

## **6. Social Institutions and Resilience for Food Shortage Risk: Food Relief Activities in Southern Province, Zambia**

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### **Abstract**

To mitigate the impact of natural disasters, the Zambian government and non-governmental organizations instituted several types of food relief program. This paper examines these activities in terms of resilience for rural farmers, particularly focusing on a case in the Sinazongwe district between 2005 and 2008. The case study reveals that the relief food was extensively distributed by the government and NGOs to the population, seeking to avert a food shortage. However, at the same time, it was clear that the timing and targeting of the food aid was far from well-managed. To enhance the resilience of rural farmers, it is necessary for aid providers to respond in timely fashion to food crises, and to help farmers recover from the most vulnerable situations. The case in Sinazongwe, however, suggests that food relief programs seeking to cope with food shortage risks are severely limited, and must be reconsidered as social institutions to promote resilience.

### **6.1. Introduction**

We conducted field research examining food relief programs in the Sinazongwe district to analyze social-ecological resilience in rural Zambia. Several types of relief programs have been implemented by the Zambian government, UN agencies and NGOs, including emergency food aid and disaster management projects. By examining these programs, we sought to determine how such policies contributed to the social-ecological resilience of rural communities, and how national and international organizations have been involved in this process. Thus, the main purpose of our research was to reveal the role of food security institutions in providing local farmers with resilience to overcome vulnerability in drought-prone areas.

To achieve this goal, it is necessary to analyze African rural communities in a multi-level context. In recent years, African agrarian communities have built an interactive network with external agencies such as the market, government policy, and NGOs, for securing resources. However, the ways in which development policies and social institutions impact on rural livelihoods remain unclear. To answer these questions, the resilience and vulnerability of African rural communities must be reconceived in terms of a wider perspective, considering government policies and the activities of NGOs, as well as households' efforts within their communities.

In this paper, we focus on a case study of food aid in the Sinazongwe district from 2005-08. By analyzing documents collected in the Sinazongwe district and the offices of NGOs, in combination with interviews with government officials, NGO staff and local farmers, we sought to reveal how relief food was delivered to villagers after the 2004/05 drought and the 2006 flash flood,

and to determine the consequences of the implementation of food aid programs for rural communities.

## **6.2. The Government's risk assessment and food relief 2005-08**

As mentioned in my annual report for FY2007, the Sinazongwe District Disaster Management Committee (SDDMC) made an appeal in December 2005, stating that an average 75% crop failure was experienced in most parts of the district, and that the southern end of the District was the worst affected due to the low rainfall (recorded below 190 mm; SDDMC, 2005). The government's Disaster Management and Mitigation Unit (DMMU) and the Vulnerability Assessment Committee (VAC) attempted to determine the population affected by the drought (for details of the DMMC and VAC, please refer to my FY2008 annual report). The VAC began an assessment in the rural areas of the southern half of Zambia from April 2005, and published a report in June 2005 (ZVAC 2005).

The VAC report concluded that a total population of 1,232,661 people in the rural areas of Zambia (excluding commercial farmers) were likely to face food insecurity, and would require 118,335 metric tons of cereal for a period of 8 months (July 2005 – February 2006) in 27 districts covering Lusaka, Central, Southern, Western and Eastern Provinces. They estimated that the cereal needs in Sinazongwe district and the number of persons at risk in the 2005/06 marketing season was respectively 667 metric tons of cereal, and 6,944 persons over the subsequent 8 months.

In contrast, the 2005/06 production season was generally good, though characterized by excessive rain in some parts of the country which resulted in the flooding of some low lying areas (ZVAC 2006a). In the Sinazongwe district, excessive rains caused flash floods to wash away some crops along riverbanks, and breached earth dams. The district office submitted damage reports to the government twice; the first on a breached earth dam in March, and the second on the district's flood damage in April. A rapid assessment was conducted by VAC in June 2006. However, Sinazongwe district was not included as a target of the survey, and no risk or needs were reported (ZVAC 2006a). Thereafter, the VAC report published in December 2006 finally estimated the food shortage risks and needs in the Sinazongwe district: it was predicted that 41,125 persons would be at risk, and 987 metric tons cereal would be required for the next two months.

Table 6-1 shows the number of people at risk and needing cereal in the Sinazongwe district, as estimated by the VAC in 2005-08. In June 2006, March 2007, August 2008 and February 2008, neither food shortage risk nor cereal requirement was reported in the Sinazongwe district. In the 2006/07 production season, production in the Southern Province increased marginally over the previous season despite experiencing prolonged dry spells during part of the growing season, while production substantially increased in valley areas including Sinazongwe (ZVAC 2007b). Although the 2007\_08 rainy season started well with the southern half of the country experiencing an early onset, rainfall increased substantially from November 2007 to January 2008, resulting in widespread heavy rain that caused floods (ZVAC 2008). The VAC report of June 2008 estimated that 21,898 people were at risk, and that 1,642 metric tons of cereal would be needed for the next 6 months in Sinazongwe district (ZVAC 2008). The report noted that the maize price in Sinazongwe was abnormally high (up to

K1,900/Kg; more than twice that of April 2007) indicating a possible food shortage risk.

Table 6-1. Risk and needs assessment of Sinazongwe district from VAC reports 2005-08

Month/ Year	Number of persons at risk	Cereal requirement (metric tons)
June 2005	6,944	667 (for 8 months)
June 2006	-	-
December 2006	41,125	987 (for 2 months)
March 2007	-	-
August 2007	-	-
February 2008	-	-
June 2008	21,898	1,642 (for 6 months)

Source: VAC reports 2005-08 (ZVAC 2005, 2006a, 2006b, 2007a, 2007b, 2008)

Table 6-2. Actual food distribution by the government in Sinazongwe district 2005-08

Month/ Year	Number of beneficiaries	Distributed cereal (metric tons)
June 2005	7,926	100
September 2005	12,500	150
November 2005	4,833	58
April 2006	2,483	29.8
May 2006	6,917	83
March 2007	41,083	493
October 2007	12,500	150
August 2008	7,980	100
December 2008	14,743	182

Source: Documents collected from Sinazongwe district office and KDF

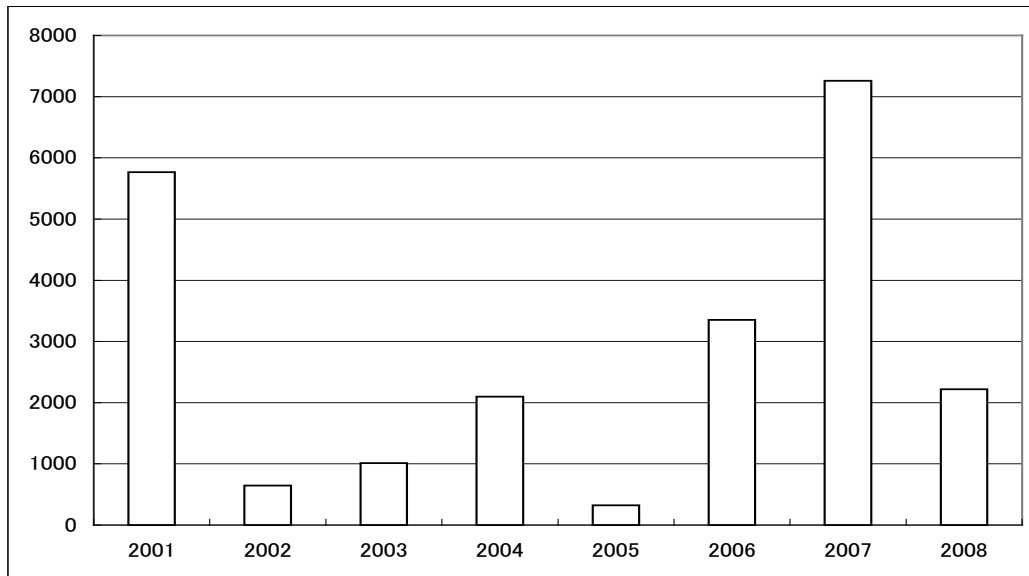


Figure 6-1. Estimated annual maize production in Sinazongwe district 2001-08 (mt)  
Source: District Agriculture Coordination Office of Sinazongwe District

Table 6-2 shows the actual amount of the government relief food and the number of beneficiaries in Sinazongwe district. The food relief delivered to Sinazongwe was distributed among the population by a local NGO, the Kaluli Development Foundation (KDF). The data in Table 6-2 were derived from several documents and records in Sinazongwe district office and the KDF office.

Comparing the actual amount of food relief with the needs assessment of VAC reveals considerable gaps between them. First, the amount of distributed cereal was much less than the cereal needs estimated by the VAC. In 2005 and 2008, for example, the actual food relief was less than half and less than one fifth, respectively, of the predicted food requirement. In contrast, even though there was no reported need for cereal in 2007, especially after the harvest season (from March to April), a substantial amount of food was distributed twice in March and October.

Figure 6-1 shows the annual production of maize in Sinazongwe district estimated by the District Agriculture Coordination Office (DACO). According to this estimation, the 2007 harvest was much better than that of the other years. Even under these good agricultural conditions, the total amount of food relief in 2007 was substantially greater than that in 2005, a severe drought year. The main reason for this mismatch was that the delivery of relief was delayed to the extent that it was not completed before the harvest in 2007.

### 6.3. NGO food relief 2005-06

After the severe drought in 2005, several NGOs, including the Red Cross Society (RCS), Catholic Church (CC) of Maamba Parish, Christian Council of Zambia (CCZ), Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ), and World Vision (WV) started their own food relief programs in Sinazongwe district. All NGOs terminated their programs by July 2006.

In June 2005, GTZ initially responded to requests made by the Ministry of Agriculture and Cooperatives to assist food insecure households in Sinazongwe district (GTZ 2006). However,

it was in September 2005 that the emergency appeal came into effect at the GTZ headquarters. The number of beneficiaries was targeted as 3,000 households, although the food request was dependent on the availability of financial resources of GTZ. In November, GTZ started their relief food distribution for 3,011 households with 150 mt maize grain, 75 mt maize-cassava meal mix, 7.5 mt sorghum seed, 15 mt maize seed, and 7.5 mt cowpea seed.

The response of other NGOs was also delayed. On 18 October 2005 RCS launched an appeal for emergency food in Southern African countries (RCS 2006). The food security operation of RCS sought to assist up to 1.5 million vulnerable beneficiaries in seven countries (Lesotho, Malawi, Mozambique, Namibia, Zambia and Zimbabwe) with provision of food assistance. Even by the end of March 2006, however, the registration of targeted beneficiaries in Sinazongwe was still not completed. Furthermore, due to the delay of permits to allow food entry into the country, it was not until April 2006 that RCS finally started relief food distribution to a total of 2,199 households (16,000 beneficiaries), 317.615 mt maize meal, 51.139 mt beans, 16,000 liters of cooking oil, 88.132 mt high energy protein supplements (HEPS).

Table 6-3. Relief food distributed by NGOs in Sinazongwe district 2005-06 (mt)

Month/ Year	CC	GTZ	CCZ	WV	RCS	Total
August 2005						
September 2005	1	225.83				226.83
November 2005						
December 2005	14.63					14.63
January 2006	14.63	150.55				165.18
February 2006	14.63		20			34.63
March 2006			20			20
April 2006			20	79	144.82	243.82
May 2006				78.72	172	250.72
June 2006				23.45		23.45
July 2006				138.73		138.73
Total	44.89	376.38	60	319.9	316.82	1117.99

Source: Documents collected in Sinazongwe district office (only on cereal grain and meal)

Table 6-3 shows the timing of NGO relief operations and the amount of food distributed by each NGO. More than half of the food aid was implemented after the 2005/06 harvest. This means that the relief food did not reach the affected population during the most severe period of the 2004/05 drought. Consequently, in spite of a rapidly changing situation surrounding rural households and agricultural activities, the relief of the government and NGOs continued with the same scale of food aid even after the recovery from drought or flood.

#### **6.4. Conclusion: Social institutions and resilience for food shortage risk**

Examining the relief activities of the government and non-governmental organizations after the 2004/05 drought revealed that actual relief activities were frequently delayed, and not operated in a timely manner, even when the effect of a natural disaster was recognized through risk assessments and/or emergency appeals. On the one hand, in terms of an initial response to the food shortage risk, government relief operated quickly to some extent. In contrast, it took large international NGOs such as WV and RCS much longer to start their operation at the local level. On the other hand, the government relief activities were so sporadic and poorly coordinated that there were large gaps between the initial risk assessment and actual food aid.

As Ishimoto argues in chapter two, the resilience of rural households can be defined in terms of the time taken to recover from an unexpected shock. This means that social institutions such as food aid agencies should mitigate the food shortage risk at an initial phase and enhance the resilience of rural households to recover from shocks as soon as possible. It is true that various relief programs can partially contribute to the avoidance of the disastrous consequences caused by natural hazards. The case study of Sinazongwe, however, revealed severe operational problems and inefficiency in those relief activities with a great time gap (Figure 6-2). Most importantly, to support households in recovering from a shock, it is necessary to match the coping strategies of rural farmers.

The relief program against food shortage risk in Africa is heavily dependent on food aid. As discussed above, it takes a substantial amount of time for aid organizations to provide the enormous amounts of food required by local populations, and difficulties are involved in procuring the necessary amount of food at a given time. As Miyazaki and Ishimoto point out in their chapters, individual farmers adopt various kinds of coping strategies, such as shifting crop varieties, selling livestock, temporarily working as waged laborers, and utilizing social-networks. Food shortage risk cannot always be avoided by relief food provision and agricultural development policies. In terms of the resilience of rural farmers, it can be argued that relief activities that are heavily dependent on food aid should be reconsidered. The most important goal in providing an effective relief is to support farmers' own voluntary efforts by providing opportunities that can be utilized at the time of a food shortage.

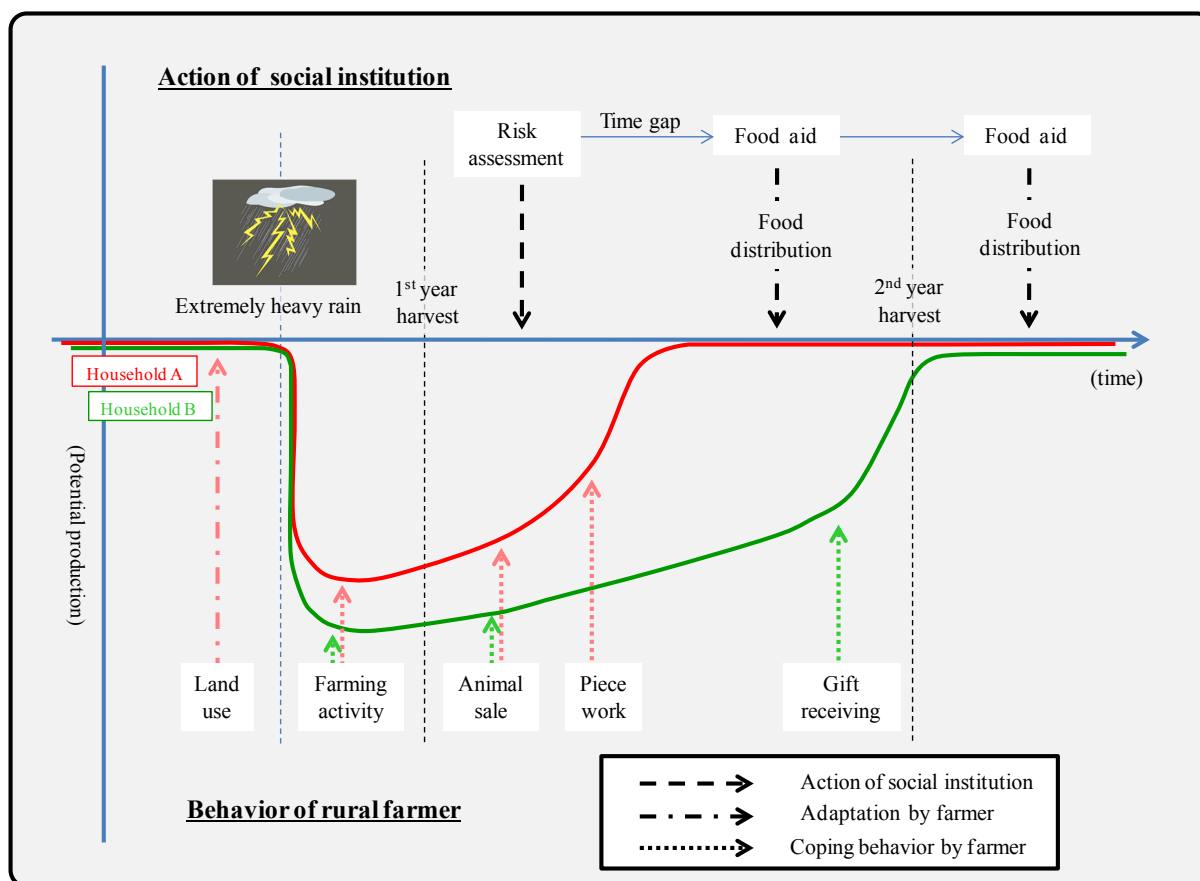


Figure 6-2. Comparison of farmer's behavior with social institution's action in response to extremely heavy rain

\* This figure is revised figure 2-4 by K. Matsumura.

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