Household Strategy and Social Relationship in the Banana-based Livelihood System of Central Uganda

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Abstract

The subsistence economy in rural Central Uganda is based on a system in which each household fulfils its dietary needs using food from a home garden, of which bananas are a staple. Over the last few decades, banana production has decreased and Uganda's population density has increased. This study examines how rural people deal with this changing situation. At the farm level, the livelihood system consists of a variety of crops other than bananas, in addition to the intensive cultivation and use of bananas. At the household level, a husband and a wife adjust the division of roles for coping with the usually small size of their land. At the inter-household level, while land disputes have increased, neighbouring households have begun to actively form small associations with one another. Members of these associations promise each other to exchange bananas as a key feature of funeral ceremonies. In this way, they try to develop their social relationships as well as maintain the banana-based livelihood system.

Key words: livelihood, household, bananas, rural society, Uganda

1. Introduction

In a large part of the rural area over 1,000 meters above the sea level in Uganda, Rwanda, Burundi, Tanzania, Kenya, and the Democratic Republic of Congo, cultivation of bananas (*Musa* spp.) is the centre of community life. This has become jeopardized by a decline in banana production over the past three decades. There are various theories about why this has been the case, and explanations include aging of the labors, pest and weeds, nutrient deficiencies, and drought (Gold et al., 1999; Wairegi et al., 2010). This study examines how the people of Central Uganda deal with the situation, particularly considering the strategy of and households. The field data for this argument are based on Sato (2016).

The Great Lakes Region of East Africa, also known as the East African Highland, features wide ranges of fertile soil around lakes such as Lake Victoria and Lake Kivu, both of which are formed by volcanic activities. This region is one of the most densely populated areas in Africa. According to a population analysis of the African continent as of 2010 (Linard et al., 2012), the East African Highland, Nigeria, and Ethiopia have population densities of over 100 people per square km, in rural areas as well as in urban ones. They have built a unique livelihood and social systems under intensive agriculture, which are different from shifting cultivation, the conventional system in Africa.

Kakeya and his team (Kakeya Ed., 2002) explore the transformation to intensive agriculture from an anthropological perspective, emphasizing a variety of agriculture practices based on area-specific backgrounds, and doubt a simple evolutionary model 'from extensive to intensive agriculture'. This study follows his approach. The livelihood in Central Uganda features unique agricultural patterns, environmental resource management, and daily life (Sato, 2011). Generally, a society such as this, in which specific crops and people have strong ties, is viewed as 'a cultural complex' or 'a livelihood system' (Shigeta, 2001).

There are three banana cultivation areas in Africa: (1) the 'Indian Ocean Complex' in the coastal area of East Africa, (2) the 'Plantain' area spanning the tropical forests of Central Africa and West Africa, and (3) the 'East African Highlands AAA' area (De Langhe et al., 1994). In area (1), the cultivars are similar to those in Asia. People cultivate bananas in combination with rice and coconuts, and so they are a supplementary component of the food culture, mostly functioning as snacks and sweets. In area (2), a unique cultivar called the 'plantain subgroup' is one of their important staple foods, and shifting, forest-based cultivation is the major agricultural method. In area (3), the Great Lake region of East Africa, a unique cultivars group called AAA-EA or East African Highland bananas has developed. Bananas there are the staple food, and also figure prominently in beer and material culture. People continuously cultivate bananas in the same gardens around their residences for many

years (Komatsu et al., 2006).

Banana cultivation originated in Southeast Asia, from which several periods of diffusion waves, beginning before the birth of Christ, brought bananas to Africa via the Indian Ocean. The plantain subgroup currently staple in Central and West Africa seems to have been introduced in the early period, while AAA-EA is supposed to have come later. According to the historical linguistics, bananas had not been treated as a major crop for a long time in the Great Lakes Region of East Africa. Bananas for staple food and beer started to be sparsely cultivated in AD 500 to 900. From 800 to 1300 A.D., cultivation techniques were refined, and the area entered a new stage in which people depended on bananas. After that, intensive agriculture of bananas was established, supporting the stable livelihood system and the power structure of the kingdoms in this region (Schoenbrun, 1998; Komatsu & Sato, 2016).

2. Ganda and Bananas

The Ganda (Baganda) is a Bantu ethnic group in the Central Uganda, with a population of about 4 million in 2002 (Uganda Bureau of Statistics, 2005), making it the largest ethnic group in Uganda. While the Buganda Kingdom ceased to be a modern nation in 1966, its people belong to more than 50 patrilineal clans.

The research for this article was conducted in K Village, Kirumba Sub-county, Kyotera County, Rakai District (Fig. 1), a relatively prosperous banana farming area in Central Uganda, with 260 households as of August 2015. The population density of Kyotera County was 141 square km in 2002 (Rakai District Agricultural



F.ig. 1: K Village, Uganda

Department, 2004), and is increasing. The environment around K Village is changing as a result of this congestion for example, deciduous forests that existed two generations ago have disappeared. Agricultural areas in Central Uganda are classified as a 'banana-coffee system' (Oduol & Aluma, 1990; Karamura, 1999). Cooking banana is the staple food crop for the sustenance economy, and plant coffee (*Coffea canephora*), root crops, and maize are also mixed in the same gardens. Banana plants serve to shade the coffee trees, so residents prefer to grow bananas and coffee in one garden. In recent years, farmers sell the banana surpluses to traders that carry it to Kampala, the capital city of Uganda.

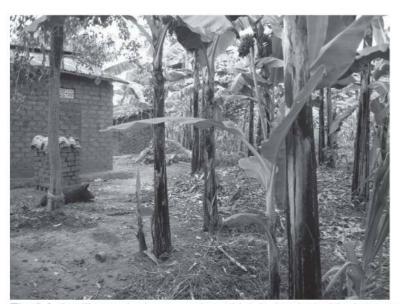
Table 1 shows which year the banana cultivation was started in 39 fields managed by 28 respondent households. The results show that they started to manage their own gardens in different years, because the ages of the heads of the households vary from 20s to 70s.

They also show that most of the gardens have been used for decades. Even when the country was in a state of political disorder in the 1970s and the 1980s, there were little differences in the frequency of creation or succession of the banana gardens. In the interview, bananas in 21 out of the 39 gardens were already planted when the farmers obtained the land.

Table 1: Beginning years of banana cultivation in the gardens (creation, purchase or succession)

Year	Number of gardens
Before 1940	1
1940s	1
1950s	6
1960s	2
1970s	4
1980s	6
1990s	7
2000s	4
Before 1980s	3
1999 or 2000	1
Unknown	4
Total	39

The long-term use of banana gardens is supported by a land tenure system as well as the continuous farming pattern Buganda's land system is unique in its determination of private ownership (Yoshida, 1975), begun in 1900 when the Buganda Kingdom concluded the Buganda Agreement with the British government. Before, land belonged to the king; the Agreement changed this to a partially privatized system (mailo land). Privatization was further strengthened by the Busuulu and Envujjo Law of 1928, which ensured the right of residents to remain



on rented land. Before, residents were only able to use the land under the unstable conditions of receiving permission from the 'owner'. The new law ensured the residents the rights of inheritance as well as the right to use the land as long as they paid rent. This is the called kibanja system, and it was abolished during President Amin's regime in the 1970s, but revived with the establish-ment of the constitution 1995 (Mugambwa, 2002). Currently in K Village, villagers can 'purchase' land and occupy it for a long period of time, and their relatives can inherit it. This means that having a residence and a banana garden is not a mere space for living, but a home for those that live there.

Fig. 2 A dwelling and a home garden which is dominated by bananas

3. Selection of the staple food crops

The banana-based livelihood system embraces a variety of crops as well as the intensive cultivation and uses of bananas (Sato, 2011). The ambivalence makes their food supply flexible. This feature was already confirmed before the colonial period (Reid, 2002). Each dwelling is surrounded by a homegarden which is dominated by bananas, the primary staple food crop (Fig. 2). There is little space for land lying fallow because of congestion of the population. Their staple food crops include banana, sweet potato, cassava, cocoyam, yam, Irish potato, maize, and pumpkin. Banana, sweet potato and yam were described in historical records in the second half of the 19th Century, and production of cassava increased drastically in the second half of the 20th Century. Fig. 3 shows the farming calendar of the major kinds of their staple food. Banana, cassava and cocoyam can be harvested through the year. Maize can be kept for months, but has a storage loss. With the different crops mixed, the garden can provide the staple food in a stable manner through the year.

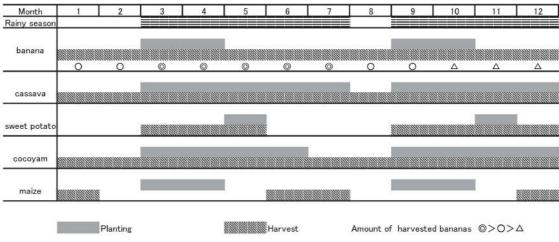


Fig. 3: Farming calendar of K village

In Uganda, the center of banana production area were moved from Central to West for three or four decades ago (Gold et al., 1999). The back-ground includes aging of the labors, pests and diseases of bananas, and soil degradation.

Villagers of K Village also told that banana production has been decreasing. The major reasons may be the decrease of rainfall from around 2005, and the damage by Banana Xanthomonas Wilt. People cope with the disease by traditional methods, and plant cocoyam and yam more than before, which were not served frequently.

4. Division of roles in a household

At the household level, husband and wife couples adjust the division of roles in order to cope with the scale of their land and other challenges. Respondents explained that women are responsible for the cultivation of *matooke* (bananas for staple food), and men are responsible for the cultivation of *mbidde* (bananas for beer) and *menvu* (bananas for eating raw). In actuality, they produce a variety of crops in their gardens, and the gender roles in the allocation of works vary according to individual situations. The following (1) and (2) are examples of two households with different family structures. Interviews revealed that the division of roles, especially in garden work, differ between households. At the same time, *matooke* is harvested almost only by the wives in the both cases. They feel responsible for this work, and their husbands try not to interfere with it. However, they often work together in non-harvest-related tasks. Old villagers explained that when they were children, only women worked in the banana gardens near the residences, and husbands sometimes helped them. They also said that there were many gardens for the men's domain in the past, but that such gardens are less common now. The reasons for their working together seem to be the disappearance of forests and bushes where men worked, land fragmentation, commercialization of *matooke*, and the lack of labour because of children's schooling.

(1) Household A: an elderly couple who has lived at their current place since 1970 (Table 2)

The household consists of a husband, a wife, and three grandchildren who go to a primary school. They have a banana garden near their residence, and another garden 1 km away from it; this household grows *matooke* only for self-consumption.

Table 2: Division of roles in household A

		Work in the gardens			Gift and sale	
		Planting	Management	Harvesting	Gift and sale	
Homegarden	matooke	MF	MF	F	-	
	mbidde	MF	MF	M	MF	
	coffee	M	M	M	M	
	barkcloth trees	M	M	M	M	
	sugarcane	M/F	M/F	M/F	MF	
	other crops	F	F	F	F	
	livestock	-	F	-	F	
garden 1km away from the residence	sweet potato and	MF	F	F	-	
	cassava	IVII	1	1		
	maize	F	F	F	=	
	cotton	M	M	M	Μ	

M: only husband works on

F: only wife works on

M/F: husband and wife work on separately

MF: husband and wife work on together

Although the husband and wife have decided to perform planting and weeding together, in fact the husband works most of the tasks on bananas because he decides on the kinds of cultivars and at which position they plant in their gardens. His wife manages the other tasks, especially harvesting and cooking. The husband is not allowed to harvest and sell *matooke* without asking his wife. Because the husband leaves the management of all the food in her hands, he tries as much as possible not to obstruct her in the garden.

Mbidde bananas are planted to sell. Coffee fruits and barkcloth in the banana garden are sold by the husband for his personal expenses. The husband and wife cultivate sugarcane plants together. Pigs and fowls are looked after by the wife, and a part of the income is used for childcare expenses.

In the garden 1km away from the residence, they plant food for self-sufficiency, such as sweet potatoes and maize, and also plant cotton. The wife is mainly responsible for managing it. Income from the cotton goes to the husband.

(2) Household B: a middle-aged couple (Table 3)

The couple married in 1994, and have 6 children, aged 0 to 10. They plant and look after bananas and coffee together. The wife harvests the staple food, the husband harvests *mbidde*, and they harvest coffee together. The income is combined and its allocation is discussed. The wife looks after cattle and fowls, and gives part of the income to the husband. With regard to the cultivation of bananas, the wife thinks that it is better to have many plants in their garden even if the bunches are small, because she has to cook for the family every time. On the other hand, the husband thinks that it is better to have banana plants with big bunches. So, both types should be in their garden.

Table 3: Division of roles in household B

		Tuble of Bills	on or roles in nou	ocnora B	
		Work in the gardens			- Gift and sale
		Planting	Management	Harvesting	- Gift and sale
	matooke	MF	MF	F	MF
home-	mbidde	MF	MF	Μ	MF
garden	coffee	MF	MF	MF	MF
	other crops	F	F	F	M/F
garden of husband	all crops	М	M	М	M (a part: MF)
garden of wife	all crops	F	F	F	F (a part: MF)

M: only husband works on

F: only wife works on

M/F: husband and wife work on separately MF: husband and wife work on together

5. Relationship between households

While land disputes have increased between households in community, there is also a trend of neighbours forming small associations in order to help one another. One of the key elements in these associations is that members promise to exchange bananas with one another at funeral ceremonies.

Table 4: Disputes of lands and gardens between households

Case	Year	Detail				
1	1980s	Y's cattle, goats, and pigs invaded X's garden. Y apologized.				
2	1991	Y tried to use X's land without asking. X tried to recover it and they disputed. Y made X's husband drink a witch drug and he died. The chairperson arbitrated, and the land was returned.				
3	2001, 2005, 2008	Y dug on X's land. B moved the boundary plants. Another villager and the chairperson arbitrated.				
4	2003	Y dug on X's land. The arbitration of the chairperson failed. X won the case at the district court. The land was returned to X.				
5	2008	Y's goat ate X's pasture without asking. This dispute continues.				
6	2009	Y suddenly insisted on the ownership of X's land. The arbitration of the chairperson failed. X won the case at the court, but Y still insists.				
7	2011, 2012	In the bad harvest years, the bananas, cassava, sweet potatoes, maize, and yam in X's garden were stolen.				
8	Around 2011	Y invaded and dug on X's garden. They disputed the land. X tried not to get too active. Y took part of X's land.				
9	2013	Y invaded and dug on X's garden. They disputed the land. The chairperson arbitrated and planted a boundary plant (<i>Dracaena</i>).				
10	2014	Coffee fruits in X's garden were stolen. The details of the incident were not known, so X didn't report it to the chairperson.				
11	2014	Y's goat invaded X's garden and ate the banana leaves. The chairperson arbitrated, but the goat invaded again.				
12	unknown	Y falsely accused that X fertilized his own banana garden in incorrect ways. Y left faeces in or at the boundary of X's garden. Witch drug was spread in X's garden. It took a long time for Y to stop his harassment.				
13	unknown	Y's pig entered X's land. It licked farming equipment and ate the leaves of the sweet potatoes.				
14	unknown	Y's goat invaded X's garden and ate banana leaves.				
15	unknown	Y's fowl invaded X's garden and ate bean leaves there.				
16	unknown	Y's fowl, goat, and pig invaded and ate crops in X's garden. X asked the chairperson to stop Y.				
17	unknown	Y's fowl invaded X's banana garden. X was quiet because Y looks strong.				
18	unknown	Y's fowl invaded X's garden and ate beans. Y apologized.				

According to 15 interviews, in August 2015, 18 cases of disputes between households over lands or gardens were recorded (Table 4). These disputes are classified into 4 types: invasion of livestock (cases 1, 5, 11, 13-18), land use without asking (2-4, 6, 8, 9), theft (7, 10), and harassment (12). Because invasion of livestock was such a common occurrence, not all cases were given specific dates. A respondent in case 1 stated that the villagers were not concerned about livestock invasion in the 1980s, but that they have become more sensitive to these sorts of damages in recent times. A respondent in case 15 suggested that such disputes have increased because of the small size of available land. In order to solve issues between neighbours, a third person is sometimes brought in to mediate between the two parties. In cases 4 and 6, mediation was unsuccessful and disputes escalated into court cases.

The chairperson of K Village said that three cases of invasion of livestock (two cases by cattle, and one by a goat) were reported from September 2014 to August 2015; they also said that four or five cases of unauthorized land use have been reported every year. This attests to strict attitudes towards land ownership - when someone 'buys' the land tenure, the chairperson of the village checks the boundary of the land with them, and signs a contract as an observer.

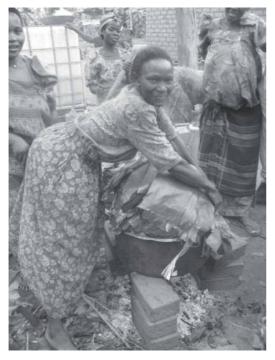


Fig 4: Women cooking matooke together for a ceremony

Despite conflicts over land ownership and usage, there have also been substantial efforts to strengthen connections between households. Currently in Buganda, meals for large celemonies are prepared together with neighbors (Fig.4), but agricultural work is paid for individually, and there are few cases of cooperative efforts. An older respondent from K Village stated that they had worked together in other peoples' gardens only in earlier times. There have been renewed efforts to build community support, in the form of small associations created between households to help them support each other in ways other than agriculture. Table 5 shows the associations that 15 respondents in K Village belong to. Twentytwo associations were found, more than half of which were established after 2010. Their objectives are mutual financing, businesses (13 and 16), and providing money, food, and labour when a relative of one of the members dies. Central to this is the custom of providing food when a neighbour dies - before the burial service, neighbours bring matooke and eat it together with the bereaved family. On the next day of the ceremony, relatives eat matooke made from a cultivar nakitembe, and mushroom sauce without salt.

By establishing clear rules for food exchange, these associations ensure that food is available when it is needed. There are three units of *matooke* gifts: a hand, a bunch, or an *omuvumbo* (a bag covered with banana leaves for steaming). One *omuvumbo* is equivalent to a few hands. The rules of each association reflect their difficulties and efforts. For example, associations 4 and 17 allow a small amount of *matooke*. Associations 15 and 21 allow things other than *matooke*. The founder of association 22 was a member of associations 10 and 11, but she was unsatisfied with other members' inability to give what she deemed to be a sufficient amount of *matooke*, so she left those associations and established a new one. But other members complained about the amount of matooke as well in the new association, indicating that this was a subject of importance and contention in its own right.

In this way, people struggle to reorganize their social network, but the historical development of these associations remains somewhat unclear. Villagers told that there are more associations than there were in the past. It used to be natural to help neighbours, and people took this responsibility upon themselves. Now they don't help unless they have joined an association. These statements suggest that villagers think of their associations as a form of insurance. The founder of association 17 (female, 19 years old) said her relatives have already joined existing associations before she decided an association to join. She had an idea to make a new association, and collected members. She makes clear that she sought support from outside the support network of her relatives.

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Table 5: Cooperative associations						
Aassociation	Eestablished year	Nnumber of members	Gender of representative	Mmutual financing	Ccooperation when a relative of members dies (case A)	Offerig of bananas in case A (other activities)
1	Around1950	20	F		X	
2	More than 40 years ago	7	?		X	
3	1970s	11	F		X	1 omuwumbo
4	1979	15	F		X	1 omuwumbo => changed to a small amount
5	Around 1995	5	M		X	The amount is not determined
6	1999	14	F	X		(An association registered with the government. Livestock distribution, etc.)
7	1999	20	F		X	
8	2000	20	F	X		(An association registered with the government. Livestock distribution.)
9	2007	14	F	X		
10	2011	8	F		X	1 omuwumbo
11	2012	5	F		X	1 omuwumbo
12	2013	25	F	X		
13	2013	15	F			(sale of coffee)
14	2014	10	F			(buying beans, maize and groundnuts)
15	2014	6	F		X	1 bunch or rice 1.5kg
16	2014	10	Μ			(sale of meat)
17	2014	7	M		X	1 omuwumbo per 2 households
18	2015	10	Μ	Χ	X	
19	2015	12	F	X		
20	2015	20	F		X	2 hands
21	2015	8	F		X	1 omuwumbo or maize or rice 1kg
22	2015	8	not yet selected		X	under the discussion

6. Household and the livelihood strategy

This study described how people in the banana-based livelihood system in Central Uganda deal with a changing situation. We observed three levels of adaptations, at the farm level, the household level, and the inter-household level. At the farm level, we found intensive cultivation of bananas and the capacity to embrace a variety of farming techniques and crop types. This adaptability makes farmers' livelihoods flexible. At the household level, there was a division of gender roles and occasional cooperation between husbands and wives in coping with land smallness. At the inter-household level, there were increases in disputes and also in the development of associations between neighbours.

The household functions as a relatively static unit for the production and exchange of resources. It is the base from which rural dwellers arrange their social relationships and maintain their banana-based livelihood system. In Africa, people are mobile, and the extended family system has often been assumed in studies that incorporate 'family' into their frameworks. This case study emphasized a smaller community. The further studies are recommended to consider whether such perspectives are area-specific, or if they can be applied to broader societies.

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