

Rural Energy and Poverty in Kenya and Lesotho: All Roads lead to Ruin

Ben Wisner

Introduction

Rural poverty in sub-Saharan Africa often presents a strikingly similar set of symptoms, while the causes can vary considerably. The 'look' and 'feel' of women's daily grind in countries as different as Kenya and Lesotho, for instance, would suggest this similarity to many observers, even those careful to avoid the pitfalls of 'rapid rural appraisal'. In both countries, surveys and participant observation provide data that support such impressions. In both cases there is evidence of declining access to woodfuel, increasing work-loads on women, and declining household welfare as income is shifted from other basic needs consumption (food, soap, clothing) in order to purchase domestic energy sources. Women's time is diverted from other activities as they pursue scarce biomass. There are also reports of environmental degradation as these scarce biomass resources are over-exploited and as labour is diverted from soil conservation and other activities required to reproduce the natural conditions of production.¹

Such sequences and multi-causal networks feature prominently in recent writing on African crisis. They form part of the interlocking, self-sustaining 'vicious circles' that Chambers has called 'integrated rural poverty'. However, the fact that a set of symptoms reproduces itself does not eliminate the necessity of focusing policy measures on causes rather than symptoms. Symptoms — even complex systems of interacting, mutually-reinforcing symptoms — remain symptoms. Schemes to 'energise' domestic labour and rural production through technological innovations have been frequently criticised on these grounds, and planners have learned this lesson.

Still, the problem persists because government agencies and non-governmental programmes, while sensitised to the importance of treating causes, *assume* similar causes for similar effects. This ahistorical approach applies an overgeneralised set of 'causes' derived 'from the literature' or 'from common sense' to these cases. Commonly cited are 'inappropriate technology', 'lack of income', 'inaccessibility of seedlings', and 'ignorance of agroforestry'. A corresponding set of programmes has emphasised stove improvement, income generation, decentralised

tree nurseries, and agroforestry extension programmes.

This 'shopping list' approach to the 'rural energy crisis' has been disappointing for a number of reasons — most of them traceable to conceptions of 'crisis' insufficiently rooted in specific histories of places and people. Some early attempts to deal with the 'other' energy crisis by means of expanded forestry activity failed to appreciate women's present and potential agroforestry [Fortmann and Rocheleau 1984]. When 'the woman question' eventually became the focus, superficial, sectoral 'survey' methods yielded a limited understanding of how woodfuel shortage affected and interacted with all other household activities. Where in-depth participant observation and other more systematic attempts to locate domestic energy in rural woman's 'situation' have gone beyond these surveys,² two additional problems have appeared. First, the insights gained have usually been slow to find their place in practice and policy. This, of course, is the common fate of small-sample research such as 'applied anthropology', and this article cannot address it in its general form.

A more controversial, but specifically relevant problem concerns the *kind* of micro-study. Studies have produced useful information on time-budgets, household division of labour, diet, and the like. However the underlying theoretical stance is functionalist. Few investigators ask themselves how whole human ecosystems, that include women as active agents, reproduce themselves from generation to generation.

What is more, there is usually the assumption in studies that the livelihood systems organised by women, within which the 'woodfuel problem' is situated, are in an equilibrium state.³ Given limited land, labour time, money and access to other resources, women are thought to find ways — in the long run — that optimise the use of these scarce resources, making the 'best' out of the 'least'. As 'external' forces change (crop prices, wage labour opportunities, proximity of social services, etc.),

² Among recent attempts to treat 'the woodfuel crisis' more systematically, as part of women's more general 'crisis of domestic reproduction', see Wisner [1981, 1986], Cecelski [1984], Agarwal [1986]. For excellent anthropology see Haugerud [1984].

³ 'Equilibrium' here is used in the human ecologist's sense rather than with the more specific technical meaning that economists would understand from such a (dynamic) equilibrium.

¹ For descriptions of this commonly recognised 'syndrome', see Wisner [1981], Cecelski [1984], Agarwal [1986].

women are thought 'to adapt' their time budgets, money expenditure and land use accordingly, producing a new equilibrium position in a system that satisfies, minimally, the basic needs of the household.

These functionalist assumptions are usually not spelt out. They are implicit, however, in any number of studies that marvel at the ability of poor rural women 'to make ends meet'.⁴

Is it not possible that the exhausting array of activities catalogued as 'coping' or 'adapting' are features of systems in the process of self-transformation, in the face of crisis? At the end of this article a preliminary attempt to use the 'new systems' thinking of Prigogine, Jantsch and Capra will provide a few working hypotheses concerning the importance of women's history in suggesting relevant policy options in Kenya and Lesotho.

These two countries are chosen to exemplify these challenges to policy for a number of reasons. One is that the relations between land privatisation and more general commoditisation are different in the two countries. 'External' forces on livelihood systems are also different given the importance of South Africa's labour, commodity, and finance markets in the economy of its small, enclaved neighbour, Lesotho — a situation with no parallel in eastern Africa. In particular, it will be argued that the long-distance wage migration systems in Kenya and Lesotho have different impacts on the rural areas providing migrants. In Kenya, the temporary absence of men has opened up possibilities for mutual aid among women that provide 'entry points' for rural energy programmes that are improbable in the case of Lesotho.

Kenya: Widespread Privatisation, less Commoditisation⁵

Private ownership of land in Kenya has accelerated rapidly since independence. This is partly because considerable areas of land in the country's fertile and well-watered Highlands had been expropriated and held privately by the White Settler population. A large part of this seven million acres was transferred to well-placed Africans in an internationally-financed sale of White-owned land. Some 14 per cent was distributed among some 40,000 landless families in what was known as the 'million acre scheme' [Odingo 1971; Cliffe 1975].

⁴ The author belongs squarely among that group. This article is not quite an 'autocritique' since policies assisting 'adaptation' are better than policies that positively undermine livelihood systems. Yet one has to get beyond functionalism and its political correlate, 'reform'. See the author's 1981 and 1986 publications for examples of reformist functionalism.

⁵ The author is grateful for insights into the potential of self organisation by the poor, as yet an 'unnamed African happening' (in the words of Harold Miller) to Kaimoji Wachiira, Calestous Juma, Joseph Sennyonga, Joshua Mukusia, and Carolyn Barnes.

Even before independence the process of privatisation in 'African reserves' adjacent to the 'White Highlands' was underway. A formal system of adjudication of usufructuary rights, consolidation of land holdings, and issuance of deeds to surveyed land was set up. In the years following independence, this process continued rapidly. At present all of the country's high and medium potential agricultural land has been adjudicated in this manner, and the process has spread into the margins of the rangelands.

Njongo [1981] and others⁶ have documented the rise of Kenya's new landed class through Africanisation of White Settler land and through the adjudication process, followed by increasing concentration of land by the rich as poorer neighbours have been forced to sell out. For instance, in Nakuru District, in a zone of former White-owned mixed farms, Njonjo found that 91 per cent of the owners held only 21 per cent of the land. The five per cent of owners each with more than 20 acres controlled 79 per cent of the land. The top two per cent of owners with holdings greater than 100 acres controlled 69 per cent of the land.

The majority of rural dwellers have seen the productivity of their land fall during this period of rapid accumulation by the rich minority. Firstly, population increase and the division of family land according to inheritance rules has continued to erode the amount of land available per family. Secondly, where families have lost out to more powerful farmers in the innumerable local land tribunal cases accompanying the privatisation process [Brokensha and Glazier 1973; Okoth-Ogendo 1976] or where they have been forced to sell land to raise school fees and money for other needs, many have actually been forced to migrate to the less productive lowlands of the Western Rift Valley and the Eastern Foreland Plateau. Here crops may fail as often as four years in ten, and productivity under rain-fed conditions is low [Porter 1979; Wisner 1978].

However, the rural poor need not migrate to the margins of arable land for wastelands to be created. The same pressures that may lead to the sale of the land or assets often cause over-exploitation of the remaining small plots accessible to the 'working poor'. Fallow periods become shorter and shorter. Labour that might have been used to maintain fertility and to conserve soil is often diverted into casual wage labour locally or long-distance wage migration in order to meet short-term consumption needs. Vegetation that might have anchored the soil and recycled nutrients is often burned for charcoal by poor rural dwellers in desperate immediate need of cash.

In Kenya, the tendency of increasing numbers of rural households to become 'marginal' in this socio-

⁶ The 'land question' has been addressed by numerous authors, including Lamb [1974], Okoth-Ogendo [1976], Cowen [1981], Kitching [1980], and Hunt [1984].

environmental sense has been disguised by the fact that many smallholders cling to small, infertile, degraded plots of land. They are not 'landless' in the strict sense, but have been forced into reliance on casual wage-work, non-farm artisanal activities, and high-value export crops.

Njonjo [1981:39] describes the resulting paradox: the dissolution of the peasantry 'takes place precisely at the same time as a highly weakened peasantry continues to retain relations to patches of land and hence maintains the illusion of a property owning class'.

Of course, calling these peasants 'marginal' does not mean that their activities are separated from the market economy. 'Marginal' refers to the particular manner in which peasants in this situation are integrated into the society. It refers to the way their livelihood strategies take advantage of niches 'on the edges' of Kenya's 'economic miracle'.

The word 'marginal' might also be used to characterise the success of these combined farm/non-farm strategies to feed people adequately. A recent study exploring new methods for establishing empirically a 'food poverty line' for Kenya concluded that even on an austere diet of maize and beans alone, 25 per cent of all smallholder households are not able to feed themselves [Greer and Thorbecke, 1984:14]. When those authors assume a less austere, culturally desirable diet including Nairobi prices⁷ for minimum quantities of meat, milk, tomatoes, bread, sugar and fat, 94 per cent of all smallholder families in Kenya have to be defined as 'food poor'.

Woodfuel in Kenya: Crisis within a Crisis

The foregoing is the context within which one has to place the large number of female-headed households — a proportion rising to one-third in parts of Western Kenya — and their struggle to secure biomass for domestic energy. It is true that these women and their children spend considerable time in procuring woodfuel — anything from three to ten hours a week in areas of low population density to more than 20 hours a week in zones of severe scarcity [Hosier 1982; Barnes et al., 1984]. However, these women must also feed, clothe and shelter their families. Despite the expansion of self-help water schemes, considerable time must often also be spent — at least during the dry season — in drawing water for household use.

Domestic energy is, therefore, not the primary problem facing these women, although one might argue that in the long-run deforestation could have a profound effect on the viability of the entire rural economy. Yet much of the biomass used in these situations comes from more accessible crop residues,

from small twigs gathered in farm boundary hedgerows, and deadwood gathered with permission from neighbours, kinspeople and local employers who have more land. Despite the extreme privatisation of land ownership, the impact of the fuel crisis is softened by the persistence of reciprocal relations, sharing, and a moderate — though diminishing — amount of common land.

The livelihood strategies that have emerged combine petty commodity production, wage labour, subsistence farming, craft production, gathering, and intra-community sharing. Reliance on markets for purchase of energy sources and staple foods is growing, but so far is extreme only among the landless, and — in particular — certain highly vulnerable groups such as tenants on irrigation schemes and plantation labourers. This is just as well since remitted wages from the men fortunate enough to find work in Nairobi, Mombassa, Kisumu and other urban centres do not stretch far, given rates of inflation and low average wages.

Work on rural poverty and domestic energy in Kenya suggests, therefore, that rapid privatisation of land resources is the basic cause of both poverty and domestic energy problems. Male wage migration arose as a response to the reduced access to resources following privatisation. While absence of men may complicate the lives of women, migration as such cannot be considered a cause of rural poverty: it is an effect. Privatisation, with clear historical roots in the White Settler political economy of colonial Kenya, must be seen as the causal nexus within which any programmes for dealing with 'rural energy crisis' or any other specific manifestations of rural poverty must be fitted. More general commodity relations in Kenyan society have, at this point, a mixed and ambiguous relation to forms of crisis and livelihood strategies that are creative responses to crisis. Considerable, though fragmented, resort to non-commodity relations exists throughout East Africa, as Hyden [1983] has pointed out. Mutual aid among women, church-based sharing, patron-client relations, and kin-based livelihood options exist alongside wage labour, petty commodity production, barter of artisanal products, and micro-entrepreneurial undertakings. Whether or not a given technocratic 'solution' to the rural energy shortage is effective (i.e. is adopted, efficient, sustainable, and without negative consequences) depends on how it 'fits' into these complex and constantly shifting features of rural livelihood strategies.

Lesotho: Less Privatisation, more Commoditisation⁸

The set of historical relations connecting migration, private land ownership, and more general commodity relations shifts dramatically as one takes up the case of

⁷ This illustration may appear to be extreme but, in fact, the study cited suggests that poor rural households often face prices *higher* than Nairobi prices for some of these 'basic' commodities.

Lesotho. The framework they provide for understanding the 'rural energy crisis' is quite different. Despite the 1979 Land Act, land ownership in Lesotho has not been significantly privatised, except for house plots and other 'urban' sites [Land Tenure Centre 1985]. On the other hand, integration into the South African Customs Union, the importance of remitted mine wages in the rural economy, and Lesotho's longstanding food deficit status have deeply commoditised rural life. Buying and selling everything from crop residues for thatching to several varieties of animal dung for fuel is common.

The historical root of this situation is to be found in the systematic destruction of Lesotho's rural production systems as ever increasing numbers of men were drawn into the migrant labour system (MLS) established in the last quarter of the nineteenth century to serve the South African mines. Murray [1981:11-12] cites sources estimating some 15,000 men at work outside Basotoland in 1875 and possibly 30,000 by 1884.

Turner [1978], Murray [1981] and others have documented the decline of Lesotho from a food-exporting to a chronically food-importing territory during the period 1920-30. The food deficit has grown continually since then, and in addition, international food aid has, since independence in 1966, become a constant, routine part of the survival strategy of families who have grown to depend on massive school feeding programmes. In 1978-79 nearly 20 per cent of the entire population of Lesotho participated in food-for-work programmes administered by USAID [Jackson 1982:23]. A high proportion of these participants were older women, widows, and divorcees heading households on their own.

Other factors contributed to the decline of Basotho agriculture and to its dependency on foreign aid, but the overwhelming importance of the MLS stands out. By the late 1970s, more than half of the rural households had a member remitting income at any given time [Feachem et al., 1978:18]. Mine employment hit a peak in 1982 when 130,000 men went to work in South Africa out of a population of about 1.4 mn, that is, about 40 per cent of the economically active male labour force.

Woodfuel in Lesotho: Another Crisis within another Crisis

Among Lesotho's poorest rural women the 'rural energy crisis' appears much the same as in the most extreme situation in Kenya. Long hours are spent collecting shrubs and weeds. Crop residues and dung

⁸ The author served as leader of the FAO/WCARRD Rural Development Team in Lesotho in 1983/84. The report [FAO 1985] provides much background drawn upon here. Particular gratitude for insight into the situation of women in Lesotho is due to Judith Gay, Nici Nelson, Qenehelo Mahasa, Steve Turner, and Sibusiso Nkomo.

are often burnt. There is competition between use of wood for fuel and for construction [Gay and Khoboko, 1982; cf. Chavangi 1984 on Western Kenya]. Yet the political economic differences just described suggest issues of significance for policy and programmes.

Firstly, the MLS is quite different in the two countries and has a large influence over the options open to women. Mine wages have increased dramatically since the early 1970s when the world price of gold was allowed to 'float' and an attempt was made to make wages competitive with South Africa's industrial wage level, a strategy intended to increase the proportion of non-foreign Africans in the mine labour force. These wage increases have outstripped the rise in Lesotho's cost of living manyfold. Also, in the short run, the strategy of reducing dependency on foreign mine workers has not affected the Basotho heavily, since numbers recruited in Lesotho rose to replace declining recruitment in Mozambique and Malawi, even as the overall proportion of non-foreign Africans was increasing.

This relatively high wage level — while certainly not politically sustainable in the long run — has combined with factors expanding commodity relations generally in the society. In a sample of 148 households in the mountainous Mokhotlong District, Gay and Khoboko [1982:3-21] found 71 (48 per cent) received income from sale of beef, 88 (60 per cent) from male wages, 49 (33 per cent) from sale of wood, mohair or animals. Of note are the 19 households (13 per cent) who earned income from sale of shrubs for fuel to their neighbours. This proportion was about the same as those earning income from selling bread or other cooked food, those engaged in construction locally, thatching roofs or quarrying stones, and those households who had women earning wages. 43.2 per cent of the households reported purchasing shrubs for fuel and 10.1 per cent purchasing dung.

While most women rank fuel problems high among the difficulties they face, in this highly commoditised rural economy it is mostly women who have fallen outside the remittance system who suffer. Widows and divorcees in rural Lesotho are recognised by non-governmental organisations and multilateral donor agencies alike as constituting a homogeneous class/gender grouping at high risk [van Heck 1984:78-86]. These are the women who scout barren foothills for shrubs (*sehalahala*) for sale to their neighbours.

Although some attempt is made by local chiefs to enforce special segmentation of fuel collection areas and to continue older conservation rules (e.g. no weed collection for fuel until the plants have seeded themselves), these restrictions are eroding. Attempts to establish fuel woodlots have been disappointing. In the 11 years [1972-83] that Anglo American

Corporation held the contract with Lesotho's Ministry of Agriculture for promoting and assisting woodlots only 4,000 ha. were afforested nationwide.

These problems can, in part, be traced back to the MLS. For many years a proportion of the miners' deferred pay has gone to purchase cattle and other livestock in South Africa. A transhumance system of herding is still practised in Lesotho. During the summer herds graze the high mountains. When cold forces them down to lower altitudes, land that has just been farmed on an individual basis reverts to the community for winter pasture. Under these circumstances there is little incentive for investment in permanent farm improvements and large incentives for investment in livestock. Over the years cattle have overgrazed valleys, foothills and mountains alike. Erosion is extreme. One recent review of mountain pastures found that 23 to 42 per cent has been reduced to bare ground and 13 to 19 per cent is exposed bare rock [Phororo 1979].

Under these circumstances it is possible to argue that unlike the Kenyan case, where male wage migration was another effect of an underlying cause (food privatisation), in Lesotho the MLS is a major cause of the rural energy crisis. Firstly, the MLS has undermined arable farming as a viable rural activity, leaving only accumulation of livestock as an economic option. This in turn, has progressively denuded the countryside and reinforced the continuance of a land tenure system that makes afforestation projects very difficult. Secondly, the social and economic relations built up around the MLS have created both the conditions which destroy families (alcoholism, domestic violence, leading to high rates of divorce) and, at the same time, made it very costly for women to fall outside of the remittance system. The 'rural energy crisis' is felt most by widows and divorcees who, like their poorest female counterparts in Kenya, face much greater hardships than 'rural energy crisis'.

In both countries, therefore, 'rural energy crisis' is a 'crisis within a crisis', but the roots and the nature of the overarching crisis is different in the two cases.

Policies, Projectism, and Grassroots Action

As suggested at the beginning of this article, a common 'shopping list' approach has been used to address the 'rural energy crisis' in both Kenya and Lesotho. Improved stoves and other domestic devices (solar driers, for instance) have been designed and marketed. Small rural enterprises have been set up to provide income needed to acquire these improved fuel-saving technologies. Tree seedling nurseries and woodfuel plantations have sprung up. Lessons in 'agro-forestry' have been urged on women through the organs of rural development, agricultural extension, and women's organisations.

The fruits of these elements in the rural energy

'shopping list' have been few. By comparison with some of the earlier extension messages of the 'boil your water' variety with which rural women have been blessed, these technical approaches have been relatively thoughtful and benign. Stove designers have tried very hard to work 'with and for' women, taking local cultural and other circumstances into account [Thrupp 1983; Clarke 1985]. Likewise, the scientists and economists associated with agro-forestry — perhaps due to the polycultural nature of the activity — are considerably more sensitive to local requirements and practice than the stereotypical proponents of Green Revolution farming.

The problem, therefore, lies not so much with the 'packages' themselves as with the functionalist view of women's survival strategies that underlies *all* 'packages' and the 'projectism' that supports them. As noted at the beginning, most observers believe that poor women are 'adapting' to external changes in pursuit of need-satisfying equilibrium. 'Packages' — the ones that are actually adopted and 'help' — are those that save time, money, fuel or other scarce resources needed to 'adapt' or to 'cope'.

No-one would deny that children's lives have been saved by UNICEF's oral rehydration solutions and other elements in the health 'package'. Likewise, there have certainly been fuel and time savings where improved stoves have been adopted. Yet development requires more than this.

The 'package' and 'project' approach has only partly understood the nature of the livelihood systems of poor women. It is a misunderstanding to see them only as attempts to maintain an equilibrium. On the theoretical plane, recent reassessment of biological, ecological and social systems as 'dissipative' [Prigogine 1973; Prigogine and Stengers 1984] and 'self-organising' [Jantsch 1980] puts crisis in a different perspective. The complex mixtures of farm and non-farm activity, of commodity and non-commodity relations, of domestic and 'public' work that characterises African women's lives should be seen in two new ways. First, these are *experiments*. Where successful, some new mixtures of activity may well take the structure and relations that make up 'household' and 'family' considerably beyond what was 'normal' in the 'equilibrium' situation. Second, these are not individual survival experiments, but *social* ones. Even in refugee camp environments in Africa there are reports of mutual aid [Christensen 1982]. Women's groups of various sorts are both a spontaneous and planned development in many parts of Africa, including Kenya and Lesotho.

If there is already a great deal of social livelihood experimentation going on, would it not be the best 'rural development' strategy to support it in a straightforward, non-intrusive way? Technical 'packages' get in the way. Where a group's own

experimentation with ways of solving its own problems is supported with credit, women will eventually seek out the technology. There is no need to sell it door to door.

Here, however, a host of outside interests, outsiders' biases and institutional anxieties arise. This is also the point where the importance of historical specificity is clearest.

Both Kenya and Lesotho have official women's organisations. No-one, however, would expect these 'top down' organisations to reflect the needs or the creative experiments of the poorest women. Feldman [1984], for instance, estimates that in Kenya only seven per cent of organised women benefit from any official assistance. In recent years, in many parts of Kenya, organisations of poor women have simply bypassed the normal organs of 'rural development', in one case independently organising the import of grain into a locality during the 1984 drought some five months before 'officials' took similar actions elsewhere.

To 'aid' such people's organisation is problematic. The technical 'package' is usually the 'tie' that binds a group to their technical 'advisors', giving the latter control. It is obvious also that a wide variety of local traders, sub-contractors and politicians have an economic interest in the flow of funds that has become associated with 'the project cycle'. Even the most libertarian of donors winces at the problems of 'accounting' for material support that is not tied to specific 'packages' and pre-established programmes.

In Kenya, however, 'the project' is increasingly under question, some arguing that 'the project' actually becomes an obstacle to the 'process' of experimentation just described [Aworry 1984]. In the case of the group that organised its own 'crisis food management', they have now turned to sub-surface dams in their dry, eroding countryside, crisis-crossed by seasonal streams. Left to their own devices, they will eventually get to 'the woodfuel problem'. When they do, their approach will quite likely be more effective for the experience they have had together and not because of the excellence of the technical 'package'.

While such groups seem to be 'taking off' in Kenya, similar self-directed, highly participatory activities are yet to be reported from Lesotho. On the contrary, one evaluation of widespread 'self help' activity focused on improving village water supplies finds that very little spontaneous 'knock on' activity followed later [Feachem et al., 1978].

The differences discussed earlier in the patterns of privatisation, commodity relations, and male migration give a clue to the present status of social livelihood experimentation by women's groups in the two countries. In Kenya, male wage migration is a response — together with many other kinds of activity

by men and women — to a common crisis: diminished access to the means of subsistence. Class, in addition to gender, is becoming more explicitly recognised through the common experience of marginality and exploitation by a minority that has enriched itself since independence. The extreme of privatisation of land has accelerated the maturity of people's development groups which have crystallised around what were formerly women's groups. Over the ten-year period between the two most recent drought crises in Eastern Kenya, for instance, it is not surprising that women's groups have begun to include men.

In the absence of land privatisation in Lesotho and temporarily buoyed by relatively high mine wages, corresponding development of women's groups has not yet occurred. One might further speculate about the atomising and fragmenting effect of more thoroughly developed commodity relations in Lesotho and the brutalising effect of mine compound life which calls forth heightened individualism.

Wherever such further thoughts might lead, the central point is that the historically specific situation of the poorest women — those for whom the 'symptoms' of fuel scarcity appear so similar — must be the starting point of policies designed to empower and assist them.

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