Slope farming and forest use in the densely populated mountain region of southwestern Uganda

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Place of fieldwork: Republic of Uganda

Name: Kohjun HORI

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Research background

In southwestern Uganda, rapid population increase has led to crop field expansion and deforestation. Land shortage as well as food shortage are the other problems encountered by the people in this densely populated area. My research area is a rolling highland from 1,220m to 2,350m in the southwestern Uganda. Local farmers cultivate crops on the slope of mountains for their livelihood. Continuous cultivation and rainwater cause soil erosion and landslides.

Research purpose and aim

In this preliminary research, I aim to clarify the land use and plant use of local farmers in Kabale district. The ethnic group in this region is Kiga, which comprises Bantu speaking people. Farmers in this region mainly cultivate Irish potato (*Solanum tuberosum L.*) and sorghum (*Sorghum bicolor*). Kabale district has a high population density, with 275 people per square kilometer. The present study investigated crop farming, land use change and natural resource distributions in this highly populated region.

Research achievements by fieldwork

The research was conducted for 90 days between August 11 and November 8 in 2014 at R village of Kabale District. In this area, the dry season is from May to August, and the rainy season is from September to April. Farmers mainly cultivated potato in the swamps of the low land valley for cash income during the dry season. As well as sorghum, sweet potato (*Ipomoea batatas* Lam.) and beans (*Phaseolus vulgaris L.*) were cultivated on the mountain slopes during the rainy season for their consumption (photo 1).

During harvest of potato, many seasonal wage laborers were hired, who harvested and carried potatoes from the crop fields to the storehouse (photo 2). Most of the wage laborers comprised women and 9- to 17- year-old children from the neighboring Kisoro district and Republic of Rwanda.

During rainy season, rainfall occured for six hours every day and sometimes it rained heavily for an hour. After heavy rain, soil erosion was clearly evident and stones carried by the runoff were deposited in the lower fields on the slopes. In addition, ditches were dug along the contour lines on the upper side of the crop fields for drainage. During rainy season, low valley crop fields were covered with water and people did not use them for farming (photo 3).

Implications and impacts on future research

In my preliminary research, I provide an overview of the landscape and lifestyle of the people in the research village, especially crops, farming system, agricultural labor, land use of slope and valley bottom field, and soil erosion. In the following year, I would like to study these factors extensively, as well as the economic differentiation among the farmers and land tenure system, such as land holding, land trade and inheritance in this densely populated area.



Photo 1 Crop field on a mountain slope



Photo 2 Wage workers carring potatoes



Photo 3 Potato field at the valley bottom during rainy season