

# FAMINE AS THE OUTCOME OF POLITICAL PRODUCTION AND MARKET FAILURES

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## 1 INTRODUCTION

While most of the world has found ways to prevent famine, Africa still has not.<sup>1</sup> But, learning from its own experiences is at least as important for Africa as adapting lessons from other continents. Not only does the context of famine differ between Africa and other parts of the world, but the conditions that breed famine within Africa are constantly changing. Africa's transforming economic and political systems, wars and civil unrest, declining productivity, and rapid urbanization, as well as their interaction with each other and with environmental variables, all create new famine risks. As a result, simple explanations and general theories of famine and easy solutions remain elusive.

The systematic empirical study of famines is relatively recent in origin, especially in Africa. It was only in the early 1980s with the publication of **Poverty and Famines** (Sen 1981) that analysis of famine events received a more comprehensive theoretical foundation through explicit integration of household and market relationships and of the role of public action to support 'entitlements'. But, debate over concepts that are only partially elaborated continues. Conventional wisdom still has it that ending wars will end famine, that food supply has little bearing on food insecurity, that lowering population growth will increase food availability for all, and that optimal early warning of famine will prevent famine. These simplistic propositions will only be overcome when empirical analyses are driven by more clearly defined theories that expand the frontiers of our understanding and feed back into concrete actions.

By following that route, the story will become more, rather than less, complex. Famine risk today is not only a function of market and production failure but also of institutional and policy failure. Institutional capabilities and the capacity of policy to respond in a timely manner to crises are essential to prevent famine. Thus, the study of famine must integrate institutional, political, market, and production spheres, at both macro- and micro-levels.

The most important institution at the micro-level - the household, with its complex internal organization and diverse macro-level linkages - must figure prominently in the study of famine, especially where state institutional capabilities remain weak. However, the failure of public action must not lead to advocacy for reliance on household 'coping', the cost of which usually includes suffering (Webb 1993). Famine risks posed by a 'weak state' and limitations for market-based private action suggest a continued need for improving the role of public action (Teklu, von Braun, and Zaki 1991; Webb, von Braun and Yohannes 1992, Drèze and Sen 1990).

The failure of households to cope with crises is closely linked to an absence of a legal framework to protect personal security. The issue of security has often been neglected or treated as exogenous by development economists. Yet, it is a serious issue of political economy that lies at the heart of an effective famine prevention strategy. African famines are not explainable as short-term crisis events; they are more a function of long-term secular trends resulting from a failure of policy to deal appropriately with demographic, environmental, productivity, and political pressures, all of which make segments of society and regions highly vulnerable to exogenous shocks. Wars and civil unrest may become partially endogenous to these determinants of vulnerability over time. Optimal strategies for famine prevention must, therefore, build on a recognition that institutions and their policies play a key role, and that long-term forces are as relevant as short-term forces.

While conditions may differ from country to country, some generalizations must be attempted. This article is too short to provide the proper context for a full fact-oriented study of institutional, production, market, consumption, and nutrition responses before, during, and after famines as a basis for recommending policy action. Rather, this article addresses some conceptual issues that have important policy implications and draws on selected examples from more detailed studies published elsewhere.<sup>2</sup>

1 The authors wish to thank Rajul Pandya-Lorch for her excellent editorial assistance during the preparation of this article.

2 This article builds on detailed studies in Sudan and Ethiopia (see Teklu; von Braun and Zaki 1991; Webb, von Braun and Yohannes 1992; von Braun 1991; Webb and Reardon 1992).

## 2 CONCEPTUAL FRAMEWORK FOR TODAY'S FAMINES

Unless a very high level of abstraction is chosen, a theory of famine must relate to long-term historical and institutional factors coupled with disasters that are location and time specific. A general theory of famine, therefore, has its limitations. Keeping this in mind, Sen's (1981) theory of entitlement failures remains the most comprehensive general theory of famines to date.

Before discussing the conceptual framework, a few definitional clarifications are in order. A clear distinction needs to be made between famine, undernutrition, and hunger (including seasonal hunger). Hunger, largely an advocacy rather than a scientific term, is defined here as an individual's inability to eat sufficient food to lead a healthy and active life. It is a recurring feature of absolute poverty, especially in developing countries. Seasonal hunger is often observed in rural areas during preharvest seasons when food stocks are depleted and seasonal prices are high.

Undernutrition represents nutrient deficiencies in a diet leading to illness (lack of energy, retardation, or blindness) and even death. The symptoms themselves may not be recognized as indications of nutrient deficiencies since interactions between undernutrition and diseases are complex.

Famine is widespread and extreme hunger that results in drastic loss of body weight, increase in morbidity, and (as an interaction of these two symptoms) a rise in death rate. Massive social dysfunction and dislocation are important community-level symptoms. The causes can be traced to shortage of food or inaccessibility to available food because of drought, natural disaster, political (war) or economic disruption, or massive income collapse associated with disruptions in factor (labour) or product (food) markets. Most frequently, famines result from complex combinations of these factors. Famines are mainly rural events that often occur in areas characterized by chronic undernutrition.

Figure 1: Determinants of and Relationships in Famines

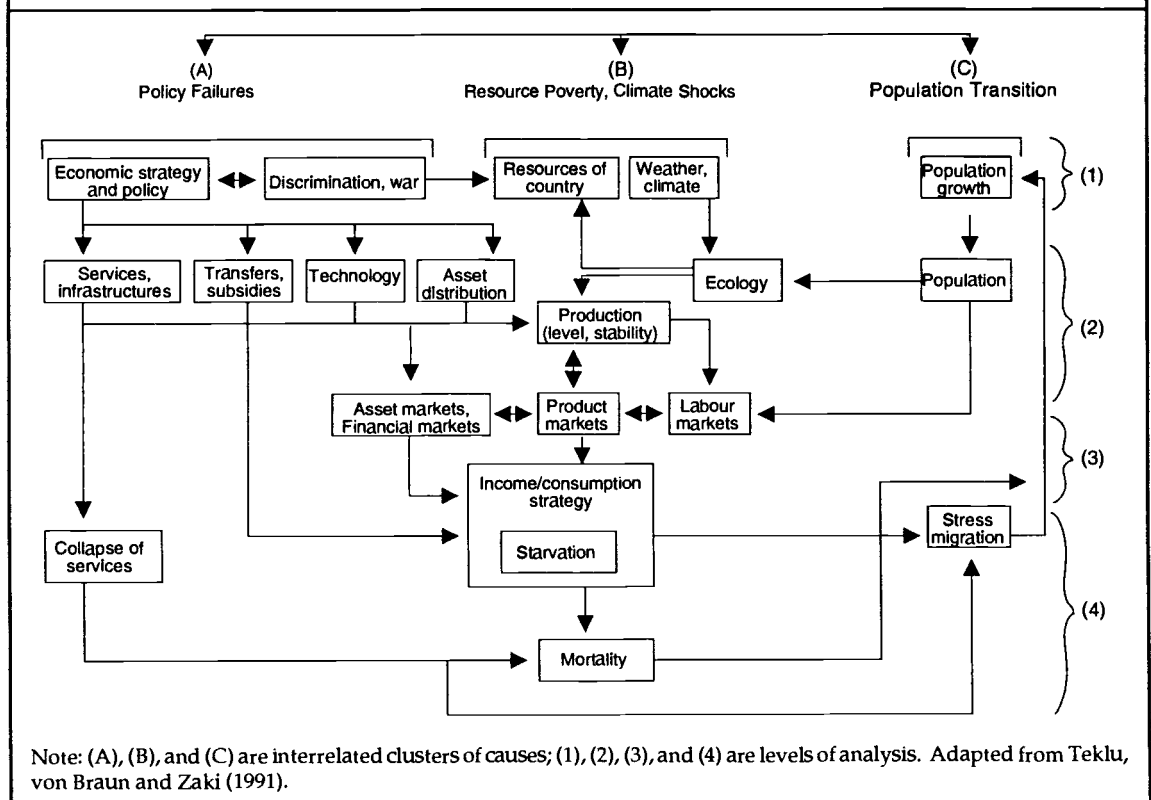


Figure 1 attempts to delineate relationships between root causes and symptoms of famine events. Poverty, including the associated vulnerability to natural or man-made shocks, is a root cause of famine. Yet, poverty and its dynamics may be seen as an endogenous outcome of lack of resources and flawed policies. Endogenous and exogenous relationships are conceptualized at different levels of analysis. The figure depicts broad interactions between policy failures, resource poverty and disaster, and the population transition process. Cause-and-effect relationships are then distinguished with some of the more important nonexhaustive indications of feedback mechanisms between the four levels of analysis.

- 1 The top layer represents economic strategy and policy interacting with social discrimination, conflicts, and wars; resource endowments and their relationship to climate or disaster events influencing levels of poverty and instability of the (food) system; and population growth. Little comprehensive research exists on interactions between these three basic clusters in contributing to famines.
- 2 The second layer relates to policy interventions, such as subsidies and distributional policies, that influence input/output relationships such as production levels and stability.
- 3 The third layer depicts policy interventions interacting with price formation and linkages between capital, labour, and output markets.
- 4 The last layer relates to actual income and consumption failure, and resulting starvation and excess mortality, interacting with the collapse of services and distress migration. It is at this level of analysis that the failure of 'entitlements' becomes evident.

Much of the controversy over 'the' theory of famine appears to result from a selective focus on individual layers of the analysis, which leads to communication problems between different scholars of famine (see, for example, exchanges between de Waal (1990) and Osmani (1991)). Conceptual and analytical discussion on any one of the four layers can be pursued as long as upstream and downstream linkages between the layers remain in perspective.

### 3 POLICY FAILURE

Policy failures are arguably among the most important root causes of today's famines. Deficiencies in

public policies are frequently associated with, and highlighted by, low agricultural productivity; extensive environmental degradation partly because poor households lacking alternative production technologies are forced to mine resources to survive in the short term; lack of rural and urban nonagricultural employment opportunities, which limits nonfarm incomes; limited access to education; and poor health and sanitation conditions. Resulting socioeconomic conditions impair the ability of households to grow out of poverty, thereby permitting production failures caused by drought to develop into famines.

Inappropriate macroeconomic policies and excessive state interference in economic activity can exacerbate inherent food insecurity, as evident from the experiences of Sudan and Ethiopia. Exchange rate regulations and export taxes historically have adversely affected rural economies in these countries, not only by undermining general rural growth prospects but also by impacting directly on specific communities. An example of a misguided policy comes from Sudan where gum arabic, the product of an environmentally friendly export crop grown in the famine-prone provinces of Darfur and Kordofan, was excessively taxed (von Braun 1991).

Policy failures are also revealed in domestic discrimination (ethnic conflicts) and in the protracted wars of southern Sudan, Ethiopia, Angola, Mozambique, and Somalia. The impact of armed conflicts is felt not only in the areas of conflict, but throughout the economy due to the drain on national resources. Production and employment opportunities are lost, making populations more vulnerable to food crises. The massive exploitation of resources during war has a devastating long-run effect on national reconstruction by undermining the already limited growth potential of today's famine-prone countries. Some conflicts are not independent of economic strategies pursued by governments, such as the 'Stalinist' economic policies pursued by the former government of Ethiopia. Effective national, regional, and international mechanisms for conflict prevention and resolution would go a long way toward famine prevention.

### 4 RESOURCE POVERTY AND CLIMATE SHOCKS

The middle column in Figure 1 (Section B) traces - among other things - drought-famine links, which remain highly relevant in Africa. The agricultural production environment is under increased stress

from drought. In some famine-prone countries such as Sudan and Ethiopia, food consumption is closely related to domestic production, which in turn is closely linked to rainfall. Analysis shows that a 10 per cent decline in rainfall below the long-term average results in a 4.4 per cent fall in national production in Ethiopia (Webb, von Braun and Yohannes 1992) and in a 5 per cent fall in national production in Sudan (Teklu, von Braun and Zaki 1991).

Yet, a single year of drought rarely causes famine. Drought and other climatic shocks are powerful determinants of famine only if they impact on countries with limited resource bases (for example, those that have been undermined by war) and with a lack of preparedness due to deficient policies (indicated downstream in Figure 1). Some famine-prone regions do have inherent resource poverty problems, such as certain regions of Ethiopia and Sudan's Red Sea Hills. However, many others, such as Sudan's southern regions, do not have such problems. Long-term deterioration of the resource base contributes to the vulnerability of the local population.

## 5 POPULATION TRANSITION

Most of Africa's famine-prone countries have very high and even increasing population growth rates and rapidly growing labour forces. The transition from high birth rates/high mortality to low birth rates/low mortality is delayed by famine events, low economic development, deficient health services, insecurity, and underinvestment in education. Thus, there are strong links from policy failure and resource poverty to the nature and speed of the population transition, as indicated in the top layer of Figure 1. Furthermore, the negative feedbacks from distress migration by famine refugees and from related population concentrations are not only symptoms of current famine stress, but they also provide the foundation for future vulnerability.

## 6 MARKET FAILURE

In times of emerging food shortages, the behaviour of food, asset, and labour markets is critical in determining famine outcomes, particularly for the absolute poor. It is crucial that policymakers have a comprehensive understanding of market and price behaviour during food crises. The literature on market behaviour during famines in Africa remains limited compared with related work in Asia. Crises

are characterized by increased entry of the poor into the market for purchases of food and sale of assets and labour. Where markets are thin and transaction costs are high (due to poor infrastructure and policy restrictions on interregional trade), and public stabilization is weak (due to low food reserves and limited capacity for importing), price fluctuations tend to be large. Such price movements have a relatively greater effect on the poor. In Sudan, for example, when the decline in rainfall during 1984/85 precipitated a drop in cereal production, cereal prices doubled in major regional markets. This caused dramatic deteriorations in the terms of trade for livestock and cash crops, unusually large seasonal price swings, and sizeable price differentials between regions. Some remote rural markets broke down as rural demands for food declined in the face of collapsing nominal incomes and increasing prices (Teklu, von Braun and Zaki 1991).

Food prices alone neither send appropriate signals to private traders nor can they be the guiding yardstick for public intervention. Transaction costs (including market risk) and the purchasing power of the poor require attention, too. Basic infrastructure deficiencies and government trade restrictions impair interregional market exchange during famine years. A sudden collapse of purchasing power - in the context of production failure and a parallel decline in employment opportunities - may not force sharp price rises in an affected region, because of a fall in effective demand. The potential for 'relying on the market' to mitigate famine in regions or countries suffering from consecutive famines becomes increasingly limited because the asset bases of most households is eroded.

Lack of infrastructure - rural roads, transportation facilities, and the like - make a market-oriented response to local or regional food scarcity and an efficient public and private famine relief response very difficult. Similarly, lack of integrated markets due to poor roads and marketing policies that are often state-controlled impair incentives for farmers. Prohibitions in domestic trading are prevalent and prevent market integration during times of drought. Ethiopia, for instance, has experienced more regionally concentrated severe shortages than Sudan, where market integration in cereals existed, which spread scarcity widely, affecting the poor in all parts of the country (Webb, von Braun and Yohannes 1992).

## 7 HOUSEHOLD-LEVEL PERSPECTIVES

Famine symptoms at household and individual levels represent a failure to cope with the processes depicted in layers (1), (2), and (3) of Figure 1. The literature on the impact of famine and on the means adopted by households to minimize that impact has become increasingly complementary and convergent. While conditions vary by locality, there are identifiable behaviour patterns associated with the onset, progression, and climax of a crisis. These responses are largely determined by the nature of the crisis, its speed, intensity, and linearity, as well as by the varying abilities of different households to cope. This variability in coping capacity is widely believed to hold the key to an effective design of famine early warning systems and appropriate interventions (Torry 1988).

The close relationship between food production, food prices, wages, and employment is critical when looking at household responses to famine. Households can respond to fluctuations in food production, prices, and wages by adjusting consumption, income, or savings. On the consumption side, households can adjust their consumption of food and nonfood items. On the income side, households can adjust their cropping patterns, intensify work in off-farm activities, or compound their incomes through remittances or food aid.

The pattern of household responses to a food crisis generally involves a succession of stages along a continuum of 'coping' that runs from long-term risk minimization through crisis damage containment to the extreme instance of household collapse. These stages can be grouped under three headings: risk minimization, risk absorption, and, if necessary, risk-taking to survive.

The first stage - risk minimization - involves insuring against risk in a precrisis period in an environment of limited credit and insurance markets. It incorporates measures of savings, investments, accumulation, and diversification. There are four key elements to this strategy: (1) protect minimum productivity through intercropping, spatial dispersal of fields, using multiple seed varieties, holding of mixed-species herds, and preserving last-resort grazing grounds; (2) accumulate assets through food storage, capital accumulation, and investments in valuable disposable goods such as jewellery, farm equipment, and housing goods; (3) expand credit through establishment of social support networks based on

gifts, sharing of food, and loan provision; and (4) diversify the income base to include nonfarm sources (and migration remittances). The extent to which households are successful in pursuing and attaining these goals plays a large role in determining the outcome of subsequent crises.

The second stage of coping - risk absorption - involves divesting earlier investments, calling in loans, and searching for new credit. As capital for investment dries up, consumption of both food and nonfood is restricted, stores of food are drawn down, and the variety of potential income sources become crucial to survival. The ability to protect past investments declines. Access to credit to stabilize consumption and limit distress sales of assets is crucial at this stage for a quick recovery from food crises. Of course, capacity for coping is not solely a function of the asset base; it is also a function of human capital accumulation. For instance, in Sudan, rural children whose parents had some formal education, and especially those children whose mothers had received some schooling, had significantly better nutritional status than other children following the 1985 famine (Teklu, von Braun and Zaki 1991).

The final stage in coping, which may become inescapable if conditions persist in the absence of external aid, involves the disengagement of all normal systems of survival. At this point, the diet of most households is dominated by unusual 'famine foods' (roots, leaves, rodents), and they are obliged to sell their remaining assets. If they are still able to do so, many households break up and leave their residences in search of assistance from distant relatives or at relief camps.

This sequence of events depicts a scale of increasing irreversibility of actions taken, and of increasing vulnerability to any continuation of the crisis. It also assumes the worst; each response, at best, delays the onset of the next stage, unless conditions change or external help arrives. Not all of the coping actions undertaken by households at each stage of the crisis are beneficial, either to the households or to the environment. Reducing basic food intake to minimal levels or breaking up a family to enhance the chances of survival of individual members does entail suffering. Similarly, desperate actions such as cultivation of marginal land or wholesale felling of trees to sell as firewood have serious consequences for future environmental conditions and income generation.