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Introduction

As 2024 draws to a close the Indo-Pacific's security challenges continue to evolve. Security strategy for US allies like South Korea need rethinking due to changes in the People's Republic of China and North Korea (not to mention the US), the growing populations of South and Southeast Asia bring new demands for energy and other resources, and the ongoing conflict in Myanmar continues to destabilize the region.

The following volume, our second collection of Issues & Insights papers in 2024, touches on all these developments, as well as foreign assistance to Southeast Asia, the needs of women and children in disaster response, and China's naval development and the implications for its neighbors. They show that, while Pacific Forum remains grounded in traditional security issues like military strategy, military buildup, and conflict resolution, the non-traditional security issues that often presage open warfare are also in our sights.

Through these Issues & Insights collections we look forward to informing our audiences of these ongoing and developing issues, and to your continued support.

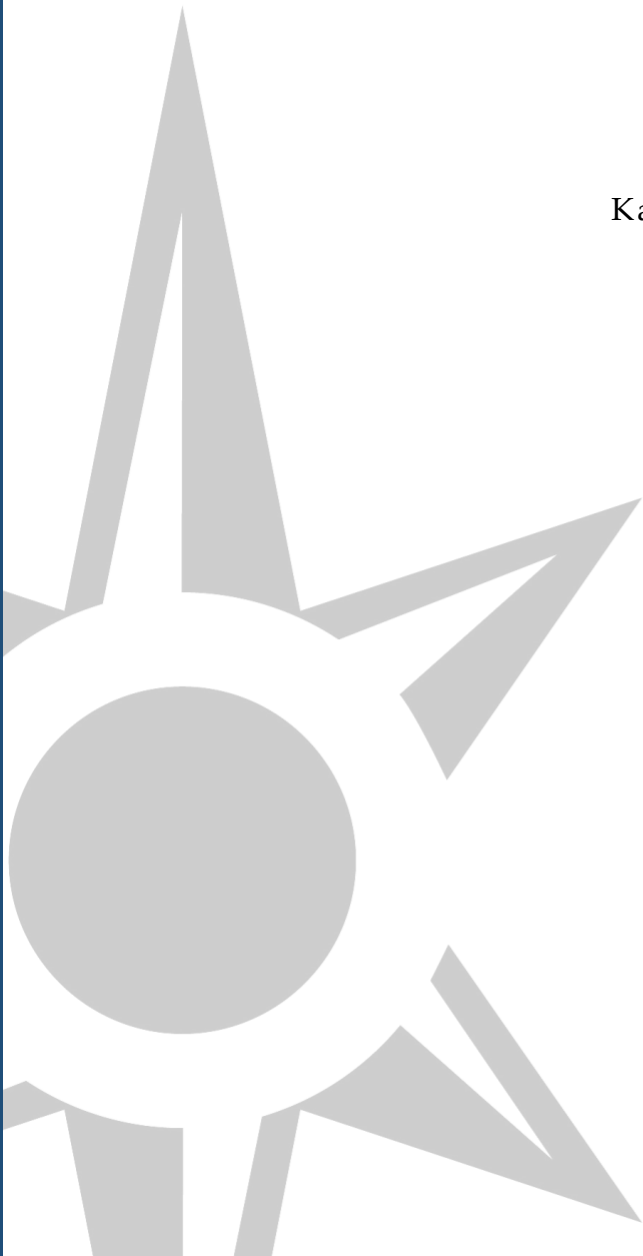
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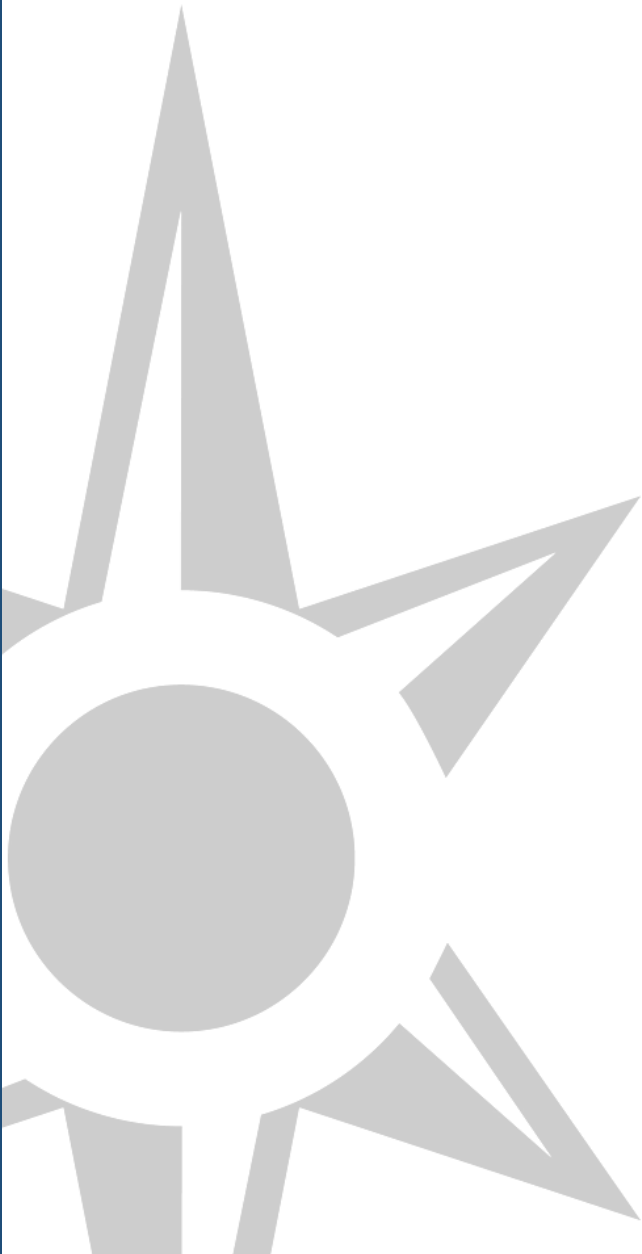
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Pacific Forum

Net Assessment(s) Are A Good Choice for Formulating Korean Security Strategies

By
Kangkyu Lee





Executive Summary

Kangkyu Lee

Net Assessment/net assessments (NA/na) has/have been the subject of much interest to security studies students around the world. The same is true for South Korean security strategy designers. However, they have been explored superficially, especially in South Korea, despite the agreement on their importance and usefulness. By scrutinizing their definitions and features, I argue that NA should be distinguished from na because they address different levels of concern: NA aims to take a comprehensive approach and contribute to national security and foreign strategies beyond defense and military strategy by providing a macro view, while providing guidance to na—conversely, the results of na can be used to inform NA. On the other hand, na aims to contribute to a relatively lower level of strategies including military strategy and a part of national defense strategy by conducting assessments in specific areas with techniques. It performs to evaluate or validate details guided by NA and/or serves as a basis for NA.

This distinction allows South Korean strategists to benefit in forming a national security strategy, as well as sub-strategies, including for defense. Furthermore, given the security environment around South Korea amid the threat posed by North Korea, their features can contribute to formulating more refined security strategies and policies. These points are i) taking a comparative approach considering asymmetry, ii) comprehensive and eclectic methods, and iii) an emphasis on diagnosis. Many studies focus on North Korean threats to South Korea, considering its national power including military capabilities. However, they neglect South Korea's capabilities based on objective evaluations of its own strengths and weaknesses. Thus, the comparative approach of NA/na can serve as a chance to compare South Korea with North Korea in a realistic manner. NA/na's comprehensive and eclectic methods are helpful in producing a good source for policymakers and security-designers. One of the long-standing problems in the South Korean security field is the absence of reliable references using appropriate methods, depending on the issue under analysis. The emphasis on diagnosis rather than prescription is necessary for South Korean strategists because they have

only been familiar with policy recommendations without a solid diagnosis of reality, such as the security environment. For example, they tend to take the long-term security environment as given. Policymakers should translate diagnoses into prescriptions.

For more successful NA/na, it is recommended to establish a Korea Office of Net Assessment to conduct them independently. The Korean Office of Net Assessment should be an overarching control tower governing many units across the government. Given this role, it would be ideal to form it under the Office of National Security at the Office of the President of the Republic of Korea or as part of the National Security Council. Even if located within the Office of the President, it must be a nonpartisan organization operated independently, without political influence and consideration. To ensure this position, it should be highly confidential and must not pursue prescriptions for security challenges other than diagnoses, which should be left to top leaders.

Introduction

Although Andrew W. Marshall, an American strategist who had been director of the Office of Net Assessment (ONA) for more than 40 years, passed away in 2019, the importance of the Net Assessment/net assessments (NA/na) developed by him has not diminished.¹ Given their contribution to the victory of the US in its strategic competition with the Soviet Union, they remain valuable for the US in its strategic competition with China. For instance, despite some critics of ONA,² it still serves as an essential organization in the US Department of Defense. Moreover, the UK recently established the Secretary of State's Office for Net Assessment and Challenge (SONAC) to address critical security threats by using NA/na,³ following NATO's establishment of net assessment capabilities in 2018.⁴

The South Korean security community has also begun to take an interest in NA/na, especially after the translation of *The Last Warrior: Andrew Marshall and the Shaping of Modern American Defense Strategy*. Accordingly, some researchers and policymakers in South Korea, mainly from the military community, have raised their voices in favor of introducing NA/na to military strategic planning in South Korea.⁵ They have explored the basics of NA/na, suggested how NA/na are useful for securing Korea's defense, and tried to find some results of military assessments by using NA/na. Such efforts, however, are flawed because they neglect the essence of NA/na by not delving into their

underlying features. Based on secondary sources, most previous studies understand the term "net" as a general, comprehensive, and overarching concept, while using it in a narrow and specific way when applying it to an assessment. Furthermore, they only apply NA/na to defense and military-level assessments, which are only a part of NA/na.

This paper asserts that NA/na would be very useful for formulating South Korean security strategies at assorted levels, from national security strategy and North Korean policies to military strategy. South Korea can have a more advanced and well-developed strategy by understanding the essence of NA/na by distinguishing NA from na. NA/na are good for building South Korean security strategies because of their features, such as comparison, competitive advantage, and diagnosis. To support these arguments via primary sources including Marshall's interviews, unclassified documents of the US National Security Council, and interviews with former and current members of ONA,⁶ adding to relatively recent materials that have never been referred to in the previous studies in South Korea. The first section explores the fundamentals of NA/na, using a variety of definitions. The second section examines their usefulness and effectiveness based on their features derived from definitions in the first section. It is followed by the conclusion and policy recommendations in the last part.

What is NA/na?

Typology of NA/na

The only agreement on NA/na is that there is no agreed-upon definition of them.⁷ Since "net" has different meanings, it is difficult to define net assessment as a single statement. Nevertheless, different definitions can be largely categorized into four approaches: first is the relatively orthodox approach to NA/na, taken by Marshall and the US Department of Defense (DoD). Marshall himself noted: "it is a careful comparison of US weapons systems, forces, and policies in relation to those of

¹ Andrew F. Jr. Krepinevich, "Measures of Power: On the Lasting Value of Net Assessment," *Foreign Affairs*, April 19, 2019, accessed March 1, 2024, <https://www.foreignaffairs.com/articles/china/2019-04-19/measures-power>.

² Bill Gertz, "Pentagon's Office of Threat assessment under fire from military, Congress," *The Washington Times*, Aug. 24, 2016; Chuck Grassley, "Office of Net Assessment Is A Failure," Feb. 7, 2022, accessed March 2, 2024, <https://www.grassley.senate.gov/news/remarks/grassley-the-office-of-net-assessment-is-a-failure>.

³ Brunel Centre for Intelligence and Security Studies, "Findings of a Round-Table in support of the Secretary of State's Office of Net Assessment and Challenge (SONAC), Ministry of Defence." April 14, 2023; UK Parliament. "UK Defence Policy: From Aspiration to Reality?" (2023): 65-66.

⁴ "Net Assessment and 21st Century Strategic Competition," (Workshop Summary), Center for Global Security Research, Lawrence Livermore National Laboratory (2021): 6, accessed August 1, 2024, https://cgsr.llnl.gov/sites/cgsr/files/2024-08/NetA_Workshop_Summary.pdf

⁵ See, for example, Tae Hyun Kim, "Net Assessment as a Analytical Framework for Military Balance: Concepts, Process, and Methodology," *The Quarterly Journal of Defense Policy Studies* 36, no. 1, (2020): 183-220; Changhee Park, "Net Assessment: Concept, Methodology and Application to Sample Case" *National Strategy* 26, no. 4: 55-84.

⁶ Interview was conducted on the condition of anonymity during May 2-5, 2023, in Washington, D.C. USA. Interviewees were 21 in total, who had worked on NA/na with Andrew W. Marshall including the incumbent officials of ONA those who have worked at ONA.

⁷ James G. Roche and Thomas G. Mahnken, "What is Net Assessment," in *Net Assessment and Military Strategy*, ed. Mahnken (New York: Cambria Press, 2020), 11.

other countries. It is comprehensive, including descriptions of the forces, operational doctrines and practices, training regime, logistics, known or conjectured effectiveness in various environments, design practices and their effect on equipment costs and performance, and procurement practices and their influence on cost and lead times.”⁸ Echoing this claim, DoD describes the definition of NA/na as “the comparative analysis of military, technological, political, economic, and other factors governing the relative military capability of nations. Its purpose is to identify problems and opportunities that deserve the attention of senior defense officials.”⁹ In line with Marshall and DoD, some analysts explain that “net assessments comprise multidisciplinary analyses that are comprehensive, diagnostic, and forward-looking—the framework for evaluating military balances and strategic competition.”¹⁰

Second is a narrower approach of focusing on military capabilities. For instance, in the early days of NA/na, the Central Intelligence Agency (CIA) noted that “the purpose of ‘Net Assessment’ is to evaluate the outcome of a large-scale military confrontation.”¹¹ In this sense, it can be defined as “the appraisal of military balances” or “the craft and discipline of analyzing military balances.”¹² Based on this concise approach, some scholars understand it as a way to enable one state to perform a military mission against its enemy.¹³ Contrary to the narrower approach of military balances, the third one takes a broader view of NA/na. One definition of this approach sees it as “the analysis of the interaction of national security establishments in peacetime and war.”¹⁴ More than military balances,

it is a “framework for evaluating the long-term strategic political-military competitions in which states engage.”¹⁵ Furthermore, it is also “a form of decision-centric planning that can help avoid disadvantageous concepts and capabilities by holistically evaluating the strategic interactions between competitors to identify technology areas that would afford a durable advantage,” with focus on the fundamental asymmetries between competitors in the long time horizon.¹⁶ This broader approach can be traced back to the NSC document regarding the establishment of ONA. For example, one memo written by Marshall explained NA/na as “a comparison between the US and some rival nation in terms of some aspects of our national security activity, and the most comprehensive form of analysis in the hierarchy of analysis.”¹⁷ Thus, NA/na is a “two-sided (or many-sided) comparative evaluation of the balance of strengths and weakness of countries, grouping of countries or other regional or institutional entities of interest for strategic planning.”¹⁸

The last is the skeptical approach to defining NA/na. Given the features of NA/na as mentioned above, it is infeasible or even unnecessary to define NA/na. During the interview, staff at ONA confirmed that as far as they were concerned, there was no official and strict definition or structure of NA/na.¹⁹ Along with them, former staff who had worked with Marshall asserted that all works done by and with Marshall should be NA/na themselves.²⁰ Hence, it is essentially a practice, indicating that it is not an art like military judgment nor a science like chemistry.²¹

Discerning NA from na

⁸ Andrew W. Marshall, “The Nature and Scope of Net Assessments,” Memorandum, April 10, 1973 (Washington, DC: The Digital National Security Archive, accessed Nov. 20, 2023), 1.

⁹ US Department of Defense, “DOD DIRECTIVE 5111.11 Director of Net Assessment,” (2020.4.14.), 9, accessed March 20, 2024 (<https://www.esd.whs.mil/Portals/54/Documents/DD/issuances/dodd/511111p.pdf>).

¹⁰ Roche and Mahnken, “What is Net Assessment,” (2020), 15.

¹¹ Central Intelligence Agency, “Net Technical Assessment,” (1967) (declassified on 2003.12.19), 1, accessed March 5, 2024 (<https://www.cia.gov/readingroom/document/cia-rdp74j00828r000100010014-5>).

¹² Eliot Cohen, “Net Assessment: American Approach,” Memorandum No. 29, (1990), Jaffee Center for Strategic Studies, 4.

¹³ Charles Glaser and Chaim Kaufman, “What Is the Offense-Defense Balance and Can We Measure It?” *International Security* 22, No. 4 (1998): 44-82.

¹⁴ Stephen Peter Rosen, “Net Assessment as an Analytical Concept,” in *On Not Confusing Ourselves*, ed. Andrew Marshall, J.J. Martin, and Henry Rowen (Boulder, CO: Westview Press, 1991), 290.

¹⁵ Thomas M. Skypek, “Evaluating Military Balances Through the Lens of Net Assessment: History and Application,” *Journal of Military and Strategic Studies* 12, Issue 2 (2010), 3.

¹⁶ Bryan Clark, Dan Patt, and Timothy A. Walton, “Breaking the Move-Countermove Cycle: Using Net Assessment to Guide Technology,” (March 27, 2021), RealClear Defense, accessed Nov. 20, 2023 (<https://thestrategybridge.org/the-bridge/2021/03/25/breaking-the-move-countermove-cycle-using-net-assessment-to-guide-technology>).

¹⁷ US National Security Council, “The Nature and Scope of National Net Assessment,” memorandum for record, April 26, 1972, 2.

¹⁸ Institute for Defense Analysis, “Net Assessment: The Concept, Its Development and Its Future,” (1990), IDA Paper NS P-4748, 8.

¹⁹ NA/na Interview in the discussion with the author May 2023.

²⁰ NA/na Interview in the discussion with the author May 2023.

²¹ Paul Bracken, “Net Assessment: A Practical Guide,” *Parameters* 36, no. 1 (2006): 91.

Figure 1: Table demonstrates Net Assessment and net assessment

<p>Aims to take a comprehensive approach and contribute to national security and foreign strategies beyond defense and military strategy, providing a macro view.</p>	<p>Aims to contribute to relatively lower levels of strategies, including military strategy and national defense strategy, by conducting assessments in specific areas with specific techniques.</p>
<p>Provides guidance to na and conversely, the results of na can be used to inform NA.</p>	<p>Serves to evaluate or validate details guided by NA and/or serves as a basis for NA.</p>

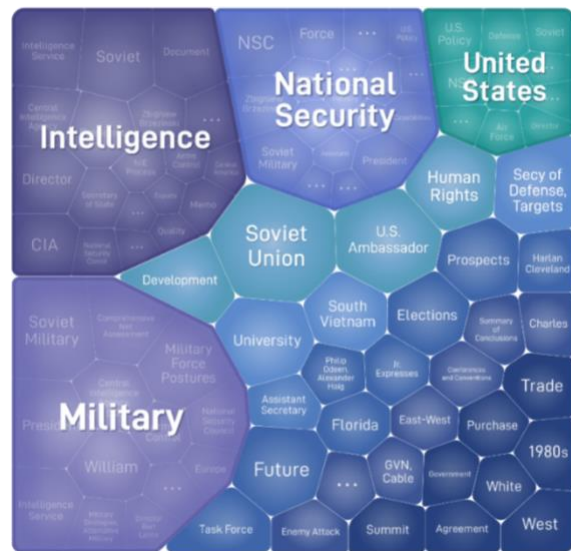


Figure 2: Source: US Declassified Documents Online, Digital National Security Archive, and CIA: Freedom of Information Act Electronic Reading

The wide spectrum of definitions comes from different views on the scope and mission of NA/na. Namely, they reflect different objects to be compared. When categorized, there are generally two types of NA/na according to the criteria of geography and function.²² However, this classification is not sufficient because it is simple and does not consider the goal or ultimate use of NA/na. Furthermore, as shown in the spectrum of definitions, it is hard to explain assessments with different focuses and characteristics with one terminology, due to their wide range of interests. The word association analysis in Figure 1 shows this wide coverage of NA/na. Based on 1506 declassified documents collected with the search term “net assessment,” the result indicates that NA/na are closely related to national security and military at the same time rather than restricted to balances of military capabilities.²³

Hence, the suggestion is to mainly divide them into two concepts, based on the object compared for their goals. One is Net Assessment (NA), which covers a more comprehensive and longer-term analysis of diverse areas related to one state’s capabilities. It aims to draw a bigger picture of the future security environment and thus contributes to formulating upper level strategies such as a grand strategy, national security strategy, and defense strategy. In this sense, NA resembles what they call “National Net Assessment” or “Strategic Net Assessment.”²⁴ The other is net assessments (na), which mainly focus on specific capabilities, including military balances.

These serve as sources for NA on the one hand and verify NA’s feasibility with certain data or findings on the other hand. For example, policymakers can come up with a NA of South Korea’s North Korean approach by using findings from na of military balances between South Korea and North Korea as well as na of production capability and na of international support, etc.

²² NA/na Interview in the discussion with the author May 2023.
²³ Documents are collected from web databases of US Declassified Documents Online, Digital National Security Archive, and CIA: Freedom of Information Act Electronic Reading Room.

²⁴ Peter Roberts and Sidharth Kaushal, “Strategic Net Assessment: Opportunities and Pitfalls,” The RUSI Journal 163, no. 6, (2018): 66-76; US National Security Council, “The Nature and Scope of National Net Assessment” (1973).

Key features of NA/na

Although features of NA/na can be drawn from varying definitions and NA/na are distinct from each other as discussed earlier, they can be obviously identified by examining other concepts of system analysis, SWOT analysis, threat/risk assessment, and estimate of the situation. In practice, system analysis is often confused with NA/na. However, they differ in terms of methodology, the object analyzed, central questions, and results. While system analysis prefers a single quantitative approach based on deduction and scientific rigidity, NA/na take an eclectic approach with inductive and positive methods because it takes qualitative and/or quantitative analysis, depending on the character of the assessment.²⁵ System analysis addresses specific areas with simplicity and a few factors,²⁶ whereas NA/na cover the whole and parts of the situation at the same time. Thus, system analysis focuses on the question of how much weaponry is sufficient while NA/na concern more forward-looking and philosophic questions.²⁷ In terms of evaluating, NA/na and threat/risk assessment are somewhat similar. Nevertheless, they differ because threat/risk assessments lack comparison which is the key component of NA/na. Moreover, threat assessment pays more attention to outside factors, while risk assessment stresses inside factors. Na/na address both outside and inside factors because they take a comparative approach. That comparison differentiates NA/na, while SWOT analysis is also distinguished from NA/na because it neglects the comparison aspect. Furthermore, it aims to suggest appropriate options based on SWOT to address the challenges, whereas NA/na do not pursue prescriptive solutions because it is diagnostic.²⁸ On the other hand, a commander's estimate of the situation takes a comparative approach. However, it excludes uncertainty while NA/na embraces uncertainty as an important consideration.²⁹

²⁵ Roberts and Kaushal, "Strategic Net Assessment: Opportunities and Pitfalls," (2018), 68.

²⁶ Charles Hitch, "An Appreciation of System Analysis," *Journal of the Operations Research Society of America* vol.3, no.4 (1955): 466-481.

²⁷ Cohen, "Net Assessment: American Approach," (1990): 9-11.

²⁸ Roberts and Kaushal, "Strategic Net Assessment: Opportunities and Pitfalls," (2018), 66.

²⁹ Institute for Defense Analysis, "Net Assessment: The Concept, Its Development and Its Future," (1990): 10; Cohen, "Net Assessment: American Approach," (1990): 7-8.

Given the variety of definitions of NA/na and their differences from other tools, the features of NA/na expected to be useful for South Korean strategies can be summarized as their wide coverage from NA- to na-oriented issues, comparative approach based on relativity and asymmetry, eclectic approach using qualitative and quantitative methods, and preference of diagnosis to prescription. First, NA/na may cover many more issues and areas than other tools. Practically, na can give answers to the questions addressed by system analysis, threat/risk assessment, SWOT analysis, and an estimate of the situation. How much of our weapon system is enough? What is the most significant or imminent threat to us? What risks do we have? What are our strengths, weaknesses, opportunities, and threats? All these questions can be answered with appropriate net assessments for them.

However, those alternatives to NA/na cannot address the issues that NA does. No tools could have successfully predicted which state would be the greatest threat to the US after the Cold War other than NA.³⁰

Second, NA/na are essentially one of the comparative methods. This means that they emphasize relativity because they should analyze our capabilities and the other side's capabilities at the same time to find strategic asymmetry and competitive/comparative advantages.³¹ Asymmetry is very useful to sharpen competitive advantage because high cost-effectiveness is preferable in most cases. Marshall said that net assessments would reduce ongoing monitoring of how the United States provides critical inputs to the decision-making process regarding the implementation of US strategy in competition with the Soviet Union. Such an assessment should include an analysis of the comparative effectiveness of the United States and the Soviet Union in leveraging the resources committed to relevant strategic force posture programs.³² After all, the assessment is relative. Just

³⁰ In fact, Marshall picked China as the next biggest threat to the US in 1980s. (NA/na Interview 2023; Andrew F. Krepinevich Jr. 2019.4.19.)

³¹ Skyppek, "Evaluating Military Balances Through the Lens of Net Assessment: History and Application," (2010): 8.

³² Andrew W. Marshall, "Long-Term Competition with the Soviets: A Framework for Strategic Analysis," RAND (Santa Monica, 1972): 43.

because A is stronger than B, and B is stronger than C, does not mean A is stronger than C.³³

Third, although NA/na themselves are often considered a methodology or method, they are eclectic and flexible in that they are willing to employ any methods and techniques possible and proper. It is related to the last category of definitions in the earlier discussion that there is no formal definition because all of what Marshall (and ONA) did are NA/na. However, roughly speaking, a qualitative method might be preferred in NA. This feature originated from Marshall's intellectual foundation. Despite his competence in statistics, he was skeptical of modelling in NA/na. Instead, he had an interest in organizational behavior, limited rationality, business strategy, human nature, and culture.³⁴ Lastly, NA/na are diagnostic rather than prescriptive. NA/na aim to diagnose complex relationships to understand the nature of actual and potential interactions over the long term.³⁵ Marshall noted that the real function of NA/na are to diagnose, analyze, and evaluate the situation, not to provide an answer. It is risky to start the assessment with an answer in mind from the beginning.³⁶ Further, he asserted that the use of NA/na is intended to be diagnostic.³⁷ For the diagnosis, the right questions are "Do we have a problem? If so, how big is it? Is it getting worse or better? What are the underlying causes of the problem?"³⁸

Despite those positive features, however, NA/na have some limits, too. First, it is easy to get lost during the process of NA/na. In particular, when it comes to NA with a macro and mid- to long-term approach, it misses the trees, only trying to see the

forest.³⁹ In addition, there can be the problem that no one knows what they are doing, why they are doing it, or what they are doing it for, except for the person who has instructed them to do it. This often leads to a reliance on fragmented judgment, which can hinder seeing the forest. Second and related to the first, NA/na have no methodology to conduct them. This should come as no surprise because they have no agreed-upon definition, as discussed earlier. Of course, some researchers suggest several methods to do NA/na. For example, trends analysis and scenarios are often cited as a method for NA/na, along with war-gaming, the Delphi method, DIME (diplomacy, information, military, and economy), PMESII (political, military, economic, social, information, and infrastructure), and social network analysis.⁴⁰ However, the only method confirmed by those who have experience of NA/na is to raise a research question and ask related questions repeatedly about the results from what ONA staff have done, much like PhD students working on their dissertations.⁴¹ Last, NA/na have a practical problem with resources and data that are required for successfully doing NA/na. As the primary goal and role of NA/na are to serve as a basis for making a security strategy, most resources and data on which NA/na should rely are much more likely to receive the designations of "classified," "confidential," or "top secret." Thus, the acquisition of those materials is substantially challenging for net assessors at the working-level.

Na/na as a Useful Tool For Developing South Korean Security Strategies

Although NA/na have limitations, their value remains significant and outweighs those limits. The usefulness of NA/na does not only stem from their role in the US win over the Soviet Union in the Cold War. Having considered the features discussed above, NA/na are worth employing in South Korea's strategies at assorted levels.

³³ Andrew W. Marshall, "Problems of Estimating Military Power," RAND (Santa Monica, 1966). On the other hand, based on this logic, he came up with the concept of a competitive advantage that was the central source for competitive strategies.

³⁴ Mie Augier, "Thinking about War and Peace: Andrew Marshall and the Early Development of the Intellectual Foundations for Net Assessment," *Comparative Strategy* 32, no. 1 (2013): 2-3.

³⁵ Institute for Defense Analysis, "Net Assessment: The Concept, Its Development and Its Future," (1990), 5; Skypok, "Evaluating Military Balances Through the Lens of Net Assessment: History and Application," 13; Roche and Mahnken, "What is Net Assessment," (2020), 15.

³⁶ Jeffrey S. McKittrick and Robert G. Angevine (eds), *Reflections on Net Assessment: Interviews with Andrew W. Marshall* (Washington D.C.: Institute for Defense Analyses, 2022), 205.

³⁷ Roche and Mahnken, "What is Net Assessment," (2020), 15.

³⁸ US National Security Council, "National Net Assessment," (1973).

³⁹ Roberts and Kaushal, "Strategic Net Assessment: Opportunities and Pitfalls," (2018): 70-71.

⁴⁰ Bracken, "Net Assessment: A Practical Guide," 98; Sanjeev Chowdhry, "Net Assessment: The Art of Long View." *Journal of the United Service Institution of India CLII*, no. 629 (2022), accessed March 5, 2024 (<https://www.usiofindia.org/publication-journal/Net-Assessment-The-Art-of-Long-View.html>); Michael J. Hannan, *Operational Net Assessment: A Framework for Social Network Analysis and Requirements for Critical Debate* (New Port, RI: Naval War College, 2005).

⁴¹ NA/na Interview in the discussion with the author May, 2023.

First, strategists in South Korea may enjoy a more well-organized framework to develop their own strategies by using NA/na as a consistent tool to provide reliable references. No strategies by South Korea have been made with any tool like NA/na. The assessment of the security environment, which usually comes as an introductory part of documents and serves as the foundation for the strategies or policies, has seldom been written with results and findings from serious considerations by analysis with a methodology. For example, South Korea's National Security Strategy describes the security environment in Chapter 1 in the 2018 version and Chapter 2 in the 2023 version, respectively.⁴² Neither chapter is futuristic in any sense. They explain the characteristics of the security environment at the time and thus fail to show South Korea's grand long-term strategy. Consequently, employing NA/na would contribute to formulating more informed, accurate, and adequate security strategies that consider changes in the security environment around South Korea in the future.

Second, the distinction between NA and na allows strategists and policymakers in charge of strategies and policies at various levels to develop top-level strategies, such as the national security strategy by using NA, as well as practical level policies including South Korea's North Korean policy by employing na. The Yoon Suk Yeol administration has established three national security objectives: i) defend national sovereignty and territory while enhancing the safety of citizens, ii) establish peace on the Korean Peninsula and prepare for future unification, and iii) lay the foundation for East Asia's prosperity and expand the nation's global roles.⁴³ If NA had been employed to set these objectives, it could have estimated South Korea's national power via the sum of national capabilities in various fields, from military capabilities, change in population, economic potential to education for skilled workers. For example, NA can serve as a tool to analyze the risk of reduced population in South Korea in terms of national power, such as a decreased labor force as well as military manpower. From the futuristic perspective, it can consider the

⁴² Office of National Security of Republic of Korea, The Moon Jae In Administration's National Security Strategy (2018); Office of National Security of Republic of Korea, The Yoon Suk Yeol Administration's National Security Strategy: Global Pivotal State for Freedom, Peace, and Prosperity (2023).

⁴³ Office of National Security, The Yoon Suk Yeol Administration's National Security Strategy (2023), 14.

effect of robots that replace humans in industry and society.

The na work at a lower level. Many net assessments can play crucial roles in establishing strategies under the national strategy. Let us take a case of inter-Korean relations. While NA can provide a reference for an inter-Korean relations policy because it covers a variety of fields of action plans from diplomacy to the military, na can suggest the estimation of each action plan by analyzing South Korea's great capabilities and North Korea's vulnerabilities in each fields. For instance, na provides a diagnosis of the feasibility of unification between two Koreas without an armed conflict by analyzing their culture of thinking and behavior at the leader level as well as potential support from citizens and the international community.

Third, the feature of comparison in NA/na fits well for South Korea's security situation, where it faces a clear threat of North Korea. In fact, the outcome of the US NA, which can be summarized as strategic competition between great powers, cannot be directly applied to the South Korean case because the concept of competition can only work between great powers who are unwilling or incapable of destroying, eliminating, and/or occupying each other. Thus, the competition posits mild concerns about the survival of each great power. On the contrary, North Korea poses a formidable threat to South Korea via its nuclear capabilities, making it a matter of survival. As such, the great achievement of NA that enables the US to play a strategic competition game with China is not useful to South Korea. Nevertheless, the principle of the comparative method in NA/na is very appealing in developing South Korea's security strategies because it has a clear opponent in North Korea. Despite this obvious and simple fact, strategies in South Korea have neglected the comparison of its capabilities with that of the enemy. Although it is a public and official document, South Korea's defense white papers generally have a very simple force posture regarding the two Koreas. For instance, it describes the personnel and weapon system of two Koreas by services. According to these papers, North Korea has more than twice as many military forces in peacetime as South Korea.⁴⁴ Nonetheless, it

⁴⁴ Ministry of National Defense of Republic of Korea, 2022 Defense White Paper, 334.

does not conclude that North Korea has more military capabilities than South Korea. They are not compared but described in parallel. From the perspective of NA/na, the right question should be "Given the trends in many factors that can influence military capabilities, what is the real military balance between South Korea and North Korea now and in the future?" Thus, the comparative method of NA/na can contribute to answering the questions that strategists and policymakers really want to know.

Fourth, and related to the third, the feature of asymmetry is good for South Korea's strategic planning. Although cybersecurity and the boom in drones shed light on the importance of asymmetry, there is also an old but good example in NA/na. It is the discussion of deployment of the B-1 bomber in the late 1970s, which is widely recognized as one of Marshall's insightful anecdotes. In a 1976 discussion about the replacement of B-1 bombers, Marshall argued that the Soviet Union would be forced to invest in regional air defense capabilities to counter the B-1s, thus providing good cost-effectiveness. The number of surface-to-air missile (SAM) launchers in the Soviet Union was far greater than that of the United States, reflecting the Soviet Union's obsession with air defense capabilities after suffering significant aircraft losses to Germany in World War II.⁴⁵ It means that the Soviet Union had to spend a lot of resources, including money, to respond to the relatively inexpensive flying of B-1 bombers.⁴⁶ In other words, Marshall understood Soviet behavior and suggested ancillary but strategically more meaningful implications, beyond the bomber's original function as a weapon, in terms of considering asymmetry.

This can be applied to the current security situation on the Korean Peninsula where South Korea is most vulnerable due to asymmetry in specific military capabilities, which North Korea takes advantage of. North Korea's provocations are often unpredictable. Thus, the lessons from asymmetry in NA/na can provide insights for South Korean strategists and policymakers to counter North Korea's ambition to upgrade its asymmetric military capabilities and make provocations using them. For South Korea,

they would find the vulnerabilities of North Korea that provide advantages from asymmetry when effectively used by South Korea. In addition to asymmetry, NA/na can serve as a good opportunity for South Korea to conduct a risk assessment on its capabilities in terms of resilience, including stress testing the durability of conducting war. Most evaluations of military capabilities emphasize how to deter and defend by focusing on threats such as the number of troops and weapons. However, non-military capabilities also matter in conducting war, including equipment, logistics, and even relations with other states. Nevertheless, they have been relatively ignored in security strategy. In this vein, the good question from the NA/na perspective is not "how can we win over or conduct a war?" but "how long can we wage a war?"

Lastly, the characteristics of NA/na, particularly comprehensive and complex examinations of NA, are favorable to follow and predict the trends of the rapidly changing security environment today. For instance, the Yoon administration's National Security Strategy selects four major security challenges: North Korean WMD threats, US-China competition, supply chain crises, and new security threats of infectious disease and climate change.⁴⁷ This reflects the trend of expanding the scope of security from traditional threats to emerging ones. As NA/na paid attention to RMA (revolution in military affairs) as a game-changer to warfare, they are beneficial to addressing new and potential challenges in the long term. Furthermore, the trends in today's security present that threats are increasingly intertwined with each other. The line between different threats has been blurred. For instance, cyber capabilities of an enemy can disrupt and destroy a state's security from its economy, energy, health and military.⁴⁸ The same is true for space. Space security closely involves economic value and military importance.⁴⁹

Conclusion

⁴⁷ Office of National Security, The Yoon Suk Yeol Administration's National Security Strategy (2023), 12.

⁴⁸ US Department of Defense, "Summary: 2023 Cyber Strategy of the Department of Defense"; Tim Maurer and Arthur Nelson, "The Global Cyber Threat to Financial Systems," IMF Finance and Development (March 2021): 24-27; US Department of Health and Human Services, "Healthcare Sector Cybersecurity," (2023).

⁴⁹ Kaitlyn Johnson, "What Is Space Security and Why Does It Matter?" Georgetown Journal of International Affairs 20 (2019): 81-85; Defense Intelligence Agency, "Challenges to Security in Space," (2022).

⁴⁵ Andrew Krepinevich and Barry Watts, *The Last Warrior: Andrew Marshall and the Shaping of Modern American Defense Strategy* (New York: Basic Books, 2014), 130.

⁴⁶ Andrew Krepinevich and Barry Watts, *The Last Warrior* (2014), 131-132.

NA/na are attractive for students in the security field because they provide a reliable basis for formulating security strategies. Although South Korea has recently completed its organized hierarchy in security documents by replacing the National Defense Policy with National Defense Strategy in 2023, no framework or guiding principle as a methodology to write strategies has ever been invoked. Thus, NA/na, developed by Andrew W. Marshall and his team at ONA, can serve as this sort of methodology. Given its origin and features,⁵⁰ they can be applied to various levels of strategies from national security, foreign policy, inter-Korean relations, Indo-Pacific strategy to military strategy. The use of NA/na is expected to promote more accurate, feasible, insightful and reliable long-term security strategies. By adopting the features of NA/na, South Korea can benefit from NA/na to develop its security strategies and policies. Security documents can be written by adequate analyses from NA/na rather than guesswork and rough estimation. By differentiating NA from na, they can be used for almost all strategies in the hierarchy of security strategies depending on their status and goal. In a situation where South Korea and North Korea are facing each other, the comparative approach and finding asymmetry are helpful in establishing strategies that strengthen South Korea's capabilities and weaken North Korea's vulnerabilities. NA/na's futuristic and long-term orientation is suitable to address the threats that are increasingly compounded and intertwined.

One recommendation for an effective process of NA/na is to create a Korean Office of Net Assessment. It is not necessary to establish it in the Ministry of National Defense of the Republic of Korea because it should cover not only national strategy at the highest level but also foreign policy and defense strategy at the lower levels. Recently, the Foreign Ministry of the Republic of Korea has announced the plan to restructure by establishing the Office of Strategy and Intelligence which would replace the existing Office of Korean Peninsula Peace and Security Affairs.⁵¹ The Korean Office of

Net Assessment can be an overarching control tower governing this newly formed unit along with the existing North Korea Information Analysis Bureau in the Ministry of Unification. Given this role of the Office, it is ideal to form it under the Office of National Security at the Office of the President of the Republic of Korea or as a part of the National Security Council. Though located within the Office of the President, it should be a nonpartisan organization and operated independent of political influence and consideration. To ensure this position, it should be highly confidential and must not pursue prescriptions for security challenges other than diagnoses, which should be left for top leaders.

⁵⁰ ONA exists under the Secretary of Defense. But it has closely worked with National Security Council from the beginning. Andrew W. Marshall, "Introduction: The Origins of Net Assessment," in *Net Assessment and Military Strategy: Retrospective and Prospective Essays*, ed. Thomas G. Mahnken (New York: Cambria Press), 1-10.

⁵¹ Jeongwon Lim, "Foreign Ministry overhauls North Korea office to focus on strategy," *Korea JoongAng Daily*, March 8, 2024.

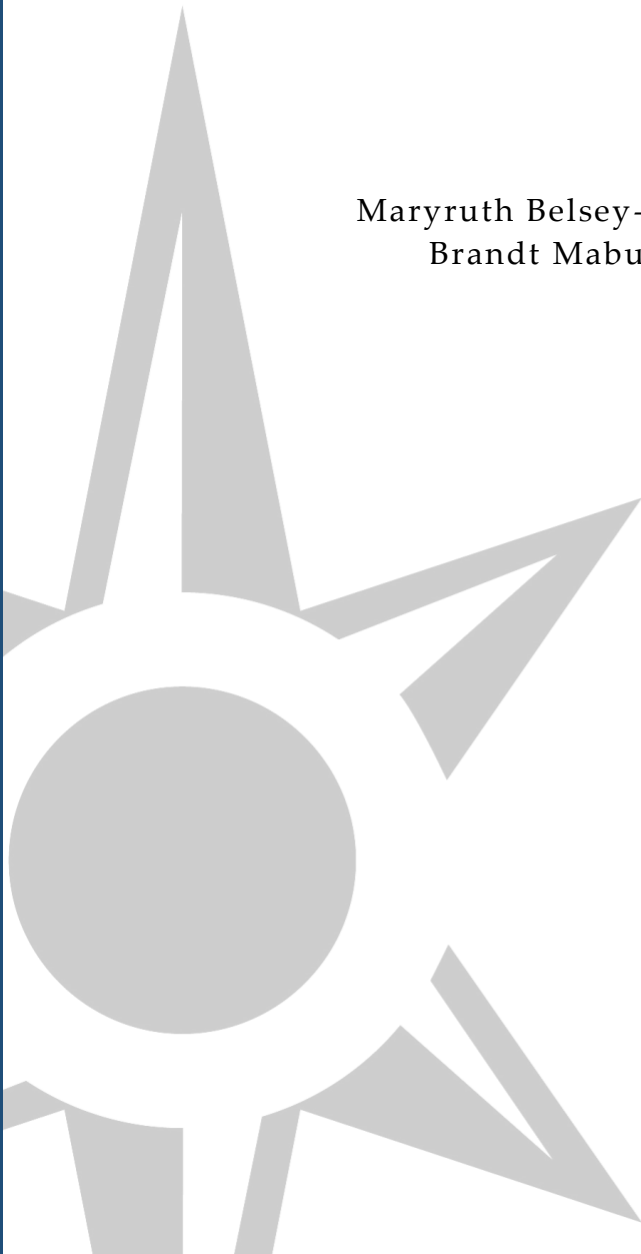
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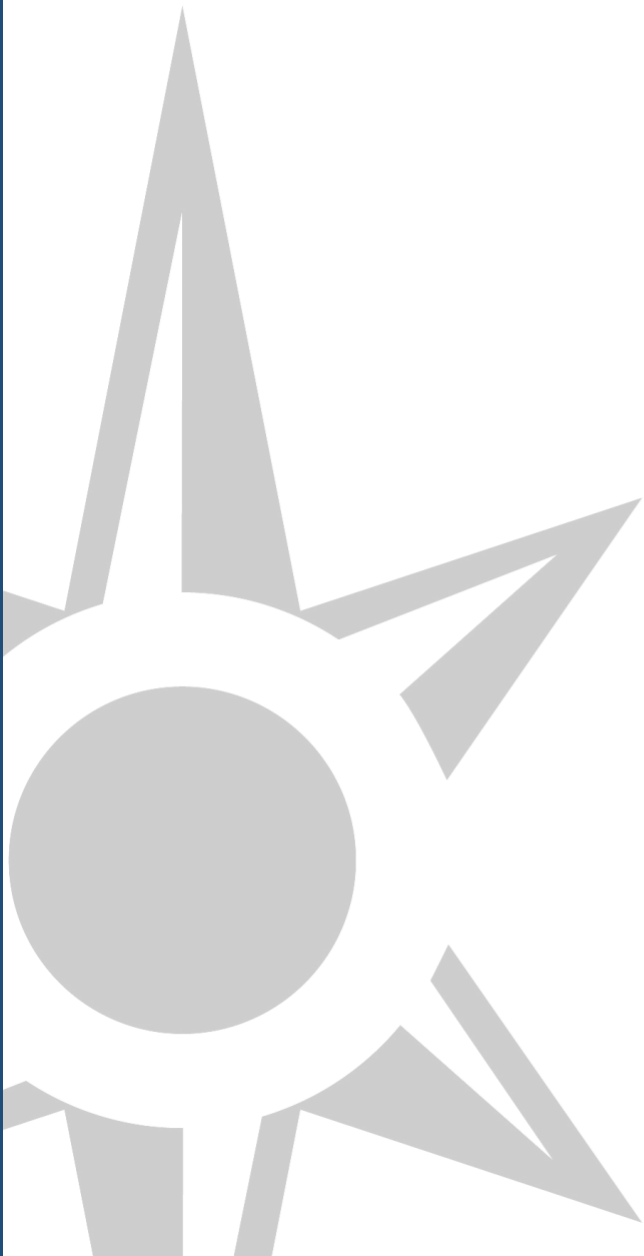
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SMRs: A Solution for Women's Energy Trilemma in the Global South?

By
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Executive Summary

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The monumental challenge of energy politics is in balancing between competing ideals, including reducing carbon emissions, supporting development by keeping power affordable, making energy access equitable, and resisting energy-fueled instability. Nuclear small-modular reactors (SMRs) have risen as an advanced nuclear power technology that could solve these thorny challenges, while adding the additional benefit of promoting gender equality. SMRs are both clean and dependable, as well as distributable to remote communities where some of the poorest, including women, reside. Though still in the research and development stage, SMRs are already under serious consideration by the Global South, as they may permit the leapfrogging of traditional, commercial-scale energy systems while providing a crucial piece to the global energy transition puzzle. This paper will explore the international and climate security arguments for and against SMR proliferation in key Indo-Pacific locations—namely India, Bangladesh, and ASEAN. This will include the role geopolitical winds play in determining the Global South’s ability to meet their energy insecurity demands by importing or exporting energy; developing renewables or new fossil fuel reserves; and the risks of a resource curse, or paradox of plenty. The authors will also apply a feminist foreign policy lens to examine what impact geopolitical factors have on those left out of energy politics decisions, including women. The paper will conclude by assessing whether a focus on SMRs will add an element of pragmatism to discussions of these lofty goals, be they gender equality, sustainable development, or energy security.

Introduction

The World Energy Council calls the problem of energy transition in the 21st century “the energy trilemma”: seeking secure energy supply, clean energy generation, and equitably distributed and affordable energy access. The loudest voices within this debate often emphasize energy security and sustainability over access and equity, leading to outsized impacts on those least equipped to handle price volatility and power service interruptions. The Global South suffers most from high prices when global resources become scarce, and it cannot fund mass deployment of renewable energy technologies. Locally, women often disproportionately absorb the negative effects of state- or corporate-centric energy policies and are underrepresented in energy policymaking and the scientific community.

A promising solution for energy insecurity and gender equality may be advanced nuclear energy, in the form of small-modular reactors (SMRs), potentially alleviating women's plight in India, Bangladesh, Southeast Asia, and elsewhere. SMRs possess potential to address all three pillars of the energy trilemma—more reliable than renewables, cleaner than fossil fuels, and more equitably provided than by generating highly fuel-efficient, stable, baseload energy. This study first surveys the connections between energy security and gender, then describes SMR technology and how it may bring energy to underserved people, including women. Then, it examines the state of energy security and gender equity in countries from South and Southeast Asia with similarly enormous growth potential—but also similar problems. Bangladesh is especially vulnerable to the climate challenge. In India, gender inequality runs deep due to exploitation and women's inability to achieve proper education, to which energy poverty contributes. ASEAN, for all its diversity, needs abundant energy supply and to address climate insecurity and gender inequality. Finally, this paper will recommend SMR technology development as a new pathway to reliable, affordable,

and equitable energy, even as it acknowledges challenges associated with implementation.

I. Gender and the importance of electricity access

Gender equality, women's energy security, and state fragility are inextricably linked measures. As household- and community-level gender equality declines, so does women's energy security. Women face barriers to electricity access due to gendered structural norms. Gendered energy inequality starts with institutional barriers limiting women's access and ability to own a home, sign a home rental contract, open a bank account, or receive financing—potentially preventing women from obtaining electricity services.¹ Such gender disparities lock women into cycles of poverty by stunting their social, educational, and economic advancement.

Furthermore, as gender norms frequently assign more unpaid care and domestic work (UCDW) to women, lack of electricity increases effort for time-consuming, physically demanding, repetitive tasks like hand-washing clothes, gathering fuel and water, preparing food, and cleaning. Women become time-poor, with less room for economic activities or educational pursuits.² The International Labor Organization notes women in the Asia-Pacific do four times as much UCDW as men: nearly 200 additional hours annually.³ Were all hours spent on UCDW globally converted into paid tasks, global GDP would increase by \$11 trillion.⁴ Finally, energy access inequality also impacts women entrepreneurs, potentially barring them from capital-intensive economic activities or scaling their businesses.⁵

Beyond gendered economic, educational, and social disparities, women also face significant health impacts. Many women must use biomass or coal in cookstoves and for heating (instead of electricity), and according to the WHO the resulting pollution causes 4.3 million premature deaths annually.⁶ Women also frequently must collect and transport

¹ Olufolahan Osunmuyiwa and Helene Ahlborg, “Inclusiveness by Design? Reviewing Sustainable Electricity Access and Entrepreneurship from a Gender Perspective,” *Energy Research & Social Science* 53 (July 2019).

² Acuna Castillo et al., “Opening Opportunities, Closing Gaps: Advancing Gender-Equal Benefits in Clean Cooking Operations” (International Bank for Reconstruction and Development / The World Bank, 2022).

³ Laura Addati et al., “Care Work and Care Jobs for the Future of Decent Work” (International Labor Organization, June 28, 2018),

<https://www.ilo.org/publications/major-publications/care-work-and-care-jobs-future-decent-work>.

⁴ Addati et al., “Care Work and Care Jobs for the Future of Decent Work.”

⁵ [Castillo et al. 2022, 35](#)

⁶ “Burning Opportunity: Clean Household Energy for Health, Sustainable Development, and Wellbeing of Women and Children” (World Bank, 2016), <https://iris.who.int/handle/10665/204717>.

fuel and water, causing tremendous physical strain and exposing them to sexual and gender-based violence.⁷ Studies show that increased energy insecurity among women is a precursor to such violence, particularly in conflict-affected regions.⁸

How does energy security—at individual and state levels—and state stability intersect? Hudson et al. show that when a system emphasizes subordination of women at the household level via the “Patrilineal/Fraternal Syndrome,” that system will more likely experience instability and insecurity, reduced prosperity, greater environmental degradation, and lower levels of overall well-being.⁹ Hudson’s research suggests data on women’s vulnerability/safety enhances predictions of state stability (and therefore climate resilience) to a greater degree than data on economics or form of government. Therefore, in regions where women face multiple, overlapping disadvantages like lack of electricity access, climate insecurity, and conflict much of the population lacks the resilience to adapt. Such communities are less equipped for crisis response, conflict management, and suppression of violence, leading to greater community fragility.¹⁰ Conversely, communities prioritizing women’s rights see a greater investment in women generally, like equitable access to electricity. This enhances economic resources and generates stronger social networks, ultimately supporting better crisis management and peaceful conflict resolution.¹¹

Structural gendered inequalities and cultural norms contribute to electricity access disparities in much of the Indo-Pacific. Electricity infrastructure to low-income, urban areas and last-mile, rural communities where women make up much of the population (due to men’s out-migration) is frequently fragile,

outdated, or non-existent, making intensification of climate change a significant threat. Frequent climate disasters like floods, droughts, heatwaves, and landslides strain utility services and cause major disruptions. Without reliable electricity access, such events compound vulnerability. Furthermore, electricity is often necessary for early warning of climate disasters through radio, television, and mobile telecommunications. Women (plus indigenous groups and older adults) often fall behind men in internet access and mobile phone use due to gender norms and the cost/availability of internet and mobile phone systems, which need consistent power supply.¹²

Moreover, safe access to electricity-dependent digital technologies represents a critical lifeline for women and girls during conflict or natural disaster, plus a means to report incidents and receive support following acts of violence (which increase during crises).¹³ Mobile money and digital wallet services matter for receiving disaster assistance from governments and NGOs, monetary support from family and friends, and insurance payments.¹⁴ Without electricity for mobile devices and electronics, women frequently lack access to bank accounts, loans, and insurance.¹⁵

Access and continuity of electricity is therefore essential for climate resilience, especially for the most vulnerable. One way to avoid catastrophic power loss due to the vulnerabilities of conventional electricity systems is grid decentralization—already a trend through expansion of microgrids and isolated systems (often employing renewable energy like wind or solar). As climate change intensifies, SMRs deserve consideration from communities building

⁷ Castillo et al., “Opening Opportunities, Closing Gaps: Advancing Gender-Equal Benefits in Clean Cooking Operations.”

⁸ Elisabeth Maier, Samantha Constant, and Ali Ahmad, “Gender in Energy Interventions in Fragile and Conflict Situations in the Middle East and North Africa Region: Insights from Iraq, Lebanon, Republic of Yemen, and the West Bank and Gaza” (World Bank, June 2020), <https://openknowledge.worldbank.org/entities/publication/82be972e-150e-5b63-8948-42df4b353df5>.

⁹ Valerie Hudson, Donna Lee Bowen, and Perpetua Lynne Nielsen, *The First Political Order: How Sex Shapes Governance and National Security Worldwide* (New York: Columbia University Press, n.d.).

¹⁰ Erika Forsberg and Louise Olsson, “Examining Gender Inequality and Armed Conflict at the Subnational Level,” *Journal of Global Security Studies* 6, no. 2 (June 2021).

¹¹ *ibid*

¹² Samia Melhem and Nidhi Tandon, “Information and Communication Technologies for Women’s Socio-Economic Empowerment” (World Bank,

n.d.), <https://elibrary-worldbank-org.ezp-prod1.hul.harvard.edu/doi/abs/10.1596/978-0-8213-8133-5>.

¹³ “Unsafe in the City: The Everyday Experiences of Girls and Young Women” (Plan International Australia, n.d.), <https://www.plan.org.au/publications/unsafe-in-the-city-the-everyday-experiences-of-girls-and-young-women/>.

¹⁴ Dumisani Chirambo, “Enhancing Climate Change Resilience Through Microfinance: Redefining the Climate Finance Paradigm to Promote Inclusive Growth in Africa,” *Journal of Developing Societies* 33, no. 1 (2017).

¹⁵ James M. Naughto and Anne K. Brady. 2022. “Building Resilience to Crisis through Digital Financial Services with a Gender Lens.” *Enterprise Development & Microfinance* 33. Emma Newburger, 2020, “Covid pandemic drove a record drop in global carbon emissions in 2020.” Julia Arnold and Sarah Gammage. 2019. “Gender and Financial Inclusion: The Critical Role for Holistic Programming.” *Development in Practice* 29 (8). Routledge: 965–973. doi:10.1080/09614524.2019.1651251.

and redesigning power grids with gender equality in mind.

II. SMR technology: A step toward energy equality

SMRs have garnered global interest recently due to their potential harnessing of nuclear fission, while also being safer and more flexible than traditional nuclear power plants (NPPs). The World Economic Forum suggests this technology may allow communities to transition away from heavily polluting fuels without compromising electricity access or energy security.¹⁶ SMRs could not only improve grid reliability and address urgent cleaner energy needs, but also improve energy equity for women through fairer distribution of power production costs and benefits.

While “small-modular reactors” captures a broad class of reactor designs and technologies varying from a few megawatts (MW) of electrical output to hundreds, the category emerged in response to concerns of cost, scale, and safety surrounding Gen I (1950s-1960s) and Gen II (1970s-1990s) NPPs. While fundamentally employing the same familiar process of spinning turbines with steam produced from controlled nuclear fission, SMRs bypass the need to plan and design each plant according to site requirements by standardizing a smaller, entirely self-contained reactor design manufactured in a factory, shipped to site, and able to “modularly” stack with as many units as needed to meet local demand requirements. SMRs are thus envisioned as more capital-efficient than traditional NPPs, made more affordable through economies of scale in series production.

Highly systematized SMR fabrication and deployment eliminates many potential points for design, construction, operation, and oversight risks/flaws. Many leading SMR designs build in passive fail safes and redundancies closing off pathways for a critical failure resulting from human input. Safety remains near the top of public concerns regarding nuclear energy, so comprehensive

advancements can help overcome perception-related hurdles.¹⁷ With many old nuclear and fossil fuel plants from the 20th century's second half now near the end of their useful lifespan, the US Department of Energy recently completed a landmark study finding 80% of aging or retired coal power plants suitable for conversion to SMR-based power plants. It concluded that this could reduce greenhouse gasses in a coal plant community by 86% and save up to 35% in new construction costs, plus produce well-paying jobs, maintain reliable power, and significantly improve local air quality for residents—all highly constructive for women in disadvantaged communities.¹⁸

Still, opposition to nuclear energy development remains, centered on aversion to catastrophic accidents. Attitudes toward nuclear energy remain dominated by memory of a few high-profile disasters like Chernobyl or Fukushima. Though great strides have been made in nearly every aspect of nuclear engineering and safety, from reactor designs to more robust regulatory environments,¹⁹ research shows the challenge of separating perception of safety from people's attitudes toward locating a reactor in their community. The 2011 Fukushima Daiichi disaster increased such concerns—reactor meltdowns have become associated with the risk of uncontrollable natural disasters like earthquakes, tsunamis, and hurricanes.

Seaborne SMRs, or floating nuclear power plants (FNPPs), could allay these fears, as their mobility and size allow them to disconnect from their host power station and relocate. Inversely, an FNPP could be moved to supply local power quickly after a natural disaster if normal grid operations are knocked offline or compromised, supporting those lacking communications and power following an extreme event. The US Navy nearly demonstrated this on the Hawaiian island of Kauai in 1982, after a hurricane brought down power facilities. Federal and local officials collaborated to bring a nuclear-powered military submarine from nearby Pearl Harbor and link it to the Kauai grid, though ultimately a giant diesel generator that could be connected more quickly was used instead.²⁰

¹⁶ Nord Stream, Bangladesh's Power Blackout and Emergency Measures: What to Know about the Global Energy Crisis This Week. 2022. World Economic Forum. <https://www.weforum.org/agenda/2022/10/global-energy-sector-news-this-week/>.

¹⁷ [Organization for Economic Co-operation and Development 2010](#)

¹⁸ “Benefits of Small Modular Reactors.” Department of Energy Website. Office of Nuclear Energy. <https://www.energy.gov/ne/advanced-small-modular-reactors-smrs>.

¹⁹ [Kurokawa and Ninomiya 2018, 47](#).

²⁰ Upi. 1982. “Navy Seeks to Return Power to Stricken Hawaii Island.” UPI via The New York Times, Nov. 29, sec. U.S.

Beyond mitigating environment-related risks and externalities, mobile power plants could balance power supply and demand in grids with highly variable components. As communities incorporate more solar panels and wind turbines, weather-dependence in such generation could lead to greater price volatility and energy insecurity. Storage technologies like industrial-scale battery systems and pumped hydro are often developed alongside renewables to balance unmatched supply and demand, but high upfront costs make them prohibitively expensive for broad use across South and Southeast Asia.

SMR designs remain at varying stages of licensing and development but already attract substantial interest from “newcomer” countries to nuclear power seeing them as key to clean, safe, and affordable energy.²¹ Many nations have ambitious carbon emissions reduction targets to reach by 2030, 2050, and beyond, for which this technology could prove instrumental. Slowing climate change effects will reduce the hazards women disproportionately bear and the likelihood of energy poverty. Additionally, keeping electricity affordable helps women save time, invest in education, become politically engaged, and contribute to policymaking. SMRs have one more advantage: As policymakers worldwide consider SMRs for baseload power, they could offer demonstrated carbon emissions reductions required by international actors in exchange for access to climate resilience funds and development financing. Since such funds often seek improved equity for women and other disadvantaged groups, introduction of SMRs into energy insecurity regions could offer multiplied benefits for the most vulnerable.

III. Energy and climate concerns of the Global South

Section III provides an overview of the energy sectors, unique circumstances, and gender equality levels in India, Bangladesh, and Southeast Asia subregion.

These 13 countries are collectively home to nearly 30% of the earth’s population, and current trends suggest their momentum in urban development and energy demand will only continue. Established indices for gender equality, climate risk, and electricity access indicate relations between the three: countries with the lowest penetration ratio of electricity access combined with decreasing women’s inequality face the greatest climate risks. However, the scope of this study’s research is insufficient to draw sure conclusions (Figure 1).

Here we examine figures for women’s equity from a 2021 study gathering data on gender inequality and climate security risks, comparing that data to the penetration ratio of electricity access from the World Bank’s Global Electrification Database. The gender-disaggregated data is limited in the Indo-Pacific, causing difficulty in measuring inequalities in energy access and climate security.²² Nevertheless, reviewing this subset provides insights into understanding common challenges across the Global South and whether SMRs are viable for addressing women’s empowerment and equality, and lowering climate insecurity risks through greater energy access and security.

Figure 1 illustrates the results of this analysis. It incorporates data from three indices, including: The ND-GAIN Country Index which examines conditions in 182 countries, measuring climate vulnerability combined with other global challenges and readiness to improve resilience (note: it makes no mention of gender considerations); the Gender Inequality Index (GII) (absolute score); and the World Bank Data on access to electricity as the percentage of population with access to electricity.²³

<https://www.nytimes.com/1982/11/29/us/navy-seeks-to-return-power-to-stricken-hawaii-island.html>.

²¹ “Vietnam May Reconsider Nuclear Power - Nuclear Engineering International.” 2023. Accessed Jan. 12. <https://www.neimagazine.com/news/newsvietnam-may-reconsider-nuclear-power-9759585>.

²² Bridging the Gap: Mapping Gender Data Availability in Asia and the Pacific. 2021. Key Findings and Recommendations. data2x. https://data2x.org/wp-content/uploads/2021/04/BTG-Asia-Key-Findings-Recommendations_FINAL.pdf.

²³ United Nations, “Gender Inequality Index,” Human Development Reports (United Nations), accessed January 12, 2023, <https://hdr.undp.org/data-center/thematic-composite-indices/gender-inequality-index>; “Access to Electricity (% of Population),” The World Bank Data, <https://data.worldbank.org/indicator/EG.ELC.ACCS.ZS>; “Notre Dame Global Adaptation Initiative (ND-GAIN),” Notre Dame Global Adaptation Initiative, accessed July 31, 2021, <https://gain.nd.edu/our-work/country-index/rankings/>.

Gender Inequality Index, Electricity Access (%) and ND-GAIN Index

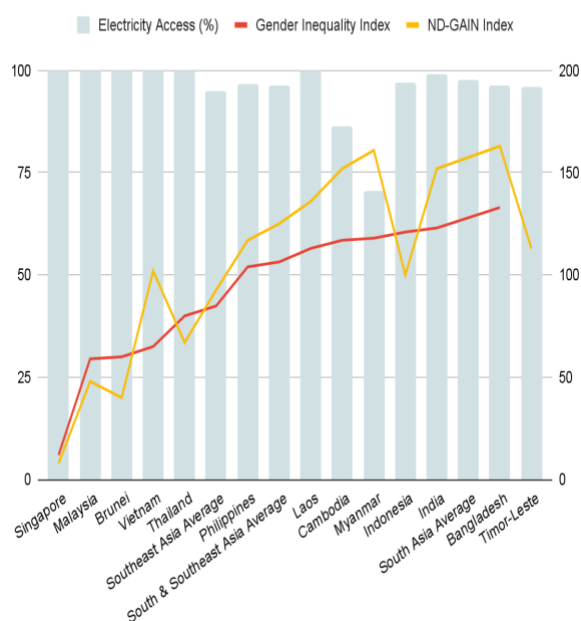


Figure 1: Compares the *ND-GAIN Index data, Gender Inequality Index data, Electricity Access (%) data*
 Averages listed weight countries equally

Bangladesh

In Bangladesh, a country of 160 million people, about 85% of the population have access to power in 2019, up from 20% in 2000.²⁴ Electricity generation capacity has increased from 5GW in 2009, to 25.5GW in 2022. Additionally, half of installed capacity consists of private power production units.²⁵ Despite this substantial progress, and the Bangladeshi government's March 2022 announcement²⁶ that 100% have access to electricity, reliability and quality of electricity remain major issues. The country's energy demand is also estimated to reach 50GW by 2041, presenting a challenge for utility providers.²⁷ As with most countries in the region, gendered norms impact women through increased energy poverty, limited

access to clean fuels, fewer opportunities to engage in economic or educational pursuits, and so on. Figure 1 illustrates the country's high climate risk as well: Bangladesh is seventh on the world index for climate risk.²⁸

Bangladeshi power plants rely on natural gas for three-quarters of electricity generation. The government plans to reduce use of domestic natural gas while increasing reliance on imported liquefied natural gas.²⁹ Additionally, Bangladeshi policy is shifting the country's energy mix toward coal—aiming to generate up to 50% of electricity from coal-fired power plants.³⁰ In the country's developing Power System Master Plan, coal—which is cheap, reliable, and keeps energy affordable and accessible for the most vulnerable to price spikes—will likely be prioritized. However, coal's highly polluting nature contributes directly to climate insecurity.

US-based companies provide around 55% of Bangladeshi domestic natural gas production,³¹ and it imports natural gas, mainly from Qatar and Oman. While the country plans to improve cooperation with the US for domestic gas production and exploration, its expenditures on imported gas have risen due to the global supply crunch from the Russo-Ukraine conflict. In July 2022, Bangladesh announced it would halt buying liquefied natural gas on the spot market due to a steep price increase.³² Its heavy natural gas reliance means Bangladesh suffers from frequent power shortages. In early October, 75-80% of the country suffered evening blackouts after a grid failure,³³ something typically caused by demand/supply mismatches.

In Bangladesh, development of renewables remains outpaced by fossil fuels such as gas, oil, and coal. The country is currently working on one solar power plant, four wind farms, seven coal power plants, 13 gas plants, and one-to-two nuclear plants. With the

²⁴ World Energy Outlook 2022, Country Profile: Bangladesh.

²⁵ Bangladesh - Country Commercial Guide. 2022. International Trade Administration, Department of Commerce. <https://www.trade.gov/bangladesh-country-commercial-guide>.

²⁶ The Business Post. 2022. "Bangladesh to Be 100% Electrified from Today," March 21.

²⁷ Bangladesh—Country Commercial Guide 2022

²⁸ David Eckstein, Vera Künzel, Laura Schäfer, and Maik Wings. 2020. "Global Climate Risk Index 2020."

²⁹ Bangladesh - Country Commercial Guide 2022.

³⁰ Kamran Reza Chowdhury. 2017. "Bangladesh Bets on Coal to Meet Rising Energy Demand," February.

<https://www.climatechangenews.com/2017/02/09/bangladesh-bets-on-coal-to-meet-rising-energy-demand/#:~:text=Bangladesh%20is%20betting%20on%20coal%20to%20support%20its,of%20new%20coal%20powered%20plants%20in%20the%20pipe line.>

³¹ Bangladesh—Country Commercial Guide 2022.

³² Ruma Paul and Sudarshan Varadhan. 2022. "Bangladesh Plunged into Darkness by National Grid Failure." Reuters, October 4.

<https://www.reuters.com/world/asia-pacific/large-parts-bangladesh-without-power-after-national-grid-failure-daily-star-2022-10-04/>.

³³World Economic Forum 2022.

Bangladeshi government's energy diversification plan not proceeding quickly enough to cover rising energy demand, many challenges could prevent the country from maintaining 100% electrification and continued stable electricity supply.

Concerning carbon emissions, Bangladesh accounts only for 0.3% of the global total.³⁴ This is not true of its exposure to climate change's effects, given its geography of low elevation floodplains, with the strong possibility of rapid collapse of riverbanks and subsequent destruction of villages. This could displace millions of Bangladeshis³⁵ with the World Bank expecting it to account for about one-third of South Asia's climate refugees by 2050. Many displaced by climate change are women, for whom finding safe shelter is more difficult and the risk of sexual assault and gender-based violence is higher. Earning an income during displacement is another challenge, and climate migration can exacerbate gender inequalities.³⁶ To address both growing energy needs and climate impact, Bangladesh needs a practical solution not only providing abundant, reliable electricity but also reducing ecological impact. With some of the world's worst air pollution, a strategy to shift away from natural gas and fossil fuel reliance is important for Bangladesh's health and welfare.³⁷ Therefore, Bangladesh should consider adding nuclear to its energy mix.

Bangladesh has been interested in nuclear energy since the early 1960s, when still known as East Pakistan. Bangladesh planned to build a 200MW nuclear power plant at a site near Rooppur Village, but this was never implemented. More recently, Bangladesh signed a 2008 agreement with China for nuclear cooperation. In 2009, Bangladesh began discussions with Russia's state-run nuclear firm,

Rosatom, and the two governments signed a memorandum of understanding. In 2015, Russia and Bangladesh finally signed a contract for development of the Rooppur Nuclear Power Plant. Construction started in 2017, and completion is expected by 2024. Japan and China have shown interest in building a second nuclear power plant in the country. Construction of nuclear power plants in Bangladesh have faced several delays due to safety concerns and cost overruns.

India

Over 80% of India's energy needs are met by coal, oil, and solid biomass. Gas and clean energy such as solar, hydro and wind make up 15-17% and nuclear currently contributes around 3%.³⁸ India's energy consumption has more than doubled since 2000 due to its ever-growing population (1.41 billion in 2022 according to the World Population Prospects 2022) and economic growth.³⁹ According to the IEA, over 900 million people in India along gained access to electricity in 2019.⁴⁰ Nevertheless, a huge gap between the quality of urban and rural electricity services remains, while the affordability and reliability continue to be key concerns. Like Bangladesh, Figure 1 suggests that India has a high electricity access penetration ratio of 99% and a relatively low level of gender inequality, ranking 123rd across surveyed countries. India ranks 17th on the climate risk index, indicating a relatively high potential for danger from natural disasters linked to climate change.⁴¹

India's major electricity supply comes from coal.⁴² However, like Bangladesh, India seeks cleaner sources of energy, including through renewables. India has only 0.8% of the world's known oil and

³⁴ The Guardian. "Bangladesh Is Paying a High Price for Developed World's Carbon Emission," July 10, 2022. <https://www.theguardian.com/environment/2022/jul/10/bangladesh-is-paying-a-high-price-for-developed-worlds-carbon-emissions>.

³⁵ Al-Emrun Garjon and Julhas Alam. "Climate Migration: Flooding Forces Bangladesh Family to Flee." AP News, Aug. 17, 2022. <https://apnews.com/article/floods-bangladesh-dhaka-jewel-420620595a7e5229ef539f6e27ea085f>.

³⁶ "Women and Climate Change: An Uneven Balance." 2022. CONCERN Worldwide US. <https://www.concernusa.org/story/women-and-climate-change/>.

³⁷ LankaBangla Finance. "Natural Gas Reliance Poses Risks to Country's Climate, Health Goals: Report," April 23, 2022. <https://www.tbsnews.net/bangladesh/energy/natural-gas-reliance-poses-risks-countrys-climate-health-goals-report-408430>.

³⁸ India Energy Outlook 2021 - Energy in India Today. International Energy Agency. <https://www.iea.org/reports/india-energy-outlook-2021>.

India Energy Outlook 2021, Report, International Energy Agency, <https://www.iea.org/reports/india-energy-outlook-2021/energy-in-india-today>.

³⁹ World Population Prospects 2022. Summary of Results. United Nations Department of Economics and Social Affairs. https://www.un.org/development/desa/pd/sites/www.un.org.development.desa.pd/files/wpp2022_summary_of_results.pdf.

⁴⁰ India Energy Outlook 2021 - Energy in India Today. International Energy Agency. <https://www.iea.org/reports/india-energy-outlook-2021>. India Energy Outlook 2021, Report, International Energy Agency, Accessed January 12 <https://www.iea.org/reports/india-energy-outlook-2021/energy-in-india-today>

⁴¹ [Eckstein et al 2019](#).

⁴² Sharma, Ashok. "India's Quest for Energy Security." The Pioneer, February 2020. <https://www.dailypioneer.com/2020/sunday-edition/india--s-quest-for-energy-security.html>.

natural gas resources.⁴³ In 2020, oil made up 36% of India's total primary energy use, a share expected to increase because consumption far exceeds domestic production, India imports 80% of its crude oil needs.⁴⁴ India's top foreign oil suppliers include Russia, Saudi Arabia, and Iraq. Barring major discoveries of domestic reserves, oil imports will also continue increasing. Natural gas makes up 8% of India's energy supply, and domestic sources can currently cover this need—though this is expected to change as India advances toward the global average for natural gas use.⁴⁵

Despite its growing energy consumption and dependency on fossil fuels, India has set ambitious climate action targets, seeking 100GW of solar energy and 60GW of wind energy in its installed capacity by 2022.⁴⁶ In 2020, India had 88.65GW of renewable energy installed capacity out of 372GW of total installed capacity. Of these 88.65GW, solar comprises 35.74GW, wind 38GW, biopower 10.17GW, and small hydro projects 4.74GW.⁴⁷ Although solar and wind seem efficient for developing clean energy share, India must also develop storage technology to handle the intermittency of energy generation. Solar alone cannot handle peak demand, especially in the evening. India also depends on imports of solar panels, as it cannot produce enough domestically. According to the Indian Ministry of Commerce and Industry, India imported 796 million solar cells during 2019-2020—78% from China.⁴⁸

Regarding carbon emissions, India emitted 2.44 billion tons of carbon dioxide in 2020—a modest

decrease from 2.63 billion tons in 2019.⁴⁹ India's carbon emissions have risen significantly since the 1980s, along with its emerging economy.⁵⁰ The slight fall in 2020 is attributed to pandemic lockdowns and thus considered short-lived.⁵¹ India is expected to become the world's most populous country by 2027⁵² and is the third-largest carbon emitter after China and the US. With its steadily growing population and economy heavily dependent on coal and oil, India's carbon emissions will be steep if effective actions are not taken. India pledged that it will increase its non-fossil fuel energy capacity to 500GW by 2030 and set a target of 175GW by 2022, excluding large hydroelectric and nuclear capacities. India appears to have missed its 2022 goal, currently at just over 100GW.⁵³

In India, as in many countries, women are the primary dependents on natural resources and are responsible for securing food, water, and fuels for households. In rural Maharashtra, "water wives"—in which one man marries multiple women to address the problem of water scarcity—illustrates the gender-climate connection.⁵⁴ Women must also take responsibility for collecting firewood for cooking or buying kerosene to light the house. In India, breathing fumes from traditional energy sources is a huge concern and comes with serious health consequence. Women and girls are generally responsible for household cooking and spend most of their time near dirty cookstoves, thus suffering from serious respiratory problems⁵⁵.

⁴³ Ibid.

⁴⁴ Ibid.

⁴⁵ "Climate Action Tracker, Natural Gas in India, A pathway towards reducing India's dependency on gas", 2022, New Climate Institute, https://climateactiontracker.org/documents/1050/CAT_2022-05-30_Report_NaturalGasinIndia_C6Dpm5s.pdf

⁴⁶ Kanitkar, Tejal. 2020. "Is India Concerned about Its Energy Security?" The India Forum, September. <https://www.theindiaforum.in/article/india-concerned-about-its-energy-security>. Kar, Sanjay Kumar, 2022, "Russia-Ukraine War: Impacts on India's petroleum sector", EnergyWorld, the Economic Times, <https://energy.economicstimes.indiatimes.com/energy-speak/russia-ukraine-war-impact-on-india-s-petroleum-sector/5243>

⁴⁷ Verma, Ayush. "751.52 MW of RE Capacity Added in August, Total at 88.65 GW: MNRE," September 2020. <https://www.saurenergy.com/solar-energy-news/751-52-mw-of-re-capacity-added-in-august-total-at-88-65-gw-mnre#:~:text=The%20Ministry%20of%20New%20and%20Renewable%20Energy%20%28MNRE%29,India%20%20total%20to%202088.65%20GW.%20PC%3A%20Bosch%20India.>

⁴⁸ Kanitkar 2020.

⁴⁹ Naughton, James M., and Anne K. Brady. 2022. "Building Resilience to Crisis through Digital Financial Services with a Gender Lens." *Enterprise Development & Microfinance* 33 (1). Practical Action Publishing: 28–44. doi:10.3362/1755-1986.21-00035.

⁵⁰ Ritchie, Hannah, and Max Roser. "India: CO2 Country Profile." Our World in Data. <https://ourworldindata.org/co2/country/india>.

⁵¹ Joanna Slater. "Can India Chart a Low-Carbon Future? The World Might Depend on It." *The Washington Post*, June 12, 2020. <https://www.washingtonpost.com/climate-solutions/2020/06/12/india-emissions-climate/>.

⁵² Special Correspondent. "India to Be Most Populous by 2027: UN." *The Hindu*, June 18, 2019. <https://www.thehindu.com/news/national/india-to-be-most-populous-by-2027-un/article28067167.ece>.

⁵³ Menon, Shruti. 2021. "Climate Change: What Emission Cuts Has India Promised?" *BBC*, November 17. <https://www.bbc.com/news/world-asia-india-58922398>.

⁵⁴ Shweta Sengar. "Water Wives': How Lack of Water in This Maharashtra Village Led To Polygamy," April 2022. <https://www.indiatimes.com/news/india/water-wives-how-lack-of-water-in-this-maharashtra-village-led-to-polygamy-568090.html#:~:text=enough%20drinking%20water-,A%20banned%20social%20practice%20in%20India%20is%20thriving%20in%20a,from%20the%20capital%20city%20Mumbai.>

⁵⁵ Shreya Raman. "In Bihar, Women Face Floods and Increasing Violence," *January 2022*. <https://www.thethirdpole.net/en/livelihoods/in-bihar-women-face-floods-and-increasing-violence/>.

India has a largely indigenous nuclear program and is committed to growing nuclear power capacity as part of its infrastructure development.⁵⁶ As such, India certainly could consider SMRs as part of its plan to expand nuclear use: India is currently building 6GW nuclear capacity. Modi aims to triple India's nuclear facilities over the next decade to improve the share of nuclear power in its energy mix.⁵⁷

Southeast Asia

Southeast Asia has been hailed as one of the world's most rapidly developing and technologically dynamic regions in recent decades. Yet, while much of the rest of Asia makes nuclear energy a dependable pillar of electricity generation and is investing in the next generation of nuclear technologies,⁵⁸ the 10 countries of ASEAN (plus Timor-Leste) have not yet implemented any commercial nuclear power. Only Vietnam, Indonesia, and Thailand operate nuclear reactor facilities for research purposes.⁵⁹

Average electricity access and gender equality rates are both lower in ASEAN states than either India or Bangladesh, especially in Myanmar, Cambodia, Philippines, Indonesia, and Thailand (see Figure 1). Furthermore, data on projected impacts of climate change reveal that many ASEAN nations have significant climate insecurities, especially Vietnam, Thailand, Cambodia, Myanmar, and the Philippines, with an average ND-GAIN Index of 93. Therefore, as with India and Bangladesh, the region has tremendous potential to address the energy trilemma.

Over the last 20 years, Southeast Asia's power demand has approximately tripled.⁶⁰ The region has long relied on hydropower and natural gas as the pillars of its energy supply, but a six-fold increase in coal use since 2000 has enabled the more recent period of rapid industrial development.⁶¹ Today, coal

provides over 40% of electricity region-wide. Aside from the global effects of carbon emissions from Southeast Asia's coal contributions, coal pollution has been strongly linked to health issues involving the respiratory, cardiovascular, immune, and reproductive systems.⁶² Natural gas (which is cleaner) accounts for another 35% of the region's mix.

While hydroelectric dams will likely remain a core component of clean, reliable energy generated in the region, local anti-dam protests have swelled. In Thailand, Laos, and Vietnam overbuilding of dams has been called out for impact on community displacement, agricultural irrigation, and natural habitats for threatened species.⁶³ If one removes hydropower, the remaining renewables (solar, wind, geothermal) comprise less than 1% of the regional total.⁶⁴ If ASEAN pursues development of further solar and wind farms in the coming decades, countries must ensure they maintain robust grids that do not let the variable generation of solar and wind compromise energy security.⁶⁵ Grid-scale batteries to balance the peaks and troughs in supply and demand remain extremely expensive, so leaving fossil fuels prematurely could increase energy insecurity, unless supported with other means of baseload energy supply like nuclear.

The energy environment in Southeast Asia could soon face upheaval, as Philippine President Ferdinand "Bongbong" Marcos II signals willingness to reopen nuclear power development through in-person talks with NuScale, a US firm designing SMRs.⁶⁶ Manila's initial foray into this technology came during Bongbong's father's presidency, in 1976 authorizing the American industrial company Westinghouse to build a nuclear plant in Bataan. However, development was beset by public opposition, including from the Catholic Church. In early 1986, the Chernobyl disaster and overthrow of

⁵⁶ Nuclear Power in India. World Nuclear Association. <https://world-nuclear.org/information-library/country-profiles/countries-g-n/india.aspx>.

⁵⁷ India Energy Outlook 2021 - Energy in India Today 2021.

⁵⁸ Small Modular Reactors. International Atomic Energy Agency IAEA. <https://www.iaea.org/topics/small-modular-reactors>.

⁵⁹ [World Nuclear Association 2022](https://www.iaea.org/news-and-media/news/2022/09/21/india-nuclear).

⁶⁰ "Small Reactors Could Make Nuclear Energy Big Again. How Do They Work, and Are They Safe?" 2023. World Economic Forum. Accessed January 12. <https://www.weforum.org/agenda/2022/10/nuclear-power-plant-smrs-clean-energy/>.

⁶¹ World Energy Outlook 2022, Country Profile: Bangladesh. International Energy Agency. <https://www.iea.org/countries/bangladesh>.

⁶² Juciano Gasparotto and Kátia Da Boit Martinello. 2021. "Coal as an Energy Source and Its Impacts on Human Health." *Energy Geoscience*,

Coal energy and environmental impacts, 2 (2): 113–120. doi:10.1016/j.engeos.2020.07.003.

⁶³ Suk, Wora. "People's Power: Anti-Dam Movements in Southeast Asia." Nov. 8, 2019. <https://thediplomat.com/2019/11/peoples-power-anti-dam-movements-in-southeast-asia/>.

⁶⁴ [International Energy Agency 2022, p.26](https://www.iaea.org/news-and-media/news/2022/09/21/india-nuclear).

⁶⁵ Falko Ueckerdt, Robert Brecha, and Gunnar Luderer. "Analyzing Major Challenges of Wind and Solar Variability in Power Systems." *Renewable Energy*, Volume 81, September 2015, Pages 1-10.

⁶⁶ Catherine S. Valente. 2022. "Marcos in Talks with US Nuclear Firm." *The Manila Times*. <https://www.manilatimes.net/2022/09/21/news/national/marcos-in-talks-with-us-nuclear-firm/1859164>.

the Marcos regime killed domestic support for nuclear energy, with the plant shuttered shortly after completion.⁶⁷

The Philippines is now exploring reopening the Bataan NPP with the help of South Korean nuclear expertise,⁶⁸ and one 2019 study reported 79% of Filipinos support the reopening: 65% even favor constructing new NPPs.⁶⁹ If Bongbong not only oversees restoration of the region's first and only commercial NPP, but strikes a partnership with NuScale for future implementation of SMRs, this would represent a turning point for the industry and pioneering moment for all of Southeast Asia. ASEAN's notoriously unhurried approach to regional issues through consensus-making has fostered a culture of caution where nations react to each other's direct and indirect "nudging" toward prosocial norms.⁷⁰

Though no other ASEAN nation presently matches Philippine enthusiasm for nuclear power, the region is not entirely without experience. Vietnam, for one, has explored constructing commercial reactors with a Japanese consortium, a Korean consortium, and Russia's Rosatom. After the Fukushima Daiichi disaster, those plans were put on a six-year delay, then shelved indefinitely.⁷¹ Vietnam's government recently indicated that, a decade later, plans for nuclear development are still "on hold," and the Ministry of Industry released a draft energy development strategy introducing SMRs into Vietnam's power generation mix by 2030. Last year's signing of its fourth "country program framework" with the IAEA displays a continued commitment to technical cooperation with international authorities in building up domestic nuclear industry.⁷²

Vietnam is currently weighing the findings of a recent study considering deployment of floating nuclear power plants (FNPPs), designed by Seaborg Technologies and manufactured by Samsung Heavy

Industries.⁷³ These nuclear-powered barges would serve as mobile power plants providing flexibility to respond to changes in power demand or situational factors. Like SMRs, FNPPs remain under development, but were originally inspired by technology existing aboard nuclear-powered icebreakers since the 1970s. Seaborg's design would be centered around a molten-salt reactor (MSR), which unlike a traditional light-water reactor does not depend on a pumped water supply for cooling. MSRs do not reach high enough temperatures for a meltdown, hence their reputation for much safer design.⁷⁴

Nearly 10% of the world's population lives on islands where FNPPs would be a particularly good fit, chiefly Indonesia, where over 275 million people live across thousands of islands 3,000 miles wide.⁷⁵ Since 1965, Indonesia has maintained a research reactor through the Bandung Atomic Reactor Center, today called the National Atomic Energy Agency (BATAN). Like Vietnam, it has at times entertained developing commercial nuclear power, but the fossil fuel industry has historically had an influential hand in guiding the bureaucracy, with Indonesia a leading global exporter of coal and regional provider of oil and gas.

However, under President Joko "Jokowi" Widodo have come promises of a cleaner energy mix by 2030 and net-zero carbon emissions target by 2060 through a new whole-of-government National Grand Energy Strategy. The archipelago comprises nearly half of ASEAN's population and anticipates sustained growth in its energy demands going forward from rising living standards and industrial output. Indonesia looks best-positioned to lead the region: In November 2022, Indonesia hosted the G20 summit in Bali, featuring the in-person attendance of the US, Chinese, and Indian heads of state, among other world leaders.⁷⁶ One surprise outcome was a handshake deal with President Biden for \$20 billion

⁶⁷ [World Nuclear Association 2022.](#)

⁶⁸ Darrell Proctor. 2022. "Philippines May Restart Bataan Nuclear Plant Project." *POWER Magazine*. <https://www.powermag.com/philippines-may-restart-bataan-nuclear-plant-project/>.

⁶⁹ Julius Cesar Trajano. "Ready for Nuclear Energy?: A Policy Review of the Philippines' Nuclear Energy Plan and Participation in the ASEAN Network of Regulatory Bodies on Atomic Energy." *International Journal of Nuclear Security*. doi:10.7290/ijns078dm9. 2020.

⁷⁰ Chin-Hao Huang and Arjun Jayaraman. "Nudging through Consensus: ASEAN's Role in Haze Mitigation and Environmental Governance." *Asian Survey* 61 (6). University of California Press: 883–916. 2021. doi:10.1525/as.2021.1418281.

⁷¹ [World Nuclear Association 2022.](#)

⁷² [International Atomic Energy Agency 2022.](#)

⁷³ "Press Release | Seaborg | International Conference." 2023. <https://www.seaborg.com/press-release-international-conference>.

⁷⁴ Elsheikh, Badawy M. 2013. "Safety Assessment of Molten Salt Reactors in Comparison with Light Water Reactors." *Journal of Radiation Research and Applied Sciences* 6 (2): 63–70. doi:10.1016/j.jrras.2013.10.008.

⁷⁵ "Indonesia | History, Flag, Map, Capital, Language, Religion, & Facts | Britannica." 2023. Accessed January 12. <https://www.britannica.com/place/Indonesia>.

⁷⁶ "Xi and Putin Confirmed for November's G20 Summit in Bali | Joko Widodo News | Al Jazeera." 2023.

in funding from a US- and Japan-led consortium of international entities for financing Indonesia's transition away from fossil fuels.

While there are other pockets of development towards nuclear energy across the region, Vietnam, Indonesia, and the Philippines are clear leaders. ASEAN as an entity is not overtly engaged with the sector, with its lackluster web resources only linking to member states' respective sites for nuclear energy research. However, for long-term economic growth and cooperation ASEAN should create a stronger platform to support regional energy policy and energy security discussions. As countries consider SMRs, they should host robust multilateral conversations to develop standards and frameworks for sensitive imports, industry regulation, and safety procedures.

IV. Conclusion: Overcoming the triple challenge

The case studies offered here demonstrate how the triple challenges of energy insecurity, climate change, and gender equality should be the top—interconnected—priorities for regional stability and security. To reconstruct energy security discourse and practice in the Global South and to encourage deployment of clean energy technologies such as SMRs, especially in communities where gender equality and energy security are often very low, barriers to women's participation in policymaking and energy-based STEM (science, technology, engineering, and math) fields need to be dismantled.

Perhaps the smaller challenge will be increasing women's presence in the energy sector (where, arguably, leadership-level jobs require advanced STEM education). Several reports examine the role

gender norms play in keeping women from filling energy-related STEM jobs or starting energy businesses. A 2022 IRENA Renewable Energy and Jobs notes a) sociocultural norms disadvantage women's preparedness for higher education and access to skilled jobs, b) a lack of gender-sensitive policies on training, finance, data collection, and access to STEM training; and c) inequities in asset ownership present barriers to women entering the clean energy workforce.⁷⁷ With two-thirds of all global renewable energy jobs based in Asia, and the renewable energy industry having a better gender balance than conventional energy industries, the share of women in the sector nevertheless falls far short of the percentage of women employed in the overall economy.⁷⁸

Sustainable Energy for All and Energia have identified the need for policymakers to create business and regulatory environments supporting women's advancement in the energy sector, particularly clean energy.⁷⁹ Furthermore, a World Bank/Climate Investment Fund report identifies the need to assess the win-win of interventions based on mini-grid energy models for addressing gender inequality and energy poverty.⁸⁰

A more significant challenge will be to increase women's representation in policymaking leadership roles where policies for shifting the energy mix and reaching last-mile communities are developed. Many studies argue that when women's representation in government increases, domestic and foreign policies tend to shift.⁸¹ These arguments tend to pivot on the idea that as more women assume higher government office, more women's issues are represented in policy.⁸² Many studies show that issues related to women's rights, health, education, and the economy garner more attention from women government representatives than men.⁸³ Crucially, one study

<https://www.aljazeera.com/news/2022/8/19/xi-and-putin-confirmed-for-novembers-g20-summit-in-bali>.

⁷⁷ Renewable Energy: A Gender Perspective. 2019. International Renewable Energy Agency. /publications/2019/Jan/Renewable-Energy-A-Gender-Perspective. <https://www.irena.org/publications/2020/Sep/Renewable-Energy-and-Jobs-Annual-Review-2020>

⁷⁸ [Renewable Energy: A Gender Perspective 2019, 18.](#)

⁷⁹ Levers of Change: How Global Trends Impact Gender Equality and Social Inclusion in Access to Sustainable Energy. 2018. Vienna, Austria: Sustainable Energy for All. https://www.seforall.org/sites/default/files/18_SEforALL_SETrendsReport_0.pdf.

⁸⁰ Mini-Grids & Gender Equality: Inclusive Design, Better Development Outcomes - Key Issues, and Potential Actions. 2017. Washington, DC: The International Bank for Reconstruction and Development.

https://www.climateinvestmentfunds.org/cif_enc/sites/cif_enc/files/knowledge-documents/mini-grids_and_gender_equality.pdf.

⁸¹ Joshua S Goldstein. "A Conflict-Cooperation Scale for WEIS Events Data." *Journal of Conflict Resolution* 36: 369–385. 1992. doi:10.1177/0022002792036002007; Gender Climate Tracker. 2016. Text. WEDO. <https://www.genderclimatetracker.org/gender-ndc/introduction>.

⁸² Karen Celis. 2009. "Substantive Representation of Women (and Improving It). What Is and Should It Be About?" *Comparative European Politics* 7: 95–113.; Susan Franceschet and Jennifer M. Piscopo. 2008. "Gender Quotas and Women's Substantive Representation: Lessons from Argentina." *Politics & Gender* 4 (3). Cambridge University Press: 393–425. doi:10.1017/S1743923X08000342.

⁸³ Leslie A Schwindt-Bayer. 2006. "Still Supermadres? Gender and the Policy Priorities of Latin American Legislators." *American Journal of Political Science* 50 (3): 570–585. doi:10.1111/j.1540-5907.2006.00202.x.; Susan J. Carroll 2001. *The Impact of Women in Public Office*. Indiana

notes women politicians tend to favor policies of community development (like clean energy systems) over military spending⁸⁴. Moreover, states with higher levels of women's parliamentary representation adopt more environmental treaties and more stringent climate change policies, resulting in measurable differences in carbon dioxide emissions at the state level.⁸⁵

SMRs: For or against?

Energy insecurity, gender inequality, and climate insecurity present significant challenges for India, Bangladesh, and Southeast Asia—something exacerbated by the Ukraine conflict—and require immediate action. For the Global South, climate and energy create a dilemma between economic growth and climate resilience. Advanced SMR technologies face questions related to their practicality and ability to solve for gender inequalities. Still, it is promising that SMRs technologies are in the research and development stage. In the adoption of these technologies, countries can and should make the most suitable policy decisions for their own interests.

We propose SMR technology as a potential solution but acknowledge the continued debate and the need for Global South countries to continue their assessment. As SMRs cannot be fully approved yet due to safety and security requirements, countries interested in developing SMRs should prepare legal frameworks, regulations, and policies. India has already set up policies and regulations for use and generation of nuclear power, but if Delhi considers SMRs it will need to adapt or modify them. SMRs are practical and adaptable but impose different security threats as they are displaceable and may experience unexpected failures in the built-in modular reactors. Bangladesh and ASEAN countries, as newcomers to nuclear energy, must set up effective rules, regulations, and policy measures to maintain their and the region's peace and security.

It is also argued that SMRs cannot contribute to affordable energy in the energy market because of larger project costs. Though the price-per-SMR can

beat the overnight capital cost of a traditional nuclear power plant, the total project costs for a fleet of SMRs will not lower the energy price per kilowatt for the purchasers. Nuclear reactors, big or small, have high fixed-capital costs and low-variable costs for fuel and maintenance, and thus are not suitable for variability of demands. In large traditional nuclear plants, fixed costs are spread out over the largest number of kilowatt-hours that can make each KWh cheaper. SMRs, as they aim to respond to variable demands of electricity, might raise the costs as well as energy prices due to the operation at partial load, however. The mass production aspect of SMRs under economies of scale also imposes severe effects in event of error in design or the manufacturing process. There are questions over the guarantee of factory-made identical reactors and the consequences of error concerning safety. Moreover, SMR technology development in newcomer countries requires cooperation with nuclear countries already possessing the technology, and thus the technology transfer and training might raise further concerns over control of dual-use items. Both receiver and distributor countries would thus need strategic trade controls and regulations to deal with the concerns. Finally, SMRs will also produce nuclear wastes, the management of which can become a surplus burden.

Nonetheless, distributed and mini-grid energy systems such as SMRs have many advantages, and may deliver direct benefits to women, especially those in the most remote communities in the world. Energia has conducted extensive research on whether improved energy access can encourage women's and girls' empowerment. They find that when women are included in household decisions about use of electricity, and the purchase of electricity-using appliances (like rice cookers or sewing machines) they are more likely to be able to devote time and energy to other income-earning activities.⁸⁶ However, gender norms have rarely been transformed by the addition of a mini-grid electricity systems alone and challenges remain in translating the mini-grid benefits of SMRs into tangible upsides for women. For instance, Energia's research shows that men generally control both the production and

University Press.; Kathleen A. Bratton 2005. "Critical Mass Theory Revisited: The Behavior and Success of Token Women in State Legislatures." *Politics & Gender* 1 (1). Cambridge University Press: 97–125. doi:10.1017/S1743923X0505004X;

⁸⁴ Orlando C. Richard, and Carliss D. Miller. 2013. "Considering Diversity as a Source of Competitive Advantage in Organizations." *The Oxford Handbook of Diversity and Work*. doi:10.1093/oxfordhb/9780199736355.013.0014.

⁸⁵ Kari Norgaard and Richard York. 2005. "Gender Equality and State Environmentalism." *Gender and Society* 19 (4). Sage Publications, Inc.: 506–522.

⁸⁶ Magi Matinga. 2019. *Women's Empowerment and Electricity Access: How Do Grid and off-Grid Systems Enhance or Restrict Gender Equality?* Oslo: Energia. <https://www.energia.org/how-do-grid-and-off-grid-systems-enhance-or-restrict-gender-equality/>.

consumption of electricity from mini-grids.⁸⁷ Furthermore, since women's income is usually lower than men's, the cost of purchasing electricity from a mini-grid is a significant factor in whether women achieve a higher rate of empowerment.⁸⁸ As such, while SMRs show promise, such installations will only benefit gender equality paired simultaneously with programs for transforming gender norms.

⁸⁷ *ibid* 76.

⁸⁸ *ibid* 90.

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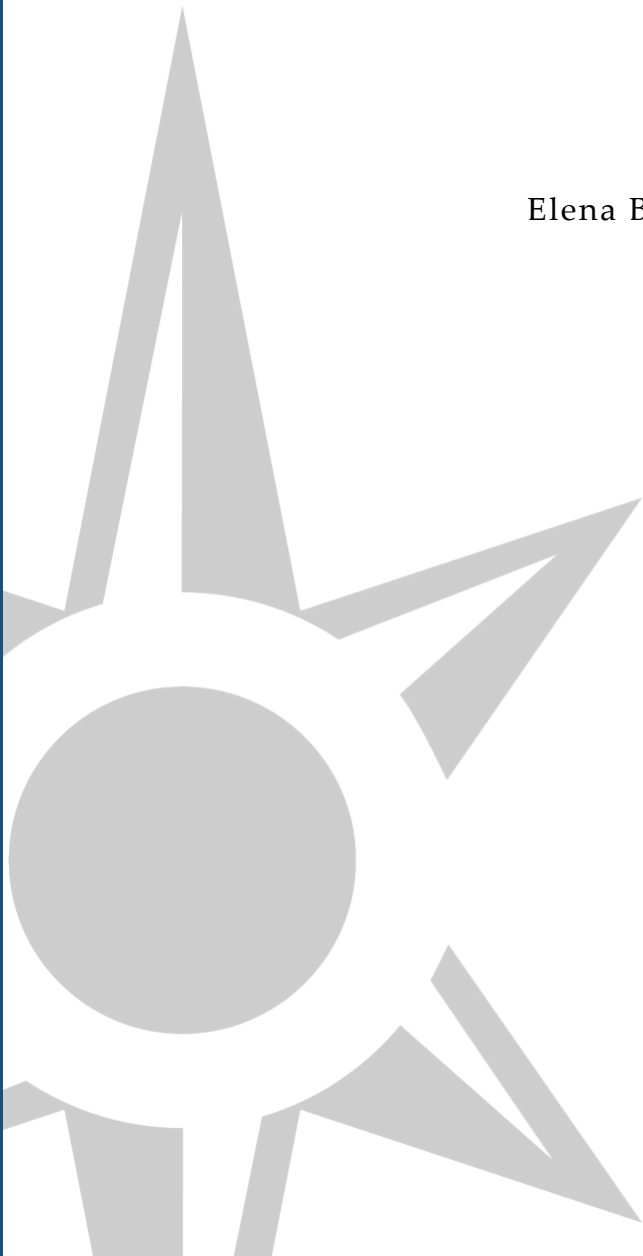
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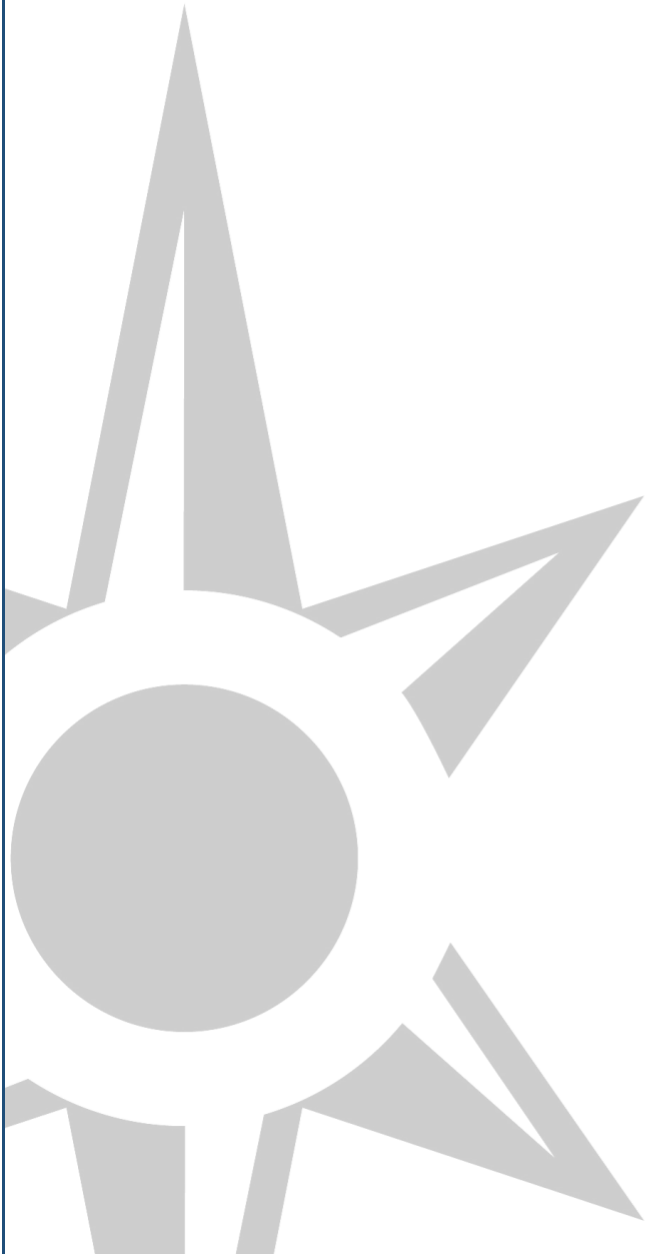
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Child Friendly Spaces and Psychosocial Support as Tools to Enhance the Women, Peace, and Security Agenda

By
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Executive Summary

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Understanding the needs of women and children and how to meet them is fundamental for designing and implementing disaster management responses that support the broader goals of peace and security. Merging principles from Child Friendly Spaces (CFS) and the Women, Peace, and Security (WPS) agenda offers a compelling and impactful approach to disaster management, addressing the multifaceted challenges faced by children and women in conflict and post-conflict settings. CFS play a vital role in advancing peace, security, and gender equality objectives by safeguarding and nurturing children, empowering women, and facilitating resilience and recovery efforts. In particular, CFS directly contributes to the WPS pillars of Participation, Protection, Prevention, and Relief and Recovery by ensuring that women and children, especially young girls, are shielded from harm and have access to essential services such as education, health, and the psychosocial support necessary for their development and empowerment. Thus, it is imperative to prioritize and allocate funding for CFS in National Action Plans as essential elements of humanitarian initiatives in conflict and post-conflict contexts. This paper aims to explore the origins, principles, and objectives of both CFS and the WPS agenda, examines the role CFS play in supporting the objectives and pillars of the WPS agenda, offers a framework for applying these principles and it concludes highlighting how the integration of CFS within the framework of the WPS agenda represents a strategic and comprehensive approach to disaster management by addressing the multifaceted challenges faced by children and women in conflict and post-conflict settings.

Background

In recent years, the nexus between humanitarian assistance and the WPS agenda has gathered increasing attention for its critical role in disasters and emergency management addressing the complex challenges faced by communities in conflict and post-conflict settings. Specifically, the focus has been on disaster management addressing the challenges of intersectionality that women and girls face in conflicts.

Intersectionality, a term coined by Professor Kimberle Crenshaw in 1989, refers to the ways in which various forms of inequality – including poverty, sexual and gender based violence, racism and sexism, denying women and girls their rights and equal opportunities - operate together and exacerbate each other. Among humanitarian assistance interventions, the establishment of CFS has emerged as an important strategy for the protection, well-being, and empowerment of children and women, who are disproportionately affected by conflicts.

The concept of CFS traces its origins to the early 1990s, born out of the Yugoslavia Wars (1991 to 2001) and the Rwandan genocide (1994), and of the growing recognition of the unique needs, challenges, and vulnerabilities that children and their caregivers face in emergency settings. Initially, CFS recognized as its main activity the need for a safe and nurturing environment where children and caregivers could start getting psychosocial support. Today, CFS has evolved to offer a comprehensive range of services, including psychosocial support, peacebuilding activities, educational activities, access to healthcare, nutrition services, and referrals to specialized interventions. These spaces are designed to provide a semblance of normalcy and stability for children, while engaging their caregivers, aiding in their psychological recovery, resilience, recovery, and overall development.

Parallel to the development of CFS, the WPS agenda, formalized through United Nations Security Council Resolution (UNSCR) 1325 in 2000, has underscored the critical importance of integrating women's perspectives and ensuring their active participation in peacebuilding and conflict resolution processes. The WPS agenda advocates for the protection of

women and girls from gender-based violence, the prevention of conflict, the promotion of women's rights and well-being in peace and security efforts, on ensuring that relief needs specific to women and girls are met, and that special attention is paid to the most vulnerable, including displaced women and girls, survivors of gender based violence, and those with disabilities. It also calls for efforts to support women's active participation and activities in relief and recovery efforts, including providing women with equal access to livelihoods. The WPS agenda's mandate sets the stage for a more inclusive and effective approach to peace and security.

The intersection of CFS and the WPS agenda represents an opportunity to take a more holistic approach to humanitarian intervention by acknowledging the strong connection between children's well-being and women's empowerment in building resilient, safer, and more secure communities. CFS not only addresses the immediate needs of children and women in disaster management but also lays the groundwork for long-term peace and stability. By prioritizing the well-being of children and the empowerment of women, these initiatives contribute to breaking the cycle of violence and creating safer, more resilient communities, ultimately reducing the likelihood of violence and conflict.

The state of the children In war In 2023

By May 2023, the number of individuals displaced due to war, conflict, persecution, and human rights violations grew to 108.4 million, the highest number on record according to available data.¹ With regards to children, the number of grave violations of children's rights in conflict reported and verified by the United Nations has almost tripled since 2010.²

In part, this is because the nature of conflicts has changed. Recent conflicts and wars are prolonged, and they are often fought in urban areas, destroying, and therefore preventing the access to life-saving infrastructure that provides food, water, health, and education to the population. The number of conflicts is also increasing and many recent wars, such as the ones in Ukraine, Gaza, Syria, Iraq, and Yemen, have been characterized by deliberate attacks against the civilian population, including the targeting of schools, the abduction and enslavement of girls, the

¹ UNHCR, "Five Takeaways from the 2022 UNHCR Global Trends Report."

² Save the Children, "Stop the War on Children 2020."

recruitment of children into armed forces, and deliberate starvation.³ As a result, a great number of children die every year due to the effects of conflicts, including indirect effects such as malnutrition and diseases. Furthermore, many wars are facing a forced halt of humanitarian aid, where the halt is often used as a weapon of war.⁴

Children are 41% of the forcibly displaced but only make up 30% of the world's population. More than 468 million children, 1 in 6 children worldwide, live in areas affected by armed conflict.⁵ These children are the most vulnerable group, especially in conflicts and humanitarian crises, as children under the age of 5 have the highest illness and death rates of any age group.⁶

Yet support for responsive caregiving and programs for childhood development are often not prioritized in crisis services.⁷ In addition, an April 2018 review of 26 active Refugee and Humanitarian Response Plans, which contains a shared vision and an articulation of funding needs for humanitarian emergencies, showed large gaps in support for Child Protection (CP) and specifically in Early Childhood Development (ECD).^{8,9} Furthermore, an important gap in humanitarian responses has been observed with regard to mitigating the negative consequences of emergencies on young children's overall development by neglecting CP and in particular ECD in humanitarian interventions.¹⁰ The negative consequences that children in humanitarian crises face encompass unhealthy brain development, trauma, toxic stress, and a lack of social protection.¹¹

Psychosocial needs and their importance for children's development and well-being

Children in humanitarian and disaster emergencies have to face a variety of risks whose consequences have negative effects on their development. These

consequences often affect them for the rest of their lives and, in specific cases, such as when children experience very high levels of continuous stress, the consequences can be intergenerational.¹²

Children, due to their specific vulnerabilities, are disproportionately impacted by wars and conflicts and the trauma that they experience has long lasting consequences on them, the community, and society at large. One of the most pivotal phases in human development is the prenatal period until 5 years old. This period is characterized by rapid brain development and by the learning of increasingly complex skills. As the brain develops, the experiences in early childhood lay the foundation for healthy or fragile development.¹³ Threats of violence, abuse, injury, and other forms of harm toward both children as well as their caregivers, including the trauma that children experience by seeing their caregivers abused, or experiencing violence, or witnessing the loss of caretakers, are widespread in disaster and conflict-affected communities. A growing number of neuroscience and psychiatric studies highlight the intragenerational and intergenerational effects of trauma. Specifically, exposure to extremely adverse events impacts individuals to such a great extent that their children find themselves grappling with their parents' post-traumatic stress.¹⁴

Importantly, experiences of stress coupled with the lack of psychosocial stimuli affect the child and future generations through stunted or disordered biological and behavioral processes, leading to adversity and higher risk of violence in the following generation, thus reinforcing inequities.¹⁵ Specifically, effects of the experience of trauma are passed from one generation to the following through epigenetic processes, which means that it doesn't cause a genetic mutation but it alters the mechanisms by which the

³ United Nations, "Highest-Ever Number of Violations against Children Verified in 2022, Briefer Tells Security Council, as Speakers Champion Reintegration, Education Programmes | Meetings Coverage and Press Releases."

⁴ "Humanitarian Aid as a Weapon of War."

⁵ UNHCR, "Five Takeaways from the 2022 UNHCR Global Trends Report."

⁶ Moving Minds Alliance, "ECD and Early Learning for Children in Crisis and Conflict."

⁷ World Health Organization, "Nurturing Care for Early Childhood Development."

⁸ Linda M. Richter, Stephen J. Lye, and Kerrie Proulx, "Nurturing Care for Young Children under Conditions of Fragility and Conflict"

⁹ Regional Refugee and Resilience Plan, "3RP Syria Crisis – In Response to the Syria Crisis."

¹⁰ UNICEF, "Childcare in Humanitarian Crisis .pdf."

¹¹ UNICEF.

¹² Moving Minds Alliance, "ECD and Early Learning for Children in Crisis and Conflict."

¹³ Hoffman, "The Science of Early Childhood Development – Closing the Gap Between What We Know and What We Do."

¹⁴ Yehuda, "Intergenerational Transmission of Trauma Effects: Putative Role of Epigenetic Mechanisms."

¹⁵ Moving Minds Alliance, "ECD and Early Learning for Children in Crisis and Conflict."

gene is expressed.¹⁶ Children's wellbeing lays the foundations for prosperous societies by ensuring children's rights to life and development, including health, nutrition, education, rest, and play. Therefore, children's wellbeing and safety need to be a societal priority. Thus, it is important to integrate ECD and CP interventions into every humanitarian crisis, as young children are one of the most vulnerable groups. ECD and CP interventions are often carried out in CFS and present a unique opportunity for the child protection sector to also reach parents and caregivers who directly influence young children's protective environment.

The impact of conflict and violence on children's and caregivers' psychosocial well-being

Every human being, during the course of his or her life, experiences stress. However, the level of stress, the length of time over which stress is experienced, and the age at which the individual is exposed to it, impact the physical and psychological effects that stress has on the individual. There are three types of stress: positive, tolerable, and toxic.¹⁷

Positive stress is the stress that the body activates when facing everyday stress. It is often described as a personal challenge for which a person is well-equipped to deal with. Positive stress is an important part of the healthy development of every human being.

Tolerable stress is activated in the face of more difficult events, such as living through a disaster. When these situations occur, the stress system increases the level of stress in the body. Returning the stress level experienced by the child to the baseline and reducing the impact that stress has on the child depends on whether the child can benefit from a caretaker able to create a supportive, caring relationship and able to create a buffer for the child to feel secure again. This is because caretakers try to calm children, make them feel safer, and reinforce the caring relationship through which the child can continue developing his or her psychological and

physical wellbeing. This brings the stress system, alerted during the time in which the situation occurs, back to normal level.¹⁸

Toxic stress occurs when the stress system is activated and remains active for a prolonged period of time. It is observed in children that experience war or chronic abuse, violence, or economic hardships or in other situations in which children's lives are constantly, and over a long period of time, threatened, without having the protection of a loving adult.¹⁹

One of the stress hormones that the body releases during stressful situations is cortisol. This hormone is released for a prolonged period of time when a child experiences toxic stress. This constant release negatively interferes with the creation of the brain circuits, synapses.²⁰ It is during the first years of children's lives that the architecture of the brain develops, and brain circuits are shaped based on the positive or negative experiences that the child experiences during those crucial years. Therefore, when children grow up in an environment in which their biological systems activate toxic stress, this stress can have long term repercussions on brain development. The stress can also negatively affect physical growth, often slowing down height and weight development; and affecting the child's mental health, impairing social function and cognitive abilities.²¹

Furthermore, during toxic stress' responses, the body is programmed to survive. Therefore, it facilitates reaching basic needs but not developing actions or behaviors not immediately needed to survive.²² The brains of children that experience toxic stress cannot put effort into developing higher-level functions, such as regulating emotions or learning. Thus, a link has been observed between children that live in toxic stress situations and poor learning outcomes.²³

The effects of toxic stress are intergenerational, as often the caregivers have also experienced wars, displacement, natural disasters, dictatorship, abuse, or violence themselves. These experiences, depending on the years in which they were

¹⁶ Yehuda and Lehrner, "Intergenerational Transmission of Trauma Effects."

¹⁷ Harvard University, "Toxic Stress."

¹⁸ Shonkoff, "Toxic Stress."

¹⁹ Garner, "The Lifelong Effects of Early Childhood Adversity and Toxic Stress."

²⁰ Shonkoff, "Toxic Stress."

²¹ McEwen, "Effects of Stress on the Developing Brain - PMC."

²² Tierney and Nelson, "Brain Development and the Role of Experience in the Early Years - PMC."

²³ Shonkoff, "From Neurons to Neighborhoods."

experienced by the individual, often have negative effects on the individuals' brains, emotions, and capacity to build the caring relationships necessary for healthy childhood development. Caregivers may struggle to care for their children, deepening childhood stress.²⁴ As mentioned above, war and displacement, and the great variety of risks linked to them, are among the experiences that creates a toxic stress response, especially in children.²⁵

The United Nations High Commissioner for Refugees (UNHCR) Global Trends Report 2022 highlighted that the number of international migrants and refugees has grown tremendously between 1990 and 2022.²⁶ The number of persons of concern that were forced to flee their homes due to conflict, violence, and prosecution is 108.4 million.²⁷ Nearly 75 percent of these forcibly displaced are hosted by developing countries and often live in extreme poverty.²⁸ The extreme conditions in which individuals facing these realities live trigger toxic stress responses. As previously indicated, children are one of the most vulnerable segments of the population. They are often subject to a lack of age-appropriate stimulations, lack of shelter, separation from their caregivers, displacement, the threat of being recruited as child soldiers, sexual abuse, disease, hunger, torture, and death.²⁹ The link to early childhood development and child protection is that among those children (everyone under the age of 18), a great number are between the ages of 0 to 8 years old.³⁰ The critical role of adults in providing a safe and nurturing environment, especially for young children, needs to be supported by humanitarian intervention such as CFS in situations of wars and violence.^{31,32}

Child-friendly spaces in humanitarian assistance and disaster management

UNICEF sees CFS as a lifesaving humanitarian assistance intervention. It is a physical location that

ensures children's rights are central in program design and delivery and that supports children's well-being, especially in emergencies.³³ CFS is now characterized by integrated programming that includes play, recreation, education, health, psychosocial support, and nutrition. CFS is considered a short to medium term response program intervention, and is very often operated from tents or in temporary structures. CFS has grown in popularity over the past decade and has been widely accepted as an important tool to protect and nurture children in emergencies.³⁴

The concept of CFS emerged in the early 1990s, but the roots of protecting children in emergencies can be traced back further. The Geneva Conventions, their Additional Protocols, and the Convention on the Rights of the Child (CRC) laid the groundwork for the protection of children in armed conflict.³⁵ In the 1980s, organizations like UNICEF began to focus more on the psychosocial well-being of children in emergencies, setting the stage for the development of CFS.³⁶ One of the earliest documented uses of CFS was in 1993 during the conflict in the former Yugoslavia, where Save the Children and UNICEF set up spaces to provide psychosocial support to children affected by the war.³⁷ The success of these spaces in offering a sense of normalcy and security to children in crisis situations, while preventing and addressing violence, led to the broader adoption of CFS in various humanitarian responses. Since then, CFS spaces have been implemented in numerous emergencies worldwide, including natural disasters, armed conflicts, and refugee crises. They evolved to include a range of activities and services tailored to the needs of vulnerable children, with a focus on girls, while promoting a localized approach.³⁸

The guidelines and standards for setting up and operating CFS have been developed by various organizations, including UNICEF, Save the Children, and the Inter-Agency Network for Education in

²⁴ Kaitz, "The Intergenerational Effects of Trauma from Terror: A Real Possibility."

²⁵ Save the Children, "Stop the War on Children 2020."

²⁶ UNHCR, "Five Takeaways from the 2022 UNHCR Global Trends Report."

²⁷ United Nations, "General Assembly Takes Up Second, Third Committee Reports, Adopting 99 Resolutions."

²⁸ European Commission, "Forced Displacement: Refugees, Asylum-Seekers, and Internally Displaced Persons (IDPs)."

²⁹ Save the Children, "Stop the War on Children 2020."

³⁰ "Machel Study 10-Year Strategic Review."

³¹ Shonkoff, "From Neurons to Neighborhoods."

³² Save the Children, "Stop the War on Children 2020."

³³ UNICEF, "A Practical Guide To Developing Child Friendly Spaces."

³⁴ World Vision International, "Humanitarian Research - Child Friendly Spaces."

³⁵ International Committee of the Red Cross, "Geneva Conventions and Their Additional Protocols."

³⁶ United Nations Human Rights, "Convention on the Rights of the Child."

³⁷ UNICEF, "What We Do: Yugoslavia."

³⁸ Plan International, Child Friendly Spaces.

Emergencies (INEE), to ensure the quality and effectiveness of these spaces in meeting the needs of children in emergencies.³⁹ CFS are characterized by several key features:

- a. **Safety and Protection:** CFS provides a safe and secure environment for children, protecting them from physical harm, abuse, and exploitation.
- b. **Psychosocial Support:** CFS offers activities and support to help children cope with trauma and stress, promoting their emotional well-being.
- c. **Education and Learning:** CFS includes educational activities and learning opportunities to help children continue their education during emergencies.
- d. **Play and Recreation:** Play is a crucial component of CFS, allowing children to express themselves, socialize, and regain a sense of normalcy.
- e. **Health and Nutrition:** CFS also provides access to health and nutrition services to address the physical well-being of children.⁴⁰

With further studies on the effects that stress and violence have on children, especially young children, one CFS intervention whose importance has further increased over recent years is early childhood development. The goal of ECD in CFS is to provide a safe and nurturing environment, encourage positive discipline, and offer protection to vulnerable young children by creating a safe space. In this space, children are provided with age and gender appropriate activities, benefit from a variety of awareness sessions on different risks they may face, including sexual and gender based violence and other forms of exploitation, and community members are mobilized to start the process of building or rebuilding a protective environment for children.⁴¹ Furthermore, as children participating in ECD activities are very young, ECD intervention in CFS provides psychosocial support to caregivers, with a strong emphasis on women and their involvement, and the community in general to ensure the healthy development of the child.⁴²

Over the years, CFS has become a standard component of humanitarian responses, offering a holistic approach to supporting the well-being of children and women in emergencies. However, even if their origin and development reflect a growing recognition of the unique needs of children in crises and the importance of providing them with safe, supportive environments to heal, learn, and thrive over the years, the implementation of CFS has faced various challenges, including funding constraints, cultural sensitivities, and the need to increase the number and training level of personnel, both managing CFS and directly working in CFS. As a result, the approach to setting up and operating CFS has evolved, with an increased emphasis on women and community involvement, sustainability, and integration into broader child protection systems.⁴³

Introduction to the Women, Peace and Security Agenda

The WPS agenda was adopted on October 31, 2000, through the United Nations Security Council Resolution (UNSCR) 1325.⁴⁴ It is a landmark framework that highlights the disproportionate effects that conflicts have on women and girls; their experiences of violence and displacement; the need to increase women's participation in peace processes and conflict prevention; and women's fundamental role in peacebuilding, peacekeeping, conflict resolution, peace negotiations, humanitarian response, and post-conflict reconstruction. It calls for increased and active representation of women at all decision-making levels in regional, national, and international institutions and mechanisms for the prevention, management, and resolution of conflicts.⁴⁵ There are a number of principles that guide the WPS agenda, including the recognition of women as agents of change, the importance of women's full and equal participation in all efforts for peace and security, the need to address the specific needs of women and girls in conflict and post-conflict settings, and the importance of gender equality and the empowerment of women as prerequisites for sustainable peace.

³⁹ Inter-Agency Network for Education in Emergencies, "Guidelines for Child Friendly Spaces in Emergencies."

⁴⁰ Inter-Agency Network for Education in Emergencies.

⁴¹ UNICEF, "Early Childhood Development."

⁴² UNICEF, "A Practical Guide To Developing Child Friendly Spaces."

⁴³ Save the Children, "Child Friendly Spaces in Emergencies."

⁴⁴ United Nations Security Council Resolution, "Landmark Resolution on Women, Peace and Security (Security Council Resolution 1325)."

⁴⁵ United States Institute of Peace, "What Is UNSCR 1325."

Following UNSCR 1325, the Security Council adopted 9 additional women-centered resolutions to continue strengthening the WPS agenda and integrate gender perspectives into peacekeeping missions. These resolutions are generally divided into two groups. The first focuses on women's participation in peacemaking and peacebuilding activities: UNSCR 1889 (2013), 2122 (2013), 2242 (2015) and 2493 (2019). The second group focuses on preventing sexual violence in conflicts: UNSCR 1820 (2008), 1888 (2009), 1960 (2010), 2106 (2013), and 2467 (2019). Together, these 10 resolutions form the international policy framework on WPS.⁴⁶

The Women, Peace and Security agenda and its principles

The WPS agenda is the culmination of years of advocacy by governments, civil society organizations (CSOs), women's groups, and individual activists who believed and worked strenuously to increase women's recognition and augment women's role in peace and security.

UNSCR 1325 is a landmark for women's rights, and is built upon several previous laws, international agreements, and advocacy campaigns. Specifically, the Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW), an international bill of rights for women adopted by the United Nations General Assembly in 1979, recognizes the importance of women's rights and gender equality in all aspects of life, including peace and security.⁴⁷ The 1995 Beijing Declaration and Platform for Action focuses on the importance of women's participation in decision-making and the integration of gender perspectives in peacebuilding and conflict resolution.⁴⁸ The 1999 United Nations General Assembly resolution on Women, Peace and Security increases the focus on the impact of armed conflict on women and the need to address the specific needs of women and girls in conflict situations.

The creation of the UNSCR 1325 was also influenced by the Yugoslavia Wars and the Rwandan genocide, which increased the recognition of rape as a weapon of war and highlighted the need to focus on

effectively addressing gender-based violence, especially in conflict and post-conflicts setting.⁴⁹ Furthermore, women's participation in peace processes in Liberia, Northern Ireland, and Guatemala demonstrated the fundamental contributions that women provide to achieve sustainable and durable peace.⁵⁰

UNSCR 1325 is based on several key principles that support the promotion of women's and girls' rights and well-being in conflict and post conflict settings.⁵¹ The key principles include:

- a. **Recognition of gender equality and women's rights:** One of the main focuses of the WPS agenda is its commitment to gender equality and promotion of women and girls' rights. It calls for the elimination of all forms of discrimination against women and girls and promotes their equal participation in every aspect of life.
- b. **Recognition of women's agency:** Women are seen as agents of change and active participants in peacebuilding, peacekeeping, and conflict resolution. The resolution highlights the importance of involving women in decision-making and their contribution to create and maintain security.
- c. **Protection from gender-based violence:** Including rape, sexual assaults, and domestic violence. It also highlights the need to prevent violence and prosecute perpetrators while providing services and support to survivors.
- d. **Prevention of conflict and violence:** Achieved through the promotion of gender equality, women's empowerment, and addressing the root causes of conflict. The resolution recognizes that sustainable peace requires addressing the underlying drivers of conflict, including inequality and discrimination.
- e. **Participation and Peacebuilding:** The WPS agenda advocates for the full and equal participation of women in all efforts for peace and security, including peace negotiations, peacekeeping missions, and post-conflict reconstruction. It recognizes

⁴⁶ United Nations Peacemaker, "Security Council Resolutions on Women, Peace and Security."

⁴⁷ United Nations Development Fund for Women, "CEDAW and Security Council Resolution 1325: A Quick Guide."

⁴⁸ UN Women, "Beijing Declaration and Platform for Action."

⁴⁹ Barrow, "UN Security Council Resolutions 1325 and 1820."

⁵⁰ Council on Foreign Relations, "Women Participation in Peace Processes."

⁵¹ UN Women, "Global Norms and Standards."

that women's participation is necessary for sustainable peace.

- f. Relief and Recovery: Humanitarian assistance and post-conflict recovery have to be gender-sensitive and address the unique needs of women and girls. The resolution also highlights the importance of ensuring women and girls have access to essential services such as education, livelihood opportunities, psychosocial support, nutrition, and healthcare.
- g. Intersectionality: Women's experiences of conflict are shaped by intersecting factors such as gender, race, ethnicity, class, religion, and sexual orientation. The resolution calls for a holistic approach that takes into consideration these intersecting factors and experiences.
- h. Accountability: For violations of women's rights in conflicts and post conflicts settings, the resolution includes the need for accountability for Sexual and Gender Based Violence (SGBV) perpetrators and for providing justice and reparations to survivors.

From an implementation and monitoring point of view, UNSCR 1325 calls on all signatories' to develop National Action Plans (NAP) to implement, at the national level, the WPS agenda. As of June 2024, 108 countries have developed WPS NAPs.⁵² While the creation of WPS NAPs is increasing, UNSCR still faces challenges in terms of its implementation, including inadequate funding, lack of political will, and limited local capacity and expertise in gender-sensitive programming.⁵³

The Women Peace and Security agenda's four pillars
The WPS agenda is composed of four pillars, where each pillar focuses on aspects that promote gender equality, protect women's rights, and ensure women's participation in peace and security efforts.⁵⁴ Specifically, the four pillars are:

- a. Participation: This pillar highlights the importance of women's full and equal participation in decision making, peace processes and negotiations, conflict prevention and resolution, and post-conflict

reconstruction. This pillar focuses on ensuring that women's unique perspective, experiences and skills are an integral part of the processes to achieve sustainable peace and security.

- b. Protection: It is about the protection of women and girls from SGBV, in both conflicts and post-conflict settings. It also addresses sexual violence, trafficking, domestic violence, and any other type of violence that disproportionately affects women. Furthermore, this pillar highlights the importance of preventing violence, prosecuting perpetrators, and providing services and support to survivors.
- c. Prevention: This pillar refers to addressing the root causes of conflicts and violence, especially gender inequality and discrimination. It also refers to the need to promote gender equality, women's empowerment, and women's rights to prevent conflicts and achieve sustainable peace by addressing the underlying drivers of conflicts and violence.
- d. Relief and Recovery: This pillar ensures that women and girls have access to essential services, such as healthcare, nutrition, psychosocial support, livelihood opportunities, and support during and after conflicts. It emphasizes gender-sensitive programming in humanitarian assistance.

These four pillars offer a comprehensive strategy for addressing the intersectional challenges faced by women and girls during disasters and emergencies, emphasizing gender equality, women's rights, and their active participation in peace and security efforts. The pillars aim to tackle root causes of conflict, including gender inequality, while empowering women as agents of change in conflict resolution while ensuring the protection of women and girls.⁵⁵

Humanitarian assistance intervention as supporting the Women, Peace and Security pillars

⁵² Women's International League for Peace and Freedom, "1325 National Action Plans – An Initiative of the Women's International League for Peace and Freedom."

⁵³ Lippai and Young, "Creating National Action Plans: A Guide to Implementing Resolution 1325."

⁵⁴ United Nations Security Council Resolution, "Landmark Resolution on Women, Peace and Security (Security Council Resolution 1325)."

⁵⁵ Lwamba et al., "A Systematic Review and Meta-analysis: Strengthening Women's Empowerment and Gender Equality in Fragile Contexts towards Peaceful and Inclusive Societies."

Humanitarian assistance programming and interventions play a vital role in supporting each of the WPS pillars by addressing the specific needs and vulnerabilities of women and girls in conflict and post-conflict settings. The scope of the interventions is to help empower women and girls, protect them from harm, prevent conflict, and support their relief and recovery, ultimately contributing to more peaceful and inclusive societies. Below a brief description of humanitarian assistance interventions as tools supporting the four WPS pillars:

1. **Participation:** Humanitarian assistance interventions support women's participation in peacebuilding skills and decision-making processes by providing women with access to education, training, and resources. These interventions empower women, develop the skills and leadership to participate in peacebuilding, peacekeeping, conflict resolution and train them to advocate for their rights. They also create opportunities for women to participate in community meetings, peace dialogues, and decision-making forums. Furthermore, they support women's organizations and networks to advocate for their rights and priorities in peace processes.
2. **Protection:** Humanitarian assistance interventions protect women and girls from violence, exploitation, and abuse by establishing women's and girls' safe spaces, provide referral pathways to access needed services such as medical, nutrition, education, offer access to shelters for survivors of gender-based violence, provide psychosocial support in CFS and counseling for survivors to cope with trauma. These interventions further implement measures to prevent and respond to gender-based violence, including legal assistance, early warning systems and community-based protection mechanisms, they also refer women and girls to more specialized humanitarian agencies if necessary and facilitate referrals for resettlement.
3. **Prevention:** Humanitarian assistance interventions support the prevention of conflict and violence by addressing the root causes of conflict, including gender inequality and discrimination through

supporting women's economic empowerment to reduce poverty and social exclusion with vocational trainings, promoting gender equality and women's rights through education and awareness-raising campaigns, and strengthening community resilience and social cohesion with dialogue and reconciliation initiatives.

4. **Relief and Recovery:** Humanitarian assistance interventions support relief and recovery for women following conflict by providing women with access to essential services, such as healthcare, education, and livelihood support. Furthermore, these interventions support rebuilding infrastructure and livelihoods to create sustainable opportunities for women and supporting women-led initiatives for community development and peacebuilding.

Addressing the specific needs and vulnerabilities of women and girls in conflict and post-conflict settings, allows humanitarian assistance interventions to contribute to supporting the goals of the WPS agenda, including women and girls' empowerment, protection from harm, conflict prevention, and sustainable peace.

Child Friendly Spaces and Psychosocial Needs of Children: The Convention on the Right of the Child and its linkages with the Women, Peace and Security Agenda

The importance of children's wellbeing is stated in the Convention on the Rights of the Child (CRC), ratified by the United Nations in 1989. This convention is considered the most rapidly and widely ratified human rights treaty in history—with 195 countries as states parties.⁵⁶ The CRC, by recognizing and setting a benchmark for children's rights, created some of the foundations for the Sustainable Development Goals.⁵⁷ It obligated ratifying governments to uphold those rights, and required governments to act based on the best interest of the child. Some of the rights that are put forth in the CRC include the right to life, survival, and healthy development; the right to name and nationality; the right to education and opportunity to fulfill one's potential; the opportunity to be raised by or maintain a relationship with parents and other

⁵⁶ Human Rights Watch, "25th Anniversary of the Convention on the Rights of the Child."

⁵⁷ UNICEF, "Mapping The Global Goals For Sustainable Development and the Convention on the Right of the Child."

relatives; protection from harm, violence, abuse, and neglect; and the right to freedom of expression, play and recreational activities. In 2005, General Comment No. 7 was added to the convention that added more specificity on early childhood, including some guidance around the kind of comprehensive programs and policies that can help ECD and the rights of particularly vulnerable groups, such as children without families, children on the move, refugees, or children with disabilities, with a focus on children in conflict and post-conflict settings.⁵⁸

The UN General Assembly and its members recognize the importance of young children as the next generation that the world can count on for achieving sustainable development. The Sustainable Development Goals, unanimously adopted by UN member states in 2015 as a universal call to action to end poverty, protect the planet, and ensure that all people enjoy peace and prosperity by 2030, clearly mentioned ECD in CFS in the global development agenda for the first time.⁵⁹ To emphasize the importance of ECD in CFS, in September 2015, when the Sustainable Development Goals were ratified, the then UN Secretary Ban Ki-Moon held a session co-sponsored by UNICEF on Early Childhood Development. During the session, the Secretary highlighted how ECD is strongly related to sustainable development by stating that the investment in ECD is fundamental not just for children but also for societies, and lays the foundation for sustainable development.⁶⁰ However, sustainable development is only possible if these children and youth reach their developmental potential. If the next generation lacks access to the nurturing care needed to develop their potential, they cannot support the Sustainable Development Goals.^{61,62}

While the WPS agenda was developed later, the guiding principles of the CRC clearly support the WPS agenda by promoting the rights and well-being of children, especially girls, in various contexts, including conflict and post-conflict settings.

The CRC is deeply relevant to the WPS agenda and its pillars:

1. Protection: The CRC emphasizes the protection of children, with a focus on girls, from all forms of violence, abuse, neglect, and exploitation, including in conflict and post-conflict settings. Protecting women and girls from harm is a key aspect of the WPS agenda's protection pillar. Children, especially girls, are particularly vulnerable to various forms of harm, including recruitment by armed groups, sexual violence, and trafficking. The CRC calls on states to take measures to protect children from such harm, which aligns with the call of the WPS agenda on protecting women and girls in conflict-affected areas.
2. Participation: The CRC recognizes the right of children to participate in decisions that affect them, to express their views and have them consider matters affecting them, including in matters related to peace and security. Promoting the participation of children, specifically older children often recruited into armed forces, in peacebuilding efforts not only upholds their rights under the CRC but also aligns with the WPS agenda's emphasis on women's and girls' participation in peace processes.
3. Prevention: The CRC calls for measures to prevent sexual and gender based violence, the abduction, sale, or trafficking of children, especially girls and including in times of armed conflict. Preventing all forms of harm to children, including SGBV, in conflict situations is consistent with the WPS agenda's focus on preventing SGBV and other forms of harm to women and girls in conflict-affected areas.
4. Relief and Recovery: The CRC emphasizes the right of children affected by armed conflict to receive humanitarian assistance and support for their physical and psychological recovery and social reintegration. This includes access to healthcare, education, and psychosocial

⁵⁸ UN Committee on the Rights of the Child, "General Comment No. 7 (2005)."

⁵⁹ United Nations, "Take Action for the Sustainable Development Goals - United Nations Sustainable Development."

⁶⁰ United Nations Secretary General, "Secretary-General's Remarks at Event on Investing in Early Childhood Development as the Foundation for Sustainable Development."

⁶¹ United Nations Secretary General.

⁶² World Health Organization, "Nurturing Care for Early Childhood Development."

support services. Providing relief and support to children in conflict and post-conflict settings aligns with the WPS agenda’s focus on supporting the relief and recovery of women and girls affected by conflict.

While the CRC predates UNSCR 1325, by promoting the rights and well-being of children, it contributes to the broader goals of the WPS agenda by addressing the specific needs and vulnerabilities of girls in displacement and conflict and post-conflict settings, and promoting the well-being and security of children affected by conflict.

Child Friendly Spaces as a humanitarian intervention supporting the Women, Peace and Security agenda

The benefits of CFS in humanitarian assistance and disaster management have long been established but an understanding of how they support the WPS agenda is only just emerging. A theoretical framework of the WPS agenda and CFS highlights their shared objectives of promoting the rights and well-being of women and children in conflicts and emergencies. Understanding this framework is essential for designing and implementing effective programs and policies that address the specific needs of women and children. Furthermore, it is necessary to explore WPS and CFS origins, principles, and objectives, as well as how they intersect and complement each other. A side-by-side comparison can be found in the table below.

WPS	CFS
Origin	
The WPS agenda originated from United Nations Security Council Resolution 1325, adopted in 2000. It was the first resolution to recognize the impact of armed conflict on women and the importance of women's participation in	CFS in humanitarian assistance has its origins in the early 1990s. The concept was developed as a response to the increasing recognition of the unique needs and vulnerabilities of children in emergency and conflict situations. The aim was to create safe and protective environments

peacebuilding and post-conflict reconstruction. ⁶³	where children could access support and services that would help them cope with the trauma and stress of disasters and conflicts. ⁶⁴
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Guiding Principles

The WPS agenda is guided by four key pillars: Participation, Protection, Prevention, and Relief and Recovery. These pillars emphasize the importance of women's and girls' participation in decision-making processes, the protection of women's and girls' rights and safety, the prevention of conflict and violence against women and girls, and the relief and recovery efforts that address the specific needs of women and girls in conflict-affected areas. ⁶⁵	CFS is guided by several principles, including the best interests of the child, non-discrimination, participation, and the right to survival, development, and protection. These principles ensure that CFS provides a supportive environment that promotes the holistic development and well-being of children, with a focus on girls. ⁶⁶
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Objectives

The main objectives of the WPS agenda are to ensure the full and equal participation of women in all aspects of peace and security, protect women and girls from SGBV in conflict situations, prevent conflict and promote peace through gender equality, and address the specific needs of women and girls in conflict and post-conflict settings. ⁶⁷	The main objective of CFS is to provide children and their caregivers affected by emergencies with a safe and protective environment where they can learn, benefit from recreational activities, and receive psychosocial support to help them cope with the impact of emergencies, build resilience, and promote their overall well-being and development. ⁶⁸
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Intersection of WPS Agenda and CFS

⁶³ United States Institute of Peace, “What Is UNSCR 1325?”

⁶⁴ Save the Children, “Child Friendly Spaces in Emergencies.”

⁶⁵ Barrow, “UN Security Council Resolutions 1325 and 1820.”

⁶⁶ UNICEF, “Childcare in Humanitarian Crisis .pdf.”

⁶⁷ United Nations Development Fund for Women, “CEDAW and Security Council Resolution 1325: A Quick Guide.”

⁶⁸ Save the Children, “Child Friendly Spaces in Emergencies.”

The WPS agenda and CFS intersect in several places. Both frameworks emphasize the importance of protection, participation, and prevention of harm to women and children in conflict and post-conflict settings.

CFS can be seen as a practical application of the WPS agenda, it provides a safe and supportive environment for children, focusing on girls and their caregivers affected by conflict, which aligns with the WPS agenda's objectives of protection and participation.

CFS provides a safe and supportive environment for children and caregivers, contributing to the overall well-being and resilience of communities, which is essential for sustainable peace and security, a key goal of the WPS agenda.

Table 1: "Theoretical framework of the WPS agenda and CFS." Source: Author's analysis of the topic.

Child Friendly Spaces as tools to advance Women, Peace and Security agenda

CFS plays a pivotal role in supporting and advancing the Women, Peace and Security agenda in many ways, including increasing women's participation in decision making, enhancing women and girls' protection from exploitation and abuse, and supporting conflict prevention while promoting relief and recovery. CFS activities are tailored to foster resilience, create an environment where social skills can blossom, and enhance academic performance while creating supportive environments to help break the cycle of violence. Furthermore, they improve participants' mental health and foster positive relationships among groups and communities at large.

Below is a more detailed explanation of how CFS advances the WPS agenda.

- a. **CFS increases women' participation:** Women are often responsible for childcare, especially in conflict or post-conflict settings, which can limit their ability to engage in public activities. In conflict-affected regions, CFS has been instrumental in enabling women to participate in community activities and decision-making processes by providing a safe and supervised environment for their children. The availability of safe childcare enables women to engage more actively in

decision-making processes and community development initiatives, contributing to their empowerment. Furthermore, while offering childcare services and a safe space for children to play and learn, CFS activities for caregivers support and encourage women to attend meetings, training sessions, and other events related to peacebuilding and community development. Their increased participation amplifies women's voices and promotes gender equality in decision-making processes, contributing to women's empowerment in shaping peaceful and inclusive societies.⁶⁹ One successful example of how CFS increased women's participation in peacekeeping and peacebuilding activities is in South Sudan, where UNICEF's establishment of CFS has allowed mothers to participate in community life.⁷⁰ This has led to women's increased participation in peacebuilding activities, community meetings, and livelihood programs. As a result, women have been able to have their voices heard, contribute to conflict resolution efforts, and play more active roles in rebuilding their communities, thereby advancing the WPS agenda.⁷¹

- b. **Enhanced protection:** During the Syrian crisis, humanitarian organizations established CFS in refugee camps with the goal of providing a safe haven for children and their caregivers, enhancing their protection from various risks, including exploitation, abuse, child marriage, forced labor, sexual and gender-based violence, and recruitment by armed groups and trafficking, thereby directly contributing to girls and women's security and well-being. Furthermore, CFS is designed to be safe, secure, and child-friendly environments where children and caregivers can learn and receive tailored support. By providing a safe space for children and caregivers, CFS helps protect them from the above mentioned risks. This, in turn, enhances women's security and well-being. When children are safe and well-cared for, women can focus on other aspects

⁶⁹ O'Reilly, "Inclusive Security and Peaceful Societies."

⁷⁰ UNICEF, "South Sudan Final Report."

⁷¹ UNICEF, "Child Protection in Emergencies: UNICEF's Response to Gender Based Violence in South Sudan."

- of their lives, such as livelihoods, education, and community engagement.⁷²
- c. Conflict prevention: In Colombia, CFS has played a crucial role in promoting reconciliation and social cohesion in post-conflict settings. National and international humanitarian organizations implement programs that bring together children and their caregivers from different backgrounds, including former child soldiers, to participate in activities that promote dialogue, understanding, and peaceful coexistence. These spaces have helped break down barriers, build trust, and foster a sense of community among children and among caregivers, laying the foundation for lasting peace, promoting dialogue, understanding, and peaceful coexistence. CFS activities also play a crucial role in promoting peace and preventing conflict by providing children with psychosocial support, education, and recreational support. Tailored and localized activities include conflict resolution, tolerance, diversity, and peaceful coexistence, carried out through play, games, and structured activities. Promoting these values at a young age helps build a culture of peace and non-violence in communities affected by conflict. This contributes to long-term peacebuilding efforts by fostering a generation of children who are more resilient to violence and extremism.⁷³
 - d. Relief and Recovery: Offering psychosocial support, counseling, and recreational activities helps children cope with trauma, loss, and displacement. By addressing the emotional and psychological needs of children, CFS contributes to the overall recovery and rebuilding process in conflict-affected communities. This also benefits women's mental health, by providing them with empowerment, resilience, stability, as women often play a central role in supporting their children's recovery. Following the 2015 earthquake in Nepal, CFS provided crucial support to children affected by the disaster. These spaces offered psychosocial support, education, and recreational activities, helping children cope with trauma and rebuild their lives. With the purpose of disaster emergencies and addressing the needs of children, these spaces also supported the overall relief and recovery efforts, benefiting women who were often the primary providers for their families. Furthermore, in post-conflict settings like Colombia, CFS can support children's emotional recovery and well-being by providing them with a sense of normalcy, routine, and stability.⁷⁴
 - e. Promoting Resilience: CFS activities support children in developing coping mechanisms and resilience before, during, and after crises. Thus, the acquired resilience reduces the likelihood of children being drawn into violence or becoming perpetrators of violence in the future.
 - f. Preventing Violence: One of the main goals of CFS is addressing the underlying causes of violence, such as trauma and stress, and support communities in violence and conflict prevention. Children who receive adequate psychosocial support through CFS and are engaged in psychosocial activities are less likely to behave aggressively or show violent behaviors, thus promoting and participating in the creation of safer communities.
 - g. Building Social Skills: Psychosocial activities include a focus on building children's social skills and emotional intelligence by providing children with different types of activities. Specifically, to help children develop social skills, CFS offers imaginative types of activities such as dance, theater, drama, music, role playing, acting performances, and singing. The purpose of these activities is to create social skills, coping skills, and self-esteem while promoting team spirit. These social skills are necessary for children to ensure successful social interactions and conflict prevention thus contributing to creating more peaceful communities.⁷⁵
 - h. Enhancing School Performance: Children with unmet psychosocial needs struggle more academically than children whose psychosocial needs are met. The unmet psychosocial needs often lead to further

⁷² UNICEF, "Child Protection, Syrian Arab Republic."

⁷³ UNICEF, "Colombia: Update on the Context and Situation of Children."

⁷⁴ SOS Children's Villages, "Why Child Friendly Spaces Are Important for Nepal Recovery."

⁷⁵ Save the Children, "Child Friendly Spaces in Emergencies."

frustration and disengagement. Addressing these needs early on tends to improve academic performance and reduce dropout rates for both boys and girls, while creating a positive environment for learning and development while fostering a sense of community engagement.

- i. Preventing Violent and Risky Behaviors: CFS’s psychosocial support programs create supportive environments for children and their caregivers, where they feel safe, valued, and understood. This sense of security and belonging reduces the likelihood of involvement in violent or risky behaviors, thus supporting the creation of safer and more secure communities.
- j. Improving Mental Health: CFS activities help children and caregivers deal with the emotional and psychological impact of violence and conflict, reducing the risk of mental health disorders and promoting overall well-being, preventing violent and risky behaviors, thus contributing to making communities safer.
- k. Fostering Positive Relationships: CFS support programs encourages positive relationships between children, parents, and caregivers. Strong, supportive relationships reduce the risk of conflict within families and communities at large.

Therefore, CFS and its main psychosocial activities support the WPS agenda by addressing the specific needs and vulnerabilities of children and their caregivers, with a specific focus on girls and women’s protection and participation, which in turn has positive effects on women's participation in community engagement, peace keeping, peacebuilding, conflict negotiation, protection, prevention, and relief and recovery in conflict and post-conflict settings. Furthermore, attending to children’s psychosocial needs is a fundamental step to creating safer and more secure communities. By supporting the activities mentioned above, individuals and the community at large can reduce the likelihood of violence and conflict and promote peace and stability.

Child Friendly Spaces and Women, Peace and Security : A conceptual framework

The conceptual framework below illustrates how CFS are interconnected with the key pillars of the WPS agenda, highlighting their importance in promoting gender equality, protecting women and children, and fostering sustainable peace in conflict-affected settings. CFS plays a multifaceted role in disaster emergencies and addressing the goals of the four pillars of the WPS agenda by creating safe, supportive, and inclusive environments for children and women in conflict and post-conflict settings. These spaces not only provide immediate relief and support but also contribute to long-term peacebuilding efforts by fostering a culture of peace and resilience among future generations. Below is a table that summarizes the many ways in which CFS supports the Women, Peace and Security agenda.

Child-Friendly Spaces as Gateways to Women's Empowerment
<ul style="list-style-type: none"> • CFS provides a safe and supportive environment for children, allowing women to participate in activities that promote their empowerment. • Women who have access to CFS can engage in education, skills training, and income-generating activities, leading to economic empowerment and increased decision-making power within their families and communities. • Empowered women are more likely to participate in peacebuilding processes and advocate for their rights, contributing to the overall goals of the WPS agenda.
Child-Friendly Spaces as Means of Protection for Women and Children
<ul style="list-style-type: none"> • CFS plays a crucial role in protecting women and children from harm in emergencies, conflict, and post-conflict settings. • By providing a safe environment, CFS reduces the risk of violence, exploitation, and abuse, particularly for vulnerable populations such as female-headed households and unaccompanied minors. • Protecting women and girls is a key aspect of the WPS agenda's protection pillar, and CFS contributes to this by ensuring their safety and well-being.
Child-Friendly Spaces as Catalysts for Women's Participation in Peacebuilding
<ul style="list-style-type: none"> • CFS centers serve as hubs for community activities and facilitate women's participation in peacebuilding efforts. • Women who have access to CFS engage in peacebuilding initiatives, such as conflict mediation, conflict resolution, peacekeeping, reconciliation efforts, and community dialogues, promoting social cohesion and sustainable peace. • Women's participation in peacebuilding is essential for achieving the WPS agenda's goals of promoting gender equality and ensuring women's voices are heard in decision-making processes.
Child-Friendly Spaces as Drivers of Sustainable Peace
<ul style="list-style-type: none"> • CFS contributes to sustainable peace by addressing the needs of children and women in conflict and post-conflict settings. • By providing access to education, healthcare, and psychosocial support, CFS helps build resilient communities that are better able to recover from conflict and prevent future conflicts. • Sustainable peace is a central goal of the WPS agenda, and CFS plays a crucial role in achieving this by promoting the well-being of women and children and strengthening community resilience.

Table 2 "CFS and WPS: A conceptual framework."
 Source: author’s analysis of the topic.

The psychosocial needs of women and girls and its linkages to communities’ safety

Attending to the psychosocial needs of women and girls has a positive impact on community safety and security. Promoting mental health, building resilience, empowering individuals, improving relationships, preventing gender-based violence, and promoting social cohesion creates a more peaceful and secure community environment, ultimately reducing the likelihood of violence and conflict.⁷⁶ The list below focuses on women’s psychosocial needs and community safety, and it goes into further details addressing specifically how the specific and unique

⁷⁶ Concern Worldwide, “Psychosocial Support.”

linkages between attending to the psychosocial needs of women and girls supports community safety.

- a. Addressing Trauma and Promoting Mental Health: Women and girls in conflict-affected areas often experience trauma due to exposure to violence, displacement, and loss. Psychosocial support, such as counseling and therapy, can help them process and cope with trauma, reducing the risk of mental health issues and behaviors that can lead to conflict, such as aggression and substance abuse. This support contributes to reducing stress, anxiety, and other mental health issues that can often fuel conflict and violence.
- b. Building Coping Skills and Resilience: Attending to women and girls' psychosocial needs empowers them by giving them a sense of control over their lives and futures. This empowerment can lead to increased confidence, assertiveness, and agency, which are all factors that can contribute to a more peaceful and secure community. Psychosocial support programs can teach women and girls healthy coping mechanisms for dealing with stress and adversity. Learning how to manage their emotions and reactions helps make them less likely to resort to violent or harmful behavior in times of conflict or crisis.
- c. Empowering Women and Girls: Addressing the psychosocial needs can empower women and girls by providing them with the tools and resources to take control of their lives. This empowerment can lead to increased self-esteem, confidence, assertiveness, and reducing their vulnerability to exploitation and abuse.
- d. Promoting Healing and Reconciliation: Psychosocial support can facilitate healing and reconciliation within communities by encouraging forgiveness, understanding, and empathy. This can help break the cycle of violence and conflict by reducing the underlying grievances and tensions that contribute to them.
- e. Strengthening Social Support Networks: Psychosocial support programs help strengthen social support networks within communities as they foster connections and solidarity among individuals. Strong social support networks can provide a buffer against stress and conflict, reducing the likelihood of violence.
- f. Preventing Gender-Based Violence: Tending to psychosocial needs helps prevent SGBV by addressing the root causes, such as harmful gender norms and unequal power dynamics. Fostering gender equality and healthy relationships through psychosocial support contributes to reducing violence against women and girls. Promoting healthier ways of dealing with emotions and conflicts allows psychosocial support to contribute to reducing violence against women and girls.
- g. Promoting Social Cohesion: Addressing the psychosocial needs helps communities foster social cohesion and solidarity, as when individuals feel supported and connected to their community, they are less likely to resort to violence or conflict to resolve disputes.
- h. Promoting Resilience: Psychosocial support can help women and girls develop resilience, enabling them to bounce back from adversity and recover more quickly from conflict or crisis. This resilience contributes to community stability and reduces the likelihood of violence and conflict erupting or escalating.
- i. Enhancing Conflict Resolution Skills: Psychosocial support programs teach women and girls conflict resolution skills, such as negotiation, communication, and mediation. These skills help reduce conflict escalation into violence and promote peaceful resolution.

Furthermore, supporting the psychosocial needs of children also contributes to making communities safer and more secure, reducing the likelihood of violence and conflict. Specifically, it contributes to:

- a. Healthy Development: Meeting children's psychosocial needs, such as emotional support, education, and recreational activities, promotes healthy development. Children who receive adequate support are more likely to develop into well-adjusted, productive members of society, reducing the risk of engaging in violent or antisocial behavior.
- b. Resilience Building: Psychosocial support helps children develop resilience, enabling them to cope with adversity and trauma. Resilient children are better equipped to handle stress, including toxic stress, and

conflict, reducing the likelihood of negative outcomes such as aggression or involvement in violence.

- c. Prevention of Violence: Children who receive adequate psychosocial support are less likely to engage in violent behavior because psychosocial support helps address the underlying issues such as trauma, stress, and emotional distress, and these psychosocial interventions help prevent children from resorting to violence as a means of coping.
- d. Positive Socialization: Psychosocial interventions provide opportunities for children to interact with peers and adults in positive ways. This socialization promotes prosocial behavior and empathy, reducing the likelihood of conflict and violence in communities.
- e. Enhance Cognitive Skills: Psychosocial support can improve children's cognitive skills, including problem-solving, communication, and conflict resolution. These skills are important for navigating social situations and resolving conflicts peacefully.
- f. Disaster emergencies Trauma: Many children in conflict-affected areas experience trauma due to exposure to violence, displacement, and loss. Psychosocial support helps children process and cope with trauma, reducing the risk of long-term psychological issues that often contribute to violence.
- g. Promote Peace Education: CFS and its psychosocial activities often include elements of peace education, teaching children about conflict resolution, tolerance, and diversity. These values promote a culture of peace and non-violence, contributing to community safety and security.
- h. Family and Community Cohesion: Psychosocial activities often involve families and communities, promoting cohesion and support networks. Stronger family and community bonds can support the provision of a more protective environment for children, reducing the risk of violence and conflict.

To summarize, meeting the psychosocial needs of children contributes to making communities safer and more secure by promoting healthy development,

building resilience, preventing violence, fostering positive socialization, enhancing cognitive skills, disaster emergencies and addressing trauma, promoting peace education, and strengthening family and community cohesion. These factors create a more peaceful and stable environment, reducing the likelihood of violence and conflict.

Child Friendly Spaces and linkages to community' safety

CFS plays a crucial role in increasing community safety by providing a safe and inclusive environment for children, promoting community cohesion and empowerment, and supporting families and caregivers in their roles as protectors and educators. Specifically:

- a. Protection from Harm: CFS is designed to be safe and secure environments where children can play, learn, and receive support. These spaces are often staffed by trained personnel who ensure that children are protected from various risks, including violence, exploitation, and abuse. They offer a safe place for children to spend their time, reducing children's exposure to harm and thus contributing to their overall well-being.
- b. Community Cohesion: CFS serves as community hubs where children from different backgrounds can come together to play and learn. Bringing children together in a safe and inclusive environment help break down barriers and foster social cohesion. Children learn to interact with others who may be different from them, promoting empathy, understanding, and respect for diversity within the community.
- c. Early Warning and Response: CFS can serve as early warning systems for identifying and addressing the potential risks to children's safety. Staff and volunteers in these spaces are trained to recognize signs of distress or abuse and to respond appropriately, often by referring the child to more specialized services based on the child's needs. Maintaining close relationships with children and their families contributes to addressing as soon as possible emerging issues, possibly helping to prevent harm before it occurs.
- d. Empowerment and Education: CFS empowers children with knowledge, skills, and resources to protect themselves and

others. These spaces provide education and training on topics such as child rights, safety, and conflict resolution. Children equipped with these tools navigate their environment in a safer manner, can lower their vulnerabilities to harm, and empower them to advocate for their rights within their communities.

- e. Parental Support and Engagement: CFS supports parents and caregivers by providing them with information, resources, and support networks. CFS offer parenting classes, support groups, and other services to help parents create safe and nurturing environments for their children. Engaging parents and caregivers in activities and discussions related to child safety and well-being helps strengthen family bonds and create a more supportive community network.

As a result, CFS plays a multifaceted role in increasing community safety by providing a safe and inclusive environment for children, promoting community cohesion and empowerment, and supporting families and caregivers in their role as protectors and educators. There are several case studies and examples that illustrate how attending to the psychosocial needs of children through CFS activities makes communities safer. Here are a few examples:

- a. Rwanda healing process: After the 1994 genocide in Rwanda, many children were left traumatized by the violence and loss they experienced. Psychosocial support programs were implemented to help these children and their families disaster emergencies lessen the trauma. These programs included counseling, support groups, and community-based activities aimed at promoting healing and reconciliation. The programs also focused on rebuilding trust and social cohesion within communities, which had been deeply divided by the genocide. As a result of these efforts, communities were able to begin the process of healing and rebuilding, reducing the likelihood of further violence.⁷⁷

- b. Colombia peacebuilding: In Colombia, decades of armed conflict have had a devastating impact on children and families, with many experiencing trauma and loss. CFS programs have been implemented to support children affected by the conflict. These programs provide counseling, trauma therapy, and education on conflict resolution and peacebuilding. Research shows how tending to these children's psychosocial needs, through CFS activities, helped break the cycle of violence and build a more peaceful society. The programs also worked to promote understanding and reconciliation among communities, helping to build trust and reduce tensions.⁷⁸
- c. Northern Ireland Conflict Resolution: In Northern Ireland, decades of conflict have left deep scars on society, particularly among young people. CFS programs were implemented with the goal of providing support to children and families affected by the conflict. These programs focus on promoting understanding, tolerance, and reconciliation among young people from different backgrounds. It was through addressing the root causes of conflict and promoting empathy and respect that these programs were successful in contributing to community safety and peace. The programs also work to build positive relationships between communities, reducing the risk of further violence.⁷⁹
- d. South Africa Truth and Reconciliation: In South Africa, the Truth and Reconciliation Commission (TRC) was established to help the country heal from the legacy of apartheid-era violence. The TRC included a focus on the psychosocial needs, in CFS, of children affected by human rights abuses during the apartheid era. The TRC's Child Rights Project promoted healing and reconciliation among children and families affected by human rights abuses by addressing the trauma and emotional distress experienced by children. The project also contributed to building a more peaceful and inclusive society in South Africa.⁸⁰

⁷⁷ Costanza, "Rwanda."

⁷⁸ Save the Children, "Save the Children and the Humanitarian Development - Peace Nexus."

⁷⁹ Hamber, "Transitional Justice, Mental Health and Psychosocial Support - Renewing the United Nations Approach to Transitional Justice."

⁸⁰ UNICEF Innocenti Research Center, "Children and Truth Commissions."

Each example highlights the importance of addressing the psychosocial needs of children, through CFS, in conflict and post-conflict settings and the success that providing support and resources to help children heal from trauma, develop resilience, and learn positive coping mechanisms have on communities to build a foundation for lasting peace and security.

Not only does children's safety positively affect community security, but women's safety also plays a pivotal role in increasing community security. Specifically, women's safety increases community security by:

- a. Promoting Social Cohesion: When women feel safe and secure, they are more likely to engage with their communities, fostering social cohesion and solidarity among community members. This can contribute to a more stable and harmonious community environment.
- b. Enhancing Conflict Resolution: Women often play key roles in resolving conflicts within their communities. When women feel empowered, they are better able to meaningfully participate in conflict resolution processes, which helps prevent conflicts from escalating and promotes peaceful resolution.⁸¹
- c. Improving Health and Well-being: Women's security is closely linked to their health and well-being. When women feel safe, they are more likely to access healthcare services and engage in preventative care practices, which has a ripple effect on the entire community, leading to improved public health outcomes in several ways, including increasing healthcare utilization, healthier behaviors, reduced disease transmission, improved maternal and child health and ultimately enhanced community resilience.⁸² Therefore, creating an environment where women feel safe and empowered not only transforms individual health outcomes but also catalyzes community-wide efforts to prevent disease, promote well-being, and build resilience against health hazards.
- d. Strengthening Economic Stability: Women's security is essential for economic stability at the household and community levels so by

making them feel safer, they are more likely to participate in economic activities, which can contribute to the economic growth and stability of the community.⁸³

- e. Protecting Vulnerable Populations: Women are often responsible for caring for vulnerable populations, such as children, the elderly, and the sick. When safe, women are better able to fulfill these caregiving roles, ensuring the well-being of vulnerable community members.
- f. Enhancing Resilience to Disasters and Crises: Women's security contributes to community resilience in the face of disasters and crises. Secure and empowered women are better able to cope with and recover from disasters, helping the community to bounce back more quickly.

The WPS agenda strongly highlights the importance of women's safety and how their safety is a cross-country issue, as conflict and insecurity affect women and girls in every region of the world. Women and girls face specific challenges in conflict situations, including sexual and gender-based violence, displacement, and loss of livelihoods. The WPS agenda's mandate to address these challenges and promoting women's participation in peacebuilding efforts strongly contributes to peace and security globally. Countries around the world have committed to implementing the WPS agenda through national action plans and other measures and have therefore recognized the WPS agenda as a key component of global efforts to promote peace, security, and gender equality. Women's security is closely linked to community security, and efforts to enhance women's security can have far-reaching benefits for the entire community.

Conclusion and Recommendations

The relationship between CFS and the Women, Peace and Security agenda offers a compelling and impactful framework for addressing the multifaceted challenges faced by children and women in conflict and post-conflict settings. Thanks to the activities that women and children benefit from in CFS, CFS directly contributes to the WPS pillars of Participation, Protection, Prevention, and Relief and

⁸¹ O'Reilly, "Inclusive Security and Peaceful Societies," 2015.

⁸² Chandni, "Building Resilient Societies after COVID-19."

⁸³ USAID, "Advancing Women's Economic Security for Gender Equality and Women's Empowerment."

Recovery, ensuring that women and children, especially young girls, are shielded from harm and have access to essential services such as education, health, and the psychosocial support necessary for their development and empowerment.

The integration of Early Childhood Development principles within CFS highlights the significance of addressing the psychosocial needs of children from a young age. This focus on early intervention is crucial for mitigating the long-term effects of trauma and adversity, thereby fostering resilience and positive development trajectories. Moreover, the emphasis on ECD within CFS underscores the interconnectedness of child well-being and community stability, as children's early experiences shape their future capacities to contribute to peaceful and secure societies. The active involvement of women in CFS activities align with the WPS agenda's mandate for increased participation of women in peacebuilding and decision-making processes. This participatory approach ensures that the specific needs of children and women are adequately addressed, and empowers women as agents of change in their

communities. This empowerment not only aids in children and women's immediate well-being, but also lays the foundation for long-term resilience, long-term recovery, and healthy development, which are fundamental for breaking the cycle of violence and for paving the way toward sustainable peace and security.

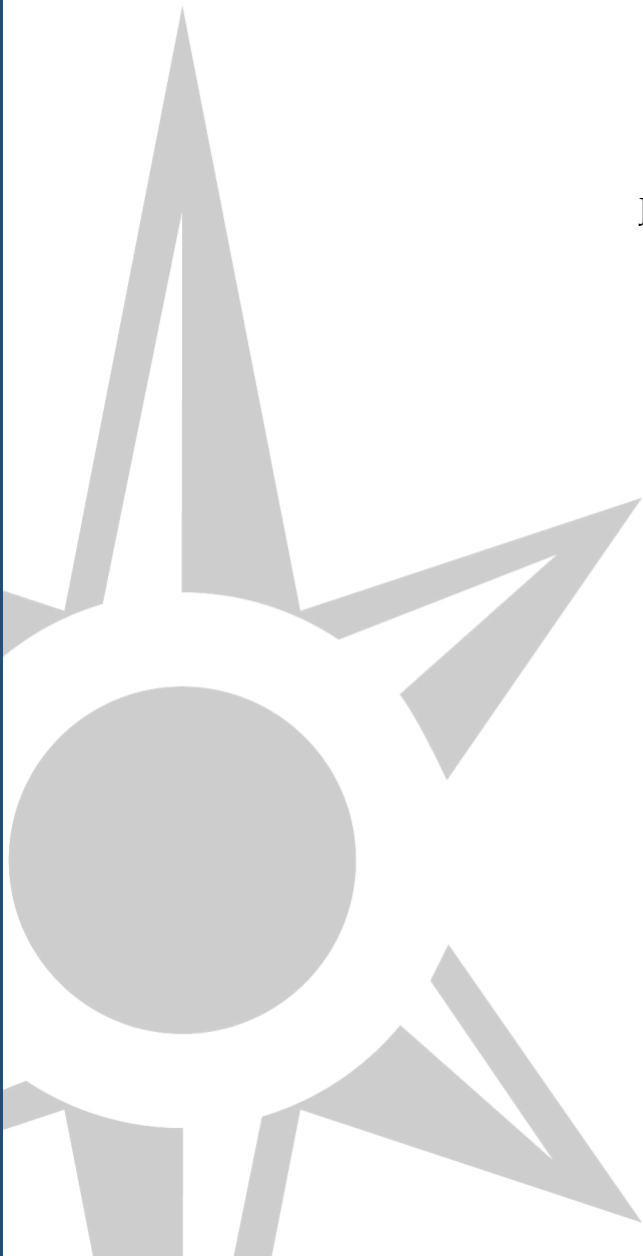
In conclusion, the integration of CFS within the framework of the Women, Peace and Security agenda represents a strategic and comprehensive approach to addressing the multifaceted challenges faced by children and women in conflict and post-conflict settings. CFS contribute significantly to the overarching goals of peace, security, and gender equality by prioritizing the protection and development of children, promoting the empowerment and participation of women, and fostering resilience and recovery, ultimately creating safe and more secure communities. As such, CFS should be prioritized and funded in National Action Plans as a key component of humanitarian interventions in conflict and post-conflict settings.

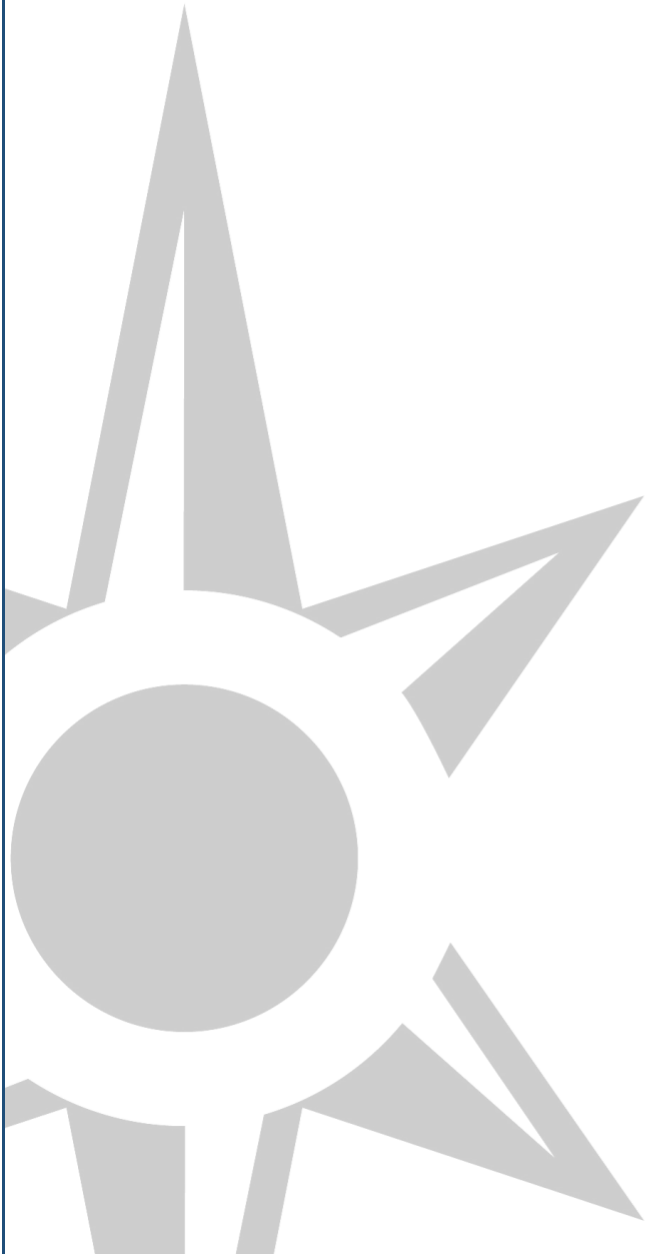
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Japan's New National Security - Placing Quality Infrastructure and Defense at the forefront

By
Jamie Lee





Executive Summary

Jamie Lee

Infrastructure development is crucial to addressing the most important threats to national security today, including climate change and protecting critical and emerging technologies. Maintaining quality infrastructure in the Indo-Pacific region is especially vital; most of the world's critical supply chains and Sea Lines of Communication are located in this region. The current amount of financing needed to maintain and build new quality infrastructure projects, however, vastly outpaces the current annual investment rate. A 2017 Asia Development Bank report estimated that with the current infrastructure demand, all Asian countries will need to invest \$1.7 trillion to maintain the region's growth over the next decade. This figure is more than double the \$750 billion estimate, shy of a decade prior in 2009.

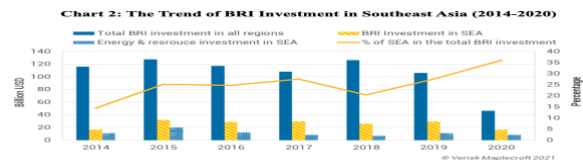
Under the constraints of Article Nine, Japan has successfully utilized infrastructure financing to project power and address the "most severe and complex security environment since the end of WWII." The shift from monetary aid to export-based aid garnered great public attention when the Ministry of Foreign Affairs released a request to the Japanese government to increase its defense spending to 2% of its GDP by 2027 and to develop counter-strike capabilities. This shift signals the Japanese government's new approach to military and national security in a context broader than its projection of power through providing development assistance. The direction of Japan's future assistance will depend less on internal political strife and public opinion and will instead be influenced more by external threats. Japan's present reputation as a trustworthy partner to its partner countries in ODA, infrastructure development, and spearheading of initiatives including the Indo-Pacific Economic Framework demonstrates that it has effectively exerted its own influence outside of its alliance with the US.

Introduction

Japan projects its economic power in this region through its economic influence, carried out through infrastructure project financing in the form of Official Development Assistance (ODA). Prior to the inception of China's Belt and Road Initiative (BRI) in 2013, Japan carried out large-scale, long-term infrastructure project development and financing throughout Asia and beyond the Indo-Pacific region—recipient countries include those in Central America and Africa. Within Japan's ODA, Southeast Asia has been one of Japan's largest recipients for the past thirty years. Since Japan's formal establishment of trade relations with Southeast Asia in the early 1960s, it consistently maintains its position as the second-largest donor¹ of FDIs to the region after China. With imports from Japan totaling \$119.1 billion, Japan contributed USD27.2 billion in 2022 alone, reflecting a nearly 30% surge from 2021. Southeast Asia's geographical location between the Indian Ocean and the South China Sea makes it not only important for the flow of commercial routes but also of strategic importance to stability beyond Asia and the entire Indo-Pacific. The significance of Japan's involvement in the region is therefore strategically relevant and long-withstanding. Japan's infrastructure projects in Southeast Asia's six biggest economies were valued at \$367 billion in 2019, significantly more than China's \$255 billion. To sustain these projects, however, a 2017 report published by the Asia Development Bank estimated² that Southeast Asia's economies will need at least \$210 billion a year in infrastructure financing from 2016-2030 to maintain the current level of economic growth it is currently undergoing.

China's Belt and Road Initiative is one such initiative to increase the creation of infrastructure projects to meet the large demand. The Belt and Road Initiative was unveiled in the fall of 2013. From 2013 until 2022, the total trade between China and BRI partner countries reached \$19.1 trillion, with an average annual growth rate of 6.4%. It is the largest infrastructure project ever recorded. By June 2023, China had signed more than 200 BRI cooperation agreements with more than 150 countries and 30

international organizations spanning five continents. In the last four years, China has shown a noticeable interest in Southeast Asia. As shown in the chart below, BRI investments in Southeast Asia grew from \$16.8 billion in 2014 to \$29.3 billion in 2019, accounting for 27.6% of all BRI investments worldwide.



Source: Huihuang Lai and Haniza Binti Idris, "Conceptualizing Global Leadership Education (GLE): Lessons Learned from the Belt and Road Initiative (BRI) in Southeast Asia," accessed November 19, 2024, <https://sare.um.edu.my/index.php/PEMIMPIN/issue/vi/w/2048>.

In these six years, construction contracts made up 46.2% of BRI investments in Southeast Asia. Energy is the largest sector, accounting for 42.9%, followed by transport at 31.7%. Despite a sharp drop in total BRI investments in 2020, Southeast Asia (\$16.9 billion) became the BRI's largest investment destination, accounting for 36% of the total investment.

In perceived contrast to the BRI, a distinct feature of Japan's Official Development Assistance is its "quality first" approach to the infrastructure projects it finances. A 2019-2023 report published by the ISEAS-Yusof Institute found that Japan ranks as the most trusted country among all Southeast Asian states. It gained its credibility in producing quality infrastructure through its continued construction of earthquake and natural disaster-resilient buildings and other critical structures. Japan's environment is characterized by its consistent and continuous exposure to earthquakes. As defined by Japan's Ministry of Foreign Affairs (MOFA), "quality-first infrastructure investment³" refers to the consideration of environmental and debt sustainability, safety, reliability, and economic impact when making decisions on which projects to finance. Japan's high-quality infrastructure investment strategy is currently projected and

¹Lili Yan Ing, "Navigating Global Complexities: Strengthening ASEAN-Japan Collaboration," accessed October 22, 2024, <https://www.eria.org/news-and-views/navigating-global-complexities--strengthening-asean-japan-collaboration>.

²"Meeting Asia's Infrastructure Needs | Asian Development Bank," February 2017, <https://www.adb.org/publications/asia-infrastructure-needs>.

³Kentaro Sonoura, "Japan's Initiatives for Promoting 'Quality Infrastructure Investment,'" September 19, 2017.

perpetuated through the Indo-Pacific Economic Framework (IPEF). Since its introduction by former Japanese Prime Minister Abe Shinzo in 2016, Japan has invested significant resources and economic capital to prompt stronger coordination and alignment among Japan, the US, and other democratic countries—specifically, Australia and India through the Quadrilateral Security Dialogue (“Quad”). Its development can encourage the establishing of common standards and norms for fair economic practices. Japan’s high-quality infrastructure approach emphasizes regional connectivity, transparency, and high standards in infrastructure investment—thereby cementing itself as an important piece of the Free and Open Indo-Pacific (FOIP) vision. Amid escalating geopolitical rivalry with China, it is imperative to encourage deeper cooperation and the creation of robust partnerships among Japan, the US, and other democratic countries. Japan’s garnered trust and quality infrastructure approach is how Japan seeks to exert influence as a secondary power with autonomy and strategy outside of its alliance with the US. This research suggests that Japan’s action of seeking to garner influence in the region through its economic power is part of a larger reason why economic influences in geopolitics should be paid attention to in addition to traditional defense influences.

Significance

Japan-Southeast Asia relations started in the 1950s through bilateral economic partnerships facilitated by a two-way trade of raw materials. Prior Japanese occupation in the region during the Second World War led to initial reluctance and distrust of Japanese presence in Southeast Asia. In the 1970s, Japan-Southeast Asia saw an elevation in their partnerships—Prime Minister Fukuda proclaimed the building of peace and stability in the region through a “heart-to-heart” relationship⁴ based on mutual values and trust. Japan’s objective in the region evolved from bilateral trade relations to one built upon a shared goal of building prosperity and stability in the region through cooperation and assistance in their economic development. Japan began its infrastructure and development assistance initiatives in Southeast Asia to achieve economic growth in the region while advancing the Japanese

economy’s development. The deployment of ODAs then became the heart of its approach to international diplomacy, and it continues to be an integral part of its efforts to establish relations throughout the region. ODAs and multilateral engagement between Japan and ASEAN states underscore current Japan-Southeast Asia relations. A contemporary national security concern shared by ASEAN states regarding their formal partnerships with Japan is the balancing of engagement with Japan to accelerate their economic objectives with evading direct involvement in the geopolitical competition between the US and China. Furthermore, Japan is carrying out infrastructure development projects beyond Southeast Asia and the Indo-Pacific region. In 2022, for example, the Japan Ministry of Economy, Trade, and Industry (METI) announced that \$13.3 trillion (2 trillion yen) would be allocated to development projects in Central American nations over the next five years. Yet, there are only a few articles of scholarship and literature that touch upon Japan’s accelerating involvement in development initiatives worldwide and its response to China’s Belt and Road Initiative through the Free and Open Indo-Pacific Framework. In light of the long-running tensions in the South China Sea and around Taiwan’s waters, Japan has increased its infrastructure financing in projects that pertain to a strategic purpose. A 2022 report by the Green Finance and Development Center found that two types of large-scale infrastructure projects are anticipated to become larger focuses of investment: strategic engagements—which include ports and bridges that encourage regional connectivity—and energy projects (e.g. mining, oil, gas).

The most visible example of projects that signal the concentration of Sino-Japanese geopolitical rivalry in Southeast Asia is the increased number of high-speed railway (HSR) construction projects being built. In September 2015, Japan lost a \$5 billion contract to China to build Indonesia’s first HSR connecting Jakarta and Bandung. The same year, Japan leveraged its burgeoning relationship with India to secure a \$15 billion deal to construct an HSR between Mumbai and Ahmedabad. Japan is also due to begin the construction of an HSR line connecting Bangkok with Chiang Mai while Chinese companies have started work on another railway line from Nong Khai

⁴ “1977 Diplomatic Bluebook Part One: Promotion of Relations with Other Countries,” 1977, <https://www.mofa.go.jp/policy/other/bluebook/1977/1977-3-1.htm>.

on the Lao border to Map Ta Phu on the eastern seaboard of the Gulf of Thailand⁵. The subsequent Partnership for Quality Infrastructure (PQI) in May 2015 was perceived as Japan's strategic response to the Asia Infrastructure Investment Bank's (AIIB) establishment. The PQI's establishment in 2015 was the first of multiple quality infrastructure-related partnerships established between Japan and other democratic Indo-Pacific partner countries. The most recent example—the Partnership for Global Infrastructure and Investment established by the G7 nations in 2023—is a landmark upgrade for the PQI. Headed by Prime Minister Kishida—done in a similar capacity to Abe's heading of the PQI—the joint statement on this partnership placed a special emphasis on private sector investment and the importance of creating quality infrastructures for storing critical technologies and establishing strong supply chains.

The current rate of China and Japan's increasing investments in infrastructure developments in the Indo-Pacific region then influences the future of national development for the countries in the region, and ultimately, the direction of future geopolitical conflict. The Indo-Pacific region in particular holds a significant portion of the world's critical supply chain routes. Sixty% of the total maritime trade passes through Asia, with the South China Sea carrying an estimated one-third of global shipping. In 2016, 42% of Japan's maritime trade passed through the South China Sea, making the ocean critical to Japan and China's economies. Therefore, a main concern of Japan regarding specifically the Maritime Silk Road stems from the potential effect it may have on their energy sector and critical mineral supply. Especially notable then is the increase in large-scale infrastructure projects being built under the Belt and Road Initiative, as the infrastructure locations coincide along the Malacca Strait and Gulf of Hormuz, routes through which a large portion of Japan's rare earth mineral supply routinely passes through⁶.

At face value, Abe's "Quality Infrastructure" approach was an important talking point to secure longer-term projects and increase public sentiment in favor of expanding infrastructure development.

Abe's declaration was almost as important as his formal conception of the QUAD; it established regional relevance to the "quality infrastructure" concept while advancing strategic partnerships with other countries and strengthening the alliance between Japan and its partners. It provided a credible alternative to China's Belt and Road Initiative. Japan's first instance of using the principles of its "quality infrastructure" model to strengthen bilateral partnerships was in 2017 when Abe and Modi signed a joint statement that strongly endorsed the principle of "quality infrastructure investment." Quality infrastructure became the centerpiece of their bilateral relationship; Abe and Modi, using previous quality infrastructure approaches, integrated an existing Indian Ocean basin development project with the east coast of Africa, through the Asia-Africa Growth Corridor.

Beyond Southeast Asia, Japan continues to carry out smaller-scale infrastructure projects throughout the developing regions in the global south. As mentioned above, Japan has a historical track record of financing infrastructure development projects in Central America and Africa. More recently, Japan has renewed that commitment to the Latin American region. The Japanese Ministry of Economy, Trade, and Industry announced last year that they have set a five-year investment target of more than 2 trillion yen (\$13.3 trillion) in assistance to Latin American nations, funded by investment by Japanese companies which are supported by public assistance. What these two regions have in common with Southeast Asia is that their internationally competitive industries that could further advance their national economies are in their maturing stages of development. Such economies are more susceptible to falling into the "middle-income trap" that prevents them from further developing their international competitiveness to fuel their economic growth. A comprehensive assessment of the amount of FDIs invested and the sheer scale of projects invested beyond Asia and globally is further evidence of why infrastructure development is the center of Japan's international diplomacy. More recently, Japan's commitment to investment in quality infrastructure was realized at a larger scale

⁵ Hong Zhao, "China–Japan Compete for Infrastructure Investment in Southeast Asia: Geopolitical Rivalry or Healthy Competition?," *Journal of Contemporary China* 28, no. 118 (July 4, 2019): 558–74, <https://doi.org/10.1080/10670564.2018.1557946>.

⁶ Tobias Harris, "'Quality Infrastructure': Japan's Robust Challenge to China's Belt and Road," *War on the Rocks*, April 9, 2019,

<https://warontherocks.com/2019/04/quality-infrastructure-japans-robust-challenge-to-chinas-belt-and-road/>.

⁷ World Bank, *World Development Report 2024: The Middle-Income Trap* (Washington, DC: World Bank, 2024), <https://doi.org/10.1596/978-1-4648-2078-6>.

and with a larger collective of developed nations, as in May 2023, the G7 nations announced the launch of the Partnership for Global Infrastructure and Investment at the G7 Summit in Hiroshima, Japan.

Japan and China infrastructure financing—overlapping and diverging objectives

The 2013 inception of the BRI signaled an era of the promotion of Chinese culture and global influence: infrastructure projects and cultural institutions were the priorities for financing. Just four years later, 2017 saw a remarkable increase in financing for renewable energy and digital infrastructure projects upon Xi's announcement of the Digital Silk Road at the inaugural Belt and Road Forum for International Cooperation (BRF) summit. Just two years later at the second BRF summit in 2019, China signed an MoU with 16 countries to build digital infrastructure projects that were identified as critical to powering future economies. Artificial intelligence, quantum computing, and wireless network infrastructures were used to develop "smart cities" built around these infrastructures, to enforce economic cooperation and establish common digital technology regulation standards.

Inversely, Japan continues its support for infrastructure projects largely through the maintenance, modernization, and rehabilitation of current infrastructure. It can be said that China approaches diplomacy by establishing economic partnerships, while Japan continues to establish partnerships through development assistance. Their approaches to infrastructure partnerships may differ, but their long-term interest in exerting influence in the region is their commonality. Their differing approaches to achieving a convergent goal may entail long-term security implications for the future of Sino-Japan relations, as they may signal competing interests. Their competing interests are signaled by the sheer scale and amount of infrastructure projects each country is partaking in, to vie for greater regional—and ultimately global—influence.

Previously, Abe's initial approach was to cooperate, rather than compete, with China on infrastructure projects in developing nations. Under the Abe administration, new vehicles for promoting private-sector cooperation, notably the Committee for the Promotion of Japan-China Business Cooperation in Third Countries and the Japan-China Third Country Market Cooperation Forum, were developed as a

means to come to some form of consensus towards establishing a universal standard for enforcing quality infrastructure projects. Fortifying publicprivate sector partnerships was another pillar in Abe's approach, further illustrating that quality infrastructure development will continue to play an influential part in Japan's approach to the international development of its infrastructure projects. Under the new administration and increased escalations in the South China Sea and the Philippines, along with China's increased aggression to stake its claim to the disputed Senkaku island territory, the potential for a collaborative approach may take a new direction toward their differing approaches to achieving their overlapping objective, of utilizing infrastructure financing to bolster economic cooperation and influence in the region.

Literature Review

Some scholars view Japan's infrastructure assistance approach to diplomacy as beyond an approach towards engagement in the region, and rather—with the increase in its infrastructure assistance, specifically regarding development aid given to other parts of the world—as a part of a larger strategy of countering China's influence in the region. Other scholars (list them here) apply a critical lens onto Japan's influence in the region through assistance with infrastructure development.

Japan's exertion of power and influence within the confines of Article Nine

A concurring point in the literature is that Japan's influence in the region faces constraints of conducting initiatives and outreach outside of the US and Japan's existing security frameworks. There are 23 US military bases in Japan (Honshu) and 12 in Okinawa—Japan continues to allow the US to provide it with defensive capabilities under Article Nine. Former Prime Minister Yoshida initially opposed the establishment of US military bases upon the signing of the Japan-US bilateral 1951 Peace Treaty. The signing of this treaty resulted in strained relations with China and stopped the signing of a Japan-China bilateral treaty—Japan would not have been able to access the US economic and political system and its global network if it were signed by Yoshida. Dower conceptualizes Japan's current scope of defensive power under the US as "subordinate

independence⁸.” The term “subordinate independence” characterizes Japan’s status as an independent nation that still operates under the US due to its inability to use military force and offensive capability. Japan thus has exerted power and influence within Asia through development assistance because of its status under “subordinate independence.” Japan’s present reputation as a trustworthy partner to its partner countries in ODA, infrastructure development, and spearheading of initiatives including the Indo-Pacific Economic Framework demonstrates that it has effectively exerted its own influence outside of its alliance with the US.

Debt Trap Diplomacy

A point of contention in current literature on the topic of the BRI and infrastructure financing is the existence of “debt-trap diplomacy.” The term “debt-trap diplomacy”⁹ is a recurring term used in works that focus on the BRI and its investments in developing regions. A term first coined by Indian author Brahma Chellaney in his 2017 seminal work on the BRI, he suggested that the PRC may be intentionally entrapping smaller nations into agreeing to unsustainable loans to pursue infrastructure projects so that, when they experience financial difficulty, Beijing can seize the asset and thereby exert greater influence on the country or region. The scholars that agree with the existence of debt-trap diplomacy consistently point to Sri Lanka’s Hambantota Port case study as evidence. The Hambantota Port case study, first written by Chellaney in 2017, became the basis of evidence for subsequent literature on “debt-trap diplomacy.” The Hambantota Port’s significance lies in it being an important passage point for much of the world’s maritime trade: it straddles the Indian Ocean trade routes linking Europe, Africa, and the Middle East to Asia. After the Sri Lankan government signed a 99-year lease on the port project, the first phase of the Hambantota Port project was a \$307 million loan at 6.3% interest. The initial interest rate raised concerns beyond the premise of a 99-year pay period—development banks typically offer loans at rates

closer to 2 or 3%, and sometimes even closer to zero%.

¹⁰

What Chellaney does not cover in his work is that the BRI project came amidst domestic challenges concerning the Sri Lankan change in government during the project’s second phase. A new government in 2015 saw new development priorities for Colombo Port, halting construction at Hambantota’s port. This resulted in the loss of further project revenue, effectively making it even more difficult for the Sri Lankan government to service the loans. By 2015, some 95% of Sri Lanka’s government revenue was going toward servicing its debt, and the government-initiated debt renegotiations with China. China’s 70% equity and 99-year lease deal with the BRI project culminated as a result.

There is an equal amount of literature that raises skepticism about the evidence of its existence, and some refer to the concept of debt-trap diplomacy as a “myth.” Whereas Chellaney believes that it is intentional, some scholars are not entirely convinced of the aforementioned intentionality of debt-trap diplomacy or its existence altogether. Haderiansyah and Habibah¹¹ state that debt-trap diplomacy may be an unintentional consequence of large amounts of debt acquired through issues of transparency or oversight somewhere during the process of the project’s construction. Taking the Hambantota Port case study, it can be concluded that regardless of debt-trap diplomacy’s existence or the validity of the case study, the challenge is building projects that are sustainable and minimal in debt accrual for developing countries with economies too small to take on additional financial burdens. A common theme among the scholarship on infrastructure financing and the BRI points to a need for transparency concerning the financing, bidding, and construction of the project for infrastructure development in general, beyond the BRI. The Chinese government tends to communicate exclusively with high-level government officials in the recipient countries during the investment process, inherited from China’s long-standing domestic practices of state-driven investment. It therefore involves an upper-level route instead of a grassroots-level,

⁸ Aaron L, “The San Francisco System: Past, Present, Future in U.S.-Japan-China Relations サンフランシスコ体制 米日中関係の過去、現在、そして未来,” *The Asia-Pacific Journal: Japan Focus* (blog), February 23, 2014, <https://apjif.org/2014/12/8/john-w-dower/4079/article>.

⁹ Brahma Chellaney, “China’s Creditor Imperialism.” *Project Syndicate*, Dec. 20, 2017, <https://www.project-syndicate.org/commentary/china-sri-lanka-hambantota-port-debt-by-brahma-chellaney2017-12>.

¹⁰ Michal Himmer and Zdeněk Rod, “Chinese Debt Trap Diplomacy: Reality or Myth?,” *Journal of the Indian Ocean Region* 18, no. 3 (Sept. 2, 2022): 250–72, <https://doi.org/10.1080/19480881.2023.2195280>.

¹¹ Haderiansyah and Habibah, “Policy of China’s Debt-Trap Diplomacy: The Influence of Media In Forming Community Political Opinions | DIA: Jurnal Administrasi Publik,” December 1, 2020, <https://jurnal.untag-sby.ac.id/index.php/dia/article/view/%234410>, 172.

market-oriented way of investment, a lower degree of localization, and a lack of participation by the private sector and international investors. Greater incorporation of the private sector and greater involvement of regional actors is another issue for the BRI. The current scholarship around the BRI and debt-trap diplomacy illustrates that excess debt accrued places great strain on economies that are not only smaller in size but carry existing debt. Rather than focusing on the concept of debt-trap diplomacy, Japan and its partner countries should continue their existing focus on the mitigation of excess debt, and promoting transparent, high-quality infrastructure projects should be of greater priority.

Key Findings

Beyond Southeast Asia, a 2023 Global Infrastructure Outlook study reported a \$19 trillion gap between the global infrastructure spending trend and the amount needed to sustain ongoing infrastructure projects across 50 countries and 7 sectors. More than 50% of global infrastructure investment needs are from Asia, including China. A section of the report points out that a considerable portion of the infrastructure needed within Asia comes from four countries, with three from Southeast Asia: Myanmar, Cambodia, and Vietnam. The investment need is projected from 2016-2040, in line with the current infrastructure financing trend and future trajectory within the same period. The apparent—and growing—need for infrastructure financing demonstrates the importance of Japanese, and subsequently U.S., engagement in the region, by cementing multilateral alignment with the international standards and norms of infrastructure financing.

Although the Japanese government continues to increase the monetary amount of Official Development Assistance it gives annually, it is uncertain to what extent Japan will continue its current financing effort into ODA, in light of increased discussions on advancing the power of the Japanese Self-Defense Forces. The previous December, the Japanese government's Cabinet approved a record 7.95 trillion yen, or \$55.9 billion, defense budget for Fiscal Year 2024. Even more surprising was the same request by the ministry to raise defense spending to 2% of Japan's GDP by the

year 2027. Japan's historic defense expenditures ceiling raise was carried out in response to escalations by Chinese presence in disputed territories in the South China Sea, and the threat of North Korean missile launches, ever since the first recorded¹² missile launch in 1984. In the face of new security challenges, Japan's national interests may further evolve to lean toward prioritizing the safeguarding of its defense capabilities. The future of cooperation between Japan and Southeast Asia may solely depend on how much Japan will continue to spend on ODA. Japan continues to demonstrate its concentrated effort to establish and define economic partnerships with ASEAN states and the rest of Asia. Japan's economic security priorities continue to be an integral and influential factor in promoting the integration of countries throughout Asia. Building resilient economies directly correlates to their national security interests: robust economic growth allows lessened reliance on China and opens avenues to the upgrading of previous bilateral and multilateral relations.

Implications beyond Japan's projection of economic power

The current rate of BRI infrastructure development within Southeast Asia will continue to rise despite existing concerns of accrued unsustainable debt. The BRI will continue to influence the geopolitical landscape of the Indo-Pacific as Japan and China continues to assert their influence in the region through infrastructure financing. It will provide more avenues for inter-regional cooperation and the possibility for Japan to upgrade its existing partnerships with Southeast Asian countries.

Japan-Southeast Asia relations need to evolve beyond an exchange of developmental assistance through ODAs—it will need to heavily involve matters of national security. Japan and Southeast Asia will need to continue forging an equal partnership aimed at advancing regional stability and prosperity in Southeast Asia and beyond. This evolution is marked by the heightening of regional tensions in the South China Sea and the need to deter Chinese assertion of influence in Southeast Asia and ultimately, throughout the Indo-Pacific. Japan has responded accordingly, by changing the name and

¹² "North Korean Missile Launches & Nuclear Tests: 1984-Present | Missile Threat," accessed October 30, 2024, <https://missilethreat.csis.org/north-korea-missile-launches-1984-present/>.

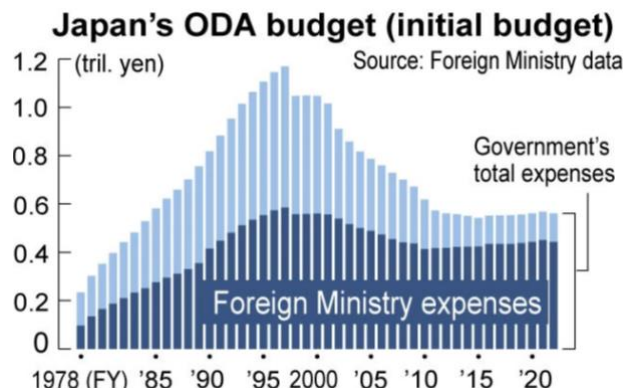
nature of ODAs, and providing security-related assistance and exchanges to Southeast Asia and other regions of the world with OSAs, or Official Security Assistance (OSA).

The first introduction of OSAs were through a historical revision of Japan's National Defense Strategy in 2022 amid heightened concerns about its deteriorating security environment from the PRC's growing economic influence and territorial claims to the Diaoyu/Senkaku Islands. While OSA is Japan's first cooperation scheme to provide military assistance, it must operate within the scope of 'The Three Principles on Transfer of Defense Equipment and Technology' (the 'Three Principles') and its Implementation Guidelines, under which exports are controlled and limited. This is due to the existing limitation on ODAs for social and economic assistance projects written in Article Nine.

In FY 2023-24, approximately 2 billion yen (\$15 million) in OSA grants were provided to Bangladesh, Fiji, Malaysia and the Philippines. The first recipients of OSA funding were mostly Southeast Asian states, reflecting the growing shared threat of China in the region. The Philippines and Malaysia, for example, are locked in territorial disputes with China in the South China Sea. Meanwhile, Fiji's proximity to critical sea lanes connecting Japan and Australia has led Tokyo to invest in dual-use infrastructures to counterbalance Chinese influence in the Pacific.

The increasing relevance of Official Security Assistance in Japan's changing geopolitical climate

The Foreign Ministry requested an ODA budget of around 494.2 billion yen (\$3.4 billion) for FY 2023, a 12% increase from this fiscal year's initial budget. The overall government ODA budget for the past ten years, however, has remained roughly the same amount. After peaking at around 1.2 trillion yen in fiscal year 1997, the budget has descended in a downward trend for more than 10 years. It has remained in the range of 500 billion to 600 billion yen since FY 2011. Referring to the figure below, The Asahi Shimbun attributed this decrease of funding available for ODAs, with the greater distribution of the FY 2023 monetary budget for defense expenditures. As reflected in the graph below, the change in spending priorities reflects a shift in urgency to addressing immediate external threats alongside facing existing financial difficulties.



Source: Foreign Ministry data
 Source: Satomi Nen, "Japan to Review ODA Policy to Strengthen Indo-Pacific Ties," *The Asahi Shimbun*, September 7, 2022, <https://www.asahi.com/ajw/articles/14713027>.

Beyond Southeast Asia, Tokyo is reportedly planning to expand OSA to six countries in FY 2024/25. With these potential additions, the list of recipients—Djibouti, Indonesia, Mongolia, Papua New Guinea, the Philippines, and Vietnam—would broaden OSA's scope while maintaining a strong focus on Southeast Asia. Mongolia's geographic location between Russia and China makes it susceptible to political and economic influence from both powers. However, Ulaanbaatar is recently making efforts in its rare-earth diplomacy by utilizing its rich critical mineral reserves, which Tokyo may also seek to tap into. Mongolia holds diplomatic significance for Japan as it upholds a 'nuclear-weapon-free' status, aligning with Japan's own non-nuclear weapons policy. Japan has introduced the OSA as a part of what it calls the "co-creation initiative." In future reiterations of OSA ventures, Japan should maintain the use of such terms that formally establish an equal partnership between Japan and the countries receiving assistance.

Looking Ahead: Policy Recommendations

Increase East and Southeast Asian regional integration through targeting industry and fortifying public-private partnerships (PPP)

Within the Quad, if Japan is continuing its efforts to incorporate private sector investments in strategic infrastructure projects, then their discussions must clarify the division of labor and roles each institution or agency within the public and private sectors will take to finance and build each infrastructure project. Although all strategic infrastructure projects—ports, railways, and bridges—are important to signify goodwill and cooperation, projects that encourage

regional connectivity and the secure flow of goods should be of utmost priority. The construction of new corridors is an important example. The East-West corridor is one such notable case – it will connect India to Southeast Asia, and Northeast Asia through the Bay of Bengal, opening a critical maritime route. The transportation corridor is another project to prioritize. Its construction would provide Thailand, Myanmar, Laos, and Vietnam with access to crucial trade routes in the Indian Ocean, strengthening regional connectivity between South and Southeast Asia and aiding the creation of new trade routes.

The Quad views infrastructure as critical to the prosperity of the Indo-Pacific. Infrastructure development is central to the Quad's cooperation, given its importance in advancing other Quad initiatives including climate resilience, clean energy, and critical and emerging technologies. In 2022, the Quad Infrastructure Coordination Group was established to convene the relevant development-financing agencies to coordinate investments. In the 2022 Joint Leaders' Statement, Quad Leaders set a goal of extending over \$50 billion in infrastructure assistance to the region over five years. The Quad is also taking measures to avoid creating debt burdens, akin to those resulting from China's Belt and Road Initiative, by emphasizing debt sustainability and transparency with regional partners. To proactively take these measures, the Quad Debt Management Resource Portal was created. In 2023, the Quad launched two major initiatives to address infrastructure challenges. Firstly, The Quad Infrastructure Fellowship will provide over 1,800 scholarships, work exchanges, and other executive program offerings to government officials and infrastructure experts in the region to teach best practices for infrastructure design, delivery, and management.

Secondly, undersea cables are a promising outlet to start greater cooperation between Japan, the Quad, and other regional partners. In recognition of the urgent need for both stronger undersea cable design and quality infrastructure, the Quad leaders

announced the launch of the Quad Partnership for Cable Connectivity and Resilience in their 2023 Quad Leaders Joint Statement. The partnership addresses the region's need to improve regional internet connectivity. Japan has the potential to play a key role in carrying out undersea cable projects by coordinating assistance from the US and other regional partners to build stable and secure undersea cables. Companies from the United States and Japan are top suppliers of subsea cables. In 2021, four cable suppliers, including US-based SubCom and Japan-based NEC Corporation, made up 98% of the cable market system¹³.

Outside of the QUAD, South Korea shares a parallel position with Japan concerning its desire to increase engagement in Southeast Asia. Its ties with the region began later than Japan, having established its relations in the 1990s. South Korea's desire to increase its ties to the region continues to be a top priority since the 1990s; it is currently the second largest provider of ODA¹⁴ loans to the region, behind Japan. A 2021 report¹⁵ published by the Carnegie Endowment for Peace Foundation, however, found that ASEAN states share concerns about engaging with Korea for the same reason as with Japan: elevating its existing bilateral Free Trade Agreements (FTAs) and relations with South Korea may bear the potential for ASEAN to become directly involved in the great power competition between the US and China. As a rare case of successful shifting from aid recipient to donor, South Korea aims to move beyond its soft power influence. It has formally announced its ambitions to become among the ten largest ODA donor countries. In the December 2022 publication of Korea's Ministry of Foreign Affairs (MOFA) Indo-Pacific Strategy report, it declared that Korea seeks to increase its ODA in volume to reach the "world's top ten levels."¹⁶ Reaching the top ten in this ranking would entail, in today's terms, an annual aid program worth \$5.2 billion or more¹⁷. ASEAN currently stands as the second-largest trading partner¹⁸ for South Korea, with their transactions reaching \$143.8 billion in 2020, more than doubling from \$61.8 billion in 2006. Like Japan, South Korea's

¹³ Samir Saran et al., "Two Decades of the Quad: Diplomacy & Cooperation in the Indo-Pacific | East-West Center | www.eastwestcenter.org," June 14, 2024, <https://www.eastwestcenter.org/publications/two-decades-quad-diplomacy-cooperation-indo-pacific>.

¹⁴ Kwak Sungil, "South Korea's Development Assistance and Economic Outreach Toward Southeast Asia," n.d.

¹⁵ "South Korea Beyond Northeast Asia: How Seoul Is Deepening Ties With India and ASEAN," Carnegie Endowment for International Peace, accessed

October 30, 2024, <https://carnegieendowment.org/research/2021/10/south-korea-beyond-northeast-asia-how-seoul-is-deepening-ties-with-india-and-asean?lang=en>.

¹⁶ Korea Ministry of Foreign Affairs, "Strategy for a Free, Peaceful, and Prosperous Indo-Pacific Region," December 28, 2022, <https://www.mofa.go.kr/viewer/skin/doc.html?fn=20230106093833927.pdf&rs=/viewer/result/202410>.

¹⁷ Ibid.

¹⁸ Ibid.

ODA spending focuses strongly on infrastructure aid—the annual amount of such aid donated overseas accounted for 32%, or over a quarter of its total aid donation amount in 2021. Two years later, South Korea further affirmed its interest in participating in an SMR construction project and attended a separate summit for the Partnership for Global Infrastructure and Investment. Incorporating other democratic countries in Quad-Plus initiatives is a promising avenue for deepening Japan's engagement in the region.

Other government agencies should also become involved in vetting the quality of infrastructure projects. Specifically, the US Agency for International Development (USAID) and the U.S. Trade and Development Agency (UTDA) assume pre-existing roles in determining if a project is suitable for private-sector investment. Thus, they should play a role in reviving the BUILD Act and the entity that created it—the US International Development Finance Cooperation (DFC)—so that there are stricter mechanisms in place that ensure greater integration and understanding between the private and public sectors on what roles they will play in project financing. Although both agencies are the current focus of private sector infrastructure financing, the DFC should return to its position and fulfill its potential of becoming a key facilitator in the region's push for enhanced infrastructure financing. The US, Japan, and Australia announced the Trilateral Partnership for Infrastructure Development at a critical time in 2022—initiatives including the Build Back Better (BW3) and the Blue Dot Network (BDN) have already declined in relevance and discourse in the G7 and other related multilateral forums. Upon analysis of the two initiatives' evolution, a common gap that the two initiatives did not clearly address was the lack of consolidation of resources needed to integrate the private sector and the mechanisms that would regulate public sector infrastructure financing.

The trilateral partnership holds considerable promise; it seeks to address this gap by integrating the US' strong public funding institutions with the stronger industry capacity of Japan and Australia. Now is a crucial time to explore further avenues and mechanisms for Public-Private Partnerships (PPP)—Private sector FDI in ASEAN is rapidly growing, reaching \$13 billion in the first nine months of 2013, which was more than the \$10.6 billion total for the whole of 2012. Infrastructure development through Japan's ODA has been fostering an influx of private

funding, making its development impact more significant. It has also been supporting the advancement of private companies into Southeast Asia, making the region one of the main investment destinations and the site of important business partners for Japanese private companies. Japan's assistance in ASEAN's integration projects is thus relevant to its interests, underscoring the importance of the Public-Private Partnerships approach.

The Blue Dot Network is rarely discussed, yet it remains a relevant part of international development and economic security. As a multilateral organization, it promotes a certification framework for quality infrastructure projects to solve two areas of concern in infrastructure projects: debt management and quality construction. As one of the founding members of the Blue Dot Network, Japan led the effort to establish the network and could continue to influence any future efforts to revitalize it. The establishment of the G7 Global Partnership for Infrastructure and Investment overshadowed the discussion of the Blue Dot Network, but the BDN can provide the G7 initiative the means to achieve its goal of building transparent, quality infrastructure projects across the world.

Here are two ways that the BDN should propel transparent and sustainable infrastructure development:

1. Australia and other key democratic partner countries should align the standards of their respective development finance institutions to ensure easier streamlining of financing projects that meet the quality standards for BDN certification.
2. Emphasize the priority of the BDN's climate-resilient infrastructure project to advance the disaster relief infrastructure initiatives proposed under the G7 Global Partnership for Infrastructure and Investment.

The Blue Dot Network will certify the public-private investments that the G7 initiative plans to make. Public-private partnerships will have a means of legitimizing their projects under a universal global standard that safeguards the international order.

Comparing past, present, and future initiatives spearheaded by the IPEF

The Indo-Pacific Economic Framework (IPEF) unified democratic partner countries under a

multilateral framework in the Indo-Pacific region. Although it is not a formal Free Trade Agreement (FTA) or multilateral security pact, it continues to be a guiding framework for trade between the US and its partner countries. Unlike previous FTAs, notably for its explicit focus on regional security, it also emphasizes the priority issues of recent years and those that fall under non-traditional security concerns—supply chain, digital connectivity, and a clean economy—deviating from previous iterations which only view concerns as an “Asia-Pacific” regional issue. While the IPEF showed a promising avenue for other countries to engage in trade on their own terms and to maintain competitiveness with the US, it encountered limitations and obstacles because it abided by the objectives set forth by the Abe administration. The employment of tactical hedging resulted in an economic framework that detailed vague provisions concerning trade procedures. It was not a formal FTA—it could not ensure that other countries would follow the same procedures and employ the same safeguards when conducting trade agreements.

The IPEF still has the potential to become a larger unifying multilateral body to manage regional trade among the US and member countries. To accomplish that goal, it should facilitate a way for countries to be unified in their joint statements or responses—particularly with the FOIP countries in their response to global events. During the 2022 Russian invasion of Ukraine, the Quad countries’ divergent responses to the Russia-Ukraine conflict were notable. Another point of divergence was their deployment of tactical hedging¹⁹. This concept originates from previous instances of strategic ambiguity, which encouraged ASEAN states to enter the framework and become member states under the FOIP.

Unlike a formal Free Trade Agreement, the IPEF allows countries to opt out of certain pillars of the framework. This provision sets it apart from competing formal trade agreements such as RCEP and the TCTPP. Since it allows for countries like ASEAN states to take neutral positions in their trading, it builds on the existing trade relations that the FOIP countries have with the US and raises the potential for these countries to advance their economic interests while staying neutral on conflicts,

with Vietnam as an example. Building on its excellent connection and historical increase in exports to the US, the IPEF is also anticipated to propel Vietnamese exports to the US market to an even higher level. Since its entry into the FOIP and the IPEF in the May 2022 IPEF launch, the US-Vietnam alliance upgraded from a strategic partnership to a comprehensive strategic partnership in December 2023. US-Vietnam relations are projected to make additional strides on existing agreements for additional climate and energy investments—a key focus area under the IPEF.

Find new avenues to strengthen engagement with Southeast Asia

Tactical hedging is ingrained in ASEAN’s alignment with national security objectives—the practices of ASEAN neutrality and non-alignment are fundamental to ASEAN and one of the reasons for the creation of ASEAN as a multilateral security institution for Southeast Asian states. Japan, the US, and other partner countries could perhaps start by focusing their current efforts to build relations with Southeast Asian countries by exercising more focus on fortifying their existing bilateral relationships. The Philippines is a good candidate to refer to as a starting point, especially considering the recent promise of future collaboration following the latest Japan-US-Philippines trilateral dialogue. Following this example, strengthening the bond of existing bilateral relations will be crucial to solidifying Japan’s relationship with Southeast Asia. Infrastructure financing is a key component of Japan’s diplomacy and will continue to be central to how Japan engages with other countries—especially in Southeast Asia. A central focus of ASEAN lies in its framework—one that centers around the specific themes of regional, economic, and national security cooperation. There are mutual objectives and goals that both Southeast Asian countries and Japan can benefit from.

The future of Japan’s projection of power in the Indo-Pacific using Official Development Assistance and Official Security Assistance

Japan’s longstanding involvement in global infrastructure financing, alongside the Biden administration’s recent involvement in infrastructure financing under the Indo-Pacific Economic

¹⁹ John Ciorciari and Jürgen Haacke, “Hedging in International Relations: An Introduction,” *International Relations of the Asia-Pacific* 19 (September 1, 2019): 367–74, <https://doi.org/10.1093/irap/lcz017>.

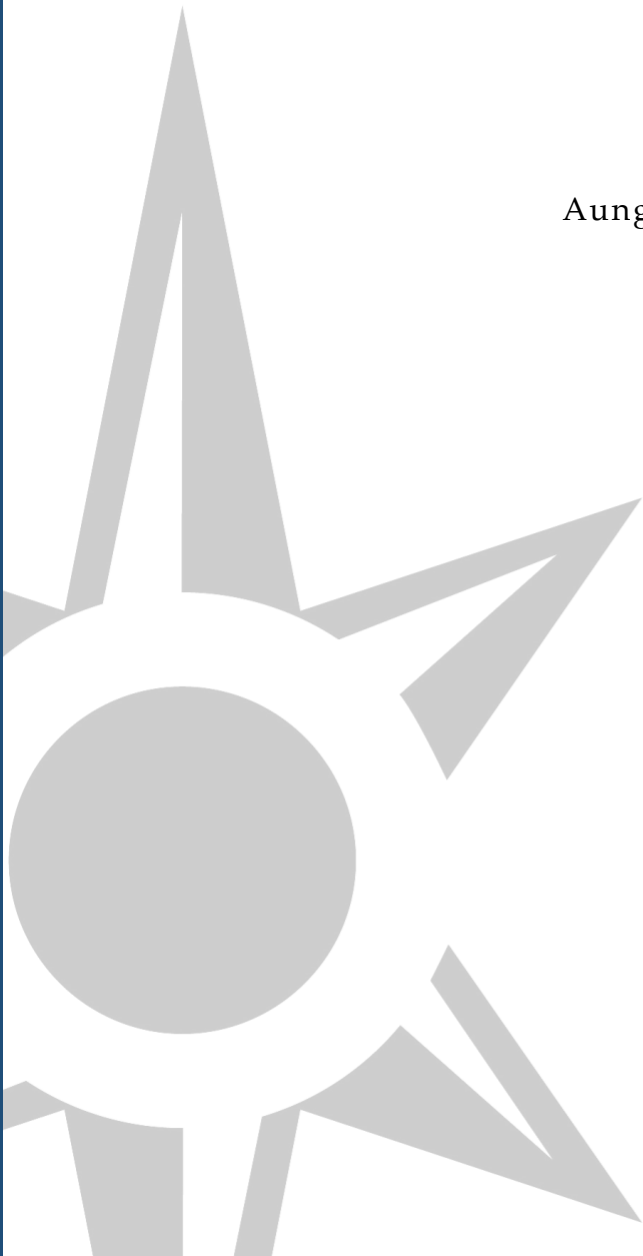
Framework, illustrates the growing relevance of the concept of economic security. The Ishiba administration may continue Kishida's legacy of economic security—an initiative he has carried on since the Abe administration. The Abe administration recognized that infrastructure financing will exerting domestic prosperity and international influence—conversely affecting how the rest of the world will perceive Japan and how Japanese allies work with Japan. Namely, it may advance partnerships in infrastructure financing through the Blue Dot Network, the Build Back Better initiative, and the most recent, historically large infrastructure initiative—the Partnership for Global Infrastructure and Investment. The emergence of the Partnership for Global Infrastructure and Investment in July 2022 further amplified the need for economic resilience and economic development to be merged into a country's geopolitical and military objectives. As Singapore Forum director Nicolas Firzli noted, examples from multilateral infrastructure initiatives like the Blue Dot Network and the Build Back Better initiative show that future economic development initiatives must be done with values-driven, transparent, and open practices. Infrastructure development will directly determine overall regional stability throughout the entire Indo-Pacific in the coming decade.

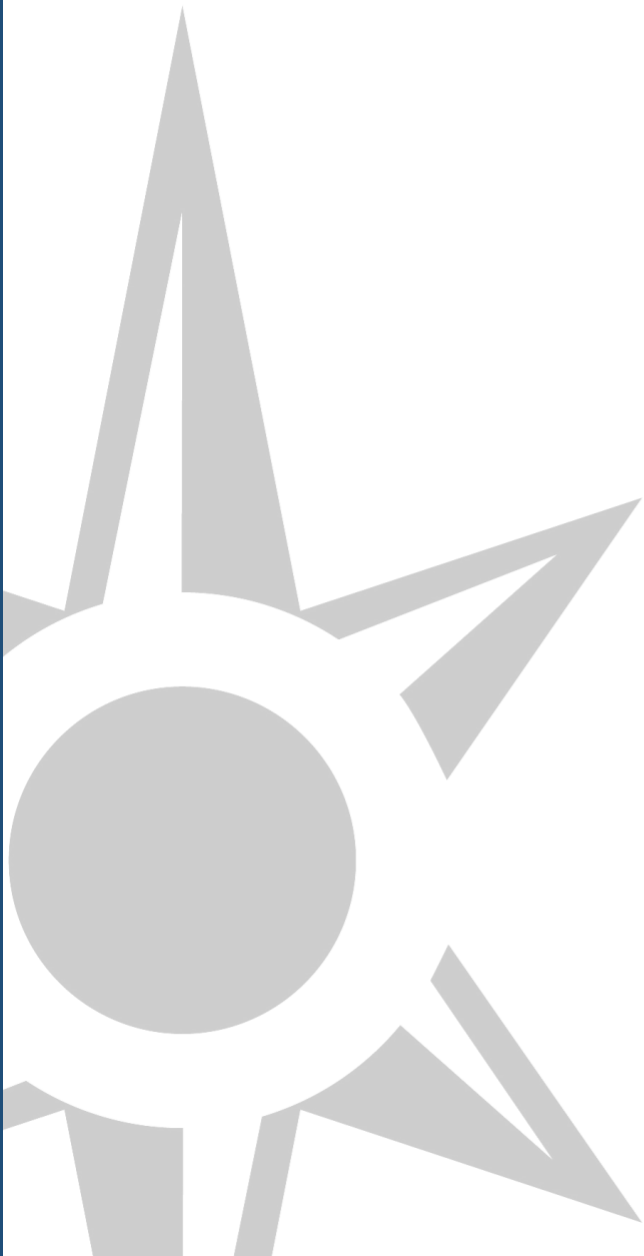
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Myanmar's Unfolding Humanitarian Crisis and Ripple Effect on Regional Security

By
Aung Thura Ko Ko





Executive Summary

Aung Thura Ko Ko

The 2021 military coup in Myanmar has exacerbated an already precarious humanitarian landscape, thrusting millions into a crisis of unprecedented scale. This paper analyzes the multidimensional challenges posed by the coup and proposes strategic approaches for both international and local stakeholders to effectively mitigate the crisis. The paper exams the ensuing humanitarian issues—including restricted access to aid, mass displacement, economic collapse, and a deteriorated healthcare system—in detail, emphasizing the need for a coordinated and nuanced multi-level response. It highlights the importance of cross-border assistance, partnerships with non-state actors such as the ethnic armed organizations (EAOs) and resistance forces gaining territorial control, local entities, diplomatic engagements to secure sustainable aid access, promoting localization of aid, and protection for aid workers. Through a comprehensive response integrating diplomatic, humanitarian, and developmental interventions, the international community can support a pathway toward stability, fostering Myanmar's long-term recovery and democratic aspirations. The paper illustrates the urgent need to resolve the current humanitarian crisis in Myanmar, which has had a spillover effect on regional stability. This study underscores the need for urgent, innovative approaches by international and local actors to address the evolving situation in Myanmar, balancing short-term humanitarian objectives with a long-term vision for sustainable development, peace, and democratization in the region.

Introduction

The February 2021 military coup has plunged Myanmar into chaos, rolling back progress achieved over the past decade in terms of human rights, development, and peacebuilding. The people of Myanmar now face a humanitarian catastrophe, with large-scale suffering caused by violence and displacement, as well as economic, food, and public health crises. The situation is further exacerbated by the military's strategy of preventing life-saving humanitarian aid from reaching those who need it.¹ Addressing these situations demands a multifaceted, nuanced, and informed approach from the international community.

Escalating Armed Clashes and Worsening Human Suffering

The escalating clashes between the military junta, ethnic armed organizations (EAOs), and resistance forces—especially after the Three Brotherhood Alliance's 1027 operation in northern Shan—combined with the socio-economic impacts of the junta's mismanagement and failed economic policies, have inflicted much suffering on the local population. The conflict constrains the movement of assistance, supplies, and people through repeated drone attacks, landmines, heightened security measures, and denial of travel authorizations.² Since the coup started, 27,257 people have been arrested—of which 20,792 are still under detention. Additionally, the civilian death toll due to military crackdowns and injuries inflicted during the detention period stands at 5,570 (Assistance Association for Political Prisoners 2024).³

According to the United Nations Office for the Coordination of Humanitarian Affairs (2024), a staggering 18.6 million people need humanitarian assistance and 3.3 million people have been displaced. Unfortunately, these numbers are likely to continuously increase. Furthermore, the United Nations Development Programme⁴ estimated that 76%

of the total 56.6 million population lives below the national poverty line. This demonstrates that poverty and insecurity are escalating throughout rural and urban populations, severely impacting people's incomes and livelihoods. With many areas facing an impending food crisis, Myanmar is heading towards deepening economic collapse.

Humanitarian Access Constraints

Myanmar's military has created an increasingly difficult operational environment for international aid workers to access populations in need. The regime—suspicious of international organizations' intentions⁵ and the possibility of them providing support for opposition factions—has blocked humanitarian aid delivery in many areas. They deliberately destroy food and medical supplies, divert aid away from its intended recipients, and attack aid workers. The military regime has also been historically known to use airstrikes as a tactic in conflict zones, therefore targeting armed opposition groups, civilian populations, and humanitarian workers.⁶ Furthermore, frequent skirmishes and changing territories of control continue to displace populations. Internally displaced persons (IDP) camps can quickly turn into conflict zones and supply routes can become unsafe overnight.

People living in EAOs-controlled areas, such as Kachin, Rakhine, and Shan states, have limited access to aid as humanitarian response authorizations are frequently denied. The ongoing conflict between the Arakan Army and the military has led to stricter security measures in Rakhine, including the blocking of waterways and roads in the northern region which restricts movement and hinders aid distribution. Similar security measures such as checkpoints, roadblocks, and curfews also limit the flow of people, goods, and humanitarian assistance. The NUG's minister for humanitarian affairs and disaster management noted that Karenni (Kayah), Karen, and Chin states still receive some humanitarian aid through the Thai and Indian borders.⁷ However,

¹ United Nations Office for the Coordination of Humanitarian Affairs (OCHA), Humanitarian Needs and Response Plan Myanmar 2024, p. 34 <https://www.unocha.org/myanmar>

² United Nations Office for the Coordination of Humanitarian Affairs (OCHA), Humanitarian Needs and Response Plan Myanmar 2024, pp. 12-18 <https://www.unocha.org/myanmar>

³ Assistance Association for Political Prisoners, Daily Briefing in Relation to the Military Coup, August 27, 2024, <https://aappb.org/?p=29069>

⁴ United Nations Development Programme Press Release, "Middle class disappearing and poverty deepening in Myanmar", April 11, 2024, <https://www.undp.org/press-releases/middle-class-disappearing-and-poverty-deepening>

[poverty-deepening-myanmar#:~:text=New%20York%20%E2%80%93%20Myanmar's%20middle%20class,Nations%20Development%20Programme%20\(UNDP\)](https://www.undp.org/press-releases/middle-class-disappearing-and-poverty-deepening-myanmar#:~:text=New%20York%20%E2%80%93%20Myanmar's%20middle%20class,Nations%20Development%20Programme%20(UNDP))

⁵ Anne Decobert, "Localisation, Good Humanitarianism, and Solidarity-Based Approaches to Aid in Myanmar", After the Coup, Australian National University Press, 2023, pp. 268-269.

⁶ "Aircraft coming", Karen Human Rights Group Report, November 2024, pp. 6-31.

⁷ "A Riddle for International Donor Governments", Burma News International, July 2023, pp. 15-16

central regions, such as Sagaing and Magway, face greater challenges due to their lack of easy access to such borders.⁸ Sagaing—the center of the most intense resistance in Myanmar's revolution and home to the highest number of IDPs—continues to suffer from the military regime's daily acts of violence, including the burning of houses and land as well as airstrikes.⁹

Looming Regional Humanitarian and Displacement Fallout

Myanmar's trajectory—shifting from military rule to partial democracy and then regressing back into autocracy—presents not only a setback for its domestic aspirations, but also complex challenges at the regional and global levels. The junta's crackdown on peaceful protesters has led to widespread human rights violations, including illegal detentions, torture, extrajudicial killings, and excessive use of air bombardments against civilians.¹⁰ This has triggered mass internal displacement, particularly in conflict zones controlled by EAOs and resistance groups.

As the ongoing conflicts heighten displacement, the military's grip on power has also crippled the nation's economy. Sanctions imposed by the international community to target the junta have inadvertently caused economic hardships for ordinary citizens. In early February 2024, the junta enacted a compulsory conscription law and prompted hundreds of thousands of youths to flee to neighboring countries.¹¹ Thus, the ripple effects of Myanmar's crisis have extended beyond its borders—as evident by countries such as Bangladesh, Thailand, and India experiencing an influx of refugees.¹² The continuation of the regime's atrocities and armed clashes is expected to further destabilize regional security and deepen the humanitarian crisis.¹³

ASEAN and the International Community's Role

Myanmar has been grappling with a significant humanitarian crisis even before the military coup started. Nearly a million Rohingya had fled violence

in the Rakhine state—most of them sought refuge in overcrowded and unsanitary camps in Bangladesh. The severity of the military junta's atrocities, along with the escalating humanitarian and displacement crises, calls for urgent regional and global action. However, the UN Security Council and regional actors have failed to take decisive steps in addressing Myanmar's crisis. ASEAN has been ineffective in coordinating aid delivery on the ground. ASEAN should engage directly with the NUG and other pro-democracy resistance forces as they gain control over more territory following recent military victories.

China and India—possessing strategic interests in Myanmar—are in a unique position to apply pressure and offer incentives, for instance by hosting bilateral talks with the Myanmar military to push for humanitarian access. The United Nations should adopt a more proactive and multifaceted approach to this crisis. Although securing unanimous consent may be difficult, efforts should focus on passing Security Council resolutions that prioritize humanitarian access. While there is ongoing pressure and sanctions on the military regime from international actors such as the US, the EU, and other Western countries to address the crisis, more immediate efforts are needed to alleviate the humanitarian disaster engulfing the country.

Engaging with Non-state Actors and Cross Border Direct Assistance

Myanmar's complex challenges require a combination of traditional humanitarian approaches and innovative solutions. Reaching those most in need, especially in conflict zones, necessitates strategically targeted interventions. Local organizations are vital in these situations, thus directly collaborating with them is essential for aid delivery. Neighboring countries should take a more flexible approach when dealing with non-state authorities along their borders. They need to quickly mobilize and facilitate cross-border aid delivery in coordination with local organizations and ethnic groups in control of border regions. It is also important to engage with opposition non-state actors

⁸ "A Riddle for International Donor Governments", *Burma News International*, July 2023, pp. 14-17.

⁹ "A Riddle for International Donor Governments", *Burma News International*, July 2023, p. 17.

¹⁰ United Nations Human Rights Council, *Situation of human rights in Myanmar since 1 February 2021*, A/HRC/49/72 (15 March 2022)

¹¹ "Myanmar Economic Monitor: Livelihoods Under Threat", *World Bank Report*, June 2024, pp. 1-7.

¹² "Myanmar Economic Monitor: Livelihoods Under Threat", *World Bank Report*, June 2024, pp. 1-7.

¹³ United Nations Office for the Coordination of Humanitarian Affairs (OCHA), *Humanitarian Needs and Response Plan Myanmar 2024*, pp. 4-18 <https://www.unocha.org/myanmar>

to ensure humanitarian access in areas under their control. International aid organizations aiming to help Myanmar should consider the growing number of people living in non-state-controlled areas, where traditional state-based aid models are ineffective. These organizations need to adopt a flexible approach by engaging with non-state authorities and local civil society groups to provide both humanitarian aid and governance support.

Many of these non-state actors, especially EAOs, have provided services normally expected from a government for decades. Hence, it is crucial to find ways to work with them to support populations in their territories. ASEAN, the UN, and other international aid organizations such as USAID should establish and strengthen cross-border aid programs through coordinated efforts to ensure that international humanitarian assistance reaches those most in need. The most effective way to deliver aid is through neighboring countries such as Thailand, India, and Bangladesh. The Thailand-Myanmar border has a well-established network of local groups that have successfully delivered aid in the past and these networks remain largely intact.¹⁴

Protecting Humanitarian Workers and Civilian Populations

Humanitarian workers face the most immediate risks due to the volatile situation on the ground and ensuring their protection is vital for sustaining humanitarian efforts. Establishing reliable communication channels between aid organizations and local stakeholders, such as village leaders and local administrations, can help mitigate potential dangers. The NUG and EAOs have pledged to take full responsibility for the security of humanitarian operations in areas under their control, though the threat of airstrikes from the military regime remains a significant risk.¹⁵

The United Nations should seriously consider implementing a humanitarian ceasefire and establishing safe zones to protect civilians, including

aid workers. Additionally, the creation of no-fly zones would safeguard civilians from airstrikes and ensure the uninterrupted delivery of aid across Myanmar. Strengthening independent and impartial monitoring and reporting of human rights violations—covering civilian protection, prevention of casualties, and the conditions in detention facilities—is also crucial to safeguard lives and uphold human rights.

Localization of Aid is Crucial

Amid the current overlapping and volatile crises and despite shrinking humanitarian space in Myanmar, local actors and civil society organizations have mobilized to provide essential aid.¹⁶ This highlights the efficiency of locally driven initiatives. They are now advocating for changes in the international aid system, emphasizing that localization goes beyond the issue of effectiveness as it concerns humanitarian autonomy.¹⁷ Myanmar's complex emergency has showcased the power of local aid efforts and the bravery of those who continue to help their communities despite significant risks to their lives. Civil society and community-based actors have continued to spearhead humanitarian efforts, becoming more interconnected and organized.¹⁸ Providing these groups with technical support and resources is essential not only to meet immediate humanitarian needs, but also to strengthen their capacity for governance and service delivery that is critical for the people in these areas.

Under the current situation, there is a growing need to localize aid practices—shifting the balance by giving local actors more direct funding, decision-making authority, and support. Achieving true and lasting localization means building systems, institutions, and organizations that not only save lives and reduce suffering but also promote the autonomy and empowerment of the people most affected by crises. With Myanmar's humanitarian needs escalating, international donors and aid agencies should increase their support for local

¹⁴ Daniel P. Sullivan, "Dire Consequences: Addressing the Humanitarian Fallout from Myanmar's Coup", Refugees International, October 21, 2021 https://www.refugeesinternational.org/reports-briefs/dire-consequences-addressing-the-humanitarian-fallout-from-myanmars-coup/?utm_source=chatgpt.com

¹⁵ "A Riddle for International Donor Governments", Burma News International, July 2023, p. 36.

¹⁶ Anne Decobert, "Localisation, Good Humanitarianism, and Solidarity-Based Approaches to Aid in Myanmar", After the Coup, Australian National University Press, 2023, p. 254.

¹⁷ Anne Decobert, "Localisation, Good Humanitarianism, and Solidarity-Based Approaches to Aid in Myanmar", After the Coup, Australian National University Press, 2023, p. 254.

¹⁸ Anne Decobert, "Localisation, Good Humanitarianism, and Solidarity-Based Approaches to Aid in Myanmar", After the Coup, Australian National University Press, 2023, pp. 257-258.

systems and organizations that possess the expertise, local credibility, and infrastructure to offer a viable alternative to traditional top-down aid models. These localized approaches are essential for delivering aid to vulnerable populations and laying the groundwork for long-term democratization, development, and peace in Myanmar.

Conclusion: A Path Forward

The unfolding humanitarian situation in Myanmar is not a mere standalone event. Rather, it represents a confluence of long-standing political tensions, socio-cultural dynamics, and economic challenges coming to the fore. The urgent needs of the present—providing food, medical aid, shelter, and ensuring safety—need to be integrated with long-term objectives. Diplomatic engagements and pressures at regional and global levels are indispensable. While international interventions bring with them substantial resources and expertise, the role of local organizations, communities, and leaders is pivotal. Their intricate understanding of ground realities, cultural nuances, and established trust within communities can significantly augment the efficacy of relief efforts. Engaging with non-state actors such as EAOs is also essential to ensuring humanitarian access in areas beyond the military regime's control.

Priority should be given to working with community-level and civil society actors in ways that enable the provision of life-saving humanitarian aid and demonstrate real commitment to localization. This is important to address immediate humanitarian needs and contribute to longer-term development and peacebuilding aims. Supporting and building the

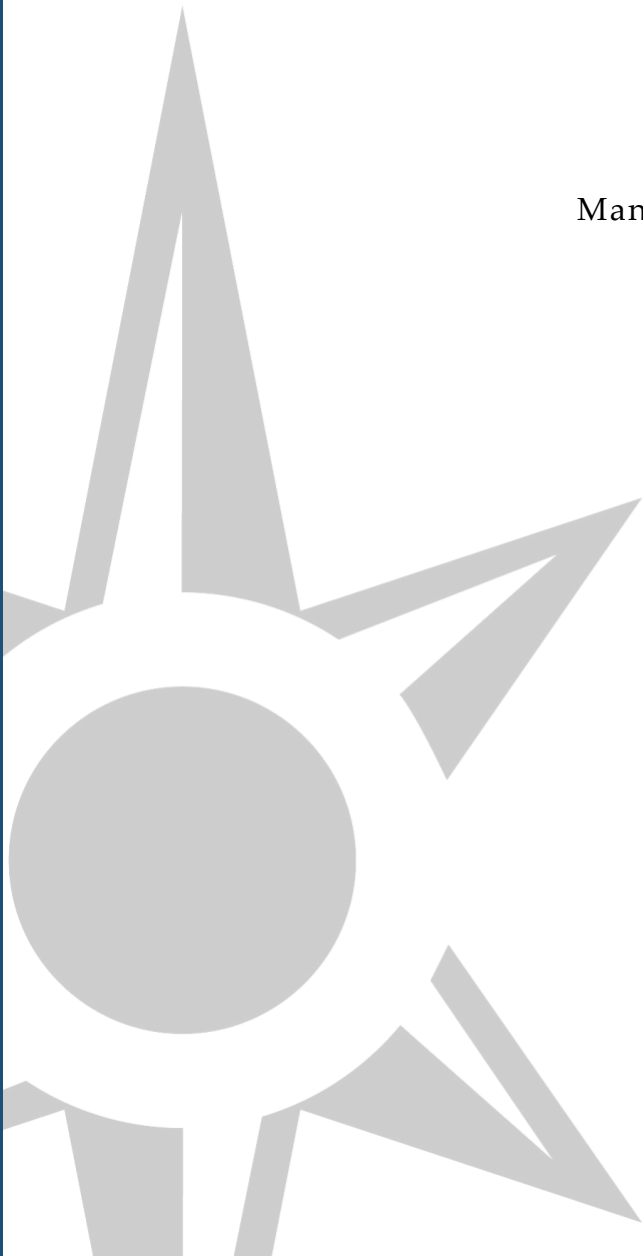
sustainability of ethnic and community-based service systems will help address some of the structural inequities and injustices that have fed into decades of conflict in Myanmar. Coordinated global pressure must also be applied on the military junta to demand an end to atrocities, including attacks on health and aid workers, and to secure unfettered access for humanitarian relief. To alleviate human suffering, the international community needs to weigh in and deescalate the ongoing conflicts. This would prevent various spillover effects of the current crisis such as refugee flows and drug trafficking.

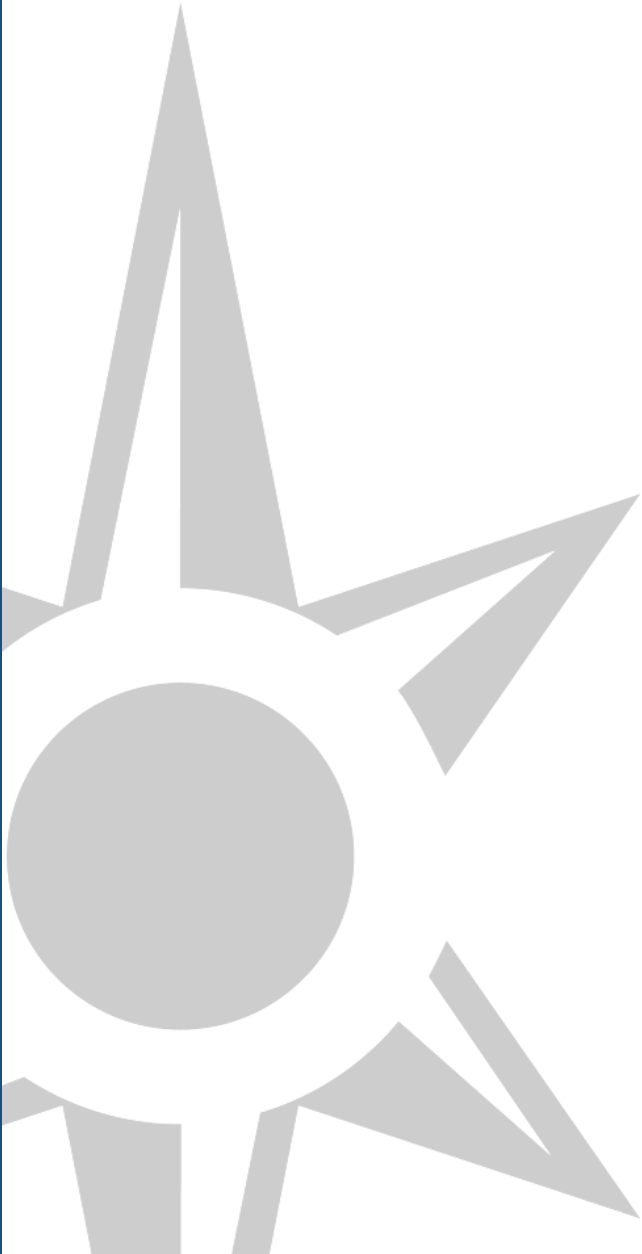
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Chinese Multifaceted Maritime Strategy of Dominance

By
Mandar Ransing





Executive Summary

Mandar Ransing

Ever since the inception of communist China, the CCP has given special importance to developing a formidable navy, as many of China's great leaders, including Mao, attributed the “Century of Humiliation” to defenseless coasts through which the invaders came and ruled over the Middle Kingdom. In its initial decades, the PRC employed Mao's people's protracted war strategy at sea with few modifications. This was essentially the strategy of combining civilian assets with military assets to build sufficient naval deterrence. As China began to grow economically and militarily. Its naval forces also became more capable and modernized to implement A2AD strategies at sea. However, the component of using civilian assets never really faded out of China's maritime strategy. Instead, in the past, where civilian assets were utilized as **compulsion** to fill military capacity gaps, now China seeks to use them for their **convenience**, which comes due to their non-military nature.

The modern Chinese Navy (PLAN) is a formidable force of its own due to its sheer size and diversity, and now it does not only aim to protect the homeland but also to project Chinese power over the seas. However, in its immediate maritime neighborhood, China is involved in multiple maritime territorial disputes with countries like Japan, the Philippines, Vietnam, and others, not to forget constant tensions in the Taiwan Strait. China deals with each of these nations differently with varying degrees of intensity and priority. Yet if we analyze the Chinese method of dealing with maritime issues and conflict, particularly within the so-called 11-dash line (which Beijing considers its own waters), we can see a pattern, a repetition of tools and techniques that China utilizes to assert its maritime dominance without causing a serious military escalation.

This multifaceted strategy of China involves multiple elements, such as the Chinese coast guard, Chinese maritime militia, artificial islands, civilian research vessels, and dual-use commercial fleets, all of which, from outside, may look non-military and even civilian assets but in reality, they all aid and assist PLAN in

dominating the South and East China Seas. Through these tools, China implements its “**Coercion, not Conflict**” strategy, bullying weaker nations without causing military involvement or escalation.

The People’s Liberation Army Navy (PLAN) is now the world’s largest navy by numbers, but the Chinese Coast Guard is also the largest in the world, and now so is the Chinese civilian-commercial fleet. China also boasts the world’s largest fishing fleet and the largest and most lethal maritime militia in the seas. The purpose of this issue is to highlight the importance of these non-military maritime assets in China’s maritime strategy, as they are honed and toned to serve the military objectives both in peacetime and in conflict. It is therefore very crucial to factor in these and other elements while assessing the true extent of China’s maritime strength and strategy.

Ever since China became the People's Republic of China on October 1, 1949, the importance of a capable navy has been on the minds of CCP leaders. Mao famously said, "In order to oppose imperialist aggression, we must build a powerful navy." Chinese leaders have contributed the "Century of Humiliation" to a weak Chinese navy that could not deter other invading maritime powers. The Sino-Japanese War (1894–1895) and the humiliating defeat by Imperial Japan's navy were the defining moments in Chinese history that convinced upcoming national leaders to build a capable national navy.

It is not that China never had a powerful navy; Ming China was a prominent naval power in Asia at that time (1405–1433 CE), and their treasure voyages have been known to have travelled as far as the South China Sea to the Indian Ocean. Successive dynasties have not been able to continue this naval legacy for several reasons, but mainly due to the Chinese perception of itself as a continental power rather than a maritime one.¹ If China had perceived their opponents as being from the maritime domain, then China would have become a maritime power instead.

When Mao took control of mainland China in 1949, his priority in the maritime domain was to secure China's vast coastline and major riverine systems from potential invading forces. The People's Liberation Army Navy (PLAN) initially deployed what Mao coined an "Active Defense" strategy, which was essentially time-bidding; a people's protracted war strategy that would help resource-rich-but-weak China become stronger than its opponents over time.² It was a humble but potent modification of Mao's land warfare techniques. Until Mao's death, PLAN largely remained a brown-water navy.

During the Sino-Soviet split period and throughout the Cold War, China started gradually incorporating an Anti-Access Area Denial (A2/AD) strategy out of

fear of a Soviet invasion from the sea. "Anti-access" was achieved through coastal artillery, missiles, and air power, while "area denial" relied on reconnaissance, submarines, and long-range missiles that could strike deep into the waters.³ Proper naval assets were required to really achieve A2/AD, and thus from this point on, China started taking naval construction seriously.

After the fall of the USSR, China shifted its focus from continental dominance to maritime power. Since the early 1990s, PLAN has aggressively pursued naval modernization and build-up. China has also mastered the shipbuilding industry on a phenomenal scale and has become a strong green-water navy, with the required capacity to become a blue-water navy.

During President Xi Jinping's term, the modernization and expansion of the Chinese Navy have reached an unprecedented scale. Though the Chinese naval strategy and strengths continue to evolve, it is important to note that China has not abandoned its old principles, such as active defense and A2/AD capacity building. On the contrary, they have been modernised and fused with new concepts and technological prowess. Therefore, the evolution of Chinese maritime strategy cannot be seen as segmented growth with different strategies utilised at different times, but as a continuous integration of new strategies into old ones. PLAN is now the world's largest naval force in numbers and is on its way to becoming one of the most versatile and agile navies on the globe.

As Alfred Mahan has said in his works, a nation that does not have significant land boundaries to defend has an advantage in building maritime prowess compared to a nation that needs to consider continental borders in national defense.⁴ China is a big country with one of the world's longest borders to protect. Therefore, Beijing cannot focus on its navy as greatly as the US, who enjoys insular

¹ Bickford, T. & China Studies Division of CNA. (2016). Haiyang Qiangguo: China as a maritime power. In A Paper for the "China as a Maritime Power" Conference. CNA Headquarters. <https://apps.dtic.mil/sti/pdfs/AD1014584.pdf>

² Holmes, J. R. (2015, June 5). The two words that explain China's assertive naval strategy. Foreign Policy. <https://foreignpolicy.com/2015/06/03/the-two-words-that-explain-chinas-naval-strategy-active-defense/>

³ Ross, Robert S. "China's Naval Nationalism: Sources, Prospects, and the U.S. Response." *International Security* 34, no. 2 (2009): 46–81. <http://www.jstor.org/stable/40389213>

⁴ A. T. Mahan, *The Influence of Seapower upon History, 1660-1783* (New York: Hill and Wang, 1957), p. 25. See also Paul M. Kennedy, *The Rise and Fall of British Naval Mastery* (Atlantic Highlands, N.J.: Ashfield, 1986), p

surroundings, can on theirs. The Chinese naval strategy, as stated above, has evolved from being simply defensive into one that focuses on building a strong navy, capable of protecting and projecting Chinese influence in its surrounding waters. Yet, despite being the world's largest navy, PLAN focuses most of its resources on the South and East China Sea. There are several reasons for this.

First, the South China Sea is full of nations with overlapping territorial claims partly due to its complicated history, but also because the region is rich in natural resources. Not to forget that the South China Sea waters are crucial for maritime trade routes. Second, China has the largest territorial claim in the South China Sea—accounting for more than 80% of the region—and thus, needs to maintain a constant naval presence across the region. The third, and perhaps most important, reason why PLAN is hyper focused on the South China Sea and the East China Sea is because of the US. The American military presence throughout the region and strategic containment of China through the first and second island chains are major obstructions to China's global maritime ambitions. Hence, it makes less sense to project power in another part of the globe when your own neighborhood is being challenged.

Despite this, China has increased its global maritime presence and is actively working towards establishing itself as a blue-water navy. Be it Beijing's efforts to set up a base in Gabon so it can access the Atlantic Ocean—the front yard of the US—or to send survey ships to the Indian Ocean Ring (IOR), these actions signal the future ambitions of PLAN. However, for the time being, all of PLAN's grit and wit is employed in the South and East China Sea.

Therefore, the focus of this brief is on China's immediate neighborhood at sea. China is involved in maritime disputes with several nations in the region, from Japan to Vietnam and the Philippines. Additionally, there is ever-increasing tension in the Taiwan Strait. China deals with each nation differently, with varying degrees of intensity and priority. However, China's tools and techniques for maritime dominance, as well as the strategic thought behind employing them, are the same. This brief will

discuss those Chinese tools and techniques and the strategic thought behind them.

Chinese Maritime Strategy for the South and East China Sea

China's strategy in the South and East China Sea is multifaceted and involves multiple tools and techniques working together in a coordinated manner. China plans subversion through coercion, not conflict. To make sure no unwanted conflicts break out, China uses various methods to bully small nations without giving them military color. Yet, Beijing needs a strong and reliable source of power to project its dominance into the waters nearby. The People's Liberation Army Navy (PLAN) is the bedrock of that power.

People's Liberation Army Navy (PLAN)

PLAN has come a long way from being a brown-water navy to the world's largest naval force by numbers. Yet, there remain some areas where it still lags behind its main rival, the US, be it technological or operational skills and experience. However, the size of PLAN cannot be overlooked. As Stalin said, "Quantity has a quality of its own," and outnumbering your enemies almost always helps. PLAN currently boasts a fleet of more than 370 vessels and this number is likely to surpass 400 by the end of this decade. PLAN currently has 3 impressive aircraft carriers, along with a large submarine fleet with 6 nuclear-powered subs and a huge surface vessel fleet consisting of frigates, destroyers, corvettes, amphibious assault vessels, and offshore patrol vessels among others. Interestingly, this number does not include the 60 HOUBLE-class patrol vessels capable of carrying anti-ship cruise missiles (ASCM).⁵

However, what makes China's naval expansion so phenomenal is not the number of ships, but the pace at which they are inducted into the navy. In the last ten years, China has added more than 150 ships to its navy. Between 2017 and 2019, China built more vessels than India, France, the United Kingdom, Japan, and Australia combined. China's shipbuilding capacity has dwarfed that of any other nations, including the US. According to a US naval

⁵ U.S. Naval Institute Staff. (Oct. 20, 2023). Report to Congress on Chinese naval modernization—USNI News. USNI News.

<https://news.usni.org/2023/10/20/report-to-congress-on-chinese-naval-modernization-19>.

intelligence report, the capacity in gross tonnage is 23,250,000 million metric tons for Chinese shipyards, in comparison to 100,000 metric tons for the US. This means Chinese shipbuilding capacity is 232 times greater than that of the US.⁶ Even if this number is exaggerated, China's astonishing shipbuilding capacity is self-evident in its ever-expanding fleet.

Bohai, Dalian, Jiangnan, Wuchang, and Hudong-Zhonghua are some of the important shipyards in China. Out of them, Jiangnan and Hudong-Zhonghua are two important shipbuilding centers for PLAN.⁷ At Jiangnan Shipyard, China's most ambitious type 003 Fujian class aircraft carrier has been built. The Fujian features advanced systems, such as catapult-assisted take-off but arrested recovery (CATOBAR) and the Electromagnetic Aircraft Launch System (EMALS), which significantly upgrade it over China's first two carriers: Liaoning and Shandong. Besides the Fujian, this shipyard is also involved in the construction of the Yuanwang class of surveillance ships, Type 052D destroyers, and other auxiliary ships. Hudong-Zhonghua Shipyard is building a Type 075 amphibious assault ship, which will be one of the largest vessels in PLAN after aircraft carriers. This shipyard is also working on two Type 054A frigates and one Type 054B frigate. In the future, both Jiangnan and Hudong-Zhonghua shipyards are expected to move closer to each other on Changxing Island, making Changxing the most crucial shipbuilding center in China.⁸

More than 70% of the Chinese naval fleet can be categorized as modern. China is rapidly increasing its number of cruisers and destroyer vessels, which are more advanced and can carry more lethal arms onboard.

Apart from having a formidable surface fleet, China also has one added advantage which it has developed over the decades. China's A2/AD capabilities are overwhelming and undeniably capable of causing serious harm to enemy naval forces. The People's

Liberation Army Naval Air Force (PLANAF) and the People's Liberation Army Rocket Force (PLARF) are the two main branches providing area denial capability to PLAN, other than its destroyers and submarines.

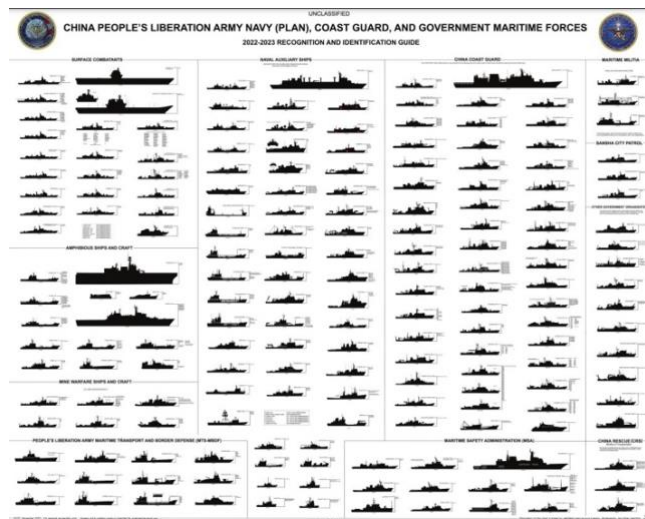


Figure 1: Display of PLAN, Coast Guard, and Government Maritime Forces. Source: US Office of Naval Intelligence.

PLANAF can provide air support to PLAN deep into the sea. It includes multirole fighter jets such as the J10, J11, and Su30MK2, as well as long-range bombers like the H-6. In addition to that, PLANAF boosts PLAN's Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance (C4ISR) capabilities. Chinese air power at sea is increasing with the addition of its new aircraft carriers.⁹

PLARF has more destructive capabilities and an even deeper reach than PLANAF. China has a plethora of missiles with every possible variation; ICBM, IRBM, MRBM, SRBM, GLCM, and anti-ship variants such as ASBM and ASCM missiles. Some notable mentions include the DF-21, also known as "Carrier Killer," the DF-26 which is known as "Guam Killer" (an American military base in the Pacific Ocean; an important island on the second island chain), and the

⁶ Trevithick, J. (July 11, 2023). Alarming Navy Intel slide warns of China's 200 times greater shipbuilding capacity. The War Zone. <https://www.twz.com/alarming-navy-intel-slide-warns-of-chinas-200-times-greater-shipbuilding-capacity>.

⁷ Tracking China's naval modernization at key shipyards | ChinaPower Project. (Nov. 22, 2023). ChinaPower Project. <https://chinapower.csis.org/analysis/china-naval-modernization-jiangnan-hudong-zhonghua-shipyard/>.

⁸ Changxing Island: the epicenter of China's naval modernization | ChinaPower Project. (Nov. 22, 2023). ChinaPower Project. <https://chinapower.csis.org/analysis/china-changxing-island-shipbuilding-base-jiangnan-shipyard/>.

⁹ Congressional Research Service. (2024). China Naval modernization: Implications for U.S. navy capabilities (No. RL33153). <https://sgp.fas.org/crs/row/RL33153.pdf>

Dongfeng 17 (DF-17), a hypersonic missile. Both PLANAF and PLARF give China unprecedented A2/AD capability. Not only can they deter enemy forces in the neighborhood, but they can also inflict serious damage deep into enemy territory.

Artificial islands

China has built approximately seven artificial islands in the South China Sea. Once ready, they are turned into full-fledged military bases for the navy, air force, and rocket forces to operate from. These islands will also help with C4ISR collection.

More importantly, these islands solidify China's territorial claim in the region. They strengthen the Eleven-Dash Line. China's artificial islands can be viewed as China's version of the "Forward Defense" strategy, which is to establish the first line of contact as far as possible from the mainland, thus providing it protection from direct attacks. Artificial islands can also be seen as China's counter to the "Island Chain" containment policy of the US.

Naval air power projection is an area where China still comparatively lags behind the US, for the US simply possesses more aircraft carriers. However, as far as the South China Sea is concerned, islands provide China with more air power; they also pave the way for the diversification of military bases, which are typically concentrated on a few places on mainland China. Beijing has militarized at least three artificial islands, built airstrips for fighter jets, and stationed anti-air and anti-ship missile batteries, along with laser, electronic warfare, surveillance systems, and ship-docking facilities on these islands.

China's Coast Guard

After the Navy, the most lethal weapon at China's disposal is its coast guard. Naval forces are usually meant for offensive operations in deep waters. Their involvement naturally gathers more attention and is seen as a military movement, whereas the Coast Guard is meant to play a defensive role in protecting coastal areas and operating in shallow waters. The Coast Guard is meant to protect fishermen, monitor the conservation of the environment, and prevent

smuggling, illegal trafficking, and illegal entry. Although, for the Chinese Coast Guard (CCG), these are secondary goals.

China's Coast Guard is only a decade old – founded in 2013 – yet it has managed to become the biggest coast guard in the world, not just in numbers but also in size and armory. The largest cutter of the *Zhaotou* class is called the "Monster" ship for it dwarfs even the destroyers of many navies.



Figure 2: Sentinel Hub EO Browser (ESA)

But it is not just about bigger sizes; many CCG ships are retired PLAN ships which have been refurbished and refitted with minor changes.¹⁰ These ships are equipped with many lethal and non-lethal weapons, including machine guns, anti-aircraft guns, water cannons, and military-grade laser weapons. They are not just meant to scare enemies off; China's Coast Guard Law (2021) allows CCG ships to use lethal



Figure 3: A China Coast Guard ship. Source: Asian Military Review

¹⁰ Lin, Y. Y. (2019, January 30). Changes in China's coast guard. The Diplomat. <https://thediplomat.com/2019/01/changes-in-chinas-coast-guard/>.

force, if necessary, to protect China's territorial claims. There have been incidents where the CCG has used water cannons and lasers to harass foreign vessels, with the most recent victim being the Philippines.¹¹

The main role of the CCG is to reassert Chinese territorial claims along the Eleven-Dash line. The CCG does not hesitate to use force, as long as it is within the limits of coercion and does not trigger conflict. The CCG allows China to bully small nations in the region without powerful navies nor coast guards. They also provide China with complete control of the situation, allowing things to escalate per Beijing's requests and keeping bigger powers out. This is China's calculated and controlled offensive strategy, which has been used to steadily gain influence and power in the seas. However, the CCG is often only second to reach the disputed areas; the first being the Chinese Fishing Fleet, also known as maritime militia in disguise

Chinese Fishing Fleets and Maritime Militia



Figure 4: Source Gilles Sabrie

The Chinese maritime militia, also known as the People's Armed Forces Maritime Militia (PAFMM), has a long history dating back to even before the communist takeover of China.¹² However, maritime

militia became highly crucial after the CCP took control. These vessels have steel hulls and a variety of small weaponry, along with an armed crew. They identify themselves as fishing boats, but that's just one part of the job. These vessels can swarm waters, surround or block targets, and do not back down from harassing foreign coast guards or even navies, let alone wooden-made small fishing vessels of other nations.

PAFMM also has a history of joining military operations.¹³ In 1974, during the Battle of the Paracel Islands against South Vietnam, China's maritime militia played a crucial role in slowing down the Vietnamese action and delivering PLA soldiers through two fishing trawlers to the Western Paracels, effectively winning the battle. The CCP also placed importance on the militia in the initial years of its rule. There were several reasons for this. PLAN was still in its infancy and could not defend China's oceans from potential invasions or aggressions alone. The CCP leadership was also heavily influenced by the "Young School" thought, which originated in the Soviet Union and was proven quite successful as well. It was argued that land-centric powers cannot spend much on maritime defense. It led the Soviets to focus more on irregular naval warfare and invest in coastal submarines, torpedo boats, and other cheaper measures instead of costly deep-water vessels.

Thus, the obvious question arises. China is not the same as it was 70 years ago, they do not need to worry about the defense budget and are spending more on the navy than they ever did. PLAN is also now a formidable navy, so what relevance does the maritime militia have now? The answer to that question lies in the changed goals of China's maritime strategy. The "Active Defense" doctrine discussed in the beginning of this brief is now turning into an "Active Offense" strategy to push China's power further and into the deep seas; maritime militias are China's first line of offence.

¹¹ Braw, E. (2024, January 8). Why China is stepping up its maritime attacks on the Philippines. Foreign Policy. <https://foreignpolicy.com/2023/12/13/philippines-china-maritime-conflicts-south-china-sea-vessels/#:~:text=3%3A39%20PM-On%20Dec,seized%20by%20China%20in%202012>.

¹² Army University Press. (n.d.). China's maritime militia and fishing fleets. <https://www.armyupress.army.mil/Journals/Military->

<Review/English-Edition-Archives/January-February-2021/Panther-Maritime-Militia/>.

¹³ Grossman, D., & Ma, L. (2020, April 6). A short history of China's fishing militia and what it may tell us. RAND. <https://www.rand.org/pubs/commentary/2020/04/a-short-history-of-chinas-fishing-militia-and-what.html>.

China's fishing maritime militias are the first ones to show up in contested areas; making claims to resources and harassing smaller local fishing boats and coast guards. Just behind the militias, comes the Chinese Coast Guard to follow up, assert China's territorial claims, and coerce weaker coast guards and navies into subversion. All of this happens with the blessing of PLAN, who makes sure that the situation does not escalate into conflict through the CCG and militias. This is how China carries out its "Controlled Coercion" in the seas.

China's civilian ships: A dual-use fleet

China has the world's largest commercial or civilian fleet; it overtook Greece in gross tonnage in 2023. Beijing also boasts the largest civilian research fleet in the world, which should not come as a surprise after acknowledging the Chinese shipbuilding capacity. Research vessels (RV) are designed to carry out research for commercial and scientific purposes. Hydrographic surveys, oceanographic research, oil and gas exploration, and fisheries research are some of its functions. However, some of these scientific and seemingly harmless research have high importance for military use. Hydrographic surveys, in particular, provide deep insights into the topography of the seabed and terrain specifications such as slopes, reef geography, etc.; all of which helps submarines navigate their way underwater without being detected.

This becomes all the more important for China as their submarines are still comparatively well behind their Western counterparts and lack the stealthiness enjoyed by US submarines. China is also concerned about its Sea Lines of Communication (SLOC) and energy imports being threatened by choke points, such as the Malacca Strait and Hormuz Strait, as well as island chains, which can be used to construct a maritime blockade of China. Beijing is therefore investing heavily in its research ships to gather hydrographical data to assist covert operations in the future.



Figure 5: Satellite image of a Chinese survey ship since 2019. Source: HI Sutton, 2021

China has nearly 60 research vessels of different categories as per the requirements. Ships of the *Xiang Yang Hong* class¹⁴ have made news headlines on several occasions due to their constant presence in the Indian Ocean Region, especially in the vicinity of Ninety East Ridge.¹⁵ Another recent mention is of the new *Zhu Hai Yun* research vessel, which circumnavigated Taiwan in 2023.¹⁶

The next steps of China's push to bring civilian ships into military missions are quite worrying and strangely made public by Beijing. The first possibility has direct repercussions in the near future if China decides to invade Taiwan. The invasion of Taiwan will be naval and, therefore, a difficult one. China will require many amphibious landing vessels to deploy troops and equipment. Indeed, these vessels will be constantly attacked. Thus, to ensure the availability of amphibious landing vessels, China has roped in civilian vessels to be ready to deploy PLA troops and equipment if the need arises. In a naval exercise in July 2020, the commercial car ferry *Bang Chui Dao* participated and worked as an amphibious landing vessel for PLAN. The 15,500-tonne ferry carried armored vehicles along with other equipment. In 2022, China repeatedly used commercial roll-on-roll-off ferries for amphibious landing exercises.¹⁷ This time, several civilian ships participated, clearly displaying China's intent.

¹⁴ Chun, Z. (2022, February 10). Nine extraordinary Chinese research vessels. *China Dialogue Ocean*. <https://chinadialogueocean.net/en/climate/15239-nine-extraordinary-chinese-research-vessels>.

¹⁵ Staff, S. (n.d.). ExpLAIINED: What are Chinese survey ships up to in the Indian Ocean. *Swarajyamag*. <https://swarajyamag.com/defence/explained-what-are-chinese-survey-ships-up-to-in-the-indian-ocean>.

¹⁶ Powers-Riggs, M. P. F. B. H. A. (n.d.). Skirting the Shores: China's New High-Tech Research Ship Probes the Waters around Taiwan. <https://features.csis.org/snapshots/china-research-vessel-taiwan/>.

¹⁷ Sutton, H. I. (2022, September 28). Chinese Launch Assault Craft from Civilian Car Ferries in Mass 14 Amphibious Invasion Drill, Satellite Photos Show--USNI News. *USNI News*. <https://news.usni.org/2022/09/28/chinese-launch-assault-craft-from-civilian-car-ferries-in-mass-amphibious-invasion-drill-satellite-photos-show>.

China is not stopping at this; it has shown clear intentions to use civilian ships as auxiliary fleets for PLAN. However, Beijing also has plans to convert these commercial vessels into full-fledged warships that can reach the far corners of the world without being detected. This project is called the “Container-type Sea Defense Combat System” (CSDCS).¹⁸ China’s commercial fleet is present in all seas, carrying cargo through large container ships. Despite growing tensions with China, many nations prefer Chinese shipping due to cheaper costs. These ships, therefore, enjoy access to seas that PLAN ships do not. China can use this to its advantage in times of conflict.

In 2022, China’s China Aerospace Science and Industry Corporation (CASIC) introduced a new type of naval missile defense system that could fit into containers. On the outside, the container looks like any other regular container carried by cargo ships, but it can actually carry an entire missile launch system. This container-based system does not require any external power sources and only requires four personnel to function. The system can carry up to 4 missiles, which include the YJ-12E and YJ-18E supersonic ASCMs, the YJ-83 medium-range ASCM, the YJ-62 long-range subsonic ASCM, and the PL-16 anti-radiation CM.

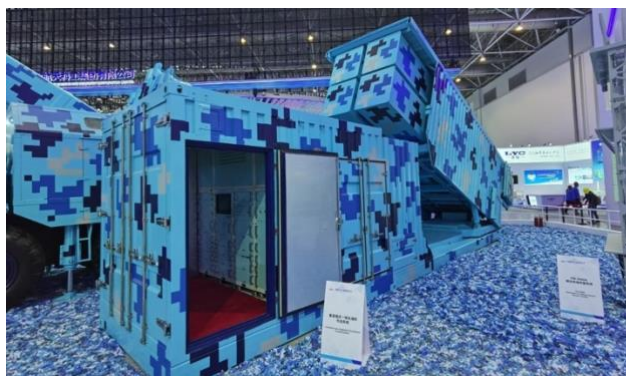


Figure 6: Photo credit: Global Times

With this type of weapons system, China can easily wage asymmetric warfare at sea and would be able to do so with much more impact than its potential rivals. It would not take China much time to convert its civilian ships into the Chinese navy. The People’s

Liberation Army Navy, therefore, is a much more lethal force than what its appearance suggests.

Conclusion

China’s maritime strategy began with a navy that was not formidable enough to protect its coasts, let alone project power on the seas. Therefore, Beijing was forced to diversify its maritime defenses and not rely solely on the navy. This led to the start of the symbiotic relationship between the Navy, other military branches, such as the PLA Rocket Force, and non-military components such as fishing militias. With time, other new components, such as the Coast Guard and civilian shipping fleets, joined this cluster and acted as aids to PLAN. As China rises economically and militarily, its maritime ambitions have also grown. From being protectionist, Beijing started to project power on the seas. However, the Chinese Navy, which has become a formidable force by now, has not given up its old aids. Instead, they have become its instruments of coercion and assets in disguise. The Chinese Coast Guard, maritime militia, and artificial islands help the Chinese navy reassert its claims in the region and coerce those who oppose it. China’s gigantic shipbuilding industry and massive civilian fleet work as dual-use assets, which can be used to PLAN’s advantage in times of conflict.

China is effectively using all these tools to implement its “Coercion, not Conflict” strategy in the South and East China Sea. Therefore, it is of absolute importance to not just look at the Chinese Navy when studying China’s maritime strategy as the CCP is using all resources at its disposal to protect and project its maritime dominance.

¹⁸ Global Times. (Nov. 12, 2021). China debuts container-type missile launch system; weapon can ‘effectively improve defense capabilities of

coastal countries.’ Copyright 2021 by the Global Times. <https://www.globaltimes.cn/page/202211/1279349.shtml>.

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