



Photo Credit: Freepik.com

Beyond Borders: Navigating Biosecurity in Southeast Asia

By Jeselyn

Recognising the richness of its biodiversity and the escalating threats posed by globalisation, climate change, and human activities, Southeast Asia has early on acknowledged the importance of developing and maintaining robust [biosecurity practices](#).

Biosecurity is defined by the [2020 WHO Laboratory Biosafety Manual](#) as “principles, technologies, and practices that are implemented for the protection, control and accountability of biological materials and/or the equipment, skills and data related to their handling.” It essentially aims to safeguard human, animal, and environment from the threat, deliberate misuse, or accidental release of dangerous biological agents.

The Impacts of Globalisation, Climate Change and Human Activities on Biosecurity

One of the more pressing issues associated with biosecurity in Southeast Asia is the notable rise in the frequency and impact of transboundary disease outbreaks in recent years. [In 2021, a significant 20 to 30 percent decrease in Vietnam’s pig population](#) occurred as a result of African Swine Fever (ASF), causing severe economic losses primarily for medium to large farms lacking modernised equipment. Simultaneously, Central Luzon in the Philippines, a region known for its major contribution to the industry, witnessed an unexpected [50 percent pig production decline and incurred a loss of P100 billion](#) due to the same disease. This decline has led to a massive issue with food supplies in a country where, on average, [17.6 percent of the population](#) suffers from food insecurity.

Another major biosecurity concern which warrants the implementation of strong biosecurity frameworks in Southeast Asia is the introduction of [invasive alien species \(IAS\)](#) as a result of extreme climate change. Under the [Convention on Biologi-](#)

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cal Diversity (CBD). IAS are “alien species whose introduction and/or spread threaten biological diversity.” Indonesia has recorded 181 invasive species, while the Philippines has documented 148, and Malaysia has identified 145. These IAS have depleted water resources, threatened indigenous species, harmed pollinators, and contributed to land degradation and poverty in the region.

Human involvement also exacerbates numerous global biosecurity issues, with Illegal Wildlife Trade (IWT) ranking as the fourth-largest criminal activity globally. Southeast Asia is a major hub for this illicit trade, resulting in an annual loss of over 100 tigers, 1,000 rhinos, 20,000 elephants, and 200,000 pangolins, among other various species.

In Indonesia, experts have consistently highlighted the biosecurity risk associated to the illicit Bali Bird market, which, spanning two city blocks, is much smaller than Jakarta's Pasar Burung Pramuka, the largest bird market in Southeast Asia. Notably, it also pales in comparison to the Huanan Seafood Market in Wuhan, China, where COVID-19 is believed to have originated, potentially jumping from bats to another species before affecting human.

Whenever wild animals and people are in close proximity, there is always a health risk. Hence, the region must acknowledge the urgent need for coordinated efforts to address and mitigate biosecurity risks associated with such trade, as these animals may carry diseases that can cause transboundary disease outbreaks.

What Has Been Done?

While there are still no dedicated regional instruments addressing biosecurity challenges, the nations in the region have actively initiated and supported various biosecurity programs to address the challenges posed by malicious biological entities. The ASEAN Coordinating Centre for Animal Health and Zoonoses (ACCAHZ) was established in 2016 to furnish policy and technical assistance to ASEAN member states in formulating and implementing regional strategies aimed at preventing, controlling, and eradicating transboundary animal diseases.

Furthermore, task forces like the ASEAN Working Group on the Illicit Trafficking of Wildlife and Timber, founded in 2017, along with initiatives such as the 2023 ASEAN Action Plan for the Management of Invasive Alien Species (IAS),

have been instituted to protect biodiversity and mitigate biosecurity risks in Southeast Asia.

Finally, complementing the centers and working groups are workshops on biosecurity that were organized to enhance the preparation of states, facilitating the exchange of successful strategies in promoting confidence-building measures (CBM) related to the internationally recognized Biological Weapons Conventions (BWC).

Although none of the mentioned biosecurity frameworks is flawless or legally binding, due to the sudden emergence of the COVID-19 pandemic, states have made notable efforts to implement and uphold them. LaO PDR, for example, has revitalised its CBM submission process, aided by the European Union's Chemical, Biological, Radiological, and Nuclear (CBRN) Risk Mitigation Centers of Excellence Initiative. In the same CBM context, the Philippines has facilitated training to design and provide technical support for other Southeast Asian countries. When it comes to the effectiveness of these new efforts, however, only time will tell.

SUGGESTED READINGS

Al Jazeera Staff. (2022). “Experts warn of ‘biosecurity risk’ at bustling Bali Bird Market.” *Al Jazeera*, 26 January.

ASEAN. (2023). *Towards a more resilient and healthier ASEAN: A Systematic Approach to Mitigate the Risk of Zoonotic and Emerging Infectious Diseases Along the Livestock Value Chain.* Kuala Lumpur, Malaysia: The ASEAN Ministers on Agriculture and Forestry (AMAF).

Food and Agriculture Organization of the United Nations. (2020). “Strengthening Capacities for Management of Invasive Alien Species (SMIAS) in Indonesia (GEF ID 10705).” *FAO Website*.

Gerstein, Daniel M and James Giordano. (2020). “Biosecurity Is the Lesson We Need to Learn from the Coronavirus Pandemic.” *RAND*, 11 May.

World Health Organization. (2020). “Laboratory Biosafety Manual, 4th Edition.” *WHO Website*.



Photo Credit: Freepik.com

CLIMATE CHANGE



NEWS & COMMENTARIES

The 2024 climate crisis forecast

Although 2023 was the hottest year on record, 2024 looks like it just might be worse. Unchecked climate change tends to behave like a flywheel - a circular object continuously spinning and gaining momentum if there is no intervention.

Liz Georges

World Wildlife Fund | 25 January 2024

Climate change behind Africa cholera surge, top health officials say

The Africa Centres for Disease Control and Prevention, the continent's chief health advisory body, has tied the worst outbreak of cholera in three years to climate change, saying adverse weather is raising the risk of this disease faster than in the rest of the world.

Godfrey Marawanyika

Time | 31 January 2024

A veteran adviser is taking over as top U.S. climate diplomat

President Biden will tap senior adviser John D. Podesta to replace outgoing U.S. special climate envoy John F. Kerry once Kerry steps down this spring.

Maxine Joselow

The Washington Post | 31 January 2024

Severe Amazon drought was made 30 times more likely by climate change

Climate change was the primary culprit behind the devastating Amazon drought in 2023, while the weather phenomenon El Niño played a smaller role.

Bloomberg, The Straits Times

5 February 2024

SELECTED PUBLICATIONS

Climate change and migratory species: A review of impacts, conservation actions, indicators and ecosystem services. Summary for policy makers

It has been known for some time that climate change has the potential to adversely impact migratory species. The review finds that these impacts could have catastrophic implications for many migratory species.

J. M. Williams, et al.

JNCC | 2023

Polar bear energetic and behavioral strategies on land with implications for surviving the ice-free period

Declining Arctic sea ice is increasing polar bear land use. Polar bears on land are thought to minimise activity to conserve energy. Although polar bears on land exhibit remarkable behavioral plasticity, our findings reinforce the risk of starvation, particularly in subadults, with forecasted increases in the onshore period.

Anthony M. Pagano, et al.

Nature Communications | 2024

EVENT & ANNOUNCEMENT

International Day of Forests 2024

International Day of Forests 2024 will be celebrated on the theme, 'Forests and Innovation'. Countries are encouraged to undertake local, national, and international efforts to organise activities involving forests and trees, such as tree planting campaigns.

Worldwide

21 March 2024

ENERGY SECURITY



NEWS & COMMENTARIES

Indonesia to abandon 23% renewable energy target by 2025

Renewables only made up 13 percent of Indonesia's energy mix last year, according to the ministry's data. It fell short of the 17.9 percent target that the government has aimed for the year to realize its 2025 target.

Divya Karyza

The Jakarta Post | 17 January 2024

New-wave reactor technology could kick-start a nuclear renaissance — and the US is banking on it

SMRs — which are smaller and less costly to build than traditional, large-scale reactors — are fast becoming the next great hope for a nuclear renaissance as the world scrambles to cut fossil fuels. And the US, Russia and China are battling for dominance to build and sell them.

Angela Dewan, Ella Nilsen and Lou Robinson

CNN | 1 February 2024

US offers to fund major PH energy, infra projects

The United States is looking to tap its development finance arm to fund renewable energy and infrastructure projects in the Philippines to boost power supply, cut electricity rates and attract more investors.

Liang Lei

Eco-Business | 9 January 2024

IAEA chief to visit Ukraine's Zaporizhzhia nuclear plant to check safety

IAEA chief Mr Rafael Grossi said that another new problem is the situation with the nuclear fuel, which has been inside the reactors for years and is reaching the end of its useful life.

IAEA

6 February 2024

SELECTED PUBLICATIONS

Climate change and its impact on peace and security in Southeast Asia

This report commissioned by the UN Department of Political and Peacebuilding Affairs investigates the impact of climate change on various peace and security issues confronting Southeast Asian countries, ranging from energy, food, water challenges to conflicts and disasters.

Mely Caballero-Anthony, Julius Cesar Trajano, Alistair D. B. Cook, Nanthini DIO T Sambanthan, Jose Ma. Luis Montesclaros, Keith Paolo Landicho, and Danielle Lynn Goh

2023

Computer security in the nuclear world

Advanced nuclear reactor designs, such as small modular reactors (SMRs) and microreactors, already include plans to use AI and machine learning (ML) to enable innovative features such as automation, remote supervisory control and maintenance, and shared control rooms.

IAEA Bulletin, Vol. 64, No. 2

2023

EVENT & ANNOUNCEMENT

International Conference on Nuclear Security: Shaping the Future 2024

ICONS 2024 is a leading conference for nuclear security policy makers, experts, professionals, researchers and educators.

Vienna, Austria

20-24 May 2024

FOOD SECURITY



Photo Credit: Freepik.com

NEWS & COMMENTARIES

In focus: Falling fish catch in Malaysia spells trouble for industry, region; highlights need for sustainable practices

Climate change and overfishing have contributed to declining fish catch in Malaysia. These impacts are being felt by Selangor fishermen for whom the costs of venturing out to catch fish are not justified by the costs, with some even stopping for a 4-month period. Manpower shortages further confound the problem, as a quarter of the hired fishermen are foreigners who are not allowed to conduct fishing operations in certain fishing zones and out at sea.

Rashvinjeet S Bedi

Channel News Asia | 20 January 2024

Global rice shortage looms as top exporter India's supply woes worsen amid Red Sea attacks

Freight rates have soared for India's exports of its premium rice varieties. These increases are attributed to Israel-Hamas war, amidst the attacks by Iran-backed Houthi militants. These have led to higher commercial costs, longer shipping periods, both of which have precipitated disputes between buyers and sellers in re-negotiating contracts amidst the rising shipping costs and risks.

Biman Mukherji

South China Morning Post | 4 February 2024

COP28: Enhanced food security in Southeast Asia?

Despite the significant development whereby food security was "brought to the (discussion) table" at the COP28, it is lamentable that ASEAN nations have rarely considered mitigation and adaptation measures beyond agriculture to extend to the food system, including the entire value chain, social protection for its stakeholders and food waste. Taking this agenda forward will require attracting growing share of the global funds for mitigation and adaptation.

Elyssa Kaur Ludher

Fulcrum.SG (ISEAS) | 6 February 2024

The impact of global food chokepoint pressures on Asia's food security

Four key chokepoints are impacting Asia's food security today, including conflict in the Red Sea and the Suez Canal due to geopolitical unrest, and in the Panama Canal and the Mississippi River due to drought. Such "food chokepoints" could lead to an increase in food price crisis, thus worsening the "cost-of-living crisis" inherited from the COVID-19 pandemic. Preparing for such threats includes greater import diversification measures and climate-related early warning systems.

Genevieve Donellon-May

Asia Society | 13 February 2024

SELECTED PUBLICATIONS

Asia and the Pacific regional overview of food security and nutrition 2023: Statistics and trends

This digital report by the Food and Agriculture Organisation of the United Nations (UN FAO) indicates that Asia continues to account for half of global hunger, with approximately 370 million undernourished in the region. This has partly to do with the rising cost of affording healthy diets, with a 5.3% increase observed from 2020 to 2021 across the Asia Pacific, measured at purchasing power parity (PPP).

UN FAO

Relief.Web | 2023

The economics of the food system transformation

This report calls for the need for transformation of the food system, including food production practices, markets, and consumption. It argues that existing food systems are on an unsustainable trajectory or pathway, even should countries meet their nationally-determined contributions (NDCs) to climate-change adaptation, given the high carbon emissions from the food sector. Transforming agricultural practices could potentially allow for the sector to become a "net carbon sink" by 2040, should such systems transformation re-direct not only production, but also achieve more sustainable consumption preferences as well.

Catterina Ruggeri Ladershi, et al.

The Food System Economics Commission | 2024

EVENT & ANNOUNCEMENT

Asia and the Pacific Food Security Forum 2024

The forum will serve as a milestone event to take stock of the interim performance of ADB's commitment to provide at least \$14 billion of own resources to support food security over 2022-2025, and to outline ADB's forward program on food security in partnerships with a diversity of stakeholders in Asia and the Pacific.

Hybrid: Manila, The Philippines and Online

9-12 April 2024



Photo Credit: Freepik.com

NEWS & COMMENTARIES

Building climate-resilient systems for health and food security

A group of public health experts and officials highlighted the importance to build climate-resilient systems for health and food security at a panel at the World Economic Forum in Davos last month.

Disha Shetty

Health Policy Watch | 17 January 2024

Indonesia sends hospital ship with aid for Gaza

Indonesia dispatched a hospital ship with humanitarian supplies for Palestinians in Gaza, which consists of 200 tons of food, medicine, tents and clean water. The aid would be handed over to the Egyptian Red Crescent to deliver to Gaza.

VOA

18 January 2024

WHO releases AI ethics and governance guidance for large multi-modal models

The World Health Organization (WHO) released new guidance on the ethics and governance of large multi-modal models (LMMs) – a type of fast growing generative artificial intelligence (AI) technology with applications across health care. The guidance outlines over 40 recommendations, with the aim to ensure the appropriate use of LMMs to promote and protect the health of populations.

WHO

18 January 2024

Need to improve oxygen access has not ended with the pandemic

The World Health Organization is appealing for \$1.5 billion in funding to address the health needs of people caught up in a number of humanitarian emergencies in the world. In addition to the ongoing conflicts in Ukraine and Gaza, COVID-19 and the situation in Afghanistan will be major agenda in the work of the WHO this year.

P. Duneton, T. Akahori and P. Amoth

Nikkei | 2 February 2024

SELECTED PUBLICATIONS

Global tuberculosis report 2023

This report provides a comprehensive and up-to-date assessment of the TB epidemic, and of progress in prevention, diagnosis and treatment of the disease, at global, regional and country levels. This is done in the context of global TB commitments, strategies and targets.

WHO

November 2023

The updated WHO Benchmarks for Strengthening Health Emergency Capacities expanded to include public health and social measures (PHSM)

This report was published to support the implementation of the International Health Regulations (IHR) and the health emergency prevention, preparedness, response and resilience capacities. The updated benchmark now includes a critical new technical area, public health and social measures (PHSM).

WHO

February 2024

EVENT & ANNOUNCEMENT

3rd Edition of International Public Health Conference

The theme for this year's conference is "Restraining Pandemics Through Exploration of Trends and Public Health Challenges." The topic will include infectious diseases, preventative medicine, chronic diseases, clinical trials and research, global health, health economics, and others.

Singapore

21-22 March 2024

HUMANITARIAN ASSISTANCE AND DISASTER RELIEF



NEWS & COMMENTARIES

How do you break the mould around international aid? Try genuine trust

Despite the push for localisation in recent years, local NGOs are rarely trusted with direct fund management or, the design of aid programmes. While some smaller NGOs may have limited financial infrastructure or technical expertise, to tar all such organisations with the same brush is short-sighted, leading to ineffective or out-of-touch interventions.

Mohamed Ali Diini

The New Humanitarian | 16 January 2024

Time for change: Climate considerations and humanitarian civil-military coordination

Climate change has implications for all sectors. One would expect disaster response to be at the forefront of integrating climate considerations, but efforts remain slow. However, a closer look at the humanitarian civil-military community shows a sector ripe for change.

Alistair D.B Cook

IDSS Commentaries | 17 January 2024

Turkey earthquakes one year on: The devastation has exposed deep societal scars and women are bearing the brunt

Post-earthquake, women and girls have faced heightened care and domestic work responsibilities – including grappling with poverty-, health challenges and an increased susceptibility to violence. However, government efforts seemed to be focused on reconstruction with little focus on the socio-economic impacts of the disaster.

Ufuk Gunes Bebek

The Conversation | 6 February 2024

A climate security priority: Australia's need for balanced domestic disaster Infrastructure

As the Australian Defence Force prepares to step away from domestic relief, the need for more robust civilian disaster infrastructure is acknowledged. This has implications for states using militaries for disaster relief.

S. Nanthini

IDSS Commentaries | 7 February 2024

SELECTED PUBLICATIONS

Shifting power through participation in post-disaster recovery: A scoping review

Although community participation is considered an integral part of Build Back Better initiatives, they may have also reinforced inequities that require addressing issues of power. By examining the intersection of power and participation in post-disaster recovery, this report explores how participatory processes influence power dynamics.

Heidi Tuhkanen

2023

2030 recommendations of the United Nations senior leadership group on disaster risk reduction for resilience

This report provides a list of recommendations to ensure progress in disaster and climate risk reduction as reflected in the Sendai Framework I and in support of the SDGs.

United Nations Office for Disaster Risk Reduction

2024

EVENT & ANNOUNCEMENT

Rethinking Humanitarianism | How to Step Aside to Promote Change

This podcast explores the tactic of “stepping aside” by Western leaders of international organisations in the humanitarian sector in favour of more representative leadership in an effort to shift power to those who have been historically marginalised.

Podcast

18 January 2024

MIGRATION



Photo Credit: UN Women on Flickr.com/Creative Commons

NEWS & COMMENTARIES

The Global North Needs to Stop Distancing Itself from Climate Migration

Climate migration is expected to increase globally, including in the Global North. In Canada, wildfires destroyed about 200 homes and 45.7 million acres of land in 2023. While in the US, about three million people were internally displaced by disasters last year.

Anmol Irfan

Non Profit Quarterly | 2 February 2024

The Unprecedented Situation at the US-Mexico border – Visualised

Since the COVID-19 pandemic, more people have attempted to cross the US's border, reaching a record 302,000 encounters in December 2023. These migrants are increasingly from other countries besides Mexico, such as Venezuela, Haiti and Colombia.

Lauren Gambino et. al.

The Guardian | 7 February 2024

Myanmar: Human rights situation worsens as military lashes out indiscriminately amid losses

The Myanmar crisis has deteriorated further since end-October last year, with more mass displacement and civilian casualties from military attacks. The Rakhine state has been particularly hard hit, with multiple reports of Rohingya casualties and injuries.

Office of the High Commissioner for Human Rights | 30 January 2024

Ageing Societies Rely on Immigrant Healthcare Workers, Posing Challenges for Origin Countries

There is a shortage of healthcare workers globally. High-income countries often look abroad to fill this gap. However, this could also result in the sending countries' domestic healthcare workforce becoming depleted.

Heidi Bludau

Migration Policy Institute | 26 January 2024

SELECTED PUBLICATIONS

Expanding Protection Options? Flexible Approaches to Status for Displaced Syrians, Venezuelans, and Ukrainians

Countries providing asylum to displaced persons from Syria, Venezuela and Ukraine have taken alternative approaches to traditional protection tools, through existing immigration policies or new temporary statuses.

Migration Policy Institute

2024

Global Appeal 2024

Nearly 300 million people around the world would need humanitarian assistance and protection in 2024, due to conflict, climate change and other factors. This publication outlines the issues of migration and displacement, the IOM strategic plan and outcomes, and appeal for funding.

International Organization for Migration

2024

EVENT & ANNOUNCEMENT

Webinar on Migration and Health organised by Committee Rights of persons who are migrants

This workshop aims to spark new perspectives and insights on the discourse of migrant immobility during and after the pandemic. The programme includes presentations of shortlisted research proposals from the participants.

Online via Zoom

14 - 15 March 2024