



ASIA-PACIFIC: HOPE  
AND SOLUTIONS FROM  
LIVING AT THE EDGE  
OF THE CLIMATE CRISIS

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# THE STRUGGLE WITH CLIMATE AND HEALTH CRISES

## BACKGROUND

Climate change poses a fundamental threat to human health, affecting both the physical environment and aspects of natural and human systems. The Asia-Pacific region is vast and geographically diverse, spanning from the Himalayas to the tiny island states in the Pacific. Due to this diversity, the region encompasses all climate zones, resulting in a wide range of weather patterns from the monsoons in South and Southeast Asia, tropical cyclones in the Pacific, and the extreme snowy winter in Siberia.

The Asia-Pacific region faces a daunting spectrum of natural disasters and stands at the forefront of the climate crisis. Its coastal regions are particularly threatened by rising sea levels and cyclones, while its lowlands and the central dry zone are vulnerable to the impacts of floods and droughts. A person living in Asia-Pacific is six times more likely to be affected by disaster events than someone living outside the region.

Against this backdrop, it is pertinent to note that as the climate crisis intensifies, the Asia-Pacific region stands at the centre of both its worsening impacts and its most transformative potential solutions. This story series aims to capture the disproportionate impact of the climate emergency on vulnerable communities in the region and the human stories that drive communities in building and maintaining resilience in the face of the climate crisis.

## COUNTRY SNAPSHOT

### OVERVIEW

- **Population:** 281.2 million as of 2023
- **Economy:** GDP - USD 1.345 trillion
- **Income Classification:** Upper-middle income country and a G20 member
  - Has the characteristics of a newly industrialized nation
  - 16th largest economy in the world by nominal GDP and the 8th largest by GDP
- **Daily Life & Culture:** Vast archipelago and diverse ethnic groups. Major urban centers like Jakarta, Surabaya, and Bandung drive the economy through finance, technology, and manufacturing. Rural areas depend on agriculture and fisheries. Remittances from overseas Indonesian workers (TKIs) contribute to household incomes, especially in regions like Java and Sumatra. Tourism remains a vital industry in destinations like Bali and Yogyakarta.

### HEALTH INDICATORS

- **Tuberculosis:** Estimated TB incidence rate for 2023 is 394 per 100,000 population
  - Estimated 14% of incident TB cases were not diagnosed in 2023
  - TB inventory study reflected a significant decrease in the underreporting of TB cases. In 2023, underreporting was 2.6 times lower than in 2017
- **HIV:** 540,000 children and adults living with HIV in 2022.
- **Accomplishment of 95-95-95 UNAIDS Global Targets**
  - 79% of PLHIV know their status
  - 33% of PLHIV are on ART
  - 6% of PLHIV on treatment have achieved viral suppression

### CLIMATE RISK INDICATORS:

- **World Risk Index Ranking:** Indonesia is ranked in the top-third of countries in terms of climate risk, with high exposure to all types of flooding, and extreme heat. The intensity of these hazards is expected to grow as the climate changes.



## **FIGHTING FOR BREATH: INDONESIA'S MOST VULNERABLE STRUGGLE WITH CLIMATE AND HEALTH CRISES**

“The air is breathable...”

This is the first thing 31-year-old Stella Alverina noticed when she moved to Ireland from Indonesia in 2019. As a native of Bandung, a two-hour ride from Indonesia’s capital Jakarta, Stella was used to heat and air pollution, brought about by vehicle emissions and her neighborhood’s routine act of burning trash.

“Pollution in Indonesia is really, really high, to the point that everybody needs to wear a mask especially if you’re riding a motorcycle or walking out on the streets,” Stella said.

The tech executive, who splits her time between Indonesia and Ireland, stated that she would avoid going out in the streets whenever she is back home.

Stella’s friends who live in mining villages have it worse. They never go out without protective covering—masks, scarves, umbrellas, etc.—for fear of catching lung-related diseases or even cancer. In the past few years, she also noticed people’s immunity weakening.

“They have allergies to dust and then they can’t really go out and do much, so they always have to go out with sunglasses, big masks... And only when we go out of the country do we feel like we can live as normal people,” Stella shared, explaining that the difference in the air quality and environment is quite stark.

In the western part of the Borneo island is a small city called Pontianak, where the equator line passes. This is where Fithriyyah Iskandar, a medical doctor & environment youth activist, lives, who had experienced chronic cough due to the annual fires.

“Our region is well known for the annual forest and land fire, and the famous fire that happened in 2015, “The 2015 Southeast Asian Haze”. I still remember it was during my first week of medical school orientation, all of the schools closed, even the airport too. I got a severe upper respiratory tract infection due to the very unhealthy air, maybe I should say, toxic air instead,” she recalled.

The recurring fires each year continue to trigger respiratory illnesses, particularly affecting young people and the elderly. For some, the impact is long-lasting, with persistent conditions



like chronic coughs that are difficult to cure, according to Dr. Fithriyyah.

“I once worked in a primary healthcare which has become the main center for tuberculosis patients to take their medication for TB treatment, and sometimes they complained about how hard to deal with the smoke situation considering their illness also makes it hard to breathe,” she added.

## MINING AND FOREST FIRES CONTRIBUTING TO THE CRISIS

When asked why air quality has worsened in recent years, both Stella and Dr. Fithriyyah highlight environmental factors such as poor waste management, deforestation, and mining.

Indonesia remains one of the world’s leading producers of metallic commodities such as gold, copper, nickel, and cobalt, according to [S&P Global](#). In 2023, it retained its position as the top producer of mined nickel, contributing to over half of global output.

However, this comes with significant environmental costs. The country’s four largest nickel companies collectively produced 353,000 tonnes of nickel metal, generating 15 million tonnes of greenhouse gas (GHG) emissions, according to the [Institute for Energy Economics and Financial Analysis](#).

With plans to expand production to 1.05 million tonnes by 2028, emissions could rise to 39 million tonnes. As a result, Indonesia currently contributes [2.27% of the world’s total GHG emissions](#). This is a seemingly small figure, yet

it ranks as the seventh-highest emitter globally, following bigger countries like China, the U.S., and Russia.

This level of emissions carries significant consequences. In 2024, Indonesia dropped six places to 42nd in the [Climate Change Performance Index \(CCPI\)](#), receiving low ratings in greenhouse gas (GHG) emissions, energy use, and climate policy.

The country aims for net zero by 2060, with emissions peaking between 2030 and 2035, but experts criticize its Nationally Determined Contribution (NDC) draft for lacking alignment with the Paris Agreement.

A revised [Comprehensive Investment and Policy Plan \(CIPP\)](#) is expected before COP29, following concerns about its lack of clear priorities. Meanwhile, the country’s renewable energy target of 23% by 2025 will not be met, despite plans to expand renewable capacity by 75% between 2024 and 2033.

While the government has stopped approving new coal plants, those already planned can still be built, and gas production is set to increase. Indonesia remains heavily dependent on fossil fuels, with coal comprising 40.5% of the energy mix in 2023 and renewables at just 13.1%. This ongoing reliance on carbon-heavy energy sources contributes to severe pollution.

With the emissions causing climate change in a wider scope, individuals like Stella, her friends, her elderly family members, and neighbors, feel its effects on a daily level.



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# HEALTH PROMOTION BOX

“They can’t roam around in the city. They are usually at home because they are too weak to even go out,” Stella said. “The environment is not really the best for them to walk as well, and as a result, people develop sicknesses earlier...”

Aside from mining, forest fires caused by deforestation also aggravate the situation. [Earth.org](#) reports that 50% of the Bornean rainforest was lost from 1973 to 2015.

“Borneo is the favorite place for the palm industry to plant more and now we keep losing our rainforest due to palm oil trees,” shared Dr. Fithriyyah.

A [2019 study](#) found that palm oil plantations accounted for 23% of Indonesia’s deforestation between 2001 and 2016, making them the single largest driver of forest loss. This isn’t surprising, as palm oil is one of the nation’s [most profitable exports](#), generating billions of dollars in annual revenue.

## HEALTHCARE ACCESS IN A CHANGING CLIMATE

Climate change is intensifying health crises in Indonesia, with rising temperatures, extreme weather events, and environmental degradation fueling the spread of infectious diseases. Among the most pressing concerns is tuberculosis (TB), which remains a major public health threat.

Indonesia is one of the five Indo-Pacific countries with the highest TB burden, alongside India, the Philippines, Pakistan, and Bangladesh, according to [The Global Fund](#).

In 2023 alone, the country recorded over a million TB cases, with drug-resistant strains posing an even greater challenge. Overcrowded living conditions, poor air quality, and limited access to healthcare exacerbate the problem, making Indonesia’s goal of eliminating TB by 2030 increasingly challenging to achieve.

Frequent floods, landslides, and droughts worsen TB transmission by displacing communities, damaging healthcare infrastructure, and reducing access to treatment.

“Many TB patients struggle with treatment adherence when disasters strike because they lose access to medications and healthcare facilities,” said Sally Nita, Research, Community Development, and Media Manager at Jaringan Indonesia Positif (JIP).

She emphasized that climate-related disruptions also weaken immune systems, making people more vulnerable to infections.

“Climate change intensifies health risks for people living with HIV (PLHIV), from disrupted access to treatment during natural disasters to increased vulnerability to new infectious diseases. Strengthening PPPR means ensuring that these communities are not left behind in climate resilience planning.” Meirinda Sebayang, Chair of Person at JIP, added.

Disaster-prone communities, particularly those already marginalized, also face heightened risks. Women with disabilities, for example, often encounter barriers to accessing healthcare and emergency services.





Communities in rural areas are very **prone to the impact** of the climate crisis, the lack of economic, education, and healthcare accessibility puts **a burden on their resilience**.

“Emergency shelters rarely consider accessibility, making it difficult for women with mobility impairments or sensory disabilities to find safety or receive medical attention,” said development practitioner Angelina Yusridar.

Poor sanitation in these shelters also increases the spread of TB and other infections, further endangering vulnerable populations.

“Many women with disabilities have weakened immune systems due to malnutrition, stress, or chronic illnesses, making them more susceptible to infections that thrive in post-disaster conditions, such as diarrhea and skin diseases caused by poor sanitation,” Angelina added.

For Dr. Fithriyyah, it is also common to see unequal access to healthcare due to the unavailability of healthcare services in rural areas.

“Communities in rural areas are very prone to the impact of the climate crisis, the lack of economic, education, and healthcare accessibility puts a burden on their resilience,” she said.

In her small city of Pontianak, it is the children who have dengue who are suffering.

“I still remember when I managed the dengue outbreak in the emergency room in late 2023, where most of the patients were children. Some cases went worse, where the patients fell into critical condition or shock, Dengue Shock Syndrome (DSS) which increased the mortality risk,” she said.

“Looking at these two cases through a climate activist lens, I am aware that climate change has been scientifically proven to increase fire

and dengue incidents in tropical countries like Indonesia. While we are not really moving into positive progress for climate action, this will just only worsen the situation of human health impacted by the climate crisis,” she added.

## LOCAL AND INTERNATIONAL SUPPORT TO ADDRESS THE CRISIS

It may take a while for the root cause of all these problems to be addressed, but in the meantime, the country is also trying to solve the crisis faced by its vulnerable population with some help from external funders and private groups.

For example, the [Global Fund](#) has played a significant role in supporting Indonesia’s TB response, particularly in improving diagnosis and treatment.

For the 2024-2026 grant period, Indonesia has been allocated approximately \$295 million by the Global Fund, with \$156 million directed toward TB programs, \$102 million for HIV initiatives, and \$35 million for malaria prevention and treatment. These funds aim to strengthen Indonesia’s healthcare system and improve access to critical interventions, particularly for vulnerable populations. One of its latest initiatives is access to innovative screening tools such as AI-powered diagnostics.

Indonesia has also intensified its efforts to combat tuberculosis (TB) and malaria. In November 2024, the country launched a [Phase 3 clinical trial for the M72/AS01E TB vaccine](#) candidate, aiming to introduce a new vaccine for adults and adolescents by 2030.

However, challenges persist. In February 2025, Indonesia’s Health Minister, Budi Gunadi Sadikin, announced that [health programs in collaboration with the U.S. Agency for International Development \(USAID\)](#) are currently on hold, pending clarification on potential changes in U.S. foreign aid policies. This suspension could impact initiatives addressing diseases like HIV and TB.

Stop TB Indonesia, a cross-sectoral alliance dedicated to eradicating tuberculosis (TB) in Indonesia by supporting the National Tuberculosis Program, had been vocal about the budget cut in a statement they posted on their [social media](#).

“At a time when the world is fighting together against TB, this policy is a step backward and could have a major impact on TB control. Hopefully, this policy can be reviewed with global welfare in mind because there is no bargaining in humanity,” the statement said in their local language.

Dr. Henry Diatmo, their Executive Director, reiterated the goal of the UN and WHO to eliminate TB by 2030.

“If this policy continues, we will not only fail to end the TB pandemic, but we will also set back progress in global well-being,” he stated.

Aside from TB patients, other vulnerable populations will also bear the heaviest burden.

“The commitment of the government is still lacking, considering the budget efficiency cut for the National Committee of Disabilities, making the mitigation of all issues related to people with disabilities challenging,” Angelina said.



## EDUCATION AND INCLUSIVITY ARE KEY TO THE SOLUTION

Currently, JIP is actively working at the intersection of climate change and health, focusing on tuberculosis (TB), COVID-19, and other pandemics. Their TB program, running from June 2022 to the present, centers on increasing TB Preventive Treatment (TPT) coverage. JIP achieves this through comprehensive campaigns and communication strategies aimed at driving behavioral change and boosting TPT uptake among vulnerable populations.

They target a wide range of influencers, from health professionals and counselors to community and religious leaders, recognizing their crucial role in disseminating information and encouraging people to seek TPT services.

Beyond TB, JIP is also engaged in a project called “Engagement of Former Prisoners on the Response to Tuberculosis, COVID-19 and other Pandemics (PPPR).” This initiative, running from July 2023 to March 2024, has significantly

contributed to building community resilience against pandemics. The program emphasizes several key areas: raising awareness, improving access to healthcare, reducing stigma, enhancing monitoring, capacity building, and program integration.

“Raising awareness, access to healthcare, reducing stigma, improving monitoring, capacity building, and integration of programs are key to engaging ex-prisoners in the response to diseases such as tuberculosis, COVID-19,” Sally said.

Sally said that their organization usually collaborates with stakeholders such as national and provincial disaster management agencies. She is also optimistic now that health activists are starting to become aware of how natural disasters brought about by climate change are connected to public health issues.





On the other hand, Angelina shared that many NGOs working under DiDRRN (Disability-inclusive Disaster Risk Reduction Network) work inclusively with organizations with people with disability to support them in understanding climate change and the disproportionate impact on women and women with disabilities.

“In my work with Arbeiter-Samariter-Bund (ASB), we also use a twin track approach to not only strengthen the capacity of people with disability to mitigate and adapt but also to raise awareness of other stakeholders on the importance of social inclusion in climate change issues,” she said.

Angelina thinks that the most important thing to create a climate-resilient community should be to prioritize inclusive and sustainable approaches, ensuring marginalized groups, such as women and women with disabilities in disaster-prone areas, are not left behind.

“This is not just inviting these groups to the meetings but realizing the accessible public facilities and inclusive health services before,

during, and after disasters. An inclusive early warning system also needs to be invested to make sure that people with disabilities can also be reached out to when the climate change-related disasters are about to come,” she added.

Despite living abroad, Stella strives to share the good practices she learns in other countries, such as proper waste management, with her family and friends. In her own small way, she hopes to contribute to a more sustainable Indonesia — one she dreams of returning to permanently, as it will always be her home.

“When I go back once every year or every two years, it’s great to see changes... And I hope that in maybe the next ten or fifteen years, the younger generations can contribute more.”

As Indonesia faces an increasingly volatile climate, the government, health organizations, and communities must work together to mitigate these challenges. Climate change is no longer a distant environmental issue—for millions, it is a daily fight for survival.





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APCASO is an Asia-Pacific regional civil society network organisation that serves as a catalytic platform for advocacy and community systems strengthening for health, social justice, and human rights for key, vulnerable, and marginalised communities in Asia and the Pacific.

66/5, Tower 33, Sukhumvit 33 Road,  
Klongton Nuea, Wattana Bangkok, 10110 Thailand  
[www.apcaso.org](http://www.apcaso.org)

## CREDITS:

Writers

**Nicai de Guzman and Ana P. Santos**

Coordinator

**Mangala Namasivayam**

Layout

**Rei Neptomos**

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