



## NEWS ROUNDUP

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- Use Bicycles To Fight Climate Change, Pinoys Urged
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### ABS CBN

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## **ECO BUSINESS**

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Indonesia burned more coal in 2022 than any other year, a preliminary analysis shows, putting the country on track to become one of the largest carbon emitters from fossil fuel in the world.

## **NIKKEI ASIA**

### **[\[Opinion\] Japan can win over investors by clarifying its hydrogen strategy](#)**

By: Rebecca Mikula-Wright and Anjali Viswamohanan

As Japan's green transformation framework speeds forward, investors are looking closely at the details as they consider where to allocate their capital.

## **PHILIPPINE NEWS AGENCY**

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Seven multi-purpose buildings which will also serve as evacuation centers will soon rise in strategic areas in Iloilo City as part of efforts on climate change adaptation.

## **SUNSTAR**

### **[Filipinos' favorite food may disappear due to climate change](#)**

By: John Leo Algo

WITH the Philippines in the early stages of both an El Niño episode and the typhoon season, Filipinos are faced with multiple threats due to the climate crisis for the remainder of 2023.

## **THE PHILIPPINE STAR**

### **[Quezon City opens bazaar to raise funds for tutoring program](#)**

By: Elizabeth Marcelo

The Quezon City government yesterday opened a bazaar to raise funding for its learning recovery initiatives, which include a tutoring program to reduce non-readers and non-numerates children by providing them additional academic assistance.

## **CCC IN THE NEWS:**

## **MAHARLIKA TV**

### **[Islands in the Visayas may disappear by 2050 due to rising sea levels — Dela Cruz](#)**

Filipinos should be very, very concerned about global warming, Climate Change Commissioner Albert Dela Cruz Sr. has warned amidst rising sea levels that have posed a risk to coastal villages in the Philippines, particularly in the Visayas region.

## **ONE NEWS PH**

### **[Use Bicycles To Fight Climate Change, Pinoys Urged](#)**

An official of the Climate Change Commission noted that motorized transportation is a major factor in the aggravating impact of climate change.

## **THE PHILIPPINE STAR**

### **[Use bicycles to fight climate change, Pinoys urged](#)**

By: Helen Flores

To reduce greenhouse gas emissions, Filipinos are encouraged to use bicycles as an alternative mode of transportation, an official of the Climate Change Commission (CCC) said.

**Information and Knowledge Management Division**

## **ABS CBN**

### **DENR: Increased rainfall last week good for 5-7 days**

By: Raphael Bosano

The Department of Environment and Natural Resources (DENR) said Monday the increased water levels of the Angat Dam due to heavy rainfall is only good for five days to one week of usage by Metro Manila residents, before falling back below minimum operating levels.

In a water security and sustainability summit in Quezon City, DENR Usec. Carlos Primo David reiterated that the supply of water is “finite,” hence the importance of the public’s cooperation in terms of using water wisely.

Data from PAGASA showed that the level of Angat Dam has returned to 180 meters, its minimum operating level. More rainfall, however, is needed for it to reach more comfortable levels.

“Theoretically, we need two months of that much rain falling. Wala pa namang crisis but the water level is still quite precarious. It’s still manageable, but we need it to be up to around 208. We have around five months to be able to do so, so that we will have enough water the following year,” he said.

The declining water level is hounded by challenges on two fronts: conservation and infrastructure. DENR Sec. Toni Yulo Lozaga said the former is one that everyone can do.

“You have to check the way you are using water. Kung minsan napakatagal maligo, kung minsan nagwa-washing cars or other uses na hindi naman strategic or kailangan,” she said.

Infrastructure, particularly flood control and water impoundment measures are currently being undertaken and improved by regulators and other agencies.

The environment chief explained that a water crisis is already present.

“May crisis tayo in the sense that there is a shortage in terms of the supply sa may Angat. So what will happen is, if it doesn’t improve we have a few more days na ang supply ay maayos-ayos pa, but if the rainfall doesn’t continue, talagang babalik tayo sa rationing.”

The issue of climate change, El Niño and its effects on water supply, according to the DENR, is something that needs to be communicated all year round.

The younger population, more specifically, need to be aware on the importance of conserving this precious resource, whatever the season may be, water crisis or not, said the DENR.

## [Water conservation still key to supply concerns amid El Niño: DENR](#)

By: Josiah Antonio

Water conservation is still the key to address supply concerns as El Niño persists, Department of Environment and Natural Resources chief Toni Yulo-Loyzaga said Monday.

El Niño is a weather phenomenon wherein surface temperature of the ocean becomes warm, resulting in less rainfall.

"Immediately, for all of us, all of the communities, it is conservation. So, you have to check the way you are using your own water. Minsan napakatagal po maligo. Minsan nagwa-washing cars tayo or other uses na hindi naman strategic or critical na gumagamit tayo ng tubig," Yulo-Loyzaga told reporters in an ambush interview.

"So, let us all know na ngayon medyo short ang supply because of rainfall but also of course because we understand na kailangan ng mga building of (infrastructure). That one will be the second and ginagawa naman 'yan ng private sector and ng regulator natin kagaya ng MWSS," she added.

"When you look at the water problem, there are basically three things you need to look at. The supply, of which we are hoping the rainfall will actually increase. But that, of course, is to contend with El Niño this year. The demand side, which is what we can manage ngayon kaya conservation ngayon ang message. And, of course. there is the (infrastructure) side."

Yulo-Loyzaga added that infrastructure should be upgraded to deliver water efficiently.

"Ang critical dito is how much water will we be using because our infrastructure also is not updated, no? Not upgraded. Kaya po mahalaga 'yung presence ng private sector because is where the investment comes from, in terms of the building of the infrastructure na pwede pang-deliver ng water to all the zones in all the areas na nasa tubig," Yulo-Loyzaga said.

"So, supply is a challenge because of the shifting rainfall patterns, but here we need to ... two other remedies. Conservation which is part of [the] demand management, and infrastructure ... buying infrastructure in order for us to have very efficient delivery of water," she added.

The official noted that water conservation efforts should go beyond time during El Niño.

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**CNN**

**[‘Underground climate change’ is deforming the ground beneath buildings, study finds](#)**

By: Jacopo Prisco

A phenomenon that scientists have called “underground climate change” is deforming the ground beneath cities, a study conducted in Chicago has found.

This shifting of land under urban areas could pose a problem for buildings and infrastructure, threatening long-term performance and durability, according to the research.

Technically known as “subsurface heat islands,” underground climate change is the warming of the ground under our feet, caused by heat released by buildings and subterranean transportation such as subway systems.

“The denser the city, the more intense is underground climate change,” said lead study author Alessandro Rotta Loria, an assistant professor of civil and environmental engineering at Northwestern University in Evanston, Illinois.

Soil, rocks and construction materials deform when subjected to temperature variations. For example, the ground underneath buildings can contract when heated, causing unwanted settlement, Rotta Loria said.

“Deformations caused by underground climate change are relatively small in magnitude, but they continuously develop,” he said. “Over time, they can become very significant for the operational performance of civil infrastructure like building foundations, water retaining walls, tunnels and so on.”

But underground climate change is not the same as what we think of as climate change in the atmosphere, which is largely driven by greenhouse gases and has far-reaching effects, said David Archer, a professor of geophysical sciences at the University of Chicago.

“Calling it climate change seems like a bit of a coattail thing,” Archer, who was not involved with the study, said.

The term “underground climate change,” however, was not coined for this study — it has been in use, and the phenomenon a subject of research, for some time.

‘A silent hazard’



Studied for the past 25 years, underground climate change can cause issues such as groundwater contamination or problems with underground railways by making tracks prone to buckling or causing passengers to become ill due to excessive heat. Its effects on civil infrastructure, however, had not been explored until this study, according to Rotta Loria.

The research, published this month in the journal *Communications Engineering*, was conducted by installing 150 temperature sensors across the Chicago Loop district, both above and below ground, and in a variety of places such as basements, tunnels and parking garages. Sensors were also placed in Grant Park along Lake Michigan to compare temperatures from an unbuilt area with no excess heat coming from construction or transportation.

Data was collected over three years, and the results showed that the ground under the Loop was up to 18 degrees Fahrenheit (10 degrees Celsius) warmer than the ground beneath the park.

“We found underground structures, such as basements, where the air temperature was very high,” Rotta Loria said. “And the consequence of that is that at least a portion of the heat will diffuse towards the ground over time, and that’s the origin of the phenomenon.”

Researchers then used the data to build a computer model of the Chicago Loop and simulate the effect of the rising temperatures on the ground, from the 1950s until the 2050. They found that depending on the composition of the soil, the ground reacts unevenly to warming and can both expand and contract by amounts that — while imperceptible to humans — could cause problems for buildings.

“It’s important to stress that underground climate change does not threaten the safety of people and does not threaten to collapse structures and buildings,” Rotta Loria said. “It does pose a potential challenge for the functionality and the durability of structures, because excessive ground deformations can lead to distortion, tilting and potentially cracking.”

As a result, water could flow more easily into cracked structures, potentially causing corrosion in materials such as reinforced concrete.

“There is what I call a silent hazard,” Rotta Loria said. “Buildings that are more prone to issues, because they were designed and built with outdated approaches, are also those that contribute the most to underground climate change, because they lack appropriate thermal insulation and therefore inject the most heat into the ground.”

Harvesting heat

It's not all doom and gloom, however, according to Rotta Loria. "This study can make us realize that we are in front of an opportunity — we can take action, and in different ways," he said.

Future buildings will not significantly increase the phenomenon, because modern construction technologies and regulations mandate better insulation and energy efficiency. And for those structures that already exist, understanding underground heat presents opportunities, according to Rotta Loria.

"We can take action by applying thermal insulation to underground building enclosures, to minimize the amount of waste heat that goes into the ground," he said. "But if for any reason we aren't able to thermally insulate the buildings to enhance their energy efficiency, we could at least deploy geothermal technologies underneath or next to them to absorb the waste heat that is generated and use it for heating and cooling."

David Toll, a professor of engineering and codirector of the Institute of Hazard, Risk and Resilience at Durham University in the United Kingdom, said the study is important as the effects of thermal movements of the ground beneath cities have not been a focus of much research.

"My conclusion from the study would be that, for the Chicago Loop, we now know that these thermal movements that have taken place, and those predicted for the immediate future, are not large enough to be of concern. That is a very useful finding," said Toll, who did not participate in the research.

"However, that is not to say that such temperature changes below other cities, with different ground conditions, could not be potentially problematic."

## ECO BUSINESS

### [Indonesia's coal burning reaches record high amid rise of industrial smelting](#)

By: Hans Nicholas Jong

Indonesia burned more coal in 2022 than any other year, a preliminary analysis shows, putting the country on track to become one of the largest carbon emitters from fossil fuel in the world.

Data from the Indonesian Ministry of Energy and Mineral Resources showed that coal consumption amounted to 745.72 million barrels of oil equivalent (BOE) in 2022, a 33 per cent increase from 558.78 million BOE in 2021.

The data shows the country's coal consumption to be the highest ever by a very large margin.

Using this data, researchers from the Global Carbon Project, an organisation that seeks to quantify global greenhouse gas emissions and their sources, measured the emissions that came from that increase.

Coupled with other increases in fossil fuel consumption, such as oil (12 per cent) and gas (1.2 per cent), these increases drove Indonesia's total carbon dioxide equivalent (CO<sub>2</sub>e) emissions from fossil fuels to grow by 20.3 per cent, according to Robbie Andrew, a member of the Global Carbon Project and senior researcher at the Norway-based CICERO Centre for International Climate Research.

That put Indonesia's total CO<sub>2</sub>e emissions from burning fossil fuels at 619 million metric tons, with Andrew describing both the growth in coal consumption and emissions as "strong" and "massive."

"None of the world's top-ten largest emitters has seen growth of 20 per cent in the last 15 years," Andrew told Mongabay.

In 2021, Indonesia's emissions from fossil fuels were the ninth largest in the world, according to data from the Global Carbon Project.

With the increase in its fossil fuel emissions, Indonesia has become the world's sixth-highest fossil CO<sub>2</sub> emitter, behind Japan, Andrew said.

Using preliminary data, Indonesia's fossil fuel emissions is estimated to surpass those of Saudi Arabia, Iran and Germany.

“However, Indonesia is only very marginally ahead of Saudi Arabia and Iran: all three countries have about the same emissions, but our estimates show Indonesia highest of the three because of its large increase,” Andrew said. “The interesting question will be what happens in 2023. If Indonesia grows sharply again in 2023, then it will probably move more clearly into sixth place.”

The Ministry of Environment and Forestry’s climate change department did not respond to Mongabay’s request for comment.

While Indonesia’s fossil fuel emissions had increased sharply, its fossil fuel emissions per capita, at 2.7 tonnes, is still much lower than that of the US, at 15 tonnes.

#### Emissions targets undermined

This rise in coal burning is fueled by efforts to boost economic recovery following the Covid-19 pandemic, including the slate of new coal-fired power plants that recently came online as well as the expansion of the nickel industry — a strategic priority for the government as it looks to assert itself in the global supply chain for the batteries powering electric vehicles and other green technology.

Indonesia is already the world’s third-largest coal producer and a major coal consumer as well. That consumption will continue to rise through 2029 as new coal plants continue to be built and go online, according to the Institute for Essential Services Reform (IESR), a policy think tank based in Jakarta.

Another factor is the lack of efforts to phase out or even slow down coal mining, despite the government’s stated ambitions of achieving net-zero emissions by 2060. Grita Anindarini, program director at the Indonesian Center for Environmental Law (ICEL), noted that the government is instead targeting an increase of nearly 5 per cent in coal production this year.

If Indonesia’s coal consumption continues to rise, so will its emissions from burning fossil fuels, said IESR executive director Fabby Tumiwa. And this, he said, will jeopardise Indonesia’s target of having its emissions from the energy sector peak in 2030.

That target is a part of Indonesia’s greater ambition to transition from fossil fuels to renewable energy and is enshrined in a historic deal struck in November 2022. Under that deal, known as the Just Energy Transition Partnership (JETP), the G7 group of industrialised countries, plus Denmark and Norway, agreed to provide US\$20 billion in funding to Indonesia to help it speed up its energy transition.

Experts say Indonesia's energy transition agenda is particularly important for the global target of limiting temperature rise to 1.5° Celsius (2.7° Fahrenheit) above pre-industrial levels, as the country is one of the world's largest emitters.

The JETP funding is meant to help Indonesia cap its emissions from the power sector at 290 million metric tons by 2030, faster than its initial goal of 2037. This is supposed to be achieved by retiring existing coal-fired power plants and freezing new power plant projects.

But if the volume of coal being burned continues to rise, "then our emission cap target in 2030 will be difficult to achieve," Fabby told Mongabay.

"The more difficult it is, the higher the mitigation cost will be. If that's the case, we can't reduce our emissions [as it's too expensive]. So our emissions will continue to rise," he said, warning of a vicious cycle.

**Burning more coal to catch up**

As factories slowed their production during the Covid-19 pandemic, energy consumption went down. The ongoing recovery has seen a rush to make up for this downtime.

"Coal consumption actually grew sharply in the two years before the pandemic, so the growth in 2022 is partly about recovery to Indonesia's previous growth trajectory," Andrew said.

That sharp increase pre-pandemic can be attributed to the many new coal plants that came online in recent years, Fabby said. These are part of President Joko Widodo's flagship program of adding 35 gigawatts (GW) to the national grid in a bid to power Indonesia's economy, the largest in Southeast Asia and the 17th largest in the world by GDP.

The program entails the construction of hundreds of power plants of various types. But the majority of the additional capacity, 20 GW, will come from 117 coal plants.

In 2015, when the 35 GW program was announced, Indonesia's fleet of existing coal plants had a combined capacity of 25.4 GW. In 2022, that had increased by 60 per cent to 40.6 GW, according to a 2023 report by Global Energy Monitor.

So a sharp post-pandemic increase to catch up to the pre-pandemic level of coal burning is to be expected, Fabby said.

“Many new coal plants started operating from 2019, so there’s a tremendous increase,” he said.

Another key reason is the increasing demand for coal in the metals industry. This is clear from other details in the energy ministry data, according to Andrew, with much of the increase driven by Indonesia’s nickel industry.

#### Fueling the nickel dream

Indonesia is the world’s largest producer of nickel, a key element in the lithium-ion batteries used in EVs and renewable energy storage. The Widodo government is banking on the country’s nickel reserves — estimated at about a quarter of the global total — to turn the country into an EV powerhouse.

Indonesia’s nickel production rose by 60 per cent in 2022, accounting for half of global production. But this green ambition comes with a climate toll, given that the nickel industry is hugely energy intensive. And in Indonesia, the power grid is dominated by coal.

In 2022, 43 per cent of Indonesia’s electricity came from coal, an all-time high, while renewables accounted for just 10 per cent of the energy mix.

“In Indonesia ... the carbon per kilowatt-hour of power generation is much higher than most of the rest of the world,” Andrew Digges, Asia partner at global law firm Norton Rose Fulbright, said as quoted in the Financial Times in September 2022. “If we compare to Canada ... Indonesia will, by 2030, produce about eight or nine times as much carbon per kilowatt-hour of electricity as Canada will.”

Indonesia’s industrial parks, particularly those on the islands of Sulawesi and Halmahera that have become major hubs for nickel and aluminium processing, are also heavily reliant on coal. They consume 15 per cent of the country’s coal power output.

Furthermore, Indonesia’s nickel reserves are the laterite ore kind, which require more processing to become battery-grade nickel than does the sulfide ore found mostly in Canada, Russia and Australia.

As a result, making battery-grade nickel, also known as Class 1 nickel, in Indonesia is much more carbon-intensive than elsewhere; producing Class 1 nickel from Indonesia’s laterite ore resources releases two to six times the amount of CO<sub>2</sub> emissions as producing Class 1 nickel from sulfide deposits.

## Held captive by coal plants

The rise in coal consumption comes as new smelters to process nickel and other metals spring up across the country. Construction on most of these began in 2017 and 2018, and with operations beginning in 2019 onward, according to Fabby.

To power these smelters, coal-fired electricity plants are built specifically to serve them, known as captive plants. By definition, therefore, these are plants that can't be shut down without shutting down the industries that they power, Fabby said.

"If they're shut down, the smelters will also cease operation because there's no replacement [power source] yet," he said. "It's not easy to replace them because there's a need to build new infrastructure. So technically and economically speaking, it's not easy."

He called on the government and industries to stop building new coal plants altogether, whether feeding into the national grid or captive.

"Once coal plants are built, it's difficult to retire them before their expected end of age," he said. "And it'll be more difficult and costlier to build the infrastructure to replace them. So the best and cheapest option is to not build fossil fuel infrastructure if there's no need for them. Or if there are plans to build them, cancel and replace them with renewable energy so that we can achieve our emissions cap target in the power sector."

## NIKKEI ASIA

### [\[Opinion\] Japan can win over investors by clarifying its hydrogen strategy](#)

By: Rebecca Mikula-Wright and Anjali Viswamohanan

As Japan's green transformation framework speeds forward, investors are looking closely at the details as they consider where to allocate their capital.

Many investors have made net-zero commitments. To honor them, they need to support national net-zero transitions at scale and pace.

Fulfillment of Japan's 10-year plan will be crucial for the country to hit its target of reducing emissions by 43% by 2030. Many local companies have set even more ambitious 2030 targets, aiming to help keep global warming below 1.5 C.

Japan's hydrogen strategy is a significant component of the country's green transformation framework and the sectoral transition plans developed by the Ministry of Economy, Trade and Industry.

The country has been an early mover in hydrogen. Its 2017 strategy, updated last month, aims to expand the country's hydrogen supply from 2 million tonnes a year to 12 million tonnes by 2040.

Given this level of ambition and the stakes involved, Japan's hydrogen strategy must have enough credibility to help companies achieve their 2030 targets and to attract new capital investment in hydrogen production, assets and technology across the economy.

But before committing capital to Japan's hydrogen strategy, investors are calling for clarity and a clearer sense of important details.

Firstly, investors have concerns about the underlying power source to be used for Japan's hydrogen production.

Currently, Japan classifies all hydrogen as a non-fossil fuel energy source, even hydrogen produced in facilities running on gas or coal. To reduce emissions intensity, some have proposed attaching carbon capture systems to those plants but this raises a number of technical and commercial concerns.

In reality, only hydrogen production using renewable energy will meaningfully bring down emissions. Although the upfront cost of gas- or coal-powered hydrogen plants may be lower now, these "brown" or "blue" hydrogen plants and their products will come with much higher risk profiles, including cost variations in fuels and potential carbon



border tax liabilities. They would also increase overall system risk, as a warming climate worsens the stability of global and Asian economies.

Investors have set net-zero targets for their portfolios that increasingly hold companies accountable for emissions by their suppliers. They are therefore wary of supporting transition plans that rely on hydrogen that is not certifiably produced with near-zero emissions.

Investors also have questions about Japan's specific hydrogen use cases. There are specific sectors that do not have recourse to other straightforward low-carbon replacement technologies. These sectors would benefit from elements of the hydrogen strategy, such as ammonia production and oil refining.

For other sectors, including power generation and transportation, hydrogen will not be able to compete with available alternatives that are already being mass-produced.

Bringing hydrogen to Japan may end up being an expensive business. The International Energy Agency recently found that transportation costs for hydrogen will continue to remain high for several decades.

The agency recommends that hydrogen production facilities be set up close to where the gas will be used. The Investor Group on Climate Change, which is active in Australia and New Zealand, has highlighted that to achieve economies of scale, hydrogen hubs should be co-located with complementary infrastructure such as ammonia conversion facilities and dedicated pipeline infrastructure.

Sea transport also carries elevated risks from carbon prices. Yet Japan has been signing agreements for hydrogen supplies with Australia, Saudi Arabia and other far-flung countries.

Investors are increasingly prioritizing climate-related criteria when engaging with companies they have invested in and when allocating new capital. This is evident with the successive shareholder resolutions filed by investors in Japan's Electric Power Development, commonly known as J-Power. These have questioned whether J-Power's emission targets are consistent with the goals of the Paris Agreement as well as the company's decisions on technology-related investments.

Current decisions will have broad, long-term ramifications. Investors are calling for more focus on proven, reliable technologies such as renewables to achieve near-term decarbonization targets.

Japan's hydrogen strategy needs to be reexamined, with an eye toward addressing key investor questions. Will the strategy differentiate between production involving fossil fuels and that done with renewable energy? Will it focus on use cases where no other power source has an advantage? Will supply chains and transport factors be taken into account?

At the G7 leaders' summit in Hiroshima in May, Japan signaled an admirable commitment to achieve net zero by 2050.

However, Japan's treasury cannot shoulder the burden alone. Global investors can make important long-term commitments of private capital to support credible transition plans. Now is the moment for policymakers and investors to work together, answer outstanding questions and accelerate Japan's green transformation.

## PHILIPPINE NEWS AGENCY

### 7 evacuation centers to rise in Iloilo City

By: Perla Lena

Seven multi-purpose buildings which will also serve as evacuation centers will soon rise in strategic areas in Iloilo City as part of efforts on climate change adaptation.

In an interview on Monday, Iloilo City Lone District Rep. Julienne Baronda said they expect the projects' completion next year.

Baronda's office, with the help of several senators and House Speaker Martin Romualdez, ensured the PHP350 million funding for the project through the Department of Public Works and Highways.

"This is one of our initiatives so that in times of calamities we have our evacuation centers. We don't want to use our schools so we are building right now seven centers in Iloilo City," she said, adding that construction is ongoing in Jaro, City Proper and Lapuz districts.

They are one of a kind because the green building concept is included with the provision of a solar-powered water system, Baronda said.

The ground floor will be used as a multi-purpose building for economic enterprises and the second story will serve as an evacuation center.

"It is complete with washroom, restroom, kitchen, and offices," she said.

The buildings will be managed by the host barangay whose officials will be trained by the Technical Education and Skills Development Authority on entrepreneurship so they can offer the facility as a venue for various occasions.

## SUNSTAR

### [Algo: Filipinos' favorite food may disappear due to climate change](#)

By: John Leo Algo

WITH the Philippines in the early stages of both an El Niño episode and the typhoon season, Filipinos are faced with multiple threats due to the climate crisis for the remainder of 2023.

These events, which usually would not occur at the same time, could cause compounding losses and damages that would make it difficult for communities and ecosystems to recover.

This situation puts into focus the impacts of the climate crisis on food security. Without proper adaptation and mitigation solutions consistently implemented, we might start seeing some of our favorite foods and drinks disappear from markets, restaurants, and our dining tables at home.

#### Chocolate

We Filipinos are long known for our fondness for sweets. Chocolate, in particular, is a consistent part of many social events, from Valentine's Day and Halloween celebrations to simple break times at work or school.

The indulgence and comfort it provided was highlighted during the Covid-19 pandemic, when the country's interest in it increased and many of us sought for it to escape the realities of the lockdowns.

However, the local industry remains too small to meet the domestic demand. Being situated within the so-called "Cocoa Belt," the Philippines has the proper soil and climate conditions to grow cocoa beans, which are used to make chocolate. Yet it would be difficult to significantly increase its production with the threat of the climate crisis.

Increasing temperatures would cause disruptions in the water cycle, which in turn would make it difficult to maintain the level of humidity that allows cacao trees to grow. As a result, the "Cocoa Belt" could shrink to a smaller area around the equator.

There is already a global cocoa shortage, which would lead to higher prices for chocolate in the next few decades. Some scientists have even forecasted that cacao trees could become extinct as early as 2050, largely due to the climate crisis. While experts and producers figure out ways to avoid this scenario, the future of chocolate remains unclear.

## Coffee

Coffee has long been a part of the Filipino diet and culture, in both consumption and production. The Philippines ranks as the second-largest consumer of coffee in Asia, with 80% of its citizens drinking an average of 2.5 cups every day. It is also one of the few countries with the capacity to grow all four types of coffee beans: Arabica, Excelsa, Liberica, and Robusta.

Higher temperatures would alter many stages of the coffee life cycle, which would cause it to ripen more quickly and result in a lower product quality. It would also likely lead to lower yields, affecting the global and local markets. The decline in productivity may also be worsened by other factors that are also triggered by warmer climate, such as more unpredictable rainfall and pest infestations.

These scenarios have been recognized in the most recent report by the Intergovernmental Panel on Climate Change (IPCC). Continued global warming and the resulting changes in the climate would result in a decrease in both global coffee yields and lands suitable for its farming.

Other issues associated with the industry may further worsen said trends. Decision-makers must ensure that solutions to be implemented would not only directly address climate change impacts on the coffee production, but also socioeconomic problems such as poverty levels among Filipino farmers and their access to climate-smart technologies.

## Corn

Compared to coffee and chocolate, corn is a more important part of the Filipino food culture. It is the second most important crop in the nation, with 600 thousand farming families dependent on it for their livelihood. Around 14 million Filipinos regard it as their primary staple food, while yellow corn constitutes half of all livestock mixed feeds.

Corn ideally grows in a climate like the Philippines, with notable dry and wet seasons. This is because the different stages of its life cycle need to occur under different conditions. For example, while moderate rainfall for more than three months is suitable for better harvesting, high temperatures are more preferable during its vegetative and flowering stages.

This is why disruptions in the occurrence of dry and wet seasons would adversely affect corn growth and production in the Philippines. A local study has shown that while the extent of the impact would differ across numerous areas in the country, there would be

a decline in corn yields during the wet season from 2020 to 2080 due to the climate crisis.

While its survival for the next few decades is not as perilous as coffee or chocolate, it is still vital to ensure the sustainability of corn production and consumption, especially in the Philippine context. Proper policymaking at the national and local levels, with solutions such as adjusting the calendar for planting crops, improving irrigation systems, and improved early warning systems would help mitigate adverse effects while also improving the overall agricultural sector.

We should not wait until the day we can no longer enjoy the foods and drinks we love the most before we truly understand the dangers of the climate crisis. We need to demand action from those responsible for this issue, and we also need to take action in our own sustainable ways.

## THE PHILIPPINE STAR

### [Quezon City opens bazaar to raise funds for tutoring program](#)

By: Elizabeth Marcelo

The Quezon City government yesterday opened a bazaar to raise funding for its learning recovery initiatives, which include a tutoring program to reduce non-readers and non-numerates children by providing them additional academic assistance.

Launched at the Quezon City hall lobby, the “Kilos Kyusi: Kilo Store ng Bayan Tulong para sa Kinabukasan” offers a wide array of pre-loved and never-been-used merchandise that will be up for sale to city hall employees and the public.

The activity was spearheaded by the mayor’s office, city hall, Small Business and Cooperatives Development Promotions Office (SBCDPO) as well as Climate Change and Environmental Sustainability Department.

Proceeds from the bazaar will go to the QC Learning Recovery Fund, a repository for cash donations intended for the city’s public schools.

Quezon City Mayor Joy Belmonte said the learning recovery program is part of the local government’s “whole of society approach” to address the education crisis.

Belmonte cited the 2022 report of the World Bank, which estimated that nine out of 10 children in the Philippines aged 10 are unable to read and understand a simple text.

“A crisis of this magnitude requires all stakeholders to focus on prioritizing the needs and interests of our children. We have to immediately address this crisis as it will adversely affect our economy and the future of the next generation,” Belmonte said.

She said the bazaar would encourage reuse and recycling of textiles and other items, which can help reduce solid waste pollution.

The bazaar features items sold in two categories: by the kilo, in which the price is determined based on the total weight of the pre-loved items, and by individual price, which includes items that have never been used and are still in excellent condition.

For more information about the bazaar or how to donate pre-loved items, contact SBCDPO at 8988-4242 locals 8731, 8731, 8736. To learn more about the Quezon City Learning Recovery Fund, email [education@quezoncity.gov.ph](mailto:education@quezoncity.gov.ph)

## CCC IN THE NEWS:

### MAHARLIKA TV

#### [Islands in the Visayas may disappear by 2050 due to rising sea levels — Dela Cruz](#)

Filipinos should be very, very concerned about global warming, Climate Change Commissioner Albert Dela Cruz Sr. has warned amidst rising sea levels that have posed a risk to coastal villages in the Philippines, particularly in the Visayas region.

Commissioner Dela Cruz issued the warning following a report from the Institute of Economics and Peace (IEP), which disclosed that the archipelago is the country at most risk from climate change.

Based on the Climate Central study, it is projected that roughly 150 million people currently live in areas set to be submerged by 2050 and about 70 percent of them are in Southeast Asia and the Philippines is at the top spot.

“Geographically, we are prone to typhoons because we are located in the Pacific typhoon belt and we are hit by them at an average of 20 annually. In the past years, we have witnessed the intensity of these storms increasing. Some of these deadly typhoons include Reming, Frank, Winnie, Pablo, and Yolanda, all of which happened during the new millennium. These accounted for more or less 12,600 fatalities,” Dela Cruz described the actual situation.

The climate official added that the worrisome trend can be attributed to rising sea temperatures.

“However, while this means typhoons are less frequent, it also entails that they are likely to be more powerful. Add the fact that a lot of Filipinos live on the coast and future typhoons may produce even more fatalities in the long run,” he apprised.

The commissioner cited a report by Climate Science Advisor of the Institute for Climate and Sustainable Cities meteorologist Lourdes Tibig who revealed that a coastal island in the Visayas may be fully submerged by the year 2050.

Tibig claimed that an island in the region is experiencing a sea level rise faster than the global average.

“The global average is 3.7 millimeters per year. In Visayas islands, in that particular study site, they found out that the sea level rise is happening four times 3.7 millimeters



per year. 3.7 millimeters times four. That's more than one centimeter every year," she expressed.

Despite the alarming statistics, Dela Cruz said that there is still time to address the growing concern even as he added that at the very least, Filipinos are now becoming more aware of the impending crisis.

"According to a 2022 Statista survey, 73.8 percent of respondents in the Philippines believed that climate change is a serious and immediate threat. All we need to do now is to fast track our national climate change action through a whole-of-country and -community approach in mitigating and adapting to the impacts of climate change and global warming," he concluded.

## ONE NEWS PH

### [Use Bicycles To Fight Climate Change, Pinoys Urged](#)

An official of the Climate Change Commission noted that motorized transportation is a major factor in the aggravating impact of climate change.

To reduce greenhouse gas emissions, Filipinos are encouraged to use bicycles as an alternative mode of transportation, an official of the Climate Change Commission (CCC) said.

CCC Commissioner Albert dela Cruz noted that motorized transportation is a major factor in the aggravating impact of climate change.

Apart from bicycles, the official also backed the shift to electric vehicles to hasten the country's efforts toward decarbonization.

Dela Cruz said President Marcos during his term as senator filed Senate Bill No. 2924, or the proposed Bicycle Commuters Incentives Act of 2011, which seeks to grant incentives to promote the use of bicycles and other safe and viable non-motorized transport vehicles as a mode of daily commuting and travel.

"It must be noted that studies have consistently shown that bicycle use has wide-reaching benefits, from environmental and urban planning to public health," Dela Cruz noted.

"Furthermore, bicycle-users would also enjoy savings on transportation cost, in view of the lessened dependence on motorized transport system, which is admittedly more expensive due to the current fluctuations in the prices of gasoline and diesel fuel," he added.

Early this year, the Department of Transportation announced its plan to improve walkways and bicycle lanes across Metro Manila.

The Metropolitan Manila Development Authority, for its part, had said it plans to build elevated bicycle lanes along EDSA to promote urban bike tourism in the National Capital Region.

Climate change adaptation and mitigation efforts remain on top of the administration's priorities, according to Marcos.

“We are also very conscious of our situation in the Philippines wherein we are very sensitive to climate change,” the President said in his speech in Agusan del Norte on July 12.

## THE PHILIPPINE STAR

### [Use bicycles to fight climate change, Pinoys urged](#)

By: Helen Flores

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