



Photo Credit: BLM Oregon and Washington via Flickr.com

## Heatwaves and Wildfires: Indigenous Knowledge and Global Climate Security

By Alistair D. B. Cook

Over the past few months, local temperatures in South and Southeast Asia have broken previous records. [Temperatures in Thailand reached 45 degrees Celsius, while Vietnam hovered around 44 degrees Celsius and Singapore recorded 37 degrees Celsius.](#) Worldwide, extreme heat has become a mainstay for international news, particularly in July as wildfires and extreme heat were recorded across many continents. Climate change makes such occurrences more frequent and extreme. It is a reality that the world now faces collectively but its impacts differ widely across physical geographies and political contexts.

The [impacts](#) of climate variability include more droughts, heatwaves and El Nino weather patterns which will likely increase the risk and behaviour of extreme heat and wildfires. Wildfires will [cause more carbon dioxide to enter the atmosphere](#) feeding global heating and increasing air pollution in areas near and far as the air travels. Lightning, volcanic eruptions, sparks from falling objects and spontaneous combustion are all naturally occurring triggers for wildfires in drier climates made more likely because of climate change.

However, not all wildfires occur naturally. Some people intentionally start fires such as by arson. In other cases fires can start by accidental ignition and uncontrolled use of fire in land clearing and agriculture in the tropics, like the [slash-and-burn](#) policy common in Southeast Asia. Outside of the tropics, common causes of wildfires are coal seam fires, overhead power lines, arson or sparks from equipment use which can trigger accidental ignition. More recent studies have also found potential fire triggers coming from solar panels.

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There is debate about the place and prominence of [indigenous knowledge in climate science and policy](#) responses to address climate change. This is particularly ripe given the divergence of opinion between the role of controlled burning of forest and vegetation to avoid wildfires, and tree planting, reforestation, and rewilding techniques as strategies to address climate change.

Historically in Europe, the continent was split between Northern European countries where there was less need for slash-and-burn policies due to the cooler local climate, and Southern European countries where slash-and-burn was a commonplace solution to a drier climate so that trees, shrubs, and vegetation would not necessarily trigger wider damage to the environment and people's homes as a result.

In recent years some age-old wisdom has become less prominent as greater incentives have generated more interest elsewhere in European national governments. Quick-growing trees like Eucalyptus have found favour in warmer climates where countries have sought to reach their climate targets outlined in the Paris Agreement. Yet these initiatives have provided false promise as Eucalyptus trees are non-native and draw much water to grow quickly, making the soil drier. They are also a drier tree variety that is more susceptible to fire triggers as witnessed in [Portugal](#).

As a result, in an effort to plant more trees to meet their commitments outlined in the Paris Agreement and the Sustainable Development Goals, national governments end up overriding local knowledge in understanding their own surroundings and in turn exposing their communities to greater wildfire risk, rather than less.

Extreme heatwaves and wildfires have generated much coverage in the international media in recent months. However, less attention is paid to the multiple conflicting incentives and trade-offs to address this climate change challenge. While slash-and-burn policies in Southern European countries were an antidote to the fire triggers in a drier climate, uncontrolled slash-and-burn has contributed to worsening air quality in Southeast Asia's tropics. This points to the need for better regulation and education on such practices.

What the recent experiences across the world have illustrated is that while there is a common cause to address the challenges of climate change, there is no one-size-fits-all approach. What works in one continent may not work in another, and even may have the inverse effect of making a country and its community more exposed to extreme heat and wildfires. The mid-year period of 2023 will serve as a reminder that we need to consider the place and prominence of indigenous and local knowledge in our efforts to address climate change impacts while seeking to contribute to overall global climate security.

## SUGGESTED READINGS

**World Meteorological Organization (WMO). (2023). "Heatwaves, wildfires mark summer of extremes". *World Meteorological Organization Website*, 31 July 2023, accessed 2 August 2023.**

**Harvey, C. (2023). "Heat waves fueled by climate change topple records around the globe". *Scientific American*, 8 May 2023, accessed 2 August 2023.**

**United Nations Framework Convention on Climate Change Secretariat (UNFCCC). (2021). "Into the woods." *UNFCCC Blogs*, 30 April 2021.**

**The Economist. (2023). "South-East Asia is in the grip of a record-breaking heatwave." *The Economist Website*, 17 May 2023, accessed 2 August 2023.**

**Climate and Cities. (2023). "Integrating gender sensitive heat adaptation plans in the climate policy and guidelines of selected cities in South Asia." *Climate and Cities Website***



Photo Credit: Sebastia Grimalt via Vecteezy.com

# CLIMATE CHANGE

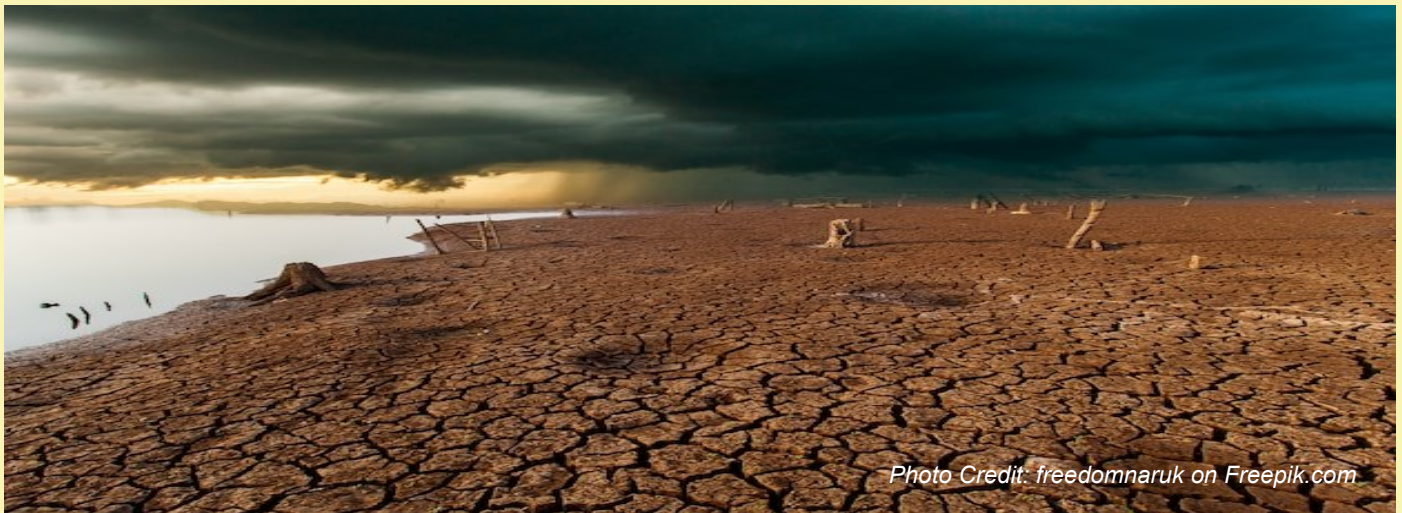


Photo Credit: freedomnaruk on Freepik.com

## NEWS & COMMENTARIES

### Climate change puts sovereigns at downgrade risk, study finds

A global failure to curb carbon emissions will lead to rising debt-servicing costs for 59 nations within the next decade. Among them, China, India, the United States and Canada could expect higher costs as their credit scores fall by two notches under a "climate-adjusted" ratings system.

**Mark John**

Reuters | 6 August 2023

### Biden tries to bolster his climate credentials as activists push for more urgency

Some activists warn Biden's record – which includes both historic investments and a broken promise to stop drilling on federal land – lacks urgency and could impact enthusiasm among young voters.

**Kevin Liptak, Arlette Saenz, and Betsy Klein**

CNN | 9 August 2023

### Why some Americans do not see urgency on climate change

Some Americans consider crisis language overblown, leading to added skepticism of claims. The disconnect between crisis rhetoric and the participants' own beliefs and experiences drove doubt about the motivations of the people making these claims, sowing suspicion and deeper mistrust.

**Giancarlo Pasquini, Alison Spencer, Alec Tyson, and Cary Funk**

Pew Research Center | 9 August 2023

### Less plastic flowing into ocean than thought, but more found floating in waters: Study

The high amount of plastic waste found on the ocean's surface, in spite of the lower-than-expected input of plastic into the ocean, suggested that plastic litter would likely remain in the ocean for much longer than previously believed.

**Deborah Lau**

Today | 9 August 2023

## SELECTED PUBLICATIONS

### Worldwide daily fingerprints of climate change during Earth's hottest month

More than 6.5 billion people - 81% of the global population - experienced climate change-attributed heat in July 2023.

**Climate Central**

2023

### State of the climate in Asia 2022

The mean temperature over Asia for 2022 was the second or third warmest on record. Drought affected many parts of the region, reducing water availability. Economic losses in 2022 due to disasters relating to floods exceeded the average for the 2002–2021 period. Enhancing food system resilience is a high priority in Asia.

**World Meteorological Organization**

2023

## EVENT & ANNOUNCEMENT

### International Day of Clean Air for Blue Skies 2023

The theme for the fourth annual International Day of Clean Air for blue skies, "Together for Clean Air", highlights the urgent need for stronger partnerships, increased investment, and share responsibility for overcoming air pollution.

**Worldwide**

7 September 2023

# ENERGY SECURITY



Photo Credit: frimufilms on freepik.com

## NEWS & COMMENTARIES

### Winning in the green hydrogen era

Optimising green hydrogen production in Asia Pacific will rely on visibility across the value chain. A new data infrastructure model can improve our ability to extrapolate insights from existing plant projects.

**Emon Zaman**

Eco-Business | 25 July 2023

### Japan's energy security woes

Doubling down, diversifying and hedging to maintain its energy supply, Japan has had to cope with the vagaries of power politics. As climate change worsens, the need to achieve net zero targets constitutes yet another variable in Japan's complex calculus.

**Yee-Kuang Heng**

East Asia Forum | 26 July 2023

### ASEAN's growing agenda on nuclear security

Nuclear energy and technology play an increasingly important role in achieving Sustainable Development Goals. Security measures are essential in governing the peaceful uses of nuclear and radiological materials. While ASEAN has institutionalised key frameworks and mechanisms to ensure nuclear security in the region, more can still be done.

**Julius Cesar Trajano**

RSIS Commentary | 31 July 2023

### Japan to start Fukushima water release as early as late August: Report

Japan's nuclear regulator in July granted approval for plant operator Tokyo Electric Power to start releasing the water – which Japan and the International Atomic Energy Agency say is safe, but which nearby countries fear may contaminate food.

**Reuters**

The Straits Times | 7 August 2023

## SELECTED PUBLICATIONS

### Re-energizing the Philippines' nuclear power program: Opportunities and challenges

The chapter provides an overview of the Philippines' energy security issues and the role of nuclear power in the country's clean energy transition.

**Julius Cesar Trajano**

Southeast Asia's Clean Energy Transition: A Role for Nuclear Power?

Edited by Carl Baker and David Santoro | 2023

### Towards a circular steel industry

Achieving a circular steel sector requires improved material and process efficiency; increased steel recycling; and the adoption of renewable energy sources for steel production.

**International Renewable Energy Agency**

IRENA | 2023

## EVENT & ANNOUNCEMENT

### Call for Abstracts: International Conference on Nuclear Security

The conference will feature presentations on best practices, lessons learnt, and policy recommendations to enhance nuclear security.

**Vienna, Austria**

Deadline for submission of abstracts 15 September 2023

# FOOD SECURITY



Photo Credit: user6702303 on Freepik.com

## NEWS & COMMENTARIES

### India imposes major rice export ban, triggering inflation fears

India ordered a ban on basmati rice exports, which takes up the largest share of close to half of India's rice exports, amidst fast-rising domestic rice prices in the country of 11.5% over the past year. Experts attribute this partly to the impending general elections in 2024, and heavy rains which led to submergence/damage of crops in northern India.

**Rajendra Jadhav, Mayank Bhardwaj and Shivam Patel**  
Reuters | 21 July 2023

### Food prices rise after Russia ends grain deal, India restricts rice exports

Russia has pulled out of the Black Sea Grain Initiative (BSGI) deal, which allows safe passage to shipments across the Black Sea amid the war in Ukraine. This puts upward pressure on global food prices, as it could lead to available grain supplies from Russia, Ukraine and Belarus, among others, within international markets.

**Associated Press**

Al Jazeera | 4 August 2023

### Typhoons Khanun, Doksuri add to China's food security headache, as export bans push up global prices

Adding to the "food security headache" from the ongoing rice export bans, including the UAE's and Russia's, China is now undergoing another crisis as Typhoons Khanun and Doksuri damage crops in the world's most populous country. The country saw its first drop in its summer harvest since 2018.

**Mandy Zuo**

South China Morning Post | 4 August 2023

### Vietnam PM seeks to boost food security and rice supply

Amidst the ongoing India rice export ban and Russia's pulling out of the BSGI, the other main exporters namely Thailand and Vietnam, are put under pressure to meet global food demand. The prime minister of Vietnam has instructed ministries to pay special attention to meeting its target of producing 43 million tonnes of rice in years to come, while encouraging traders to ensure they meet their minimum stockpile requirements.

**The Star**

7 August 2023

## SELECTED PUBLICATIONS

### Empowering digitalisation in ASEAN agriculture: Lessons from EU regional platforms for geospatial technologies

Digital technologies offer a potential solution to addressing the growing diversified impacts of climate change on food and agriculture in ASEAN. This report explores ways of increasing the adoption of digital technologies in the region, by taking a page from the European Union's approaches, which leverage geospatial technologies for informed and tailored government support to farmers across diverse agroclimatic environments.

**Jose Ma. Luis Montesclaros**

RSIS Policy Report, Singapore: S. Rajaratnam School of International Studies | July 2023

### Introduction: Just another crisis? The impact of the COVID-19 pandemic on Southeast Asia's rice sector

This chapter presents a narrative of the impacts of COVID-19 on food security across Southeast Asia, with a focus on the rice sector. Along the way, it also touches on the political economy of food, including debates on liberalisation vs. protectionism, and on food production vs. livelihoods, using the cases of the Indonesia, Malaysia, the Philippines, Singapore and Thailand.

**Jamie S. Davidson**

Just another crisis? The impact of the COVID-19 pandemic on Southeast Asia's rice sector. Singapore: ISEAS Yusof Ishak Institute, pp.161-189 | 2023

## EVENT & ANNOUNCEMENT

### 5th Global Food Security Conference

This conference will focus on issues relating to food system sustainability and resilience, amid the triple "C's" of COVID-19, climate change and conflict. It will bring together science, business and policy experts to identify ways of improving health and environmental outcomes in fairer and more equitable ways, and of enhancing resilience to further shocks and stresses. This builds on the momentum from the UN Food System Summit and recognizing that the 2030 target year of the Sustainable Development Goals is just in the horizon.

**Leuven, Belgium**

9-12 April 2024

# HEALTH SECURITY



Photo Credit: DC Studio on Freepik.com

## NEWS & COMMENTARIES

### Asia battles surge in dengue cases amid fears of record infections worldwide

*This article explains how El Niño will heighten the risks for droughts, fires, floods, and storms and thus increase the incidence of health threats such as vector-borne diseases and heat stress. It argues that a One Health approach is needed to tackle these threats. One Health is science-based and appreciates the interconnections of humans, animals, and plants.*

**Harry Pearl and Kamran Reza Chowdhury**

Benar News | 7 August 2023

### Antibiotic resistance linked to air pollution, study suggests

*This article discusses how air pollutants may be vectors for superbugs. A peer-reviewed study finds a positive correlation between antibiotic resistance and PM 2.5. This finding raises the possibility that curbing smog could reduce antibiotic resistance in the world.*

**Donato Paolo Mancini**

Financial Times | 8 August 2023

### Heat sings the mind, not just the body

*This article discusses the adverse impacts of extreme heat on mental health. It finds that hot weather destabilises moods, exacerbates mental health disorders and complicates drug treatment.*

**Apoorva Mandavilli**

The New York Times | 10 August 2023

### How El Nino could impact health, food and the economy

*This article analyses the linkage between El Nino and a few non-traditional security issues, such as health, food production, and economic growth.*

**Agence France-Presse**

The Jakarta Post | 13 August 2023

## SELECTED PUBLICATIONS

### 2023 progress report on the “Global Action Plan for Healthy Lives and Well-being for All”

*This fourth annual progress report for the Global Action Plan for Healthy Lives and Well-being for All (SDG3 GAP) discusses what has worked, and what has not, since the SDG3 GAP was launched in 2019 and makes recommendations for the future.*

**GAVI (Gavi, The Vaccine Alliance) et al. (Eds.)**

WHO | 2023

### Climate change: Mechanisms of action on health

*This series is a collection of articles that analyse the interactions between climate change, air pollution allergens, pathogens, chemical exposures and human health.*

**Julie Stacey et al. (Eds), eBioMedicine 2023 Series**

The Lancet | July 2023

## EVENT & ANNOUNCEMENT

### World Health Summit 2023

*This summit will bring together stakeholders from politics, science, the private sector, and civil society from around the world to explore solutions to various public health challenges internationally. The theme of this year will be "A Defining Year for Global Health Action".*

**Berlin, Germany**

15-17 October 2023

# HUMANITARIAN ASSISTANCE AND DISASTER RELIEF



Photo Credit: EU Civil Protection and Humanitarian Aid on Flickr.com

## NEWS & COMMENTARIES

### **Who holds whom to account when harm is done? Funder accountability and responsibility within the education in emergencies community**

Political aims tend to underwrite much of a country's development assistance budget. When political winds shift, ongoing commitments can be abruptly dropped. This causes damage on the ground, highlighting the power imbalances inherent in such partnerships.

**Ritesh Shah et al.**

Humanitarian Practice Network | 25 July 2023

### **To help tackle aid inequality, support Myanmar's local intermediaries**

Local organisations in Myanmar have been playing an intermediary role between donors and frontline aid providers. As such, more resources and agency should be granted to local organisations, instead of international NGOs, to allow them to do their work more effectively.

**Anne Décobert and Tamas Wells**

The New Humanitarian | 3 August 2023

### **Emergency services: How the EU's disaster response hub works**

In the face of increasing extreme weather events in the EU, the EU Civil Protection Mechanism is being increasingly called upon. However, solidarity can only go so far, as this mechanism is only voluntary. Suggestions have been made to reconsider the setup.

**Rosie Birchard**

Deutsche Welle | 7 August 2023

### **Missing Maps: How geodata is helping humanitarian aid efforts**

Geodata is increasingly being used to estimate population sizes, mortality rates and other data of people living in displacement camps in order for organisations to predict and respond to their needs. One such initiative is Missing Maps.

**Medicins San Frontieres**

9 August 2023

## SELECTED PUBLICATIONS

### **El Niño overview: Anticipated humanitarian impact 2023**

This report provides a global overview of the anticipated humanitarian impact of the recently announced El Niño season between July-December 2023.

**ACAPS**

2023

### **Seizing the moment: Targeting transformative disaster risk resilience**

This report discusses the need to scale up regional cooperation to increase disaster resilience in the Asia-Pacific region in the face of increasing and intensifying disaster risk.

**UN Economic and Social Commission for Asia and the Pacific**

2023

## EVENTS & ANNOUNCEMENTS

### **Synergizing disaster risk reduction and climate change adaptation**

This course will explore the synergies between disaster risk reduction and climate change adaptation and how they can be integrated in developing good practices and policies at the national and international levels.

**Course**

12 June 2023 – 31 December 2023

# MIGRATION



Photo Credit: UN Civil Protection and Humanitarian Aid on Flickr.com

## NEWS & COMMENTARIES

**How governments get people-smuggling wrong**  
*Criminalising migration only aids in feeding the business model of smuggling as harsher border control measures make it more likely that people seek the aid of smugglers. In order to actually reduce smuggling, there should be more opportunities for legal migration.*

**Karolina Augustova and David L. Suber**

*The New Humanitarian* | 18 July 2023

**Who counts as a climate migrant?**

*With climate change impacts intensifying around the world and concerns about potential climate-induced mass migration, the meaning and legal weightage of terms such as “climate migrants” and “climate refugees” are being debated.*

**Kerilyn Schwel**

*Migration Policy Institute* | 20 July 2023

**As the Global South braces for climate refugees, Jordan provides insights**

*To accommodate its significant refugee population, Amman (Jordan) had to enhance its problematic urban infrastructure, including an underdeveloped transportation system and water shortages. In the face of a potential increase in climate-induced migration to urban centres, city-planning is an important part of the preparation process.*

**Zoe Robbin and Ayat Hussein**

*Newlines Institute for Strategy and Policy* | 3 August 2023

**Bibby Stockholm: First asylum seekers to board barge**

*Amidst opposition and concerns, the first group of asylum-seekers in the UK will be moved to a barge off England’s Dorset Coast to be housed while awaiting the outcome of their asylum application.*

**Malu Cursino and Dan Johnson**

*BBC News* | 8 August 2023

## SELECTED PUBLICATIONS

**Complexity of choice in asylum seeker decision-making**

*Drawing on reviews of academic and policy literature, as well as the authors’ engagement with asylum seekers in the United Kingdom and in North Africa, this report proposes that complexity theory can be used by policymakers to understand the decision-making process of asylum seekers*

**Sherine El Taraboulsi-McCarthy et al**

*United Nations University* | 2023

**FAO and IOM Issue warning on El Niño in Asia-Pacific, advocate for better prediction and management of climate-induced displacement**

*To confront the challenge of climate-induced human mobility, the FAO and IOM are proposing to use anticipatory action to enhance capacities to predict, prevent, and manage climate-induced displacement in the Asia-Pacific.*

**FAO and IOM**

*FAO Regional Office for Asia and the Pacific* | 2023

## EVENT & ANNOUNCEMENT

**Improving Communications in the Voluntary Return and Reintegration Network**

*This webinar discussed voluntary return and reintegration through public-facing information campaigns. It also looks at how to evaluate dissemination gaps, and the risks associated with inadvertently issuing messages that are not trusted or are misunderstood.*

**Recorded Webinar**

24 July 2023