

# Perceptions of forest cover and tree planting and ownership in Jimma Zone, Ethiopia

*K. Urgessa*

*A high proportion of Ethiopian farmers surveyed perceived forest cover as rapidly declining and would be interested in tree planting – especially if private ownership of trees and forests could be assured.*

The forest cover of Ethiopia has suffered severe deforestation and degradation through heavy exploitation resulting from an escalating demand for fuelwood and land for cropping and grazing (Lisanework and Mesfin, 1989). Historical sources indicate that in the early twentieth century about 42 million hectares, or the equivalent of some 35 percent of Ethiopia's land area, might have been covered with forest (EFAP, 1994). With the inclusion of savannah woodland, the estimate rises to some 66 percent of the country. In the early 1950s, the remaining forest covered some 19 million hectares, or 16 percent of the total land area (EFAP, 1994). By 2000, the coverage was estimated at only 4.2 percent (FAO, 2001).

Because of the nutrient content of ash and mobilization of some soil nutrients, crop yields increase after slash-and-burn forest clearing (Ehui and Hertel, 1992). This may motivate farmers unable to purchase the necessary agricultural inputs to convert forest land to agriculture every year. As a result of such activities in much of Ethiopia, deforestation has generated both an energy crisis and fears of desertification on a national level (Roundy, 1985). The depletion and degradation of the forest are a threat to ecosystem diversity and a fundamental

influence on the declining standard of living of many households.

Development projects have been undertaken to address the complex issues of deforestation, environmental degradation and rural poverty. Their success depends not only on an understanding of biophysical conditions, but also on an understanding of the social, economic and cultural context within which they operate (Awang, 1994). To ensure the success of such projects, people's participation and the assurance of ownership rights are very important.

To identify people's awareness of changes in forest cover and attitudes towards tree planting and ownership, an investigation was carried out in six districts of the Jimma Zone of southwestern Ethiopia from 1991 to 1995. Data were collected using survey questionnaires, interviews and observations. The study was funded by FAO and the United Nations Development Programme (UNDP) and supported by the Forestry Research Center, Addis Ababa (materials and technical advice) and Jimma College of Agriculture (materials and services).

The results revealed that a significantly large proportion of the respondents perceived the forest cover in these areas as rapidly declining, mainly as a result of the shifting cultivation widely practised. The study also showed that farmers are

A typical landscape of southwestern Ethiopia: extensive clearing has left only the hilltop forest relatively intact



G. ALLARD

Slash and burn: clearing for agriculture was the most frequently cited cause of deforestation noted by those interviewed in the Jimma Zone study



G. ALLARD

very interested in tree planting and are in favour of private ownership of trees and forests. Although it is not discussed in this article, protection of natural regeneration is also recognized as an important complement to tree planting in the rehabilitation of degraded forest landscapes.

### SURVEY METHODOLOGY

The six districts of Mannakersa, Seka Chokorsa, Nada Dedo, Ghibe, Limmu and Didessa were selected from a total of 16 districts in the Jimma Zone (formerly the Illubabor Region), mainly on the basis of their accessibility. In each district six representative peasant associations were randomly selected, and from each of these, 20 households were randomly selected for a detailed house-to-house survey, giving a total of 120 respondents in each district. Exceptions were the less-populated Seka Chokorsa and Nada Dedo districts, where only 100 and 60 respondents, respectively, were interviewed.

### PEOPLE'S PERCEPTION OF FOREST COVER

The local people's perception of the status of the forest cover in the six districts is presented in Table 1. Over half of the 640 respondents felt that the forest resources of the area were rapidly declining, while only 7.7 percent (49 individuals) believed that forest cover was increasing.

The decline in forest resources – and a subsequent decline in land productivity and lack of forage and fodder as well as other tree products and services – was perceived by the farming communities in almost all the districts. The farmers' responses suggested that the forest cover

had been more severely affected in Nada Dedo and Ghibe districts than in the other districts in the study. Annual crop farming and livestock rearing are the major agricultural activities in these districts, and for these activities more forest land has been cleared than in other districts.

The respondents perceived various causes for the decline of forest resources (Table 2). Shifting cultivation was the most frequently cited cause, noted by almost 80 percent of the respondents. Clearing to keep away animal crop pests such as monkeys, apes and wild pigs was regarded as the next most important factor in the destruction of the

**TABLE 1. Respondents' perception of the status of forest cover in Jimma Zone over the past 15 to 20 years**

District	Number of respondents	Percentage of responses				
		Same as before	Gradually declining	Rapidly declining	Increasing	No opinion <sup>a</sup>
Mannakersa	120	11.7	28.3	50.8	5.8	3.3
Seka Chokorsa	100	26.0	24.0	43.0	6.0	1.0
Nada Dedo	60	1.7	23.3	73.3	0	1.7
Ghibe	120	0.8	20.8	76.7	1.7	0
Limmu	120	10.8	35.0	51.7	2.5	0
Didessa	120	6.7	44.2	21.7	25.8	1.7
Total	640	9.8	30.0	51.3	7.7	1.3

<sup>a</sup> This column represents farmers who had little or no knowledge about the area because they settled there very recently.

**TABLE 2. Reasons cited for the decline of forest resources**

District	Number of respondents	Number of responses (Percentage of respondents)							Total responses
		Shifting cultivation	Clearing for grazing	Clearing to keep away pests	Harvesting for industrial use	Charcoal making	Pests and diseases	Others	
Mannakersa	120	90 (75.0)	3 (2.5)	15 (12.5)	4 (3.3)	16 (13.3)	0	27 (22.5)	155
Seka Chokorsa	100	69 (69.0)	2 (2.0)	24 (24.0)	5 (5.0)	20 (20.0)	1 (1.0)	27 (27.0)	148
Nada Dedo	60	56 (93.3)	13 (21.7)	15 (25.0)	2 (3.3)	9 (15.0)	0	0	95
Ghibe	120	110 (91.7)	20 (16.7)	49 (40.8)	3 (2.5)	21 (17.5)	0	2 (1.7)	205
Limmu	120	104 (86.7)	26 (21.7)	50 (41.7)	9 (7.5)	20 (16.7)	0	10 (8.3)	219
Didessa	120	79 (65.8)	6 (5.0)	15 (12.5)	19 (15.8)	20 (16.7)	2 (1.7)	37 (30.8)	178
Total	640	508 (79.4)	70 (10.9)	168 (26.3)	42 (6.6)	106 (16.6)	3 (0.5)	103 (16.1)	1 000

area's forest cover. Charcoal making was ranked third.

#### FARMERS' ATTITUDES TOWARDS TREE PLANTING AND OWNERSHIP

Farmers' attitudes towards tree planting were assessed in the six districts

(Table 3). The results clearly indicated that those interested in tree planting accounted for an extremely large segment of the respondents, i.e. about 84 percent. Interest in tree planting appeared to be particularly high among the farmers in Nada Dedo and Ghibe districts, perhaps

because these two districts had lost the most forest cover as a result of shifting cultivation.

These results indicate that farmers have already considered the advantages of planting trees, perhaps as a result of an acute shortage of wood for fuel, agricultural implements and rural housing. For example, farmers in Ethiopia have begun to use straw and animal dung for fuel because of the shortage of fuelwood (International Livestock Centre for Africa, 1985, cited in Nair, 1993). This has had other serious consequences, with the absence of straw and dung for agricultural purposes leading to loss of topsoil fertility and stability.

However, farmers may not take immediate action to plant trees, because certain preconditions are needed to encourage farmers to make a commitment to tree planting. Among these preconditions are a favourably perceived form of ownership, backed by a government policy commitment.

The study further assessed the type of tree ownership preferred by the people for successful tree planting (Table 4). The results indicated that a significantly larger segment of the respondents (93.1 percent) favoured private ownership, whereas very few respondents (3.3 percent) preferred

**TABLE 3. Responses of sample households concerning interest in tree planting**

District	Number of respondents	Percentage of responses		
		Yes	No	Landless
Mannakersa	120	81.7	15.0	3.3
Seka Chokorsa	100	83.0	17.0	0
Nada Dedo	60	93.3	6.7	0
Ghibe	120	89.2	10.0	0.8
Limmu	120	77.5	20.8	1.7
Didessa	120	84.2	4.2	1.7
Total	640	84.1	14.5	1.4

**TABLE 4. Preferred type of tree ownership among respondents**

District	Number of respondents	Percentage of responses		
		Private	Communal	Indifferent
Mannakersa	120	87.5	5.8	6.7
Seka Chokorsa	100	93.0	6.0	1.0
Nada Dedo	60	100.0	0	0
Ghibe	120	95.0	3.3	1.7
Limmu	120	95.0	1.7	3.3
Didessa	120	91.7	1.7	6.7
Total	640	93.1	3.3	3.6

community ownership, perhaps because the current economic policy of the country was not considered conducive to community plantations.

Field observations revealed that farmers not only wished for private tree plantations, but also gave less care and attention to previously planted communal trees or woodlots. This may be because farmers were suspicious about ownership rights that used to be exercised by the government, in which landholders were not granted the right to use their trees as they wished. Beyene (1996) reported that the current

tenure system was limiting the farmers' interest in growing trees on their farms to a large extent. Secure land rights in general and tree tenure in particular play a pivotal role in determining whether the benefits accrue to the people (Bruce and Fortmann, 1988). Hence, in addition to a more secure tenure system, the allocation of communal lands to landless and marginal farmers and giving farmers more permanent and individual tree ownership rights would probably improve farmers' living conditions and protect the environment from further degradation.

It is worth noting, however, that land tenure is not the only issue in determining rehabilitation or investment in land. Practices of open grazing by the animal herds of the whole village, for example, can undermine the success of tree planting even where people's ownership or access to land is confirmed. Changes in cultural herding practices, not only land tenure, would be a precondition for successful tree establishment and protection. Changing cultural herding practices, however, would also have a series of other ramifications.

## British people think their woodlands are shrinking

*An overly pessimistic view of forest cover in the United Kingdom.*

As reported by the Quarterly Journal of Forestry, more than 60 percent of adults queried in a new government survey in the United Kingdom believed the country's woodlands were still shrinking, even though woodland cover in the United Kingdom has increased by more than 25 percent in the past 20 years. Only 16 percent correctly believed that forest cover was increasing, and 13 percent thought it was stable.

The United Kingdom Public Opinion of Forestry 2003, published recently by the Forestry Commission and the Northern Ireland Forest Service, assessed public attitudes to forestry and forestry-related issues in the United Kingdom. The study found that about two-thirds of adults would like to see more woodlands in their part of the country. Peace and quiet, wildlife and scenery were identified as the main factors drawing people to woodlands.

The main reasons given for supporting forestry with public money were to provide places for wildlife to live, to provide places to visit and walk in, to improve the rural landscape and to help prevent the "greenhouse effect" and global warming.

Other findings included the following.

- Only 6 percent of adults surveyed had been consulted about plans for creating, managing or using woodlands, while 43 percent would like to be consulted in future.
- Some 41 percent of adults surveyed were able to reach a woodland easily without using a car or other transport.
- Almost half of those surveyed (48 percent) had seen or read about forests, woodlands or trees through television, radio or newspapers in the preceding 12 months.

The full results of the survey are available on the Forestry Commission's Web site: [www.forestry.gov.uk/statistics](http://www.forestry.gov.uk/statistics)

## CONCLUSION

Owing to the decline in the forest resources of the Jimma Zone and the rise in demand for forest products and services, a large gap has emerged between existing resources and demand for forest products. The farming communities are both the losers and the beneficiaries, and therefore their involvement in the planning, conservation and utilization of forest resources is crucial.

The study reported in this article clearly indicates that the inhabitants of the Jimma Zone perceived their forest cover as rapidly decreasing, mainly as a result of shifting cultivation, followed by clearing to keep away animal crop pests and charcoal making. To overcome these problems, the respondents have shown a great interest in tree planting, but private ownership of trees and forest appears to be a desirable condition for tree planting. Private ownership may be unattainable in the current national policy environment. However, confirmed tenure to land and transfer to the next generation, even when land is still owned by the State, can have much the same influence on investment in the land as private ownership. Land tenure issues are under national debate at present.



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