in such areas, such technology should be labour-saving, not 'labour intensive' as the 'small farmer' model advocates. Fundamentally, however, the viability of any investment in farming will be conditioned by the lack of effective market demand. The high levels of vulnerability of the 'residual population' of such 'stagnant' areas may signify that the 'small family farm' is not the most appropriate scale on which production (and risk) should be managed. Larger units, with a range of possible labour inputs, might be expected to respond better to the needs of the chronic poor in such areas. Such approaches may be linked to agriculture or they could be focussed on non-farm diversification. Either way they need to seek ways of generating opportunities for the poorest groups to take part in higher-return natural resource use, rather than 'safety net' activities that provide only low returns to labour.

The paper concludes that 'community-based' models of natural resource management fail to take account of conflicting interests within communities and similarly mistakenly assume a welfare function can be ascribed to 'customary' rights to land. In abandoning these assumptions, proposals for land tenure reform currently underway in many countries in Sub-Saharan Africa need to ensure a broad and effective representation of different land users in the institutions through which land

rights are negotiated and formally recognised. This raises questions about what organisations would most effectively identify and represent the interests of the poor. The operation of representation through kinship (lineage/household), type of resource use ('user group'), age (youth groups, elderly), gender, ethnicity (eg immigrants), or property (customary landholders, sharecroppers) need to be monitored critically to explore how best to advance the wellbeing of 'chronically poor' people.

In attempting to understand the role that natural resource use might play in the reduction of chronic poverty, this paper has identified a number of dynamics of change which operate differently in areas termed 'boom' and 'stagnant'. The key discriminator between the two areas is the extent to which market demand for agricultural output (or output of other natural resource-based commodities such as timber, fish, charcoal) is driving an increase in output, with associated processes of immigration, competition for land and increasing productivity through technological change. In identifying markets as key drivers of change, this paper shares common ground with that of the 'small farmer' approach, but differs from it in the way markets are perceived to interact with other social and political relations. Above all, markets are perceived as factors in social change which is not substantively addressed (except in terms of aggregate improvement in farm income) by the small farmer model. The approach taken here assumes that whatever solutions are put forward to reduce chronic poverty must take account of market effects and in particular the way they may bear differentially upon the poor.

Remoteness conveys a substantial part of the idea of strength of market demand, and this can usefully convey spatial dimensions of economic and political (in the sense of distance from central government influence) influences on the condition of the chronic poor. However, spatially-defined categories do not operate satisfactorily as a proxy for describing social and economic dynamics or processes of change. I have argued earlier that the condition of 'remoteness' is both path-dependent and (by implication) may change. For these reasons, it appears that the most useful characteristic of 'remoteness' is the current dynamic of economics and politics which it identifies, rather than any intrinsic natural resource qualities. The 'boom'/'stagnant' typology employed here has been used to try to contrast situations of economic expansion and stagnation. However, it perhaps invites at least a third type, that of economic decline and contraction. Whether there is much difference between 'stagnation' or 'contraction' in economic terms is perhaps difficult to ascertain at this stage, but it does identify a path towards a more finely graduated classification of zones of poverty in terms of the size (per capita) and rate of expansion of the local economy.

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