

LEARN ABOUT NUCLEAR WEAPONS

The history of North Korea

Korea was ruled by China until 1894 when it was conquered by Japan. The Japanese defeat in World War II was expected to lead to a united and independent Korea but, instead, ended in a division of the country along the 38th latitude. The Soviet Union established a state according to its model in the north, the Democratic People's Republic of Korea (North Korea), while the US supported development in the south of the Republic of Korea. The separation set the foundation for a protracted conflict between the two parts for more than 60 years. Peace and reconciliation still appear far away.

In June 1950, North Korea attacked South Korea. The North Korean leader, Kim Il Sung, expected the people of the south to join their northern "liberator" and rise in rebellion against their own leaders. The UN Security Council established a UN command under US leadership; 15 states participated, but the largest part of the military force was American. Under the lead of General Douglas MacArthur, South Korean territory was recaptured and the forces pushed north over the border to North Korea to overthrow the communist regime. The Chinese leaders regarded an American occupation of North Korea as a threat against China, and efficient Chinese troops countered the attack. The US troops retreated to South Korea with great losses. Finally, in 1953, a truce was established, with the 38th latitude being the border between North and South Korea.

During the war, US President Truman considered using nuclear weapons in North Korea and even against Chinese bases in Manchuria.¹ Leaders of allied states discouraged the president, partly because a war against China would severely reduce the US capacity to defend Europe from a possible Soviet attack.

The war left North Korea in ruins. Estimates of the number of deaths, either directly or indirectly as a consequence of the battles, vary between 250,000 to 2 million.

Politics and economy

During the first two decades after the war, the North Korean economy developed faster than that of South Korea, due to Soviet support, but later stagnated. Today the North Korean GDP, according to the CIA World Factbook², is only 3.3 percent of the

GDP of South Korea. The northern part of the peninsula has never had enough agricultural production to support its people, and is dependent on imports.

Some attempts have been made to create so-called free trade zones, where North Koreans work in factories owned and managed by Chinese or South Koreans. Casinos have also been established by North Koreans in the border regions. But economic development remains weak, even negative, and no long term changes towards a more market-oriented economy can be seen. A constant lack of machinery and spare parts plagues farmers. The lack of energy is a great problem. Existing hydroelectric power stations are unreliable and the high-voltage lines are badly tended. Even in the capital of Pyongyang, apartments are cold during winter, and the city is almost blacked out due to the lack of electricity.³

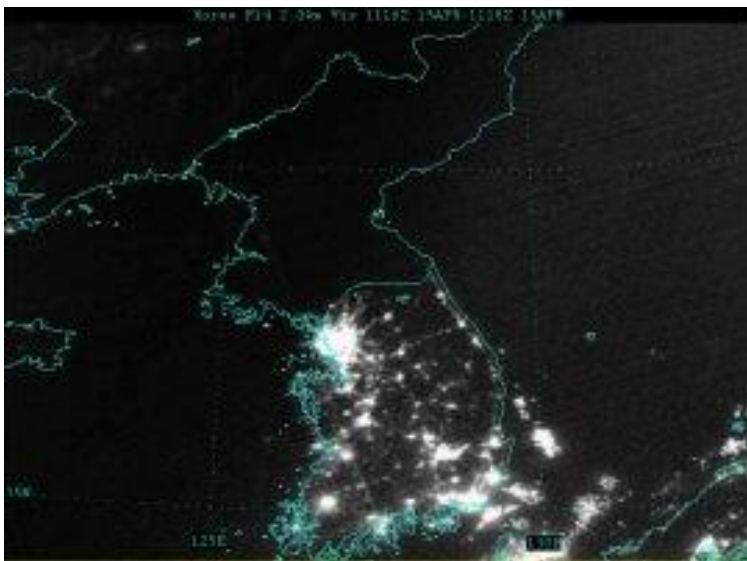


Photo: a satellite picture shows the absence of light during the night in North Korea in contrast to South Korea. The lack of electricity in North Korea is a great problem.

After the war, Kim Il Sung remained as the dictator of North Korea. He could now not only portray himself as the liberator from Japan, but also as the victor over the US. After his death, he has remained the virtual president of North Korea. The country is run by his son Kim Jong Il, according to the principles laid out by his father, termed *juche*.⁴

North Korea, these days, is a state without political friends and is isolated from the rest of the world more than any other country. Political oppression is everywhere. There seems to be no political opposition. Access to information is very limited – it is not possible, for example, to read foreign newspapers, watch foreign TV channels or travel outside the country. Modern scientific literature is largely missing. There is no internet, though a few persons can receive e-mail. The isolation reduces the possibilities for North Korea to develop nuclear weapons and missiles.

North Korea has the world's fifth largest military with more than 1.2 million soldiers and another million in the reserves. This is the world's largest force of soldiers as a proportion of the population. One fifth of all men between 17 and 54 are soldiers.⁵ Even if large amounts of the military equipment are aged, a possible quick invasion of South Korea is expected to reach quite far before South Korean and American troops could stop the attack. The South Korean capital of Seoul can be reached by North Korean artillery.

The investment in the military is premised on a threat against the country from the south – an idea supported by the North Korean propaganda machinery every time the US and South Korea hold military exercises. The American administration's statements on a desired regime change in North Korea increases the suspicions of the North Korean leadership. The presence of US troops close to the demilitarized zone along the border has at times led to increased tensions.

Military power may also be a way for the government to control its own people. It should be noted that the international community has only a vague idea about the leadership structure and perceptions about the rest of the world in North Korea. Both China and South Korea fear disintegration or a sudden upheaval in North Korea. Large masses of refugees would be a great strain on South Korea, where status quo is preferred to revolution.

Nuclear weapons development

After the end of the devastating Korean conflict in 1953, it appears the North Korean leadership began to explore the possibility of nuclear weapons development. Construction of a small 20 MWt uranium-based reactor (a megawatt – one million watts – is a measure of electrical output) started in 1964 in Yongbyon. North Korea has some natural uranium resources. The reactor was used from 1986-1994 and again from 2003-2007. Construction of two far larger reactors was begun, but was suspended in 1994 under an agreement between North Korea and the US and has not been resumed.

A reprocessing plant using the so-called Purex technique exists and has been used to extract plutonium. Different estimates show that North Korea has produced between 6 and 24 kg plutonium – which may be enough to produce a few nuclear devices. Building a plutonium bomb is technically difficult, while a uranium-based device is relatively easy to produce.

In 1991, all US nuclear weapons were withdrawn from South Korea. North and South Korea at that time signed a pact of non-aggression and a common declaration on a nuclear-weapons-free Korean Peninsula. North Korea was a member of the NPT and signed the safeguards agreements of the International Atomic Energy Agency (IAEA) in 1992 that allow for inspections of nuclear facilities.

IAEA inspectors encountered difficulties when they uncovered evidence that North Korea was preparing to produce nuclear weapons. The country threatened to withdraw from the NPT, and US President Bill Clinton began preparing for military action against North Korea. Former US President Jimmy Carter traveled to Pyongyang for negotiations. He managed to get Kim Il Sung to promise to suspend plutonium production. The so-called Agreed Framework was signed in 1994. According to the framework, North Korea would suspend plutonium production in exchange for two light water nuclear power reactors from the US – reactors that do not produce plutonium.⁶ When the two new reactors were ready, the older reactors would be disassembled and the plutonium rods handed over. 16 IAEA inspectors stayed in Yongbyon to monitor the implementation of the agreement. Furthermore, diplomatic relations between the US and North Korea would be strengthened and oil delivered to the impoverished republic.

The Agreed Framework led to the closure of the plutonium-producing reactor. Some US sources, however, claimed that North Korea had enriched weapons grade uranium.⁷ No convincing evidence was presented. The father of the Pakistani nuclear programme and the brain behind an international nuclear black market, A. Q. Khan, is said to have visited North Korea on several occasions. Most likely, he sold uranium enrichment centrifuges to North Korea. Still, the technological level of North Korea is so low it is unlikely that any large amounts of highly enriched uranium have been produced.

The suspicions against North Korea grew on the US side. President George W. Bush counted North Korea as one of the “axis of evil”. Oil deliveries were discontinued, the light water reactors were never built and diplomatic relations deteriorated. In 2003, North Korea announced its withdrawal from the NPT and IAEA inspectors were driven out. The reactor in Yongbyon recommenced operation in 2003, and in 2005 North Korea announced its production of nuclear weapons.

In 2006, the country detonated a nuclear device with a yield probably no larger than 1 kiloton according to CTBTO measurements. North Korea probably intended a larger yield. The low yield indicates the test was unsuccessful.⁸ No further nuclear tests have been detected, and it is uncertain whether North Korea has any more nuclear devices.

The Six Party talks

Six Party Talks among North Korea, the US, South Korea, China, Japan, and Russia have continued. As of April 2008, production of plutonium had been suspended, but existing assets of plutonium and possible nuclear weapons have not been satisfactorily reported on. Some oil has been delivered.

More far-reaching agreements to create peace in Korea have not been discussed. North Korea claims American nuclear weapons are still in South Korea – a statement

heard several times by the IPPNW delegation to Pyongyang in 2005. North Korea demands that the defense agreements giving the US the right to intervene if it considers South Korea to be threatened by the DPRK be declared null and void. Furthermore, a non-aggression agreement with the US and, finally, a peace accord are also desired, but not yet discussed.

North Korea is considered to have gained remarkably from its nuclear blackmail tactics. Thus, the country is unlikely to give up its nuclear option willingly or hastily. There is, however, no reason for the US and South Korea to worry about a nuclear North Korea in the short term. It would take many years for North Korea to produce a significant number of nuclear weapons. The conventional forces of North Korea pose a larger threat. The country has an active programme for the development of short-range missiles that it sells to Iran and some other states. The Nodong missile has a range long enough to reach Okinawa and Alaska. Missiles with a longer range have been tested with unreliable results.

1 Cumings, Bruce (1997). *Korea's Place in the Sun: A History*. WW Norton & Company, pp 289-92.

2 CIA World Factbook. <https://www.cia.gov/library/publications/the-world-factbook/geos/kn.html>

3 Lintner, Bertil: *Great Leader, Dear Leader: Demystifying North Korea under the Kim clan*. 2004. Silkwork books, Bangkok

4 Lee, Grace: "The political philosophy of Juche". *Stanford Journal of East Asian Affairs*, vol 3:1, 2003.

5 Army personnel (per capita) by country. *NationMaster* (2008).

6 <http://www.abb.com/cawp/seitp202/C1256C290031524B4125686C00433604.asp>

7 Hersh Seymour: "The Cold Test: What the administration knew about Pakistan and the North Korean Nuclear Program". *The New Yorker* Jan 27, 2002. http://www.newyorker.com/fact/content/?030127fa_fact

8 v.Hippel,Frans,Garwin,R..A.: "A technical analysis of North Korea's Oct. 89 test". *Arms Control Today* Nov. 2006. http://www.armscontrol.org/act/2006_11/NKTestAnalysis.asp