

## **An analysis of the causes of deforestation in Malawi: a case of Mwazisi**

(マラウイ共和国の森林伐採の原因に関する分析：ムワジジの事例)

Hokkaido University, Graduate School of Environmental Science

Division of Environmental Science Development, Course in Human & Ecological Systems

Susan Ngwira

Deforestation is recognized as a major driver of the loss of biodiversity and ecosystem services. It also disturbs natural processes such as biogeochemical, hydrological and ecological cycles. In Malawi deforestation which is estimated to be 33,000 hectares per year, is mostly attributed to agriculture expansion, tobacco growing and excessive use of biomass. However, little research has been conducted not only at local/district level but also on forests located on customary land. That is, deforestation is not systematically recorded locally and is generally inferred at a country level. This research aimed at identifying and analyzing the underlying driving factors associated with agriculture expansion, tobacco growing and brick burning at Mwazisi. Landsat imageries for 1991, 2004 and 2017 were downloaded from the United States Geological Survey website and used to analyze vegetation change. Interviews, focus group discussion and observations were used for field data collection. Land cover analysis of the study area showed that vegetation cover has reduced from 66% in 1991 to 45.8% in 2017. The majority of the households depend on wood from natural woodlands for tobacco curing (69%) and brick burning (68%). Furthermore, 47.6% of households have expanded their farm land approximately at an average of 1902 m<sup>2</sup> for 3 times for the past decade. The underlying driving factors towards these anthropogenic activities are (a) population growth, (b) poverty, (c) expensive alternative building materials, (d) lack of awareness, (e) lack of resources, (f) lack of commitment from the tobacco companies, and (g) market system of the cash crops grown in the area. In conclusion, there is a set of economic, institutional, social and demographic factors that underpin agriculture expansion, tobacco growing and brick burning, thereby causing a decline in vegetation cover in Mwazisi, Malawi.