

# Charcoal production and land use change in Mbozi district, of south-western Tanzania.

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## 1. INTRODUCTION

The forest provides habitat for vegetation and wildlife, the catchments basin and prevention for landslide disaster, and contributes to environmental processes that have an effect around the world. And it also produces important sources of human life such as fuel wood and building material. Therefore deforestation is disputed as an important issue of global environmental problems and many forest policies have been carried out. But in the present situation of continuous deforestation, there is an interrogation that if we have deal forest conservation policy with well investigated research about causes of deforestation.

In this study, Utambalila village in Mbozi district of south-western Tanzania which had serious deforestation caused by large-scale charcoal making since 1990 is chosen as study area. In Mbozi district, about 98% of people rely on fuel wood as energy source and therefore proper forest management is needed for sustainable energy supply. To investigate research about charcoal production and to clarify the effect of charcoal production on land use change by quantitatively and spatially has been done. Furthermore there are some mentions about propose some forest policy in this case.

## 2. SURVEY OUTLINE

In the main sub-village, about 72% of people are the Nyiha. Charcoal production is allowed only at Utambalila village within Mbozi district and this village is located at the front of reclaim land from the forest. There are two charcoal makers, the employed charcoal maker under the regulation of state and district government, and local people under the village regulation. The most effective cause of deforestation in this area is the large-scale charcoal production by the uncountable numbers of employed charcoal makers. Forest degradation spread around this village and it is observed that to clear the land for agricultural activities after charcoal production area obstructs the regeneration of forest. In 2004, about 38.1% of village people were migrated from other area, especially in Ilalangulu sub-village which has a wide forest area had very high percentage of migrants, about 61.1%. Result of the land use change in 1984, 1994, 2002 using satellite photos shows figure 1. It proved that high density forest would be disappeared in 10 years, if the rate of deforestation in 2002 was kept. But if the sources of deforestation except charcoal production were eliminated, it is possible to set sustainable charcoal production forest at 20 years cycle in high density forest in this area.

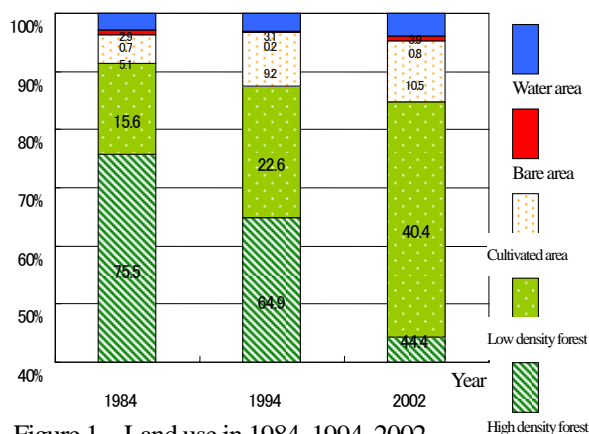


Figure 1 Land use in 1984, 1994, 2002

## 3. DISCUSSION

To develop cultivated areas after charcoal production will be impediment in regeneration of vegetation even there are some roles for stimulate regeneration by the government. In future, for developing the sustainable charcoal production, to conduct zoning the forest for agricultural use and charcoal production use can be effective land-use policy. And also, Participatory forest management has to be done by local people with the employed charcoal makers. And the government has to reexamine their authority and local authority.