The North Korean famine

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During the 1990s, North Korea experienced one of the worst famines of the twentieth century. The disaster represented the culmination of decades of economic mismanagement and was abetted by the country’s authoritarian political system which allowed the government to act in a callous and unaccountable fashion. Indeed the actions of the North Korean authorities before, during, and after the famine, were cited by the United Nations Commission of Inquiry on North Korean Human Rights investigation as egregious human rights violations constituting crimes against humanity (UN 2014).

Although the worst of the famine has passed, food shortages and malnutrition remain a chronic problem for some segments of the population. Apart from the enormous human costs measured in deaths, splintered families, and permanently blighted lives, the famine accelerated the breakdown of the country’s centrally planned economy.

The failure of the state to fulfil its obligations under the existing socialist compact necessitated entrepreneurial coping responses, often technically illegal, by small-scale social organizations—household, enterprises, local party organs, military units—to secure food. The associated transactions, which began as barter, eventually were monetized and spread to a wider range of goods and services, contributing to a grassroots marketization of the economy. North Korea’s economic transition over the past two decades can best be understood not as a top-down attempt by the governing authorities to marketize or improve efficiency, but rather as bottom-up coping in the face of state failure.

The world community responded to this tragedy with considerable generosity, committing more than two billion dollars in food aid. The United States alone contributed more than $600 million, equivalent to two million metric tons of grain, and at times North Korea was the largest recipient of US aid in Asia, despite the manifest political differences between the countries. Yet the famine also tested public and private sector relief agencies, which were frustrated by the North Korean government’s refusal to accept international norms and which still struggle to implement high-quality humanitarian operations to ameliorate North Korea’s chronic food insecurity. Today the United Nations World Food Program effort in North Korea is woefully underfunded, reflecting donor fatigue.

These changes that the famine provoked—greater openness to the outside world, less direct state control over the economy, and a sustained presence by more savvy humanitarian
organizations means that a trauma like the famine of the 1990s is less likely to occur today. The North Korean populace is more genuinely self-reliant and less prone to passively follow the government’s lead than it was twenty years ago; the spread of information continues, the economy is more flexible, and the outside world is more aware.

In this essay, I assess the North Korean famine, examining its context, its basic characteristics, the competing estimates of famine deaths, the international community’s response to this calamity, and conclude with some observations about how the outside world should address the ongoing issue of food insecurity in North Korea.

**Historical context**

Under Soviet tutelage, North Korea established a thoroughly orthodox centrally planned economy, notable only for the rigour with which markets were suppressed. Under the ideology of *juche* (or chuch’e), normally translated as “self-reliance,” North Korea never joined the Council of Mutual Economic Assistance, the Soviet-led grouping of planned socialist economies, and the authorities went so far as to time their economic plans to frustrate linkages with other socialist states. Under relatively autarkic conditions, agriculture was collectivized, quantitative planning in production was introduced, state marketing and distribution of grain was established, and private production and trade were prohibited. North Korea made a fateful decision to pursue the understandable goal of national food security through a misguided strategy of national self-sufficiency. Natural conditions, including a high ratio of population to arable land, short growing seasons and limited opportunities for double cropping, were inauspicious. To compensate, a highly industrial input-intensive system of agricultural production was developed to maximize yields, involving, for example, the heavy application of chemical fertilizers and the extensive use of electrically driven irrigation—both of which were dependent on imported oil (Noland 2000).

The crisis had its origins in a multifaceted set of developments in the late-1980s, though the precise causal relationships are unclear. In 1987, frustrated by North Korean unwillingness to repay accumulated debts, the Soviets withdrew support. (Despite its *juche*-inspired declarations of self-reliance, North Korea has been dependent on outside assistance throughout its entire history, with first the Soviet Union, later China, then South Korea, and most recently China again in the role of chief benefactor.) That same year, the North Koreans initiated policy changes in the agricultural sector, including the expansion of grain-sown areas, transformation of crop composition in favour of high-yield items, maximization of industrial inputs subject to availability, and the intensification of double-cropping and dense planting. Continuous cropping led to soil depletion, and the overuse of chemical fertilizers contributed to acidification of the soil and eventually a reduction in yields.

Testimonies by refugees and diplomats, the emergence of a “let’s eat two meals a day campaign,” as well as implicit evidence derived from the stature of defecting North Korean troops, and the delayed onset of menarche uncovered in a survey of North Korean refugees in South Korea, all indicate the emergence of significant food insecurity by the late 1980s, at least among some socioeconomic groups (Haggard and Noland 2007; Shin and Lee 2013).

The economy was hit by massive trade shocks beginning in 1990, as the Eastern Bloc disintegrated. Trade with the Soviet Union had accounted for more than half of North Korean two-way trade, including most of its fuel imports. For reasons that remain a mystery, the North Korean leadership appears not to have grasped the epochal nature of the changes occurring around them. Unlike Vietnam, which suffered a similar pattern of shocks, North Korea proved incapable of reorienting its commercial relations, and its industrial economy imploded. Deprived
of industrial inputs—most importantly imported oil, used not only to power irrigation systems and agricultural machinery, but as the feedstock for the production of chemical fertilizers—agricultural yields and output fell dramatically.

As yields declined, hillsides were denuded to bring more and more marginal land into production. This contributed to soil erosion and the silting of rivers, canals, and most importantly, reservoirs. The result was the exacerbation of the usual pattern of flooding associated with monsoon-type rain during the summer, as the land simply could not carry as much water as it once had.

China initially stepped into the breach, offsetting some of the fall in trade with the Soviet Union and emerging as North Korea’s primary supplier of imported food, most of it reportedly on concessional terms. But in 1994 and 1995, responding to growing internal discontent over rising grain prices caused by tight global market conditions, China reduced its exports to North Korea in an effort to dampen internal price increases. If there was a single proximate trigger to the North Korean famine, this was it.¹

Famine response

At this juncture the government of North Korea could have relieved emerging shortages by relaxing the supply constraint, either by increasing exports to finance imports or appealing for aid. (Borrowing was not an option: sovereign defaults in the 1970s—the only communist country to do so—left it effectively excluded from international capital markets.) Instead, it chose to further suppress consumption, cutting rations delivered by the public distribution system (PDS), the quantity rationing system from which urban residents, roughly two-thirds of the country, obtained their food.

It was not until the spring of 1995, with a famine underway, that North Korea appealed for external assistance, initially approaching Japan, its former colonial master, whose contributions could be portrayed as a kind of reparation, then later requesting assistance from rival South Korea, and ultimately, the United Nations system. Floods that summer (and the following summer as well) played an important political role insofar as they facilitated the depiction of the famine as the product of natural disasters. The North Korean government even went so far as to rename the unit charged with managing the aid relationships as the Flood Damage Rehabilitation Committee. The onset of the famine preceded the floods; the floods did not cause the famine, and indeed appear to have been a relatively minor contributing factor (Noland, Robinson and Wang 2001).

Aid was forthcoming, but the government impeded the normal assessment, monitoring, and evaluation functions of the relief organizations—for example, prohibiting the use of Korean speakers and banning access and relief to certain geographic areas, including ones suspected to be the worst affected. Critically, with assistance ramping up, the government cut commercial grain imports, in essence using humanitarian aid as a form of balance of payments support, and freeing up resources for other expenditure priorities, most notably the importation of advanced weaponry (Figure 17.1). While it is true that aid often crowds out commercial grain imports in famines, it is important to underscore that in the North Korean context, the outcomes depicted in Figure 1 are the product of policy, not decentralized decision-makers responding to price signals.

Indeed, even after the economy began recovering in 1999 and overall imports began rising, commercial food imports remained minimal (Figure 17.2). If North Korea had simply maintained its imports, normal human demand could have been met throughout this period (Figure 17.3). But from 1995 on, the public distribution system did not deliver the minimum needs, even on paper, averaging around 300 grams daily (Figure 17.4). Even at the famine’s peak, the resources...
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Figure 17.1 Food imports and aid, 1990-2010

Figure 17.2 Total imports and commercial food imports, 1993-2010
Figure 17.3 Scenarios of food supply and minimum human need, 1990-2004

Figure 17.4 Estimates of daily per capita PDS rations
needed to close the gap were relatively modest, only on the order of $100–$200 million dollars, or about five to twenty percent of revenues from exported goods and services or one to two percent of contemporaneous national income (Noland 2013).²

That gap could have been closed with modest expenditure switching. Instead, the government of North Korea did not act expeditiously: it waited years between the emergence of a food crisis and making appeals for aid, and once the famine was underway, it did not use the maximum of its available resources to ensure access to adequate food.

**Famine deaths controversy**

The result was a famine with pronounced geographic, socioeconomic, and demographic components (Haggard and Noland 2007: Chapter 7). The worst affected being the young and old, those in the four provinces of the northeast, and those deemed politically unreliable. Given the secrecy of the North Korean regime, it is unsurprising that the timing and impact of the resulting famine are still not well understood.

The onset of the famine is conventionally dated 1994, though there is some argument that mortality rates were already significantly elevated in 1993. Either date would mean that the famine was already underway when the country experienced floods in 1995. This chronology is critical insofar as it undermines the politically convenient depiction of the famine as a product of natural disasters. The famine is generally acknowledged to have ended in 1998.

There have been essentially three waves of estimates of famine deaths. Contemporaneous estimates were sometimes quite high—3.5 million or more were provided by a variety of observers and NGOs, often with detailed knowledge of the situation on the ground, but lacking professional training in demography or related disciplines. One important exception was the testimony of Hwang Jang-yop (Hwang Chang-yŏp), former member of the Standing Committee of the Supreme People’s Assembly, who defected to the South in 1997. Hwang testified repeatedly and in public³ up until his death in 2010 on the basis of internal Party discussions and documents that “According to the Organization Guidance Bureau official, more than 500 thousand people, including fifty thousand party members, had starved to death in 1995. And as of mid-November 1996, almost 1 million people had already starved to death. . . That more than 1.5 million people died of hunger from 1995 to 1996 is an irrefutable fact. We do not have accurate data about the situation from 1997 to 1998, but since the food supply did not improved [sic] much, it can be deduced that at least a million people have met their deaths every year. According to reports that Chinese press company Xinhua claims it received from officials of the Agricultural Committee in North Korea, a total of 2.8 million people have starved to death at last count at the end of 1997. From this and the irrefutable fact that 1.5 million had died by the end of 1996, we can deduce that another 1.3 million people died in 1997 to add up to a total of 2.8 million deaths by starvation. We have consistently said that more than 1.5 million died between 1995 and 1996 and that 1 million more probably died every year from 1997 to 1998. We never resorted to exaggerating the situation” (Hwang 2002). Of course, there is no way of verifying Hwang’s claims and one can speculate on his motives. Nevertheless, it would be a mistake to dismiss his allegations out of hand.

The next generation of estimates was done by analysts with greater formal training and more rigorous methodologies. Prominent was work done by Courtland Robinson and colleagues, who analysed retrospective refugee testimony collected between September 1998 and June 2000 on deaths from selected villages in North Hamgyŏng (Hamgyŏng) province (Robinson et al. 1999; Robinson et al. 2001). They concluded that between 1995 and 1997, twelve percent of the province’s population, or 245,000 people, had died. Projected onto the whole country
(something that Robinson et al. were careful not to do), that baseline would yield an estimate of 2.64 million excess deaths. This simple extrapolation would be inappropriate for a variety of reasons, and as a consequence, two million excess deaths would seem to be an absolute ceiling, and the actual number was probably much lower (Haggard and Noland 2007).

Demographers Daniel Goodkind and Loraine West, working off the Robinson et al. surveys, produced estimates on the range of 605,000 to 1 million deaths (Goodkind and West 2001). In his dissertation, Lee Suk (2003), unaware of the Goodkind-West work and using a different methodology, came up with estimates also in the 600,000 to 1 million range. J. Stanton (2007) argued that this estimate may have been excessively conservative insofar as death rates may have been higher in South Hamgyong than North Hamgyong. (This argument is not implausible: according to the latest UNICEF nutritional survey, South Hamgyong generally scores worse than North Hamgyong—it appears that it is better to be closer to China than to Pyongyang [UNICEF 2013]).

“Up to a million deaths” seems to have remained the academic consensus until a series of contributions appeared in the last several years, a paper by Goodkind, West, and Johnson (2011), one produced by South Korean government demographers, another by Spoorenberg and Schwekendiek (2012), and a paper by Lee Suk (2011), all using variants on the same methodology. They take the controversial 1993 census as a starting point, posit a model of population growth, and then compare the projections from that exercise to data from the 2008 census. The shortfall in the actual population numbers from the projections is then allocated over the period 1993–2008, and from that process, one obtains estimates of excess deaths during the famine period. A key point that comes out most clearly in the paper by Spoorenberg and Schwekendiek, is that if one allocates few deaths to the famine period, then by implication, one is allocating more deaths to the post-famine period. On the basis of various assumptions, they generate estimates ranging from 237,000 to 420,000 excess deaths. But if these estimates are accepted, then they imply a greater human toll during the twelve years following the famine than during the famine itself! This result comes from some combination of the aftermath of the famine—the long-lived results of chronic malnutrition—and the fact that the economy failed to grow over this period, resulting in a stagnation of life expectancy. This particular result may not be persuasive, but the paper does provide a useful service in reminding us that while the famine may have ended in 1998, its effects continue to reverberate.

Lee (2011) is the paper that appears to be most informed by actual knowledge of North Korea. Somewhat like Spoorenberg and Schwekendiek, Lee treats the entire period as a “slow motion” famine occurring over the whole fifteen-year sample period, so that his estimates of excess deaths are not directly comparable to the earlier work (including his own) that examined to a more limited period in the 1990s.

Unlike the other papers, Lee takes the problematic nature of the North Korean data seriously, observing that problems of counting males (first identified by Eberstadt and Banister [1992] as the “missing male” problem associated with military service) creates anomalies in the apparent cohort-specific survival rates in the two censuses. Lee’s response is to focus on females, where this distortion is likely to be less severe. He calculates excess deaths in 1993–2008 among the female population who were over thirty years old in 1993, and finds that deaths were 196,307 higher than expected, or 3.8 percent. If one extrapolates this percentage to the entire population, one generates a baseline estimate of 815,000 excess deaths. Lee produces other variants on this calculation which produce estimates ranging from 506,000 to 1,125,000.

So where does this leave us? Well, much where we started. Excess deaths during the famine were probably on the order of 600,000 to 1 million people, or three to five percent of the pre-crisis population, making the North Korean famine one of the worst of the twentieth century.
Humanitarian dilemmas

In trying to ameliorate this disaster, the humanitarian community faced a fundamentally hostile environment (Haggard and Noland 2007). The North Korean government would not permit normal assessment and monitoring activities, so aid agencies were forced into adopting a second-best solution of targeting institutions such as orphanages, schools, and hospitals, where particularly vulnerable populations were thought to be present. But food was not delivered directly to these institutions—it went through the PDS system where it was comingled with other sources of supply intended for different recipients.

Initially the World Food Program (WFP) was not permitted to use Korean speakers or employ ethnic Koreans; it was not until 2004 that the government allowed WFP resident staff to take Korean lessons; today the use of Korean speakers remains restricted, though not entirely prohibited. Pre-notification, generally one week, was required for site visits; not until 2002 were two teams allowed to visit a single province at the same time. Pre-notification is still required, but the pre-notification period is now down to twenty-four hours. The WFP and other relief groups have consistently been denied access to markets where, for almost twenty years, most non-elite households have actually obtained their food.

In short, during the famine period and its immediate aftermath, the WFP was restricted to using fifty non-Korean speakers to monitor 40,000 end-user institutions of which the North Korean government never furnished a complete list. Such conditions were imposed despite the fact that at its peak, the aid program was targeting roughly one-third of the population.

Weak monitoring meant ample opportunity for diversion of aid away from its intended recipients, as well as enabling discrimination in the provision of aid. The extent of diversion depends in part on how rigorously diversion is defined, either as aid not reaching its intended recipients, or as aid not reaching its intended recipients on the gratis terms on which it was donated. Haggard and Noland (2007) use several methodologies to examine the first question and conclude that perhaps thirty percent of aid was diverted. If a more rigorous definition of diversion is applied—the intended recipients did not receive the aid without paying—then the figure would be vastly higher.

Concerns over the effectiveness of the aid operation were subsequently reinforced by results obtained from refugee surveys. Haggard and Noland (2011) report results from two surveys of refugees, one conducted in China and the other in South Korea. In both the China-based and South Korea-based surveys, an astonishing share of respondents, roughly half of those surveyed, revealed that they were unaware of the longstanding, large-scale program (Haggard and Noland 2011: Table 3.1). Moreover, among respondents who indicated knowledge of the effort, thirty-three percent of the South Korea survey respondents and only four percent of the China survey respondents believed that they had been recipients. Looking only at urban residents (those on the agricultural cooperatives would have been less likely to receive aid), only three percent in the China survey and fourteen percent of the later South Korea survey reported being recipients.

The refugees overwhelmingly believed that the aid went primarily to the military (Haggard and Noland 2011: Table 3.2). The question and possible responses were posed slightly differently in the two surveys, but the results are consistent. When asked who received food aid, and allowing multiple responses, eighty-nine percent of the refugees in China who were aware of the program believed that it went to the military and twenty-seven percent said that it went to government officials; less than three percent said it went to common citizens or others. When asked in the South Korea survey who the primary recipient of aid was—not allowing multiple responses—sixty-seven percent said the military, twenty-seven percent said high-level government or party officials.
officials, two percent said local government or party officials, and two percent said the general public.

Similar results were obtained in a subsequent survey of 500 refugees in South Korea conducted by the Network for North Korean Democracy and Human Rights. Seventy-eight percent of the respondents reported not receiving international food aid while in North Korea. However, the more survey reports something even more astonishing: “Of 106 respondents who did receive such aid, 29 said they returned whole or part of the aid,” apparently after international monitors had departed.5

When asked where the aid went, few of the respondents in any of these surveys thought that the common people had benefitted; large majorities thought that the aid went to the military or other connected groups. According to the Chosun Ilbo, “some 73.6 percent believed that food aid went to the military, followed by party leaders (69 percent), government agencies (48.8 percent) and the privileged (38.8 percent). Only 2 percent believed it went to vulnerable children. Multiple answers were allowed.”

The issue of diversion is a complex one: if aid is diverted, it does not disappear into the ether. Obviously, it would be best if the aid reached its targeted beneficiaries. Yet in the North Korean case, the diversion of aid had an oddly positive side-effect, encouraging the development of markets. During a famine, aid is extremely valuable, and there is an enormous incentive to sell it in the market—if such markets exist. In North Korea, however, markets were thoroughly suppressed under the communist system. Ironically, the inflow of aid acted as a lubricant, encouraging the development of markets, a desirable development in the long run.

The lack of monitoring and apparent lack of understanding of the North Korean system by the aid agencies may have also enabled the authorities to discriminate in the provision of aid. North Korea maintains a classification system called the sŏngbun system of fifty-two categories based on family background and perceived political loyalty (Collins 2012). There are three broad categories: the core, wavering, and hostile classes. The sŏngbun system strongly influences educational opportunities, job assignments, and location of residence. It appears to have also played a role in relief activities.

Between 1998 and 2000 a number of private NGOs (nongovernmental organization) terminated operations in North Korea due to the inability to operate effectively as a result of North Korean government interference (Noland 2000; Schloms 2003). In explaining their withdrawal Medicins Sans Frontieres (MSF) (1998), then the largest private relief operation in the DPRK, made specific allegations with regard to North Korean practices:

• That they were denied access to the so-called 9/27 camps that they had learned of via children’s medical records and discreet comments by local staff, and where they believed patients—particularly starving, orphaned children needing assistance were being held, and
• MSF specifically claimed that the North Korean government had denied access to sick and malnourished children and channelled relief supplies to the children of the politically well-connected.

Other NGOs made similar claims.

More broadly, aid supplies flow through the PDS system, which is used as a mechanism of social control. Clearly some of the worst-affected areas—mainly in the northeast of the country—were not prioritized in terms of PDS shipments, and these areas also happened to be locations where the share of people classified as wavering and hostile is believed to be particularly high due to a history of forced internal deportations.
And then, of course, there is the extensive penal system for which I know of no aid shipments ever being delivered.

Conclusion

The famine and its aftermath are inseparable from the nature of the political regime. Only a regime that systematically restricts all human, civil, and political rights, preventing the spread of information, debate over policy, and criticism of public officials—and hence is completely insulated from the demands of the populace—could have acted with such culpable slowness and maintained such disastrous policies in the face of a humanitarian catastrophe. Yet reoccurrence of a famine on the scale of the one that occurred during the 1990s is unlikely: North Korea’s economy is more flexible than it was two decades ago, and the North Korean public is unlikely to react to adverse development with the same degree of passivity that some exhibited in the 1990s.

Nevertheless, parts of the North Korean population remain chronically food insecure. The ultimate solution to North Korea’s food problems is to be found not in humanitarian aid or even in development assistance, but in economic reform and opening and the revitalization of the industrial economy that would allow North Korea to earn foreign exchange and finance food imports—just as its neighbours China, South Korea, and Japan do. That development, in turn, hinges on North Korea’s willingness to embrace economic reform, something that it has until now eschewed.

Until that occurs, the outside world has little ethical choice other than to engage. But that engagement can be done more effectively than it is now. One of the positive things done by the United States government has been to insist that a large share of its contribution should be routed through ports in the extreme northeast of the country where problems are the worst: even if the aid is stolen and sold in the markets, it will still be circulating in the region where malnutrition is most severe. Under such tenuous conditions, providing aid in the form of poor people’s food—such as barley or millet rather than rice, the preferred staple of the elite—is another way of trying to maintain the humanitarian effectiveness of the program. Similarly, providing aid in cooked form would make it less susceptible to hoarding and diversion. However, a policy of providing aid in the form of barley or millet rather than rice or corn would encounter resistance in both Washington and Seoul, where the local political economy of aid reflects the parochial interests of domestic political lobbies, encouraging the inefficient provision of inappropriate products (i.e. shipping American-grown grain on United States-flagged ships). In short, the problems are not located solely in Pyongyang.

The UN agencies should be encouraged to adopt a less supine posture with respect to the issues of discrimination in the provision of relief. To my knowledge, the UN specialized agencies have never even mentioned the songbun system in their reports, much less proactively addressed how their practices may interact with this system.

Donors should insist on improved monitoring and assessment. Specifically follow-up evaluations of targeted populations should be mandatory: if we cannot observe measurable improvements, then clearly there are problems with the implementation of the relief policy.

In short, we should provide assistance. But we should be clear-eyed about the terms of that engagement and seek to provide aid in ways consistent with our values and our obligations under international law.
**Glossary**

**Juche**: ideology of national self-reliance

**Public Distribution System (PDS)**: system of monthly quantity rationing through which urban residents traditionally obtained their consumer goods, including food.

**Excess deaths**: premature deaths, or ones that occur before the average life expectancy for a person of a particular demographic group.

**Songbun system**: socio-political classification system in which all citizens are placed into one of fifty-two categories based largely on family origin.

**Notes**

1. This would not be the last time that China would respond to rising internal discontent over food prices by embargoing grain exports. It did the same thing in 2009 (Haggard and Noland 2009).


**References**


