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### **ABOUT THE COVER:**

The cover illustration draws an allusion between today's Chinese maritime militia, an extension of the Chinese Communist Party's military, and the 15th century voyages of Zheng He, whose fleets, under the guise of delivering gifts from the emperor, carried armed soldiers to overthrow governments in Sri Lanka, meddle in Indian politics and raid African treasures.

hybrid warfare in the Indo-Pacific.

Dear Readers,

asymmetric threats.

After the People's Republic of China (PRC) took
Scarborough Shoal by force from the Philippines in 2012, the Chinese
government waged a near decadelong campaign to control the bulk of
the disputed South China Sea by building a network of military bases
on artificial features created by its dredging fleet. The PRC's resulting
territorial grab remains the most prominent example of the regime's use of

elcome to Indo-Pacific Defense FORUM's issue on

This edition of FORUM calls attention to the importance of integrated deterrence in countering continuing and emerging asymmetric threats, which fall below the threshold of conventional warfare. The issue also illuminates why and how Indo-Pacific allies, partners and like-minded nations can ensure security and stability in the region by proactively preparing strategic responses to such aggression and coercion.

In the opening feature, retired U.S. Army Col. Arthur N. Tulak examines the prevailing strategic approach by allies and partners to counter Chinese and Russian gray-zone activities. Implementing integrated deterrence with a focus on hybrid warfare and coercion requires developing clear theater-level concepts and objectives that target the behaviors of the PRC and Russia, Tulak argues. A coordinated, multiyear campaign is required to change the cost-benefit calculations on using such aggressive tactics, he writes.

In a revealing analysis, a team of experts describe how the PRC has shifted its focus from building bases on artificial features to asserting control over activity in the South China Sea by employing a maritime militia to achieve the Chinese Communist Party's (CCP's) objectives. An article by FORUM staff chronicles how infrastructure projects pushed by the PRC's One Belt, One Road scheme have saddled many Indo-Pacific countries with unsustainable debt. In another article, geostrategist and author Brahma Chellaney describes how the CCP has weaponized water in the Indo-Pacific. He writes that the regime's asymmetric control over crossborder flows of rivers through its construction of large, upstream dams increases the likelihood of conflicts over water.

With hopes of helping change the PRC's regional calculus, other articles in this edition point to possible solutions, including strengthening regional alliances and partnerships and protecting the semiconductor industry and other supply chains. A FORUM staff article details how Balikatan 2022 brought interoperability, partnership and the alliance between the Philippines and the United States to new heights. The piece also reveals how the ever-strengthening bond between the nations increases integrated deterrence in the Indo-Pacific.

We hope these articles encourage regional conversations on countering asymmetric threats. We welcome your comments. Please contact the FORUM staff at ipdf@ipdefenseforum.com to share your thoughts.

All the best, **FORUM Staff** 

### IPD FORUM

### **Asymmetric Threats**

Volume 47, Issue 4, 2022

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Indo-Pacific Defense FORUM is a professional military magazine published quarterly by the commander of the U.S. Indo-Pacific Command to provide an international forum for military personnel of the Indo-Pacific area. The opinions expressed in this magazine do not necessarily represent the policies or points of view of this command or any other agency of the U.S. government. All articles are written by FORUM staff unless otherwise noted. The secretary of defense has determined that the publication of this magazine is necessary for conducting public business as required by the Department of Defense.

ISSN 2333-1593 (print) ISSN 2333-1607 (online)



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Juggernaut: The Rise of China, India, and Japan," and award winners such as "Water: Asia's New Battleground," published by Georgetown University Press, and "Water, Peace, and War: Confronting the Global Water Crisis," published by Rowman & Littlefield. Featured on Page 30

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# Join the Discussion

## WE WANT TO HEAR FROM YOU!

Indo-Pacific Defense FORUM serves military and security personnel in the Indo-Pacific region. A product of U.S. Indo-Pacific Command, the quarterly magazine provides high-quality, indepth content on topics that impact security efforts across the region — from counterterrorism to international cooperation and natural disasters.

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# **2 PLUS 2** Bolsters Shared Security

The defense ministers of Japan and the Philippines agreed in April 2022 to bolster security cooperation and expand joint drills between their forces as they shared concerns about the People's Republic of China's (PRC's) increasingly assertive military actions in the region.

Then-Japanese Defense Minister Nobuo Kishi and then-Philippine National Defense Secretary Delfin Lorenzana also shared concern about Russia's invasion of Ukraine and its impact in the Indo-Pacific. They also noted that any attempts to change the status quo by force is unacceptable, Japan's Defense Ministry said in a

statement that did not name the PRC.

Kishi and Lorenzana were later joined by Japanese Foreign Minister Yoshimasa Hayashi and then-Philippine Foreign Secretary Teodoro Locsin Jr. for the countries' first "two plus two" security talks. Japan has significantly expanded joint drills with the United States and other partners, including Australia, France, Germany, India and the United Kingdom, that share its concerns about the PRC's assertion of territorial claims in the region, which has some of the world's busiest sea lanes.

Japan is especially concerned about Chinese military and coast

guard activity in the East China Sea near the Japanese-controlled Senkaku Islands, which the PRC also claims.

Kishi and Lorenzana also agreed to increase cooperation in defense equipment and technology transfer. Tokyo and Manila agreed in 2020 on the Japanese export of air radar systems to the Philippine military. The Associated Press

From left: Then-National Defense Secretary Delfin Lorenzana and then-Foreign Secretary Teodoro Locsin Jr. of the Philippines and Foreign Minister Yoshimasa Hayashi and then-Defense Minister Nobuo Kishi of Japan hold security talks in Tokyo in April 2022.



# Quad Partnership Key TO TRADE PACT

Australia and India's trade ministers said a shared security partnership with Japan and the United States helped them strike a trade deal that Australia hopes will reduce its dependence on exports to the People's Republic of China.

India views the agreement signed in April 2022 as a diplomatic coup that deepens its engagement with Australia.

Both countries belong to the security bloc known as the Quadrilateral Security Dialogue, or Quad, which also includes Japan and the U.S. (Pictured: Indian Prime Minister Narendra Modi speaks during a virtual summit in March 2022 to then-Australian Prime Minister Scott Morrison.)

For Australia, the deal opens a huge market to exporters. Friction between Canberra and Beijing has brought a series of official and unofficial Chinese trade sanctions on Australian exports including coal, beef, seafood, wine and barley.

Then-Australian Trade Minister Dan Tehan said at a news conference with Indian Commerce Minister Piyush Goyal in Melbourne that the Australia-India relationship was growing strong through the Quad.

"Keeping the Indo-Pacific free and open as a place where liberal democracies can flourish is just so, so important," Tehan said.

"We now have a Quad between Japan, Australia, the U.S. and India which has many dimensions, both strategic, political. They're working to ensure peace and stability, greater economic partnership between countries in this region," Goyal said.

"I'm quite sure that that dimension on geopolitics, that dimension on the larger world good, is going to bring our two countries closer together," he added. The Associated Press



# Positioning Against PROVOCATIONS

dvisors to South Korea's then-incoming president sought redeployment of United States strategic assets, such as nuclear bombers and submarines, to the Korean Peninsula during talks in Washington in April 2022.

The team of foreign policy and security aides to President Yoon Suk Yeol met with U.S. National Security Advisor Jake Sullivan as Yoon, who was elected in March 2022 and took office two months later, seeks a more constant security presence to deter threats from North Korea as Pyongyang steps up weapons tests.

"Deploying the strategic assets is an important element of reinforcing the extended deterrence, and the issue naturally came up during the discussions," said Park Jin, a four-term lawmaker who led the South Korean delegation.

He said they also explored ways to bolster U.S. extended nuclear deterrence against the North Korean threat.

A White House official said the sides "discussed generally" U.S. defense commitments.

The talks came after tensions flared over North Korea's launch of a new intercontinental ballistic missile in March 2022.

The deployment of U.S. bombers, aircraft carriers and nuclear submarines is part of Yoon's election plank promising to "respond firmly" to the North's threats.

Yoon has also vowed to "normalize" joint military drills with the U.S. that were scaled back under his predecessor, Moon Jae-in, in a bid to resume stalled talks to denuclearize the peninsula. (Pictured: Then-South Korean President-Elect Yoon Suk Yeol meets Gen. Paul J. LaCamera, center, United Nations Command, Combined Forces Command, U.S. Forces Korea Commander; and Republic of Korea Gen. Kim Seung-kyum, right, Combined Forces Command, Deputy Commander at Camp Humphreys in South Korea in April 2022.)

"We agreed that what's most important is to maintain deterrence so that we can strongly respond to any possible North Korean provocations," Park said. Reuters

### Global 'Driving Force'

n organization of seven Bay of Bengal nations said its members must urgently use their geographical advantage and other resources to address their vulnerabilities and collectively strengthen their ability to face calamities.

In a declaration on the final day of a three-day summit in late March 2022, pictured, the Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC) said its members resolved to work together to combat poverty, natural disasters, climate change, pandemics and transnational crime.

They also agreed to work toward food and energy security and to strengthen their links to increase trade, investment, tourism and technology, and offset economic losses caused by the COVID-19 pandemic.

"The developments in Europe in the last few weeks have raised a question mark on the stability of the international order. In this context, it has become important to make BIMSTEC regional cooperation more active," Indian Prime Minister Narendra Modi said in a virtual speech, referencing Russia's February 2022 invasion of Ukraine.



"It has also become imperative to give more priority to our regional security."

The prime minister said India would contribute U.S. \$3 million to revive the BIMSTEC Center for Weather and Climate to enable cooperation in disaster management.

The group's leaders also signed a BIMSTEC charter, which was described as a significant step toward increasing the organization's role regionally and globally.

Leaders from Bangladesh, Bhutan, India, Nepal, Sri Lanka and Thailand addressed the summit virtually. Myanmar's foreign minister, Wunna Maung Lwin, represented his country.

The Associated Press

# Integrated Deterrence

# Rethinking the strategic approach to counter the PRC's gray-zone operations

DR. ARTHUR N. TULAK/COL. (RET.) U.S. ARMY

2014, the world witnessed a seemingly new kind of warfare, conducted below the level of armed conflict, when Russia resorted to what came to be known as "hybrid warfare" to seize the Crimean Peninsula from Ukraine. However, similar methods had been employed two years earlier, when the People's Republic of China (PRC) forcibly seized Scarborough Shoal from the Philippines and then undertook a multiyear campaign of territorial conquest by using the world's largest oceangoing dredging fleet to create artificial features in the South China Sea, providing it with "blue sovereign soil" in the form of a chain of military bases built on reclaimed maritime sites. Having cemented those gains without meaningful opposition, communist China has demonstrated a greater willingness and readiness to resort to the use of lethal force to coerce its neighbors to acquiesce to its campaign of territorial expansion. It has done so through aggressive execution of territorial sovereignty operations, coercion operations carried out by law enforcement, paramilitary and military forces, and the use of elements of its "Unrestricted Warfare" and "Three Warfares" doctrines and strategies. Over the past two years, under Xi Jinping, the Chinese Communist Party (CCP) general secretary and Central Military Commission chairman, the PRC has increased the level of actual and threatened use of lethal military force along its entire southern and eastern peripheries, most significantly against the Indian, Japanese and Taiwan militaries.

The year 2014 also saw Russia employ hybrid warfare to split off eastern districts in Ukraine's Luhansk and Donetsk regions, as part of the first phase of the Russo-Ukrainian War. More recently, Russia spent a year threateningly positioning military forces on its border with Ukraine to coerce concessions on Ukraine's shift to the West. The posturing proved to be a prelude to starting a conventional military invasion of the sovereign nation in late February 2022. For the PRC and Russia, their demonstrated willingness to use force is part of a shared goal to intimidate the United States' allies and partners. Their aggression is intended

to cause allies and partners to lose faith in the U.S.'s capabilities and national will to abide by its mutual defense treaties and agreements. Such threats of force also aim to condition the U.S. and other nations to acquiesce to China's aggression and coercion.

The PRC's campaign of territorial conquest ultimately includes the self-governed island of Taiwan, while Russia's goals started with Ukraine and quite possibly include other states that were formerly part of the Soviet Union or its Warsaw Pact client states. Through this amplified aggression, both nations seek deterrence and coercive effects that preserve their territorial gains and create opportunities to continue the offensive in the operational and information environments.

After nearly a decade of success by the PRC and Russia in employing military, paramilitary, law enforcement and commercial means short of armed conflict — known as gray-zone tactics — as well as



A Chinese coast guard vessel fires a water cannon as it confronts Philippine fishermen near Scarborough Shoal in the South China Sea. The People's Republic of China forcibly seized the shoal from the Philippines. THE ASSOCIATED PRESS

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their military coercion of their neighbors, it is time to rethink the strategic approach to such challenges and how they might be deterred more effectively. Conventional deterrence has steadily regained the level of prominence it held in military, government and academic circles during the Cold War with the Soviet Union. Over the past two years, the world has seen firsthand the complexity of a challenged deterrence caused by adversarial powers' gray-zone exploitations that could put into question the effectiveness of U.S. conventional deterrence. Adversaries are using actions below the threshold of conflict to achieve strategic goals and potentially can conduct aggressive actions and consolidate gains before the U.S. and its allies can respond.

The People's Liberation
Army conducts relentless
coercive intrusions into
the air, land and sea space
of the PRC's neighbors to
wear down opponents and
create new "normal levels"
for such provocations.

To some observers, deterrence has been weakened by a real or perceived decrease in U.S. economic power, military capability and national will. As U.S. Sens. Jim Inhofe and Jack Reed warned in a May 2020 commentary for the website War on the Rocks: "Currently, in the Indo-Pacific, that foundation of deterrence is crumbling as an increasingly aggressive China continues its comprehensive military modernization." Michele Flournoy, former U.S. undersecretary of defense for policy, echoed those concerns a month later, writing in Foreign Affairs magazine that because of the "uniquely dangerous mix of growing Chinese assertiveness and military strength and eroding U.S. deterrence," the risk of war was "higher than it has been for decades."

### MESSAGING THROUGH AGGRESSION

The PRC and Russia are achieving traditional military objectives during peacetime through gray-zone warfare. It is a Cold War-like struggle that can, and indeed has, included the use of military force. Both authoritarian regimes have demonstrated a ready willingness to use military force as a backstop to gray-zone actions and for coercion. This approach can be described as messaging through aggression — a heavy-handed style

characterized by belligerence and arrogance that aims to cause the intended target to self-deter and self-censor their conduct for fear of further violence and coercion. The PRC and Russia seek to demonstrate a superiority of will in their readiness to resort to force to influence adversaries and relevant actors to accept their territorial claims and avoid confrontation.

The means of coercion can include covert intelligence operations, cyber operations, economic sanctions, election interference, employment of maritime militias, military aid to opponents, propaganda, punitive political measures, resource exploitation, support for domestic political opposition, and trade constriction, interdiction (embargos) or manipulation, among other forms.

The People's Liberation Army (PLA) conducts relentless coercive intrusions into the air, land and sea space of the PRC's neighbors to wear down opponents and create new "normal levels" for such provocations, while also improving conditions to achieve military surprise and closer launching points for more aggressive moves.

In the case of Taiwan, the PLA's intrusions are designed to deter the government from formally declaring the island's independence, while desensitizing and demoralizing Taiwan's military and civilian population and causing fatigue and stress in its combat personnel and systems. The PRC's saber rattling seeks to reduce the will of targeted nations to engage in kind, curtailing political action. Such demonstrations are meant to instill fear, doubt and worry to weaken Taiwan's resolve. In 2021 and the first half of 2022, the frequency of PLA intrusions into Taiwan's air defense identification zone and the number of aircraft per mission increased dramatically, with near-daily intrusions in 2021.

Adversaries' gray-zone victories chip away at deterrence and steadily increase their confidence that they can achieve even greater stakes in conventional warfare as the U.S. deterrence architecture is viewed as brittle and ineffective. Unconvincing responses to gray-zone aggression invite future aggression, as Elliott Abrams, a former U.S. assistant secretary of state and deputy national security advisor, wrote in a March 2022 article for National Review magazine titled "The New Cold War."

Further, as military and policy analysts David Santoro and Brad Glosserman have noted, as grayzone operations continue to mount and remain unchallenged, they can unnerve U.S. allies and contribute to a perception that deterrence is eroding. This is especially true when the operations cause or threaten the loss of life, such as the hand-to-hand fighting initiated by PLA troops along the Sino-Indian border in 2020 that left 63 dead and over 40 wounded, and the 2019 ramming and sinking of a Philippine fishing boat by a Chinese fishing vessel — suspected of



being part of the PLA's maritime militia — that left the Philippine crew of 22 stranded in the water before being rescued by a Vietnamese fishing boat.

How, then, can adversarial gray-zone operations and coercion be deterred?

"American civilian and military strategists traditionally think of deterrence in two forms: deterring conventional or nuclear war," retired U.S. Army Lt. Gen. James Dubik wrote in a January 2022 article for the Association of the United States Army. However, there is a third form of deterrence, Dubik noted, which is "deterring our adversaries from achieving their strategic goals below the threshold of conventional war."

A 2019 report, "Revisiting Deterrence in an Era of Strategic Competition," recognized the need to integrate this third form of deterrence. Santoro, Brendan Thomas-Noone and Ashley Townshend wrote the report for the United States Studies Centre in Sydney, Australia. The authors contend that the nature of strategic competition in the Indo-Pacific "demands a renewed approach to deterrence by the United States, Australia, and their allies and partners." They specifically called for a more proactive strategy to deter gray-zone coercion that would "resist, deny, or punish coercion in an integrated way."

### A 'CLEAR-EYED' DETERRENCE APPROACH

The U.S. Indo-Pacific Strategy unveiled by U.S. President Joe Biden's administration in February 2022

A Taiwan Air Force F-16 fighter monitors a Chinese bomber as it flies near Taiwan. THE ASSOCIATED PRESS

elaborates upon the concept of integrated deterrence announced by U.S. Defense Secretary Lloyd Austin in 2021. The strategy includes the concept of deterring gray-zone actions and coercion, which gives the issue more prominence than found in the 2019 version of the strategy. The 2019 strategy acknowledged Chinese gray-zone activities as incrementally changing the security posture but did not call for deterring them. It highlighted that allies and partners are force multipliers from the deterrence and warfighting perspectives. This amplification effect stems from the ability of allies and partners to operate seamlessly alongside U.S. joint forces, the result of efforts and investments to establish and maintain interoperability in tactics, communications and weapons systems.

Austin addressed the importance of allies and partners in the new strategy, explaining that "integrated deterrence also means working with partners to deter coercion and aggression across the spectrum of conflict, including the so-called gray zone." The 2022 U.S. Indo-Pacific Strategy called for developing "initiatives that reinforce deterrence and counter coercion, such as opposing efforts to alter territorial boundaries or undermine the rights of sovereign nations at sea." It also included an action plan to be accomplished by early 2024, providing a sense of urgency and immediacy to the task.

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A major impetus for integrated deterrence is the need to manage the risk of unexpected effects and outcomes of deterrence operations that are not fully integrated across the U.S. government and with allies and partners. "U.S. deterrence efforts focused on one potential adversary may have undesired and unforeseen second and third order effects on our assurance, dissuasion, and deterrence efforts focused on other actors," the U.S. Defense Department noted in its 2006 "Deterrence Operations: Joint Operating Concept." The U.S. military's geographic combatant commands must ensure that they integrate deterrence with each other, as well as with allies and partners in their respective areas of responsibility. U.S. Indo-Pacific Command (USINDOPACOM), for example, shares a common threat in Russia, which, of course, is a core focus of U.S. European Command and U.S. Strategic Command. The PRC's ever-expanding global presence, meanwhile, requires all combatant commands to contribute to the integrated deterrence effort led by USINDOPACOM.

Implementing integrated deterrence with a focus on gray-zone actions and coercion requires developing clear theater-level concepts and objectives that target the behaviors of the PRC and Russia. The 2006 U.S. Joint Operating Concept provided the guidance and framework for developing deterrence objectives and effective deterrence operations. It specifically addressed the threat of gray-zone operations, explaining that deterrence constructs must have the flexibility to serve as a hedge "against"

A U.S. Air Force B-2 Spirit bomber flies in formation with fighter aircraft of the Royal Australian Air Force and the U.S. Air Force during a March 2022 bilateral training mission in support of a Free and Open Indo-Pacific. TECH SGT. HALLEY HAUX/U.S. AIR FORCE

the possibility that an adversary might incorrectly perceive their actions to be 'below the radarscope' of U.S. resolve and response."

Changing these perceptions requires clarity of messaging and operations to counter and blunt gray-zone actions. Regarding the execution of the deterrence concept, Dr. Mara Karlin, U.S. assistant secretary of defense for strategy, plans and capabilities, has argued that deterrence activities "must be regular, so the Pentagon routinely considers the impact of its deterrence-related decisions." Second, they must "be rigorous to ensure all relevant parties respect their findings, even if they disagree with them. And lastly, [they] must be clear-eyed." As Adm. Sam Paparo, commander of U.S. Pacific Fleet, remarked at the Navy League Sea, Air, and Space Symposium in April 2022, effectively communicating the U.S. deterrence message is the line of operation that "encompasses all" of the deterrence effort in terms of changing adversary perceptions of national, alliance and coalition will and capabilities.

The Joint Operating Concept reinforces this, explaining that deterrence must be woven into daily operations, which means it must be reflected in campaign plans and orders, crisis response

plans and all phases of conflict planning. The U.S. Defense Department document makes clear that peacetime campaign activities should be the building blocks for deterrence operations, and that peacetime deterrence operations must be able "to extend through crisis, armed conflict, escalation/de-escalation, war termination, and post-hostilities activities."

# Adversaries will assess the effectiveness of the force posture changes and capability improvements, but the military component of deterrence must be made clear.

Integration with other elements of national power and with allies is necessary to present adversaries with multiple challenges simultaneously. If military components of power are not clearly part of a broader integrated deterrence, retired U.S. Air Force Col. Thomas A. Drohan has written, then "operations such as demonstrations of force, freedom of navigation operations and multilateral exercises, and military relations with Chinese leaders, are unlikely to change China's behavior." Likewise, deterrence operations built on nonmilitary means that are not reinforced by a clear, perceivable and relevant element of military power are likely to fail. For example, countering the PRC's legal warfare, or lawfare, by citing international norms and laws has failed to deter its territorial expansion, Aurelia George Mulgan, an expert in Japanese politics and Northeast Asian security issues at Australia's University of New South Wales, noted in an article for The Diplomat magazine.

Likewise, countering gray-zone activities such as the illegal, unreported and unregulated fishing by the PRC's massive fishing fleet — the world's worst offender, according to the Geneva-based Global Initiative against Transnational Organized Crime — requires integrated approaches. To combat this form of economic warfare, the U.S. employs adaptive force packaging that combines the U.S. Navy's military power with the U.S. Coast Guard's law enforcement authority, presenting a visible deterrence activity and capability.

The military element of power is essential for any deterrence strategy. The Pentagon identified the PRC as the "No. 1 pacing challenge" for the U.S. and, in 2020, unveiled the Pacific Deterrence Initiative to identify and implement the force posture and capabilities required for deterrence in the region. Adversaries will assess the effectiveness of the force posture changes and capability improvements, but the military component of deterrence must be made clear. This may be represented in the form of fielded forces; bilateral and multilateral exercises (and the attendant increases in interoperability); demonstrations of relevant capabilities in experiments and exercises; and financial investment in critical warfighting capabilities. The last of these is evident in the U.S. government's funding of Pacific Deterrence Initiative priorities to enhance force posture, multidomain training, experimentation and theater missile defense.

### A FRAMEWORK FOR PARTNERSHIP

Cooperative partnerships with like-minded nations are critical for national, regional and global security. The 2019 Indo-Pacific Strategy highlighted the necessity of integrating the contributions of allies and partners into collective security. Through that strategy, the U.S. committed to reinforcing established alliances and partnerships while seeking to develop mutually beneficial cooperative frameworks to enhance collective security. In their report that year for the United States Studies Centre, Santoro, Thomas-Noone and Townshend noted that deterrence efforts and operations, if coordinated and integrated with allies and partners, can "diffuse the costs of Chinese actions and multiply the impact of individual nations' deterrence strategies."



U.S. Secretary of State Antony Blinken discusses the new U.S. Indo-Pacific Strategy during a speech in Jakarta, Indonesia. THE ASSOCIATED PRESS

In 2020, then-U.S. Defense Secretary Mark Esper elevated the planning and supervision of efforts to develop alliances and partnerships with publication

of the Guidance for Development of Alliances and Partnerships. The guidance provides "the foundational direction and priorities for achieving a coordinated strategic approach with our allies and partners," according to the Joint Chiefs of Staff. Its purpose is to ensure the U.S. Defense Department sustains long-term strategic advantage through more coordinated, competitive efforts, leveraging the inherent strengths of the department's relationships. Guidance priorities include a more coordinated force planning methodology "to help coordinate ally and partner militaries' force development for more capable future forces."

# Integrated deterrence requires investment in building collective capacity, nation by nation, with resources that can support a coalition.

The U.S. Strategic Framework for the Indo-Pacific, developed in 2018 by the U.S. National Security Council and declassified in 2021 (in part, to explicitly communicate U.S. intentions and to deter the PRC from invading Taiwan), noted that strong alliances are essential to deter aggression and prevent open warfare. It also addressed the threat of coercion and malign influence by offering assistance to other Indo-Pacific nations in countering the PRC's intelligence, espionage, clandestine and influence operations against their sovereign territory. The 2022 U.S. Indo-Pacific Strategy builds upon this and other previous frameworks and guidance to rely upon the collective capacity of allies and partners for deterrence.

Integrated deterrence requires investment in building collective capacity, nation by nation, with resources that can support a coalition. Countering the PRC's efforts to expand its sphere of influence requires "rallying greater multilateral resistance to Chinese power, even at the cost of a tenser, more militarized Asia," Hal Brands, a professor of global affairs at the Johns Hopkins School of Advanced International Studies and a former special assistant to the U.S. defense secretary for strategic planning, wrote in National Review in March 2022. The 2022 U.S. Indo-Pacific Strategy broadened the scope of relevant allies and partners and acknowledged heightened expectations for "European partners even on the most high-stakes areas of disagreement with China, like the future of Taiwan," Vikram J. Singh, a senior advisor to

the U.S. Institute of Peace's Asia Program, noted in a March 2022 commentary for the institute's website. If deterrence efforts are to be fully integrated, allies and partners must play more prominent roles, and the U.S. must be ready to facilitate such efforts.

Interoperability, too, is a key component of collective capacity and, thus, directly supports deterrence. "Across the region, the United States will work with allies and partners to deepen our interoperability and develop and deploy advanced warfighting capabilities as we support them in defending their citizens and their sovereign interests," the 2022 U.S. Indo-Pacific Strategy noted. As stated previously, allies and partners are force multipliers. "The deterrent impact of such cooperation and integration is both political and military in nature," the Pentagon's Joint Operating Concept noted, with the political impacts being "primarily derived from the effects that coalition-based responses have on adversary decision-makers' perceptions of U.S. and allied political will."

Integrated contingency planning among key allies is one recommended approach to demonstrate combined opposition to a potential PRC invasion of Taiwan. Deterrence efforts against the PRC's coercion and grayzone actions must be balanced alongside conventional deterrence against other threats, including the possible resumption of Chinese attacks on Indian forces along the nations' disputed Himalayan border, known as the Line of Actual Control. As allied and partner interoperability improves, it will factor into the CCP's decision-making on whether to spark a war of choice.

### CHANGING THE DECISION-MAKING

The importance of getting it right is captured in a 2018 observation by Rand Corp. analyst Mike Mazarr. Deterrence failures are easier to spot than deterrence successes, as the absence of war does not necessarily mean that deterrence is working. However, when war breaks out, it is fair to analyze where a deterrence strategy went wrong. The yearlong "sitzkrieg" of Russia's coercive force deployments along the borders of Ukraine provided ample time to mount effective deterrence operations and efforts to prevent a Russian invasion, and yet Russia was not deterred. In his testimony before the U.S. House Armed Services Committee, Gen. Tod Wolters, commander of U.S. European Command, admitted that the U.S. strategy to deter Russia from invading Ukraine had failed. U.S. Rep. Mike Gallagher made the same arguments before the committee and in an opinion article in The Wall Street Journal newspaper.

Alongside deterrence operations undergirded with credible military capabilities and will, the U.S. must also reassure allies and partners that it has their back in helping ensure their security. If the U.S. offers no pushback to adversary gray-zone actions and coercion, allies and partners may lose confidence and begin to hedge their bets, rather than stand firmly against the



military threat. For example, the Philippines lost control of Scarborough Shoal in June 2012 following a U.S.-negotiated mutual withdrawal that only Manila observed, leaving the PRC in possession of Philippine territory. The standoff, which began two months earlier, resulted in consultations between the U.S. and Philippine governments in Washington, D.C., but the U.S. was not clear whether the U.S.-Philippine Mutual Defense Treaty covered Philippine-controlled islands in the South China Sea, which contributed to ambiguity about whether the U.S. would intervene directly if needed. The Philippines expected more support and sought to maximize U.S. involvement in resolving the crisis, but the PRC seized control of the shoal after dispatching greater force to displace Philippine vessels, according to the Asia Maritime Transparency Initiative. In 2014, the Chinese defense ministry publicly stated that the shoal is part of "China's inherent territory." Such assurance failures discredit future deterrence efforts.

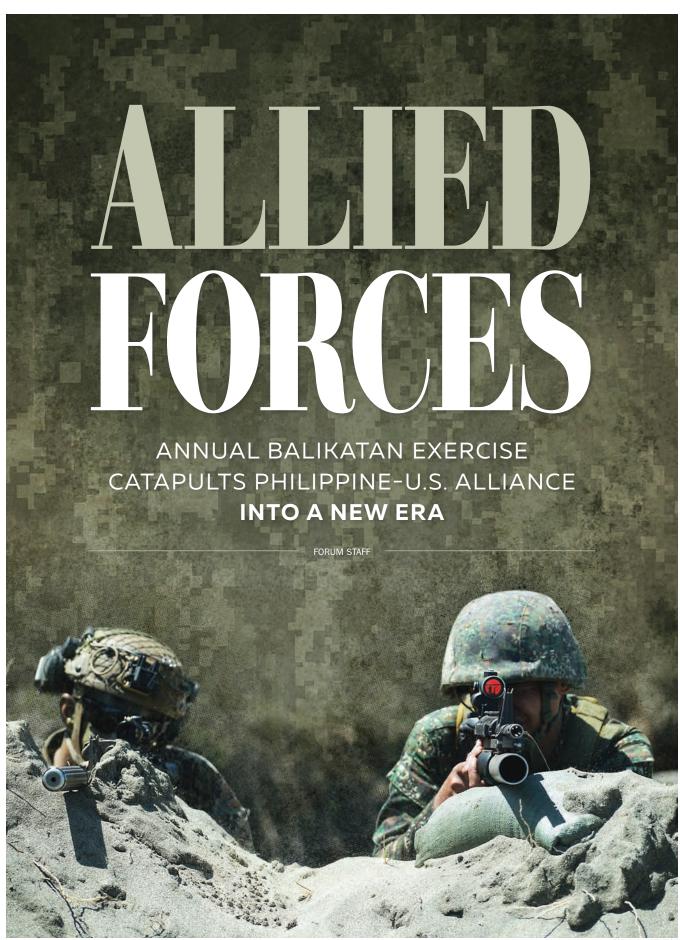
Acknowledging that allies and partners will draw conclusions about Washington's reliability as a security partner from the experience of others, President Biden's administration has been assuring them of the U.S.'s commitment. In August 2022, for example, Secretary of State Antony Blinken assured Manila that the U.S. would come to its defense if the Philippines was attacked in the South China Sea, Reuters reported. Blinken said the nations' Mutual Defense Treaty is ironclad. "An armed attack on Philippine Armed Forces, public vessels and aircraft will invoke U.S.

Taiwan Armed Forces units conduct a live-fire drill to deter a coastal landing force during Han Kuang in September 2021. The five-day exercise prepares the military for a potential invasion of the self-governed island by the People's Republic of China. THE ASSOCIATED PRESS

mutual defense commitments under that treaty," Blinken said. "The Philippines is an irreplaceable friend, partner and ally to the United States."

For integrated deterrence to prevail, there must be a multiyear campaign that is coordinated with allies and partners and collectively assessed and refined to increasingly complicate the PRC's calculus and decision-making regarding aggression. Adversaries need to see an effective capability that is positioned where it can impose costs, operated by competent and trained forces, and backed by a clearly articulated national will and commitment. As retired U.S. Army Gen. Jack Keane remarked during a March 2022 broadcast on Fox Business: "We truly have to establish an effective military deterrence. It is not enough to have a large military power on paper and not have it deployed to where the threat is."

"Deterrence is not 'waged' in a vacuum," as the 2006 U.S. Defense Department's Joint Operating Concept explained. It requires a strategy supported by deterrence operations concepts and clear deterrence objectives. Paparo reinforced this in his April 2022 remarks, noting that "deterrence is not an activity [by itself], but it is an outcome" and a necessity for preserving a Free and Open Indo-Pacific. □



In a simulated defense scenario, the Armed Forces of the Philippines (AFP) and United States troops amphibiously landed several Patriot surface-to-air missile systems on a northern Luzon beach in the Philippines and then transported them to inland sites. Off Luzon's northern coast, Philippine Black Hawks and U.S. Apache and Chinook helicopters coordinated cross-deck operations at day and night. Meanwhile, combined and joint forces launched high altitude balloons from Central Luzon to rehearse presenting a targeting dilemma for a potential adversary.

Through such robust activities, Balikatan 2022 brought interoperability, partnership and the alliance between the Philippines and the U.S. to new heights. The 37th iteration of the exercise, which ran from March 28 through April 8, 2022, deepened the meaning of the Tagalog phrase for which it's named — "shoulder to shoulder" — and showcased how the ever-strengthening alliance increases integrated deterrence in the Indo-Pacific.

At the core of Balikatan 2022, an unprecedented, highly realistic command and control exercise helped lay the foundation for a forthcoming, even more sophisticated Balikatan 2023. The overall exercise demonstrated many technological firsts between the militaries and fostered an unrivaled esprit de corps among the aligned troops. The Philippine Air Force, Army, Coast Guard, Marine Corps, Navy and special operations forces teamed with the U.S. Air Force, Army, Marine Corps, Navy, Space Force and Special Operations Command to conduct an array of combined and joint interoperability events such as an air assault drill, a combined arms live-fire exercise, training in an urban environment and providing humanitarian assistance. About 4,200 AFP and 4,440 U.S. military personnel displayed how using current capabilities, devising new ones and deploying them together in novel, integrated ways enhances deterrence.

Referring to the AFP's program to transition the military to an external defense focus, AFP Maj. Gen. Jeffrey Hechanova, deputy chief of staff for plans, told FORUM that "we are excited this year because we are able to use some of the equipment that we bought under the modernization program."

"Before, we just saw U.S. aircraft or U.S. fighters flying. Now, we are flying together because our FA-50s arrived. Now, we are sailing together because we had some frigates that arrived. We are conducting amphibious operations together because we had some equipment also. We have some air defense equipment that came in. We have some howitzers," he said during an interview at Camp Aguinaldo, the AFP's general headquarters in Quezon City on the outskirts of metro Manila, which housed Balikatan's command center.

Philippine and U.S. Marines provide security during an amphibious landing in Claveria in late March 2022.

LANCE CPL. MADISON SANTAMARIA/U.S. MARINE CORPS

### **HUMAN BONDS**

Balikatan 2022 reflected the strong historical and cultural ties between the Philippines and the U.S. and the nations' shared commitment to democracy and human rights, which are embodied every day in warm people-to-people relations and strong economic relations. More than 4 million Filipino-Americans live in the U.S., and nearly 300,000 U.S. citizens reside in the Philippines.

I can personally say that the communities have learned a lot from what we did this year. The basic life-support training, first aid, water and hygiene, and basic survival training will benefit them in times when the skills are needed."

Col. Arman MampustiArmed Forces of the Philippines

Balikatan's civic engineering activities — which included building four climate-resilient elementary schools and conducting multiple community health engagements, mainly in northern provinces highlighted that security is ultimately about empowering local people to achieve what they need to make their society successful. "We were able to strengthen camaraderie between our forces and build relationships among the benefiting communities as well," especially in Cagayan and Isabela provinces, AFP Col. Arman Mampusti, a planner for the Office of the Deputy Chief of Staff for Civil-Military Operations who coordinated the projects, told FORUM. "I can personally say that the communities have learned a lot from what we did this year. The basic life-support training, first aid, water and hygiene, and basic survival training will benefit them in times when the skills are needed," Mampusti said. "I would like to underscore as well, that when everything else has finished, one lasting legacy that Balikatan will leave are the facilities that were built. I would just like for us to imagine how many young boys and girls will use these schools and graduate from them, and how many will benefit when the schools are used as evacuation facilities during storms and other natural calamities."



U.S. are deeply rooted in protecting such shared values and mutual interests, exercise leaders emphasized. "That has always been the underlying concept of Balikatan, shoulder to shoulder, addressing things together," Hechanova told FORUM. "It's a very long history between the Philippines and the U.S. We fought side by side in World War II, we fought side by side in Korea, we fought side by side in Vietnam. This is the history of our armed forces. Balikatan right now is a reflection of how our capabilities are working together to enhance our

Security relations between the Philippines and the

To promote greater defense cooperation across the region with allies, partners and member states of the Association of Southeast Asian Nations, the AFP also hosted and trained with more than 45 Australian special operators.

common security standing here in our part of the world."

### **COMMAND AND CONTROL**

In a restricted labyrinth of air-conditioned tents surrounded by a barbed-wire perimeter within Camp Aguinaldo, more than 50 Philippine and U.S. combined and joint staff from across the services pored over real-time data, detailing maps and charts for long hours, day after day. The goal: to develop a plan to respond to a hypothetical, yet realistic, external threat to the Philippines' sovereignty and appraise its probable performance in the battle space. They ran scenarios and conducted war games to continually improve the plan throughout the training.

The command and control exercise, known as a staff exercise or STAFFEX, enabled the militaries to test a real-world plan for the first time at Balikatan, Col. Michael Logico, director of the AFP's Joint

Philippine Marines secure a beach in Claveria, Cagayan province, during Balikatan 2022. THE ASSOCIATED PRESS

and Combined Training Center, told FORUM. The STAFFEX portrayed the broader strategic context, including how diplomatic, economic, and political factors and developments affected the crisis. "This will allow us to think of things we haven't thought of before to unearth some black swans or to determine if practices equal the plans," Logico said. Black swans are generally unpredictable or unforeseen events that can have extreme consequences.

The STAFFEX proved invaluable for more than just planning. "What we are focusing in on here is not the plan or the product, but the process that is the most important piece," Brig. Gen. Brian Wolford, commanding general of the U.S. Marine Corps' 3rd Marine Logistics Group at Okinawa, Japan, told FORUM. Wolford played the role of the U.S. joint task force commander during the exercise.

"The STAFFEX here allows us to learn a lot of processes, which allows us to compress the time from data, supplied by the chain, to decision," Brig. Gen. Erick Escarcha, chief of the AFP Command Center, explained. "So, we are really solving a lot," said Escarcha, who played the role of Philippine joint task force commander in the STAFFEX.

"We're starting with a relatively simple problem, but next year, we'll focus on a more complex problem and be able to solve it," Wolford said. "We take away being able to come together as an ad hoc organization." Because of COVID-19, Balikatan was dramatically scaled down in 2020 and 2021 to as few as 300 core participants. "What we are doing now is reconstituting what we had, getting

us back to where we were before and then continuing to build starting next year," he said.

"What we're learning here is really twofold. Starting with the young Marines, young Soldiers, Filipino and American, it is a chance for us to get exposed to each other on how we do things, capabilities, thought processes and learning how we think," Wolford said. "For me personally, I really enjoy getting to see how other countries solve problems. It is a different situation, different terrain. There are different variables that you have to deal with. Being exposed to those really helps, not only for planning here but for planning in other locations."

Balikatan 2023 will be designed around the core product from the 2022 STAFFEX and will build upon the achievements of the overall exercise. During the next iteration, for example, the STAFFEX command authorities will run the command post exercise, Escarcha and Wolford envision.

"I'm looking forward to the point in time when U.S. and Philippines armed forces come together and it's as simple as plug and play," Escarcha said. "I liken this to music. All musicians understand each other. They may have met for the first time, but they can sing together and create a harmony."

Balikatan, however, is already hitting some high notes beyond combined staff coordination. "On the surface, Balikatan is a platform for improving training, joint operations capabilities, interoperability, all of which contribute to the Philippines' security," Logico observed. But the exercise has other purposes. "When you do Balikatan, there is a strategic message that we are sending to our adversaries that we are not alone in this. Anything that we lack, our partners and allies can always come here and bring whatever it is we lack. We are still training together, and the alliance is still as strong as ever."

### **MUTUAL DEFENSE**

In the year leading up to Balikatan 2022, Philippine and U.S. leaders advanced their alliance by strengthening their commitments to the Mutual Defense Treaty (MDT) signed in 1951. In July 2021, U.S. Secretary of Defense Lloyd Austin visited Manila to reaffirm the strong and enduring U.S.-Philippine alliance as the two sides celebrated 75 years of diplomatic relations and the 70th anniversary of the MDT. Austin met with then-Philippine President Rodrigo Duterte, then-National Defense Secretary Delfin Lorenzana and then-Foreign Affairs Secretary Teodoro Locsin Jr. to emphasize the centrality of the broad-based Philippine-U.S. partnership within the Indo-Pacific region.

After the meeting, Lorenzana announced Duterte's decision to continue the nations' Visiting Forces Agreement (VFA), which details how military personnel will be treated in each other's country. "A strong, resilient U.S.-Philippine alliance will remain vital to the security, stability and prosperity of the Indo-Pacific. A fully restored VFA will help us achieve that goal together," Austin said at the time.

In September 2021, Lorenzana traveled to Washington to reciprocate Austin's visit in celebration of the alliance's 70th anniversary. He recognized that "this significant milestone amidst current regional development offers a unique opportunity to reaffirm enduring ties that bind our countries." Lorenzana further stated, "We now have a better appreciation of each other's defense and security concerns and priorities, and we have come to an understanding of our shared goals for our countries and the region."

A series of high-level consultations followed. In October 2021, the Mutual Defense Board and Security Engagement Board convened in the Philippines. Soon thereafter, then-AFP Chief of Staff Gen. Jose C. Faustino Jr. and Adm. John C. Aquilino, Commander



of the U.S. Indo-Pacific Command (USINDOPACOM), tasked their respective forces to continue to deepen combined readiness. Since then, military representatives have improved their understanding of the MDT to enhance readiness and ensure the MDT remains responsive to the evolving security landscape in the Indo-Pacific region. "We just need to keep improving on our common understanding of the Mutual Defense Treaty," Hechanova told FORUM. "Because it's mutual, there should be a common understanding on the terms, on the procedures, on the in situ construct, on the constructs, on the doctrine. This actually validates the doctrine and the interoperability of both forces in case the MDT is invoked."

### OPERATIONALIZING INTEGRATED DETERRENCE

Aquilino outlined the challenges facing the region in testimony to the U.S. Senate Armed Services Committee on March 10, 2022. "The PRC [People's Republic of China] is executing a dedicated campaign that utilizes all forms of national power in an attempt to uproot the rules-based international order to the benefit of themselves and at the expense of all others," he said. The PRC's expansionist actions in the South China Sea, known as the West Philippine Sea in the Philippines, and its ignoring of the Permanent Court of Arbitration's [PCA's] ruling in favor of the Philippines over the PRC's unlawful territorial claims in the South China Sea epitomize the PRC's disregard for the international rules-based order, he noted in his testimony.

In today's threat environment, "the adversary is using gray-zone tactics. We need to come up with our own, the Philippines and the U.S. together, in order to counter any gray-zone initiatives of the adversaries," the AFP's Hechanova explained. Gray-zone tactics refer to coercive actions that go beyond normal diplomatic, economic and political activities but fall short of armed conflict.

"The Chinese, the PRC, are using the nuance of the law in exploiting the West Philippine Sea. They know they are sending gray ships in violation of the nuances of the United Nations Convention on the Law of the Sea," Hechanova continued. While in office, Duterte "made it very clear when he appeared in the United Nations. He said that the PCA ruling is now part of international law and that the Philippines will always adhere to a rules-based order in the settling of disputes in the West Philippine Sea," he said.

"While the MDT recognizes the key goal of trying to resolve conflicts peacefully, should those efforts not be successful, Balikatan represents the Philippines' and the U.S.'s primary line of effort to enhance their bilateral ability to respond to any breach of peace or threat of the breach of peace," explained Scott Weidie, chief of multinational training at USINDOPACOM and the command's lead for the exercise. "The command's mission is to prevent conflict through the execution of integrated deterrence and, if necessary, be prepared to fight and win.

Balikatan enables the operationalization of a Philippine-U.S. defense that must be ready when called upon."

Balikatan 2022 fell in line with Aquilino's direction to seize the initiative by requiring the joint force to think, act and operate differently. "We are doing this with our Philippine allies by working posture efforts and focusing on joint operational capabilities necessary for the armed forces of the Philippines and U.S. to improve speed of response in a crisis, increase interoperability, improve mission effectiveness and enhance unity of effort," Weidie said. The nations are advancing their Enhanced Defense Cooperation Agreement to develop the necessary infrastructure to improve bilateral response capabilities and enable the U.S. to operate more flexibly in the Philippines.

Strengthening the alliance "is a continuing activity," Hechanova said. "We're continuing to harness both of our potentials in making sure that should a situation come in where we should have to fight together, we are able to do it efficiently."

### DEMONSTRATING TECHNOLOGY, PARTNERSHIP

Philippine and U.S. forces used Balikatan to experiment with a host of technologies and protocols to improve their combined and joint fighting potentials. "We know that every time that we're going to go and fight, we are going to fight with friends, partners and allies, and the best way to do that, the way to be most effective if you have to be in a fight, is by establishing relationships well beforehand," Brig. Gen. James Isenhower, then commander of the U.S. Army's new Multi-Domain Task Force (MDTF), which is the centerpiece of the Army's modernization, told FORUM. "Advancing technologies with partners and allies is always a critical aspect of building a relationship and building trust.

"In many ways, we can share our lessons, and it might stimulate them or motivate them to move to a different level of proficiency or build out a capability they may not have had before. That said, we learn as much from them as they learn from us, so we approach it in a very evenhanded manner as genuine partners," Isenhower said. "Their familiarity with the environment, because they live here, is just something that we don't have, so just understanding how they think and the perspectives they can bring and their understanding of the history in the region is always valuable and informs us as to how we are going to employ and how we think we can work with them in the environment." The MDTF participated in Balikatan for the first time in 2022. The two militaries first staged the exercise in 1986.

Balikatan, for example, allowed the AFP and U.S. forces to develop strategic options to counter potential scenarios in the first island chain, such as an anti-access area denial network (A2AD). Such networks present a joint force challenge requiring intense coordination whether the approach is to target a network's center of gravity or to dismantle an adversary's capabilities layer by layer. "Those



networks are built to prevent power projection. As we develop our capability, the MDTF will become a critical component of the joint force effort to neutralize that A2AD network to create windows and allow the joint force to do what it is already good at," Isenhower explained. "In an environment like the Indo-Pacific, power projection is a requisite, and technology is critical for power projection. If we don't have that freedom of action or freedom to maneuver, it really puts us at risk to be able to provide our leaders with strategic options."

Given the territorial defense requirements of the Philippines, Isenhower said, "the Patriot is a great example of capabilities we can bring to an environment like this to help allies and partners." During Balikatan, the militaries inserted Patriot equipment amphibiously via a U.S. Navy Landing Craft Air Cushion and moved two Patriot missiles inside a CH-47 helicopter, both of which were firsts, according to Col. Matthew Dalton, then commander of the U.S. Army's 38th Air Defense Artillery Brigade, which helped transport the equipment. The Patriot system, which entails radars, missiles, launchers and support vehicles, can track and shoot down enemy missiles and aircraft within nine seconds of launch at a range of up to 70 kilometers.

Deploying the Patriot to northern Luzon is an example of a very realistic scenario that we could conduct in any number of locations in the Indo-Pacific. Conducting operations in the Philippines enabled us to work with our bilateral partners, rehearse sustaining the force, stress our equipment and perform field-level maintenance in austere

Philippine Marines maneuver their amphibious assault vehicle during the exercise. THE ASSOCIATED PRESS

conditions," Dalton said. "Our Soldiers and leadership had to apply creative and critical thinking to overcome unique hurdles that could only appear when deployed a thousand miles from the motor pool."

Philippine and U.S. forces tested other combined and joint capabilities and technologies, demonstrating new operational proofs of concept between the militaries. AFP and U.S. Special Operations Forces (SOF) conducted a mock airfield seizure at Cagayan North Airport to refine tactics and procedures to deploy a high mobility artillery rocket system known as HIMARS in tandem with rapid infiltration, or HIRAIN. Once inserted at a site, the missile-based HIMARS is used to engage targets, then quickly loaded back on aircraft and removed from the area before an adversary can return fire. HIMARS can also be landed onshore and deployed against sea-based targets.

During Balikatan, Philippine and U.S. special operators also engaged in multidomain complex operations to increase interoperability and experimentation in preparation for contingencies beyond countering violent extremist organizations (VEOs). AFP and U.S. SOF executed targets and integrated relevant counter VEO capabilities into a peer adversary environment. Within the air domain, combat air controllers called in 105 mm cannon shots, 30 mm and precision-guided munitions fires from a U.S. Air Force AC-130 onto the Bahasa Range.

### **MUTUAL DEFENSE TREATY**

Between the Republic of the Philippines and the United States of America. Signed on August 30, 1951

**ARTICLE I.** The parties undertake, as set forth in the Charter of the United Nations, to settle any international disputes in which they may be involved by peaceful means in such a manner that international peace and security and justice are not endangered and to refrain in their international relation from the threat or use of force in any manner inconsistent with the purposes of the United Nations.

**ARTICLE II.** In order more effectively to achieve the objective of this Treaty, the Parties separately and jointly by self-help and mutual aid will maintain and develop their individual and collective capacity to resist armed attack.

**ARTICLE III.** The Parties, through their Foreign Ministers or their deputies, will consult together from time to time regarding the implementation of this Treaty and whenever in the opinion of either of them the territorial integrity, political independence or security of either of the Parties is threatened by external armed attack in the Pacific.

ARTICLE IV. Each Party recognizes that an armed attack in the Pacific area on either of the Parties would be dangerous to its own peace and safety and declares that it would act to meet the common dangers in accordance with its constitutional processes. Any such armed attack and all measures taken as a result thereof shall be immediately reported to the Security Council of the United Nations. Such measures shall be terminated when the Security Council has taken the measures necessary to restore and maintain international peace and security.

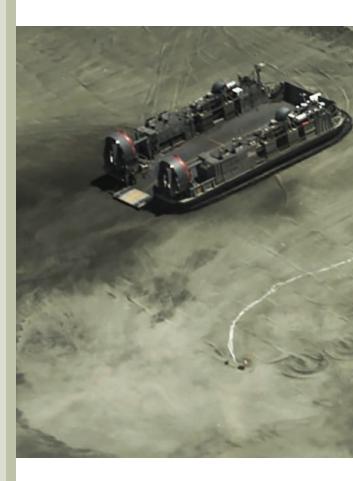
**ARTICLE V.** For the purposes of Article IV, an armed attack on either of the Parties is deemed to include an armed attack on the metropolitan territory of either of the Parties, or on the Island territories under its jurisdiction in the Pacific Ocean, its armed forces, public vessels or aircraft in the Pacific.

**ARTICLE VI.** This Treaty does not affect and shall not be interpreted as affecting in any way the rights and obligations of the Parties under the Charter of the United Nations or the responsibility of the United Nations for the maintenance of international peace and security.

**ARTICLE VII.** This Treaty shall be ratified by the Republic of the Philippines and the United States of America in accordance with their respective constitutional processes and will come into force when instruments of ratification thereof have been exchanged by them at Manila.

**ARTICLE VIII.** This Treaty shall remain in force indefinitely. Either Party may terminate it one year after notice has been given to the other party.

SOURCE: Republic of the Philippines. House of Representatives. Legislative Library



This marked the first time the AC-130 supported AFP close air support training in the Philippines.

At Fort Magsaysay and across Luzon, ground SOF training events built upon generational knowledge of unconventional and irregular warfare tactics to further sharpen SOF skills and AFP and U.S. interoperability. The combined force navigated complex targets throughout eastern Luzon, including the infiltration and reclamation of Corregidor Island. Off the coast of Palawan, a multilateral SOF team, including members of the AFP Naval Special Operations Group, Australian commandos and U.S. Navy SEALs, conducted maritime interdiction training, culminating in an air and maritime raid to reclaim a gas and oil platform in the Philippine Sea.

Working with their AFP counterparts on another novel security application, the U.S. Army Pacific and MDTF launched high-altitude balloons from Fort Magsaysay in Central Luzon to test stratospheric capabilities to support maritime domain awareness



and contribute to multidomain operations. The bilateral teams flew the unmanned balloons 15,000 to 21,000 meters above sea level, well above the operating altitudes of commercial airlines. The balloons offer a host of defense possibilities, such as creating a stealth aerial constellation to transmit data, including surveillance video, and enhance electronic warfare capacity.

For the AFP and U.S. forces, Balikatan illustrated the value of experimenting regularly, given many successful technology applications and achievements are made ad hoc or in the midst of an exercise. "Rapid iteration is really important. The more we can iterate with partners and allies, the more we can iterate with joint force, the faster we can achieve a different potential and really inform how we can fight in the out years," Isenhower explained. "At echelon, it forces an increased comfort and a recognition that we can experiment forward, we can exercise forward and we can do it in a sophisticated and responsible manner, and that builds increased interoperability and confidence between two partners."

### **GAINING MOMENTUM**

Balikatan 2022 set the stage for building more complex experimental capabilities and an even stronger partnership during Balikatan 2023. For one, the 38th Air Defense Artillery Brigade, according to Dalton, is "already looking forward to next year to build upon the great progress we made in air defense and airspace

A U.S. Marine Corps CH-53E Super Stallion helicopter participates in the insertion of a Patriot missile system at an Aparri beach in the northern Philippines in March 2022. SGT. KALLAHAN MORRIS/U.S. MARINE CORPS

control operations. We discussed future training and integration with the Philippine Air Force Air Defense Command during Balikatan 23," including with the AFP's 580th Aircraft Control Warning Wing and 960th Air and Missile Defense Group. "This exercise was our first time engaging with our [38th Air Defense Artillery Brigade's] partners, opening a new bond of friendship and allowing our units to cross-train and share knowledge about our capabilities," Dalton said. "We learned how we can work together in times of conflict for credible, agile and lethal defensive fires."

Balikatan seems assured to be even better in 2023, given the leaps in the growth of the AFP-U.S. military relationship during the 2022 exercise. By all accounts, the nations' commitment to their MDT and military alliance proved stronger than ever throughout the event. "I consider this year's Balikatan as a banner year for our forces," the AFP's Mampusti said. "After two years of the pandemic, this Balikatan has showcased that no matter the gap in bilateral training activities and current circumstances, our forces are ready, we are flexible, we are interoperable, and we are resilient. This is a testament to our long-standing commitment to our shared history and friendship."





### A REVEALING ANALYSIS OF CHINESE MARITIME MILITIA

GREGORY B. POLING, TABITHA GRACE MALLORY, HARRISON PRÉTAT AND THE CENTER FOR ADVANCED DEFENSE STUDIES

ince completing the construction of its artificial feature outposts in the Spratly Islands in 2016, the People's Republic of China (PRC) has shifted its focus toward asserting control over peacetime activity across the South China Sea. A key component of this shift has been the expansion of the Chinese Communist Party's (CCP's) maritime militia — a force of vessels ostensibly engaged in commercial fishing but which operates alongside Chinese law enforcement and military to achieve Chinese political objectives in disputed waters.

Referred to as the People's Armed Forces Maritime Militia by the U.S. Department of Defense, this entity plays a role in Beijing's strategy to enforce its sovereignty claims in the South China Sea and East China Sea, according to the Rand Corp. The militia uses tactics, such as swarming other vessels, to challenge the legal presence and claims of other countries.

Enabled by the proximity of the PRC's outposts in the Spratly Islands, militia vessels join with Chinese law enforcement to contest Southeast Asian claimants' fishing and hydrocarbon activities in areas within the PRC's ambiguous and widely rejected territorial claims under its so-called nine-dash line. The militia's outward identity as a commercial fishing fleet affords Beijing a powerful degree of deniability, allowing this force to pressure claimants with little cost.

The militia's gray-zone tactics pose a significant challenge to those interested in preventing coercion from interfering with a maritime order based on international law or from influencing the management or peaceful settlement of disputes. Competing claimants lack the maritime capacity to match the size and quantity of China's boats. Other powers with an interest in preventing maritime coercion are often only equipped with the blunt instrument of naval power, the deployment of which against ostensible fishing vessels would be escalatory and impractical.

In the interest of dissuading assertive behavior and lowering the risk of conflict in disputed waters, this analysis seeks to lift the shroud of uncertainty and deniability surrounding the CCP's maritime militia. By providing a comprehensive overview of the militia, the findings dispel any doubt that most Chinese fishing vessels operating in the disputed waters of the South China Sea are there to fulfill political rather than commercial objectives.

But open-source Chinese language research, remote sensing data and maritime patrols conducted by actors operating in disputed waters have the power to expose the militia and diminish its effectiveness as a gray-zone force.

### **CCP MARITIME MILITIA: YESTERDAY AND TODAY**

The CCP's modern use of fishing militias dates to at least 1974, when they were employed in seizing the Paracel Islands from Vietnam. Several developments in the 1980s, including the 1985 establishment of a militia force in Tanmen Township on Hainan and the establishment of the PRC's first bases in the Spratlys in 1988, would lay the groundwork for a more active militia in the following decades.

The militia's involvement in aggressive operations increased in the 2000s, when militia vessels physically interfered with the navigation of multiple United States Navy ships. This continued into the early 2010s, with the militia playing a key role in the PRC's seizure of Scarborough Shoal in 2012, as well as the deployment of a Chinese oil rig into Vietnamese waters in 2014.

Since 2016, militia boats have been deployed to the Spratlys in greater numbers and more consistently than ever. Militia members have accompanied Chinese law enforcement at several oil and gas standoffs with Malaysia and Vietnam and have participated in mass deployments at targeted features. Nearly 100 militia boats deployed near Philippine-occupied Thitu Island in 2018, and about 200 gathered at unoccupied Whitsun Reef in early 2021.

The militia in the South China Sea operates from a string of 10 ports in China's Guangdong and Hainan provinces. Remote sensing data indicates that about 300 militia vessels are operating in the Spratly Islands on any given day. Chinese maritime militia vessels operating in the South China Sea mostly fall into two categories: professional maritime militia fishing vessels (MMFV) and Spratly backbone fishing vessels (SBFV). MMFVs are designed, constructed or renovated and operated using funds dedicated to maritime militia affairs. SBFVs, on the other hand, are a subset of domestic fishing vessels that meet certain requirements of length, tonnage and power and operate in the Spratly Islands to fulfill the PRC's political goals.

Professional vessels are generally built to specifications that include explicitly military features, although even SBFVs are steel-hulled and measure at least 35 meters, with many exceeding 55 meters. Both professional militia and SBFVs participate in large deployments aimed at asserting Chinese sovereignty, and both deny access to other countries' ships, although statements from Chinese officials suggest that more aggressive operations would first be entrusted to professional militia vessels.

Chinese militia activities violate several tenets of international law. Efforts to illegally block the lawful activities of claimant states within their exclusive economic zones are violations of the United Nations Convention on the Law of the Sea and customary international law. Unsafe maneuvers intended to impede other ships by creating a risk of collision violate the International Maritime Organization's Regulations for Preventing Collisions at Sea.



A Philippine official shows a photo of a fishing boat that was rammed by a suspected Chinese vessel while anchored in the South China Sea in June 2019. The vessel abandoned the crew of 22 Philippine fishermen. A Vietnamese boat later rescued them.

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### **IDENTIFYING MILITIA VESSELS**

Direct identification in official Chinese sources or state media remains the most straightforward and conclusive indicator of militia activity. However, it is unlikely that most maritime militia vessels can be identified in this way. This makes behavior-based identification — informed by remote sensing data and traditional on-site reporting — the most promising avenue for continued identification.

On-site photography and video, as well as ship-to-ship automatic identification system (AIS) data collection, offer the greatest potential to directly identify militia vessels and document their behavior. This enhances opportunities for follow-up research and creates an immediate impact by revealing the militia's size, scope and activities to a broad audience.

Commercial satellite imagery and AIS data are important in identifying and tracking militia deployments.

Association with known militia vessels and ports is a strong indicator that a vessel warrants further study, as are large government subsidies indicating that a ship is an SBFV. Vessels over 50 meters operating in disputed waters — especially those with fewer than 10 crew members — also deserve further scrutiny.

By coupling continued reporting efforts from actors in the South China Sea with additional research using opensource, Chinese-language materials and remote sensing data, complete identification of the maritime militia is not only possible, but also likely.

### MILITIA ACTIVITY IN THE SOUTH CHINA SEA

The CCP's maritime militia was not a major focus of Western scholarship before international attention shifted toward the South China Sea over the past decade. The use and composition of the militia has changed and expanded over the past decade. The subsequent increase in scholarly attention, along with the militia's involvement in multiple recent incidents widely reported in international media, may create the false impression that the militia's existence itself is a recent phenomenon. In fact, the CCP's first use of fishing militias in the South China Sea dates back at least four decades, and the maritime militia has played a central role in asserting Chinese claims ever since. The PRC's unprecedented efforts to gain control over waters within its nine-dash line over the past decade despite an international tribunal ruling in 2016 that those claims had no legal basis — have led to a corresponding expansion in the size and activities of its militia forces.

The first sign that the militia under CCP General Secretary Xi Jinping was becoming the vanguard of a more assertive Chinese strategy in the South China Sea emerged in May 2014. That month, Vietnam spotted the Haiyang Shiyou 981 oil rig and three service ships sailing past the Paracel Islands. The rig parked 120 nautical miles (220 kilometers) east of Vietnam's Ly Son Island and 180 nautical miles (333 kilometers) south of Hainan, in what were clearly disputed waters. China's Maritime Safety Administration announced that the oil rig would conduct exploratory drilling in the area until mid-August. Vietnam immediately dispatched six law enforcement vessels to prevent the rig from operating. Beijing responded with a mixed force of 40 People's Liberation Army Navy (PLAN), China coast guard and militia vessels to protect it. They formed concentric rings, with the PLAN vessels closest to the Haiyang Shiyou and the militia farthest out, where it would have the most contact with the Vietnamese.

No shots were fired, but there was plenty of violence from both sides, with intentional ramming and the use of high-pressure water hoses. By mid-May 2014, Hanoi claimed that the PRC had 130 vessels on the scene; Beijing said Vietnam had 60. The Vietnamese, in addition to being outnumbered, were outmatched. The Chinese coast guard ships were larger and better armed than their Vietnamese counterparts. And the CCP's large, steel-hulled militia vessels, which made up the bulk of those involved in the standoff, dwarfed Vietnam's wooden militia boats. A Vietnamese fishing boat was rammed and sunk, though the crew was rescued.

Chinese fishing vessels regularly cluster around the outposts of other claimants in the Spratlys without doing much fishing, if any. In March and April 2019, militia boats were regularly spotted anchoring within a kilometer of Philippine-held Loaita Island and Loaita Cay. Asia Maritime Transparency Initiative (AMTI) research with Vulcan's Skylight Maritime Initiative also showed Chinese militia vessels frequently gathering near Vietnamese outposts, especially in the Spratly's Union Banks section.

Of these, the nine vessels of the Yue Mao Bin Yu fleet were especially visible, operating near the Chinese outposts at Hughes and Johnson reefs and approaching provocatively close to the Vietnamese facilities at Collins, Lansdowne and Grierson reefs and Sin Cowe Island. It now appears those vessels were just the vanguard of a growing Chinese militia focus on Union Banks.

To date, violence between the CCP's maritime militia and other actors has been mostly limited to dangerous maneuvering and occasional shouldering or ramming. But in June 2019, an incident nearly led to the deaths of a Philippine fishing crew. The Yue Mao Bin Yu 42212 collided with and sank the F/B Gem-Ver while it was anchored at night at Reed Bank. After the ramming, the Chinese vessel reportedly turned off its lights and fled, leaving the fishermen to drown. Luckily, they were rescued by a passing Vietnamese boat. Although it has not yet been confirmed that the Yue Mao Bin Yu 42212 is a militia vessel, an investigation by AMTI and the Center for Advanced Defense Studies uncovered considerable evidence to that effect. The findings of this analysis strengthen that case.

The maritime militia has also taken part in recent oil and gas standoffs. It joined the Chinese coast guard in escorting a Chinese state-owned survey vessel, the Haiyang Dizhi 8, during separate monthslong operations off Vietnam and Malaysia in late 2019 and early 2020. The exact number of vessels in those episodes is unclear, but sources reported that 40 to 80 Chinese boats took

part; some were coast guard and PLAN vessels, but most were likely maritime militia.

The militia's recent history suggests that its deployment pattern in the Spratlys has gone through several evolutions. Between late 2017 and late 2018, the number of likely militia vessels in the Spratlys rose to about 300 at any given time, most of which rode at anchor for weeks at a time in the harbors at Subi and Mischief reefs. These fleets started dispersing more widely after December 2018, with the largest concentration around Thitu Island. In early 2020, militia vessels began congregating in larger numbers around Union Banks, particularly at Whitsun Reef. Those numbers reached 100 in May 2020, dipped again and then approached 200 by the end of 2020.

Since tapering off in April 2021, the militia presence in the Spratlys has grown more fluid but no smaller. That month, most of the vessels from Whitsun moved to nearby Hughes Reef, where their numbers peaked at more than 150. A substantial contingent also headed to Tizard Bank farther north, which includes the PRC's base on Gaven Reefs and Vietnam's on Namyit Island. In May 2021, nearly all the ships from Hughes also moved to Tizard Banks, bringing the number gathered there to over 230. A month later, most of those moved back to Union Banks, staying around Hughes. By mid-June 2021, there were almost 240 boats around Hughes and 70 still at Gaven. The big picture is about 300 maritime militia vessels have been deployed in large groups around the Spratly Islands since August 2018, relying on the PRC's artificial features for logistics support but no longer cloistering themselves within those harbors.



Professional MMFVs and SBFVs often function identically, attempting to assert PRC sovereignty in disputed waters and (especially in recent years) grouping

Chinese coast guard vessels patrol near a Chinese fishing vessel at the disputed Scarborough Shoal. REUTERS

### VEILED VOYAGES, PAST AND PRESENT

**FORUM STAFF** 

Today's maritime expansion by the Chinese Communist Party's (CCP's) military evokes the 15th century voyages of Zheng He during the Ming dynasty that sailed across the Indo-Pacific and into Africa. Zheng is the most famous person in Chinese naval history, born in Yunnan region on the frontier of the Mongol empire to a Muslim family of Central Asian ancestry likely related to contemporary Uyghurs.

The Ming dynasty army captured Zheng as a boy, made him a eunuch and placed him in the service of the future Yongle emperor. The emperor rose to supreme power in a coup by overthrowing the rightful emperor — his nephew — and claiming the throne himself. This led to a legitimacy problem, and the new emperor used censorship and propaganda to solve it. He ordered the purging of the previous emperor's records and introduced propaganda to advocate his legitimacy.

The best-known propaganda spectacle of this era came in the form of the baochuan "treasure ships" — some of the most amazing and enormous wooden vessels ever built. Chinese records show that the ships exceeded 120 meters — longer that a soccer field. A fleet of hundreds of vessels supported these treasure ships, including horse transports, water supply ships, armory ships and ships that had soil laid on the decks with orchards of citrus trees to ensure a healthy diet for the crew of thousands of soldiers and sailors.

CCP propaganda portrays the Zheng expeditions as a prime example of China's benevolent international friendship and win-win cooperation — like a 15th century One Belt, One Road campaign — but the truth is more complicated.

The real purpose of Zheng's voyages was to secure political legitimacy for the emperor. In Chinese history, political legitimacy was entwined with the tribute system. The Chinese tribute system would be better translated as trade by the rest of the world, where tributaries would humbly present gifts of

foreign luxury products and exotic animals to the emperor, who would in turn grant benevolent gifts such as valuable Chinese products of silk, tea and porcelain. The Chinese government regarded the tribute system as international acknowledgment of the superior political authority of the emperor, while other nations usually viewed this as an odd ritual for trade with China.

Many comparisons have been made between the ancient tribute ceremonies and the modern Belt and Road Forum for International Cooperation hosted by CCP General Secretary Xi Jinping, which is also a propaganda event designed to build credibility for the regime in Beijing and its One Belt, One Road policies.

The Zheng fleet was a dazzling, colorful sight when it pulled into ports and presented the emperor's gifts. On its return, the fleet brought local products, government officials or royal family members back to China to bow before the emperor and show his court that people from around the world acknowledged the Yongle emperor as the legitimate ruler of "all under heaven."

Zheng sought out regional rulers who had paid tribute to previous emperors such as Kublai Khan. But when some Indo-Pacific leaders did not want to participate, the treasure fleet came out in force to engage in military conflicts and political interference, including capturing rulers from Indonesia and toppling the ruling kingdom in Sri Lanka.

Zheng's fleet also showcased Chinese technological, navigational, economic and military power, but China ultimately scrapped the ships because they were extremely expensive, and Chinese bureaucrats argued the propaganda benefit did not live up to the cost. The ships, however, are a reminder that China is capable of producing amazing wonders, but the gifts sometimes come with hidden risks. And what might be considered trade or diplomacy in most of the world has, at times, been viewed as tribute or submission in China.



in large numbers to deny fishing boats of other South China Sea claimants' access to fishing grounds and reefs.

There are, however, differences in their roles. In 2017, Taishan's Municipal Bureau of Oceans and Fisheries met with SBFV owners to remind them of their "political responsibilities" to operate in "specially designated waters" to "defend national maritime rights and interests and declare national sovereignty." In the same meeting, the SBFV owners were also instructed to avoid creating major foreign incidents, suggesting that more aggressive actions such as ramming fishing vessels, interfering with the navigation of foreign warships or other physical confrontation are primarily entrusted to the professional MMFVs.

This greater responsibility is consistent with the design of MMFVs, which include features such as weapons storage facilities and large water cannons. Nevertheless, SBFVs maintain latent capacity to integrate with military operations. As disclosed by an employment contract for SBFVs owned by a fishery professional cooperative in Guangdong province, the vessels must operate and dock in special waters all year, participate in training and sovereignty defense, and assist the People's Liberation Army (PLA) in combat when needed. Also, crew members are prohibited from photographing the ports where they dock at Chinese outposts in the Spratly Islands or the vessel's internal structure without the captain's permission. SBFVs qualify for different types of government support than MMFVs.

This distinction between officially named maritime militia vessels and SBFVs lends the latter a greater degree of deniability. But given their explicit political responsibilities and role in defending the PRC's national sovereignty, along with their charge to assist the PLA in combat, SBFVs clearly meet any reasonable definition of a militia force.

### **OPEN-SOURCE CONFIRMATION OF MILITIA ACTIVITY**

The findings of this analysis should put to rest many of the doubts that have, until now, precluded a shared public understanding of the PRC's maritime militia. The militia is no secret. A wealth of publicly available Chinese government documents, media reports, academic articles and other materials openly discuss its affairs. It consists of professional militia — uniformed crew operating vessels built with military features such as weapons storage facilities — as well as large and powerful civilian fishing vessels either recruited and renovated or purpose-built as SBFVs to fulfill CCP political objectives in disputed waters. Their operations are funded by the Chinese government through subsidies that incentivize local actors to build vessels meeting military specifications and to operate them in disputed waters, ready to assist Chinese law enforcement and naval forces when necessary. The corporate structures behind militia vessels are not complex creations designed to obfuscate the ultimate owners, but are simple and direct, and





These images taken February 1999, top, and March 2022 show Chinese structures at Mischief Reef in the disputed South China Sea. In stark contrast to CCP General Secretary Xi Jinping's past assurances that Beijing would not transform the artificial features it built in contested waters into military bases, U.S. Indo-Pacific Commander Adm. John C. Aquilino said the CCP has fully militarized at least three of the features, arming them with anti-ship and anti-aircraft missile systems, laser and jamming equipment, and fighter jets. THE ASSOCIATED PRESS

they correspond to the localities where the vessels are homeported. Except for professional fleets operated by dedicated companies in Hainan, the ownership of militia vessels is diversified among many companies. This phenomenon reflects the overall decentralized nature of the militia, which involves local entities and businesses responding to funding signals sent by larger policy initiatives over the past decade.

Although corporate connections to Chinese government entities proved inconclusive as a means of identifying militia vessels outright, ships that do have such connections, especially on top of other militia indicators, are worth investigating.

This report, originally titled "Pulling Back the Curtain on China's Maritime Militia," was published in November 2021 by the Center for Strategic and International Studies' Asia Maritime Transparency Initiative and the Center for Advanced Defense Studies. It has been edited to fit FORUM's format. To access the report in its entirety, visit https://www.csis.org/analysis/pulling-back-curtain-chinas-maritime-militia.

# IRESOURCE OF THE PROPERTY OF T

**How China Weaponizes Water** 

BRAHMA CHELLANEY

FORUM ILLUSTRATION



he communist Chinese government has long been willing to weaponize the leverage it acquires over other countries. Its monopoly on the global supply of rare earth minerals and its huge international lending scheme are two prominent examples. The People's Republic of China (PRC), which now holds debt amounting to more than 5% of the global gross domestic product, has eclipsed major lenders such as the World Bank, the International Monetary Fund and all the creditor nations of the Organisation for Economic Cooperation and Development combined.

To secure support for its strategic objectives, the Chinese Communist Party (CCP) has encouraged and then exploited other nations' reliance on the PRC for trade, finance, vital medicines and medical gear, minerals, and tourism earnings. The CCP's coercive toolkit has included unofficial export and import restrictions and other nontariff barriers, consumer boycotts, restriction of Chinese tour groups, and even blocking fishing access.

Given the CCP's record of riding roughshod over international rules, it is scarcely a surprise that the party under General Secretary Xi Jinping has not shied away from weaponizing water, a life-creating and life-supporting resource whose growing shortages are casting a cloud over the Indo-Pacific's economic future.

### **Coercive Hydro-Hegemony**

Soon after founding the PRC, the CCP annexed Xinjiang and Tibet, more than doubling the country's territory and making it the world's fourth-largest by area. Its

Hindu devotees offer prayers during the Chhath Puja festival on the banks of the Brahmaputra River in Guwahati, India, where the People's Republic of China plans to build a superdam to manipulate transboundary river flows.

annexation of the water-rich Tibetan plateau was one of the most far-reaching geopolitical developments in post-World War II history, not in the least because it gave the PRC borders with Bhutan, India, Myanmar and Nepal.

Tibet is the source of the Indo-Pacific's 10 major river systems, which means the annexation effectively changed the region's water map. This development has facilitated the PRC's rise as a hydro-hegemon with no modern parallel.

Today, Chinese-built megadams near the international borders of the Tibetan plateau give the CCP leverage over downstream countries. More than 1 billion people in a dozen countries, including mainland China, depend on the Tibet-originating rivers for sustenance, including protein intake from the vast bounty of fish.

The PRC's hydro-thirst compounds freshwater challenges in the Indo-Pacific, the world's most water-stressed region in per capita terms. Water has become a new divide in the PRC's relations with its riparian neighbors. This divide has become apparent as the CCP has increasingly shifted the country's dam-building focus from its dam-saturated internal rivers to transnational rivers flowing from ethnic-minority homelands.

Only three important transnational rivers — the Amur, the Ili and the Irtysh, which flow to Kazakhstan

### **China's Brahmaputra Dam Project**

The People's Republic of China plans to build a superdam on a section of the Brahmaputra River, known as the Yarlung Tsangpo, raising concerns over its potential downstream impact in India and Bangladesh.

### **China's Mekong Mainstream Dams**

Mekong

Xiaowan

The PRC operates 11 upstream dams on the river that together store over 47 billion cubic meters of water and can generate 21 gigawatts of electricity. Studies have shown the devastating economic and environmental effects of these dams to downstream fisheries and farms that sustain tens of millions of people.

> Wunonglong Lidi

Huangdeng

Dahuaqiao Miaowei

Gongguoqiao

**Pak Beng** 

Sanakham

THAILAND

Manwan Dachaoshan

Nuozhadu Jinghong

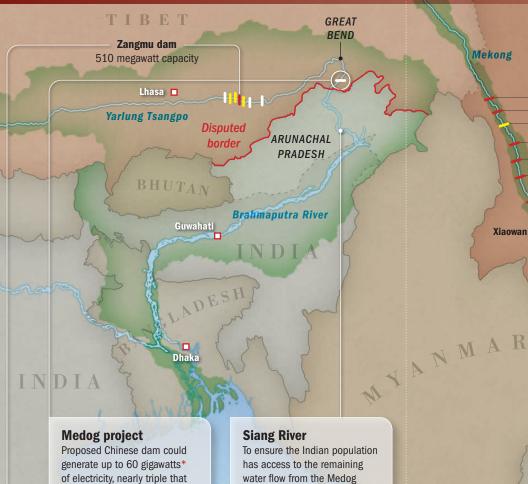
Ganlanba

Luang

Prabang

Mekong

Tuoba



dam, India plans to build a 10 gigawatt dam in Arunachal Pradesh, much of which the PRC claims as "South Tibet." A new Indian dam could further impact downstream inhabitants.

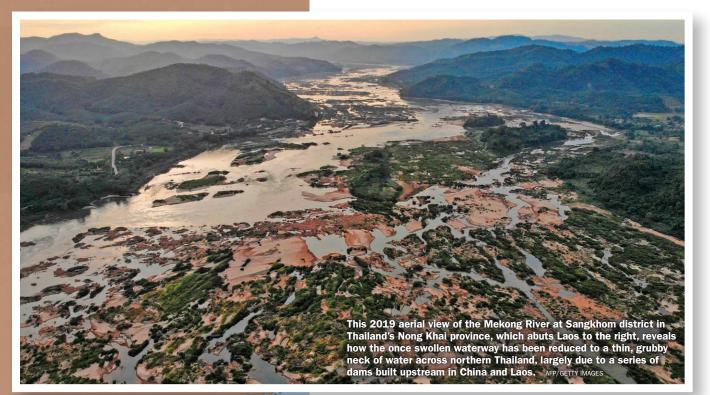
Zangmu was the first hydropower project on Tibet's Brahmaputra to become operational, in 2014.

of **Three Gorges Dam** in central

China - the world's biggest.

- River basin
- Dam completed/operational
- **Dam under construction**
- Dam planned
  - \*One gigawatt = 1,000 megawatts

Sources: The Stimson Center, GraphicNews





or Russia — originate in China outside the Tibetan plateau, whose wealth of water and mineral resources was a big factor in its political subjugation. The PRC's water diversions from the Ili threaten to turn Kazakhstan's largest lake — Balkhash, spread over about 18,000 square kilometers — into another Aral Sea, which has become a symbol of human-made environmental disaster.

The slew of giant new Chinese dams on the Tibet-originating transnational rivers carries the greatest environmental costs. The PRC, which already boasts more large dams than the rest of the world combined, has emerged as the key obstacle to building institutionalized collaboration on shared water resources in the Indo-Pacific.

The countries likely to bear the brunt of the CCP program to control the flow of transboundary waters are those farthest downstream on rivers such as the Mekong and the Brahmaputra (known to Tibetans as the Yarlung Zangbo). The Brahmaputra provides the largest source of freshwater for Bangladesh. Meanwhile, Vietnam sits downstream on two rivers flowing from the edge of the Tibetan plateau: the Red River, the main watercourse of northern Vietnam; and the Mekong, the principal river of southern Vietnam.

In contrast to the bilateral water treaties between many of its neighbors (including a sharing pact between historic rivals India and Pakistan), the PRC rejects the concept of water sharing or joint, rules-based management of common water resources. It, therefore, refuses to enter into a water-sharing treaty with any downstream country.

The PRC asserts that standing and flowing waters are subject to the full sovereignty of the country where they are located. It claims "indisputable sovereignty" over the waters on its side of the international boundary, including the right to divert as much shared water as it wishes for its needs.

This principle was originally embodied in the notorious and now-discredited Harmon Doctrine in the United States more than a century ago. The doctrine is named for then-U.S. Attorney General Judson Harmon, who introduced the concept that the U.S. owed no obligations under international law to Mexico on shared water resources and was effectively free to divert as much of the shared waters as it wished for U.S. needs. Despite that doctrine, the U.S. went on to conclude water-sharing agreements with Mexico between 1906 and 1944.

The PRC, in rejecting the 1997 United Nations convention regulating shared water resources, placed on record its contention that an upstream power has the right to assert absolute territorial sovereignty over the waters on its side of the international boundary — or the right to divert shared waters irrespective of the effects on downriver countries.

This indicates that the Harmon Doctrine may be dead in the country of its birth but survives in the PRC.

### **A Dam Larger Than Three Gorges**

Given its mission is to help the PRC achieve Indo-Pacific preeminence by subordinating its neighbors, the CCP preaches about equality and reciprocity in international relations but in practice does not employ either. Without a Sino-centric Indo-Pacific, the PRC cannot achieve global dominance. The CCP views India and Japan as the country's two potential peer rivals in the region. It is in this context that it wants to play its freshwater card against India — a card that has no relevance vis-a-vis Japan, which is separated by sea from China.

Against India, the CCP is seeking to replicate its Mekong Basin strategy. By building megadams and reservoirs on the Mekong, it has acquired control over the transboundary flows of that river, which is the lifeblood for the lower-riparian states. The CCP has effectively dragged the downstream states into high-stakes games of geopolitical poker over water issues.

The PRC's 11 megadams on the Mekong arm the CCP with the power to turn off the tap for much of continental Southeast Asia. This has made the downstream countries dependent on Chinese "goodwill" for their continued access to freshwater.

With a similar but more multidimensional strategy, the CCP and its military wing — the People's Liberation Army — hope to rein in India. Indirect-war elements are conspicuous in the PRC's actions against India, including reengineering the cross-border flows of rivers, carrying out cyberattacks and nibbling away at disputed Himalayan territories. Its territorial revisionism has led to continuing Himalayan military standoffs between Chinese and Indian forces since May 2020, raising the specter of more clashes and even a full-fledged war.

Amid the military confrontation with India, the PRC's rubber-stamp parliament in March 2021 ratified the CCP's decision to build the world's first superdam on the Brahmaputra. The superdam will straddle the longest and deepest canyon on Earth near the heavily militarized Tibetan border with India.

The Brahmaputra curves around the Himalayas in a U-turn and forms Yarlung Zangbo Grand Canyon in Tibet while plunging from an altitude of more than 2,800 meters toward the Indian flood plains. The canyon, one of the world's most biodiverse regions, holds the planet's largest untapped concentration of river-water energy.

The superdam will dwarf the PRC's record-breaking Three Gorges Dam on the Yangtze River and is billed to produce roughly three times more electricity each year.

Construction of the superdam in an area known for frequent seismic activity could make it a ticking "water bomb" for downstream communities in India. In August 2020, about 400 million Chinese were put at risk after



record flooding endangered the Three Gorges Dam, the world's largest.

In 2021, the CCP set the stage for dam construction by completing a strategic highway through the forbidding canyon and by starting high-speed train service to a nearby military town. The railroad and highway allow transport of heavy equipment, materials and workers to the remote region, whose treacherous terrain had previously made it inaccessible.

The superdam will allow the PRC to manipulate transboundary river flows and leverage its long-standing territorial claim to the downstream Indian state of Arunachal Pradesh.

The CCP, in seeking to wield water as a weapon against India, is willing to disregard the irreparable damage its project is likely to wreak in a region rich in biodiversity. In addition, the area is sacred territory for Tibetans, with its mountains, cliffs and caves representing the body of their guardian deity, Dorje Phagmo, and the Brahmaputra representing her spine.

Comprised largely of flood plains and deltas, densely populated Bangladesh will likely bear the brunt of the project's devastation. The nation's 165 million people face a future imperiled by environmental and climate change, and the havoc caused by the Chinese dam could trigger a new exodus of refugees to India, already home to millions of Bangladeshi migrants.

### **Larger Implications**

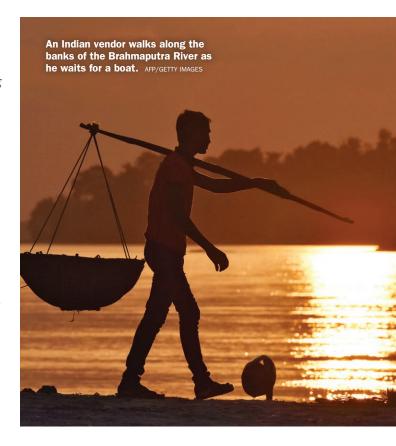
With its reverence for nature, the Tibetan culture has served as an environmental sentinel over many centuries, helping safeguard biodiversity and pristine landscapes. But a predatory CCP, step by step, has been desecrating landscapes sacred to Tibetans.

From its rush to mine gold in a border area captured decades ago from India to its frenzied dam-building on international rivers, the CCP has gone into overdrive to appropriate natural resources in Tibet. The Chinese name for Tibet since the ethnic-Manchu Qing dynasty — Xizang, or "Western Treasure Land" — explains why the PRC's major water and mining projects are concentrated on that plateau.

Having depleted its own natural resources through improvident economic growth, the PRC is greedily draining resources from the ecologically fragile Tibetan plateau. This is not only the world's largest plateau but also the highest, earning it the name "roof of the world." The superdam on the Brahmaputra will be at an elevation of roughly 1,520 meters — the highest of any giant dam.

Most of the big dams that the PRC is building or planning are concentrated in China's seismically active southwest, which is largely populated by Tibetans or other ethnic minorities. Such projects are triggering ethnic tensions over displacement and submergence.

However, downstream countries can do little to dissuade the PRC from wreaking environmental havoc through its dam-building frenzy. India has locked



horns with the PRC despite the risk of war and openly challenged Chinese capability and power. Yet it has few options to deal with the PRC's reengineering of transboundary flows other than to spotlight the unilateral Chinese actions.

Chinese upstream activities have triggered flash floods in Indian border states and polluted the Brahmaputra's main artery, the once-pristine Siang. The PRC's superdam near the Indian border could unleash devastation on a scale greater than that seen in the Mekong Basin, where droughts are becoming more frequent because of the Chinese network of giant dams. The dams are also damaging biodiversity and fisheries by disrupting the Mekong's annual flooding cycle and impeding the flow of nutrient-rich sediment from the Himalayan range. But the dams have helped the CCP to leverage its upstream water control to influence the policies of downstream nations. The PRC has no water treaties with lower Mekong countries. Although it agreed in late 2020 to share more year-round data with the Mekong River Commission, a regional governing body, the PRC has not provided the degree of transparency required or timely enough data for downstream nations to manage flows, recent reports found.

With the CCP making the control and manipulation of river flows a fulcrum of Chinese power, the Indo-Pacific has become the most likely flashpoint for water conflict. Beijing already holds significant financial, trade and political leverage over many of its neighbors. Now, by maneuvering for asymmetric control over cross-border flows, it seeks to have its grasp on the Indo-Pacific's tap.



# LOOKING SOUTH AND ACTING EAST

# TAIWAN'S POLICY PRESENTS OPPORTUNITIES FOR STRATEGIC COOPERATION WITH INDIA

SAHELI CHATTARAJ

hough not the first of its kind, Taiwan's New Southbound Policy (NSP) — introduced by President Tsai Ing-wen when she came to power in 2016 — provides a comprehensive vision for strengthening Taiwan's relationship with 18 primary target countries, including the 10 member states of the Association of Southeast Asian Nations (ASEAN), six South Asian states, Australia and New Zealand.

But unlike earlier Southbound Policies under Presidents Lee Teng-hui and Chen Shui-bian that focused on economic interdependence, Tsai's NSP has a broader motive that also aims to strengthen people-to-people exchanges and further diversify its scope into educational exchanges and tourism to bolster Taiwan's soft power in the region.

"The New Southbound Policy is Taiwan's regional strategy for Asia. Its goals and ideals coincide with those of the Association of Southeast Asian Nations Outlook on the Indo-Pacific and India's Act East Policy," Tsai said, according to the online news magazine The Diplomat. "Working together, these initiatives can achieve mutual benefits with complementary economic and social successes."

The NSP focuses on four main areas:

• Economic and trade collaboration. Forge new economic and trade partnerships by exporting infrastructure construction services, helping Taiwan's small- and medium-sized enterprises expand in target countries and providing Taiwan firms with financial assistance. Also, connect more closely with supply chains and domestic demands in target countries and collaborate on infrastructure projects.



Taiwan President Tsai Ing-wen speaks to Army reservists during their training in Nanshipu. REUTERS

- Talent exchange. Share human resources and complement the strengths of partner countries by expanding exchange and training programs for young scholars, students and industry professionals. Initiatives include bilateral academic exchange programs, a New Southbound talent-matching website and an information platform for Taiwan companies to register their businesses and seek talent.
- **Resource sharing.** Create bilateral and multilateral cooperation opportunities



Indian Prime Minister Narendra Modi, center, unveils the Make in India logo in 2014. THE ASSOCIATED PRESS

by capitalizing on Taiwan's soft power in culture, tourism, medical care, technology, agriculture, and small- and medium-sized enterprises. Strategies include promoting agricultural cooperation, increasing two-way tourism with other nations and attracting residents of New Southbound countries to Taiwan for quality health care.

 Regional connectivity. Enhance official and private exchanges, sign and renew trade agreements, institutionalize multilateral and bilateral cooperation with partner countries, and step up negotiations and dialogue.

# NSP'S STRATEGIC IMPORTANCE FOR TAIWAN

Only a dozen or so nations have formal diplomatic relations with Taiwan, with most countries recognizing the People's Republic of China (PRC) instead. The Chinese Communist Party insists the PRC is the only sovereign state under the name China and that the self-governed island of Taiwan is part of it. Although the U.S., as part of its "one China" policy, does not have formal diplomatic relations with Taiwan, it enjoys a "robust unofficial relationship," according to the U.S. State Department.

"Though the United States does not have diplomatic relations with Taiwan, we have a robust unofficial relationship ... an abiding interest in peace and stability across the Taiwan Strait," according to a U.S. State Department fact sheet, which references the 1979 Taiwan Relations Act that provides the legal basis for the relationship and enshrines the U.S. commitment to help Taiwan maintain defensive capability. Taiwan and the U.S. share similar values, deep commercial and economic links and strong people-to-people ties that form the bedrock of their friendship.

The U.S. expects "cross-Strait differences to be resolved by peaceful means," according to the fact sheet.

The NSP can also be seen as an initiative by Taiwan to build its relationships with neighboring countries in the spheres of business, trade, education, people-to-people exchange and tourism.

"It promotes a new model of economic development for the nation that reduces reliance on a single market ... and avoids directly competing with China's Belt and Road Initiative, which focuses on regional infrastructure," according to a government document titled, "Moving the Vision forward: Taiwan's New Southbound Policy." "Taiwan's projects are all about people and soft power, supporting tourism, education, healthcare, technology, small and medium enterprises and agriculture."

# INDIA AND THE NSP

The India-Taiwan relationship has mostly walked in the shadows of India's adherence to its one China policy. But changes in the geostrategic environment could lead to India becoming an attractive investment destination for Taiwan.

After the establishment of the PRC in 1949, India recognized and later established formal diplomatic ties with the PRC. In 1971, India further rendered its support to the PRC at the United Nations, which then expelled Taiwan from the U.N. General Assembly and Security Council in favor of the PRC and, thus, closed doors to India and Taiwan building cooperation. However, under the government's 1992 Look East Policy, India once again started to pay more heed to its eastern neighborhood. In 1995, Taiwan and India established the Taiwan Economic and Cultural Centre (TECC) in New Delhi and the India Taipei Association (ITA) in Taipei. Both entities started to offer consulate services and also promoted economic, trade, educational and peopleto-people exchanges.

Since then, India-Taiwan engagements have gradually strengthened. In the latter half of 2014, India further moved from its Look East Policy to an Act East Policy, placing greater emphasis on regional cooperation. Under the leadership of Prime Minister Narendra Modi, India began several initiatives to attract foreign direct investment through programs such as Make in India, which primarily encouraged foreign enterprises to set up manufacturing units in India. This initiative also made it easier for foreign enterprises to register in India. Also, with the goods and services unified tax system, it became more viable and easier for foreign entities to set up investment units in India. The Indian government also announced subsidies to attract investment, with states such as Gujarat, Maharashtra, Andhra Pradesh, Tamil Nadu and Uttar Pradesh offering subsidies in land, water and power.

The NSP also lets Taiwan shift some of its manufacturing base to India, an attractive investment destination given its skilled and cheap labor.

"Taiwan and India are reliable and natural partners to each other. Our two countries share fundamental essential values such as freedom, democracy, the rule of law and respect for human rights," Baushuan Ger, Taiwan's ambassador to India, told the Hindustan Times newspaper in November 2020. "Markedly, there is a vast intersection between India's Act East Policy and Taiwan's New Southbound Policy, which aims to enhance Taiwan's relations with targeted 18 countries in Southeast Asia, South Asia and Oceania."

To strengthen and elevate India-Taiwan industrial and trade ties, the TECC and ITA also signed an agreement to promote industry collaboration. Taiwan enterprises such as Foxconn and Maxxis have started manufacturing in India. Moreover, because Taiwan is culturally similar to East Asian nations, it can learn

from the experiences and business models of Japan, Singapore and South Korea, as these nations have been operating in India for some time.

"We are witnessing the restructuring of global supply chains that have created a lot of opportunities for Taiwan and India to further enhance our links in the area of manufacturing," Ger told the Hindustan Times. "We should, therefore, carefully appraise our respective positions and make policies to forge a stronger partnership."

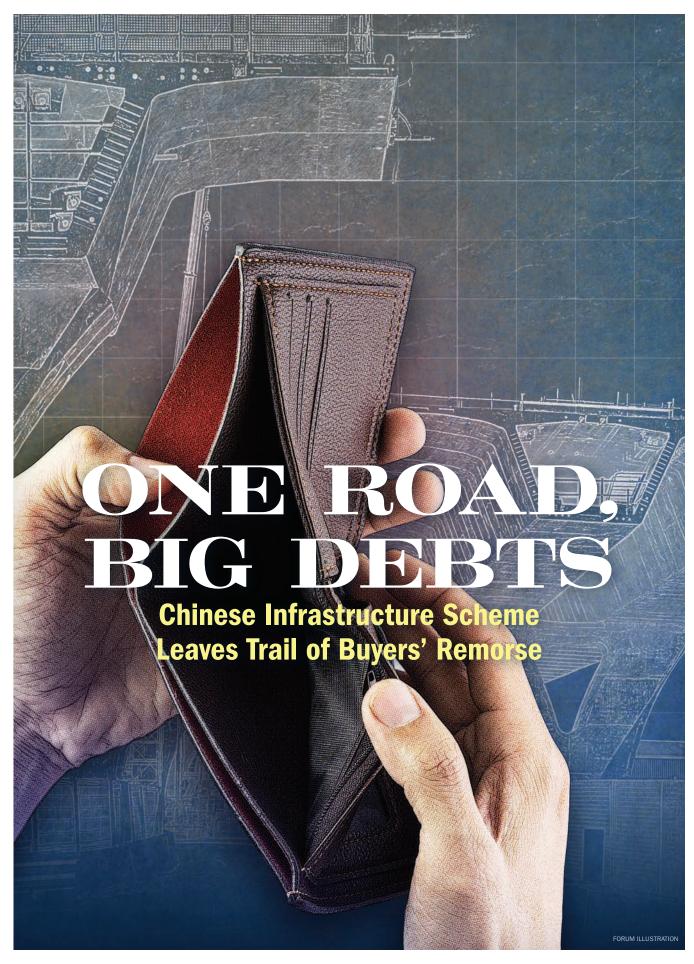
Taiwan has already expressed willingness to strengthen ties with India, which is one of the main target countries in the NSP's directives. India also needs more partners to join its Make in India initiative to start manufacturing in India and selling not only in India but also exporting abroad. Additionally, in the background of the PRC's increased influence in South Asia through its One Belt, One Road infrastructure scheme, as the Belt and Road Initiative is also known, and India's trade deficit with the PRC, a broader business and cultural partnership between India and Taiwan could prove beneficial for both.



Prime Minister Modi awaits the arrival of a visiting dignitary in New Delhi.  $\,$  THE ASSOCIATED PRESS

"In the past 25 years, both Taiwan and India have greatly benefited from the ever-growing trade and investment, education exchanges and technological collaborations," Ger told the Hindustan Times. "Now it is time for us to redefine our mutually beneficial objectives and the strategies to achieve them." □

This article was originally published in the East-West Center's Asia Pacific Bulletin and can be accessed at https://www.eastwestcenter.org/publications/india%E2%80%99s-act-east-and-taiwan%E2%80%99s-new-southbound-policy-are-win-win. It has been edited to fit FORUM's format and includes additional reporting by FORUM staff.





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uilt with a U.S. \$200 million loan from the People's Republic of China (PRC), the bridge that connects the Maldivian capital of Male with its airport has been dubbed the "bridge to prosperity," and more officially, the China-Maldives Friendship Bridge or the Sinamale Bridge. It looked like a friendly proposition at first. After the bridge's 2018 opening, a speedboat was no longer required to ferry airport arrivals to the capital, and the development boom it triggered on the nearby island of Hulhumale was warmly received.

Like many of the PRC's One Belt, One Road (OBOR) infrastructure endeavors, however, it eventually joined a rogues' gallery of projects saddled by unsustainable debt. A four-year study completed in September 2021 by researchers at the College of William and Mary in Williamsburg, Virginia, shows that 42 low- and middle-income countries have debt on OBOR projects that exceeds 10% of their gross domestic product (GDP), including Brunei, Cambodia, Laos, the Maldives, Myanmar and Papua New Guinea.

AidData, an international development laboratory at the college's Global Research Institute, said in its report, "Banking on the Belt and Road: Insights from a new global dataset of 13,427 Chinese development projects," that the PRC supports projects worth a staggering U.S. \$843 billion across 165 countries. About U.S. \$385 billion of the debt associated with those projects

is largely hidden from public scrutiny, the report said.

Chinese Communist Party General Secretary Xi Jinping launched the OBOR scheme in 2013 to promote infrastructure development across Africa, Europe and the Indo-Pacific with Chinese financing. He hoped the projects, which include highways, railroads, power plants and pipelines, would expand the PRC's exports and access to land and maritime transport facilities, boost its manufacturing, and strengthen its "economic, political, and military influence abroad," according to the Council on Foreign Relations, an independent think tank. "Yet if the new investments fail to generate sufficient returns, they may also boost debt levels unsustainably and create political frictions with China."

In the Maldives, which went on a borrowing spree during then-President Abdulla Yameen's term from 2013-18, officials are now shutting down some OBOR projects due to a lack of viability and worry over mounting debt, according to a January 2022 report by EconomyNext, a financial and political news service. Mohamed Nasheed, speaker of the island nation's Parliament and leader of the Maldivian Democratic Party, told The Associated Press in 2019 that he estimated his country's debts to Chinese entities to be as high as U.S. \$3 billion, although Chinese officials claim the figure is much lower. The Maldives' projected GDP for 2022 is about U.S. \$5.3 billion, according to the World Bank.

Nasheed began raising alarms about the debt after his party defeated Yameen in 2018. Since Yameen's ouster, the Maldivian government has established closer ties with India, and Nasheed has led the charge by arguing that the former leader drove the Maldives into a debt trap. The government will be unable to repay Chinese loans unless a review reduces them to their real value, he told EconomyNext.

The Maldives already has stopped some projects at island resorts. "The construction of resorts and ownership of these islands are again in question," Nasheed told the website. "There are about six to seven islands at different stages of construction by Chinese companies. But the construction work has now stopped for a long time and contractual ownership of these islands remains to be sorted in the courts."

#### **Hidden Debts, High Costs**

With international development finance commitments nearing U.S. \$85 billion a year, the PRC now outspends the United States and other major powers by a 2-1 margin, according to AidData. Rather than doling out grants or nonconcessional loans to boost struggling countries, Chinese entities have "used debt rather than aid to establish a dominant position in the international

# "The nature of the lending is often obscured from public view, making it difficult to assess a struggling government's true exposure."

development finance market," the AidData report states. Since OBOR's 2013 introduction, the PRC has maintained a 31-1 ratio of loans to grants, according to the report.

The loan terms provided by Chinese state-owned lenders are less favorable than those of multilateral creditors, and the average loan comes with a 4.2% interest rate. The bigger problem for taxpayers in debtor nations, however, is that the nature of the lending is often obscured from public view, making it difficult to assess a struggling government's true exposure.

That's because 70% of the PRC's overseas lending is directed to state-owned companies, state-owned banks, special purpose vehicles, joint ventures and





private sector institutions, the AidData report states. The debtor nation often isn't borrowing the money directly, even though it might be liable if a default occurs.

"These debts, for the most part, do not appear on government balance sheets," the report states. Most of the lenders, however, "benefit from explicit or implicit forms of host government liability protection, which has blurred the distinction between private and public debt and introduced major public financial management challenges."

Those challenges are becoming apparent in Laos, which opened a U.S. \$6 billion rail link with China in December 2021. The line connects the Laotian capital of Vientiane with the southern Chinese city of Kunming. Laos President Thongloun Sisoulith heralded a "new era of modern infrastructure development" at the rail link's opening, adding that the "dreams of Lao people have come true," according to The Manila Times newspaper.

Although the government hopes the railway will turn a profit by 2027, experts fear the Chinese loans that fund it are unsustainable. Jonathan Andrew Lane, an analyst with the Asian Development Bank Institute, wrote in a September 2020 report that there is "limited commercial logic for an expensive railway" connecting the country of 7 million people to Kunming. He suggested the benefits for Laos do not outweigh the risks. "That debt service will

put further strain on the limited tax-raising abilities of the government," Lane wrote.

Nearly half of the country's U.S. \$13.3 billion overall debt is held by Beijing, and the rail link represents even more hidden debt, the AidData report warns. Three Chinese state-owned companies and a Laos enterprise partnered on the project, with Beijing staking 70% of the U.S. \$3.54 billion debt for the rail link. There is uncertainty over which country would have to rescue the joint venture in a loan default, the AidData researchers said. If the railway is "insufficiently profitable, anywhere between 0-100% of the total \$3.54 billion debt could become a repayment obligation of the government of Laos," AidData warned.

#### **Despair in Sri Lanka**

In Sri Lanka, 2022 wrought shortages of necessities such as milk powder and cooking gas and a mounting debt crisis, which culminated in mid-May when the country, facing bankruptcy, officially defaulted on its foreign debt. For 2022 alone, Sri Lanka's foreign debt obligations totaled U.S. \$7 billion, according to online news magazine The Diplomat. Its total foreign debt exceeds U.S. \$51 billion, with U.S. \$25 billion due by 2026.

Long lines for food and fuel sparked weeks of protests across Sri Lanka in April 2022 that led to the

"35% of OBOR projects encountered implementation problems, such as corruption scandals, labor violations, environmental hazards, and public protests."

resignation in July of President Gotabaya Rajapaksa, whom they blamed for crashing the economy.

"There is no solution but for the president to go," Naveendra Liyaanarachachi, 27, one of the protesters, told The New York Times newspaper in mid-May 2022.

Sri Lankan lawmakers elected Prime Minister Ranil Wickremesinghe as president after Rajapaksa fled the country.

Although the tourism-dependent country's cash crunch was caused partly by the COVID-19 pandemic, the government's continual borrowing of money led to a slew of unpayable foreign debts coming due. The economy contracted by 1.5% from July to September 2021, and inflation surged to 12.1% in December 2021, The Diplomat reported.

Sri Lanka's cash shortage contributed to an economic downspiral, slowing fuel imports. Plunging water levels at hydroelectric dams exacerbated the power and fuel shortages. Sri Lanka's leaders in January 2022 sought relief from Chinese creditors as the country risked going into default, reported WION, a global news network based in India. "It would be great relief to the country if attention could be paid to restructuring the debt repayments as a solution to the economic crisis that has arisen in the face of the COVID-19 pandemic," Rajapaksa told visiting Chinese Foreign Minister Wang Yi in January, WION reported. Yet the PRC offered no relief. "Sri Lanka will surely overcome the temporary difficulties as soon as possible," a Chinese Foreign Ministry spokesperson said.

Since 2007, Sri Lanka has piled up U.S. \$11.8 billion worth of debt through sovereign bonds, which makes up 36.4% of its external debt. Its second-largest creditor is the Asian Development Bank, which loaned Sri Lanka U.S. \$4.6 billion, Reuters reported. Its next largest creditors are Japan and the PRC, which both are owed about U.S. \$3.5 billion.

Although the PRC is not Sri Lanka's largest creditor, its projects have been the most controversial. A high-profile example is the Hambantota Port, which opened in November 2010 with Chinese funding and eventually was turned over to Chinese control. In 2017, China Merchants Port



Holdings Co. Ltd. acquired a 99-year lease to run the port and take a 70% stake in the project in a joint venture with state-run Sri Lanka Ports Authority when Sri Lanka couldn't make debt payments.

# **Corruption, Protests and Scandal**

Throughout the Indo-Pacific and the world, scandals continue to follow OBOR projects. The AidData review said 35% of OBOR projects encountered implementation problems, such as "corruption scandals, labor violations, environmental hazards, and public protests." By comparison, 21% of the Chinese government's infrastructure portfolio outside OBOR faced similar problems. "Host country policymakers are mothballing high-profile BRI projects because of corruption and overpricing concerns as well as major changes in public sentiment that make it difficult to maintain close relations with China," the report states, using another acronym for the OBOR scheme.

Perhaps nowhere is this trend more evident than in Malaysia, where a slew of OBOR projects have been stalled by scandal. The East Coast Rail Link, for example, is the signature OBOR project in Malaysia. The 640-kilometer railway is supposed to connect Port Klang on the west coast to Kota Bharu on the east coast.



The project was suspended in 2018 over corruption allegations and since has been subjected to multiple renegotiations and realignments, The Diplomat reported in October 2021.

The project was at the center of a scandal that eventually ousted then-Prime Minister Najib Razak from office in May 2018. Najib that year suffered a stunning election loss to 92-year-old Mahathir Mohamad, who had led the country for 22 years before coming out of retirement to challenge Najib.

When Najib's defeat set in, "it's possible that no one was more dismayed than officials in Beijing," Foreign Policy magazine reported in January 2019. That's because Najib had granted the PRC extraordinary access with myriad projects all over the country. Najib eventually became the focal point of a scandal linked to a state development fund known as 1Malaysia Development Berhad, or 1MDB. His opponent alleged that "some of the Chinese money pouring into Malaysia was being used to refill the fund's graft-depleted coffers," Foreign Policy reported.

The Wall Street Journal newspaper in January 2019 provided evidence. Minutes from a series of meetings showed that Malaysian officials suggested to their Chinese counterparts that the PRC should

finance infrastructure projects at inflated costs to help settle 1MDB's debts. "If true, the report puts tangible proof behind widely held suspicions that China exploits corrupt regimes to propel" its OBOR scheme, Foreign Policy reported.

Najib would not weather the scandal. A Malaysian court in December 2021 upheld his conviction and 12-year prison sentence on corruption charges. The court found that Najib had illegally received about U.S. \$10 million from SRC International, a former unit of the now-defunct 1MDB.

Ismail Sabri Yaakob took over as prime minister in August 2021 and has vowed to keep the rail link moving. The reputational damage to OBOR, however, had already set in. Agatha Kratz, an associate director at the research and analytics firm Rhodium Group, told the Center for Strategic and International Studies in a March 2021 podcast that the COVID-19 pandemic accentuated a preexisting trend in which the PRC's projects were being shelved due to concerns about debt sustainability. "It really kick-started this whole narrative of debt-trap diplomacy" for OBOR, she said. "All of a sudden, international media started picking up on those setbacks and you know, the attention on the initiative turned pretty sour." □



# PRESCRIPTION FOR SUCCESS

# COOPERATION IS PIVOTAL TO COMBATING HEALTH THREATS

FORUM STAFF

he unprecedented challenges posed by the coronavirus pandemic have highlighted the military medical profession's vital role in ensuring the well-being and readiness not just of armed forces, but also of the broader society. From developing vaccines for COVID-19 to navigating global supply chain disruptions and delivering lifesaving supplies, military health practitioners and planners across the Indo-Pacific region have pivoted and partnered to prevail in a volatile public health environment.

"These are truly challenging times—the COVID-19 pandemic has spread around the globe at remarkable speed and has had a devastating impact," Rear Adm. Pamela Miller, then Command Surgeon at United States Indo-Pacific Command (USINDOPACOM), said in her welcome message for the Indo-Pacific Military Health Exchange (IPMHE) in March 2022. "The pandemic has reshaped all of our lives and underscored the importance of partnerships, shared best practices and working together to meet the next challenge in this quickly changing world."

The event, hosted by USINDOPACOM and India's Armed Forces Medical Services, brought together military medicine experts from more than 30 nations in a virtual setting to review lessons learned from battling a pandemic and to delve into established and emerging topics such as trauma and field surgery, gene therapy, telemedicine, robotics, and nursing support in humanitarian assistance and disaster relief (HADR) operations. "This event

is pivotal to fostering relationships and exchanging valuable talent and expertise in the medical space to benefit the entire region," Miller told FORUM. "It also affords the opportunity for follow-on engagement regarding research, collaboration and subject matter expert exchange in the scientific or operational medicine environment."

Commissioned as an ensign in the U.S. Navy Reserve Nurse Corps in 1989, Miller earned bachelor's and master's degrees in nursing from the University of Iowa and a master's in health care administration and doctorate in osteopathic medicine from Des Moines University, also in her home state of Iowa. She completed her transitional internship and residency in emergency medicine at Naval Medical Center San Diego, California. Miller has served as a nurse corps officer and medical corps officer, including deploying to Iraq in support of Operation Enduring Freedom, where she was officer in charge of the mobile shock trauma platoon.

Prior to her assignment as
USINDOPACOM command surgeon,
Miller held leadership roles including
senior medical executive; force surgeon;
operational medicine specialty leader;
commanding officer; deputy chief of staff;
reserve fleet surgeon, U.S. Fleet Forces
Command; and deputy commander, Naval
Medical Forces Atlantic, reserve component.
She has been awarded the Legion of Merit
twice, the Meritorious Service Medal four
times, the Navy Achievement Medal twice
and the Military Outstanding Volunteer
Service Medal.

In an interview with FORUM shortly after IPMHE, Miller highlighted future areas of focus for military health systems, discussed some of the profession's successes in combating COVID-19 and addressed the synergy in advances in the military and civilian health care arenas. "The whole-of-society approach is the most critical element to have an effective and efficient counter to any regional or global emergency, including health care-related emergencies," she said.

The IPMHE theme was "Military Healthcare in a Volatile, Uncertain, Complex and Ambiguous World." How is the incredible volatility of the COVID-19 pandemic shaping military health care in the Indo-Pacific region and globally? Where do you anticipate additional training, expertise, resources or focus will be needed in the coming years?

The virulence and transmissibility of the SARS-CoV-2 virus clearly demonstrated the broad spectrum of human-to-human interactions. COVID-19's effects on military overseas base installations can be closely equated to effects on island nations, island states and island territories. The base can be secluded, and traversing can be limited and monitored, but bases do not have organic sustainment resources. Food, water and daily consumables need to be delivered or shipped in, increasing the risk of spreading COVID-19 infections.

Additional training, expertise and resources in the health care setting will need to focus on health care workers and facilities having standard operating procedures for COVID-19 and other communicable diseases that include areas such as personal protective equipment [PPE] procedures, designating and creating isolated units, necessary equipment to limit exposure, and management of the logistics supply chain.

Biosurveillance will require proactive communication and coordination with international experts and military committees to identify and monitor key indicators in early phases of a possible communicable disease. Force health protection and biosurveillance need to be coordinated and integrated with international partners for earliest detection and warning.

The COVID-19 pandemic has seriously affected health systems across the globe. Future efforts to improve health care systems, including the military health system, should focus on:

- Improving hospital surge capacity to handle significant increases in health care demands associated with a large-scale pandemic.
- Ensuring sufficient numbers of front-line health care personnel are available to support workers who are overtaxed by the demands of the pandemic or who become sick themselves.
- Improving surveillance, data collection, case investigation and dissemination of information.





• Accelerating research and development of tests, vaccines and therapeutics.

How has the current public health crisis affected the interoperability of military health care among allies, partners and like-minded nations? For example, how have those partners collaborated to resolve supply chain issues relating to PPE, medications and other critical items?

Partners increased mutual awareness and understanding of communicable disease indicators and potential strategies to employ in future pandemics. Throughout the area of responsibility [AOR], countries have registered requirements as they evolved, whether it was for PPE, medications, ventilators or other items. The embassy processed the requests and — through the normal preexisting processes — the U.S. Defense Department partnered when asked to perform particular tasks or provide specific resources. Key partners throughout the AOR stood ready to support those in need, and through communication and collaboration we were able to maximize support to those in need. We all potentially have a better understanding as to how each health care system responds in a time of crisis based on the individual system nuances.

Across society, the pandemic response has highlighted challenges and opportunities. What are some of the lessons learned in the military health care arena? What do you consider to be the successes and gaps in the military response to COVID-19?



#### Lessons learned:

• The ability to further define the problem set and understand the outcomes associated with adding a combination of equipment and personnel or considering either equipment or medical professionals as resourcing solutions.

## Successes:

• In addition to universal lessons learned about health care systems, there are universal lessons learned about preparedness. Pandemics affect all sectors of society, and planning a country's strategic response requires looking beyond health care to things like procurement systems, supply chains, operational support and logistics. The military has experience with these facets of preparedness and this contributed to some of the military's successes during the pandemic. For example, the force is spread across the globe, including to austere environments. In spite of this, the [U.S.] military has been able to vaccinate 97.8% of the active-duty personnel. This represents a true success in our response to the pandemic.

# Opportunities:

• Areas that we need to improve include the ability to merge public health data with data related to other factors that drive pandemics, including environmental and meteorological determinants. Data modernization and innovative approaches to the use of data and information, including the use of artificial intelligence, will improve our ability to manage future pandemics.

Can you tell us about the incorporation of advances in military health care into civilian health care and vice versa? In light of COVID-19, how important is a whole-of-society approach in countering regional and global public health emergencies?

The whole-of-society approach is the most critical element to have an effective and efficient counter to any regional or global emergency, including health care-related emergencies. Funding and trained

Indian Vice Adm. Rajat Datta, Director General of Armed Forces Medical Services, delivers opening remarks at the Indo-Pacific Military Health Exchange.

PETTY OFFICER 1ST CLASS ANTHONY J. RIVERA/U.S. NAVY

U.S. Navy Rear Adm. Pamela Miller, then Command Surgeon at U.S. Indo-Pacific Command, delivers opening remarks at the Indo-Pacific Military Health Exchange in March 2022, hosted by USINDOPACOM and India's Armed Forces Medical Services.

PETTY OFFICER 1ST CLASS ANTHONY J. RIVERA/U.S. NAVY

manpower are always the major limitations to any response, especially if it's a global response. An example of an advance in military health care that will reach across society is the work that the [U.S. Defense Department's] Walter Reed Army Institute of Research (WRAIR) is doing on COVID-19 vaccines. WRAIR is developing a COVID-19 vaccine that provides an immune response to a variety of SARS-CoV-2 variants. This could prevent the need for new vaccines as new variants emerge.

A whole-of-society approach emphasizes social values and community engagement as well as trusted and transparent leadership. Only through a whole-of-society approach will we be able to ensure that the lives and livelihoods of the most vulnerable are protected.

The pandemic has demanded an immense commitment of time, energy and resources by the military health care profession for more than two years. What are some of the important developments during this same period in other areas of military health care, such as HADR? HADR is an area of expertise in the Department of Defense. The Center for Excellence in Disaster Management and Humanitarian Assistance is a direct reporting unit to USINDOPACOM and the principal agency to promote disaster preparedness and societal resiliency in the Indo-Pacific region. COVID escalated its opportunities to engage countries in our AOR to facilitate regional knowledge and expertise in HADR. During COVID, these programs persisted and flourished in the virtual space.

# How has the COVID-19 era prepared the military health care profession to respond to the next pandemic?

COVID-19 clearly demonstrated the need for the health care community to communicate, coordinate and collaborate at all levels. This allowed for individuals, teams, organizations, institutions, governments and the military to network with each other, developing and updating concepts of operations, plans and operations.

COVID-19 demonstrated society's — and the military's — reliance on goods and consumables that are integrated into critical infrastructure of supply and shipping, and the overreliance on foreign supply. COVID-19 has been immensely educational. We have learned both how to prevent and treat a completely novel virus. We have also learned how to better organize a multifaceted, whole-of-society response to threats through communication and cooperation.



# What were the logistical challenges of organizing a multilateral event during a pandemic?

Organizing IPMHE was a monumental task, especially with the ever-changing dynamics of COVID-19. Initially, the event was to be in person. The conference location and lodging were determined early to ensure funding support. USINDOPACOM was sponsoring over 25 delegates from around the world to participate, and this remained in a state of flux while monitoring COVID with our partners in India.

With the recent omicron surge, and three weeks until execution of the event, it was changed to all virtual. This required setting up virtual environments and multiple simultaneous rooms to accommodate all of the presentations and speakers. Some of the presentations needed to be prerecorded in order for the topic to be accessed by multiple users and across multiple time zones. Collecting and preparing the prerecorded presentations was an added necessity.



# What did you learn at IPMHE that most excited you about developments in military health care?

Military medicine applications regarding artificial intelligence, wearables and technology that advance the ability to monitor health and enhance surveillance, as well as performance.

How valuable are events such as IPMHE in enhancing the expertise, effectiveness and interoperability of allied and partner military health care organizations in the Indo-Pacific and beyond? How do you anticipate IPMHE evolving in the coming years, given such factors as widening adoption of virtual technologies?

Multinational and multilateral large events and conferences such as IPMHE and the Military Civilian Health Security Summit build upon U.S. and foreign partnerships and relationships within the medical community to enhance each other's capabilities to effectively and efficiently provide care not only to our military but also to all citizens.

This event is pivotal to fostering relationships and exchanging valuable talent and expertise in the medical space to benefit the entire region. It also affords the opportunity for follow-on engagement regarding research, collaboration and subject matter expert exchange in the scientific or operational medicine environment. This platform also affords the opportunity for all countries, large and small, to showcase the talent and expertise that resides in their country.

We have proved over and over again in the past few years that these engagements can go on in the virtual space. However, the resounding feedback is that nothing can replace events for the value of personal engagement and relationship building that can only be optimized in an in-person venue.  $\square$ 

# COUNTERING NONTRADITIONAL

# SECURITY THREATS

# NATIONS MUST CREATE STRONG PARTNERSHIPS TO FACE EVOLVING REGIONAL CHALLENGES

SREEPARNA BANERJEE AND PRATNASHREE BASU/OBSERVER RESEARCH FOUNDATION

shift in the notion of security since the end of the Cold War resulted in the accommodation of nonmilitary — thereby, nontraditional — threats to security. Nontraditional security (NTS) comprises a gamut of human security concerns such as climate change, shortages of resources such as energy and food, infectious diseases, natural disasters, transnational crime, human and drug trafficking, and mass migration. Analysts refer to this as the human security-development nexus. These NTS areas have typically fallen outside the purview of discussions on more immediate threats to national security such as territorial encroachment. Addressing these challenges also often calls for the involvement of transnational actors.

This report explores how cooperation on nontraditional security threats can be a catalyst for building stronger partnerships in the Indo-Pacific region. It looks at two distinct but interrelated segments. First, it identifies the key issues affecting countries in South and Southeast Asia, as well as Pacific island nations. Second, it analyzes how cooperation platforms such as the Quadrilateral Security Dialogue, or Quad, the Association of Southeast Asian Nations (ASEAN) Regional Forum, the Blue Dot Network and the Indian Ocean Rim Association (IORA) can mitigate NTS issues and provide opportunities for states in terms of better security governance and cooperation among players in the region.

# NONTRADITIONAL SECURITY ISSUES: AN OVERVIEW

#### South Asia

South Asia has experienced a succession of natural disasters. In 2004, for example, an earthquake and tsunami devastated littorals of the Indian Ocean. In 2007,

Cyclone Sidr hit Sri Lanka, India, Pakistan, Afghanistan and Bangladesh, and in its wake, left a catastrophe. In 2020, Cyclone Amphan displaced nearly 5 million people across Bangladesh, Bhutan, India and Myanmar. It was among the world's biggest displacements caused by a natural disaster. These disasters cause economic losses and massive casualties. Often, the impacts are made more severe by inadequate early warning systems and ineffective responses.

In recent years, countries in the region have faced growing NTS threats related to climate change. The United Nations' Intergovernmental Panel on Climate Change predicts that rising sea levels would have calamitous effects in low-lying areas of the region. The glacial recession seen in the Himalayas, meanwhile, can pose a severe threat to river systems.

Moreover, climate change-induced migration is growing. In a 2018 report, the World Bank predicted that over 140 million people will migrate from their native countries by 2050 due to climate change. Climate change-induced migration not only heightens tensions and inequalities but also has ramifications for access to essential services such as education and health care. Bangladesh, for example, has become a hot spot for this phenomenon. Compounding the challenges for Bangladesh is the influx of displaced ethnic Rohingya from Myanmar. According to the U.N. High Commissioner for Refugees, of the 1 million displaced Rohingyas and asylum seekers from Myanmar in neighboring countries, 860,000 are in Bangladesh.

In this regard, a wide range of migration measures can be considered, including mainstreaming migration into national development initiatives; synergizing frameworks on migration and humanitarian assistance; and developing comprehensive humanitarian response training programs for local stakeholders. Other strategies can include enhancing public-private partnerships; ensuring the involvement of civil society groups; and empowering migrants and diaspora communities.

#### Southeast Asia

Southeast Asia continues to be a hot spot for illegal drug cartels that operate across the Golden Triangle, considered the world's second-largest drug-producing area and leading producer of opium.

The U.N. estimates that poppy cultivation in Myanmar has tripled since 2006 and now covers 60,703 hectares. Despite some economic growth in pre-coup Myanmar, the peripheral regions remain untouched by development projects and, therefore, activities such as poppy cultivation have continued to thrive. While the U.N. has attempted interventions by introducing crop substitution in Myanmar, as well as in Laos, drug trafficking has grown rapidly, posing challenges for other nations as well.

Vietnam, for instance, which has some of the world's most stringent drug laws, is a transit hub for heroin and methamphetamine. Countries such as Japan, the People's Republic of China and South Korea, along with ASEAN countries, are witnessing a shift from the use of heroin to amphetamine-type stimulants smuggled and trafficked from the Golden Triangle.

As in South Asia, the countries of Southeast Asia — especially Indonesia, Myanmar, the Philippines, Thailand and Vietnam — are experiencing threats related to climate

change. The U.N. predicts that the risk of floods and droughts will increase for Southeast Asia in the next 10 years, leading to economic losses representing 3% of gross domestic product for the Philippines, 2% for Laos and over 1.5% for Cambodia.

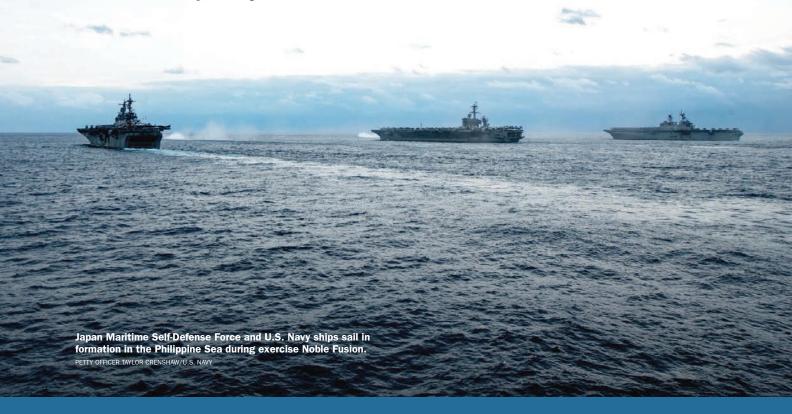
Other threats are equally stark: Forest cover in Indonesia has dropped from 65.4% in 1990 to 50.2% in 2013 due to overexploitation of palm oil; plastic waste from some Southeast Asian countries (along with the PRC) accounts for half of all plastic waste in the world's oceans; and countries such as Indonesia and the Philippines are perennially threatened by earthquakes and associated disasters, given their location in the Pacific's Ring of Fire.

#### **Pacific Island Nations**

Although greenhouse gas emissions from Pacific island nations remain low, the threats of global warming to these islands, in particular sea-level rise, cannot be underestimated. These states also experience transnational crime, natural disasters, and illegal and unsustainable exploitation of resources. They often have limited resources to combat the threats and, therefore, would need the help of multilateral partnerships.

# COLLABORATING ON NONTRADITIONAL THREATS

There is no dearth of partnerships designed to strengthen conventional security. However, the imperative is to expand the scope of existing mechanisms to include mitigation of NTS threats and to create new cooperation frameworks.





Over the years, ASEAN's regional security framework has been continually tested by NTS challenges. These include the Asian economic crisis of 1997, the severe acute respiratory syndrome outbreak in 2002-03, the bird flu epidemic in 2007 and, most recently, the COVID-19 pandemic that expanded globally in 2020.

ASEAN has instituted a number of mechanisms to deal with such challenges. For example, the ASEAN Agreement on Disaster Management and Emergency Response is the policy backbone for member states to enhance collective efforts to reduce disaster risks and respond to disasters. The ASEAN Regional Forum, meanwhile, is where members discuss security issues and develop cooperative measures to enhance peace and security in the region through policy formulations. For its part, the ASEAN Political-Security Community has paved the way for the states to conduct security cooperation and pursue political alignment.

The ASEAN Plan of Action Against Trafficking in Persons, Especially Women and Children, outlines specific steps within the boundaries of ASEAN member states' domestic laws and policies, as well as relevant international obligations. The aim is to address regional challenges common to all member states.

In early 2020, ASEAN member states responded to the COVID-19 pandemic by issuing a movement restriction order and launching information-sharing.

ASEAN also works with other countries on different platforms, for example, the ASEAN Plus Three initiative with Japan, the PRC and South Korea. The bloc also works with India in the ASEAN Regional Forum Disaster Relief Exercise. Indeed, India aspires to build close ties with the ASEAN Coordinating Centre for

Philippine Army Soldiers provide meals for victims of Super Typhoon Odette, also known as Typhoon Rai, which was the strongest and most destructive storm to hit the Philippines in 2021. REUTERS

Humanitarian Assistance on Disaster Management. Amid the COVID-19 pandemic, India has also expressed willingness to work with ASEAN in producing generic drugs and medical technologies.

# Blue Dot Network

Australia, Japan and the United States launched the Blue Dot Network in 2019 to promote infrastructure development. In collaboration with countries such as India, the network stresses sustainable projects, including through certification. A key network agreement deals with a "smart cities" project in ASEAN countries. Some have also proposed a Blue Dot Marketplace to help countries achieve sustainable infrastructure by identifying potential impacts on food security, disasters and health.

#### **Indian Ocean Rim Association**

The IORA aims to strengthen regional cooperation and sustainable development through its 23 member states and 10 dialogue partners. The group addresses the many traditional and nontraditional safety and security challenges facing its members, including piracy, armed robberies at sea, terrorism, human trafficking, undocumented migration, and trafficking of wildlife, drugs and weapons. There are also challenges such as illegal, unreported and unregulated (IUU) fishing, degradation of ocean health, and unlawful exploitation of marine resources, all of which are compounded by climate change.

In January 2021, the first IORA expert group meeting on disaster risk management set a road map for establishing the IORA Working Group on Disaster Risk Management.

Member states also finalized guidelines for humanitarian assistance and disaster relief (HADR) operations in the Indian Ocean. The IORA should strengthen cooperation to combat nontraditional security threats, building on the IORA Action Plan proposal for a permanent working group on maritime safety and security.

#### BIMSTEC

The Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC) — comprising Bangladesh, Bhutan, India, Myanmar, Nepal, Sri Lanka and Thailand — has identified the fight against terrorism and organized international crime as one of the prerequisites for sustainable growth and for maintaining peace in the region. The BIMSTEC Convention on Cooperation in Combating International Terrorism, Transnational Organized Crime and Illicit Drug Trafficking, adopted in 2009, is a confidence-building measure for member states to counter those challenges together, subject to their domestic laws and regulations.

Although the 15-article convention does not mention human trafficking or undocumented migration, the national security advisors of BIMSTEC members have been meeting annually and the countries are in the process of ratifying the mechanism for cooperation. The national security advisors will then develop measures for cooperation and coordination in law enforcement, intelligence and security. This could boost the capacity-building of the security apparatus and enable real-time information sharing. In disaster management, BIMSTEC can facilitate capacity-building cooperation by sharing knowledge and technical expertise, framing standard operating procedures, and creating and funding a disaster response force.

## **MINILATERAL FORUMS**

# The Quad

The Quadrilateral Security Dialogue, or Quad, is a strategic partnership among Australia, India, Japan and the U.S. that draws on the members' shared interest in ensuring prosperity within the Indo-Pacific region. The Quad agenda covers cooperation in areas such as critical technologies and materials, reliable supply chains, infrastructure, artificial intelligence, quantum computing, cyber issues, COVID-19 response, vaccine production, and climate change, and could include ASEAN countries on issue-based cooperation.

The Quad is also developing a robust architecture for disaster management and capacity-building within the Indo-Pacific.

## Australia-India-Japan Trilateral

The geostrategic importance of the Indo-Pacific can be the perfect point for Australia, India and Japan to build



An Indonesian officer guards a Vietnamese vessel suspected of illegal fishing in Indonesia's exclusive economic zone. REUTERS

cooperation and promote a rules-based order.

The three countries are committed to providing each other and their neighbors with HADR. Furthermore, India and Japan have undertaken joint exercises focusing on HADR operations. The COVID-19 pandemic has also allowed the three countries to work on scientific development and research capacity by sharing medical supplies and HADR operations.

Another challenge is IUU fishing, which has intensified due to consumer demand and threatens to worsen resource scarcity. There are also the threats of maritime crimes such as piracy, trafficking and smuggling, and forced labor. As homes to large fishing communities, Australia, India and Japan should expand their reach by working together through the IORA, as well as other targeted platforms such as the Indian Ocean Tuna Commission.

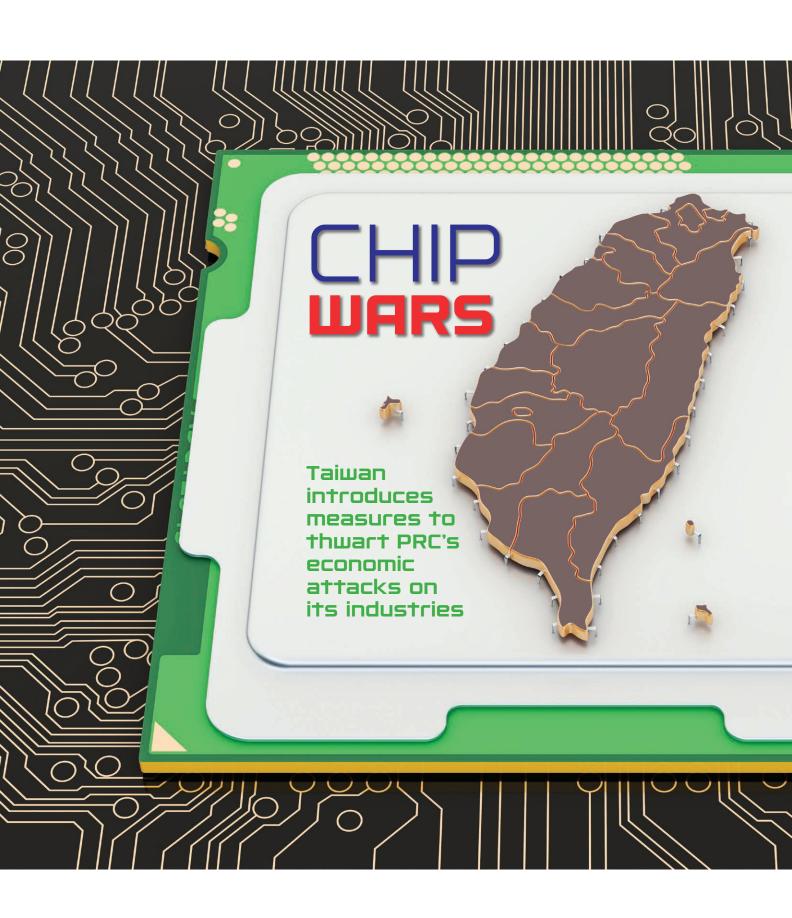
# A New Regional Order

The emergence of trilateral, minilateral and multilateral groups, as well as growing bilateral synergy among like-minded nations, are key developments shaping the new regional order. At the same time, strategic choices designed according to national interests and objectives will continue to characterize the Indo-Pacific region.

Countries should pursue regional strategies and action plans that address the various nontraditional security threats. State and nonstate actors could build on existing regional frameworks and initiatives and create more targeted plans of action.

Function-based cooperation that focuses on tangible and measurable goals is quickly becoming a preferred mode of cooperation, in addition to the traditional format of partnerships based on economic or security imperatives. Minilateral platforms that have emerged in the Indo-Pacific over the past few years are orienting toward a function-based cooperation structure. For progress in areas of nontraditional security, this can be beneficial.  $\square$ 

Observer Research Foundation, based in New Delhi, India, originally published this report in March 2022. It has been edited to fit FORUM's format. Access the original report in full at https://www.orfonline.org/research/strengthening-partnerships-to-counter-non-traditional-security-threats-in-the-indo-pacific/





STORY AND PHOTOS BY REUTERS

aiwan's spy catchers have launched probes into about 100 Chinese companies suspected of illegally poaching semiconductor engineers and other tech talent, a senior official at the island's Investigation Bureau said in April 2022.

That comes on top of seven companies prosecuted since the start of 2021 and includes 27 that have either been raided or whose owners have been summoned for questioning by the bureau, the official said.

Tech powerhouse Taiwan makes most of the world's microchips, used in everything from fighter jets to mobile phones, and the government has long worried about Chinese efforts to copy that success, including through economic espionage, poaching talent and other methods. South Korea, Taiwan's nearest competitor, controls about 17% of the market.

The Taiwan Semiconductor Research Institute displays two chips at its facility in Hsinchu.

Home to industry giant TSMC and accounting for 92% of the world's most advanced semiconductor manufacturing capacity, Taiwan makes the smallest and fastest chips and possesses what the People's Republic of China (PRC) needs — chip expertise.

To date, the island's prominent microchip industry has served as a defense shield of sorts. Because the semiconductor industry is essential to the PRC's economy, Taiwan has calculated that military actions that would jeopardize the fabrication plants would only be undertaken as a last resort, analysts said.

A global chip shortage and Beijing's avowed goal of self-reliance in advanced chips — more forcefully promoted by Chinese Communist Party General Secretary Xi Jinping after a trade war with the United States — has intensified the scramble for engineering talent and heightened the risks for Taiwan.

Taiwan responded in December 2020 by creating a task force within the Justice Ministry's Investigation Bureau, its main spy-catching organization, to tackle poaching.

Cases involving raids or questioning represented "the tip of the iceberg," the senior bureau official said, asking to remain anonymous so that investigations are not impeded.

The Investigation Bureau said the official's comments represented its views.

# INCREASED DETERMINATION

Heightened military pressure from the PRC, which claims self-governed Taiwan as its territory, has strengthened Taipei's determination to protect its chip supremacy.

The PRC's aggression has also raised concern among nations that a PRC takeover of Taiwan's industry could lead to a broader conflict given the U.S.'s chip dependence. Multilateral responses and global efforts to build supply chain resilience could also help protect Taiwan's microchip industry, according to a January 2022 study by the Center for a New American Security.

In February 2022, Taiwan's government proposed a law to prevent the PRC from stealing its chip technology amid rising concern that Beijing is stepping up its economic espionage.

Taiwan's Cabinet proposed new offenses for economic espionage under the national security law, setting out punishment of up to 12 years in prison for leaking core technologies to the PRC or "foreign enemy forces."

Using TSMC's most advanced 2-nanometer chipmaking technology as an example, Cabinet spokesman Lo Ping-cheng said such technology could be deemed vital to Taiwan's security under the new law, and thus extra protection was needed in addition to existing laws on trade secrets.

"Everyone knows that TSMC ... has world-leading technologies," Lo said. "If their technologies were stolen, there would be a significant impact."

A designated court for economic espionage would be established to speed up trials, Lo added.

The government also has proposed tightening laws to prevent Chinese companies from illegally poaching Taiwan talent via companies set up in a third country. Taiwan's Parliament must pass the revisions before they become law.

Taiwan authorities already have toughened punishment for Chinese investment in Taiwan via illegal methods, which the government said had led to many cases of industrial espionage in recent years.

"The infiltration in Taiwan's industries from the red supply chain is getting more and more severe in recent years," Taiwan Premier Su Tseng-chang said in a statement, referring to Chinese tech suppliers. "They poached our nation's high-tech talents and stole the nation's core and key technologies."

In March 2022, the Investigation Bureau conducted its biggest operation to date, a raid of eight companies aimed at countering what it said was "the Chinese Communist Party's illegal activities of talent-poaching and secret-stealing."



A smartphone displays the TSMC logo.

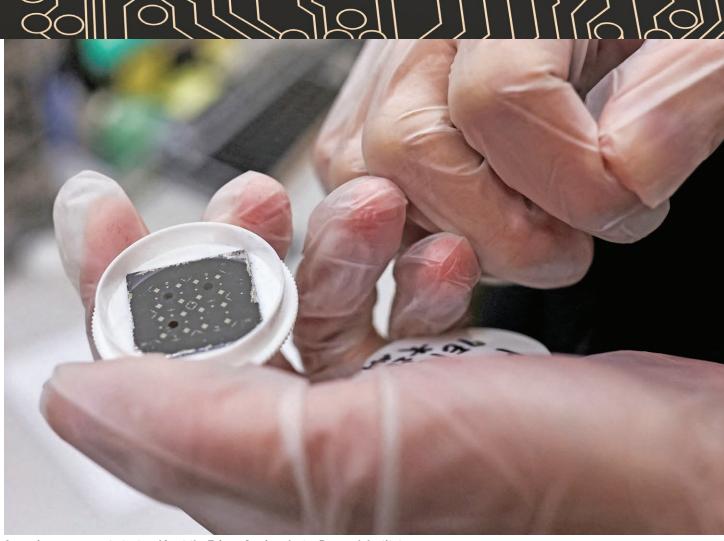
#### TRICKS EMPLOYED

It is not illegal, per se, for Chinese companies to hire Taiwan engineers. Taiwan law, however, prohibits Chinese investment in some parts of

the semiconductor supply chain, including chip design, and requires reviews for areas such as chip packaging, making it difficult for Chinese chip companies to operate on the island legally.

Taiwan engineers can go to China, but many prefer the quality of life on the island, especially while COVID-19 restrictions make travel harder.

One case under investigation involves a company that purports to be a Taiwan data analysis company, which authorities believe is an arm of a Shanghai-based chip



An engineer prepares to test a chip at the Taiwan Semiconductor Research Institute.

company sending chip design blueprints to the PRC, according to the senior official and a colleague.

In mid-March 2022, after nearly a year of surveillance, the Investigation Bureau summoned the company's owner for questioning. Officials declined to identify the company as charges had not been filed.

Other tactics employed include incorporating units in tax havens such as the Cayman Islands, making it difficult to identify investment from the PRC.

Beijing-based Starblaze Technology, an integrated circuit design company, has been accused of running a research and development center in the Taiwan tech hub of Hsinchu without approval. It allegedly conducted job interviews via Zoom and used a Hong Kong company to handle payroll and insurance, according to court documents.

Tongfu Microelectronics, a Chinese state-affiliated company, was accused of having an illegal office whose employees' salaries were paid in U.S. dollars via offshore accounts wired through a Hong Kong-based subsidiary. The defendants were found guilty in January 2022.

# THE MOST WANTED

Lucy Chen, vice president of Taipei-based Isaiah Research, said that in 2021, Chinese chip companies came wooing with salary offers two to three times local levels. Among the most sought-after employees are integrated circuit designers, who can work remotely.

While it is difficult to compete on salary, local companies aim to provide long-term career development and on-site perks such as day care centers, massages and gyms, a Hsinchu chip company executive said.

Those willing to be poached risk not finding work again at Taiwan tech companies as well as public shaming. Several senior TSMC executives who went to work for SMIC in the PRC have been branded as traitors in the Taiwan media.

Authorities are working to increase penalties for poaching. Maximum prison sentences are set to triple to three years, with top fines jumping from U.S. \$5,200 to U.S. \$520,525. □

FORUM Staff contributed to this report.

# INSTANT NOODLE STORE

THAI SHOP PROVIDES
CULINARY TOUR OF
POPULAR INDO-PACIFIC DISH

STORY AND PHOTO BY REUTERS

Thailand, a country famous for its flavorful, spicy cuisine and street food, instant noodles may seem an unlikely culinary hit.

But for teenagers such as Ratchadaporn Krongngam, a store that stocks more than 70 types of instant noodles from across the Indo-Pacific — and lets you cook and eat them immediately — is an experience worth savoring.

Since Good Noodle opened in a Bangkok mall in October 2021, it has seen thousands of young customers browse its bright, orange shelves for noodles from all over the region, including China, Hong Kong, Indonesia, South Korea and Taiwan.

"This is my third visit," said Ratchadaporn, 18.
"I love it here because I wanted to try out new and different kinds of instant noodles as I want to know how all of them taste."

Customers often dine in the store, where they can cook their own three-minute meal, which costs between 6 and 250 baht (U.S. \$0.18 to U.S. \$7.46).

Sirayakorn Charoenthat, 18, said the prices are reasonable for students compared to eating at restaurants.

Instant noodles are hugely popular in several Indo-Pacific countries because of their taste, versatility, convenience and low price, although health experts warn against consuming too much of the highly processed food because it lacks key nutrients.

Good Noodle's managing director, Ungkool Wongkolthoot, said he scoured Bangkok's convenience stores and supermarkets during the COVID-19 pandemic for all the different types of instant noodles he could find, which turned out to be more than 350.

With this, he saw a business opportunity.

"I wanted to give the customers an instant experience with the noodles," he said. "Not just buying the noodles from other convenience stores or supermarkets, then forgetting about them at home."





# **Prospects and Possibilities**

# Broadening security cooperation in the Indo-Pacific

DR. NG ENG HEN/SINGAPORE MINISTRY OF DEFENCE

■ he last time I was speaking at the Putrajaya Forum was four years ago. It would not be an exaggeration to state that since we met four years ago, the world has changed, precipitated by not one, but two epochal events — COVID and the invasion of Ukraine by Russia. These singular challenges have stress-tested existing arrangements, alliances and partnerships, revealing gaps and vulnerabilities. We should address these collectively, as no one country can do it alone. Other transnational challenges that my counterpart Dato Seri Hishammuddin Hussein in Malaysia rightly pointed out, such as terrorism, climate change and natural disasters, may have receded in focus somewhat as we dealt with these two events, but they can similarly shock our countries in the future.

COVID and the Ukraine-Russia conflict have had an impact globally, and far beyond the security realm. There are common threads from both that we can draw lessons to develop or strengthen existing initiatives to make our regions, or ASEAN [Association of Southeast Asian Nations], at least, more resilient. There are quite a few challenges, but I will focus on three.

First, supply chain disruptions. With COVID, I think all of us experienced in our countries, we witnessed what happened during national lockdowns that put a brake on the flow of raw materials and finished goods. I'm sure this happened in many, many other countries. This led to shortages of essential consumer products and staples, electronic parts, such as semiconductors, and even critical medical supplies, such as personal protective equipment. The Ukraine-Russia conflict has also had a similar impact. The prices of commodities and fuel have already risen sharply. Russia is

the world's top wheat exporter, and combined with Ukraine, the "breadbasket of Europe," accounts for almost one-third of the world's wheat exports. Russia also supplies about 40% of Europe's natural gas and about one-quarter of the European Union's crude oil imports.

On an aggregate level, ASEAN is a net exporter of agricultural products. We ought to explore mechanisms to pool resources to build up resilience and minimize disruptions in our region during times of crises. ASEAN has committed to the joint statement by ministers on agriculture and forestry in 2020 to ensure food security, food safety and nutrition in the region amidst COVID, and also through the COVID-19 ASEAN Response Fund, which helps member states procure the medical supplies and equipment needed to combat the pandemic. ASEAN is also working to extend tariff exemptions for a list of essential goods, and even to expand it to include staple food items and vaccine-related products. These are good initiatives, but we need to do more.

The second challenge we face is geopolitical rivalry and alliances. In a perfect world, our fight against COVID, which is a public health challenge, should have been a common one, regardless of political ideology or affiliation, developed or emerging economies. All of us know we do not live in a perfect world, but even so, multilateral institutions face difficulties to forge coordinated action in a polarized world. Even the distribution and choice of vaccines could be politicized and resulted in stark differences in vaccine choice, distribution and acceptance, medical care, sufficiency of oxygen, and medical products. The ongoing Ukraine-Russia conflict put at risk climate change-related efforts, such as carbon emission reductions and

"Two epochal events have changed our world since we last met. Vulnerabilities and deficiencies have been exposed, and we must take collective action to address them to ensure that peace, stability and progress continue in our region and beyond."

 Singaporean Minister of Defence Dr. Ng Eng Hen, speaking at the Putrajaya Forum in March 2022



A Singapore Air Force Chinook helicopter flies above the Singapore Navy vessel RSS Steadfast, bottom, and Royal Australian Navy vessel HMAS Canberra during 50th anniversary celebrations for the Five Power Defence Arrangements — involving Australia, Malaysia, New Zealand, Singapore and the U.K. AFP/GETTY IMAGES



the development of green enterprises and financing, efforts related to cybersecurity, building digital economies and enhancing digital norms. All these will be difficult to put on the global agenda when these rivalries are sharpened.

The third challenge is the resumption or aggravation of existing threats. I refer to terrorism and cyberattacks. In spite of COVID movement restrictions, terrorist groups are still active in organizing, instigating and conducting attacks, including in our region. Global terrorist groups such as ISIS [Islamic State of Iraq and Syria] and al-Qaida have proven resilient and adaptable. They have kept their recruitment and radicalization strategies current and are exploiting cyberspace to great effect. With the removal of COVID restrictions to travel, we can expect an increase in terrorist activity.

For threats from the cyber domain, both COVID and the Ukraine-Russia conflict also show the impact that disinformation has on the physical world. With COVID, conspiracies and anti-vaccine movements caused undue panic, divided people and their governments, and undermined global public health efforts.

Critical infrastructure can be affected through the digital domain. Last May [2021], a ransomware attack on a major American oil pipeline system, Colonial

Pipeline, jammed the flow of products in the U.S. East Coast. In October [2021], there was a cyberattack on Iran's fuel system. More recently, cyberattacks affected oil shipments from terminals in Belgium and Germany. These incidents are clear examples of the false divide between the virtual and physical worlds.

Both state and nonstate actors would have recognized the power of the digital domain, and threats emanating from this domain can only increase.

# WAY FORWARD FOR SECURITY COOPERATION

ASEAN can address these challenges collectively, based on international principles that individual countries can agree on. Let me cite three key areas.

First, we must uphold the primacy of each and every country's sovereignty and territorial integrity. Where there are disputes, we must reject forced and illegal aggression by any country, and instead pursue the settlement of disputes by peaceful means. Here, we have good examples, including during the disputes between Malaysia and Indonesia over Sipadan and Ligitan, between Malaysia and Singapore on Pedra Branca, Middle Rocks and South Ledge, as well as the land reclamation by Singapore in and around the Straits of Johor, where these disputes were settled



peacefully and based on well-accepted international law or practices.

Second, while each country must be able to make decisions based on its own interests, there are shared mechanisms to address transnational challenges and engage in confidence-building measures to de-escalate tensions and mitigate adverse consequences. Again, we have positive examples of collaborations in our region — Malaysia and Singapore are part of the Malacca Straits Patrol that commenced operations in 2004, and Malaysia is also part of the Trilateral Cooperative Agreement in the Sulu-Celebes seas, established in 2017, to address threats like terrorism and piracy. We have confidence-building initiatives such as the Code for Unplanned Encounters at Sea, which all 18 ASEAN Defence Ministers' Meeting-Plus (ADMM-Plus) navies have practiced, and Guidelines for Air Military Encounters. We ought to use similar cooperative frameworks to tackle transnational challenges, including supply chain disruptions for essential commodities and even energy.

Third, in the security sector, we must step up dialogue and collaboration, build confidence, and increase understanding through established platforms. The ADMM, and the ADMM-Plus —

comprising 18 nations that make up close to 90% of the world's military forces — is now the de facto security arrangement of Asia. We also have the Five Power Defence Arrangements between Australia, Malaysia, New Zealand, Singapore and the U.K. We collaborate through initiatives including the ADMM Cybersecurity and Information Centre of Excellence, the ASEAN Cyber Defence Network and the Counter-Terrorism Information Facility. These multilateral platforms facilitate information sharing, strengthen trust between militaries and enhance cooperation for our region to achieve our common goals and mitigate common threats.

By strengthening resilience and response within ASEAN, and by ASEAN, to these challenges, we will give greater credibility to ASEAN centrality.

Two epochal events have changed our world since we last met. Vulnerabilities and deficiencies have been exposed, and we must take collective action to address them to ensure that peace, stability and progress continue in our region and beyond.

Singaporean Minister of Defence Dr. Ng Eng Hen delivered this speech March 29, 2022, at the sixth Putrajaya Forum in Malaysia, which was organized by the Malaysian Institute of Defence and Security to bring together defense ministers, officials and academics to discuss defense and security matters. It has been edited to fit FORUM's format.

# South Korea test-fires FIRST SOLID-FUEL SPACE ROCKET

REUTERS

outh Korea's military said it successfully test-fired a solid-fuel space rocket for the first time in late March 2022, a step it said will help it eventually launch a constellation of satellites to better monitor threats such as North Korea.

The launch was the first such test since South Korea and the United States agreed in 2021 to end decades of restrictions on the South's ballistic missile and rocket development, and it came less than a week after North Korea conducted its highest missile test yet.

"The success of the test launch of this solid-propelled space launch vehicle is an important milestone in strengthening the defense power of our military's independent space-based surveillance and reconnaissance field at a very critical time," the South Korean Ministry of National Defense said in a statement, citing North Korea's test of an intercontinental ballistic missile a week before.

Then-South Korean Defense Minister Suh Wook observed the launch of the rocket, which was developed with "pure Korean technology," the statement said.

In June 2022, South Korea conducted its first successful satellite launch using a domestically developed rocket, officials said,.

The three-stage Nuri rocket placed a functioning satellite, designed to verify the rocket's performance, at a target altitude of 700 kilometers after its liftoff from South Korea's Naro Space Center, the Science Ministry said.

In contrast to the Nuri's liquid-fuel design, a solid-fuel rocket such as the one tested March 30, 2022, would be simpler, less expensive to develop and manufacture, and faster to launch, the Defense Ministry said.

The March test verified the large solid-fuel engine, fairing separation, stage separation and upper-stage attitude control technology, which are essential technologies for space launch vehicles, the statement added.





A women's team from the Indian Border Security Force demonstrates motorcycle skills during Republic Day parade rehearsals in New Delhi in January 2022.

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