

## 特別セッション [9:30~12:00] (共通教育棟3号館333教室)

司会 | 加賀爪 優 (京都大学)

Seasonality of food insecurity in rural Zambia

Akinori Kitsuki (Kyushu University)

Takeshi Sakurai (The University of Tokyo)

Agricultural input subsidies in sub-Saharan Africa – the case of Tanzania

Tamahi Kato-Yamauchi

(Kyoto University/Tokyo University of Foreign Studies)

Improvement of agricultural productive efficiency and sustain of commons

— Reconsideration of what authorized farmland village farming ought to be for sustainable agriculture —

Etsusaku Shimada (Kobe University)

**Etsusaku Shimada (Kobe University) Seasonality of food insecurity in rural  
Zambia**

Akinori Kitsuki (Kyushu University) and Takeshi Sakurai (The University of Tokyo)

**Abstract**

Using three years of weekly household panel data in rural Zambia, we investigate whether and how farmers smooth their consumption within a crop year. Given seasonal price changes of the staple food, some farmers buy it when prices are low and store it for the hunger season, while others run out of the staple food before the next harvest, and so buy it when prices are high. Results indicate that the former group successfully smooths its consumption, while the latter group reduces consumption during the hunger season in response to a negative harvest at the end of the previous crop year, and the effect of these negative harvest shocks produces an inverse U consumption pattern during the crop year, especially for farmers with few assets. They reduce their food diversity to maintain consumption of the staple food in the hunger season in spite of its price hike in that season.

## **Agricultural input subsidies in sub-Saharan Africa – the case of Tanzania**

Tamahi Kato-Yamauchi (Kyoto University/Tokyo University of Foreign Studies)

### **Abstract**

This paper investigates the impacts of the National Agricultural Input Voucher Scheme (NAIVS) on maize yields and income poverty in Tanzania's Ruvuma Region. The research uses a mixed-methods approach, where quantitative data analysis is complemented by qualitative research. Using four waves of household panel data, I found that voucher receipt had no statistically significant impact on maize yields. Qualitative research shows several flaws in NAIVS's design and its implementation. Weak institutional capacity was found in voucher management, especially at the lower level of government: a substantial number of vouchers went missing; inputs and vouchers were delivered late most years; and vouchers were resold by farmers. However, the study also found that the voucher receipt had a statistically negative impact on income poverty, possibly due to the programme proceeding when people did not know about the programme. Targeting the poor became more effective.

Following an increase in real input prices, the 'top-up' payment required for voucher use was increased, making it difficult for poor farmers to access the subsidy. Although targeting became more effective, many of the poor farmers were reported to sell vouchers. In practice, the input vouchers were obtained by elites: households with elected positions in the villages; wealthier households; and those households already using improved inputs prior to NAIVS. It contributed to national food security; however, because of the leakage to wealthier farmers as well as fraud, it did not ensure household food security for poor farmers.

The thesis reveals that studies of input subsidy programmes require not only economic analysis, but also social and political analysis.

**Improvement of agricultural productive efficiency and sustain of commons —  
Reconsideration of what authorized farmland village farming ought to be for  
sustainable agriculture —**

Etsusaku Shimada (Kobe University)

**Abstract**

In this paper, we analyze what are the causes that spell agro-environmental pollution, i.e., sedimentation of dioxin in area and soil, and spread of neonicotinoid pesticides whose acute toxicity to honey bees and wild bees are discovered (B.A. Woodcock, 2017; N. Tsvetkov, 2017). Author consider the number of certified farmer, the number of village farmer in corporation, the number of individual village farmer, and the number of eco-farmer as causes of the generation of those agricultural chemicals in rural area, and examines these with the econometric method with annual data from administrative divisions in Japan. The results show that when the number of certified farmers increases, both the accumulation of dioxin in groundwater and the shipment of neonicotinoid agricultural chemicals increase in terms of incentives for using agricultural chemicals in order to maximize productivity looked at along with their negative impacts on the environment. We also found that when village farming or the number of eco-farmer increases, the accumulation of dioxin in area and soil decrease in terms of public interest though this aspect could not be observed in neonicotinoid pesticides. This indicates us the necessity of making the use of neonicotinoid agricultural pesticides restrained in government's policies to these farmers.