



## NEWS ROUNDUP

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### [DoF eyes Green Climate Fund for four projects](#)

By: Luisa Maria Jacinta C. Jocson

The Philippines is looking to tap the Green Climate Fund (GCF) for \$124 million worth of projects, the Department of Finance (DoF) said.

## **JOURNAL ONLINE**

### **[Asia-Pacific's alarming loss of biodiversity – a hidden threat to the food security and habitat of our future generations](#)**

In recent months, the Food and Agriculture Organization of the United Nations (FAO) and others have pointed to an increase in food insecurity and 'hunger hotspots' in various parts of Asia and the Pacific. While conflicts and climate crises can carry some of the blame, we must acknowledge that the slow but steady erosion of our region's biodiversity is an equal or even greater threat to our future food security.

## **MANILA STANDARD**

### **[PH, Canada to coordinate climate plans](#)**

The Philippines and Canada unveiled a new climate change adaptation program that leverages nature to minimize climate impacts.

## **NIKKEI ASIA**

### **[Japan to set 2040 green energy strategy to court data centers, chip fabs](#)**

By: Hiroyuki Akiyama

Japanese Prime Minister Fumio Kishida on Monday instructed government officials to draw up a national decarbonization and industrial policy toward 2040, as the country aims to reduce its carbon footprint while courting energy-intensive industries like semiconductors.

## **PHILIPPINE DAILY INQUIRER**

### **[Wilting flowers of May](#)**

By: Michael Lim Tan

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## **REUTERS**

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By: Kuba Stezycki

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## **THE PHILIPPINE STAR**

### **[Everyone's responsibility: How Finland is raising a generation of environmental 'experts'](#)**

By: Cristina Chi

A biologist, a physicist and an engineer one day walk into a room with a wild idea: to create food out of thin air.

### **[Hotter, drier, sicker? How a changing planet drives disease](#)**

By: Sara Hussein

Humans have made our planet warmer, more polluted and ever less hospitable to many species, and these changes are driving the spread of infectious disease.

## **CCC IN THE NEWS:**

## **DAILY TRIBUNE**

### **[Aboitiz park visited by CCC to strengthen partnership vs climate change](#)**

The head of the Climate Change Commission (CCC) visited the Aboitiz Cleanergy Park in Punta Dumalag, Davao City for the third time to plant mangroves to strengthen its private sector partnership in mitigating climate change.

## PHILIPPINE INFORMATION AGENCY

### [Take action now: Protect our oceans for the future generation](#)

By: Gelaine Louise Gutierrez

Despite being known for its beautiful beaches, the Philippines ranked 214th out of 220 countries in the most recent Ocean Health Index (OHI), indicating a decrease in its marine ecosystems. This rating measures the extent to which the oceans give long-term benefits to the people.

### [\[Opinion\] Reef damage: make China pay up P216 B per year](#)

By: Jarius Bondoc

Climate Change Commissioner Albert Dela Cruz and Coast Guard Commodore Jay Tarriela seethed. Marine biologists had just shown them videos and data. Chinese trespassers recently pulverized 12,000 hectares of corals in the West Philippine Sea.

**Information and Knowledge Management Division**

## **BUSINESS MIRROR**

### **DoF eyes Green Climate Fund for four projects**

By: Luisa Maria Jacinta C. Jocson

The Philippines is looking to tap the Green Climate Fund (GCF) for \$124 million worth of projects, the Department of Finance (DoF) said.

In a statement, the agency said the Philippines receives funding from the GCF for projects and grants worth \$139.9 million.

“Meanwhile, four priority project proposals are in the pipeline estimated at \$124 million,” it added.

Established in 2010, the GCF extends financing and technical support to developing economies for low-emission development and climate resilience projects. The fund concluded a three-day mission in the Philippines last week.

The GCF has supported projects in the Philippines ranging from climate adaptation for agriculture to multi-hazard impact-based forecasting and early warning systems.

In a separate statement, the Finance department said it is working on ramping up its investment and financing strategies to better mobilize climate finance.

“This includes tapping into international finance sources such as the GCF and Global Environment Facility (GEF),” it said.

The Philippines is also working with the Vulnerable 20 Group of Finance Ministers (V20) to develop a Philippine Climate Prosperity Plan this year. The plan will “support priority adaptation and mitigation sectors, including power system and grid modernization.”

The Philippines is seeking to reduce by 75% its greenhouse gas emissions by 2030 under its Nationally Determined Contribution, which is its commitment under the Paris Agreement.

The Finance department estimated about \$72 billion in investments are needed to help the country deliver.

“Particularly, \$36.5 billion is needed to prioritize investments in transmission and grid improvement and expansion of financial structures to support rapid scaling up of renewable energy and energy-efficient investments,” the DoF said.

To help the country generate the investment needed to meet its climate goals, it is looking to expand its financing options and boost its use of sustainability-linked bonds and green and blue bonds.

The Philippines recently raised \$2 billion from a dual-tranche dollar bond issuance. Under the offer, it issued 25-year sustainability bonds.

Proceeds from the 25-year paper will be used to support the government's sustainable finance framework.

The Finance department will also prioritize the recently released Sustainable Finance Taxonomy Guidelines to "steer financial investments towards the attainment of the country's climate agenda."

## JOURNAL ONLINE

### [Asia-Pacific's alarming loss of biodiversity – a hidden threat to the food security and habitat of our future generations](#)

In recent months, the Food and Agriculture Organization of the United Nations (FAO) and others have pointed to an increase in food insecurity and 'hunger hotspots' in various parts of Asia and the Pacific. While conflicts and climate crises can carry some of the blame, we must acknowledge that the slow but steady erosion of our region's biodiversity is an equal or even greater threat to our future food security.

FAO's most recent outlook report on Asia-Pacific's Forest Sector found that biodiversity and ecosystem resilience in natural forests are declining along with the capacity of these forests to deliver water and soil protection, climate regulation, amenity and cultural values, and wood, foods, and medicines. Reversing this trend must be a priority for all countries in the region now and in the next decade to ensure our survival, especially in the face of dangerous climate change.

While this biodiversity loss is a crisis for Asia and the Pacific in many ways, the impact it can have on our ability to achieve future food security poses a serious threat. We know from FAO's recent reports, that the Asia-Pacific region is home to half of the world's undernourished people and that nearly 45% cannot afford a sustainable and healthy diet. At the heart of some of these nutrition challenges is a food system that is currently founded on a narrow genetic base of 10-15 crops. We have lost much of the diversity that was, historically, commonplace in our diets and increasing dietary diversity is a key part of the solution to ending malnutrition.

According to the 'The State of the World's Biodiversity for Food and Agriculture', published by the FAO Commission on Genetic Resources for Food and Agriculture Assessments, biodiversity for food and agriculture (BFA) contributes to food security and nutrition in many ways. This includes the enabling of food to be produced in a wide range of environments, helping to maintain the stability of food supplies throughout the year and resilience to shocks such as droughts and pest outbreaks, supplying a wide variety of nutritionally diverse foods.

Indeed, wild biodiversity is an important source of food for many people, particularly in poorer parts of our region. It also provides raw material for crop breeding programmes and contributes to the supply of many ecosystem services that support food production.

So we all need to wake up to this urgent need to better protect Asia-Pacific's biodiversity, for the good of ourselves, our food security and nutritional health, our environment, and to safeguard those of our future generations.

This month we observe the International Day for Biological Diversity. Its slogan, indeed its call to action, is that we must all “Be part of the Plan” to halt and reverse the loss of biodiversity by supporting actions called for in the Kunming-Montreal Global Biodiversity Framework.

At FAO, we are working to that end in our efforts to help our Member Nations enhance efforts at biodiversity and sustainability in agriculture, aquaculture, fisheries, and forestry, particularly through our updating of action plans to reach the 2030 biodiversity targets. Ultimately, the goal is to ensure a sustainable food systems transformation across the region, to achieve food security, nutrition, and livelihoods – especially for local communities and indigenous people who rely on the existing biodiversity.

Given the importance and the increased demand of aquatic foods in our region, and worldwide, FAO has committed to a vision for Aquaculture Transformation for Asia and the Pacific. This will enable the sustainable intensification of aquaculture by improving sustainability and reducing the environmental impacts of production. It also aims to harness the rich and diverse cultural foundation of aquaculture in this region, by strengthening its contribution to food security and improved nutrition, while also securing livelihoods and socioeconomic development, and environmental recovery.

Halting deforestation and forest degradation, while enabling forest and landscape restoration, are also vital components of addressing the challenge of biodiversity loss and climate change. Some 15 years ago, FAO and its partners UNDP and UN Environment launched the REDD+ Programme. ‘REDD+’ is the abbreviation for ‘Reducing emissions from deforestation and forest degradation in developing countries.’ FAO, as co-lead for the UN Decade on Ecosystem Restoration, and host of the Asia-Pacific Forestry Commission, is working to support countries in upscaling restoration with an aim for better livelihoods and environment. FAO also provides technical expertise directly linked to the United Nations Framework Convention on Climate Change (UNFCCC).

With food security as our mandate, along with ending poverty and reducing inequalities, FAO in Asia and the Pacific is responding to help shape national pathways for a food systems transformation. As part of these transformative efforts at country and regional levels, it is imperative to promote sustainable natural resources management, as well as



protecting critical ecosystems to conserve biodiversity, protect land, soil, and water – while reducing food loss and energy use.

All of these approaches complement FAO's overarching global framework to help our Members achieve better production, better nutrition, better environment, and better life for all – leaving no one behind. I believe that, together with many stakeholders, we can 'walk the talk' necessary to achieve this. That's if everyone, including every woman and man in this region, steps forward to 'Be part of the Plan'.

## MANILA STANDARD

### [PH, Canada to coordinate climate plans](#)

The Philippines and Canada unveiled a new climate change adaptation program that leverages nature to minimize climate impacts.

The Philippines-Canada Partnership on Nature-based Solutions (NbS) for Climate Adaptation (PCP4NbS), an initiative led by Forest Foundation Philippines in partnership with the Embassy of Canada, seeks to enhance the climate resilience of communities, empower women and ensure that the strategies implemented benefit natural resources and promote healthy ecosystems.

PCP4NbS will pilot good practices on nature-based solutions (NbS) in the Philippines by improving the knowledge base for evidence-based decision making, creating platforms for learning exchange and capacity enhancement, and conducting research on the nexus between biodiversity, gender, and climate adaptation.

The program will also develop learning modules and implement gender-responsive, community-based NbS, and co-create policy recommendations to mainstream NbS for climate adaptation. These solutions not only address climate challenges but also provide valuable ecological services.

NbS are cost-effective actions that protect, regenerate and enhance ecosystems while responding to the needs of the community and safeguarding biodiversity.

The four-year program aims to utilize these solutions by collaborating with communities, civil society, government agencies, private sector and other stakeholders.

This will involve jointly identifying and implementing innovative NbS initiatives tailored to address environmental and social challenges of climate-vulnerable communities in both terrestrial and coastal areas. Implementation will be supported by a robust monitoring and evaluation framework to ensure that resources will be maximized towards achieving the program's goal.

Canada has committed P332 million for program implementation. It will be managed by Forest Foundation Philippines to support local organizations in implementing holistic, community-based, and gender-responsive initiatives based on NbS principles.

Pilot projects will be implemented in Batanes, Camarines Sur, Davao Oriental, Davao de Oro, Negros Occidental, Negros Oriental and the Calamianes group of islands in Palawan.

“PCP4NbS offers a chance to recommit ourselves to science, community involvement, and inclusivity in decision-making. Protecting individuals, communities, and biodiversity is at the heart of NbS,” said Edwina Garchitorena, chairperson of Forest Foundation Philippines.

## NIKKEI ASIA

### [Japan to set 2040 green energy strategy to court data centers, chip fabs](#)

By: Hiroyuki Akiyama

Japanese Prime Minister Fumio Kishida on Monday instructed government officials to draw up a national decarbonization and industrial policy toward 2040, as the country aims to reduce its carbon footprint while courting energy-intensive industries like semiconductors.

At a meeting on green transformation that day, Kishida urged comprehensive discussions on transforming the economy and society to "chart a realistic path for the public and private sectors toward decarbonization."

The new industrial strategy, to be compiled this year, will be Japan's first that looks as far ahead as 2040. It will focus on four core areas -- Japan's energy supply, the location of industries, industrial structures, and market creation -- so that businesses can plan relevant investments over the longer term.

The Japanese government is set to revise its Strategic Energy Plan by the March 2025 end of the current fiscal year. Coinciding with this, Kishida seeks to set policies for promoting carbon-free energy sources, expanding the power grid and encouraging a shift toward less carbon-intensive processes in steel and other industries.

The government will host multiple meetings with experts in various fields with the goal of finalizing a draft proposal by year-end.

The push comes as Japan woos data centers, semiconductor plants and other businesses with intensive energy needs. Japan's electricity consumption could grow 35% to 50% from current levels by 2050, by one estimate. Experts have called on the government to take the lead in promoting carbon-free energy sources to ensure energy needs are met.

Suitable sites for wind and solar farms in Japan are concentrated in a handful of regions, including Hokkaido and Kyushu. Japan will consider creating green industrial hubs in these areas.

The Kishida government sees decarbonization as a key economic driver. It compiled a strategy in 2023 to promote green transformation, including through pouring 20 trillion yen (\$128 billion) into the field by fiscal 2032. The goal is to realize a total of more than 150 trillion yen in public- and private-sector investment in new technologies and facilities.

The government is also working on a detailed framework for emissions trading, which is slated for a full-scale launch in fiscal 2026. It could require high-emitting businesses like utilities, steelmakers and chemical companies to participate in the scheme.

## PHILIPPINE DAILY INQUIRER

### Wilting flowers of May

By: Michael Lim Tan

As a very senior citizen, I've gone through many summers, my childhood years marked mainly by fun and play, often by the sea, with special treats and memories of clan vacations in Baguio. In my young adult years, the summers were used for volunteer work in rural areas, which became full-time work as a young adult with nongovernment organizations.

After I began teaching at the University of the Philippines, we new teachers were often conscripted to handle summer classes. Although everyone complained about the heat, we made do with little or no air-conditioning, relying on pamaypay (fans) and electric fans, and rewarding ourselves with swimming, if there was a pool or beach. We survived but now that I am a senior citizen, I feel, and fear the heat waves.

This year especially, I see more of the adverse impact of the heat on humans, animals, and plants. Because I'm currently involved in a multi-country study looking at how people sense climate change, I'm constantly catching people's comments about the heat, with the hope that we can incorporate these "sensory observations" into practical health advice.

We do have a stock of traditional knowledge about the perils of hot weather, couched in popular notions, the most notable being those around "pasma." Many Filipinos refer to pasma in humans, symptoms like sweaty palms and tremors being attributed to exposure to extremes of heat and cold, e.g., washing hands in cold water after prolonged manual labor like ironing clothes that create heat. But many years ago, I was already hearing people talking about pasma in plants (but not, curiously, in animals), warning against watering plants early in the morning, cold and heat creating pasma. Unlike humans, plants simply wilt and die.

Filipino responses to heat can be complicated. People feel that in times of intense heat, running into an air-conditioned room may actually be harmful because what's needed is to sweat and bring out the heat from inside the body. Electric fans? American medical anthropologist, Mark Nichter, likes to joke that the leading cause of illness in the Philippines is the electric fan, direct exposure is wrongly blamed for all kinds of ailments from facial paralysis to pneumonia.

An important popular perception of “dangerous” heat is the feeling of being enveloped by a combination of heat and humidity, again accompanied by an impaired ability to sweat. There’s science basis in such perceptions, with governments, including our own, now issuing advisories based on a heat index, combining temperature and humidity.

The heat index is meant as an early warning device for possible catastrophic consequences, notably heat strokes, which is the body overheating. Beyond heat strokes though, extreme heat triggers other health problems. In many cases, it isn’t the heat per se but the heat bringing about dehydration, which then brings about all kinds of symptoms from confusion to diarrhea.

Children and the elderly are more vulnerable to all the problems coming from the heat and, in many cases, the vulnerability is tied to an unawareness of what’s happening, especially with dehydration. Both children and the elderly may not be able to express what they’re feeling when they’re dehydrated until it reaches critical levels. Do a quick skin turgor (elasticity) check to find out. Gently pinch the back of the hand, or the area below the collarbone, or the abdomen. If the skin doesn’t snap back, you’re looking at dehydration.

“Keep rehydrated” is good but vague advice. Fluids with high levels of sugar, caffeine can actually dehydrate you. Stick to plain water, lots of water.

Vulnerability to dehydration is worse with animals. Their sweating is limited to paw pads and noses, and, when they’re dehydrated, they can’t tell you. You can do a skin turgor test, too, with them, pinching the skin around their shoulder blades.

Signs of thirst are more visible with dogs with their panting but even that may be overlooked—check how many bowls or pans of water you have in the house and you might find that even if you have several, many are probably bone dry because your pets are consuming much more water than usual. In urban poor areas, where animals are left to fend for themselves, dogs and cats die from heat and dehydration.

I’ve wondered what this year’s Flores de Mayo—festivals marked by lavish displays of flowers—will be like, given the heat wave which discourages people from going outdoors. Add on the impact of the heat waves on the flowers, wilting and wilted.

The saddest stories about the impact of heat on plants come from farmers: of paltry harvests and, like the tragedies of children, of stunting and early mortality.

## REUTERS

### [Polish farmers march against 'green poison' EU climate change rules](#)

By: Kuba Stezycki

Thousands of protesters marched through the streets of the Polish capital Warsaw on Friday to show their opposition to European Union environmental regulations that farmers say are driving them out of business.

Farmers were joined by representatives of other branches of the Solidarity trade union, which organised the protest, such as miners and workers from the automotive sector. Farmers in Poland and elsewhere in the bloc have been protesting in recent months, opens new tab against cheap food imports from Ukraine and restrictions placed on them by the EU's Green Deal to tackle climate change.

In a sea of red and white Polish flags and Solidarity banners, the protesters, many wearing yellow high-visibility vests, brandished placards with slogans like "Down with the Green Deal, Down with the European Union" and "Green Poison".

"The only thing it's good for is throwing in the bin," said retired farmer Wieslaw Czerwinski from Grojec, in central Poland, when asked about the Green Deal.

"It raises the costs of production, raises costs every day, costs of heating, costs of energy."

The protesters were joined by politicians from the previous nationalist government, who accuse Donald Tusk's pro-European administration of yielding to Brussels at the expense of regular Poles.

Tusk's government dismisses such claims and says that their predecessors damaged Poland's relations with Western allies while failing to take action to help sectors such as agriculture.

Farmers have already won concessions from the EU and the Polish government, which said it would pay 2.1 billion zlotys (\$526.74 million) in subsidies to compensate farmers for low grain prices, but they say it is not enough.

However, last month they decided to unblock border crossings with Ukraine, lifting a blockade that had dragged on for months, soured bilateral relations and buffeted Ukraine's trade.



## THE PHILIPPINE STAR

### [Everyone's responsibility: How Finland is raising a generation of environmental 'experts'](#)

By: Cristina Chi

A biologist, a physicist and an engineer one day walk into a room with a wild idea: to create food out of thin air.

They will do so, only after they get help from a food scientist, a recipe tester, and a marketing professional — people who likely would have never crossed paths with the biologist, the physicist and the engineer, if not for a shared goal of making the impossible happen.

There may be few shared skills between a physicist and an artist, a chef and a chemist. But this bold collaboration across disciplines has paved the way for Finnish startup Solar Foods to create the world's first alternative protein from renewable energy and carbon dioxide with only 1% of the environmental impact of animal agriculture.

Finland's race to net zero by 2035 — one of the most ambitious climate targets in the developed world — has prompted several companies in different industries to innovate and adopt circular economy practices so the goods they produce don't generate heaps of waste.

But it's not just a culture of problem-solving in Finland — a country similar in size to the Philippines but with a population 20 times smaller — that has allowed companies like Solar Foods to turn a thought experiment into a concrete solution to help save the planet.

Finland's education system emphasizes the importance of sustainability from day one — literally as early as kindergarten. And thanks to recent initiatives, circular economy practices are being taught across levels and among working professionals, so that circularity is practiced in “widely different sectors in distinct and specific ways,” Tuuli Hietaniemi of the Finnish Innovation Fund Sitra told Philstar.com.

Indeed, for Solar Foods' CEO Pasi Vainikka, it's people crossing disciplines to create “disrupting solutions” that will help address increasingly finite resources and the climate crisis.

A nation of experts

The Finnish environmental ministry has identified overconsumption of natural resources as one of its main challenges to sustainable development, said Minister Kai Mykkänen.

It would take four planets to sustain humanity if everyone on the planet consumed at Finland's levels, much higher than the Philippines' consumption level equal to one planet, according to estimates by the Global Footprint Network.

This is why in 2016, Finland was the first country in the world to prepare a national roadmap to pivot to a circular economy, which aims to arrest the fast turnover of products and reduce emissions and wastage as early in the supply chain as possible.

“We are in a hurry — we are beating every record every month. So why don't we tackle all of this at the same time? And we think the circular economy is one of the ways to tackle all this given how it impacts both emissions and biodiversity,” said Hietaniemi, Sitra's leading specialist on sustainability solutions, during a meeting with select international media on April 23.

Such a drastic system change needed all hands on deck, prompting Sitra — Finland's independent body operating under the supervision of its Parliament — to invest nearly €4 million in 2017 to integrate circular economy education across the whole Finnish education system.

This is equivalent to around P247 million — around a third of the total budget for the Philippines' Department of Education in 2024.

“Because we hope that when everyone graduates, we won't just have one or two experts, but every professional, every graduate is a circular economy expert,” Hietaniemi said.

Through university partnerships, Sitra developed and disseminated learning modules on the circular economy that were taught to students from primary school to upper secondary school, as well as students in vocational school.

Lessons went beyond the usual “reduce, reuse, recycle” technical know-how.

For instance, students in upper comprehensive school (for ages 13-16, similar to junior high school ages in the Philippines) were encouraged to consider their dream job through the lens of climate change and circular economy skills, whether as a lawyer, a YouTuber or even a merchant.

Meanwhile, students in upper secondary and vocational school (ages 16-19, similar to senior high school ages in the Philippines) explored an open learning platform about the circular economy in textile and fashion design.

The independent body also prepared teaching packages and organized teacher training sessions. “Funding from Sitra has meant that it has not been necessary to develop teaching materials alongside other work, but rather as a separate work package of its own. This has helped establish the courses in the activities of the educational institutions,” Sitra said in its website.

By the end of school year 2018-2019, more than 70,000 children and young people in Finland had studied the circular economy across all levels of education. Circular economy is now taught across multiple subjects, with Sitra’s learning materials still in use.

#### Circularity across industries

Instead of creating a “new (and) separate silo” where only a select few specialized in the circular economy, students across different disciplines were taught to “apply circular principles in practice in widely different sectors in distinct and specific ways,” Hietaniemi said.

This means it’s not just business owners or entrepreneurs being trained to be more conscious of reducing waste.

Among others, college programs on forestry, architecture and food production have had courses developed with a “specific circular economy lens applied at the subject matter,” Hietaniemi said.

“We already have many experts across different sectors in Finland, and rather than developing a new discipline with experts that only know circular economy, we have tried to bring circular economy as a tool to existing experts,” she added.

Before Solar Foods was able to sell its novel alternative protein powder Solein, the founders first cooked up earlier versions of Solein through a research project carried out by Finnish public research university LUT University and the VTT Technical Research Center of Finland.

In a discussion with international media, Arttu Luukanen of Solar Foods explained that it was not luck, but hard work, that allowed their multidisciplinary team to create their first large-scale production facility for Solein.

The founders themselves may have specialized in bioengineering and biology, but their experts in recipe testing, regulations and other disciplines turned the protein powder into actual, marketable food, Luukanen said.

“The fact that it doesn't taste bad, it's not dangerous and it works well in recipes wasn't luck. It was mostly hard work. For instance, in the biology team, that team was screening thousands and thousands of samples to isolate these new bacteria collected from the environment,” Luukanen said.

Finland's integration of circular economy courses at universities has also connected students with actual working professionals, especially in the food sector. And for good reason: the food industry makes up 30% of the world's energy consumption and 22% of greenhouse gas emissions, according to the United Nations.

In 2021, post-graduate students of the Aalto University School of Business taking up creative sustainability partnered with Restaurant Nolla, the first zero-waste restaurant in the Finnish capital of Helsinki, to ramp up their sustainability practices.

The collaboration aimed to help the restaurant “understand what sustainability means to us and what it means to our customers,” Restaurant Nolla said on its Facebook page.

“How important is the ‘cleanliness’ of our food? Is minimizing packaging waste that important? What about our energy consumption and the source of it? What are our social responsibilities as restaurants?” it added.

Head chef Constantine Angelov said he has spent the last three years at Restaurant Nollo striving for a standard of sustainability that's “far different from the standard often chased in Michelin restaurants.” Restaurant Nolla, for instance, adjusts their menu based on seasonal produce. No plastic is used to transport their supply of meat, fish and vegetables.

How much more zero-waste can a 100% zero-waste restaurant get? Angelov told Philstar.com that the restaurant “engages with researchers and partners with universities and startups to perfect our methods.”

Working toward shared responsibility

An overwhelming 88% of Finns said they believe they have a role to play in advancing the circular economy, according to a 2021 survey by Sitra, indicating a resounding, if not nearly unanimous push to adopt circularity as a way of life.

That doesn't come as a surprise. Finland's education system — which remains among the world's best — teaches children as early as kindergarten to “respect nature, its plants, and animals.”

Hietaniemi explained that besides teaching students practical skills such as “not littering while on excursions, learning moderation, responsibility related to meals and saving energy,” they are encouraged to “pay attention to the impacts of their actions.”

“It is important to ensure that children feel they can contribute to a sustainable way of living through their actions, however without having to bear too much responsibility for maintaining it as children,” she explained.

A 2022 research article published in the International Journal of Sustainable Engineering that discusses Sitra's circular economy education program identifies education as one of the “key elements in changing consumption habits in the long run,” especially in countries aiming for a carbon-neutral circular economy.

The article, which was co-written by Nani Pajunen, one of the core members that developed Sitra's education materials, said: “In order to achieve the objective, sustainability, it is vital to find a role for everyone, ranging from professionals in different fields to schoolchildren.”

“It is not enough to simply have environmental managers or sustainability experts in different organizations to oversee the transition towards sustainability, because it is everyone's responsibility,” it said.

## Hotter, drier, sicker? How a changing planet drives disease

By: Sara Hussein

Humans have made our planet warmer, more polluted and ever less hospitable to many species, and these changes are driving the spread of infectious disease.

Warmer, wetter climates can expand the range of vector species like mosquitos, while habitat loss can push disease-carrying animals into closer contact with humans.

New research reveals how complex the effects are, with our impact on the climate and planet turbocharging some diseases and changing transmission patterns for others.

Biodiversity loss appears to play an outsize role in increasing infectious disease, according to work published in the journal Nature this week.

It analysed nearly 3,000 datasets from existing studies to see how biodiversity loss, climate change, chemical pollution, habitat loss or change, and species introduction affect infectious disease in humans, animals and plants.

It found biodiversity loss was by far the biggest driver, followed by climate change and the introduction of novel species.

Parasites target species that are more abundant and offer more potential hosts, explained senior author Jason Rohr, a professor of biological sciences at the University of Notre Dame.

And species with large populations are more likely to "be investing in growth, reproduction and dispersal, at the expense of defences against parasites", he told AFP.

But rarer species with more resistance are vulnerable to biodiversity loss, leaving us with "more abundant, parasite-competent hosts".

The warmer weather produced by climate change offers new habitats for disease vectors, as well as longer reproductive seasons.

"If there are more generations of parasites or vectors, then there can be more disease," Rohr said.

Shifting transmission

Not all human adaptation of the planet increases infectious disease, however.

Habitat loss or change was associated with a drop in infectious disease, largely because of the sanitary improvements that come with urbanisation, like running water and sewage systems.

Climate change's effects on disease are also not uniform across the globe.

In tropical climates, warmer, wetter weather is driving an explosion in dengue fever.

But drier conditions in Africa may shrink the areas where malaria is transmitted in coming decades.

Research published in the journal *Science* this week modelled the interaction between climate change, rainfall and hydrological processes like evaporation and how quickly water sinks into the ground.

It predicts a larger decline in areas suitable for disease transmission than forecasts based on rainfall alone, with the decline starting from 2025.

It also finds the malaria season in parts of Africa could be four months shorter than previously estimated.

The findings are not necessarily all good news, cautioned lead author Mark Smith, an associate professor of water research at the University of Leeds.

"The location of areas suitable for malaria will shift," he told AFP, with Ethiopia's highlands among the regions likely to be newly affected.

People in those regions may be more vulnerable because they have not been exposed.

And populations are forecast to grow rapidly in areas where malaria will remain or become transmissible, so the overall incidence of the disease could increase.

Predicting and preparing

Smith warned that conditions too harsh for malaria may also be too harsh for us.

"The change in water availability for drinking or agriculture could be very serious indeed."

The links between climate and infectious disease mean climate modelling can help predict outbreaks.

Local temperature and rainfall forecasts are already used to predict dengue upticks, but they offer a short lead-time and can be unreliable.

One alternative might be the Indian Ocean basin-wide index (IOBW), which measures the regional average of sea-surface temperature anomalies in the Indian Ocean.

Research also published in Science this week looked at dengue data from 46 countries over three decades and found a close correlation between the IOBW's fluctuations and outbreaks in the northern and southern hemispheres.

The study was retrospective, so the IOBW's predictive power has not yet been tested.

But monitoring it could help officials better prepare for outbreaks of a disease that is a major public health concern.

Ultimately, however, addressing increasing infectious disease means addressing climate change, said Rohr.

Research suggests "that disease increases in response to climate change will be consistent and widespread, further stressing the need for reductions in greenhouse gas emissions", he said.



## CCC IN THE NEWS:

### DAILY TRIBUNE

#### [Aboitiz park visited by CCC to strengthen partnership vs climate change](#)

The head of the Climate Change Commission (CCC) visited the Aboitiz Cleanergy Park in Punta Dumalag, Davao City for the third time to plant mangroves to strengthen its private sector partnership in mitigating climate change.

"We expand our relationship with the private sector and we want to inform the private sector and our society that we need wider partnerships to have government's climate actions make a difference and impact, and part of that is biodiversity protection," CCC vice chairperson and executive director Robert Borje told PTV Mindanao News last 4 May.

Cleanergy Park is managed by both the Davao Light and Power Co. and the Aboitiz Foundation, the corporate social responsibility arm of the Aboitiz Group.

Borje said planting mangroves in the 8-hectare park, which is an important part of the ecosystem, is an adaptation with mitigation to help solve the climate change problem.

Meanwhile, members of various socio-civic organizations from the University of Southeastern Philippines also toured the park and planted mangrove propagules as part of their community outreach activity last 4 May.

The participating organizations included Yanong Agila, the Philippine Red Cross Youth, the University Assessment and Guidance Center, the Society of Peer Facilitators, the Alliance of Agham Scholars-DOST, and the Science Major Society.

Davao Light and Aboitiz Foundation are grateful to the dedicated groups and individuals supporting the park's mission of environmental conservation and protection.

## PHILIPPINE INFORMATION AGENCY

### Take action now: Protect our oceans for the future generation

By: Gelaine Louise Gutierrez

Despite being known for its beautiful beaches, the Philippines ranked 214th out of 220 countries in the most recent Ocean Health Index (OHI), indicating a decrease in its marine ecosystems. This rating measures the extent to which the oceans give long-term benefits to the people.

Considering its rich marine life and popularity among divers and environmentalists, overfishing, pollution, and climate change pose serious threats to the island's fascination with underwater habitats.

Climate change has had an immense impact on the oceans, resulting in increasing sea levels, coral reef destruction, and extreme weather conditions. These changes not only affect ecosystems and biodiversity, but they also create serious risks to communities.

According to Climate Change Commission (CCC) Vice Chair and Executive Director Robert E.A. Borje, "Oceans are the lifeblood of our planet, and also our frontline against climate change. Our actions today will determine the health of our oceans tomorrow. We all have a role to play in ensuring their protection and sustainability."

Oceans contribute to reducing global warming by absorbing huge amounts of heat and carbon dioxide, working as a barrier to climate change.

### Blue Economy

While the green economy is critical, we shouldn't overlook the value of the blue economy.

The blue economy is all about making good use of our oceans and coastlines' resources to drive economic growth. It is about boosting the economy while keeping the waters healthy. Because the Philippines is made up of islands, it has the opportunity to capitalize on the potential for growth and advancement in the blue economy.

### A healthy ocean begins at home

People produce an array of solid waste, such as food scraps, paper, glass, metal, plastic and containers. If these wastes are not properly disposed of or recycled, they

could end up as litter. Marine litter, or marine trash, is any solid item processed or created by people thrown or left behind in marine and coastal ecosystems.

Practicing proper solid waste management at home can help the ocean. Families, being the smallest, but most important units, in the community, play an important role in advocating for healthy oceans.

Take your trash with you

Beach waste increases along with the number of people using the beach. When enjoying outdoor activities, let's protect the oceans first. Make sure you just leave footprints behind, and remember to take what is yours — the trash. Be mindful to properly dispose of any trash you produce.

Get to know the ocean

You take care of what you love. Explore the ocean's vastness, passing from coral reefs, to mysterious deep-sea tunnels. Acknowledge the ocean's important role in maintaining life on Earth, regulating the climate, and providing food and livelihood to the people. Learning about the ocean can help you appreciate its importance and beauty more, as well as strengthen your commitment to preserve its delicate ecosystems.

Let us unite to honor our ocean heritage and commit to take action for its sustainability and preservation this May 2024 as the Philippines celebrates the Month of the Ocean.

## [\[Opinion\] Reef damage: make China pay up P216 B per year](#)

By: Jarius Bondoc

Climate Change Commissioner Albert Dela Cruz and Coast Guard Commodore Jay Tarriela seethed. Marine biologists had just shown them videos and data. Chinese trespassers recently pulverized 12,000 hectares of corals in the West Philippine Sea.

Heavily damaged were Rozul (Iroquois) Reef and Escoda (Sabina) Shoal. No Filipino eyewitnesses saw the actual coral crushing. But satellite images and signals pinpointed Chinese fishing trawlers berthed there since November 2023.

Another telltale sign of Chinese environmental vandalizing was the way the corals were grinded. Very similar to how Chinese poachers in Panatag (Scarborough) Shoal replace ship propellers with circular saws to dislodge endangered giant clams.

Rozul and Escoda are southside of Recto (Reed) Bank, fish-rich shallow waters off Palawan. Beijing covets the 5.4 billion barrels of oil and 55.1 trillion cubic feet of gas in Recto's Sampaguita Fields.

Southwestward is Ayungin (Second Tomas) Shoal where the Philippine Navy's beached BRP Sierra Madre stands guard. To the northwest is Panganiban (Mischief) Reef, which Beijing stole in 1995 and concreted into an island fortress.

Locals avoid Recto ever since president Rody Duterte in June 2019 justified the ramming and sinking there of an anchored Filipino wooden boat by a Chinese steel trawler. The aliens abandoned 22 Filipinos thrown into the cold sea that midnight. "An ordinary sea accident," Duterte shrugged.

West Philippine Sea is the country's 200-mile exclusive economic zone. It lies within the international South China Sea, which Beijing claims via an interchanging nine- or ten-dash line.

"Coral destruction is inestimable and irreparable," Dela Cruz told Sapul-dwIZ: "Twelve thousand hectares is only the surface. Not yet quantified are the meters-high sides and sand-embedded roots of the immobile animals. Not to forget the fish that mate, spawn, feed there."

Reefs also contain minerals for high technology and substances for new medicines. They take centuries to form, and China's smashing will take centuries more to restore nature.

China's motive is unknown. It could be to thwart Philippine plans to secure Rozul, Escoda and Recto. Perhaps deter fishing by Filipinos in their own waters. Or plain hooliganism by Chinese maritime militia escorted by China coastguards. Recto is 650 miles from China, well beyond its own EEZ.

China also degraded Sandy Cays 1, 2, 3 and 4 at the edge of WPS. The new-formed islets are within the 12-mile territorial waters of Pag-asa, main island of Palawan's Kalayaan municipality.

Rubble and dead corals were piled up six feet high. Intruders apparently rushed to form new protrusions on the sea surface. "I don't know if you can find any island in the Philippines formed by nature, typhoon or current that will grow that high [and that fast]," said University of the Philippines Biologist Prof. Jonathan Anticamara.

Former Supreme Court Justice Antonio Carpio theorized that China was building artificial islands in order to legitimize its concreting in 2013 of nearby Zamora (Subi) Reef into an airstrip. China misinterprets international law, thinking it can reduce Pag-asa's 12-mile territorial waters via four artificial islets.

There's a way to compute reef ruin. UP marine scientist Deo Florence Onda, PhD, proposed the use of Dutch researcher Elsevier's method. That is, one hectare of reef produces \$353,429, or P18 million wealth per year.

That's the same amount the Philippines loses per hectare per year due to China's criminality. Manila can sue Beijing for damages.

The math: 12,000 hectares x P18 million = P216 billion a year, starting 2024.

In 2020 international maritime lawyer Jay Batongbacal, PhD, reported 1,850 hectares destruction since 2013 in Panatag, Panganiban, Subi and Kagitingan (Fiery Cross) Reefs. Under Elsevier's formula, former foreign secretary Albert del Rosario (now deceased) calculated at P231.7 billion the damage in seven years.

China should be made to pay up that P231 billion as well.

Lithuania is offering to help Philippine cybersecurity. Foreign Minister Gabrielius Landsbergis invited Filipino officials last month to attend the Baltic state's next Exercise Amber Mist. It holds annual cyber-defense drills with global allies and highlights latest technologies.

China has been cyber-sabotaging Philippine government agencies. Confidential electronic files and websites are hacked, and malware planted. Recently, Chinese agents wiretapped Philippine military closed door talks on the West Philippine Sea.

Landsbergis said his country of 2.8 million people is under constant cyberattack by Russia and China. “We’ve developed expertise in counteractions,” he said. “We can share these with the Philippines.”

Staunchly democratic, little Lithuania was the first to break from the Soviet Union in 1990. Landsbergis’ grandfather Vytautas Landsbergis led its independence movement.

Adopting “values foreign policy” in 2021, Lithuania let Taiwan open a diplomatic office in Vilnius. Treating it as a virtual embassy, China retaliated with economic bullying. Beijing forbade all imports from Lithuania and told client regimes to do likewise.

Lithuania’s export revenues plummeted 65 percent. But it stood up to the bully and expanded trade with other lands to recover losses. With European Union backing, it sued China before the World Trade Organization.

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