



Security Nexus Perspectives

AN INTERNATIONAL BIODEFENSE SHIELD ALLIANCE AGAINST PATHOGENS FROM CHINA

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A questionable pandemic track record

There is a clear and simple [correlation](#) between population size and the occurrence of infectious disease. This places a country, such as China, in a natural, but dangerous and precarious position. Not only does China have a large population, with many of the world's most populous cities, but its concept of [personal space](#) facilitates the rapid spread of disease, and it is connected by trade and travel to virtually every location on the planet. Other nations with large populations such as India pale in comparison to China's global efforts in environmental exploitation and worldwide connectedness.

There is also a clear link between exploitation of the environment, including exposure to wildlife, and the [emergence](#) and [spillover](#) of pathogens into human populations. Countries, such as China, have experienced vast, recent and rapid economic growth, yet still have higher numbers of people in close proximity to animals, which is an [ideal scenario](#) for zoonotic diseases to jump species. China has a long history of disease containment failure, and is well known for being the origin of numerous global pandemics, from severe acute respiratory syndrome (SARS) to H1N1 influenza and now COVID-19. Thus it is entirely natural for China to not only be perceived as the largest global [disease incubator](#), but also a preeminent disease disseminator. Various governments have attempted demonize and politicize this perspective; yet one cannot easily spin and reframe an obviously natural phenomenon.

To compound matters, the Chinese Communist Party's (CCP) responses to related predicaments have historically been fraught with insincerity, non-transparency, and a lack of accountability. In a RAND report on the COVID-19 pandemic, for example, Chinese officials were described as having [routinely delayed acknowledging](#) the existence of a public disease threat, and downplaying the severity of that threat. The government's disease notification system, from medical observation to government reporting and public

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notification, is “designed to make timely acknowledgement of an epidemic to the public ... almost impossible.”

The same behavior was observed in January 2003, when the CCP downplayed the severity of the SARS coronavirus outbreak for two months. In November 2002, the first human cases of SARS-CoV were found in Guangdong province, with the pandemic eventually claiming 774 lives, after over 8,000 people were diagnosed as infected in 26 countries.

Avian influenza (H5N1) is also famous for its Guangdong province origins where it was first detected in geese in 1996. While the first human case was found a year later in Hong Kong, this [Bird Flu](#) persisted, with [sporadic outbreaks](#) occurring in China and the international community until 2015. In this regard, Southern China is the source of almost all poultry in the country, and the conditions under which this farming takes place are believed to have been [responsible for the emergence](#) of new bird flu virus agents. Even the 1957 Asian Flu (H2N2) has [suspected origins](#) in the southwestern province of Guizhou, while the World Health Organization (WHO) suspects that the 1968 Hong Kong Flu may have [originated in China](#). Combined, these two pandemics killed over 3 million people worldwide.

Deficits in capacity and communications

Despite having some of the best researchers and laboratories focused on these types of diseases, the Chinese government still refuses to change the way it responds to these outbreaks. In fact, the scientific quality assurances by the Chinese government are also entirely suspect, given that their expert team investigated the outbreak and concluded that there was “no person-to-person transmission and the outbreak was well controlled after the closing of the seafood market.” This incompetence and political obfuscation of the truth resulted in the virus spreading and eventually being transmitted all over the world by infectious Chinese travelers in a classic example of “inadvertent” bioterrorism.

To make matters worse, once local scientists had sequenced the genome of the virus, the CCP chose [not release the information](#) for over a week, seriously delaying international researchers a chance to respond to the pandemic. This decision may have, for example, delayed the ability of scientists in other countries to recognize the spread of the virus, develop effective testing methods, and research on potential drugs and vaccines. Unfortunately, the CCP’s infamously strict lockdown response was only initiated after five million people from Wuhan had been allowed to leave the city and spread the virus. It is clear that the system has not evolved despite considerable experience with many localized epidemics and several pandemics.

Although the Chinese equivalent of the Center for Disease Control (CDC) had access to the most current bat virus research, it likely had “[gaps in coronavirus](#)” expertise, like most countries, which resulted in no cases being reported in Wuhan for two weeks. Subsequently, many experts have cast suspicion on reporting during the outbreak; despite the situation rapidly escalating in to a crisis, the government remained reticent regarding the latest outbreak information. Only once information had passed through all the bureaucratic channels, and had been vetted the highest levels, was it released. Again, this sets unfortunate precedents for many countries in the region and worldwide in terms of information-sharing.

In this context, a senior WHO official in China, Dr. Gauden Galea, commented, “... [they’re giving it to us 15 minutes before it appears](#)” on television. Similarly, the WHO Chief of Emergencies, Dr. Michael Ryan, noted that, “... we’re two to three weeks into an event, we don’t have a laboratory diagnosis, we don’t have an age, sex or geographic distribution, we don’t have an epi curve.” Given the country’s breadth and depth of expertise, research, and facilities, and its dominance in scientific journals, this speaks to further political manipulation. One lesson from this chain of events is that there is, potentially, a danger to human life if primary outbreak management institutions become political tools, both in China and around the world.

The need for a defensive front line in health security

In 1995, the [International Health Regulations](#) (IHR) were revised by the World Health Assembly to include the “threat posed by the international spread of new and re-emerging diseases.” Revisions in 2005 redefined the scope of the IHR as, “prevent, protect against, control and provide a public health response to the international spread of disease in ways that are commensurate with and restricted to public health risks.” Public health experts agree that if all countries put adequate resources into IHR compliance, the occurrence of epidemics and pandemics would be very much reduced.

Unfortunately, most countries neglect this basic duty to humanity, but some are particularly negligent. Since the world as a whole is not able to live up to the IHR, defensive lines, as a temporary measure, must be drawn up. Given limitations on global resources, these lines must focus on nations that have a track record of disease incubation and dissemination.

Despite assurances from the CCP, China’s track record proves that the world cannot merely take their word in regard to disease outbreaks. As a first step in the difficult process of preventing global pandemics, it is therefore time for the United States and its allies to step up and create a defensive health security line around China to shield the rest of the world from infectious disease that originate in that country.

Fortunately, there are a number of Asia-Pacific countries that have a major stake in disease surveillance and early warning. These nations are already significantly aligned with the United States through organizations such as the Daniel K. Inouye Asia-Pacific Center for Security Studies (DKI APCSS) to enhance participation. Current events have demonstrated that such alliances are proactive and successful at mitigating pandemic problems. Potential partners in a possible Asian or Pacific Biodefense Shield Alliance include Japan, Taiwan, South Korea, and Vietnam (Figure 1).



Adapted from Google Maps image

Figure 1: The first step in a Biodefense Shield that prevents the escape of diseases from Far East Asia, with lines of containment that monitor and limit the spread of disease outward from China.

This task is ideally suited to Japan and Taiwan, both of which have many years of experience at being on a defensive footing against high-risk countries. Yet, when one examines the security posture of Japan and Taiwan, it is clear that their role has long been limited to Defense of Nation. This needs to change and expand as these countries advance to assume greater importance on the world stage. Japan and Taiwan are perfectly poised with great resources, scientific capacity, and ingenuity to become global pandemic shields to protect the world from disease pathogens originating in the region. Like Japan and Taiwan, South Korea and Vietnam share a history of conflict with China and have common health security concerns. In the midst of the COVID-19 pandemic, these four countries may now be more open to participate in an early detection and disease control program to secure the region and the world from human pathogens.

Japan

[Japan has been closely allied with the United States](#) for over 75 years. Over that time, the Japan – United States alliance has become more integrated and balanced, as Japan has both boosted its defense capabilities and integrated more with U.S. forces. Their joint response to the 2011 earthquake and tsunami that struck Japan’s Tohoku region marked the [largest bilateral mission](#) in the history of the alliance. The mitigation

work during the tsunami and Fukushima reactor melt down in 2016 was another instance of mutual support. Japanese Prime Minister [Shinzo Abe stated](#) that, “Today, more than ever, the Japan-US security treaty is a pillar that is indestructible, a pillar immovable, safeguarding peace in Asia, the Indo-Pacific, and in the world, while assuring prosperity therein.”

His comments came on January 19, 2020, during the 60th anniversary of the Treaty of Mutual Cooperation and Security between the United States and Japan. Japan reinterpreted its constitution in 2015 in a historic move that allowed its military to defend allies for the first time, but under limited circumstances. The change helped pave the way for the United States and Japan to [revise their defense guidelines](#) once again, expanding the scope of military cooperation and focusing the alliance on both current regional threats, including those occasionally posed by China and North Korea, and evolving global technological threats.

The U.S. has cultivated a capacity to deter aggression in northeast Asia with its military forward deployed in Japan. In this context, the proposed Biodefense Shield Alliance follows a well-paved path towards active integration as the U.S. and Japan currently maintain active alliances, joint basing, and joint exercises. Such an approach may be considerably easier than inserting the CDC and/or other medical intelligence assets for enhanced disease surveillance in the region, as well as allaying potential logistical, sovereignty, and communication problems.

Taiwan

Taiwan lies 81 miles off the coast of mainland China and was expected to be hit hard by COVID-19 due to both proximity and the number of flights between the two nations. The population of 23 million citizens includes [850,000 who reside in and 404,000 who work in China](#). Further, 2.71 million visitors from mainland China traveled to Taiwan in 2019.

Since the SARS epidemic in 2003, Taiwan created a National Health Command Center that has been on constant alert and ready to act on epidemics and pandemic threats arising from near neighbors. In 2020, Taiwan quickly mobilized and instituted specific approaches for case identification, containment, and resource allocation to protect the public health. The [national health insurance database](#) was leveraged by integrating the immigration and customs database to begin the creation of big data for analytics. This system generates real-time alerts during clinical visits based on travel history and clinical symptoms to aid case identification.

Taiwan has [clearly demonstrated](#) that it is sophisticated and proactive in surveillance, early reporting, and disease containment. Its addition would be an important building block in any Asian or Pacific Biodefense Surveillance Shield. However, the U.S. maintains only unofficial relations with Taiwan, in line with the U.S. desire to further peace and stability in Asia. The [1979 Taiwan Relations Act](#) provides the legal basis for the unofficial relationship between the United States and Taiwan, and enshrines the U.S. commitment to assist Taiwan in maintaining its defensive capability. This unofficial relationship is an area that would undoubtedly need to be further explored to encourage full participation in the Shield.

South Korea

The Republic of Korea (South Korea; ROK) and the U.S. have had strong alliances for 70 years and the ROK currently hosts approximately 28,500 U.S. troops. ROK troops have a history of fighting alongside U.S. troops in American-led military conflicts. This naturally evolved to both the U.S. and ROK governments enacting plans designed to establish a [comprehensive strategic alliance](#) with global reach; a move that resulted in a surprisingly broad [Joint Vision Statement](#) in June 2009.

Related economic relationships have been bolstered by the U.S.-South Korea Free Trade Agreement (KORUS FTA). South Korea is the United States' seventh-largest trading partner, and the United States is South Korea's second-largest trading partner, behind China. South Korea is thus currently one of the most Pro-American countries in the world. According to a [2018 Pew survey](#), 77% of South Koreans had a favorable view of the United States, while only 21% had a negative view. Similarly, according to a 2018 Gallup poll, 77% of Americans had a favorable view of South Koreans, while 22% had a negative view.

ROK would be a strong partner in any Asian or Pacific Biodefense Shield. In their initial COVID-19 response of February 2020, South Korea emerged as the second worst COVID-19 affected country, after China. Yet, by the end of March, South Koreans had [slowed the initial outbreak](#) without resorting to largescale lockdowns. As of April 22, South Korea was reporting fewer than 20 new cases a day, with a cumulative total of over 10,000 infections and over 200 deaths. This significant reduction in newly reported cases allowed the government to begin relaxing its social distancing measures in mid-April.

Of note, South Korea managed the initial outbreak with aggressive testing, contact-tracing, and public communication. Its approach involved the [three "Ts"](#) (tracking, testing, and treatment), which includes caring for mildly symptomatic patients in separate facilities away from families and from hospitals.

One difficulty with South Korean involvement in any multinational Biodefense Shield Alliance is the [historical enmity](#) existing between Japan and South Korea. At the same time, there are many reasons why a cooperative system could be successful. As noted above, both ROK and Japan have [long standing alliances and cooperation](#) with the U.S. in many areas, and it would benefit these countries to work together in this realm.

Three security factors currently shape related alliances.⁵

1. Mutual challenges posed by North Korea's nuclear and missile programs and the potential of weapons proliferation to other states
2. Impact of peace and reunification developments on the Korean peninsula on the strategic relationship between the U.S. and China
3. Potential impact of events on the Korean peninsula on Japan and Sino-Japanese rivalry

⁵ Shambaugh, David (2014). *International Relations of Asia*. Rowman & Littlefield. p. 306. ISBN 978-1-4422-2641-8

These realities cast ROK and Japan as logical partners, along with the U.S. in mutual, health-related endeavors that shield the region and the rest of the world from new infectious disease threats.

Vietnam

Vietnam is one of many nations that have laid claims to overlapping territories within the South China Sea, and China's military expansionism in those waters has alienated Vietnam and many other nations in the area. The South China Sea holds [3.5 million square kilometers of bedrock that is home to oil and natural gas deposits that may rival Mexico](#). An estimated [\\$3-5 trillion dollars in annual trade](#) flows through the shipping lanes which are vital to all regional Asian nations.

Vietnam is a member of the Association of Southeast Asian Nations ([ASEAN](#)), which regulates cooperation and joint prosperity between Southeast Asian nations with an adherence to the United Nations Charter. During the 36th ASEAN Summit on June 26, 2020, [Hanoi spoke out](#) against China's continued expansion of manmade islands in the waters and continued aggression towards other Southeast Asian fishing and military vessels. Vietnam also repudiated China's claims to the area by citing the United Nations Convention on Law of the Sea (UNCLOS), echoing other ASEAN members' concerns of China encroaching on free waters. Vietnam has demonstrated a willingness to stand up against Chinese aggression, and has proven itself as a powerhouse in combatting infectious disease.

In the health security context, which naturally evolves from such regional tensions, Vietnam has met with considerable success in combatting the COVID-19 pandemic, and attributes its achievements to both a strong and unified CDC response and strict shutdown and contact tracing policies. As of August 1, 2020, Johns Hopkins University Coronavirus Resource Center reports that [Vietnam has 558 confirmed cases of Coronavirus, and 3 deaths](#). In this context, it is significant that Vietnam has [significant outbreak management capacity](#), including 63 provincial CDCs, over 700 district-level CDCs, and over 11,000 community health centers that all focus on tracking and controlling the spread of disease.

During the early stages of the pandemic, Vietnam acted quickly and strictly, shutting down all flights from China, Hong Kong, and Macau on February 1st. Despite China's outcry against harsh travel restrictions, Vietnam continued what Prime Minister Nguyen Xuan Phuc called the ["Spring General Offensive of 2020"](#), by enacting rigorous contact tracing of the infected population. They placed contacts of confirmed coronavirus patients into mandatory two-week quarantine, while using media outlets to alert cities where those being quarantined had been and encouraging locals to get testing.

It is speculated that Vietnam launched [early cyberattacks](#) into China's Ministry of Emergency Management in early January, as well as Wuhan's provincial government to find out about COVID-19 when they felt China was not being forthcoming about the information. This is not surprising given Vietnam's history of problems with the 2003 SARS pandemic when the CCP failed to provide information on the outbreak. As a technologically astute potential partner, Vietnam would make an excellent addition to a Biodefense Shield Alliance. They have made it very clear that they are extremely invested in disease surveillance, have a deep mistrust of China, and have the intelligence and medical capabilities in place to contribute.

Other Shield Components

While every nation is an obvious partner in a global Biodefense Shield Alliance, limited resources require the first steps to have a more focused approach. The U.S. has forward military bases around the world, and the Department of Defense has developed a network of six overseas laboratories that perform research on infectious diseases of public health and military importance. When it comes to providing early warning of disease threats emerging from China, the Armed Forces Research Institute of Medical Sciences ([AFRIM](#)) in Bangkok, Thailand, and the Naval Medical Research Units No. 2 ([NAMRU-2](#)) in Jakarta, Indonesia assume significant importance.

NAMRU-2 operates in several countries in Southeast Asia, including Vietnam, Laos, Singapore, Philippines, Thailand, and Indonesia. For instance, in Phnom Penh, Cambodia, NAMRU-2 recently opened, outfitted, and staffed a satellite laboratory to conduct regional infectious disease outbreak research, and diagnostic laboratory support within the Office of Defense Cooperation via the U.S. Embassy in Singapore. The combination of laboratories in the U.S. (WRAIR, U.S. Army Institute for Infectious Diseases, and the Naval Medical Research Institute) and their overseas forward deployment thus collectively form the basis for an effective international infectious diseases research effort as well as representing a potent element of the proposed shield.

The Proposal

The COVID-19 pandemic has created the momentum required for the U.S. and its partners to play significant roles in creating a defensive, health-security, front line for disease surveillance and control. The institution of a Biodefense Shield Alliance would enable current U.S. partners, such as Japan and Taiwan, to expand their defense repertoire by contributing in a manner that acts to balance the division of labor involved in existing U.S. partnerships and alliances.

The United States' strong mutual defense relationships with Japan and South Korea, along with forward basing, provides a further cornerstone in a mutually beneficial relationship for a Biodefense Shield Alliance. The addition of Taiwan and Vietnam would greatly increase the proposed alliance's capabilities due to their geographic position, resources, and demonstrated proficiency in the management of infectious disease outbreaks. Further benefit accrues with the inclusion of U.S. military laboratories along with medical and scientific relationships in other nearby countries that would further strengthen the regional shield paradigm.

Ideally, the U.S. returns to leadership and proactive action in medical intelligence and surveillance, and can anchor an early warning system of alliances that can form a protective shield for outbreak events that could have an adverse effect on the rest of the world.

Ideally, the U.S. military and other forces and investments prioritize leadership and proactive action in medical intelligence and surveillance, anchoring an early warning system of alliances that forms a protective shield for outbreak events that could have an adverse effect on the rest of the world. In this way, the Department of Defense and other American institutions, by devoting resources and expertise to the concepts of infectious disease control, bioterrorism, and health security, will make critical contributions to the safety of humanity and preservation of the advancement of civilization. A robust Biodefense Shield Alliance is a proactive step towards making our future safe.

An International Biodefense Shield Alliance against Pathogens from China

*The views expressed in this article are the author's alone, and do not necessarily reflect the official position of the DKI APCSS or the United States Government.
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