

APPENDICES

Appendix I

Famine*

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"Famine is like insanity, hard to define but glaring enough when recognized... one country will define as food shortage what another country would call famine" (Taylor 1947, pp. 98, 102). In recent years, and particularly in the United States, where food surpluses have been embarrassing politically (perhaps also morally), journals have been prone to report from abroad as "famines" what subsequently appear as shortages or merely threats of shortage. Shortages are not infrequently relieved before they become famines.

True famine is shortage of total food so extreme and protracted as to result in widespread persisting hunger, notable emaciation in many of the affected population, and a considerable elevation of community death rate attributable at least in part to death from starvation. Criteria do not exist to measure the degree of hunger, emaciation, or elevation of death rate serving to differentiate famine from shortage. The archetypical famine extends over a wide area and affects a large population. Starvation deaths on a small scale, as among members of an isolated family, a small hamlet, a group of travelers in wild country, an icebound ship, would not commonly be characterized as famine. Acute shortage of food for a few weeks, such as preharvest hunger in some parts of the underdeveloped world, is not famine. Lack of a particular customary food, such as sugar or beef, is not famine if there is abundance of other items. Shortage of a particular vitamin or mineral in a population, evidenced perhaps by uncommonly heavy incidence of scurvy, beriberi, pellagra, rickets, or impaired vision, is not famine, although in recent decades the word has been applied to such shortages.

The members of a community beset by famine gradually become greatly emaciated and increasingly weak and listless—eventually to the point of lying in homes or along the streets and roads, utterly inactive, skeletonized, often with swollen bellies, waiting for death. In famine-stricken regions beggars are encountered in abnormal numbers. There are riots, aimless wanderings, purposeful migrations; men, women, and children comb fields, alleys, and dumps, hoping to find a scrap of edible material. Livestock owned by the poor are sold or eaten.

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A house-to-house survey in north China during the famine of 1920-1921 revealed that people were eating, among other items not in their normal diets, "flour made of ground leaves, fuller's earth, flower seed, elm bark,...peanut hulls, sweet potato vines ground..." (Mallory 1926, p. 2). Kravchenko (1946, p. 113), who as an official of the government witnessed the famine of 1932-1933 in the Soviet Union, quotes a young peasant woman: "I will not tell you about the dead... The half-dead, the nearly-dead are even worse. There are hundreds of people in Petrovo bloated with hunger. I don't know how many die every day. Many are so weak that they no longer come out of their houses. A wagon goes around now and then to pick up the corpses. We've eaten everything we could lay our hand on - cats, dogs, field mice, birds. When it's light tomorrow you will see the trees stripped of their bark.... And the horse manure has been eaten...Sometimes there are whole grains in it." Upon such horrors in a famine-ridden area are superimposed an upsurge of burglary, robbery with violence, murder for gain. Cannibalism occurs but is rare as well as secret event of which little can be known. Sorokin (1942, p. 81) holds the opinion that less than one-third of one per cent of a population in noncannibalistic societies would practice cannibalism under pressure of starvation. Disease flourishes abnormally as resistance is reduced by low food intake.

The calamity of famine falls most heavily upon the poor, unless the state is dispossessing and punishing a former aristocracy or bourgeoisie. Food prices begin to rise even before damages to crops or military or political interferences with food inflow become generally apparent. People with ample purchasing power begin to accumulate stocks of food, either for their own future use or for sale at higher prices in weeks to come. Markets are swept clear of foodstuffs. Employment shrinks, and wages, where there is employment, seem not to rise in proportion to food prices. Families with low incomes (if not dependents of the wealthy) feel the pinch of hunger first. They sell their possessions—their clothing, household furnishings, house timbers; even the means customarily used to provision themselves with food are sold. According to Woodham Smith, during the great Irish potato famine of the 1840s fishermen all over Ireland pawned or sold their gear to buy meals (1962, p. 291). During that and other famines many poor peasants have eaten the seed necessary to produce a new crop. Children have been sold in Chinese famines; and men have sold themselves into slavery. Prostitution burgeons. Buyers seem always to appear, for although famine may decimate a large population, it does not annihilate. Some members of a stricken community profit from the circumstances of famine. Some are protected by their position in, or by power of, the government.

Causes. Famine has many causes. Nearly a century ago Walford (1878-1879, p. 450) listed 12, classifying them into natural causes beyond

human control and artificial causes within human control. This distinction remains valid in a general way, although it is certainly true that man has learned to modify some of the natural causes as well as to minimize their impact. Natural causes include drought, excessive rains and the flood, unseasonably cold weather, typhoons and other high winds, tidal waves, depredations by vermin and such insects as locusts, and plant diseases. They tend chiefly to reduce production of food and to destroy stocks. Occasionally, though mostly for short periods, floods or frosts restrict the flow of foodstuffs from surplus to deficit areas. The artificial causes—commonly political—include warfare that involves siege or blockade, or destruction of food stocks or growing grain; and wartime strains on economies that diminish manpower, machines, or fertilizers, thus reducing cultivated acreage, yields, and production. Revolutions, particularly when they involve a struggle between peasantry and officialdom, may reduce food acreages and yields and thus contribute to famine; so may excessive taxation or collection from peasants of grain surpluses, which happened in Soviet Russia in 1932-1933. It is difficult to perceive in the vague history of famines a major one in which political cause alone were operative, although this may be said of a good many minor famines—typified in sieges of cities. An age-old device of war is to impose famine on the enemy.

The great famines of the world have been due to natural forces, frequently intensified, however, by political factors. Sometimes economic or demographic situations—prevalence of poverty, including unemployment, peasant agriculture of the bare subsistence type, or many landless agricultural laborers in a population of high density—are regarded as causes of famines. They certainly make for vulnerability to famine, but unlike natural or political catastrophes are chronic rather than episodic in character.

The principal natural causes of major famines have been deficiency of rainfall (drought) or excess of rainfall (flood). Probably no major famines, but only localized and minor ones, have been due to excessively cold weather, high winds, or infestations of insects or vermin. Even a great swarm of locusts consuming every growing plant would rarely spread over an area more than a fraction as large as that covered by major drought or flood. Plant disease in the form of potato blight, however, did emerge on one occasion—in Ireland in 1845-1849—as the outstanding natural cause of a famine of great severity. Drought outranks food as a major cause, except perhaps in north China, where in some summers the Yellow River may rise so high that it overflows its diked banks and renders unproductive the vast agricultural plains of its valley. Few flood famines of major proportions are recorded elsewhere, but one did occur, in the years 1315, 1316, and 1317, in the British Isles and on the Continent east and north of the

Pyrenees and Alps at least through present-day Poland; mortality was high (Lucas 1930). Continuous rain greatly reduced the harvests of grain crops, and pestilence (murrain) killed many farm animals.

Famine follows upon extreme shortage, insufficiently relieved by inshipment, of the staple starchy food crop of the afflicted area. That crop is usually grain—usually wheat or rye in temperate zones; rice, a millet, or sorghum in warmer climates. Famine or general food shortage in northeastern Brazil, however, will chiefly represent deficiency of the manioc crop; in Ireland it was the potato crop. The grains and starchy roots provide the bulk of the energy-yielding food for most of the world's population. In the absence of shortage of grain crops or (rarely) of starchy roots, a major natural famine is unlikely to occur. Grain is relatively cheap per thousand calories of nutriment, readily storable, and easily transported and processed into meal or flour. It is the most serviceable foodstuff to be brought in to ward off or relieve famine.

Geographical incidence. Whether natural or artificial, famine is always regional or local, never world-wide or continent-wide—or even nationwide in such vast countries as India, China, Russia, and Brazil. Conceivably, some large areas of the world have escaped, if judgment can be based upon the two major chronicles of famine (see Walford 1878-1879; Minnesota...1950). Therein no mention is made of famine in Australia, in the great islands of the East Indies, or in Africa south of the Sahara. In North America and Central America, the only listing is of a famine in Mexico in 1051 ("Famine which caused the Toltecs to migrate"), and this is perhaps not clearly authenticated. South America seems to have experienced major famine only in northeastern Brazil (the *sertão*), an area subject to recurrent severe droughts. Although the chroniclers of world famine make no mention of Japan, historians record three famines there in different regions, in 1732-1733, 1783-87, and 1832-1836, severe enough to provoke violent riots (Sansom 1963, p.222).

Europe west of Russia has witnessed no natural famine since the great Irish calamity of the 1840s, although artificial famines on a much smaller scale accompanied World War II, at least in Greece and in the western part of Holland. There were food shortages elsewhere both then and during and after World War I. Ancel Keys (see Minnesota...1950, p. 1251) lists since 1850 one famine in Persia (1871), one in Asia Minor (1874-1875), one in Egypt (1897), one in Brazil (1877), and one or two in Morocco (1877-1878), indicating infrequent occurrence in those countries. In Russia over the same period no fewer than ten famines are noted, and in India 13, not counting the most recent one, the great Bengal famine of 1943. The number of famines in China since 1850 is uncertain, but a severe one occurred in 1877-1878; others in 1919-1920 and 1929-1930; and lesser ones in 1906, 1911, 1916, and 1924. Russia, India, and China over the past century have encompassed the outstanding famine areas of the world. Each contains regions adjacent

to deserts, where rainfall is regularly low, highly variable, and of summer incidence; crops tend to fail in the exceptionally low-rainfall years. These regions also have a rather dense and impoverished agricultural population. In Russia the region most frequently drought-ridden centers in the Volga basin; in China, the valley of the Yellow River; in India, the northwest and the Deccan plateau. Each country also contains regions of abundant and dependable rainfall, where famine rarely occurs. But in all the great famines of the twentieth century natural and artificial causes worked simultaneously—drought and flood, war and revolution.

Relation to disease. Since famine stimulates human diseases, statistical differentiation between deaths from starvation and deaths from disease is practically impossible, as is close measurement of the degree to which famine elevates death (and morbidity) rates above normal levels. A dependable ranking of the famines of even the past century from most to least lethal is out of the question. Nevertheless, it can probably be said that there was mortality of a million persons or more above average at least in the Irish famine of 1845-1849; the Indian of 1877-1878, 1896-97, 1899-1900, and 1943; the Russian of 1921-1922 and 1932-1933; and the Chinese of 1877-1878 and 1929-1930.

Famine reduces resistances to many diseases, including malaria, influenza, and tuberculosis; smallpox, cholera, typhus, or relapsing fever may plague the afflicted regions, especially if the population is crowded into unsanitary refugee camps, as on the fringes of cities. Acute deficiency diseases take a must larger toll than usual, for reduced food consumption is certain to bring intake of some of the essential vitamins and minerals below requirements. Acute and protracted diarrhea ("bloody flux"), induced by polluted water and the eating of improper materials, appears to be a lethal scourge, particularly among children. Famine not only increases death rates but also reduces birth rates, thus slowing growth of population. Advancing scientific knowledge of diseases and growth of both national and international health services in the twentieth century have greatly lessened the risk of high mortality as a result of famine.

Relation to migration. The circumstances of famine induce people to flee from it, not only to escape but also to seek work that will permit them to restore purchasing power in some form to family and friends left behind. Refugees from the countryside often flock to cities, especially centers of government. Of those who flee, many return upon the abatement of famine conditions, but others find new homes. The drought-ridden *sertão* of north-eastern Brazil has witnessed both the flight and return and the permanent export of population—not abroad, but to other parts of the nation (James 1942, p. 425; Smith 1879, pp. 398-435). Scarcity-induced migration that crosses national frontiers has not been common. The conspicuous example in history is the great

migration of more than a million people from Ireland during and after the famine of the 1840s, the bulk of whom came to the United States, remaining to participate in and influence that country's development. Internal migrations that may have occurred in Russia, China, and India have not been carefully recorded or studied. In general, demographers appear not to lay much stress on famine as a cause of the surging migrations of history or prehistory. The unrecorded breakup of families attributable to famine migration must have caused millions of individual catastrophes. The famine in Ireland led to the conviction in Great Britain that at all times basic food must be available as cheaply as possible to the poor, and the Corn Laws that had long tended to force a lightening of the burden of taxes and rents upon peasant farmers and a wider acceptance by government of responsibility for prevention and relief.

Remedial measures. Five centuries ago famine was regarded almost throughout the world as inevitable and was so accepted, often as a manifestation of divine wrath. Occasionally, however, there were rulers who sought to prevent or relieve it. The Biblical story of Joseph in Egypt, storing grain in "fat" years against the "lean" that might follow, exemplifies probably the most common method of famine prevention in antiquity and medieval times. The rulers of the Inca Empire guarded against famine by storage and by construction of irrigation canals. Irrigation, a safeguard against famine because it both elevates and stabilizes the acre-yields of crops, was practiced some 5,000 years ago in Sumer and is very ancient elsewhere in Asia and North Africa, but famine can hardly have been the sole stimulus for irrigation. Flood control by dikes and dams is also an ancient device which militates against famine but has other values. Destruction of stores of grain and of irrigation and flood-control works is obviously a method of creating artificial famine.

Natural famines having their origin mainly in drought or flood, sometimes in plant disease or insect pest, are not now regarded as inevitable. Within nations, a naturally induced or threatened food shortage is certain to be met by domestic efforts to ward off or relieve it. This was not true in the Soviet Union as late as 1932-1933 but occurred there in 1963-64, following a very severe drought, when a huge quantity of grain was imported and paid for. So it was in China a year or two earlier. India and Pakistan have been able since war ended in 1945 to arrange, partly on the basis of international credits, for sporadic grain imports sufficient to preclude famine; so also have Brazil and Yugoslavia. The disposition of all governments by the 1960s was to prevent or relieve famine or shortages within their own borders; and of some governments to donate or loan funds or food surpluses to prevent or relieve famine beyond their own borders. The capacity of nations to pay or to loan or donate has increased. International

cooperation in famine relief or prevention has increased in the past century, as evidenced by such organizations as the Red Cross, the China Relief commissions, the American Relief Administration of World War I, the United Nations Relief and Rehabilitation Administration following World War II, and the Food and Agriculture Organization of the United Nations. Supplies have been available despite the huge growth of world population; and with the advancement in agriculture everywhere, few localities stand in such risk of drought or pests or plant disease as prevailed even half a century ago. If, nevertheless, natural calamity strikes, the network of transport, by ship overseas, by barge on canal and river, by rail, by truck on roads, even by air, has so grown and is now so far-flung and efficient that stricken regions can be reached. Government have learned how to ration food in short supply in a manner more equitable than was possible earlier.

Progress in coping with natural famine is thus apparent politically, economically, and socially. Until the end of the twentieth century there seems no reason why true famine of natural origin should be endured in any country, for over so short a time world population seems unlikely to outrun food supplies. What the more distant future holds is purely conjectural. But even in the shorter term, it cannot be said that artificial famine, induced by war or revolution, may not again appear.

Appendix II

Famine and Society Constitution of a Working Group

STATEMENT OF PURPOSE

I.0 PREAMBLE:

I.1 We, the Members of the Working Group formed for the Study of Famine and Society seek recognition under Article II of the Statutes of the International Sociological Association.

II.0 JUSTIFICATION AND OBJECTIVES:

The Constitution of an Ad hoc Research Committee on "Famine and Society" in 1985 had the following objectives:

1. To explore and develop a systematic study of societies within which starvation affects social, political and economic institutions and brings about economic and social decline and adverse biological and cultural consequences, to large communities.
2. To examine critically the definition in the Social Sciences of famine which recognise the presence of famine primarily with reference to indicators of disease, mortality and demographic change and look upon famine as a sudden collapse.
3. To promote the study of famine as a social process rather than as an isolated event and to investigate the social, economic and political characteristics and determinants to evolve a coherent social framework for the study of famine in all its aspects.