

The Global Stocktake Recognises the Role of Protecting Nature. At COP28, policymakers must respond.

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Key Messages

- ❖ **Nature and biodiversity** have a crucial role to play in tackling the climate crisis, complementing the focus on decarbonisation at COP28.
- ❖ **The first Global Stocktake**, which references the importance of nature, must be endorsed in the COP28 outcome.
- ❖ **Science continues to demonstrate that nature is a powerful ally** in mitigating and adapting to climate change, especially in vulnerable regions like Southeast Asia.
- ❖ **Innovative financial instruments** can bridge the funding gap for nature conservation, with potential benefits beyond carbon sequestration.
- ❖ **Human-centred conservation** in Southeast Asia is key to ensuring successful nature conservation efforts.

The United Nations (UN) climate change conferences have a strong focus on decarbonisation, but recent developments indicate a growing recognition of nature's crucial role in bringing emissions down to net-zero as well.

At COP26 in 2021, some [141 nations](#) signed the Glasgow Leaders' Declaration on Forests and Land Use outlining a global vision for forest protection. The following year, nature-based solutions were referenced for the first time in the COP27 decision text.

With the Intergovernmental Panel on Climate Change identifying nature as being integral to all pathways to net-zero, biodiversity conservation must be central to any efforts to tackle climate change. This point was further emphasised in the

[synthesis report](#) of the first Global Stocktake, released by the UN in September 2023.

The Global Stocktake is meant to provide a snapshot of where the world is at when it comes to tackling the climate crisis, and the possible pathways and solutions needed for scaled up climate ambition. Countries are supposed to reference the outcome of the Global Stocktake when setting their next round of climate targets under the Paris Agreement, due for submission to the UN by 2025.

The September report reflected the urgent need to halt and reverse deforestation and degradation and improve agricultural practices, to reduce emissions and conserve and enhance carbon sinks.

Yet, forest loss is accelerating. [Forest Declaration Assessment](#) in October 2023 published a report revealing that deforestation rates increased by 4% in 2022 compared to 2021, despite global pledges to tackle deforestation. A large part of this forest loss occurred in the tropics.

At COP28 and beyond, governments must respond to the science and take stronger action for nature. Countries must endorse the findings of the Global Stocktake at COP28, and subsequently incorporate more nature-based solutions in their new climate targets – or Nationally Determined Contributions (NDCs) – in 2025.

This brief sets out three key areas which highlights the importance of nature for climate action in Southeast Asia, informed by the international research community, including the National University of Singapore's Centre for Nature-based Climate Solutions (CNCS).

1) Taking care of nature can reduce the risks of climate change

Globally, studies have shown that nature is not just important for mitigation, but also for adaptation. Given Southeast Asia's vulnerability to climate impacts, such as food and water insecurity caused by changing weather patterns, rising sea levels, and extreme events such as typhoons, the region's rich natural resources could help to alleviate some of these impacts.

Water and food security: [Research at CNCS](#) showed that protecting forests across the region could help to safeguard 25 million hectares of key biodiversity areas – home to the providers of essential ecosystem services. Wild pollinators could help serve the dietary needs of more than 300,000 people yearly from pollinator-dependent agriculture while forests can retain 78% of nitrogen pollutants in watershed areas each year.

Sea-level rise: Healthy coastal ecosystems can help to reduce the impacts of sea-level rise and coastal disasters on human communities.

For example, mangroves can adapt to rising sea levels by accumulating sediment to elevate the surface, and they also offer protection against natural disasters like tsunamis.

But science from other countries has shown that their ability to do so depends on the quality of the habitat. For instance, [surveys](#) in Sri Lanka highlighted how mangrove sites greatly degraded by human activity suffered more damage from tsunamis as compared to mangrove sites with lesser or no degradation. Similarly, [meta-analyses](#) have found that coral reefs provide substantial protection against natural hazards through reducing wave energy by an average of 97%. If the reefs are degraded, more than 100 million people could shoulder hazard mitigation and adaptation costs.

And while nature alone may not be able to withstand the onslaught of more frequent extreme weather events, researchers are looking into opportunities along Southeast Asia's coastlines for the application of hybrid solutions – both natural and man-made defences.

When combined and properly managed, hybrid solutions have the potential to provide a stronger safeguard against coastal hazards arising from climate change than natural defences alone. For instance, having a man-made buffer shielding mangroves reduces wave action and erosion to make the conditions suitable for mangrove restoration, which will in turn offer additional protection.

2) Innovative financial tools can help to narrow the nature conservation funding gap

According to [The Paulson Institute's Financing Nature report](#), an estimated US\$700 billion will be required in the next decade to meet global biodiversity goals, and the world is spending just US\$120-140 billion currently. There is an urgent need for access to more funding for nature. Thankfully, nature could help to pay for its own conservation – in more ways than one – and science is essential in advancing how it could be done.

The carbon market: The global carbon market could channel capital to nature protection and restoration. A recent study by [Trove Research](#) revealed that in the past two and a half years alone, over US\$18 billion worth of investments had gone into carbon credit funds. More than 80%

of this capital has been earmarked for nature-based projects like reforestation, afforestation, enhanced forest management and cutting emissions from deforestation and forest degradation.

There have rightfully been concerns about the environmental integrity of such projects, and CNCS is also embarking on research in Southeast Asia to improve the monitoring, reporting and verification of such projects, through [its Carbon Integrity research project](#). Research will be critical to guide market-based mechanisms toward higher standards that will attract greater capital flow.

Currencies beyond carbon: Separately, [another CNCS study](#) has shown that carbon need not be the sole lens to raising funds for nature conservation. Interventions to protect biodiversity could also have additional benefits of carbon sequestration. Through an analysis of tiger reserves in India – which are given additional resources to protect the species – the CNCS study found that at least one million tonnes of carbon dioxide emissions were prevented from being released.

3) Protecting both nature and livelihoods in the region

According to the [World Economic Forum](#), US\$44 trillion of economic value generation – more than half of the world's gross domestic product – is highly dependent on nature. This shows that human well-being, as well as the continued functioning of economies and societies, are deeply reliant on healthy, functioning ecosystems.

Specific to Southeast Asia, the [Academy of Sciences Malaysia](#) found that the region's wildlife and natural habitats were reported to provide at least US\$2.19 trillion in economic benefits a year. Benefits were in the form of the provision of wildlife habitat, flood prevention, carbon sequestration, ecotourism, education, and provisional services – such as food, medicine, and timber.

The report highlighted how in this region, nature plays an important provisioning role. Conservation efforts must factor this into account

in the following ways.

Bread and butter: For environmental protection to be sustained, humans must be at the centre of conservation. [A study](#) had found that wildlife trade and hunting is among the top drivers of biodiversity loss in Southeast Asia. The lack of alternative livelihoods and awareness on sustainable practices have led to animals being collected not just for subsistence but for commercial trade. This illuminates the necessity of considering the local communities' needs to achieve coexistence with nature.

Striking a balance: Moreover, to reap the benefits that nature provides over the long-term, we must also ensure they are managed well. [A research paper](#) involving a CNCS researcher had shown that thriving coral reefs drove ecotourism in Hawaii, but the high volume of human activity contributed to reef degradation. Policies and conservation efforts are necessary to manage the health of these ecosystems and ensure that they can continue to sustainably support livelihoods.

Next steps in brief

There is growing recognition of the twin crises that the world is facing, but we must ensure that this momentum is carried into COP28; and that the urgent need to protect and restore nature is reflected alongside efforts to decarbonise, adapt to climate change, and provide support to nations.

The synthesis report on the technical dialogue of the first global stocktake is clear that much more is needed on all fronts to tackle the climate crisis, and that nature is a key part of this.

It is important that this message is not lost in the final outcome of COP28, and that countries take reference from the science to include more nature-based solutions as they prepare for the next submission of NDCs in 2025. In the interim, governments can also act by investing time and resources to look into how nature-based solutions can be adopted within their national contexts.

Science is here to guide action, and policy must heed the call of science. This is the moment to let action speak louder than words.