

Forest Policy and Environment Programme: Grey Literature

Crisis to Context: the Fuelwood debate

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In the 1970s there was a surge of interest in the issue of fuelwood. For the most part this was propelled by the 1973 rise in fossil fuel prices and associated energy concerns, as well as certain influential publications on the issue such as that by Eckholm (1975) entitled the 'Other Energy Crisis: Fuelwood'¹. Wood fuel demand was seen to be outpacing sustainable supply, and catastrophic projections for year 2000 were presented in the form of a 'fuelwood gap' (see United Nations, 1980). A study by FAO in 1981 estimated that 2000 million people were dependent on fuelwood and other biomass fuel, of which more than 100 million were unable to meet minimum requirements sustainably. Projections for the year 2000 suggested 2.4 thousand million people would suffer acute deficits (FAO, 1981). The lack of viable alternatives to reduce the number of people dependent upon fuelwood for their energy needs was also emphasised.

This perception of a 'fuelwood crisis' was further encouraged by a widespread assumption that by the end of the century much of Africa (and other areas) would have been deforested to provide fuelwood for the poor. The belief that the fuelwood crisis was a major factor in forest degradation has had the most direct implications for forestry. Arnold et al (2003) identify four main strategies which were put forward for dealing with fuelwood shortages:

- i. Fuel substitution
- ii. Fuel efficient stoves
- iii. Improved wood fuel production through better management of the existing resources
- iv. Additional wood fuel resources through plantations and farm forestry

It was the latter approach which received the most attention and generated massive donor, government and NGO interest in fuelwood and plantation projects. The urgency for immediate action resulted in little testing before ideas were put into practice. By the mid 1980s however the result of first evaluations of the fuelwood programmes were emerging and questions began to be raised about the importance of wood-lot programmes in addressing the problem. There was increasing realisation that fuelwood use was having less of an impact on forest degradation than was previously assumed. In addition the woodlots were not playing the hoped-for role in meeting fuelwood demand and were doing little to increase rural supply. Production was often geared toward commercial rather than subsistence production and there were concerns about the planting up of communal lands which were depriving users of access to products from these areas (Saxena, 1997). Community woodlot programmes, in particular, were criticised as they were noted to require high levels of inputs with few benefits other than to the households living close by. On the other hand, farm woodlots were seen to require less input and could be tailored to support households' needs.

¹ A more detailed review of the historical background to the fuelwood issue is provided in Arnold et al, 2003 pages 2- 7

A study carried out by Skutsch (1983) on existing wood-fuel programmes in Tanzania raised concerns that the assumption of the importance of woodlots in providing villagers with fuel may be misguided. Hers, and subsequent studies (e.g. Bembridge, 1990), emphasised the importance of assessing the needs of local households and in so doing suggested that the relative importance of wood shortages to these households had been overestimated. The studies suggested the importance of focussing on local needs through decentralised approaches and design as well as flexibility and responsiveness in policies and institutions.

A similar debate over the dangers of unproven assumptions was also raised at this time over the issue of fuel-efficient stoves. Work by Gill (1985) in the mid 1980s emphasised the 'mismatch between the felt needs of the rural poor and the assumptions of the institutions and individuals designing and promoting improved stoves'. Gill (*ibid*) found that actual priorities have been poorly considered in the design of stove programmes which aimed to improve the efficiency and safety of fuelwood use. Firstly, he argued that the claims that traditional cooking stoves are inefficient are largely anecdotal or based on very limited empirical evidence. In addition, it was shown that not all 'improved' stoves were more efficient than those they were designed to replace, particularly when a diversity of functions are considered. Failure to consider more important priorities, and to take into account the numerous socio-cultural and practical functions served by traditional modes of cooking, as well as people's desire for speed and versatility rather than fuel-efficiency, were identified as stumbling blocks for such programmes. Secondly, Gill showed that the rationale behind many improved-stove programmes was questionable. The gathering of cooking fuel or firewood is rarely a primary cause of deforestation.² Once again, the difficulties of technical projects, which were not sufficiently flexible or amenable to specific local contexts or individual priorities, were emerging as a problem. Writers (see for example Gamser, 1986 and Huizenga et al., 1987) were increasingly highlighting the problem of insufficient interaction between project design and the users of new technologies.

Difficulties were also being faced by those attempting to find policy alternatives. The complexities of the problems at hand confronted policymakers addressing the issue of fuel substitution. A report commissioned by the Government of Somalia (Soussan, 1990) to consider alternatives to the prevailing high levels of charcoal consumption in Mogadishu is demonstrative of some of these challenges. The alternative energy sources would have required massive and difficult restructuring of markets, infrastructure, and expenditure and would have risked pricing poor households out of the market for energy.

By the late 1980s questions were also being raised about the supposed 'gap' between supply and demand (discussed in more detail in Arnold et al., 2003: 5-6). The fuelwood shortage was increasingly being shown not to be as great a problem as was previously thought (Celcelski, 1984). There were increased demands for interventions to focus more clearly on the underlying causes and broader contexts of fuelwood problems rather than the symptoms. From Leach's (n.d) work across southern Africa he suggested that the underlying causes included factors such as rural and urban poverty; inequalities in land holding and security of tenure; low agricultural productivity, incentives and support, especially for small and marginal farmers; the collapse of traditional resource-sharing practices and controls over resource use; rapid urbanisation; sharp divisions in the socio-economic roles of women and men; and, in some countries, external pressures resulting in economic

² Example used by Gill (1985), pg 10.

crises and war” (Leach, n.d:3)³. Leach thus advocated integration and coordination across sectors and decentralised approaches to deal with the local nature of woodfuel issues.

Wisner’s (1987) study contrasted the case of rural energy and poverty in Kenya with that of Lesotho⁴, and through a comparative analysis of the historical relations and conditions showed how government agencies and programmes have a tendency to *assume* similar causes for similar effects. His results emphasised the need for a more holistic and historically sensitive approach, which is more likely to identify local and specific causes.

This debate about the hazards of relying on relatively narrow approaches encouraged, amongst some researchers, a more holistic approach to the topic. Cline Cole et al’s (1987) detailed study of woodfuel resources around the Kano metropolis in northern Nigeria explored patterns of use and change over time in these patterns. The data from Kano revealed an extending, and changing exploitation of fuelwood resources from the ‘distant hinterland’. This contrasted with activities in the ‘local hinterland’, nearer to the metropolis, where not only had the predicted increase in resource degradation not occurred, but rather there was evidence of increased forest cover. Another notable aspect of this study is the detailed empirical analysis of the market for fuelwood in metropolitan Kano. This provides insight into the concerns of people engaged at several levels of the fuelwood industry (including a large, efficient and highly-valued informal market), which was vital in explaining existing patterns of resource use and possible future changes.

Also in the late 1980s there was a marked drop in the attention given to research and forestry projects dealing directly with fuelwood issues (Arnold et al, 2003). Increasing interest in a people-based approach was occurring in the wider forestry sector at this time, including the fuelwood area, where it reflected by recommendations that fuelwood initiatives be incorporated as one component within broader holistic rural development programmes. These shifts in attitude were also generating new perceptions of the importance of fuelwood as a priority in forestry programmes as a whole. This approach is typified by Leach’s (n.d.) paper which paid special attention to poor people as the main consumers (and often providers) of woodfuels. In his review Leach (n.d.) details a number of suggestions for policy changes:

- 1) Woodfuel-related policies and interventions should focus on ‘people’ rather than ‘things’.
- 2) Policies and action should adopt a decentralised and ‘bottom up’ approach to support local concerns.
- 3) Woodfuel problems should be approached indirectly, through the contexts in which they occur.
- 4) Policies should be designed to be able to adapt to rapid change and should focus on direction of process rather than fixed endpoints.

More recently attention to wood fuel use and poverty implications has focussed on negative aspects such as the collection burden placed on women, its contribution to respiratory disease and ecological damage (e.g. DFID, 2002). However, evidence of these impacts remains unclear. Today, just as in previous decades, understanding

³ Leach, G. undated (1986?). “SADCC Energy Development: Fuelwood study”. ETC Consultants, UK. pp 3.

⁴ Wisner, B. (1987) Rural energy and poverty in Kenya and Lesotho: all roads lead to ruin. IDS Bulletin 18: 23-29, pp 23.

the fuelwood situation is hampered by a lack of reliable information. Only a very small fraction of fuelwood production is recorded and the greater part of consumption is by poor households and so is seldom reported. Assessment of the actual magnitude of fuelwood use, and the impacts on forests and rural livelihoods, has consequently been difficult to determine, and the issue of how to secure access to woodfuel supplies for poor is not well covered in the literature (Arnold et al 2003).

At the present time the literature suggests that the earlier concern with the balance between demand and supply was indeed misguided and that the consumption of fuelwood has decreased globally. However, there are new concerns arising over the rapid rise in, and concentration of, charcoal production in order to supply urban markets (Arnold et al, 2003). This, in combination with the fact that woodfuels everywhere are the main forest related inputs in poor households, has led observers to question whether the 'pendulum has swung too far' resulting in the disregard of an important environmental and livelihood issue. (Arnold et al, 2003)

Note: The references with an asterisk (*) are included in the ODI Forest Policy and Environment Programme's *Forestry Grey Literature Collection*:
www.odifpeg.org.uk/publications/greyliterature

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