

IV-3 Research Theme: The Early Warning System and Food Security

Keiichiro MATSUMURA (Graduate School of Human and Environmental Studies, Kyoto University)

1. Main Aims of the research

In order to identify and clarify the crucial factors which are likely to lead the devastated situation of food insecurity in Zambia, this research will focus on the “early warning system” of drought preparedness and food crisis. In particular, instead the early analysis based on the conventional data collection, the alternative analysis that attempts to examine the political and social causes of food insecurity seems to be one of the key factors to understand the resilience of the rural society to food crisis.

2. Abstracts of the research

The purpose of our research in FY2007 is to analyse political and social elements which lead to food crisis and social vulnerabilities in Africa, especially focusing on the history of famine and food relief programme in Zambia. The research on literatures and documents written about the famine and food relief in Zambia suggests that there is a historical variety of causes of famine and long history of food relief programme to assist the famine affected area. The case study of the recent drought in 2005/06 indicates that several different agencies engaged with their relief programmes based on their own standards about vulnerability of rural people.

3. History of Famine in Zambia

3.1 Early history of famine in 19th century

Zambia has a long history of famine. A Zambian Historian, Bennett Siamwiza reveals the historical process of famines and their different causes (Siamwiza, 1998). First record of famine in Zambian history was the one during 1823-31, which was reported as a worst and most prolonged famine and Lower Zambezi valley and Eastern and Northern provinces affected by it. Subsequently, rural Zambia and neighboring areas were affected by several famines as below:

1860-63: Zambia and, Central and Southern Africa.

1877-78: Central province and middle Zambezi valley.

1882-83(84): Most of Western and Southern Province.

1885-89: Northern, North-Western, Southern and Western Province.

(1885-86: North-Western Province, 1886-87: Western Province)

In 19th century, the causes of those famines were mainly related to drought and violent incidents such as cattle and slave raiding, and ethnic conflicts. For example, in 1860/61, Kololo raided Tonga, Toka, and Subiya for cattle from fringes of Victoria fall in the south to north of Kafue river. At that time, over 20,000 cattle were reportedly raided. Famine in 1885/86 may illustrate the link famine and slave raiding; in the Gwembe valley people were attacked by Chikunda slavers, and in North-Western Province, Luvale slave raiders worsened the famine situation.

In those days, local people had a considerable knowledge about famine foods. For example, it was reported that Gwembe Tonga knew about more than 30 kinds of famine foods such as grass, plant seeds, roots, tubers, and fruits. At the same time, some chiefs kept reserves against famine by exacting tribute from their followers or by tribute in kind. For example, in Bemba, anybody in need could get food in two open royal gardens. In Gwembe valley, first chief Mweemba had a grain stock against famine by building large granaries in each village.

3.2 Famine in 20th century

In 20th century, early colonial period, several famines were reported as below:

1903: Eastern Province.

1905-06: Northern and Southern Province.

1908-09: Central, Eastern, Northern Southern Province and Luapula.

1912-13: Northern and Southern part of Luapula, Northern, Central and Southern Province.

The causes of famines during those years were explained by colonial authorities in terms of “Euro-centric” view, attacking mainly African’s ways of cultivation and their “improvidence”. Some records, however, referred to the colonial administration itself such as tax collection and enforced labour could undermine the people’s coping capacity against famine. In the time of 1890-1920, violence became less while natural disasters became very important.

In the early colonial period, some colonial relief efforts were made by some missionaries. The first missionary effort of relief was conducted by White Fathers among Bemba during 1894-95. They gave food and took into their custody some Bemba children. At the time of 1909 famine in Southern Province, Chikuni Mission priests employed crowds of women and girl, and had boys and young men to work in the fields in return for food. In the Gwembe Valley, during the 1908-09, a considerable amount of grain was distributed by missionaries on behalf of the administration to relieve the distress. Those

relief operations at that time were severely limited because of transport problem. Other relief policy in the Gwembe encouraged a labour migration. Native Commissioner advised old men to send their youths to the mines.

In the following periods, Zambia had a wartime famine during 1914-18 and several famines. In addition to the drought in 1915-16 and Spanish influenza in 1918, conscription into the army and provision of food to them led to food scarcity in Zambia. The following list is famines occurred mainly in Gwembe valley and their main causes.

1914-18: wartime famine.

1922: caused by 1921-22 drought and socio-economic breakdown of the communities.

1931-33: caused by drought, locusts, and growing problem of landlessness, lack of wage employment and failure of trade entitlements.

1942: continuous rainfall shortage since 1934.

1947, 1949: drought and crop fail.

On July 1931, the government started the largest relief operation in Gwembe valley. The 1942 famine was caused by great scarcity of rain and serious food shortage. The period during 1940-41 has been remembered as a season when rain fell on only one day. At that time, many men reacted to poor harvests by increasingly taking up wage employment. Over 30,000 Africans were employed on the copper belt mines alone. Agricultural production fall in 1940-41 was coincided with increased grain consumption especially railway belt area. At that time, the government imported grain on a large scale from South Africa and Belgian Congo for the first time.

In 1949, food relief depended more on cassava-growing area. Each Native Authority had a main responsibility of the food relief normally through commercial channels. Headman was allowed to buy his quota and bear responsibility for sub-dividing it among the families.

During the period of 1920-1949, indigenous economies and their coping strategies became weakened by local authorities' relief and Maize Control Board. Central, Eastern, Southern, and Western Province increasingly suffered famine because of land shortage, landlessness by alienation and the creation of African reserves.

4. A Case Study of 2004/05 Drought and Relief Programme in Sinazongwe

4.1 Food crisis in Sinazongwe, 2004/05

Sinazongwe District in the Southern Province of Zambia lies in the Zambezi valley with a hilly terrain and encompasses the upper half of the Lake Kariba shore. In Sinazongwe District, planting rains started early December 2004 for the 2004/05 season over most areas,

but it was below normal to sustain crop growth and development. Sinazongwe District Disaster Management Committee (DDMC) appealed that on average 75% crop failure was experienced in most parts of the district with some areas such as Siameja, Syampondo and Kafwambila and Chiyabi experienced over 80% crop failure, and that the camps to the southern end of the District were the worst affected due to low rainfall recorded below 190mm (DDMC, 2005). Table 1 reflects rainfall reduction of 530.0 mm from 2003/2004 season to 2004/2005 season. This reflects a drop of about 66% in rainfall from the previous season. As a result, the 2004/2005 farming season crop production and productivity was poor to very poor for most crops (Table 2).

Table 1: Climatic indicators (Rainfall data)

Season	Month & Rainfall amount (mm)						Accumulative total (mm)
	Oct	Nov	Dec	Jan	Feb	March	
2002/2003	9.0	44.7	48.0	31.7	99.3	196.8	429.5
2003/2004	35.1	85.1	118.1	139.0	180.5	245.4	803.2
2004/2005	2.5	13.4	100.6	104.4	29.4	22.9	273.2

Source: Ministry of Agriculture and Co-operatives (MACO) Sinazongwe District (2005)

Table 2: 2004-2005 Crop Production Estimates

CROP	AREA PLANTED (ha)		PRODUCTION (in metric tones)		Yield (ton/ha)	SALES (in metric tones)		RETENTION (in metric tones)	
	2003/2004	2004/2005	2003/2004	2004/2005	2004/2005	2003/2004	2004/2005	2003/2004	2004/2005
	Maize	3,125	3,100	2,550	868	0.28	6.74	2.3	2,543
Sorghum	2,998	2,420	2,055	774	0.32	0	0	2,055	774
Ground nuts	691	200	142	14.4	0.07	3.75	0	138	14
Cowpea	701	950	732	68.8	0.07	0	0	732	69
Soybeans	0	150	0	0	0.00	0	0	0	0
Mixed beans	495	150	46	0	0.00	0	0	46	0
Sunflower	205	100	28	4	0.04	25	4	3	0
Cassava	300	40	530	41.6	1.04	0	0	530	42
Sweet potatoes	190	200	142	32	0.16	30	0	112	32
Cotton	4,035	4,000	2,393	2,000	0.50	2,393	2,000	0	0
Millet	981	1,100	179	79.2	0.07	0	0	179	79
TOTAL	13,721	12,410							

Source: Ministry of Agriculture and Co-operatives (MACO) Sinazongwe District (2005)

4.2 Food Relief Programme in Sinazongwe 2005/06

According to estimates done by Sinazongwe DDMC, the amount of food being sought was 942.84 metric tones per month for 17,460 households (78,570 people) targeted and received only 421 metric tones food for May 2005, September 2005, November 2005, April 2006 and May 2006 from DMMU-OVP. The targeted beneficiaries in the appeal were elderly (aged), female headed households, child headed households, households keeping orphans, terminally ill headed households and food for work. Other emergency appeals were made by GTZ, Red Cross Society, Churches Council In Zambia and Maamba Catholic Parish.

Table 3 shows that several agencies engaged in food relief programme all over the district under the DDMC coordination. Each agency had its own policy and target against food crisis. For example, while GTZ mainly focused on conservation farming and training, government programme (DMMU-OVP) was targeted on food distribution to vulnerable household (20%) and food for work (80%). Although it is hard to assess their impact and effect on drought affected community, some camp officer said that the training of conservation farming did not have a good reputation among local people. We are going to examine how those food relief programmes are planed and implemented by different agencies and how local people perceive their activities.

5. Research Summary and Further Issue

In FY2007 research, we focused on the historical change of famine, the causes and the social responses in Zambia. It reveals that drought was not only a reason for famine, but some political and social affairs such as scarcity workforce during wartime and mine development could lead to food crisis. At the same time, while food relief efforts was made since 19th century by local people, government and missionary had a important role of in early 20th century. A case study of food crisis in Sinazongwe of 2005/06 indicates that nowadays several different agencies engaged in food relief programme based on their own standard.

Our research issue in FY2008 will be a detail study about those activities and their impact on local communities. By interviewing NGO stuffs, camp officers and local farmers, we try to investigate the food relief programmes and the local response to them. Through the research, we are expecting to reveal the social and political impact of early warning and disaster management activities on the resilience of local communities.

Table 3: Emergency Food Relief Programmes in Sinazongwe District

SN.	Relief programme	Starting dates	Closing dates	Objectives	Plan of action	Associated programmes	Total number of beneficiaries	Type of aid	Quantities of aid distributed	Comment
1.	DMMU-OVP	May 2005	May 2006	To provide food relief to insecure households affected by 2004/2005 partial drought	20% Food aid provision to vulnerable households. 80% Food for work projects.	Food for assets programme. Ferrying sand, stones for Muziyo clinic, moulding & ferrying bricks for school toilets, road maintenance, collecting stones, sand & ferrying bricks for classroom construction, VIP pit-latrines construction schools & clinics, teacher's house construction	7,928 people – May 2005 12,500 people – September 2005 4,602 people – November 2005 2,500 people – April 2006 6,917 people – May 2006	Food aid: sorghum grain, maize grain & maize meal	100 MT sorghum grain – May 2005 150 MT maize grain – September 2005 58 MT maize grain – November 2005 30 MT maize grain – April 2006 83 MT maize meal – May 2006	Covering all 12 wards in the District
2.	GTZ Emergency Food Aid Relief Programme	September, 2005	January, 2006	To provide seed relief and conservation farming knowledge while providing food relief to households affected by the 2004/2005 drought	Conservation farming (CF) in combination with Food (80%). Free food aid (20%)	Seed relief (OPV seed maize, sorghum, cowpeas and cassava cuttings) CF training & Practice	2,400 households food for work 611 vulnerable households	Seed aid: OPV maize, sorghum & cowpea cassava. Food aid: maize grain & maize-cassava mix.	150 MT maize grain 75 MT maize-cassava meal mix 12 MT maize seed, 6 MT sorghum seed, 6 MT cowpea seed & 6,192 bundles x 50 x 1metre cassava cuttings	Covering only 7 wards (Maamba, Mweemba, Tekelo, Mweenda, Mabinga, Muuka and Namazambwe)
3.	World Vision C-SAFE	April 2006	August 2006	To provide food aid to chronically ill, malnourished under-5 children, malnourished pregnant & lactating women and OVCs and food for assets to food insecure but able bodied.	Free food aid Food for assets	Food for assets projects (road maintenance, Conservation farming & weir dam construction in collaboration with Katali Development Foundation)	12,000 people (2,000 households)	Food aid: cereals & pulses	355 MT cereals 85,54 MT pulses (beans)	Covering Nangombe, Mweemba, Malima, Nkandabawe, Mweenda, Muuka & Mwezya wards

4.	Red Cross Society	April 2006	May 2006	To ensure wide spread food security and attainment of sustainable food and livelihood security whilst mitigating the negative effects of HIV/AIDS pandemic in its target areas.	Free food aid	Livelihood support (small scale irrigation for gardening, crop production and food processing & utilization.	16,000 people (2,199 households)	Food aid: maize meal, beans, HEPS and cooking oil	317,615 MT maize meal 51,139 MT beans 16,000 litres cooking oil 88,132 MT HEPS	Targeting households of PLWHAs including clients of HBC, household keeping orphans and OVC. Covering Mwezya, Sinazongwe, Maamba, Mweemba, Muuka & Nkandabawe wards
5.	Catholic Church/WFP	December, 2005	May 2006	To reduce the risk of HIV/AIDS persons to poor nutrition and low food availability.	Free food aid to ART clients	Home Based Care programmes	195 ART clients	HEPS, maize grain, pulses and cooking oil	87,75 MT maize grain 11,7 MT pulses 16,848 MT HEPS 2,925 Litres cooking oil	Ration per client: maize grain; 10kg pulses; 14,4kg HEPS; and 2.5 litres cooking oil Covering Maamba, Nkandabawe, Sinazongwe, Mweemba, Nangombe, Mwezya and Malima wards
6.	Churches Council of Zambia	February, 2006	April, 2006	To mitigate food insecurity to drought affected households	Provision of free food aid	Conservation farming training Goat pass on the gift project School feeding programme (1 school)	400 households	Food aid: maize grain, beans and groundnuts	60 MT maize grain; 6 MT beans and 6 MT groundnuts.	Covering Mweemba ward. 400 households trained in conservation farming practices 40 households to be given 2 goats each

Source: DDMC, 2006

Reference

- DDMC 2005 Food Situation and Availability: Brief Report Presented to World Food Programme Representatives Visiting Sinazongwe District on 17th December 2005.
- DDMC 2006 Terminal report on the 2005/06 Relief food Programme, Sinazongwe District.
- MACO Sinazongwe District 2005 Crop Assessment and Food Availability Survey Report.
- Siamwiza Bennett 1998 A History of Famine in Zambia c. 1825-1949. PhD Thesis in University of Zambia.