# Famine in Ethiopia: Policy implications of coping failure at national and household levels

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Government policies in Ethiopia are developing in favour of market liberalization, democratization, and the rule of law. The international finance community is now more willing to invest development capital in the country. These are essential first steps toward the eradication of famine but are not sufficient in themselves.

A transitory phenomenon in Ethiopia before the 1980s, famine has evolved into an almost structural problem that can no longer be addressed by short-term, crisis-response measures. Sound information is urgently needed for comprehensive policy reform to prevent famine.

This study provides detailed empirical information to support the debate on policy reform. It finds that, while the experience of famine in the 1980s varied across the country, underlying conditions were often the same: proneness to production fluctuations, lack of employment opportunities, limited household assets, isolation from major markets, low levels of farm technology, constraints to improvements in human capital, and poor health and sanitation environments. Famine symptoms are thus the outcome of an interaction between policy failure and socioeconomic, health, and environmental factors.

While all households in the drought-affected regions studied were affected, the impact of famine varied by household according to income and asset base. Results from seven survey locations show that relatively wealthier households (the top third of households in the sample, with an average annual income of US$100 per capita) coped better than the poor (the bottom third of households, with an annual income of US$42 per capita). During the 1980s, wealthier households achieved drought-year cereal yields three times higher than poor households—300 kilograms versus 111 kilograms per hectare. As a result, output from the wealthier households was also higher, reaching an average of 38 kilograms per capita in 1985, compared with only 9.5 kilograms per capita in poor households. Income distribution also affected consumption, which decreased to one meal or less per day among 63 per cent of the poorest households compared with only 43 per cent of the wealthier group.

These findings suggest that' even where almost everyone is extremely poor, the depth of poverty is important in determining the impact of famine. This emphasizes the need for better targeting of absolute poverty by relief interventions and for targeting of productive investment to famine-prone regions as well as to the surplus zones of the country.

Household responses to famine can be grouped in three stages: risk minimization. involving crop and herd dispersal, non-farm income diversification, and asset and other savings accumulation; risk absorption, involving the sale of livestock and nonproductive assets, a search for new sources of income, and collection of debts; and risk-taking to survive, involving reduced consumption. the sale of productive assets, and reduced socialization. Since wealthier households have more assets, better access to credit and other social support, and more non-farm income than do the poor, they are better able to protect their level of consumption during drought-related food crises.

Although the overall trend of rainfall in Ethiopia during the past 25 years has shown only a small decline, fluctuations between years and regions have been large. In 1984, rainfall was 22 per cent below the long-term mean, and most regions suffered. In other years, severe droughts affected only parts of the country. The absence of any rainfall-production correlation between regions underlines the potential for improved interregional movement of food inputs and production resources. The upgrading of rural transport, in association with appropriate market development policies, holds promise for food-security improvement.

Household vulnerability to famine increases during protracted drought through progressive depletion of food stocks and capital assets. The worst recent droughts were the culmination of at least two years of poor rainfall. In future, however, single-year droughts may be sufficient to trigger famine where stocks and resources have not yet been rebuilt. This danger highlights the importance of an efficient early warning and intervention capability.

Fluctuations in food consumption are largely determined by fluctuations in domestic production (a correlation of 0.76), which is strongly linked to drought. Cereal production per capita has declined by an average

of 4 kilograms per year since the 1960s. Food aid and imports have cushioned this decline, but links between domestic production, food availability, and famine remain close because of poor market integration. Much could be gained from programmes aimed at stabilizing production at higher levels. Research for improved drought-resistance in cereals, increased small-scale irrigation, and programmes of erosion control are critical for raising and stabilizing supply.

Marketing constraints (both physical and policy-driven) were important in determining the geographical impact and degree of purchasing-power collapse. A close relationship is found between food shortage and real increases in cereal price. Analysis suggests that, under the previous (highly restrictive) policy regime, a 10 per cent fall in cereal production resulted in an average price increase of 14 per cent. Under the prevailing conditions of effective household demand and the trade, food aid, and stockholding policies, price explosions were associated with the production fluctuations of the 1980s.

Consumer substitution between major cereals caused prices for all grains to move up together. Yet there were substantial lags in price movements in different markets by region because integration between regional and central markets is limited. Price developments in provincial markets are largely driven by local developments. Although lagged, integration between off-the-road markets and their provincial capitals is fairly strong. However, continued interregional market segmentation and the limited effective purchasing power among the poor make reliance on a market-driven solution to famine prevention unlikely in the immediate future. Price liberalization and the freeing up of markets for food, labour, and capital are essential to longer-term growth, but these actions alone cannot remove food insecurity without complementary investment in poverty alleviation.

Targeting of the poorest households by relief interventions had mixed success. Households consuming only one meal a day during the famine did generally receive more food aid than households consuming three meals. But the amounts received were small for everyone—an average of 180 kilograms per household during the worst year.

Feeding camps were also vital to emergency relief despite the drawbacks of dislocation and contagion. At some camps, more than two-thirds of the children admitted were less than 65 per cent of standard weight for height. Over 7() per cent of the children came from the poorest and middle-wealth households.

Labour-intensive public works were widely used as a tool for food or income transfer during and after the famines. Few projects targeted the poor, relying on the assumption that public works are self-targeting. This had a limited effect since the poorest and wealthier households participated equally. However, short-term income transfers were crucial to food security during crisis years. On average, more than 90 per cent of the food wage was consumed at home. Indeed, few participants felt that a cash wage would have been more desirable. This indicates that where markets are constrained by deficient infrastructure, restrictive policies, or crisis events, food wages still have an important role to play. Where markets function well, cash disbursal may be the preferred option. A careful consideration of more flexible payment modalities by wage type is required.

The long-term impact of public works depends on their technical quality and usefulness as perceived by participants. Many projects have suffered from deficiencies in technical design, an imbalance between food inputs and essential non-food inputs, and institutional weaknesses. On the other hand, feeder-road construction was found to have strong income multiplier effects in the medium term, and erosion-control activities have been much improved through trial and error.

Asset transfers (ox and seed distribution) were used to rebuild farming systems. Some targeting was achieved, yet many of the poorest households, including female-headed households, were left out. Many oxen died due to lack of food or disease; others were sold before the next cropping season because the immediate need for food was so great.

The distribution of production-enhancing agricultural technologies, as an approach to famine prevention, had mixed results. A new plough was received by more poor than wealthy households, but its performance was disappointing and its long-term impact negligible. The crossbreeding of local cows with exotic strains for increased milk production was technically successful, but unsustainable. Crossbreeds yielded six times more milk but consumed three times more feed and were more susceptible to disease.

The study underlines the importance of combating the root causes of poverty, through rural economic growth, as the key to preventing famine. Such growth necessitates peace, popular participation in government, and a narrow set of policy and investment priorities. In the short term these policies should include the institutionalization of emergency code legislation and stabilization of food entitlements in famine-prone areas, through transfers and decentralized stocking. For the longer term, emphasis should be on promotion of agricultural growth through technological change and commercialization, employment creation through labour-intensive public works that upgrade rural infrastructure and halt natural-resource degradation, and improved health and human resources.