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Connections to Sudan Felt in the Acholi Region of Uganda

In July 2023, I had the opportunity to join the Northern Uganda Farmers' Livelihood Improvement Project as a distribution expert for one month. My main responsibility in this project was to strengthen the vegetable marketing strategy for farmers based on the findings of the vegetable distribution research conducted in the previous phase of the project. Since my student days, I have visited several times in the dry areas along the middle and lower Nile river, including Egypt and Sudan. However, Uganda rich in water and greenery, and home to Lake Victoria, the source of the Nile River— was an unfamiliar region for me, making it a new and exciting challenge.

As it was my first time working in the field, I visited vegetable markets and farmers in all project target districts of the Acholi sub-region. The landscape, with its rivers, wetlands, and lush green lands seen from the car window, felt like an entirely new world for me. Despite the unfamiliar geography and climate of the Acholi region, its food culture and the coexistence of diverse ethnic groups often reminded me of Kassala State in Eastern Sudan (Kassala), where I stayed as a Japan Overseas Cooperation Volunteer. In this paper, I would like to elaborate on the connections with Kassala, particularly in terms of staple foods and languages.

Firstly, this section explores staple foods. The Acholi, the main ethnic group in the region, migrated from the Nile Valley in present-day South Sudan around the 16th century and gradually spread. Traditionally, the Acholi have grown sorghum, finger millet and other grains as staple cereals, and their stiff porridge called "Karo" is commonly consumed in northern Uganda. In general, stiff porridge is widely consumed in sub-Saharan and East African regions. In Kassala, a stiff porridge made from sorghum and pearl millet, called "Asida" is also eaten. There are similarities between the ingredients used to make these stiff porridges and the staple food choices in both regions.

Cooking bananas (plantains/green bananas) are one of the staple foods in the Hausa communities in Kassala but are not a major staple in the Acholi region. Posho, a stiff porridge made from maize flour (similar to Ugali and

Shima), is eaten in the Acholi region but was not seen in Kassala. The ingredients of stiff porridge is



Left: Acholi stiff porridge (Karo) Right: Kassala stiff porridge (Asida)

likely to vary based on factors such as dietary preferences, precipitation and climatic conditions. Flatbreads and crepe-like breads, called "Gurasa" and "Kisra", are eaten in Kassala, mainly by ethnic Arabs. In the Acholi region, chapati, a type of flatbread, is available, but it does not seem to be a staple food. The boundary between maize flour-based stiff porridge and bread may lie in this region.

Secondly, I sensed a subtle influence of Arab culture on the African continent. During my several-week stay in the Acholi region, I met a few Arabic speakers. Since the Acholi region is close to South Sudan, encountering people who speak the Sudanese colloquial Arabic dialect—widely spoken throughout Sudan—felt like an experience that reduced the psychological distance. Futher conversation revealed that an Arabic Juba dialect exists in South Sudan, and in their view, the Sudanese dialect is recognized as being in the category of the Khartoum dialect. I did not expect to encounter a new area of Arabic in Uganda.

Although my stay was short, my perception of the Acholi region as a distant area upstream of the Nile has somewhat diminished. I now look forward to uncovering new connections on future visits.

(November 2023, Nakamura)

'The Impact of Social Approaches on Agricultural Technology Dissemination' <Part 1>

Introduction

In agricultural extension projects in developing countries, social approaches such as gender consideration and nutrition improvement are often integrated. These approaches aim to promote poverty reduction, sustainable development, and better rural livelihoods.

The Northern Uganda Farmers' Livelihood Improvement Project (NUFLIP), implemented from 2015 to 2021, centered its activities on two core pillars: Market-Oriented Agriculture (MOA) and Quality of Life (QOL) Improvement. These were defined under a broader framework known as the Livelihood Improvement Approach. The activities within the QOL improvement domain aimed to help families make better use of income generated through MOA (see table below). Under the slogan "For the Family's Happiness," the project trained over 2,300 farmers across eight districts in Northern Uganda. As a result, the vegetable production area increased by approximately 135 acres (54 hectares), production rose by 527.4 tons, and household incomes improved by 75%. An endline survey two years later

showed 63% of farmers continued applying practices they learned.



In this project, Improvement Approach

AAI was in charge of developing and disseminating MOA techniques, while members of the project's lead organization, worked on the QOL improvement aspect. Throughout this collaboration, we observed numerous instances where addressing social aspects positively influenced the adoption and dissemination of vegetable cultivation techniques.

This series aims to explore the impacts of social approaches on agricultural extension efforts, using NUFLIP as a case study. Since this perspective was not part of the project's objectives, no specific data was collected. As a result, quantitative data analysis is limited. However, we will share the experiences of AAI staff involved in the project and analyze qualitative information from field examples as objectively as possible.

The MOA activities in NUFLIP focused on vegetable cultivation. The target area had suffered from a prolonged civil conflict between 1986 and 2006, during which agricultural activities were severely disrupted. As a result, most target farmers were subsistence-level growers with little to no experience in cultivating vegetables for sale. Additionally, traditional farming practices, which could have supported new techniques, were lost during years spent in IDP camps.

Under such circumstances, establishing, disseminating, and embedding market-oriented vegetable cultivation techniques required addressing the following challenges:

- 1. Developing appropriate technologies
- 2. Practicing recommended technologies
- 3. Implementing effective marketing strategies
- 4. Establishing cropping systems
- 5. Securing cultivation funds
- 6. Sustaining farmer motivation
- 7. Encouraging farmer-to-farmer knowledge sharing

As the technical lead, AAI approached these challenges from a technical perspective. Starting with the next issue, we will explain in detail how social approaches contributed to addressing these challenges and enhanced the project's outcomes.

Major contents of NUFLIP farmers' field training (45.0 hours/15sessions)

	Market-Oriented Vegetable Production	Quality of Life Improvement		Orientations and Extensions
	Technology [18 hours]	[13 hours]		[14 hours]
-	Market Survey	- Consideration of Gender and Socially	-	Introduction to NUFLIP
-	Production Technologies for Each Vegetable	Vulnerable People		Livelihood Improvement
-	Practice of Sowing and Planting	- Farming planning for crop production.		Approach
-	Fertilizer Application Technology	- Family Goal Setting	-	Orientation of the Field
-	Growth Diagnosis	- Farm Planning for Food Production		Training
-	Pest and Disease Control	- Nutrition Improvement	-	Action Plan Making
-	Marketing Strategy	 Food Stock Management 	-	Farmer-to-Farmer Extension
-	Farm Planning for Vegetable Production	- Food and Hygiene	-	Action Plan Revision.
		- Cash Management	-	Field Day

Herb

There are many teahouses (cafes) in the shade of trees on roads and alleys in Sudan's cities. These teahouses are a quiet and calm spaces amid the hustle and bustle of the city. In the scorching climate of Sudan, when you go into the shade of the trees to avoid the strong sunlight, you feel a little cooler and your mood is soothed. These teahouses function as places of relaxation for citizens, and are an important component of the cityscape as part of Sudan's tea culture.

Generally, tea and coffee are the main drinks at the undertree café. Coffee is mixed with ginger according to the person's preference, and tea is often mixed



with milk first thing in the morning or before going to bed at night. Sudanese people also add sugar to make it very sweet. In addition, the under- a selection of herbal teas such as Karkade (*Hibiscus*), Herba, and as side options. This time, we will focus on these herbal plants and introduce three representative useful plants served at the under-tree cafes, along with Sudanese people's discourse on their benefits.



The first, Karkade (*Hibiscus spp.*), is tea from the mallow family, which was also featured in the third installment of this series. It is a popular drink at the under- tree cafe,

along with black tea and coffee. Karkade tea is made from dried flower petals and is characterized by its red color and sour flavor. It can be drunk warm or chilled with ice. According to literature, Karkade contains a wealth of antioxidants and has antioxidant properties. There are also scientific studies that suggest it is effective in managing high blood pressure. The author was once recommended by a Sudanese person to drink Karkade tea with ginger to relieve symptoms such as when he had a cold and a sore throat. The second is herba. Herba is a legume called fenugreek (Trigonella foenum-graecum), which is not yet well known in Japan, but is a plant known to almost everyone in Sudan. At the under-tree cafes, herba tea is served after boiling or filtering the powder. Herba tea has a unique flavor and aroma, and is slightly sweet, but also bitter and astringent, making it a delicious drink. I personally love it, buta this may be a matter of personal preference. From my experience, I think it is effective in normalizing the stomach and intestines when you have diarrhea. When I get a sudden stomachache while traveling by car, I rush to the under-tree cafe and drink it as a herbal medicine.

The third drink I would like to introduce is drink made from the leaves of Ahrgel (A plant of Apocynaceae family. This plant is also not well known in Japan.



It appears to be recognized in literature as being effective for stomach pain, loss of appetite, and indigestion. What I often hear from the Sudanese around me is that it has the opposite effect of Herba, regulating the intestines and improving bowel movements. It may be recommended for those who tend to be constipated.

First and foremost, the under tree teahouses are places of relaxation, and I also use them as places to refresh myself and to discuss technical cooperation activities with my Sudanese counterparts and national staff. However, it is not just a cafe, and I noticed that the Sudanese choose and combine the drinks they order according to their physical condition that day. Although the excessive sugar intake of the Sudanese is a separate issue, the side drink options at the under-tree cafe are "herbal medicines" that improve their physical condition, and I think that it is a place where

the famous supporting plants can play a lively role as conscious and proactive daily health drinks.



The Small Farm, Sakura

This is the fourth in an irregular series of 'Farm visiting report' introducing farms in Japan, reporting 'The Small Farm, Sakura' in the Yagi district of Sakura City, Chiba Prefecture. The Yagi district is a farming area slightly outside the urban area of Sakura City. It is a rice-growing area with well-developed paddy fields along the Takasaki River in the Inba-numa basin and traditional paddy fields known as 'yatsuda' in several narrow valley strips on hilly terrain. The farm covers 1.8 ha of paddy fields, 0.8 ha of upland fields, 0.1 ha of orchards and 0.7 ha of forest land, and is engaged in pesticide- and chemical-free farming. We visited the farm on 25 August 2023, the first day of harvesting this season, and interviewed the owner while helping him harvest the rice in the lingering summer heat.

The owner, Michio Ogawa, comes from a non-farming family in the prefecture, but as a child he used to play in the neighboring paddy fields, catching fish, frogs and insects. One day, he read in a newspaper that paddy field insects such as the Lethocerus species and the diving beetle were in danger of extinction due to pesticides and domestic wastewater. At that time, he dreamt that when he grew up, he would like to create paddy fields that would be habitable for living creatures without the use of pesticides. He later graduated from a university with a degree in agriculture and worked with the Japan Overseas Cooperation Volunteers and an NGO in rural areas overseas. He then worked as an apprentice with a pesticide-free farmer in the prefecture before starting his own farm here in 2011 with a farmhouse and approximately 2 ha of farmland, including paddy field, upland fields and forests.

In rice cultivation of the farm, rice bran and mineral materials derived from shellfish fossils are applied instead of chemical fertilizers, and larger seedlings than usual are planted at rice planting. The farm doesn't use pesticide, but it has few problems with rice pests and diseases. This is thought to be due to the fact that the absence of chemicals has resulted in a rich biota in the rice fields, with a good balance of both pests and beneficial insects, and that the application of rice bran and minerals has kept the nutritional status of the rice in good balance. In particular, the application of rice bran may enrich the microflora in the soil, according to Mr. Ogawa. Although he cannot see the micro-organisms with the naked eye, he believes that

the increase in earthworms, shellfish, tadpoles and frogs is proof of this. The challenge of pesticide-free cultivation is weeding, which is very hard work. The farm try to cope by planting rice seedlings at narrower intervals in heavily weeded fields so that they can withstand competition from the weeds, and by weeding with a power weeder, but weeding is sometimes not completed in time.

However, in recent years it has become possible to manage paddy fields where crayfish are abundant so that weeds do not flourish and weeding is almost unnecessary. Crayfish are not very welcome creatures, as they make holes in the ridge between paddy fields, and when they grow they can damage rice plants, but they also eat weeds, which makes them effective weed killers. The timing of when the water level is raised and lowered is adjusted to encourage or inhibit reproduction of them, so that rice plants and crayfish can coexist. Some people have suggested releasing crayfish into other paddy fields, but Mr. Ogawa is against the artificial introduction of the creatures.

We finished harvesting rice in the early afternoon and Mr. Ogawa showed us around the back hills and neighboring valley fields in the afternoon. Since the time He started farming, there has been an increase in abandoned farmland, and there are many rough fields. When upstream valley fields are abandoned, the flow of water is slowed down, affecting the paddy fields downstream. He has been entrusted with the cultivation of some valley paddy fields and is also mowing the rough irrigation canals upstream. As the flow of water improves, the living creatures are regenerating, such as killifish in the waterways and fireflies in the paddy field in the hillside.

It must be tough work for Mr. Ogawa to manage the rice cultivation in the plain paddy fields and valley paddy fields, as well as the cultivation of fruit trees and mushrooms, and the management of the forest



Mr. Ogawa works on a combine harvester.

behind the farm. However, when I walked around the forest and community while listening to his story, I felt that the farm is a place where diverse living creatures and the farmer's life coexist and where there is much joy.