

North Korea: U.S. Relations, Nuclear Diplomacy, and Internal Situation

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Summary

North Korea has presented one of the most vexing and persistent problems in U.S. foreign policy in the post-Cold War period. The United States has never had formal diplomatic relations with the Democratic People's Republic of Korea (the official name for North Korea), although since 2000 contact at a lower level has ebbed and flowed. Negotiations over North Korea's nuclear weapons program have occupied the past three U.S. administrations, even as some analysts anticipated a collapse of the isolated authoritarian regime. North Korea has been the recipient of over \$1 billion in U.S. aid (though none since 2009) and the target of dozens of U.S. sanctions.

Negotiations over North Korea's nuclear weapons program began in the early 1990s under the Clinton Administration. As U.S. policy toward Pyongyang evolved through the 2000s, the negotiations moved from a bilateral format to the multilateral Six-Party Talks (made up of China, Japan, Russia, North Korea, South Korea, and the United States). Although the talks reached some key agreements that laid out deals for aid and recognition to North Korea in exchange for denuclearization, major problems with implementation persisted. The talks have been suspended throughout the Obama Administration. As diplomacy remains stalled, North Korea continues to develop its nuclear and missile programs in the absence of any agreement it considers binding. Security analysts are concerned about this growing capability, as well as the potential for proliferation to other actors.

After North Korean leader Kim Jong-il's death in December 2011, his youngest son, Kim Jong-un, has consolidated authority as supreme leader. Kim has ruled brutally, carrying out large-scale purges of senior officials. He has declared a two-track policy (the *byungjin* line) that pursues economic development and nuclear weapons development. Market-oriented reforms announced in 2014 appear to be producing modest economic growth for some citizens, but the reforms are small in scale and reversible. North Korea continues to insist that it be recognized as a nuclear state.

In 2012, the U.S.- North Korean "Leap Day" agreement fell apart after Pyongyang launched a long-range ballistic missile in April, followed by a more successful launch and a third nuclear test in February 2013. During this period, North Korea's relations with China apparently cooled and have remained tense. Pyongyang has made fleeting, mostly unsuccessful attempts to reach out to other countries in the region. Simultaneously, international attention to North Korea's human rights violations intensified at the United Nations and in U.S. statements. North Korea is already under multiple international sanctions required by the United Nations Security Council in response to its repeated missile and nuclear tests.

North Korea's intransigence and the stalled negotiations present critical questions for the Obama Administration. Do the nuclear tests and successful long-range missile launch fundamentally change the strategic calculus? Has North Korea's capacity to hurt U.S. interests increased to the point that new diplomatic and perhaps military options should be considered more carefully? What could the Six Party Talks achieve if North Korea insists on recognition as a nuclear-armed state? Does the United States need a strategy that relies less on Beijing's willingness to punish Pyongyang? Do North Korea's nuclear advances mean that Obama's approach (known as "strategic patience") is too risky to continue? What is the most effective way to isolate the regime diplomatically and financially? Should such efforts be balanced with engagement initiatives that push for steps toward denuclearization?

Although the primary focus of U.S. policy toward North Korea is the nuclear weapons program, there are a host of other issues, including Pyongyang's missile programs, conventional military forces, illicit activities, and abysmal human rights record. Modest attempts by the United States to engage North Korea remain suspended along with the nuclear negotiations.

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Figure 1. Map of the Korean Peninsula

Sources: Production by CRS using data from ESRI, and the U.S. State Department's Office of the Geographer.

Notes: The "Cheonan Sinking" refers to the March 2010 sinking of a South Korean naval vessel that killed 46 sailors. Yeonpyeong Island was attacked in November 2010 by North Korean artillery, killing four South Koreans.

* This map reflects geographic place name policies set forth by the United States Board on Geographic Names pursuant to P.L. 80-242. In applying these policies to the case of the sea separating the Korean Peninsula and the Japanese Archipelago, the Board has determined that the "Sea of Japan" is the appropriate standard name for use in U.S. government publications. The Republic of Korea refers to this body of water as the "East Sea."

Introduction

A country of about 25 million people, North Korea has presented one of the most vexing and persistent problems in U.S. foreign policy in the post-Cold War period. The United States has never had formal diplomatic relations with the Democratic People's Republic of Korea (DPRK, the official name for North Korea). Negotiations over North Korea's nuclear weapons program have occupied the past three administrations, even as some analysts anticipated a collapse of the diplomatically isolated regime in Pyongyang. North Korea has been both the recipient of hundreds of millions of dollars of U.S. aid (official aid ceased in 2009) and the target of dozens of U.S. sanctions. Once considered a relic of the Cold War, the divided Korean peninsula has become an arena of more subtle strategic and economic competition among the region's powers.

U.S. interests in North Korea encompass serious security, political, and human rights concerns. Bilateral military alliances with the Republic of Korea (ROK, the official name for South Korea) and Japan obligate the United States to defend these allies from any attack from the North. Tens of thousands of U.S. troops occupying the largest U.S. military bases in the Pacific are stationed within striking range of North Korean missiles. An outbreak of conflict on the Korean peninsula or the collapse of the government in Pyongyang would have severe implications for the regional—if not global—economy. Negotiations and diplomacy surrounding North Korea's nuclear weapons program influence U.S. relations with all the major powers in the region and have become a complicating factor for U.S.-China ties.

At the center of this complicated intersection of geostrategic interests is the task of dealing with an isolated, totalitarian regime. Unfettered by many of the norms that govern international diplomacy, the leadership in Pyongyang, now headed by its dynastic "Great Successor" Kim Jong-un, is unpredictable and opaque. Little is known about the young leader and the policymaking system in Pyongyang. U.S. policymakers face a daunting challenge in navigating a course toward a peaceful resolution of the nuclear issue.

In the long run, the ideal outcome remains, presumably, reunification of the Korean peninsula under stable democratic rule.¹ At this point, however, the road to that result appears fraught with risks. If the Pyongyang regime falls due to internal or external forces, the potential for major strategic consequences (including competition for control of the North's nuclear arsenal) and a massive humanitarian crisis, not to mention long-term strategic, economic, and social repercussions, looms large. In the interim, policymakers face deep challenges in even defining achievable objectives, let alone reaching them.

¹ "Joint Vision for the Alliance of the United States of America and the Republic of Korea," the White House, Office of the Press Secretary, June 16, 2009, http://www.whitehouse.gov/the_press_office/Joint-vision-for-the-alliance-of-the-United-States-of-America-and-the-Republic-of-Korea.

North Korea in Mid-2015

North Korea Economic Conditions Appear to Be Improving

Since early 2015, reports have trickled in about modest economic growth in North Korea. A series of tentative economic reforms announced in 2014 appear, according to some sources, to have lifted the living standard for a portion of ordinary North Koreans.² The reforms, which appear to apply market principles to some sectors of North Korean business and agriculture, have created opportunities for economic growth in the impoverished country. In the cities, practices such as allowing managers to set salaries and hire or fire workers are permitted. In the countryside, agricultural reforms allow for farmers to keep a larger portion of their harvest, relaxing the system of fixed rations, and reduced the size of farming collectives to individual households, to increase production incentives. Along the border with China, journalists report a bustle of commerce and trade, including scores of labor compounds on the Chinese side that employ North Korean workers in factories, and large-scale construction taking place on the North Korean side.³ Economists caution that these reforms are modest in scale and are far from irreversible, but they may be enough to lift North Korea's moribund economy from its low base. Further, the Kim Jong-un regime appears to have allowed the unofficial underground economy (mostly small businesses, including street stalls) to continue to function.

The agricultural reforms may have contributed to unusually strong harvests in 2013 and 2014, but a drought in mid-2015 threatened to reverse those gains. Although North Korean media had announced that the draught could be the worst in 100 years, reports of increased rainfall in July 2015 appeared to ease concerns about a worst-case scenario. Although China and South Korea, as well as international aid groups, had indicated they would offer drought relief, the food security situation for North Koreans remains tenuous.

Kim Jong-Un's Leadership and International Isolation

In his 3½ years as supreme leader, Kim Jong-un appears to have consolidated his leadership and demonstrated a brutal hand in leading North Korea. He has carried out a series of purges of senior-level officials, including the execution of Jang Song-taek, his uncle by marriage, in 2013. In May 2015, Defense Minister Hyon Yong-chol was reportedly executed. South Korean intelligence sources say that about half of the top 200 military and bureaucratic officials have been replaced since Kim took power.⁴ Analysts differ over whether this means Kim has further cemented his hold on power or whether this could portend insecurity and potential instability within the regime.

Kim has yet to meet with a foreign head-of-state and has not traveled overseas since assuming power. Although he was expected to visit Moscow in May 2015 to attend a ceremony celebrating

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² See "North Korea's Creeping Economic Reforms Show Signs of Paying Off," *The Guardian*, March 5, 2015; "North Korea Dabbles in Reform," *New York Times*, January 21, 2015; and "A Quiet Economic Reform is Sweeping North Korea's Capital," *The Associated Press*, March 3, 2015.

³ Anna Fifield, "North Korea's Growing Economy—and America's Misconceptions About It," *Washington Post*, March 13, 2015.

⁴ "North Korea Executes Minister by Anti-aircraft Fire, Says Seoul," Financial Times, May 13, 2015.

the 70th anniversary of Russia's defeat of Nazi Germany in World War II, Kim cancelled at the last minute. China reportedly has invited Kim to attend another World War II commemoration in September in Beijing, but observers are skeptical that Kim will accept.

Compared to the pattern over the previous two decades, North Korea-China relations have been unusually poor since 2013. This distance from Beijing may have spurred Pyongyang to expand its relations with Russia—sending scores of officials to Moscow, negotiating deals to improve North Korea's electric grid in exchange for North Korean natural resources, and signing agreements for infrastructure projects—but some observers doubt that many of these initiatives will be realized. Although better relations with Moscow may serve some of Pyongyang's interests, including another potential protector on the United Nations Security Council, Russia is unable to provide the economic ballast that China has traditionally given to North Korea.

Focus on North Korea's Human Rights Violations

After campaigns at the United Nations to shine a spotlight on North Korea's human rights violations pushed forward in 2014, U.S. and South Korean officials appeared to increase their emphasis on the North's human rights record as well. Secretary of State John Kerry, visiting Seoul in May, characterized the regime as "one of the most egregious examples of reckless disregard for human rights and human beings anywhere on the planet." His comments were echoed by his South Korean counterpart. These calls, together with the U.N. General Assembly recommendation that the U.N. Security Council refer North Korea to the International Criminal Court, suggest that the international community may increase the pressure on North Korea to improve its human rights record. In the past, the United States prioritized denuclearization and ceasing military provocations, with relatively less focus on human rights compared to today. Reportedly, the United States and its allies will pressure Pyongyang to improve its human rights protections as part of their strategy to curtail North Korean nuclear weapons development. In June 2015, the U.N. opened a new field office in Seoul to focus on human rights conditions in the North, further indicating the international community's attention to the issue. (See "North Korea's Human Rights Record" section for more.)

History of Nuclear Negotiations

North Korea's nuclear weapons program has concerned the United States for three decades. In 1986, U.S. intelligence detected the start-up of a plutonium production reactor and reprocessing plant at Yongbyon, which were not subject to international monitoring. In the early 1990s, after agreeing to and then obstructing International Atomic Energy Agency (IAEA) inspections, North Korea announced its intention to withdraw from the Nuclear Non-Proliferation Treaty (NPT). According to statements by former Clinton Administration officials, a preemptive military strike on the North's nuclear facilities was seriously considered as the crisis developed. Discussion of sanctions at the United Nations Security Council and a diplomatic mission from former President Jimmy Carter diffused the tension and eventually led to the U.S.-North Korea 1994 Agreed

⁵ "Joint Press Availability With Republic of Korea Foreign Minister Yun Byung-se," U.S. State Department, May 18, 2015.

⁶ Choe Sang-hun, "U.S. and Allies to Tie North Korea's Rights Record to Nuclear Talks," *New York Times*, May 27, 2015.

Framework, under which the United States agreed to arrange for North Korea to receive two light water reactor (LWR) nuclear power plants and heavy fuel oil in exchange for North Korea freezing and eventually dismantling its plutonium program under IAEA supervision. The document also outlined a path toward normalization of diplomatic and economic relations as well as security assurances.

Beset by problems from the start, the Agreed Framework faced multiple reactor construction and funding delays. Still, the fundamentals of the agreement were implemented: North Korea froze its plutonium program, heavy fuel oil was delivered to the North Koreans, and LWR construction commenced. However, North Korea had not complied with commitments to declare all nuclear facilities to the IAEA and put them under safeguards. In 2002, the George W. Bush Administration confronted North Korea about a suspected uranium enrichment program, which the North Koreans then denied publicly. With these new concerns, heavy fuel oil shipments were halted, and construction of the LWRs—well behind schedule—was suspended. North Korea then expelled IAEA inspectors from the Yongbyon site, announced its withdrawal from the NPT, and restarted its reactor and reprocessing facility after an eight year freeze.

Six-Party Talks

Under the George W. Bush Administration, negotiations to resolve the North Korean nuclear issue expanded to include China, South Korea, Japan, and Russia. With China playing host, six rounds of the "Six-Party Talks" from 2003-2008 yielded occasional progress, but ultimately failed to resolve the fundamental issue of North Korean nuclear arms. The most promising breakthrough occurred in 2005, with the issuance of a Joint Statement in which North Korea agreed to abandon its nuclear weapons programs in exchange for aid, a U.S. security guarantee, and talks over normalization of relations with the United States. Despite the promise of the statement, the process eventually broke down due to complications over U.S. Treasury Department's freezing of North Korean assets in a bank in Macau (see section "North Korea's Illicit Activities") and then degenerated further with North Korea's test of a nuclear device in October 2006.⁸

In February 2007, Six-Party Talks negotiators announced an agreement that would provide economic and diplomatic benefits to North Korea in exchange for a freeze and disablement of Pyongyang's nuclear facilities. This was followed by an October 2007 agreement that more specifically laid out the implementation plans, including the disablement of the Yongbyon facilities, a North Korean declaration of its nuclear programs, delivery of heavy fuel oil, and a U.S. promise to lift economic sanctions on North Korea and remove North Korea from the U.S. designation under the Trading with the Enemy Act (TWEA) and list of state sponsors of terrorism. The plutonium program was again frozen and placed under international monitoring with the United States providing assistance for disabling of key nuclear facilities. Under the leadership of Assistant Secretary of State for East Asia and Pacific Affairs Christopher Hill, the Bush Administration pushed ahead on the deal. It removed the TWEA designation in June 2008 after North Korea submitted a declaration of its plutonium program. After terms of a verification protocol were verbally agreed upon in October 2008, the United States removed North Korea

⁷ Material for nuclear weapons can be made from reprocessing plutonium or enriching uranium. The uranium enrichment program provided North Korea with a second pathway for creating nuclear bomb material while its plutonium production facilities were frozen.

⁸ For more details on problems with implementation and verification, see CRS Report RL33590, *North Korea's Nuclear Weapons Development and Diplomacy*, by Larry A. Niksch.

from the terrorism list. However, disputes over the specifics of the verification protocol between Washington and Pyongyang stalled the process again. North Korea did continue to disable portions of its Yongbyon facility through April 2009, when it expelled international inspectors following a ballistic missile test and subsequent United Nations Security Council (UNSC) sanctions. In May 2009, North Korea tested a second nuclear device.

Multilateral negotiations on North Korea's nuclear program have not been held since December 2008. Pyongyang's continued belligerent actions, its vituperative rhetoric, its claim to be a nuclear weapons power, and most importantly its failure to fulfill obligations undertaken in previous agreements have halted efforts to restart the Six-Party Talks.

Obama Administration North Korea Policy

"Strategic Patience" Approach

The Obama administration's policy toward North Korea, often referred to as "strategic patience," is to put pressure on the regime in Pyongyang while insisting that North Korea return to the Six-Party Talks. The main elements of the policy involve insisting that Pyongyang commit to steps toward denuclearization as previously promised in the Six-Party Talks; closely coordinating with treaty allies Japan and South Korea; attempting to convince China to take a tougher line on North Korea; and applying pressure on Pyongyang through arms interdictions and sanctions. U.S. officials have stated that, under the right conditions, they seek a comprehensive package deal for North Korea's complete denuclearization in return for normalization of relations and significant aid, but have insisted on a freeze of its nuclear activities and a moratorium on testing before returning to negotiations. This policy has been closely coordinated with South Korea and accompanied by large-scale military exercises designed to demonstrate the strength of the U.S.-South Korean alliance.

In addition to multilateral sanctions required by the United Nations, the Obama Administration has issued several executive orders to implement the U.N. sanctions or to declare additional unilateral sanctions. In August 2010, Executive Order (EO) 13551 targeted entities engaged in the export or procurement of a number of North Korea's illicit activities, including money laundering, arms sales, counterfeiting, narcotics, and luxury goods. The White House also designated five North Korean entities and three individuals for sanctions under an existing executive order announced by President George W. Bush that targets the sales and procurement of weapons of mass destruction. In April 2011, EO 13570 imposed sanctions on 15 more firms, both North Korean and others who dealt with North Korea. Following the November 2014 cyberattack on Sony Pictures Entertainment, which the Federal Bureau of Investigation (FBI) attributed to North Korean hackers, President Obama issued EO 13687, enabling the U.S. government to seize the assets of designated DPRK officials and those working on behalf of North Korea.

Critics claim that the "strategic patience" approach has allowed Pyongyang to control the situation and steadily improve its missile and nuclear programs. North Korea has flagrantly violated UNSC Resolutions with rocket launches and nuclear tests. The policy not only depends

⁹ For more information on the terrorism list removal, see CRS Report RL30613, *North Korea: Back on the Terrorism List?* by Mark E. Manyin.

on China showing greater willingness to pressure North Korea, but it also depends on U.S. allies maintaining unity, an approach that might falter if allies take divergent approaches. The collapse of the denuclearization talks has intensified concerns about proliferation as cash-strapped North Korea may turn to other sources of income. Because of North Korea's poor economic performance, there is a strong fear that it will sell its nuclear technology or fissile material to another country or a nonstate actor. Evidence of nuclear cooperation with Syria and Libya has alarmed national security experts. 11

North Korean Provocations and U.S. Response

Despite the overtures for engagement after Obama took office, a series of provocations from Pyongyang halted progress on furthering negotiations. These violations of international law initiated a periodic cycle of action and reaction, in which the United States focused on building consensus at the UNSC and punishing North Korea through enhanced multilateral sanctions. A long-range ballistic missile test in May 2009 and a second nuclear weapon test in November 2009 spurred the passage of UNSC Resolution 1874, which outlines a series of sanctions to deny financial benefits to the Kim regime. Three years later, this cycle repeated itself: North Korea launched two long-range missiles in 2012, the UNSC responded with rebukes, North Korea tested a nuclear device in February 2013, and the United States again wrangled yet harsher sanctions through the UNSC (Resolutions 2087 and 2094).

The major exception to the pattern of mutual recrimination occurred in early 2012, shortly after the death of Kim Jong-il, previous leader of North Korea and father to the current Kim. The so-called "Leap Day Agreement" committed North Korea to a moratorium on nuclear tests, long-range missile launches, and uranium enrichment activities at the Yongbyon nuclear facility, as well as the readmission of International Atomic Energy Agency (IAEA) inspectors. In exchange, the Obama Administration pledged 240,000 metric tons of "nutritional assistance" and steps to increase cultural and people-to-people exchanges with North Korea. North Korea scuttled the deal only two months later by launching a long-range rocket, followed by a third nuclear test in February 2013.

North Korean Demands and Motivation

Since President Obama took office, North Korea demanded that it be recognized as a nuclear weapons state and that a peace treaty with the United States must be a prerequisite to denuclearization. The former demand presents a diplomatic and semantic dilemma: despite

¹⁰James R. Clapper, "Statement for the Record, Worldwide Threat Assessment of the U.S. Intelligence Community," Director of National Intelligence, January 29, 2014.

¹¹See CRS Report R43480, *Iran-North Korea-Syria Ballistic Missile and Nuclear Cooperation*, coordinated by Paul K. Kerr.

¹² The United States maintains that its food aid policy follows three criteria: demonstrated need, severity of need compared to other countries, and satisfactory monitoring systems to ensure food is reaching the most vulnerable. Strong concerns about diversion of aid to the North Korean military and elite exist, although assistance provided in 2008-2009 had operated under an expanded system of monitoring and access negotiated by the Bush Administration. Obama Administration officials were reportedly divided on whether to authorize new humanitarian assistance for North Korea in 2011 and 2012, but ultimately decided to offer 240,000 metric tons of food aid as a confidence-building measure within the Leap Day Agreement. Several Members of Congress have spoken out against the provision of any assistance to Pyongyang because of concerns about supporting the regime.

repeatedly acknowledging that North Korea has tested nuclear devices, U.S. officials have insisted that North Korea's possession of nuclear weapons is "unacceptable."

After years of observing North Korea's negotiating behavior, many analysts believe that such demands are simply tactical moves by Pyongyang and that North Korea has no intention of giving up its nuclear weapons in exchange for aid and recognition. ¹³ The multinational military intervention in 2011 in Libya, which abandoned its nuclear weapon program in exchange for the removal of sanctions, may have had the undesirable side effect of reinforcing the perceived value of nuclear arms for regime security. North Korean leaders may believe that, without the security guarantee of nuclear weapons, they are vulnerable to overthrow by a rebellious uprising aided by outside military intervention. In April 2010, North Korea reiterated its demand to be recognized as an official nuclear weapons state and said it would increase and modernize its nuclear deterrent. On April 13, 2012, the same day as the failed rocket launch, the North Korean constitution was revised to describe the country as a "nuclear-armed nation." In March 2013, North Korea declared that its nuclear weapons are "not a bargaining chip" and would not be relinquished even for "billions of dollars." North Korea has also suggested that it will not relinquish its nuclear stockpile until all nuclear weapons are eliminated worldwide. 15 The apparent intention of Pyongyang to retain its nascent nuclear arsenal raises difficult questions for Washington about the methods and purpose of diplomatic negotiations to denuclearize North Korea. Debate continues on the proper strategic response. Options range from trying to squeeze the dictatorship to the point of collapse, to buying time and trying to prevent proliferation and other severely destabilizing events.

Identifying patterns in North Korean behavior is challenging, as Pyongyang often weaves together different approaches to the outside world. North Korean behavior has vacillated between limited cooperation and overt provocations, including testing several ballistic missiles over the last 15 years and three nuclear devices in 2006, 2009, and 2013. Pyongyang's willingness to negotiate has often appeared to be driven by its internal conditions: food shortages or economic desperation can push North Korea to re-engage in talks, usually to extract more aid from China or, in the past, from the United States and/or South Korea. North Korea has proven skillful at exploiting divisions among the other five parties and taking advantage of political transitions in Washington to stall the nuclear negotiating process.

China's Role

U.S. policy to pressure North Korea depends heavily on China's influence. In addition to being North Korea's largest trading partner by far—accounting for about 70% of North Korea's total trade—China also provides food and energy aid that is an essential lifeline for the regime in Pyongyang. China's overriding priority appears to be to prevent the collapse of North Korea. Beijing states that it fears the destabilizing effects of a humanitarian crisis, significant refugee flows over its borders, and the uncertainty of how other nations, particularly the United States,

¹³ See, for example, Jonathan D. Pollack, *No Exit: North Korea, Nuclear Weapons, and International Security* (New York: Routledge, 2011); "North Korea: Beyond the Six-Party Talks," International Crisis Group, Asia Report No. 269, June 16, 2015.

¹⁴ Choe Sang-hun, "North Korea Vows to Keep Nuclear Arms and Fix Economy," New York Times, March 31, 2013.

¹⁵ "DPRK NDC Issues Statement Refuting UNSC Resolution," Korean Central News Agency (North Korea), January 24, 2013.

would assert themselves on the peninsula in the event of a power vacuum. Beijing is supporting joint industrial projects between China's northeastern provinces and North Korea's northern border region. Some Chinese leaders also may see strategic value in having North Korea as a "buffer" between China and the democratic, U.S.-allied South Korea.

However, since 2010 an increasing number of Chinese academics have called for a reappraisal of China's friendly ties with North Korea, citing the material and reputational costs to China of maintaining such ties. The rhetorical emphasis Chinese leaders now place on denuclearization of the Korean Peninsula—reportedly even in meetings with North Korean officials—may suggest that Beijing's patience could be waning. In what is viewed by many observers as a diplomatic snub, Chinese President Xi Jinping has had several summits with South Korean President Park Geun-hye but has yet to meet with the North Korean leader Kim Jong-un.

Despite this apparent cooling in relations, Beijing remains an obstacle to many U.S. policy goals. Imposing harsher punishments on North Korea in international fora, such as the United Nations, is hindered by China's seat on the U.N. Security Council. However, Chinese trade with and aid to North Korea is presumed to be a fraction of what it might be if Beijing decided to fully support Kim Jong-un. This assumption is a key factor driving the U.S. and South Korean approach, which seeks to avoid pushing China to a place where it feels compelled to provide more diplomatic and economic assistance to North Korea.

North Korea's Internal Situation

Kim Jong-un appears to have consolidated power at the apex of the North Korean regime, though uncertainty remains about the regime and its priorities, given the opaque nature of the North Korean state. The Kim regime has been promoting a two-track policy (the so-called *byungjin* line) of economic development and nuclear weapons development, explicitly rejecting the efforts of external forces to make North Korea choose between one or the other. Initially, some observers held out hope that the young, European-educated Kim could emerge as a reformer, but his behavior since has not indicated a plan to implement change to the country's political system. In fact, his ruthless drive to consolidate power demonstrates a keen desire to keep the dictatorship intact.

Kim Jong-un's Rule

Kim Jong-un has displayed a different style of ruling than his father while hewing closely to the policies established before his December 2011 succession as supreme leader. Kim has allowed Western influences, such as Disney characters and clothing styles, to be displayed in the public sphere, and he is informal in his frequent public appearances. In a stark change from his father's era, Kim Jong-un's wife was introduced to the North Korean public. Analysts depict these stylistic changes as an attempt to make Kim seem young and modern and to conjure associations with the "man of the people" image cultivated by his grandfather, the revered founder of North Korea, Kim Il-sung.

Rhetoric from the Kim Jong-un regime has emphasized improving the quality of life for North Korean citizens. North Korea has been experimenting with economic reforms: breaking up farming collectives into individual household units to increase market incentives, allowing private investments into businesses (with official approval), and allowing businesses to pay workers

based on performance, for example. The range of modern amenities available to the privileged residents of Pyongyang has expanded to include items like modified smartphones and European cosmetics—luxuries unheard of outside the uppermost elite just years ago—while most North Koreans outside the capital region continue to live in meager circumstances.

The Kim Jong-un regime has promoted the rapid growth of special economic zones (SEZs). The Kim regime appears to believe that SEZs can be one way for North Korea to import foreign capital, technology, and business knowledge without spreading unorthodox ideas among the wider population. (Reportedly, Chinese officials for decades have encouraged North Korea to emulate the example of China, in which SEZs played a critical role in the transition from a communist economic system to a market-based system.) The prospects for the North Korean SEZs are mixed; the strategic location and deep-water port of the Rajin-Sonbong (Rason) SEZ have led to major development in recent years, but the poor infrastructure and weak investment protections at other SEZs do not bode well for foreign investment.¹⁶

Purges of Jang Song-taek and Other High-Level Officials

The purge and execution in December 2013 of Jang Song-taek, North Korea's second most powerful figure, reverberated in policy circles both for its reported brutality and for its potential implications for political stability in Pyongyang. The move was announced by official North Korean media outlets, including footage of Jang being hauled away by security forces. Jang's removal was unusual because of his elite status (in addition to his official titles, he was Kim Jong-un's uncle by marriage) and because of how publically it was conveyed both to the outside world and to North Koreans. Jang's downfall completed nearly a total sweep of late ruler Kim Jong-il's inner circle. Jang's departure eliminated one of Beijing's main contact points with the regime; Jang had been seen as relatively friendly to Chinese-style economic reforms and business ties. It is likely that the chilly state of Pyongyang-Beijing relations since 2014 is partly due to the purge of Jang.

While Jang Song-taek was the most prominent official to be executed to date, Kim Jong-un has also purged dozens of other high-ranking officials since he came to power. In May 2015, Defense Minister Hyon Yong-chol reportedly was executed. Of the seven men who had been presumed to be part of Kim Jong-il's inner circle and had walked with Kim Jong-un during his father's funeral, five have been purged or demoted, including Ri Yong-ho, then-Chief of Staff of the North Korean military, who was purged in 2012. In 2012, Kim executed 17 high-ranking officials, 10 in 2013, 41 in 2014, and already 15 in 2015. The purges seem to have increased after Jang's execution in late 2013. According to South Korean intelligence sources, roughly 20-30% of senior party officials and over 40% of senior military officials have been replaced since Kim took power. Many analysts interpret this trend as a sign of Kim's insecurity and argue that the regime might become unstable, as top officials within the regime face more uncertainty with regard to their positions and lives. On the other hand, the purges may have eliminated potential rivals to Kim's absolute control over the North Korean state.

¹⁶ Andray Abrahamian, "The ABCs of North Korea's SEZs," US-Korea Institute at SAIS, November 19, 2014.

¹⁷ Han-bum Cho, "The Purge of Hyon Yong-chol and Risk Factors of the Kim Jong-un Regime," Korea Institute for National Unification, Seoul, 13 May 2015: 3.

¹⁸ "Over 40% of N.Korean Brass Replaced in Purges," *Chosun Ilbo*, July 15, 2015.

¹⁹ Maeve Shearlaw, "Purges and Political Manoeuvres: How Volatile Is Kim Jong-un?" *The Guardian* [London], May (continued...)

Information Flows In and Out of North Korea

The North Korean regime remains extraordinarily opaque, but a trickle of news works its way out through defectors and other channels. These forms of grass-roots information gathering, along with the public availability of high-quality satellite imagery, have democratized the business of intelligence on North Korea. In 2011, the Associated Press became the first Western news agency to open a bureau in Pyongyang, though its reporters are subject to severe restrictions. Previously, South Korean intelligence services had generally provided the bulk of information known about the North.

Pyongvang appears to be slowly losing its ability to control information flows from the outside world into North Korea. Surveys of North Korean defectors reveal that some within North Korea are growing increasingly wary of government propaganda and turning to outside sources of news, especially foreign radio broadcasts, which are officially illegal.²⁰ After a short-lived attempt in 2004, North Korea in 2009 restarted a mobile phone network, in cooperation with the Egyptian telecommunications firm Orascom. The mobile network reportedly has over 2.4 million subscribers, and foreigners using mobile phones in North Korea can now make international calls and access the Internet.²¹ Although phone conversations in North Korea are monitored, the spread of cell phones should enable faster and wider dissemination of information. A paper published by the Harvard University Belfer Center in 2015 argues that a campaign to spread information about the outside world within North Korea could produce positive changes in the political system there.22

North Korean Security Threats

North Korea's Weapons of Mass Destruction²³

North Korea has active nuclear, biological and chemical weapons programs. The 2015 Director of National Intelligence (DNI) Worldwide Threat Assessment said that "Because of deficiencies in their conventional military forces, North Korean leaders are focused on developing missile and WMD capabilities, particularly building nuclear weapons."²⁴ The sections below describe what is known from open sources about these programs.

(...continued)

13, 2015.

²⁰ Marcus Noland, "Pyongyang Tipping Point," Wall Street Journal op-ed, April 12, 2010.

²¹ Martyn Williams, "Koryolink Subscriptions Hit 2.4 Million," North Korea Tech blog, September 8, 2014, http://www.northkoreatech.org/2014/09/08/koryolink-subscriptions-hit-2-4-million.

²² Jieun Baek, "Hack and Frack North Korea: How Information Campaigns Can Liberate the Hermit Kingdom," Harvard University, Belfer Center for Science and International Affairs, April 2015.

²³ For more information, see CRS Report RL34256, North Korea's Nuclear Weapons: Technical Issues, by Mary Beth D. Nikitin.

²⁴ James Clapper, Statement for the Record on the Worldwide Threat Assessment of the U.S. Intelligence Community for the Senate Select Committee on Intelligence, February 16, 2011.

Nuclear

U.S. analysts remain concerned about the pace and success of North Korea's nuclear weapons development. The Director of National Intelligence assesses that North Korea views its nuclear capabilities as intended for "deterrence, international prestige, and coercive diplomacy." North Korea has said it will not get rid of its nuclear weapons until all the other nuclear weapons states do so.

The North Korean nuclear program began in the late 1950s with cooperation agreements with the Soviet Union on a nuclear research program near Yongbyon. Its first research reactor began operation in 1967. North Korea used indigenous expertise and foreign procurements to build a small nuclear reactor at Yongbyon (5 MWe). It was capable of producing about 6 kilograms (kg) of plutonium per year and began operating in 1986. Later that year, U.S. satellites detected high explosives testing and a new plant to separate plutonium from the reactor's spent fuel (a chemical reprocessing plant). Over the past two decades, the reactor and reprocessing facility have been alternately operational and frozen under safeguards put in place as the result of the 1994 Agreed Framework and again in 2007, under the Six Party Talks. Since the Six Party Talks' collapse in 2008, North Korea has restarted its 5MW(e) reactor, has made steps to restart the reprocessing plant, has openly built a uranium enrichment plant for an alternative source of weapons material, and is constructing a new experimental light water reactor. It is generally estimated in open sources that North Korea has produced between 30 and 50 kilograms of separated plutonium, enough for at least half a dozen nuclear weapons.

While North Korea's weapons program has been plutonium-based from the start, intelligence emerged in the late 1990s pointing to a second route to a bomb using highly enriched uranium. North Korea openly acknowledged a uranium enrichment program in 2009, but has said its purpose is the production of fuel for nuclear power. In November 2010, North Korea showed visiting American experts early construction of a 100 MWT light-water reactor and a newly built gas centrifuge uranium enrichment plant, both at the Yongbyon site. The North Koreans claimed the enrichment plant was operational, but this has not been independently confirmed. U.S. officials have said that it is likely other clandestine enrichment facilities exist. Enrichment (as well as reprocessing) technology can be used to produce material for nuclear weapons or fuel for power reactors. An enrichment capability could potentially provide North Korea with a faster way of making nuclear material for weapons and therefore is of great concern to policymakers. Estimates of enriched uranium stockpiles are not publicly available due to the lack of open-source information about the size and capacity of the program.

It is difficult to estimate warhead and material stockpiles due to lack of transparency. U.S. official statements have not given warhead total estimates, but recent scholarly analyses give low, medium, and high scenarios for the amount of fissile material North Korea could produce by 2020, and therefore the potential number of nuclear warheads. The low-end estimate for that study was 20 warheads by 2020, maximum 100 warheads by 2020.²⁶

²⁵ 5 MWe is a power rating for the reactor, indicating that it produces 5 million watts of electricity per day (very small). Reactors are also described in terms of million watts of heat (MW thermal).

²⁶ David Albright, "Future Directions in the DPRK'S Nuclear Weapons Program: Three Scenarios for 2020," February 2015, http://38north.org/2015/02/dalbright022615/.

Many experts believe that the prime objective of North Korea's nuclear program is to develop a miniaturized nuclear warhead that could be mounted on intermediate-range and long-range missiles, but assessments of progress have differed.²⁷ Miniaturization likely would require additional nuclear and missile tests. Perhaps the most acute near-term threat to other nations is from the medium-range Nodong missile, which could reach all of the Korean Peninsula and some of mainland Japan. Some experts assess that North Korea likely has the capability to mount a nuclear warhead on the Nodong missile.²⁸

Chemical and Biological Weapons

According to congressional testimony by Curtis Scaparrotti, Commander of U.S. Forces Korea, North Korea has "one of the world's largest chemical weapons stockpiles." North Korea is widely reported to possess a large arsenal of chemical weapons, including mustard, phosgene, and sarin gas. Open source reporting estimates that North Korea has approximately 12 facilities where raw chemicals, precursors, and weapon agents are produced and/or stored, as well as six major storage depots for chemical weapons. North Korea is estimated to have a chemical weapon production capability up to 4,500 metric tons during a typical year and 12,000 tons during a period of crisis, with a current inventory of 2,500 to 5,000 tons, according to the South Korean Ministry of National Defense. A RAND analysis says that "1 ton of the chemical weapon sarin could cause tens of thousands of fatalities" and that if North Korea at some point decides to attack one or more of its neighbors, South Korea and Japan would be "the most likely targets." North Korea is not a signatory to the Chemical Weapons Convention (CWC) which bans the use and stockpiling of chemical weapons.

North Korea is suspected of maintaining an ongoing biological weapons production capability. The United States intelligence community continues to judge that North Korea has a biotechnology infrastructure to support such a capability, and "has a munitions production capacity that could be used to weaponize biological agents." South Korea's Ministry of National Defense estimated in 2012 that the DPRK possesses anthrax and smallpox, among other weapons agents.³⁴

²⁷ A "miniaturized" warhead in this discussion refers to reducing the size and weight of a warhead so that it can be delivered by a ballistic missile.

²⁸ David Albright, "North Korean Miniaturization," US-Korea Institute at SAIS, February 22, 2013.

²⁹ Statement of Gen. Curtis M. Scaparrotti Before the Senate Armed Services Committee, April 16, 2015.

³⁰ "North Korea," NTI, April 2015, http://www.nti.org/country-profiles/north-korea/.

³¹ Ministry of National Defense, Republic of Korea, 2010 Defense White Paper, December 2010.

³² Bennett, Bruce W. "N.K WMDs Carry Catastrophic Potential," *The RAND Blog*, November 19, 2014.

³³ Office of the Director of National Intelligence, *Unclassified Report to Congress on the Acquisition of Technology Relating to Weapons of Mass Destruction and Advanced Conventional Munitions, 1 January to 31 December 2010*, http://www.dni.gov/reports/20110208 report wmd.pdf.

³⁴ "North Korea," *NTI*. April, 2015. http://www.nti.org/country-profiles/north-korea/.

North Korea's Missile Programs³⁵

North Korea places a high priority on the continued development of its ballistic missile technology. Despite international condemnation and prohibitions in UNSC Resolutions, North Korea twice in 2012 launched long-range rockets carrying ostensible satellite payloads and in spring and summer 2014 fired approximately 10 shorter range ballistic missiles. North Korea has an arsenal of approximately 700 Soviet-designed short-range ballistic missiles, according to unofficial estimates, although the inaccuracy of these antiquated missiles obviates their military effectiveness. A U.S. government report said in 2013 that North Korea has deployed small numbers of medium- and intermediate-range ballistic missiles (unofficial estimate: about 100 and fewer than 30, respectively) that could reach Japan and U.S. bases there, but the intermediate-range missiles have never been flight-tested. North Korea has made slow progress toward developing a reliable long-range ballistic missile; the December 2012 launch was the first successful space launch after four consecutive failures in 1998, 2006, 2009, and April 2012.

After its first long-range missile test in 1998, North Korea and the United States held several rounds of talks on a moratorium on long-range missile tests in exchange for the Clinton Administration's pledge to lift certain economic sanctions. Although Kim Jong-il made promises to Secretary of State Madeleine Albright, negotiators could not conclude a deal. These negotiations were abandoned at the start of the Bush Administration, which placed a higher priority on the North Korean nuclear program. Ballistic missiles were not on the agenda in the Six-Party Talks. In 2006, UNSC Resolution 1718 barred North Korea from conducting missile-related activities. North Korea flouted this resolution with its April 2009 test launch. The UNSC then responded with Resolution 1874, which further increased restrictions on the DPRK ballistic missile program. The 2012 Leap Day Agreement included a moratorium on ballistic missile tests, which North Korea claimed excludes satellite launches.

North Korea's inconsistent progress toward developing a long-range missile calls into question the long-standing U.S. National Intelligence Estimate that North Korea could successfully test an inter-continental ballistic missile (ICBM) by 2015.⁴⁰ The author of a 2012 RAND technical report on the North Korean nuclear missile threat asserts that the Unha-3 rocket, which successfully lifted an estimated 100 kg satellite payload into orbit in December 2012, is incapable of carrying

³⁵ For more information, see CRS Report RS21473, *North Korean Ballistic Missile Threat to the United States*, by Steven A. Hildreth.

³⁶ Stephen Haggard, Daniel Pinkston, Kevin Stahler, and Clint Work, "Interpreting North Korea's Missile Tests: When Is a Missile Just a Missile?" Witness to Transformation blog, Peterson Institute for International Economics, October 7, 2014, http://blogs.piie.com/nk/?p=13532.

³⁷ North Korea claims that the purpose of these rocket launches is to place a satellite in orbit, and thus it is entitled to develop space launch vehicles as a peaceful use of space. However, long-range ballistic missiles and space-launch vehicles use similar technology, and, because of this overlap, the UNSC acted to prohibit any North Korean use of rocket technology in Resolutions 1718 and 1874.

³⁸ North Korean Security Challenges: A Net Assessment (London: International Institute for Strategic Studies, 2011), pp. 144-146.

³⁹ National Air and Space Intelligence Center, *Ballistic and Cruise Missile Threat*, NASIC-1031-0985-13, Wright-Patterson Air Force Base, OH, June 2013, p. 17, and IISS (2011), pp. 131-135, 141-145.

⁴⁰ David Wright, "Questions About the Unha-3 Failure," 38 North, May 2012, http://38north.org/2012/05/dwright050412; National Intelligence Council, Foreign Missile Developments and the Ballistic Missile Threat to the United States Through 2015 (unclassified summary), September 1999, http://www.dni.gov/files/documents/Foreign%20Missile%20Developments 1999.pdf.

a nuclear warhead at inter-continental range. "If [North Koreans] wanted an ICBM, they have to develop a new rocket, using different technology. This would take a very long time, require a lot of work, and cost a lot of money."41 A net assessment by the International Institute for Strategic Studies concluded in 2011 that a future North Korean ICBM "would almost certainly have to undergo an extensive flight-test program that includes at least a dozen, if not two dozen, launches and extends over three to five years." Such a program would make North Korean intentions obvious to the world. Others, however, argue that North Korea might take a radically different approach and accept one successful test as sufficient for declaring operational capability.

Official reports indicate that North Korea has also been developing a road-mobile ICBM, dubbed the KN-08, although this missile has never been flight-tested. 43 Analysts examining commercial satellite imagery believe that North Korea has conducted multiple tests of KN-08 rocket engines, but the system—should it function successfully—is likely more than a year away from even an initial deployment. 44 Admiral Samuel Locklear, Commander of U.S. Pacific Command, said in September 2014 that, although it is "hard for us to get an exact assessment" of how close North Korea is to fielding an operational KN-08 missile, the notional ICBM is a growing concern. 45

The potential ability of North Korea to miniaturize a nuclear warhead and mate it to a ballistic missile, especially an ICBM, is a key concern of the United States. The Director of National Intelligence stated in April 2013, "North Korea has not yet demonstrated the full range of capabilities necessary for a nuclear armed missile." Yet experts at the Institute for Science and International Security assessed in February 2013 that "North Korea likely has the capability to mount a plutonium-based nuclear warhead on the shorter range [800-mile] Nodong missile."47 General Curtis Scaparrotti, the Commander of U.S. Forces Korea, stated in October 2014, "I don't know that [North Korea has a functioning, miniaturized nuclear device].... What I'm saying is, is that I think given their technological capabilities, the time that they been working on this, that they probably have the capabilities to put this together."⁴⁸ And in April 2015, Adm. William Gortney, head of U.S. Northern Command seemingly veered from the official U.S. intelligence community assessment when he said that it was his assessment that North Korea has "the ability to put a nuclear weapon on a KN-08 and shoot it at the homeland."⁴⁹ Until North Korea tests such a device, the outside world will remain uncertain about North Korean nuclear capabilities.

⁴¹ Evan Ramstad, "After First Glance, North Korea's Missiles Not As Fearsome," Wall Street Journal, December 13, 2012, http://blogs.wsj.com/korearealtime/2012/12/13/after-first-glance-north-koreas-missiles-not-as-fearsome/.

⁴² IISS (2011), p. 155.

⁴³ NASIC (2013), pp. 20-22. This report refers to the KN-08 by its Korean name Hwasong-13.

⁴⁴ Nick Hansen, "North Korea's Sohae Satellite Launching Station: Major Upgrade Program Completed; Facility Operational Again," 38 North blog, U.S.-Korea Institute, October 1, 2014, http://38north.org/2014/10/sohae100114.

⁴⁵ Tony Capaccio and David Lerman, "North Korea Inching Toward Mobile Long-Range Missile, Locklear Says," Bloomberg News, September 26, 2014.

⁴⁶ James Clapper, "DNI Statement on North Korea's Nuclear Capability," Office of the Director of National Intelligence, Press Release, April 11, 2013.

⁴⁷ David Albright, "North Korean Miniaturization," U.S.-Korea Institute at SAIS, February 22, 2013, http://38north.org/2013/02/albright021313.

⁴⁸ "Commander, U.S. Forces Korea, General Curtis Scaparrotti and Rear Admiral John Kirby, Press Secretary," U.S. Department of Defense, Press Briefing, Washington, DC, October 24, 2014, http://www.defense.gov/Transcripts/ Transcript.aspx?TranscriptID=5525.

⁴⁹ Department of Defense Press Briefing by Admiral Gortney, Commander of North American Aerospace Defense Command and U.S. Northern Command, April 07, 2015, http://www.defense.gov/Transcripts/Transcript.aspx? TranscriptID=5612.

Foreign Connections

North Korea's proliferation of missile technology and expertise is another serious concern for the United States. Pyongyang has sold missile parts and/or technology to several countries, including Egypt, Iran, Libya, Burma, Pakistan, Syria, United Arab Emirates, and Yemen. So Sales of missiles and telemetric information from missile tests have been a key source of hard currency for the Kim regime.

North Korea and Iran have cooperated on the technical aspects of missile development since the 1980s, exchanging information and components.⁵¹ Reportedly, scientific advisors from Iran's ballistic missile research centers were seen in North Korea leading up to the December 2012 launch and may have been a factor in its success.⁵² There are also signs that China may be assisting the North Korean missile program, whether directly or through tacit approval of trade in sensitive materials. Heavy transport vehicles from Chinese entities were apparently sold to North Korea and used to showcase missiles in a military parade in April 2012, prompting a U.N. investigation of sanctions violations.⁵³

Regional Missile Defense Systems

The United States, Japan, and (to a lesser extent) South Korea have deployed ballistic missile defense (BMD) systems to protect their territory and military forces from the threat of North Korean attacks. During the 2009 and 2012 North Korean long-range missile tests, U.S. and allied forces reportedly made ready and available a number of BMD systems, in addition to the intelligence gathering capabilities sent into the region. Japan deployed Patriot interceptor batteries around Tokyo and on its southwestern islands, in the event of an errant missile or debris headed toward Japanese territory. Aegis BMD ships deployed to the area as well. In response to the heightened tensions in spring 2013, the U.S. military accelerated deployment of a ground-based Terminal High Altitude Air Defense (THAAD) BMD system to Guam, two years ahead of schedule.

As part of the efforts by the United States and its allies to change China's strategic thinking about North Korea, the BMD deployments may have an impact. Chinese media made the Patriot deployments a major part of their coverage of the April 2012 launch. ⁵⁵ A subtext to those reports was that North Korea's actions are feeding military developments in Asia that are not in China's interests. Many observers, particularly in the United States and Japan, argue that continued North

⁵⁰ Jane's Sentinel Security Assessment—China and Northeast Asia, January 22, 2010 and IISS (2011), pp. 180-181.

⁵¹ For more information, see CRS Report R42849, *Iran's Ballistic Missile and Space Launch Programs*, by Steven A. Hildreth.

⁵² Javier Serrat, "North Korea, Iran Highlight Proliferation Risks of Knowledge Transfers," *World Politics Review*, December 10, 2012, http://www.worldpoliticsreview.com/articles/12554/north-korea-iran-highlight-proliferation-risks-of-knowledge-transfers; John S. Park, "The Leap in North Korea's Ballistic Missile Program: The Iran Factor," National Bureau of Asian Research, December 19, 2012, http://www.nbr.org/publications/element.aspx?id=638.

⁵³ Peter Enav, "Experts: North Korea Missile Carrier Likely from China," Associated Press, April 19, 2012.

⁵⁴ For both 2012 launches, the North Korean rocket trajectory was to have taken it in the upper atmosphere above two small Japanese islands in the Ryukyu island chain.

⁵⁵ "朝鲜宣布发射卫星引发世界关注(The DPRK's Announcement of a Satellite Launch Triggers the World's Attention)," People's Daily Online, webpage, April 2012, http://world.people.com.cn/GB/8212/191606/240872/index.html.

Korean ballistic missile development increases the need to bolster regional BMD capabilities and cooperation. For more information, see CRS Report R43116, *Ballistic Missile Defense in the Asia-Pacific Region: Cooperation and Opposition*, by Ian E. Rinehart, Steven A. Hildreth, and Susan V. Lawrence.

North Korea's Conventional Military Forces

North Korea's conventional military capabilities have atrophied significantly since 1990, due to antiquated weapons systems and inadequate training, but North Korea could still inflict enormous damage on Seoul with artillery and rocket attacks. Security experts agree that, if there were a war on the Korean Peninsula, the United States and South Korea would prevail, but at great cost. To compensate for its obsolete traditional forces, in recent years North Korea has sought to improve its asymmetric capabilities, such as unmanned aerial vehicles (UAVs), offensive cyber operations, and special operations forces.

North Korea fields one of the largest militaries in the world, estimated at 1.2 million personnel in uniform, with another 600,000 in reserves. Defense spending may account for as much as 24% of the DPRK's national income, on a purchasing power parity basis. The North Korean military has deployed approximately 70% of its ground forces and 50% of its air and naval forces within 100 kilometers of the de-militarized zone (DMZ) border, allowing it to rapidly prepare for full-scale conflict with South Korea. Analysts estimate that North Korean artillery forces, fortified in thousands of underground facilities, could fire thousands of artillery rounds at metropolitan Seoul in the first hour of a war. Most North Korean major combat equipment, however, is old and inferior to the modern systems of the U.S. and ROK militaries. With few exceptions, North Korean tanks, fighter aircraft, armored personnel carriers, and some ships are based on Soviet designs from the 1950s-1970s.

Although North Korea does not have the resources to modernize its entire military, it has selectively invested in asymmetric capabilities to mitigate the qualitative advantage of U.S. and ROK forces. As described in other sections, North Korea has made the development of nuclear weapons and long-range ballistic missiles a top priority. North Korea has a large stockpile of chemical weapons and may have biological weapons as well. Analysts assess that in recent years Pyongyang has developed the ability to conduct offensive cyber operations but its cyber warfare capabilities lag behind the most advanced nations. Open-source intelligence reports indicate that North Korea may have developed an anti-ship cruise missile (ASCM) based on Russian technology and UAVs that can deliver a precision strike similar to a cruise missile.

⁶⁰ DOD (2014), p. 12.

⁵⁶ U.S. Department of Defense, *Military and Security Developments Involving the Democratic People's Republic of Korea 2013*, Washington, DC, February 2014, p. 8.

⁵⁷ North Korean Security Challenges: A Net Assessment (London: The International Institute for Strategic Studies, 2011), p 47.

⁵⁸ The Military Balance 2015 (London, UK: International Institute for Strategic Studies, 2015), p. 261.

⁵⁹ IISS (2011), p. 47.

⁶¹ IISS (2011), pp. 52-53.

⁶² Lee Yong-jong and Sarah Kim, "Cyberwarfare is North's New Priority, Experts Say," *Korea JoongAng Daily*, November 14, 2013.

⁶³ IISS (2015), p. 227 and DOD (2014), p. 9.

maritime domain, North Korea constructed two new helicopter-carrier corvettes and may be developing a new, larger model of submarine (perhaps to launch ballistic missiles).

The North Korean military suffers from institutional weaknesses that would mitigate its effectiveness in a major conflict. Because of the totalitarian government system, the North Korean military's command and control structure is highly centralized and allows no independent actions. North Korean war plans are believed to be highly "scripted" and inflexible in operational and tactical terms, and mid-level officers do not have the training and authority to act on their own initiative. The country's general resource scarcity affects military readiness in several ways: lack of fuel prevents pilots from conducting adequate flight training, logistical shortages could prevent troops from traveling as ordered, lack of spare parts could reduce the availability of equipment, and food shortages will likely reduce the endurance of North Korean forces in combat, among other effects.

North Korea's Cyberattack Capabilities

Security experts and U.S. officials have voiced increasing concern about North Korea's improving cyberattack capabilities. In March 2013, an attack on the computer systems of several South Korean media and financial institutions disrupted their functioning for days, in one of the most significant cyberattacks in the country's history; cybersecurity analysts identified North Korean hackers as the culprit. 65 The FBI determined that North Korean hackers were responsible for the November 2014 cyberattack on Sony Pictures Entertainment, an intrusion that disrupted the company's communication systems, released employees' personal information, and leaked yet-to-be released films. (Some reports speculate that the cyberattack on Sony Pictures could have been an attempt to punish the company for its production of a comedy in which American journalists assassinate Kim Jong-un at the instigation of the Central Intelligence Agency.) Perhaps in response to doubts about the attribution of the cyberattack to North Korea, U.S. officials revealed that the National Security Agency had penetrated North Korean computer networks years in advance of the Sony hacking.

North Korea's Human Rights Record

Although the nuclear issue has dominated negotiations with Pyongyang, U.S. officials regularly voice concerns about North Korea's abysmal human rights record. Congress has passed bills and held hearings to draw attention to this problem and seek a resolution. The plight of most North Koreans is dire. The State Department's annual human rights reports and reports from private organizations have portrayed a little-changing pattern of extreme human rights abuses by the North Korean regime over many years. The reports stress a total denial of political, civil, and religious liberties and say that no dissent or criticism of leadership is allowed. Freedoms of

⁶⁴ IISS (2011), p. 54.

⁶⁵ Mark Clayton, "In Cyberarms Race, North Korea Emerging As a Power, Not a Pushover," *Christian Science Monitor*, October 19, 2013.

⁶⁶ David Sanger and Martin Fackler, "N.S.A. Breached North Korean Networks Before Sony Attack, Officials Say," New York Times, January 18, 2015.

⁶⁷ See U.S. Department of State, 2014 Country Report on Human Rights Practices: Democratic People's Republic of Korea available at http://www.state.gov/j/drl/rls/hrrpt/humanrightsreport/index.htm#wrapper.

speech, the press, and assembly do not exist. There is no independent judiciary, and citizens do not have the right to choose their own government. Reports also document the extensive ideological indoctrination of North Korean citizens.

Severe physical abuse is meted out to citizens who violate laws and restrictions. Multiple reports have described a system of prison camps (*kwanliso*) that house roughly 100,000 political prisoners, including family members who are considered guilty by association. Reports from survivors and escapees from the camps indicate that conditions are extremely harsh and that many do not survive. Reports cite starvation, disease, executions, and torture of prisoners as a frequent practice. (Conditions for nonpolitical prisoners in local-level "collection centers" and "labor training centers" are hardly better.) The number of political prisoners in North Korea appears to have declined in recent years, likely as a result of high mortality rates in the camps.

In addition to the extreme curtailment of rights, many North Koreans face limited access to health care and significant food shortages. UNICEF has reported that each year some 40,000 North Korean children under five became "acutely malnourished," with 25,000 needing hospital treatment. Food security is a constant problem for North Koreans, many of whom reportedly suffer from stunting due to poor nutrition. Many of these health and social problems are rooted in political decisions; access to resources in North Korea generally often is highly dependent upon geographic location, and the government decides where families can live depending on the degree of loyalty to the state.

Human Rights Diplomacy at the United Nations

During the past decade, the United Nations has been an important forum to recognize human rights violations in North Korea. Since 2004, the U.N. Human Rights Council has annually renewed the mandate of the Special Rapporteur on the human rights situation in North Korea. Member states have also addressed the issue through annual resolutions in the U.N. General Assembly, Led by Japan and the European Union, the U.N. Human Rights Council established for the first time in March 2013 a commission to investigate "the systematic, widespread and grave violations of human rights in the Democratic People's Republic of Korea ... with a view to ensuring full accountability, in particular where these violations may amount to crimes against humanity." The Commission of Inquiry (COI) conducted public hearings in South Korea, Japan, and the United States to collect information and shed light on the inhumane conditions in North Korea. The COI concluded in February 2014 that North Korea had committed "crimes against humanity" and the individuals responsible should face charges at the ICC. In November 2014, U.N. member states voted overwhelmingly (111 yes; 19 no; 55 abstaining) to recommend that the UNSC refer the human rights situation in North Korea to the ICC. Although it appears likely that either Russia or China (or both) will use their veto at the UNSC to prevent the ICC from taking up this case, the United Nations has become a central forum for pressuring North Korea to respect the human rights of its citizens.

Commentators have credited the U.N. process for pushing the regime to engage on the human rights issue, although official North Korean news outlets and public statements continue to accuse

⁶⁸ David Hawk, "North Korea's Hidden Gulag: Interpreting Reports of Changes in the Prison Camps," Committee for Human Rights in North Korea, Washington, DC, August 27, 2013.

⁶⁹ Ibid., pp. 33-37.

"hostile forces" of politicizing the human rights issue in order to bring down the regime. Pyongyang officials have appeared more concerned than in the past about international condemnation of North Korea's human rights record. When the COI results were announced, North Korea's U.N. diplomats tried unsuccessfully to change the language in a draft resolution. They sought to drop the ICC reference in exchange for an official visit by the U.N. Special Rapporteur on human rights in North Korea. This unusually strong resistance by North Korea may indicate a genuine fear of the consequences of an ICC investigation into "crimes against humanity." In October 2014, North Korean officials gave a briefing at the United Nations that mentioned for the first time North Korea's detention centers and "reform through labor" policies, though stopped short of acknowledging the harsher political prison camps (*kwanliso*). North Korea also announced that it had ratified a U.N. protocol on child protection in an apparent attempt to push back against the scathing U.N. report. It remains to be seen whether this round of U.N.-centered diplomacy leads to sustained dialogue on human rights issues with North Korea, or whether it causes North Korea to further isolate itself from the international community.

North Korean Refugees

For two decades, food shortages, persecution, human rights abuses, and increasing awareness of better conditions in the outside world have prompted tens of thousands of North Koreans to flee to neighboring China, where they are forced to evade Chinese security forces and often become victims of further abuse, neglect, and lack of protection. If repatriated, they risk harsh punishment or execution. (See below section.) There is little reliable information on the size and composition of the North Korean population located in China. Estimates range up to 300,000. The United Nations High Commissioner for Refugees (UNHCR) has not been given access to conduct a systematic survey. Reports indicate that many women and children are the victims of human trafficking, particularly women lured to China seeking a better life but forced into marriage or prostitution. Some of the refugees who escape to China make their way to Southeast Asia, where they may seek passage to a third country, usually South Korea. In the period 2007-2011, an average of 2,678 North Koreans per year found refuge in South Korea, but in the period 2012-2014 the rate of refugees reaching South Korea dropped by 45% to about 1,474 North Koreans per year, reflecting tightened border security measures in North Korea after the death of Kim Jong-il.

China's Policy on Repatriation of North Koreans

The February 2014 U.N. Commission of Inquiry implicated China for its "rigorous policy" of repatriating North Korea defectors back to their country. For decades—and particularly since the 1990s, when a severe famine hit North Korea—China has been actively cooperating with the North Korean regime to find, arrest, and repatriate North Korean political refugees back to their home country.

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⁷⁰ United States Department of State, Trafficking in Persons Report 2013—Korea, Democratic People's Republic of, June 19, 2013, available at http://www.state.gov/j/tip/rls/tiprpt/2013.

⁷¹ Republic of Korea Ministry of Unification, Major Statistics in Inter-Korean Relations, accessed July 14, 2015, http://eng.unikorea.go.kr/content.do?cmsid=1822.

⁷² Report of the Detailed Findings of the Commission of Inquiry on Human Rights in the Democratic People's Republic of Korea, November 2014, http://www.ohchr.org/EN/HRBodies/HRC/CoIDPRK/Pages/Documents.aspx.

China's repatriation policy for North Korean defectors contravenes the 1951 U.N. Refugee Convention, which China has signed. Instead of treating North Korean defectors as political refugees and granting them asylum, the Chinese government labels them as "illegal economic migrants" and deports them. China's policy is based on the Mutual Cooperation Protocol for the Work of Maintaining National Security and Social Order and the Border Areas between North Korea and China (signed in 1986 and revised in 1998), which is essentially a repatriation treaty for illegal border crossers. Assisting the refugees in any way is also illegal in China. If the political refugees are able to reach foreign embassies and consulates, Beijing has been willing to let the defectors leave the country.

North Korean defectors face imprisonment, torture, and even executions once back home, but Beijing has maintained its policy of repatriation partially to maintain China-North Korea ties on an even keel. According to a Chinese official, the North Korean regime treats the refugee issue as seriously as the Chinese governments treats the issue of Taiwan.⁷⁷ Therefore, Beijing is cautious in dealing with the issue. The Chinese government also fears that allowing refugees into China might open the floodgate of North Korean defections, destabilize its northeastern provinces socially and politically, or eventually cause the North Korean regime's collapse, which many Chinese analysts see as detrimental to China's interests.⁷⁸

The North Korean Human Rights Act

In 2004, the 108th Congress passed, and President George W. Bush signed, the North Korean Human Rights Act (H.R. 4011; P.L. 108-333). Among its chief goals are the promotion and protection of human rights in North Korea and the creation of a "durable humanitarian" option for its refugees. The North Korean Human Rights Act (NKHRA) authorized new funds to support human rights efforts and improve the flow of information, and required the President to appoint a Special Envoy on human rights in North Korea. Under the NKHRA, North Koreans may apply for asylum in the United States, and the State Department is required to facilitate the submission of their applications. The bill required that all nonhumanitarian assistance must be linked to improvements in human rights, but provided a waiver if the President deems the aid to be in the interest of national security.

In 2008, Congress reauthorized NKHRA through 2012 under P.L. 110-346 with the requirement for additional reporting on U.S. efforts to resettle North Korean refugees in the United States. In August 2012, Congress approved the extension of the act (P.L. 112-172) through 2017. A "Sense of the Congress" included in the bill calls on China to desist in its forcible repatriation of North Korean refugees and instructs U.S. diplomats to enhance efforts to resettle North Korean refugees from third countries. The 2012 NKHRA reauthorization maintained funding at the original levels of \$2 million annually to support human rights and democracy programs and \$2 million annually

⁷³ "N. Korean Refugees Caught in China," *The Japan Times*. November 18, 2013.

⁷⁴ Gabriel Auteri, "Legal Roadblocks Hinder North Korean Migrants' Efforts to Escape Oppressive Conditions," Human Rights Brief, March 7, 2013.

⁷⁵ George W. Bush Institute, "Infographic: North Korea's Refugees," *Freedom Square*, July 30, 2014.

⁷⁶ Roberta Cohen, "China's Forced Repatriation of North Korean Refugees Incurs United Nations Censure," *International Journal of Korean Studies*, Summer/Fall 2014.

⁷⁷ Sokeel J. Park, "Divided Over North Korean Refugees," ISN, March 1, 2012.

⁷⁸ Roberta Cohen, "China's Forced Repatriation of North Korean Refugees Incurs United Nations Censure," *International Journal of Korean Studies*, Summer/Fall 2014.

to promote freedom of information programs for North Koreans, but reduced appropriated funding to resettle North Korean refugees from \$20 million to \$5 million annually, reflecting the actual outlays of the program.

Implementation

Modest numbers of North Korean refugees have resettled in the United States. According to the State Department, as of January 2015, 179 North Korean refugees have been resettled in the United States. ⁷⁹ Several U.S. agencies were involved in working with other countries to resettle such refugees, but North Korean applicants face hurdles. Some host countries delay the granting of exit permissions or limit contacts with U.S. officials. Other host governments are reluctant to antagonize Pyongyang by admitting North Korean refugees and prefer to avoid making their countries known as a reliable transit point. Another challenge is educating the North Korean refugee population about the potential to resettle in the United States, many of whom may not be aware of the program. An American nongovernmental organization called "NK in USA" seeks to aid the transition of refugees to normal lives in the United States.

Under the NKHRA, Congress authorized \$2 million annually to promote freedom of information programs for North Koreans. It called on the Broadcasting Board of Governors (BBG) to "facilitate the unhindered dissemination of information in North Korea" by increasing Koreanlanguage broadcasts of Radio Free Asia (RFA) and Voice of America (VOA). 80 A modest amount has been appropriated to support independent radio broadcasters. The BBG currently broadcasts to North Korea 10 hours per day using two medium wave frequencies and multiple shortwave frequencies. RFA has also reached out to an increasing number of cell phone users in North Korea, including by introducing an iPhone app to listen to RFA.⁸¹ Although all North Korean radios are altered by the government to prevent outside broadcasts, defectors report that many citizens have illegal radios that receive the programs. There have also been both public and private efforts in the past to smuggle in radios in order to allow information to penetrate the closed country.

North Korean Overseas Labor

In recent years, analysts of North Korean affairs have increasingly called attention to North Korean workers laboring overseas in programs organized by the North Korean regime. These programs have been cited in the State Department's annual Trafficking in Persons Report since 2003. The international focus on these labor export programs has tended to fall into two

80 Broadcast content includes news briefs, particularly news about the Korean Peninsula; interviews with North Korean

⁷⁹ CRS email correspondence with U.S. Department of State, February 3, 2015.

defectors; and international commentary on events occurring in North Korea. The BBG cites a Peterson Institute for

International Economics survey in which North Korean defectors interviewed in China and South Korea indicated that they had listened to foreign media including RFA. RFA broadcasts five hours a day. VOA broadcasts five hours a day with three of those hours in prime-time from a medium-wave transmitter in South Korea aimed at North Korea. VOA also broadcasts from stations in Thailand; the Philippines; and from leased stations in Russia and eastern Mongolia. In January 2009, the BBG began broadcasting to North Korea from a leased medium-wave facility in South Korea. The BBG added leased transmission capability to bolster medium-wave service into North Korea in January 2010. RFA broadcasts from stations in Tinian (Northern Marianas) and Saipan, and leased stations in Russia and Mongolia.

⁸¹ Broadcasting Board of Governors FY2013 Budget Request, http://www.bbg.gov/wp-content/media/2012/02/FY-2013-BBG-Congressional-Budget-Request-FINAL-2-9-12-Small.pdf.

categories: the working conditions, which in some cases are described as akin to slave labor; and the North Korean government's use of these programs to generate hard currency, perhaps in violation of the United Nations Security Council sanctions against Pyongyang.

North Korea's overseas labor program has a decades-long history. The country first began sending its laborers to Russia in 1967, to Africa in the 1970s, and the Middle East starting in 1991. According to reports, 16 countries employ these laborers at present (see below), and about 45 countries have employed them at some point in their history. Estimates of the number of North Korean workers abroad today range from 20,000 to over 150,000, with Russia and China believed to host the largest number. The usual estimate is about 50,000 to 65,000. Reportedly, the number of North Koreans working overseas has increased since Kim Jong-un came to power in 2011 and is continuing to increase.

Table 1. The Number of North Korean Overseas Laborers by Country as of 2013

Country	Number of Laborers
Russia	20,000
China	19,000
Kuwait	5,000
UAE	2,000
Mongolia	1,300-2,000
Qatar	1,800
Angola	1,000
Poland	400-500
Malaysia	300
Oman	300
Libya	300
Myanmar	200
Nigeria	200
Algeria	200
Equatorial Guinea	200
Ethiopia	100

Source: Shin, Chang-Hoon and Myong-Hyun Go. Beyond the UN COI Report on Human Rights in North Korea, Asan Institute for Policy Studies, November 2014.

The working conditions of the North Korean laborers abroad vary by industry and by host country, but they are said to be living and working under exploitative and repressive conditions. The workers typically work for three years without having a chance to return home and labor

⁸² Chang-Hoon Shin and Myong-Hyun Go, *Beyond the UN COI Report on Human Rights in North Korea*, November 2014.

⁸³ Shin and Go, Beyond the UN COI Report on Human Rights in North Korea, November 2014.

^{84 &}quot;150,000 N.Koreans Sent to Slave Labor Abroad," Chosun Ilbo, November 13, 2014.

^{85 &}quot;ILO Calls on Mongolia to Protect North Korean Workers," The Korea Times, June 10, 2015.

between 12 and 16 hours every day under dangerous and sub-standard conditions. Some countries have been responsive to international criticism with regard to their practices. For example, a construction company in Qatar, which is under international scrutiny for adopting substandard labor practices in preparation for the 2022 FIFA World Cup and is host to 3,000 North Korean workers throughout the country, fired 90 North Korean laborers, presumably in an attempt to avoid further criticism.

Some observers assert that many North Koreans voluntarily seek out overseas positions because they represent opportunities to earn more money and hard currency than is possible at home. ⁸⁸ Others argue that the North Korean government deceives workers into accepting foreign jobs with harsh working conditions. ⁸⁹ The North Korean regime, by most accounts, takes up to 85-90% of their earnings. ⁹⁰ This diversion of income earned abroad contributes about \$3 billion per year in foreign currency for the regime, helping to prop up the economy and weakening the effectiveness of the sanctions against North Korea. ⁹¹ In March 2015, U.N. Special Rapporteur on the Situation of Human Rights in the DPRK Marzuki Darusman said that he would investigate allegations that tens of thousands North Koreans are working overseas in slave-like conditions. ⁹²

North Korea's Illicit Activities

Strong indications exist that the North Korean regime has been involved in the production and trafficking of illicit drugs, as well as of counterfeit currency, cigarettes, and pharmaceuticals. Much of the illicit activities are reportedly administered by "Office 39," a branch of the government that some analysts estimate generates up to \$2 billion annually. North Korean crime-for-profit activities have reportedly brought in important foreign currency resources, exemplified by a foiled plot to smuggle 100 kg of North Korean-origin methamphetamines into the United States in November 2013. However, recent reports indicate that the scale of these activities has shrunk since the 2000s. However, recent reports indicate that the scale of these activities has shrunk since the 2000s. U.S. policy during the first term of the Bush Administration highlighted these activities, but they have generally been relegated since to a lower level of priority compared to other issues.

In September 2005, the U.S. Treasury Department identified Banco Delta Asia, located in Macau, as a bank that distributed North Korean counterfeit currency and allowed for money laundering

⁸⁶ Shin and Go, Beyond the UN COI Report on Human Rights in North Korea, November 2014.

⁸⁷ Hyo-jin Kim, "A Qatar Construction Company Fires 90 North Korean Workers," *The Korea Times* [Seoul], May 7, 2015, http://www.koreatimes.co.kr/www/news/nation/2015/05/116 178523.html.

⁸⁸ Andrei Lankov, "North Korean Workers Abroad Aren't Slaves," NK News, November 27, 2014.

⁸⁹ Shin and Go, Beyond the UN COI Report on Human Rights in North Korea, November 2014.

^{90 &}quot;150,000 N.Koreans Sent to Slave Labor Abroad," Chosun Ilbo, November 13, 2014.

⁹¹ Stephanie Nebehay, "U.N. Expert to Probe Conditions of North Korean Workers Abroad," Reuters, 16 March 2015.

⁹² Ibid.

⁹³ For more information, see CRS Report RL33885, *North Korean Crime-for-Profit Activities*, by Liana W. Rosen and Dick K. Nanto.

⁹⁴ "Defectors Detail How North Korea's Office 39 Feeds Leader's Slush Fund," *Wall Street Journal Online*, September 15, 2014.

⁹⁵ Sari Horwitz, "5 Extradited in Plot to Import North Korean Meth to U.S.," Washington Post, November 20, 2013.

⁹⁶ Marcus Noland, "North Korea Illicit Activities," North Korea: Witness to Transformation blog, Peterson Institute for International Economics, March 11, 2013, http://www.piie.com/blogs/nk/?p=9650.

for North Korean criminal enterprises. The Treasury Department ordered the freezing of \$24 million in North Korean accounts with the bank. This action prompted many other banks to freeze North Korean accounts and derailed potential progress on the September 2005 Six-Party Talks agreement. After lengthy negotiations and complicated arrangements, in June 2007 the Bush Administration agreed to allow the release of the \$24 million from Banco Delta Asia accounts and ceased its campaign to pressure foreign governments and banks to avoid doing business with North Korea. The UNSC has renewed efforts to pressure Pyongyang through the restriction of illicit activities and financial access following the 2009 and 2012 nuclear tests.

North Korea has sold conventional arms and military expertise to several Middle Eastern and North African states, although this arms trade has declined greatly from the Cold War era. In July 2014, international observers refocused attention on North Korean arms exports to the Middle East when Britain's *Telegraph* reported that the Palestinian militant group Hamas sought to purchase rockets from North Korea to replenish its stocks. ⁹⁷ The article also cited Israeli military commanders who apparently believe that North Korean experts provided logistical advice on Hamas's tunnel network. (North Korea has denied the report's validity.) ⁹⁸ There is a history of apparent Hamas-North Korea connections that provides evidence for the claim's plausibility, and past North Korean dealings or alleged dealings with Syria and/or Iran could have helped facilitate such possible connections. ⁹⁹

U.S. Engagement Activities with North Korea

Official U.S. Assistance to North Korea¹⁰⁰

Between 1995 and 2008, the United States provided North Korea with over \$1.2 billion in assistance, of which about 60% paid for food aid and about 40% for energy assistance. The U.S. government has not provided any aid to North Korea since early 2009; the United States provided all of its share of pledged heavy fuel oil by December 2008. Energy assistance was tied to progress in the Six-Party Talks, which broke down in 2009. From 2007 to April 2009, the United States also provided technical assistance to North Korea to help in the nuclear disablement process. In 2008, Congress took legislative steps to legally enable the President to give expanded assistance for this purpose. However, following North Korea's actions in the spring of 2009 when it test-fired a missile, tested a nuclear device, halted denuclearization activities, and expelled nuclear inspectors, Congress explicitly rejected the Obama Administration's requests for funds to supplement existing resources in the event of a breakthrough in the Six-Party Talks.

U.S. food aid ended in early 2009 due to disagreements with Pyongyang over monitoring and access. In 2011, North Korea issued appeals to the international community for additional

⁹⁷ Con Coughlin, "Hamas and North Korea in Secret Arms Deal," *Telegraph*, July 26, 2014. North Korea is renowned for its expertise in sophisticated tunneling projects.

⁹⁸ Emily Rauhala, "North Korea Denies Selling Missiles to Hamas," time.com, July 29, 2014.

⁹⁹ Andrea Berger, "North Korea, Hamas, and Hezbollah: Arm in Arm?," 38North blog, U.S.-Korea Institute at SAIS, August 5, 2014, http://38north.org/2014/08/aberger080514.

¹⁰⁰ For more, see CRS Report R40095, Foreign Assistance to North Korea, by Mark E. Manyin and Mary Beth D. Nikitin.

support. The abrogated Leap Day Agreement would have provided 240,000 metric tons of food and nutritional aid intended for young children, pregnant mothers, and the elderly.

POW-MIA Recovery Operations in North Korea

From 1990 to 1992, North Korean officials directly engaged with Members of Congress especially Senator Bob Smith, co-chairman of the Senate Select Committee on Prisoners of War and Missing in Action Affairs—to discuss the recovery of U.S. prisoners of war-missing in action (POW-MIAs) in North Korea. ¹⁰¹ In 1996, after a series of difficult negotiations, North Korea and the United States agreed to conduct joint investigations to recover the remains of thousands of U.S. servicemen unaccounted for during the Korean War. The U.S. military and the Korean People's Army conducted 33 joint investigations from 1996 to 2005 for these POW-MIAs. In operations known as "joint field activities" (JFAs), U.S. specialists recovered 229 sets of remains and have successfully identified 107 of those. 102 On May 25, 2005, the Department of Defense announced that it would suspend all JFAs, citing the "uncertain environment created by North Korea's unwillingness to participate in the Six-Party Talks," its declarations regarding its intentions to develop nuclear weapons, its withdrawal from the NPT, and concerns about the safety of U.S. members of the search teams. 103 Between 1996 and 2005, the Department of Defense's Prisoner of War/Missing Personnel Office (DPMO) provided the North Korean military with over \$20 million for assistance in recovering the suspected remains. 104 Talks between the United States and North Korea on the joint recovery program resumed in 2011 and led to an agreement in October 2011. In January 2012, the Department of Defense announced that it was preparing a mission to return to North Korea in early 2012. However, Pyongyang's determination to launch a rocket in contravention of the "Leap Day Agreement" and UNSC resolutions cast doubt on the credibility of North Korean commitments, and the Department of Defense suspended the joint mission in March 2012. 105 The United States has not undertaken any JFAs with the KPA since May 2005. In October 2014, North Korean state media warned that the remains of U.S. POW-MIAs were in danger of being damaged or displaced by construction activities and floods, a warning that most likely conveyed Pyongyang's desire to return to broader bilateral negotiations with Washington. ¹⁰⁶ The Department of Defense has said that the recovery of the remains of missing U.S. soldiers is an enduring priority goal of the United States and that it is committed to achieving the fullest possible accounting for POW-MIAs from the Korean War.

Nongovernmental Organizations' Activities

Since the famines in North Korea of the mid-1990s, the largest proportion of aid has come from government contributions to emergency relief programs administered by international relief

¹⁰¹ C. Kenneth Quinones, "The US-DPRK 1994 Agreed Framework and the US Army's Return to North Korea," in Rudiger Frank, James Hoare, et al., editors, *Korea Yearbook Volume 2: Politics, Economy and Society* (Leiden: Koninklijke Brill NV, 2008).

¹⁰² Separately, from 1990 to 1994, North Korea unilaterally handed over 208 boxes of remains, some of them commingled, U.S. specialists have identified 104 soldiers from those remains so far.

¹⁰³"U.S. Halts Search for Its War Dead in North Korea," New York Times, May 26, 2005.

¹⁰⁴ April 2005 email correspondence between CRS and with DPMO.

¹⁰⁵ Jim Garamone, "U.S. Suspends MIA Search in North Korea," *American Forces Press Service*, March 21, 2012. http://www.defense.gov/news/newsarticle.aspx?id=67639.

¹⁰⁶ Choe Sang-hun, "North Korea Says G.I.s' Remains May Vanish," New York Times, October 13, 2014.

organizations. However, some nongovernmental organizations (NGOs) are playing smaller roles in capacity building and people-to-people exchanges, in areas such as agriculture, health, informal diplomacy, information science, and education. Despite turbulent relations between the U.S. and DPRK governments, many NGOs are able to maintain good working relationships with their North Korean counterparts and continue to operate through periods of tension. In the period January-June 2014, U.S. NGOs sent \$19.5 million in humanitarian aid to North Korea. 107

The aims of such NGOs are as diverse as the institutions themselves. Some illustrative cases include NGO "joint ventures" between academic NGOs and those engaged in informal diplomacy. Several religious organizations with programs around the world are active in North Korea on a small scale. These religious NGOs generally have a humanitarian philosophy and aim to provide aid to the more vulnerable sectors of the North Korean population. Most of these organizations have an ancillary goal of promoting peaceful relations with North Korea through stronger people-to-people ties.

List of Other CRS Reports on North Korea

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¹⁰⁷ "US NGO Aid to NK Increases Fourfold," *Daily NK*, August 7, 2014.

CRS Report RL32493, *North Korea: Economic Leverage and Policy Analysis*, by Dick K. Nanto and Emma Chanlett-Avery

CRS Report RL33567, Korea-U.S. Relations: Issues for Congress, by Larry A. Niksch

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