

30th KUASS
(Kyoto University African Studies Seminar)

**Ecological and Social dynamics of Agricultural systems in
Southern Cameroon**

Date: Dec. 5 (Fri), 2014, 15:00 – 18:00

Venue: Seminar Room (Room # 318), 3F Inamori Center,
Kawabata Campus, Kyoto University

Presenter : Martin Yemefack, PhD (IRAD / IITA)

Abstract:

Shifting cultivation or slash and burn agriculture is the mother of all existing farming systems in southern Cameroon. It is the main land use systems practiced by small scale farmers to ensure subsistence food and a small income. However, due interactions between ecological and socio-economical events, the system shows a great spatial variants and tremendous transformations. It is by essence an agricultural system that capitalizes for its sustainability on nutrient stored in vegetation and topsoil. Its evolution till date in most parts of the forest and humid savannah areas of southern Cameroon has been influenced the quality of natural resources, socioeconomic setting but more importantly macroeconomic events. It is nowadays based mostly on rotational short fallow systems as due to high demand on land near villages and increasing trade in food crops products. But, there is also a continuously encroachment into primarily forest because of market-oriented productions. Burning also induces changes in soil properties and environmental services. Several international efforts have been made to stabilize the system and improve the livelihood of communities that practise it. Environmental services such as carbon stocks decrease with increasing extension of agricultural frontiers at the expense of forest. But, gains are also observed in savannah-forest margins where forest takes over after agricultural practices or the development of agro-forests from previous savannah ecosystems. The grass field bocage model with its agro-forests and intensified monocultural systems are sound practices that need to be explored for system productivity enhancement and environmental protection. Some developmental pathways are possible: (i) the development of intensive high carbon agro-systems with multipurpose trees in the highlands, prompted by high population

density and the dynamism of grass field people; (ii) the development of extensive low carbon and high profitable agricultural system associated with the production of food crops; (iii) the development of combined approaches for ensuring a sustainable agricultural production, an added value by the transformation of agricultural products and an adequate marketing systems; etc. The implication of these in the actual context of reducing emissions from deforestation and degradation (REDD+), is that a wide gamut of policies and further researches must be undertaken, if the goal of reducing inappropriate deforestation is to be taken seriously.

Keywords: Shifting cultivation dynamic, agroforestry, agricultural intensification, sustainable resource management, climate change, research gaps, southern Cameroon.

Co-organized by;

- JST and JICA program: Science and Technology Research Partnership for Sustainable Development (SATREPS): "Establishment of Sustainable Livelihood Strategies and Natural Resource Management in Tropical Rain Forest and its Surrounding Areas of Cameroon: Integrating the Global Environmental Concerns with Local Livelihood Needs" (Principal Investigator: Prof. Shigeru Araki)