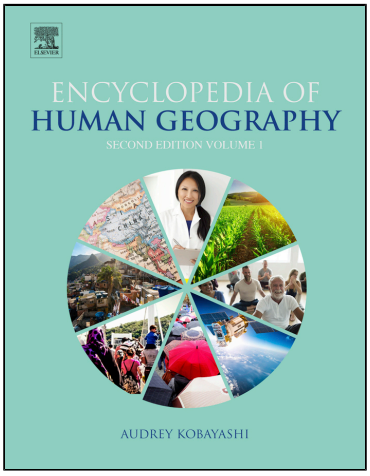

From Atkins, P.J., 2020. Famine. In: Kobayashi, A. (Ed.), International Encyclopedia of Human Geography, 2nd edition. vol. 5, Elsevier, pp. 15–20.
https://dx.doi.org/10.1016/B978-0-08-102295-5.10461-5
ISBN: 9780081022955

Famine

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Glossary

Coping Strategies The strategies and tactics that people employ to minimize the stress associated with livelihood crises.
Famine A food emergency resulting in major excess mortality and widespread severe, acute malnutrition.
Famine Crimes Politically motivated acts causing the mass starvation of civilians in wartime, or as a result of deliberate atrocities such as genocide, or due to neglect when help for those suffering from hunger was known to be possible.
Food Insecurity Unavailability of food due to insufficient purchasing power, inappropriate distribution, or inadequate utilization at the household level.
Livelihoods The ways in which people make a living, including various means of earning income, goods in kind, or access to resources and services.
Resilience The ability of people to recover from stress and to protect themselves against future stresses.
Vulnerability The degree to which a group (family or community) is likely to experience harm due to exposure to stress.

As a word, "famine" is so emotive that it affirms the affectual power of language and, along with iconic images of starving children, it can change the world. An example is Michael Buerk's BBC/NBC television report from Korem on the Ethiopian famine in 1984. An estimated 470 million people around the world watched horrified as the voice-over described the scene: 'Dawn, and as the sun breaks through the piercing chill of night on the plain outside Korem it lights up a biblical famine, now, in the 20th Century. This place, say workers here, is the closest thing to hell on earth. Thousands of wasted people are coming here for help. Many find only death" (Michael Buerk, 1984).

And yet famine's sensational headline potential can get in the way of thinking about the more general issues of malnutrition and food insecurity. Recent research on famine sees it as the extension of structural, long-term vulnerabilities in society rather than as the result of unpredictable "acts of God."

Definitions: The F-Word

Popular definitions of famine such as "an increase in death rates due to regional mass starvation" have proved inadequate for a number of reasons. First, increased mortality is not a universal feature of famines, and deaths anyway are more usually the result of disease than of starvation. Second, famines are certainly limited in space but at what scale? Are food shortages in a few villages enough to declare a famine or should we reserve the term for a region, province, or a whole country? Third, famines vary in their causality and structure, so should an element of explanation be added to that of description, for instance "drought famine," or should the terminology encompass "complex emergencies," which may have several elements, including war? Fourth, famines are time limited. Most commentators seem to agree that they last only for a matter of months, or perhaps a year or two, whereas the chronic global problem of undernourishment is a long-term one affecting over 800 million people, many of whom have accompanying deficiency diseases and impaired immune systems. So, is famine qualitatively different from hunger and not just the opposite of food security? Fifth, famines sometimes happen when there is food available but it is expensive or inaccessible to those in need. Finally, famine is often a symptom of broader issues of poverty and is therefore embedded in livelihood systems generally. A better definition might be "a widespread, acute crisis of livelihoods".

However, such academic cavils and caveats need to be presented carefully if they are not to seem churlish. Those of us debating definitions need to remember that the politicians who control the purse strings of food aid are most clearly moved by the label famine, coupled with high media visibility. This leads to the argument sometimes articulated that famines should only be declared for large-scale, acute events because to do so more frequently would "debase the coinage."

Definitions remain difficult and controversial. Recent food emergencies, concentrated mainly in sub-Saharan Africa (SSA), have shown that consensus is difficult to achieve even among nongovernmental organizations (NGOs), let alone between governments and international aid agencies such as the World Food Program (WFP). This is partly because these organizations have different, and sometimes contradictory, interests, but there are also technical issues of measurement that need to be addressed.

International Encyclopedia of Human Geography, Second Edition, 2020, 15–20

Measurement: Intensity, Magnitude, and Early Warning

The social dislocation accompanying famines, especially when they are associated with war or disasters such as floods, often means that the measurement of consequences is difficult. The spatial characteristics of famine, such as extent and localized concentration, are complex and usually dynamic, for instance when migration follows livelihood failure. A crisis may move from hunger to famine through a series of stages, and if the early signs can be recognized, then there is a chance that excess mortality can be averted later on. In the early stages of a famine, people's primary goal is to avoid the loss of land, livestock, and equipment. The most common coping strategy at this point is self-imposed food rationing. Second, there is dietary change, such as the consumption of wild foods, immature crops, and even seeds. Third, families may send away some of their members, for instance children to be fed by neighbors or relatives who still have food. Fourth, taking loans or selling assets may become necessary, which may not be reversible at a later stage, followed possibly by begging or migration to locations where external support is available (food aid). The unfolding of these coping strategies is context specific, so their use as general famine descriptors and predictors is problematic. A recent development is CARE/WFP's Coping Strategies Index, which is being used for both monitoring and intervention purposes.

It has been suggested that measurement should focus on the intensity (**Table 1**) and magnitude (**Table 2**) of food insecurity, providing an instrumental and consensus means of famine identification and then a basis for intervention. Such an approach is subject to all of the problems that afflict the measurement of socioeconomic phenomena in space, the most obvious being the geographical scale of analysis. In 2011 the United Nations adopted the Integrated Food Security Phase Classification of food insecurity and since then famines have been officially declared in Somalia (2011), and South Sudan (2017). In 2017 there were several other food emergencies—in Yemen, North East Nigeria and South Sudan—affecting a total of 20 million people but these were not upgraded to famine because not all of the criteria were met.

Famine early warning systems (FEWSs) are an aspect of measurement. The Global Information and Early Warning System of the Food and Agriculture Organization (FAO) was established in 1975, and the interagency Food Insecurity and Vulnerability Information and Mapping Systems in 1996. The United States Agency for International Development (USAID)-sponsored FEWS NET started in 1985. In addition to global FEWS, many countries have their own systems, as do the large NGOs. These provide regularly updated

Table 1 Selected indicators for classifying the intensity of acute food insecurity.

		Crisis	*Emergency*	*Famine*
Area outcomes				
Nutritional status	Acute malnutrition	10–15%, or > usual and increasing	15–30%, or > usual and increasing	>30%
	Body mass index: <18.5 prevalence	20–40%	>40%	far >40%
Mortality	Crude death rate	0.5–1/10,000/day	1–2/10,000/day	>2/10,000/day
	Under 5 death rate	1–2/10,000/day	2–4/10,000/day	>4/10,000/day
Household outcomes				
Food consumption	Quantity	food gap; below 2100 kcal pp/day or 2,100 kcal pp/day via asset stripping	large food gap; much below 2,100 kcal pp/day	extreme food gap
	Household dietary diversity score	severe recent deterioration (loss of 2 food groups from typical based on 12 food groups)	<4 out of 12 food groups	1–2 out of 12 food groups
	Household economy approach	Substantial "livelihood protection deficit" or small "Survival deficit" of <20%	"Survival deficit" >20% but <50% with reversible coping considered	"Survival deficit" >50% with reversible coping considered
Livelihood change	Livelihood	Accelerated depletion/erosion of strategies and assets that will lead to high food consumption gaps	Extreme depletion/liquidation of strategies and assets that will lead to very high food consumption gaps	Near complete collapse of strategies and assets
	Coping	Crisis strategies	Distress strategies	Effectively no ability to cope
Contributing factors	Food availability, access, utilization, and stability	Highly inadequate to meet food consumption requirements	Very highly inadequate to meet food consumption requirements	Extremely inadequate to meet food consumption requirements
	Safe water (liters per person per day)	7.5–15	4–7.5	<4
	Hazards and vulnerability	Effects of hazards and vulnerability result in loss of assets and/or significant food consumption deficits	Effects of hazards and vulnerability result in large loss of livelihood assets and/or food consumption deficits	Effects of hazards and vulnerability result in near complete collapse of livelihood assets and/or near complete food consumption deficits

Adapted from IPC Global Partners (2012). Integrated Food Security Phase Classification Technical Manual Version 2.0. Rome: FAO.

Table 2 The magnitude scale.

Category	*Phrase designation*	*Mortality range*
A	Minor famine	0–999
B	Moderate famine	1000–9999
C	Major famine	10,000–99,999
D	Great famine	100,000–999,999
E	Catastrophic famine	≥1,000,000

From Howe, P. and Devereux, S. (2004). Famine intensity and magnitude scales: A proposal for an instrumental definition of famine. Disasters 28, 353–372.

lists of regions said to require assistance, based upon various methods of declaring alerts. Geographical information systems cartographies of famine and food insecurity have become central to these methodologies, along with satellite remote sensing which is used to show rainfall and also to delineate areas of drought anomaly on "greenness maps" of vegetation.

Most FEWS products have hitherto been based on a belief that food availability decline (FAD) causes famines and the application of the methodology has been top-down. However the last decade has seen a proliferation of survey tools and technical means of analysis to judge the current state of food insecurity by household and by region, with outputs that comment on livelihood profiles and resilience. Examples include the household dietary diversity score, the household hunger scale, and the coping strategies index. Spatial analysis has also been enthusiastically embraced by a range of institutions, and maps are regularly used in food emergencies. FEWS NET now regularly publishes national food insecurity maps based upon the classification of the Integrated Phase Classification Version 2.0 (**Table 1**) and these are now among the best known means of visualizing food emergencies. They also give clues to those situations that might develop into famines.

The scientific prediction and identification of famine has, of course, to be backed up with the political will to act upon the warning, but this has not always happened, bringing the technocratic, cartographic paradigm of famine relief into disrepute. The WFP rarely receives all of the funding it requires for its flash appeals (80% is the average) because politicians need incentives to act.

A final aspect of measurement, retrospective demography, comes if mortality cannot be estimated in real time. Apart from the obvious increase in deaths, there is usually also an immediate reduction in fertility due to starvation-induced amenorrhea (menstrual failure). Both are clearly visible in the population pyramid of China, which suffered a horrific famine between 1958 and 1962. Postfamine populations also tend to have a higher proportion of girls and women than normal, for complex reasons that are probably to do with bodily resistance to stress. There are also more in the age groups 10–45 because of the adverse impact upon vulnerable younger and older people.

Famine: A Conceptual Genealogy

The late-18th-Century argument of Thomas Malthus was that populations (he meant working people) were at risk of famine because they expand faster than their means of sustenance. Although disproved in the 19th Century by increased crop yields and the establishment of a worldwide trade in foodstuffs, this idea was recycled in the late 20th Century, when it became a negative commentary on the ability of postcolonial states in the Third World to meet the basic needs of their rapidly growing populations. There are subsidiary, ongoing debates that global resources are somehow insufficient to accommodate further economic and demographic expansion, and that the ever-growing human imprint will irrevocably damage the environment.

Unfortunately for the many scholars with genuine concerns about sustainability, or who wish to empower women with regard to choices about family size, the excesses of the neo-Malthusians have undermined the "too many people" strand of thinking. Their predictions of dire consequences have often been exaggerated and their ethics questionable. Examples include the frankly reprehensible "Lifeboat ethics: the case against helping the poor" (1974) of Hardin, and the triage advocated in *Famine (1975)! America's decision: who will survive?* (1967) by the Paddock brothers. Even the science assumed by Malthus and his followers, that famines represent a "check" on population growth, is disproved by demographers. The evidence overwhelmingly demonstrates that fertility rebounds after famines and that numbers eventually recover.

In the 19th Century the discussion of famine was influenced by catastrophes in Ireland and India. In the former, the fungal disease *Phytophthera infestans* (potato blight) ruined the crops of 1845, 1846, and 1848, causing an excess mortality estimated at 1 million. The FAD for individual households (at the same time that food was being exported from Ireland to Britain), coupled with widespread evictions, caused destitution that the state only half-heartedly dealt with through public works. The consequences, such as a diaspora of 2 million Irish emigrants, are well known but the recent cluster of publications inspired by the 150th anniversary of the "potato famine" has added value through a number of powerful "famine imaginaries" and "famine memories".

The Indian famines were in the Delhi region, 1860–61; Cuttack, 1865–66; West Bengal, 1873–74; and southern India, 1877; and various experiments with relief eventually culminated in the systematic response of the Famine Codes. These were first formulated in 1883 and went through various guises in the different provinces. In essence, they were a precursor of the modern FEWS, using a variety of indicators of food insecurity (crop failure and market prices) as triggers for preplanned responses, such as food for work,

food distribution through handouts, soup kitchens, or relief from taxes. Understandable questioning of the motivations of such colonial surveillant biopolitics should not blind us to the conceptual significance of this development.

Ironically, although in the modern age the capacity to deal with famine has been maximized through enhanced production, better transport, and the initiation of monitoring, nevertheless the 20th Century saw the greatest number of famine deaths in history. Famine-related mortality (not all from starvation) has been variously estimated, but a total of 70 million seems to be very likely (Table 3).

Recent work on famines in geography and cognate disciplines can be divided into four categories. First, a dominant theme has been that of "natural" hazards: famines associated with the destruction of crops or disruption of infrastructure that comes with floods, droughts, or plagues of locusts. The word natural was eventually questioned as we learned more about human impact, for instance of overgrazing upon desertification or deforestation upon floods. In the new millennium, hazard analysis has been renewed in popularity due to the need to understand and mitigate the extreme events predicted to come with unfolding climate change.

Second, we can identify a humanitarian turn in attitudes to famine. The formation of Oxfam in 1942 and other international NGOs after the war was paralleled by an increasing commitment by Western governments to food aid, and the formation of the WFP by the United Nations (UN) in 1961. It is possible to be cynical about the strategic aims of food aid donors and to argue that they should pay more attention to protecting livelihoods, but the need for short-term emergency interventions remains.

The humanitarian theme has recently achieved greater intellectual rigor as the result of a debate on the "right to food." This is already an inalienable human right under international law, recognized in the Universal Declaration on Human Rights and the International Covenant on Economic, Social, and Cultural Rights, but its practical application is still at an early stage of development. In 2004, the FAO Council adopted the Right to Food Guidelines but these are voluntary.

Table 3 20th-Century famines: excess mortality in thousands.

Years	*Location*	*Deaths*	*Causes*
1899–1901	NW India	1000	Drought
1903–06	Hausaland, Nigeria	5	Drought
1906–07	S Tanzania	37.5	Conflict
1913–14	Sahel, W Africa	125	Drought
1917–19	C Tanzania	30	Conflict and drought
1920–21	Gansu and Shaanxi, China	500	Drought
1921–22	USSR	9000	Drought and conflict
1927	NW China	3000–6000	Natural disasters
1929	Hunan, China	2000	Drought and conflict
1932–34	Ukraine, USSR	7000–8000	Government policy
1943	Henan, China	5000	Conflict
1943	Bengal, India	2100–3000	Conflict
1943–44	Rwanda	300	Conflict and drought
1944	Netherlands	10	Conflict
1946–47	USSR	2000	Drought and government policy
1957–58	Tigray, Ethiopia	100–397	Drought and locusts
1958–62	China	30,000–33 000	Government policy
1966	Wollo, Ethiopia	45–60	Drought
1968–70	Biafra, Nigeria	1000	Conflict
1969–74	Sahel, W Africa	101	Drought
1972–73	Maharashtra, India	130	Drought
1972–75	Wollo and Tigray, Ethiopia	200–500	Drought
1974–75	Somalia	20	Drought and government policy
1974	Bangladesh	1500	Flood and market failure
1979	Cambodia	1500–2000	Conflict
1980–81	Uganda	30	Conflict and drought
1982–85	Mozambique	100	Conflict and drought
1983–85	Ethiopia	1000	Conflict and drought
1984–85	Darfur and Kardofan, Sudan	250	Drought
1988	S Sudan	250	Conflict
1990–2003	Iraq	200–1000	Sanctions
1991–93	Somalia	300–500	Conflict and drought
1995–99	North Korea	2800–3500	Flood and government policy
1998	Bar el Ghazal, Sudan	70	Conflict and drought
1999–2000	Ethiopia	20–98	Drought and conflict

Devereux, S. (2000). Famine in the twentieth century, IDS working paper 105. Brighton: University of Sussex.

Third, political economy interpretations of famine have tended to look at the dysfunctional role of market mechanisms (taxes, hoarding speculation, excess profits, and market failure) or at the role of class, privilege, and repression in the global South. Increasingly, these factors have been tied into the processes of globalization, such as the terms of international trade or the geopolitical ambitions of the great powers.

Fourth, the FAD argument, that hitherto had seemed to be the commonsense explanation of famine, was challenged in 1981 by Amartya Sen. He observed that famines are often documented in places where food is available. His examples were the Bengal famine of 1943; Ethiopia, 1972–74; the Sahel, 1973; and Bangladesh, 1974. Sen's insight was that people's (individuals, households) access to food, their "exchange entitlement," was what mattered and that this could be undermined by a failure of subsistence, a lack of bargaining power in a market, or the erosion of traditional community support mechanisms. Sen's work was influential and there followed a surge in microlevel empirical work that put flesh on the bones of his framework of analysis. This has shown that contingent reality is even more complex than he had imagined. Plausible though his case study analyses are, the evidence suggests that they work because they fit a particular type of famine in a particular socioeconomic context. In SSA, where migration to large feeding centers is a common feature of food emergencies, mortality tends to be less from starvation than hygiene-related infections in the camps such as diarrhea or contagious diseases like cholera. Here the poor and the better-off suffer together. Sen is most relevant to peasant societies with private property and some engagement with market-based exchange, but less predictive for precapitalist societies dominated by common property resources or for famine under socialism. He is at his weakest when the bedrock of his theory, legal-based entitlements, is flouted, as in times of civil conflict and war.

Sen's later work has argued that the presence of liberal democracy in a country is a powerful antifamine tool. The argument runs that effective political opposition and a critical media will hold governments and their agencies to account and that indifference to starvation, inefficiency in relief delivery, and the deliberate creation of famine conditions are, as a result, less likely. But does the evidence fit? The great famine in Ireland happened under the control of UK parliamentary democracy. India is lauded as the world's largest democracy and a miracle of multiculturalism, yet her accountable politicians have not systematically addressed their problem of malnutrition, with the result that 24% of the world's hungry live in that one country. Also, 48% of the nonpregnant women in India suffer with iron-deficiency anemia and 60% of preschool children have blood vitamin A deficiency. This is a wretched failure for the liberal developmental state. However, it is less the presence of a constitutional democracy that matters than the effective operation of institutions, coupled with the politicization of famine in a manner that commits politicians to an "antifamine political contract,"

New Famines

Jenny Edkins has suggested that famine is "produced" by modernity. It is not surprising that in the latest phase, globalization, we can see some new variants. The one most often discussed is that, despite some benefits from globalization, ranging from an expanded trade in foodstuffs and the creation of buffer stocks against times of famine, these have often been nullified by the presence of insurgencies and civil wars in many African countries. The typical modern African famine involves a military/political dimension that may have links to international geopolitics.

Two iconic famines that have changed our way of thinking about famine are Sudan (1984–85) and Somalia (2011). Alex de Waal's book about Darfur was especially influential. His conclusions were that the key variables were not poverty or entitlements but rather water and sanitation and that mortality was at least as much from disease as due to undernutrition. He saw famine as more a social than an economic process. Somalia suffered a famine in 1991–92 but it was the one in 2011 that inspired a number of publications because it was deemed to have been preventable. These and other "new" famines have all had a political element, either the deliberate withholding of food as a weapon of war or a calculated slow response by the international donor community.

Famine Futures

The first of the UN Millennium Goals was to halve hunger between 1990 and 2015. In the developing regions this was almost achieved; the proportion of undernourished people dropping from 23.3% to 12.9%. However, complacency would be unwise given that the total number of hungry people in the world increased in the year 2015–16 from 777 to 815 million, and there are still 155 million stunted and 52 million wasted children.

One possible negative scenario for the future is that climate change will challenge food production in densely populated countries such as India and China. Perturbations in the Asian monsoon are said to be possible, along with the spread of aridity in Africa and the Mediterranean. This may exacerbate chronic hunger by 10–20% by 2050 irrespective of famine.

Given the world community's increasing commitment (in principle) to food as a human right, what is needed now is an ethical and legal geography of the extent to which this right is being flouted, directly and indirectly, by various stakeholders. There is a need for accountability for the famine crimes that are being committed everyday against the rights of the vulnerable and the powerless.

Some activists have suggested that modern famines are always political to some extent and that it is therefore possible to argue legally that there are accountable parties who are liable, either for negligence or in the worst cases for genocide, requiring prosecution in the International Criminal Court. This has dramatically shifted the center of gravity of famine studies from "what is the cause of famines?" to "who benefits from famines?' One possible crime might be famine denial. There was no word, for instance, from

China during the Great Leap Forward (1958–61) to indicate that Mao's radical restructuring of the economy was so disruptive that it led to upward of 30 million deaths, one of the greatest famines in human history. In Sudan, on a much smaller scale, the government similarly failed to acknowledge a drought-related famine in 1984–85, a tragic mistake that cost a quarter of million people their lives. Provisions against famine crimes are already present in international law but they need reinforcing and codifying.

See Also: Plant Geographies; Vulnerability.

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