

FAMINE MITIGATION IN KENYA: SOME PRACTICES, IMPACT AND LESSONS

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ABSTRACT: Cuny (1983) defines mitigation as measures undertaken to minimize the destructive effects of a hazard. Famine mitigation goals, practices and impacts are examined using Kenya as a case study. To prevent famine, the government of Kenya demonstrated the capacity to respond to drought in a timely manner by importing food and mobilizing a large scale distribution. The government's successful response is partly due to economic policies promoting the export sector. This success story emphasizes the need to improve food monitoring information systems.

INTRODUCTION

Some scholars argue that famine vulnerability in Sub-Saharan Africa has significantly decreased over time mainly due to the improved quality of public intervention (Wrigley, 1976; Caldwell, 1977; Bryceson, 1981; Hugo, 1984; Borton and Clay, 1984; World Food Program, 1986 and Iliffe, 1987). Of course, it is arguable that this decrease in famine vulnerability remains poor when viewed against a background of rapidly increasing opulence at the world level over the same period. African countries, however, receive little credit for this achievement. The disasters that periodically visit countries (usually war-torn) such as Somalia, Ethiopia, Sudan and Mozambique tend to overshadow the more positive experiences that have taken place elsewhere. Moreover, for reasons of journalistic motivation, the media tend to overconcentrate on stories of failures and disasters as opposed to cases of successes in disaster mitigations.

There are examples of successful famine mitigation strategies in some African countries such as Burkina Faso, Cape Verde, Kenya, Mali, Mauritania, Niger, Tanzania, Zimbabwe and to some extent Chad (Kelly, 1987; Borton and Clay, 1986; Cohen and Lewis, 1987; Steele, 1985; Undro, 1986; De Ville De Goyet, 1978; Mwaluko, 1962;

Bratton, 1986 and World Food Program, 1986). In this paper the author will investigate successes in famine mitigation in Africa using Kenya as a case study. Specific objectives of the study include:

- (1) Examination of successful famine mitigation strategies pursued in Kenya;
- (2) Outlining of problems encountered during Kenya's relief operations; and
- (3) Identification of useful lessons for improving food production and food security in Kenya.

Background Information on Drought and Famine in Kenya

Drought is a potential hazard for agriculture in nearly all of Kenya because over the greater part of its area, evapotranspiration rates exceed available moisture. In fact, nearly 80% of Kenya's land area is unlikely to receive more than 30 inches of rainfall in more than three or four years out of ten (Ominde, 1971).

A relatively unsystematic reading of evidence suggests the occurrence of major droughts in 1889, 1894, 1898, 1914-19, 1928, 1931-34, 1939-40, 1943-44, 1948, 1954, 1960-61, 1964-65, 1970-71, 1973-74, 1979-80 and 1984-85 (Mbiti and Wisner, 1973; Newman, 1975 and Dalby and Church, 1974). Some of these droughts have helped to create famine conditions.

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The 1984/85 drought was the worst in the last one hundred years and hence is the focus of the present study. The drought began with the failure of the short rains in northern and northeastern Kenya in 1983. Only the central and western highlands received enough rain to produce maize. In the following year, the long rains almost completely failed, except in the narrow strip along the coast and in the western highlands (Downing et al., 1989).

The drought very seriously damaged two areas of activity-stock raising and the cultivation of wet season crops. Pastoralists reported losing up to 70% of their stock. Production of maize, the nation's principal food crop, was approximately 50% below that normally expected for the rainy months of March through May. Wheat, the second most important grain, was nearly 70% below normal. Potato production was down by more than 70% (Cohen and Lewis, 1987). The potential for famine was indeed great.

Against the above background, mitigation strategies used by the Kenyan government and selected voluntary organizations will be assessed.

FAMINE MITIGATION GOALS, PRACTICES AND IMPACTS OF THE KENYAN GOVERNMENT AND VOLUNTARY ORGANIZATIONS

The Kenyan Government

The activities of the Kenyan government will be examined using four time stages, namely: disaster threat-organizational awareness, immediate response, organizational response, and post-drought recovery and rehabilitation.

Disaster Threat-Organizational Awareness

The government maintains at least seven systems for monitoring food security. All were employed during the 1984-85 food crisis, but with varying degrees of reliability and timeliness (Table 1). Downing (1990) states the rainfall network is well developed, and provided the earliest indication of the magnitude of the drought. The Ministry of

Agriculture collected reports from its field staff, but its methods were not well documented. More rigorous surveys, by the Central Bureau of Statistics, Kenya Rangelands Ecological Monitoring Unit (KREMU) and National Cereals and Produce Board (NCPB), reported results after the government's appeal to the international community. The health information system in 1984 did not report malnutrition, nor did it monitor child growth.

The government pre-empted its formal crop monitoring system: preliminary results from the crop forecast survey were not available until September 1984. Rather, the timely response to import food was due to the apparent nature of the drought in early 1984, the unusual increase in the maize sales by the National Cereals and Produce Board (the government grain marketing parastatal) later in the year (Figure 1), and accounts from the district administration and field staff of voluntary organizations.

While Cohen and Lewis (1987) stress the role of "political commitment" in ensuring an early and adequate response, Downing comments that "the government felt the need to forestall political instability that would result in the event of widespread famine" (Downing et al., 1987). The threat of political unrest seems to have been exacerbated by the fact that, somewhat unusually, the drought of 1984 strongly affected a number of politically important and influential areas of the central province as well as Nairobi.

Immediate Response: The Development of a Relief Program

Under the leadership of President Daniel A. Moi, the government established an interministry drought response coordinating committee chaired by the Chief Secretary of the Office of the President. The committee moved swiftly to assess the situation, establish a government response policy, begin commercial imports of food, negotiate with the donor community for food assistance, and establish a Task Force to manage the food import and distribution program.

The President set up the National Famine Relief Fund in June 1984 which not only raised funds for relief purposes but also alerted people to the drought problem in the country. Drought relief committees were also formed at different

Table 1. Early Warning Systems in Kenya, 1984-85.

Sector/Agency	Coverage	Reports/Comments		
Rainfall:				
Meteorological Dept.	National: 32 stations weekly 900 stations monthly	Long range forecast, 10-day Crop and Weather Review, Monthly Farming Weather		
Agriculture:				
Ministry of Agriculture	National	Reports from field staff, local coverage, crop calendar, not a statistical survey		
Central Bureau of Statistics	24 Agricultural districts	Crop forecast survey; area planted, harvests, disposals, stocks, district level estimates for each season:		
			<u>Long</u>	<u>Short</u>
		Area forecast	June	Dec
		Harvest forecast	Sept	March
		Harvest confirmation	Dec	June
Kenya Rangelands Ecological Monitoring Unit (KREMU)	Selected agricultural cultural districts, most of pastoral areas	Air borne radiometer, air photos, maize yields only: started in 1984 short rains		
National Cereals and (NCPB)	Maize yield survey in 24 districts	Sample measurements, combined Produce Board with CBS area forecast, September results for Nyanza, Eastern and Coast Provinces, October-December for Western, Rift and Central Provinces		
	Depot sales & Purchases, over 20 depots	Area managers weekly reports: sales, purchases, stocks, seasonal forecasts		
Health:				
Ministry of Health	National	Reported illnesses in health centers: malnutrition not included, baseline unknown, revised under CHANIS ¹ in 1985		
Political:				
District Administration	National	Hierarch of field staff under Office of the President, district commissioner, divisional officer, chief, sub- chief; district staff of central ministries		

¹CHANIS is the Child Health and Nutrition Information System implemented after the drought by the Ministry of Health.

Source: Downing, T.E. (1990)

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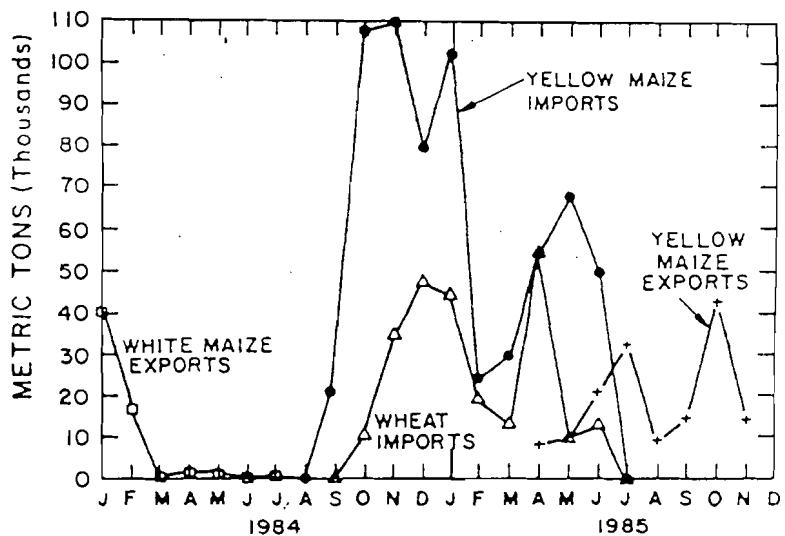


Figure 1: NCPB Maize Transactions (Source: Dowming et al., 1989).

administrative levels. Cohen and Lewis (1987) point out that a highly productive working relationship developed between the Planning Department of the Ministry of Finance and the Office of the President. The Planning Department had strong analytical capabilities and access to much of the background data required for assessing food requirements. It also had the capacity to develop the management information systems required by the Task Force.

The mitigation strategy used by the government was to import large amounts of food on a commercial basis as well as appealing to the international community for food aid. The government ordered commercial imports of yellow maize (considered inferior to the indigenous white maize) in June 1984, and the first shipment came at the end of September 1984 (Figure 2). Cohen and Lewis (1987) cite two reasons for the decision of the government to order yellow maize. Firstly, the cost of yellow maize was 30% less than white maize. Secondly, the importation of yellow maize had the secondary positive effect of encouraging informal rationing by those consumers who had access to alternative food supplies. This group would have consumed normal amounts of white maize, but when faced with the prospect of eating yellow maize, they reduced their consumption by

substituting other foods. This reduced the demand on the amount of food the government had to import.

The Kenyan government purchased 386,000 metric tons of yellow maize from Thailand. Additionally, it purchased 8,000 metric tons of maize for animal feed and 105,000 metric tons on a concessional basis from the United States Credit Corporation (Borton, 1989). Wheat was purchased mainly from Australia and the European Economic Community. The ability of the government to buy large amounts of food on the international market was greatly helped by the availability of foreign exchange reserves which largely resulted from high world prices of tea and coffee.

Crucial to the success of the government mitigation strategy was the ability to ensure sufficient food in the country to maintain supplies within the marketing system until such a time when commercial imports and food aid began to arrive. At the beginning of May 1984, maize stocks held by the National Cereals and Produce Board were just over 540,000 metric tons, well above the level of 360,000 metric tons set as the target for a food security reserve by the National Food Policy Paper (Government of Kenya, 1981). In addition to commercial imports, the government appealed to the international community for food assistance.

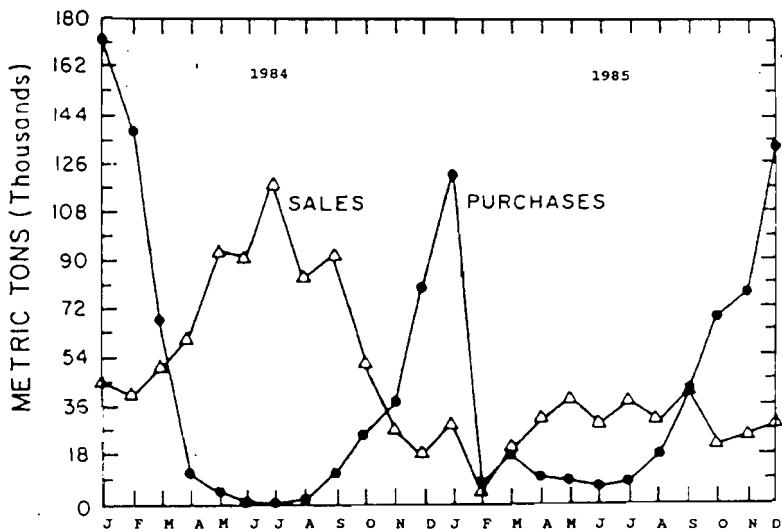


Figure 2: National Food Interventions (Source: Downing et al., 1989).

Organization Response: The Distribution of Relief Supplies

Three aspects relating to distribution of relief supplies will be examined: mobilization of information, coordination of transport facilities and entitlement protection.

The Planning Department of the Ministry of Finance and Planning played a key role in the coordination and monitoring of relief programs. Specifically, it collected information on the school feeding programs, commodity prices in various local markets, domestic commodity transport costs, livestock conditions, nutrition status on selected low income communities, voluntary organization programs and the status of the railway rolling stock. All of these were analyzed and the findings made available to all levels of personnel involved in the drought response effort.

The Task Force, operating out of the Office of the President, was responsible for ensuring that the food import and distribution was carried out efficiently. It was clear to the Task Force that extra food imports for the market support and drought relief required large scale logistical management. The country's port, storage, rail, and transport capacities were heavily taxed to handle the imports. Transport of relief supplies from the National Cereals and Produce Board depots to points of final

distribution was very expensive due to long distances, difficult road conditions and dispersed populations.

Entitlement protection measures took two different forms. First, the government used food imports to ensure the continued availability of food at reasonable prices through the normal commercial channels. This obviously minimized the potential problems of black marketing, and helped maintain the atmosphere of stability and confidence.

Second, direct support was provided to vulnerable households in the affected areas. Initially, the government intended to provide such support mainly in the form of employment for cash wages (Downing et al., 1987). The creation of jobs fell short of target due to a lack of preparedness and supervisory capacity to screen projects, provide technical assistance, deliver food, and monitor progress (Downing et al., 1987). On the other hand, the provision of unconditional relief in the form of free food rations assumed considerable importance. In August 1984, nearly 1.4 million people, or nearly 7% of the total population, were estimated to be in receipt of free food distribution, and a similar estimate was reported in January 1985 (Deloitte et al., 1986).

The allocation of relief to the needy was the responsibility of the provincial administration, which itself relied on relief committees and local

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chiefs to identify those in need of aid. According to Cohen and Lewis (1987), the local chiefs "knew the needs of their people," and by most reports, did an excellent job in distributing grain.

Recovery and Rehabilitation

The 1985 long rains were about average, and the drought emergency was considered over, although food aid was required during the recovery phase and until the next harvest (Economist Intelligence Unit, 1984; 1985; 1986). Excess yellow maize was exported at low prices once the farmers harvested white maize. The rehabilitation program was carried out by the same government officials and administrative systems that successfully responded to the food shortage crisis.

During this phase, seeds and tools were distributed to assist families resume their farming activities when the rains returned. The government distributed 760 metric tons of maize seeds in 26 districts during 1984 and 1985; 340 ox plows were distributed in 5 districts and various water projects were undertaken (Office of the President, undated). Voluntary organizations such as the Kenya Freedom From Hunger Council also distributed seeds and tools. The major problem encountered was the difficulty of getting seed on time because supplies were limited due to drought.

Voluntary Organizations

Both international and local voluntary organizations made a valuable contribution to the overall relief efforts. They mostly concentrated on food-for-work programs, food distribution, and distribution of seed during the recovery period. A few organizations will be discussed below.

The African Medical Research and Education Fund (AMREF) had been involved in long-term health programs in Machakos, Narok and Kajiado districts before the drought. However, during the drought the organization responded by supplying 1,600 metric tons of food to about 43,000 pre-school children between September 1984 and July 1985 (AMREF, 1985).

CARE was successful on the following counts: distribution of more than 33,000 metric tons of food to drought affected persons; assistance to 28 voluntary organizations in their food

distribution efforts; successful operation of its program with little disturbance of regular activities as only two extra staff members were employed for the project period, and making of contacts with other voluntary organizations (Needham, 1989).

Catholic Relief Services supplied food to 130 mother and child health centers around the country before the drought. Additionally, the organization supplied food to a smaller number of destitute people and food-for-work projects. By virtue of having an existing program and food stocks within the country, Catholic Relief Services was able to assist other voluntary organizations with limited supplies early in 1984. The organization distributed 3,500 metric tons of food.

The Kenya Freedom From Hunger Council (KFFHC) focuses its efforts on the alleviation of hunger and malnutrition through such projects as water development, institutional assistance, irrigation and community food activities (Mbugua, 1989).

CONCLUSIONS AND LESSONS

To conclude, the efforts made by the Kenyan government in 1984/85 to import food and distribute it in drought affected areas are no doubt remarkable. These food imports averted the complete exhaustion of staple food supplies within the national marketing system and, most likely, helped to avoid social unrest in both urban areas and the drought affected districts. The successful response of the Kenyan government in averting famine is attributable to: economic policies promoting the export sector (resulting in large reserves of foreign exchange, a well developed infrastructure, and a skilled and extensive administrative bureaucracy).

There are several lessons that can be learned in improving the various ways to deal with future droughts. Kenya's experience shows that most farmers sell their cereals to the National Cereals and Produce Board or in local markets soon after the harvest so they can have ready cash to pay their debts and buy whatever products are needed. They store for future use because of inadequate storage space on the farm and the great

destruction done by weevils. When the amount of grain sold to the National Cereals and Produce Board is more than its storage capacity, it begins to discourage farmers from selling grains. This calls for improvement of farm storage so that farmers can have sufficient grain in the event of a drought. There is also need for the National Cereals and Produce Board to expand its storage facilities.

Some diversification in raising livestock is beneficial as evidenced by a lesser loss of sheep and goats than cattle. Both camels and goats tend to be browsers. As a consequence, their sources of food are less affected by drought than are the grasses on which the cattle feed. Camels have also lower water requirements than cattle and therefore, can utilize areas that cannot be grazed by cattle because of insufficient water.

Realizing that food shortage in Africa is an ever existing problem, environmental experts need to enhance environmental education to the rural masses. This should include: increased research on drought resistant foods, ways of stimulating the demand for drought resistant foods without necessarily upsetting existing cultures and traditions of individual societies.

Perhaps, what is even more important is the need for emphasizing long-term mitigation strategies. These should include the development of a systematic preparedness plan, a comprehensive food monitoring system, crop reduction, livestock production, fisheries development, water resources development, desertification control, infrastructural development and manpower training. The above activities should be included in normal development activities.

REFERENCES

AMREF (African Medical Research and Education Foundation). 1985. AMREF Famine Relief Programme. Nairobi: AMREF (manuscript).

Borton, J. 1987. *The 1984/85 Drought Relief Programme in Kenya: a Provisional Review*. Relief and Development Institute, London.

_____. 1989. Overview of the 1984/85 National Drought Relief Program. In *Coping with Drought in Kenya*, editors T.E. Downing, K.W. Gitu, and C.M. Kamau, 24-64. Boulder: Lynne Rienner.

Borton, J. and Clay, E. 1986. The African Food Crisis of 1982-1986, *Disasters*: 10.

Bratton, M. 1986. Farmer Organizations and Food Production in Zimbabwe, *World Development*: 14.

Bryceson, D. 1981. Changes in Peasant Food Production and Food Supply in Relation to the Historical Development of Commodity Production in Pre-colonial and Colonial Tanganyika. *Journal of Peasant Studies* 7.

Caldwell, J.C. 1977. Demographic Aspects of Drought: An Examination of the African Drought of 1970-74. In *Drought in Africa*, editors D. Dalby et al. London International Institute.

Campbell, D.J. 1984. Response to Drought Among Farmers and Herders in Southern Kajiado District, Kenya, *Human Ecology*: 12.

Cohen, J.M. and Lewis, D.B. 1987. Role of Government in Combatting Food Shortages: Lessons from Kenya 1984/85. In *Drought and Hunger in Africa*, editor M.H. Glantz 269-296. Cambridge University Press, Cambridge.

Cuny, F. 1983. *Disasters and Development*. Oxford University Press, New York.

Delgado, C.R. 1988. Setting Priorities for Promoting African Food Production. In *Satisfying Africa's Food Needs: Food Production and Commercialization in African Agriculture*, editor Ronald Cohen. Riener.

Deloitte, Haskins, and Sells. 1986. Final Monitoring Report on the Drought Emergency Relief Program for USAID Mission to Kenya, Report Prepared for USAID.

Deville De Goyet, C. 1978. Disaster Relief in the Sahel: Letter to the Editor. *Disasters*: 2.

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Downing, J., Berry, L., Downing, L., Downing, T.E., and Ford, R. 1987. *Drought and Famine in Africa: 1981-86*. Worcester, Mass: Clark University (manuscript).

Downing, T.E. 1988. Climactic Variability, Food Security and Smallhold Agriculturists in Six Districts of Central and Eastern Kenya. Ph.D. Dissertation. Clark University, Worcester.

_____. 1990. Monitoring and Responding to Famine. *Disasters*: 14(3):204-29.

Downing, T.E., Kamau, C.M., Gitu, K.W., and Gorton, J. 1989. Drought in Kenya. In *Coping with Drought in Kenya*, editors T.E. Downing, K.W. Gitu, and C.M. Kamau. 3-23. Lynne Rienner, Boulder.

Economist Intelligence Unit (EIU). 1984. Country Report: Kenya. London: EIU.

Economist Intelligence Unit (EIU). 1985. Country Report: Kenya. London: EIU.

Economist Intelligence Unit (EIU). 1986. Country Report: Kenya. London: EIU.

Fry, P. 1988. Evaluation of Oxfams Four Restocking Projects in Kenya: Nairobi. Oxfam (manuscript). Government of Kenya. 1981. National Food Policy. Sessional paper no. 4. Nairobi. Government printer.

Hugo, G.J. 1984. The Demographic Impact of Famine: A Review. In Famine as a Geographical Phenomenon. Editors B. Currey and A. Hugo. Dordrecht: Reidel.

Iliffe, J. 1987. *The African Poor: A History*. Cambridge: Cambridge University Press.

Kelby, C. 1987. The Situation in Burkina Faso, *Disasters*: 11.

Mbugua, M. 1989. Drought Relief Activities of the Kenya Freedom from Hunger Council. In *Coping with Drought in Kenya*, editors T.E. Downing, K.W. Gitu, and C.M. Kamau, 337-340. Lynne Rienner, Boulder.

Mwaluko, E.P. 1962. Famine Relief in the Central Province of Tanganyika, 1961. *Tropical Agriculture*: 39/3.

Office of the President, undated. Wind Up the Food Distribution Exercise. Office of the President (manuscript).

Ominde, S.H. 1971. The Semi-Arid Lands of Kenya. In *Studies in East African Geography and Development*, editor S.H. Ominda. University of California Press.

Silverman, A. 1985. Kenya Emergency Program 1984/85: Reflections, Nairobi: UNICEF (manuscript).

Sperling, L. 1987. Food Acquisition During African Drought of 1983-84: A Study of Kenya Herders. *Disasters*: 11.

Steele, I. 1985. Mali Battles Drought. *Africa Emergency Report*, April-May.

UNDRO, 1986. *UNDRO in Africa 1984-85*. Geneva: Office of United Nations Disaster Relief Coordinator.

Wisner, B.A. 1977. The Human Ecology of Drought in Eastern Kenya, Ph.D. dissertation, Clark University, Worcester, Mass.

World Food Program. Lessons Learned from the African Food Crisis: Evaluation of the WFP Emergency Response. Rome: World Food Program.

Wrigley, C. 1976. Changes in East African Society. In *History of East Africa*, editors D.A. Low and A. Smith. Oxford University Press.