

MP-IDSA

Issue Brief

South Korea and Nuclear Weapons: An Analysis

Ranjit Kumar Dhawan

September 06, 2024

S*ummary*

The constant threat of North Korean aggression and fears of abandonment by the United States of its security commitment to South Korea have been the primary reasons for Seoul's nuclear ambitions. More recently, the deepening military alliance between North Korea and Russia has raised serious concerns in South Korea.

Introduction

The increasing North Korean nuclear threats and fears of abandonment by the United States (US) of its security commitment in East Asia have led to anxieties among its allies in the region. The failure of North Korea’s rapprochement with the US under former President Donald Trump, and designation of South Korea as an ‘enemy state’ by Pyongyang in 2024 has further deteriorated the security situation on the Korean Peninsula. Earlier, in 2023 the South Korean President Yoon Suk Yeol even argued that his country could develop its own nuclear weapons or may approach the US to redeploy nuclear weapons in South Korea.¹ Although the development of nuclear weapons is still not the official policy of Seoul, the remarks by President Yoon are reflective of the security environment on the Korean Peninsula. In recent months, the public support for South Korea’s own nuclear weapons has also increased.²

Analysts, however, point to four key apprehensions with regards to South Korea developing its own nuclear weapons.³ Firstly, the development of nuclear weapons by South Korea might have a domino effect as the East Asian region may see a nuclear arms race and North Korea would further advance its nuclear capabilities. Secondly, it would be a costly affair for South Korea due to the withdrawal from the nuclear non-proliferation treaty (NPT), expected international sanctions, and high costs of nuclear weapons development programme. Thirdly, it would be safer and pragmatic for South Korea to continue living under the American ‘nuclear umbrella’ and security network. Fourthly, South Korea having its own nuclear weapons would not be acceptable to the US.

Nuclear Weapons and the Korean Peninsula

The first reference to nuclear weapons in the Korean Peninsula goes back to the Korean War (1950–1953) when the US threatened to use them to deter China’s support to North Korea and end the conflict.⁴ Later, during the Cold War period, the US deployed tactical nuclear weapons in South Korea, which remained there till 1991.⁵ In the post-Cold War period, North Korea tested nuclear devices six times between 2006 and 2017. The Kim dynasty regime in Pyongyang has also been able

¹ Choe Sang-Hun, [“In a First, South Korea Declares Nuclear Weapons a Policy Option”](#), *The New York Times*, 12 January 2023.

² Lee Yu-Jeong, Lee Keun-Pyung and Michael Lee, [“South Koreans Prefer Own Nuclear Deterrent Over U.S. Troops: Survey”](#), *Korea JoongAng Daily*, 27 June 2024.

³ Mun Suk Ahn and Young Chul Cho, [“A Nuclear South Korea?”](#), *International Journal: Canada’s Journal of Global Policy Analysis*, Vol. 69, No. 1, 2014, pp. 26–34; Rajaram Panda, [“Should South Korea go Nuclear?”](#), *Asia-Pacific Review*, Vol. 22, No. 1, 2015, pp. 148–176; Mason Richey, [“South Korea and Nuclear Weapons”](#), *The Korea Times*, 9 July 2024.

⁴ Roger Dingman, [“Atomic Diplomacy during the Korean War”](#), *International Security*, Vol. 13, No. 3, Winter, 1988–1989, pp. 50–91.

⁵ Hans M. Kristensen and Robert S. Norris, [“A History of US Nuclear Weapons in South Korea”](#), *Bulletin of the Atomic Scientists*, Vol. 73, No. 6, 2017, pp. 349–357.

to develop long-range ballistic missiles, which are claimed to have the capacity to reach the mainland of the US. As a result, the US has been strengthening partnership with its allies in the East Asian region to counter North Korean belligerence.

South Korea’s quest for nuclear weapons is also almost five decades old. In the 1970s, in the milieu of concerns about the withdrawal of American troops from South Korea, the then Park Chung-hee regime (1961–1979) pursued a secret nuclear weapons programme.⁶ The mission to acquire nuclear weapons in the backdrop of weakening American ‘extended deterrence’ to Seoul was named as ‘Project 890’.⁷ Apart from nuclear weapons, the South Korean government under Park also gave emphasis on building ‘self-reliance’ in the field of conventional weapons and reduce dependence on the US for security of the country.

Subsequently, the quest for the acquisition of nuclear weapons was abandoned by South Korea after it signed the NPT in 1975. However, it is alleged that South Korea continued hidden experiments with plutonium and/or uranium during 1975–2000.⁸ Also, the demand for South Korea’s own nuclear weapon capabilities has been intensifying with the increasing North Korean nuclear threats and apprehensions about American security commitment to Seoul.⁹

Rising Support for Nuclear Weapons in South Korea

The call for South Korea’s ‘nuclear options’ have increased in the backdrop of the Russian President Vladimir Putin’s visit to North Korea in June 2024.¹⁰ The forging of a ‘Comprehensive Strategic Partnership’ between North Korea and Russia which includes provision for mutual military assistance during the attack on any of the two nations has raised serious concerns in South Korea.¹¹ The comment by a former American official that South Korea may seek its own nuclear deterrence due to the deepening North Korea–Russia relationship has also generated a lot of interest on this issue.¹²

⁶ Seung-Young Kim, [“Security, Nationalism and the Pursuit of Nuclear Weapons and Missiles: The South Korean Case, 1970–82”](#), *Diplomacy and Statecraft*, Vol. 12, No. 4, December 2001, pp. 53–80.

⁷ Se Young Jang, [“The Evolution of US Extended Deterrence and South Korea’s Nuclear Ambitions”](#), *Journal of Strategic Studies*, Vol. 39, No. 4, 2016, pp. 502–520.

⁸ Peter Hayes and Chung-in Moon, Contributing Author: Scott Bruce, [“Park Chung Hee, the CIA, and the Bomb”](#), NAPSNet Special Reports, 23 September 2011; Kelsey Davenport, [“South Korea Walks Back Nuclear Weapons Comments”](#), Arms Control Association, March 2023; Mun Suk Ahn and Young Chul Cho, [“A Nuclear South Korea?”](#), no. 3, p. 27.

⁹ Jean Mackenzie, [“Nuclear Weapons: Why South Koreans Want the Bomb”](#), *BBC*, 22 April 2023.

¹⁰ [“Explore Nuclear Options”](#), *The Korea Times*, 24 June 2024.

¹¹ Son Ji-hyoung, [“Seoul Mulls ‘Arms Support’ For Ukraine after Russia-NK Pact”](#), *The Korea Herald*, 20 June 2024.

¹² Yonhap, [“Deepening NK-Russia Ties May Drive Seoul in Direction of Nuclear Option: Ex-Trump Official”](#), *The Korea Times*, 22 June 2024.

Recently, a state-funded think-tank in South Korea, the Institute for National Security Strategy (INSS) has come out with a report which suggests that South Korea needs to acquire its own nuclear weapons technology.¹³ A growing number of politicians in South Korea are also supporting the need for nuclear weapons in the country.¹⁴ A group of conservative leaders from the ruling People Power Party (PPP) have formed a ‘Mugunghwa Forum’ to raise this demand.

A survey conducted in 2024 by another state-funded think-tank in South Korea, the Korea Institute for National Unification (KINU) revealed that the opinion among the South Korean population also seems to be positive towards the country’s own nuclear deterrence. This is the first time that supporters of South Korea’s own nuclear weapons surpassed those who have faith in the country’s military alliance with the United States (Table 1). However, to some analysts, South Korea having its own nuclear weapons remains impractical.¹⁵ South Korean Foreign Minister Cho Tae-yul has also called for caution over the rising demand for South Korea’s own nuclear weapons programme.¹⁶

Table 1: Preference of South Koreans in between US Forces and Nuclear Weapons
(In per cent)

	US forces in South Korea	Nuclear weapons in South Korea
October 2021	49.6	35.0
April 2023	49.5	33.8
April 2024	40.1	44.6

Source: Bon-sang Koo, [“ROK-US Relations and South Korea’s Nuclear Armament”](#), in Sang Sin Lee, Tae-eun Min, Juhwa Park, Moo Chul Lee, Kwang-il Yoon and Bon-sang Koo, *KINU Unification Survey 2024: North Korea’s Two-State Claim/US Presidential Election Outlook and ROK-US Relations*, Korea Institute for National Unification, 27 June 2024, pp. 59–66.

Meanwhile, Seoul signed an agreement on the ‘Guidelines for Nuclear Deterrence and Nuclear Operations on the Korean Peninsula’ with the United States on 11 July 2024 to ‘integrate’ South Korea’s conventional forces with that of the American

¹³ Lim Jeong-Won, [“South Korea Should Consider Independent Nuclear Deterrent in Wake of North-Russia Treaty: Think Tank”](#), *Korea JoongAng Daily*, 24 June 2024.

¹⁴ Kim Arin, [“Among Seoul’s Conservatives, Calls for Going Nuclear Grow”](#), *The Korea Herald*, 4 July 2024.

¹⁵ Lee Hyo-jin, [“‘Unfeasible’ Idea of Nuclear-Armed South Korea Resurfaces”](#), *The Korea Times*, 23 June 2024.

¹⁶ Yonhap, [“FM Cho Voices Caution over Calls for S. Korea to Consider Nuclear Options”](#), *The Korea Times*, 17 July 2024.

nuclear weapons.¹⁷ This new pact between South Korea and the US was institutionalised in the backdrop of the recently inked mutual defence treaty between Pyongyang and Moscow. North Korea has reacted sharply against this agreement between South Korea and US, and Pyongyang has even threatened to increase its nuclear arsenal.¹⁸

During the 21st Shangri-La security dialogue (31 May–2 June 2024), US Defense Secretary Lloyd Austin spoke against American support for the manufacturing of nuclear-powered submarines by Seoul.¹⁹ The denial of nuclear propulsion technology to South Korea is in contrast to the US approach on this issue towards its other allies, such as Australia. Later in July 2024, the Commander of the US Indo-Pacific Command, Adm. Samuel Paparo voiced that South Korea may also be provided with the nuclear-powered submarines in the future.²⁰ According to a South Korean military expert, this probable shift in the position of the US on providing nuclear-powered submarines to South Korea may be a “mere rhetoric”.²¹ Nonetheless, the American position on South Korea developing its own nuclear weapons still appears to be negative.

Why the US Would Not Tolerate the Nuclearisation of South Korea?

The signing of the Mutual Defence Treaty on 1 October 1953 between the US and South Korea had been the cornerstone of military alliance between these two countries. Since the years of the Cold War, the United States has also provided ‘nuclear umbrella’ and ‘extended deterrence’ to South Korea.²² More recently, in July 2024 South Korea and the US agreed to integrate their conventional forces and nuclear weapon capabilities, respectively. But the most significant aspect of this new agreement between the US and South Korea is that unlike the members of North Atlantic Treaty Organization (NATO), sharing nuclear weapons with South Korea is still not acceptable to Washington.

Firstly, the onus of the creation of two Korean states through the division of the Korean Peninsula soon after its liberation from the Japanese colonial rule (1910–

¹⁷ Lim Jeong-Won, [“South Korea, U.S. Form ‘Integrated’ Extended Deterrence System on Sidelines of NATO Summit”](#), *Korea JoongAng Daily*, 12 July 2024.

¹⁸ [“Press Statement of Spokesman for DPRK Ministry of National Defence”](#), *KCNA*, 13 July 2024.

¹⁹ Reuters, [“US Doubtful It Could Help Korea on Nuclear-Powered Subs”](#), *The Korea Times*, 1 June 2024.

²⁰ Yonhap, [“US Indo-Pacific Commander Says Korea’s Acquisition of Nuclear Submarines Could Be Considered in Future: Yoon’s Office”](#), *The Korea Times*, 14 July 2024.

²¹ Lee Hyo-jin, [“Is US Shifting Stance on S. Korea’s Acquisition of Nuclear Submarines?”](#), *The Korea Times*, 15 July 2024.

²² Terence Roehrig, [“The U.S. Nuclear Umbrella over South Korea: Nuclear Weapons and Extended Deterrence”](#), *Political Science Quarterly*, Vol. 132, No. 4, Winter 2017, pp. 651–684.

1945) largely goes to the US. Remarkably, the Korean War concluded with an armistice and not a peace treaty which means that the two Koreas are still technically at war. The continued conflict between the two Koreas provides justification to the US for stationing about 28,500 American troops in South Korea. Notably, even after seven decades of the Korean War, the wartime operational control (OPCON) of the South Korean army still lies with the US.

The unique strategic location of the Korean Peninsula has indeed made it an arena of rivalry for the big powers in the region since the historical period. Therefore, Korean Peninsula was regarded as “a shrimp surrounded by the whales”. According to Hans M. Kristensen and Robert S. Norris, “The United States is not just defending South Korea as a kind gesture, but because it has important and enduring economic and security interests in the region”.²³ South Korea having its own nuclear and conventional weapons capabilities to counter North Korea would make the purpose of extended deterrence of the US irrelevant. As a result, South Korea’s acquisition of its own nuclear weapons would reduce the American influence in the affairs of the Korean Peninsula.²⁴

Secondly, unlike NATO, the US established ‘hub and spokes’ bilateral security arrangement with its allies in East Asia. South Korea’s nuclear arsenal would probably motivate Japan to develop its own nuclear weapons. This might lead to the reordering of the security alliance in the East Asian region.²⁵ According to Chung-in Moon and Young-Deok Shin, “Given that American hegemony in the region has been backed by its nuclear supremacy, it is very unlikely that the USA would allow Japan and South Korea to go nuclear”.²⁶

The deepening political, economic and strategic relations between Seoul and Beijing reflect that South Korea is becoming more dependent on China. China and South Korea established ‘Strategic Cooperative Partnership’ in 2008. Both countries also had ‘2+2 dialogue’ of defence and foreign officials in June 2024. In fact, David C. Kang has argued that “Indeed, South Korea appears more worried about potential Japanese militarization than about Chinese militarization”.²⁷

Historically, the Korean Peninsula was part of the ‘Sino-centric’ regional order. Although the South Korea–US alliance has been resilient and adaptive, China’s

²³ Hans M. Kristensen and Robert S. Norris, “[A History of US Nuclear Weapons in South Korea](#)”, no. 5, p. 355.

²⁴ Lee Hyo-jin, “[‘Unfeasible’ Idea of Nuclear-Armed South Korea Resurfaces](#)”, no. 15.

²⁵ Rajaram Panda, “[Should South Korea go Nuclear?](#)”, no. 3, p. 168.

²⁶ Chung-in Moon and Young-Deok Shin, “[‘South Korea Going Nuclear?’: Debates, Driving Forces, and Prospects](#)”, *China International Strategy Review*, Vol. 5, 2023, pp. 157–179.

²⁷ David C. Kang, [China Rising: Peace, Power, and Order in East Asia](#), Columbia University Press, New York, 2007, p. 104.

influence has also been increasing in the affairs of the Korean Peninsula.²⁸ Currently, Beijing is the largest trade partner of both North and South Korea, and China’s role would also be crucial in the probable reunification of the two Koreas in the future. As a result, South Korea’s increasing closeness with China is indeed a matter of concern to the US. In the milieu of rising Sino-American rivalry, South Korea’s growing relationship with China can complicate the US rebalancing strategy in the region.²⁹ Therefore, South Korea with nuclear weapon capabilities and having close ties with the ‘Middle Kingdom’ might lead to the weakening of the American hegemony in the East Asian region.

Conclusion

The public debate in South Korea is pushing ahead for the country’s own nuclear armaments. As a technological and industrial powerhouse, it would not be difficult for Seoul to develop its own nuclear weapons. South Korea is already a leader in nuclear energy production and it has been building nuclear power plants in foreign countries. There could be some bottlenecks in the development of South Korea’s nuclear weapons, but Seoul has the potential to overcome those challenges. Nuclear weapons would provide South Korea a strong deterrence against the North Korean threats and might bring stability in the inter-Korean relations. This would also infuse new enthusiasm among the South Korean youth and increase the prestige of South Korea as a military power.

On the other hand, the nuclearisation of South Korea might trigger a nuclear arms race in East Asia and may have severe consequences for Seoul’s export-oriented economy. Most importantly, the US would lose justification for maintaining its military bases in South Korea and the ‘hub and spokes’ security arrangement built in the post-World War II period between Washington and its allies in East Asia would probably collapse. Therefore, despite domestic support for South Korea’s own nuclear weapons, the US would probably employ every possible measure to prevent the nuclearisation of South Korea.

²⁸ Youngshik Bong, “[Continuity Amidst Change: The Korea–United States Alliance](#)”, in Michael Wesley (ed.), *Global Allies: Comparing US Alliances In The 21st Century*, The Australian National University Press, Acton, 2017, pp. 45–57.

²⁹ Ellen Kim and Victor Cha, “[Between a Rock and a Hard Place: South Korea’s Strategic Dilemmas with China and the United States](#)”, *Asia Policy*, No. 21, January 2016, pp. 103–104.

About the Author



Dr. Ranjit Kumar Dhawan is Associate Fellow at the Manohar Parrikar Institute for Defence Studies and Analyses, New Delhi.

Manohar Parrikar Institute for Defence Studies and Analyses is a non-partisan, autonomous body dedicated to objective research and policy relevant studies on all aspects of defence and security. Its mission is to promote national and international security through the generation and dissemination of knowledge on defence and security-related issues.

Disclaimer: Views expressed in Manohar Parrikar IDSA's publications and on its website are those of the authors and do not necessarily reflect the views of the Manohar Parrikar IDSA or the Government of India.

© Manohar Parrikar Institute for Defence Studies and Analyses (MP-IDSA) 2024