



NEWS ROUNDUP

19 December 2022 [08:00 am]

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- Philippines prepares anti-cholera efforts as global cases increase
- Quezon City, 14 other cities seek to reverse nature loss
- Global cholera surge likely accelerated by climate change, warns WHO

BUSINESS MIRROR

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CNN PHILIPPINES

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By: Ashley Strickland

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[The world is burning more coal than ever before, new report shows](#)

By: Ivana Kottasova

The global energy crisis caused by Russia's war on Ukraine has pushed global demand for coal – the most polluting of all fossil fuels – to a record high in 2022, the International Energy Agency (IEA) said on Friday.

MANILA BULLETIN

[EU mini hydro turbine manufacturer eyes hub in PH](#)

By: Bernie Cahiles-Magkilat

Turbulent Hydro, manufacturer of mini hydro power turbines in EU, is keen on manufacturing mini hydro ecological turbines in the country to expand its current renewable energy project in Davao Oriental as it positions for strong demand for small hydro power projects in the country.

[Make it a green Christmas celebration](#)

By: Alexa Basa

- Use eco-bags for shopping. The world uses about one trillion plastic bags a year.
- Buy homemade products. These will reach you without the use of much carbon emissions.
- Give gifts that can be used over and over. That will not contribute to the wastes in the landfills.
- Don't buy decorations with glitter which are not biodegradable and end up clogging the drains.
- Switch on LED Christmas lights.
- Use reusable plates, cutlery and glasses for the Christmas party.

It's definitely the season of joy! Christmas is here and after two years of avoiding the malls, restaurants, and meeting friends, people are out celebrating this season of cheer.

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MINDA NEWS

[A year after Odette, Siargao folk put the pieces of life back together](#)

By: J-ann Avila

GENERAL LUNA, Siargao (MindaNews / 17 December) — The sun has just risen over the surfboards lined up along the white-sand shore of Cloud 9, the world-famous surfing spot here in the town of General Luna. Local and international tourists are doing a dry run with their surfing instructors before riding the ocean waves on a warm, early morning in August.

PHILIPPINE DAILY INQUIRER

[UP scientists race to find plastic-eating microbes](#)

By: Krixia Subingsubing

BOLINAO, Pangasinan, Philippines — Inside the country's first and only plastics research laboratory, a team of scientists from the University of the Philippines Marine Science Institute (UPMSI) is looking at an unlikely ally — microbial organisms — that could literally take a bite out of the mammoth problem of plastic pollution.

PHILIPPINE NEWS AGENCY

[CDO seeks enhanced climate change action plan](#)

By: Nef Luczon

CAGAYAN DE ORO CITY – The city government has moved to enhance the Local Climate Change Action Plan (LCCAP) for integration into the city's climate disaster risk management.

POLITIKO

[Marcos rising as champion of climate-vulnerable states – Villafuerte](#)

By: Billy Begas

Camarines Sur Rep. LRay Villafuerte said President Ferdinand Marcos is becoming a champion of the climate-vulnerable states seeking compensation from the world's heaviest carbon polluters largely responsible for the rising global temperature.

SUNSTAR

[\[Opinion\] Rich countries to pay for typhoon damage](#)

By: Nini Cabaero

When a typhoon causes destruction and death, there will be money involved for the repairs and the effort to move on from the loss.

THE MANILA TIMES

[PACU taps UN Sasakawa laureate for Climate Smart Academia 2050](#)

THE Philippine Association of Colleges and Universities (PACU) has launched Climate Smart Academia 2050 in an effort to improve the climate change mitigation and adaptation capabilities of the country's higher educational institutions (HEIs). The long-term, nationwide program aims to develop net-zero emission (NZE) or decarbonization or low carbon diet roadmap for the academic sector through the green house gases (GHGs) accounting; develop and implement a climate change adaptation-disaster risk reduction and management (CCA-DRRM) solution for the country; and conduct regional trainings, capacity buildings, and consultation workshops on climate and sustainability financing.

[PH terraces included in global climate project](#)

By: Eireene Jairee Gomez

MANULIFE on Thursday announced a new partnership with the National Geographic Society to deliver on an ambitious global project to safeguard several historical and culturally significant heritage sites, including Philippines' Banaue Rice Terraces, from the impact of climate change and protect the physical and financial well-being of the communities that depend on those sites for their livelihood.

[Real threats in Philippine agriculture and food security](#)

A SURVEY released by OCTA Research in early December highlighted inflation as the people's top concern. The October 23 to 27 survey showed that 57 percent of the 1,200 respondents cited inflation as the top worry, followed by a lagging wage increase of 48 percent and access to affordable food at 46 percent.

[Saving the sardine from warming seas](#)

By: Rhaydz Barcia

LIGAO CITY: Couple Romeo de Luna, 62, and Elvira de Luna, 59, of Sitio Tambac, Maonon village in Ligao City survived daily through fishing within the Ticao-Burias Pass, the second-largest seascape in the Philippines.

THE PHILIPPINE STAR

[Baguio City, 12 other cities feted for commitment to address climate crisis](#)

By: Artemio Dumlaog

BAGUIO CITY, Philippines — Baguio City, together with 12 other cities, has been recognized by the Worldwide Fund (WWF) for Nature for their commitments and efforts toward sustainability and developing a low carbon footprint.

[IMO climate talks end without clear emissions-reduction goal for shipping](#)

By: Gaea Katreena Cabico

LONDON, United Kingdom — The climate talks at the International Maritime Organization saw more countries supporting the move to decarbonize shipping by 2050, but the meeting failed to adopt a concrete target to eliminate pollution from the maritime industry.

[Philippines prepares anti-cholera efforts as global cases increase](#)

MANILA, Philippines — The Department of Health is preparing more anti-cholera programs as global cases of acute diarrhea increase.

[Quezon City, 14 other cities seek to reverse nature loss](#)

By: Pia Lee Brago

MANILA, Philippines — Quezon City and 14 other cities around the world called for increased investment to halt and reverse nature loss.

UN NEWS

[Global cholera surge likely accelerated by climate change, warns WHO](#)

“The map is under threat (from cholera) everywhere,” said Dr. Philippe Barboza, from the World Health Organization, speaking in Geneva, via Zoom. Available data points to cases of infection in around 30 countries, whereas in the previous five years, fewer than 20 countries reported infections, on average.

Information and Knowledge Management Division

BUSINESS MIRROR

[Development of 440 MWp solar PV project in Isabela province kicks off](#)

San Ignacio Energy Resources Development Corporation (“San Ignacio”), part of the Nextnorth Energy group which is developing over 450 MW of solar PV and hydro projects in northern Luzon, has recently signed a Solar Energy Operating Contract with Secretary Raphael P. M. Lotilla of the Department of Energy kicking off the process to develop a 440 MWp/336 MWac solar PV project in Ilagan City, Isabela Province.

In parallel, San Ignacio has reached agreement with Total Eren S.A. (“Total Eren”) to invest in the project through San Ignacio making it a Filipino-French joint venture. Total Eren is a renewable Independent Power Producer (IPP) with over 3.7 GW of wind and solar PV projects under construction or in operation globally. In the Philippines, Total Eren has already invested in a 60 MWp operating solar PV project in Tarlac province. Total Eren, which counts French multi-energy company TotalEnergies as one of its strategic shareholders, brings extensive experience in the development, financing, construction, and operation of renewable energy power plants globally, together with a strong commitment to the Philippines market.

The project, which will be among the biggest in the country, will be built on around 400 hectares of available land located along the Northern Luzon high voltage transmission network of the National Grid Corporation of the Philippines (“NGCP”). The project, which will bring an estimated PHP 18 billion in investment, is scheduled to start construction in 2024 and start feeding electricity into the grid in 2025.

During its construction period San Ignacio will provide employment to roughly 4,500 workers. With an expected electricity generation of around 700 GWh per year, San Ignacio can supply 1 million Philippine households with clean, renewable energy.

The new administration has set ambitious goals to achieve 35% renewable energy by 2030 and 50% by 2040. This compares to a current share of renewable energy of 22%. To achieve this, the administration has, among other measures, changed the annual increase in renewable energy use for on-grid areas under the Renewable Portfolio Standards (“RPS”) from 1% to 2.52% starting in 2023. At one Renewable Energy Certificate (“REC”) per MWh, San Ignacio’s annual output will generate around 700,000 RECs per year which market participants can acquire to comply with their RPS obligations.

Recently, electricity prices in the Philippines have skyrocketed as a result of the increasing import price of coal and a falling peso. Meeting or exceeding the administration’s renewable energy goals will help to make Philippine households less vulnerable to rising costs caused by international developments. Regionally power rates have increased to as high as 21 peso per kWh.

President of San Ignacio Miguel Mapa said: “As we now more than ever, realize the importance of indigenous, stably priced, and low-carbon energy sources, we at San Ignacio are motivated by the scale of positive impact our project will bring once energized. We are likewise pleased to be working with Total Eren, an experienced renewable energy player active globally, and are grateful for their confidence to invest in our country’s renewable energy story, which will have immeasurable impact on the generations of Filipinos to come.”

CNN PHILIPPINES

[DOE vows 'aggressive' push on energy efficiency law](#)

Metro Manila (CNN Philippines) — In a bid to combat climate change, the Department of Energy (DOE) will not leave any stone unturned in the implementation of the energy efficiency law.

“What’s next for energy efficiency in the Philippines is really part of the overall conversation through our nationally-determined contributions, improvements in terms of energy intensity that translates to lower greenhouse gas emissions,” said DOE Energy Utilization Management Bureau Director Patrick Aquino.

“What you can expect from the Department of Energy is a more aggressive push for the implementation of the EEC Act and its various components.”

Republic Act No. 11285 or the Energy Efficiency and Conservation Act aims to promote efficient and judicious utilization of energy in the country. It also pushes for the development and use of energy efficient renewable energy technologies.

Along with the energy efficiency law, the DOE is also pushing for the introduction of electronic vehicles in the roads and the observance of the Philippine Green Building Code.

Moreover, Energy Undersecretary Felix William Fuentabella believes that the academe should also be involved in the government’s energy saving efforts.

“We have to introduce this to the academe. We have to teach energy efficiency engineering and introduce the same in the grade school, high school, or even in the college curriculum,” he said.

The International Energy Agency said in 2016 that the energy sector must limit the global rise in temperature at 1.5 degrees Celsius by cutting emissions to zero by around 2040.

However, the United Nation’s Intergovernmental Panel on Climate Change said in its latest state-of-the-science report that the world has already warmed by 1.1 degrees above than pre-industrial levels.

“Dito sa Department of Energy, ang sinasabi natin para magkaroon ng mas maliwanag na future ang ating next generation, we have to provide more secure energy,” said Fuentabella.

[Translation: Here at the Department of Energy, we believe that we have to provide more secure energy so that the next generation will have a brighter future.]

[New satellite that will survey most of Earth's water has launched](#)

By: Ashley Strickland

The first mission to survey nearly all of the water on Earth's surface has launched. The international Surface Water and Ocean Topography mission, known as SWOT, lifted off aboard a SpaceX Falcon 9 rocket from Vandenberg Space Force Base in California at 6:46 a.m. ET on Friday. The first stage of the rocket successfully landed back on Earth at 6:54 a.m. ET.

Live coverage began on NASA's website at 6 a.m. ET.

The mission, a joint effort between NASA and the French space agency Centre National d'Études Spatiales, will survey water on more than 90% of the world's surface and measure the height of water in freshwater bodies as well as the oceans. The two agencies have collaborated for decades to monitor Earth's oceans — and SWOT is the next step in their partnership.

The insights from SWOT's measurements will show how oceans influence climate change as well as how global warming impacts lakes, rivers and reservoirs. The satellite's data can also help communities better prepare for flooding and other water-related disasters, which are increasing due to the climate crisis.

While water is critical for the survival of life on Earth, it also shapes our weather and climate as it stores and moves carbon and heat trapped in the atmosphere by greenhouse gas emissions. Surveying this resource can help scientists understand the global water budget — assessing main sources, how these sources are changing and the impacts that will have on different environments.

A key question scientists have is about the heat exchange between Earth's atmosphere and global ocean, and how it might accelerate global warming.

"We're going to be able to see things we just could not see before," said Benjamin Hamlington, research scientist at the Sea Level and Ice Group in NASA's Jet Propulsion Laboratory.

"We're going to be able to track the movement of water around the Earth between ocean and land, be able to make some of these connections and really understand where water is at any given time. This is really critical because we know with climate change that the water cycle is accelerating. What this means is that some locations have too much water, others don't have enough."

The satellite's instruments will collect detailed data on both freshwater and ocean features in high definition.

After years in development, SWOT's Ka-band Radar Interferometer, or KaRIn, is ready to fly. The instrument will be able to detect features that are up to 10 times smaller than those picked up by sea-level satellites.

For example, current ground and satellite monitoring only gathers data on a few thousand of the world's largest lakes, while SWOT will increase that number to over 1 million lakes.

Researchers who study bodies of water have had to rely on instruments that take measurements at specific spots, like river or ocean gauges. Similarly, previous space-based satellites have gathered more limited data that can't plumb the true depths of Earth's water bodies. One example of an obstacle to collecting precise readings is that steep-banked rivers don't appear wider or narrower even if more water is flowing through them.

But the KaRIn radar instrument can collect measurements through cloud cover and the darkness of night. The two antenna are positioned on either end of a 33-foot-long (10-meter-long) boom on the satellite. These antennas send radar pulses to the surface of the water and receive signals back.

"For freshwater, this will be a quantum leap in terms of our knowledge," said Daniel Esteban-Fernandez, KaRIn instrument manager at NASA's Jet Propulsion Laboratory in Pasadena, California, in a statement.

The spacecraft will view nearly all rivers wider than 330 feet (100 meters) and capture them in 3D for the first time, as well as measure ocean features less than 60 miles (100 kilometers) across.

"SWOT is really going to allow us to understand sort of how water volume changes in our rivers and lakes worldwide," said Tamlin Pavelesky, NASA's SWOT freshwater science lead, based at the University of North Carolina, Chapel Hill. "It's going to be a real game changer."

Data from SWOT can help researchers fill knowledge gaps as they seek to understand the ripple effects of the climate crisis, like how sea level is shifting along coastlines and areas that may be more prone to flooding, to better predict rising water levels in the future.

The climate crisis is also fueling extreme weather patterns, including droughts and downpours. The satellite's instruments can monitor both and provide essential information for disaster preparedness and water management agencies.

One place in particular that might benefit from SWOT's monitoring is Alaska. Although the state is on the edge of the Arctic Circle, it also holds about 40% of surface water resources in the US, including more than 12,000 rivers and hundreds of thousands of

lakes. The area's size and rugged terrain, as well as general inaccessibility, has hindered measurements of water in Alaska.

"SWOT is going to allow us to see what's going on in Alaska hydrologically in ways that we haven't before," Pavelsky said.

"That's important, because Alaska, being in the Arctic, is also the place in the United States experiencing the most climate change right now. If you want to know why that matters, think about how many resources we get from Alaska."

The SWOT mission's reach means that the satellite will be able to regularly monitor other areas of the globe where water resources have previously been difficult to estimate.

"It's going to be transformative in our ability to provide information that will ultimately improve the daily lives and livelihoods of almost everyone here on Earth," Hamlington said.

[The world is burning more coal than ever before, new report shows](#)

By: Ivana Kottasova

The global energy crisis caused by Russia's war on Ukraine has pushed global demand for coal – the most polluting of all fossil fuels – to a record high in 2022, the International Energy Agency (IEA) said on Friday.

Demand for coal is set to grow 1.2% and top 8 billion metric tons for the first time ever this year, the IEA said in the latest edition of its annual coal report. This record comes only a year after countries agreed to phase down their use of coal at the United Nations' climate conference in Glasgow.

The growth is mostly down to a rapid rise in the prices of natural gas and other fuels, which has forced some countries and regions to turn to coal as a cheaper alternative.

Coal is the world's largest source of energy for electricity generation and the production of steel and cement. But it is also the biggest single contributor to the climate crisis, accounting for around 40% of global greenhouse gas emissions from fossil fuel use.

“Europe – and the European Union in particular – has been one of the regions hardest hit by the energy crisis, given its reliance on Russian pipeline supplies of natural gas,” the report said, adding that technical problems in French nuclear power plants made the problem even worse.

To keep the lights on, Europe turned back to coal – even switching some of its recently closed coal power plants back on. Pieter de Pous, who leads the Fossil Fuel Transition Program at E3G, a climate think tank, told CNN the growth in coal use was a U-turn, coming “at the end of a decade that saw coal use cut in half.”

The IEA said that while the increase in coal consumption was relatively modest in most European countries, Germany saw a reversal of a “significant scale.”

That has put the EU, which has positioned itself as a global climate leader, into an uncomfortable position, with some criticizing European countries like Germany for only pursuing the green agenda when it suits them. Germany and the EU have pushed back on that idea, stressing the U-turn was only temporary and that the bloc has significantly ramped up its investment into renewable energy.

The IEA expects the EU's coal use to drop 29% by 2025 compared to 2022, de Pous said. “This will be the result of action taken in as many as 19 EU countries to accelerate renewables,” he added.

China, which accounts for more than half of global coal consumption, also ramped up its use of coal earlier this year, when the worst heatwave and drought in six decades hit its hydroelectricity production.

In August alone, coal power generation in China increased by around 15% compared to the same period last year, the IEA said, to a level of generation that was higher than the total annual coal power generation of any other country, except India and the United States.

Richard Black, a senior associate at the Energy and Climate Intelligence Unit, a climate advisory group, said that despite the increase in China's use of coal, the long term direction for coal in China and India – another major coal user – was clear.

“Renewables are going to be providing an increasing share of the generation and the role of coal is going to transition from being a baseload fuel to being a backup,” he said.

“The science suggests that a country such as China ought to have eliminated unabated coal use by 2040 and ideally earlier than that,” he said. “That’s absolutely feasible. As with Europe, if there is a short term increase in coal use, that’s not necessarily a disaster. The key thing is going to be to build out transmission capacity, build out energy storage, keep on making energy use more efficient, and to provide alternatives for the workers in the places where coal mining is a big employer so that there’s a socially just transition.”

‘Peak in fossil fuel use’

The IEA forecasts that global coal consumption will remain flat at the current level to 2025 as falls in some countries are offset by continued strong demand in emerging Asian economies. Although there are global moves to help big coal producing countries transition off the fossil fuel. This week, Vietnam agreed to a \$15.5 billion climate-financing deal with leaders from G7 industrialized nations to move away from coal, which followed a recent \$20 billion funding deal for Indonesia to increase clean energy and phase out coal.

“The world is close to a peak in fossil fuel use, with coal set to be the first to decline, but we are not there yet,” said Keisuke Sadamori, the IEA’s director of energy markets and security, said in a press release.

Earlier this year, the IEA said CO₂ emissions from coal power generation were forecast to grow by more than 200 million tons, or 2%, this year. It said that investment into new fossil fuels infrastructure must stop immediately if the world wants any chance of achieving net zero by 2050.

The latest climate science shows that achieving net zero by the mid-century is necessary to keep temperatures from rising well above 1.5 degrees Celsius, compared with pre-industrial times. Beyond that threshold, the world will face climate crisis impacts that could take millennia to correct, or could be irreversible altogether.

MANILA BULLETIN

[EU mini hydro turbine manufacturer eyes hub in PH](#)

By: Bernie Cahiles-Magkilat

Turbulent Hydro, manufacturer of mini hydro power turbines in EU, is keen on manufacturing mini hydro ecological turbines in the country to expand its current renewable energy project in Davao Oriental as it positions for strong demand for small hydro power projects in the country.

Board of Investments Managing Head Ceferino S. Rodolfo said that Turbulent has pilot mini hydro project in Mati, Davao Oriental with 140 kwh capacity.

Rodolfo said that company officials also discussed the plan with President Ferdinand Marcos Jr. during the President's trip to Brussels. "The President was very interested," said Rodolfo that the President instructed the BOI delegation to visit Turbulent's factory site in Brussels.

The president was drawn by the potential of the project to supply power to offgrid areas as the technology has faster implementation of within nine months, its being ecologically friendly, and cheaper cost.

The technology will require only moving waters with flow of 1.5 to 9 cubic meters per second, but can generate 15-17 kwh of power and scalable up to multiple capacities using a network of turbines.

With plenty of rivers in the Philippines, the Turbulent technology can be tapped to generate power from flowing bodies of water, especially in small islands in the regions.

These turbines can also work very well with power requirements in small islands. The technology is not also intrusive as the turbines run silently and are fish friendly.

The EU firm was also encouraged by the Philippines strong intellectual property protection regime. Rodolfo cited intellectual property protection as very important for this kind of technology.

Turbulent is just one of the various interests by renewable energy company firms in EU that are offering sustainable solutions during the President's trip to Brussels.

Make it a green Christmas celebration

By: Alexa Basa

- Use eco-bags for shopping. The world uses about one trillion plastic bags a year.
- Buy homemade products. These will reach you without the use of much carbon emissions.
- Give gifts that can be used over and over. That will not contribute to the wastes in the landfills.
- Don't buy decorations with glitter which are not biodegradable and end up clogging the drains.
- Switch on LED Christmas lights.
- Use reusable plates, cutlery and glasses for the Christmas party.

It's definitely the season of joy! Christmas is here and after two years of avoiding the malls, restaurants, and meeting friends, people are out celebrating this season of cheer.

As Christmas day nears, give some thought to making this a green Christmas because our planet needs even the smallest gesture to push back climate change. Here's some tips from the World Wide Fund for Nature Philippines (WWF-Philippines) and Greenpeace Philippines for a green Christmas.

Eco-bags for shopping. The world uses an about one trillion plastic bags per year. Most of them go to landfills, while some end up in waterways and oceans. That comes down to using more than a million plastic bags per second, with most of these plastics used only once, the WWF-Philippines said. Use canvas or cloth bags over and over again especially when shopping for Christmas presents.

Support local, homemade products. Imported goods use a lot of resources before they reach the doorsteps of our homes and work offices. Thus, buying local products will reduce carbon emissions while helping to promote the economy. Choose gifts from our native handicrafts or homemade products, or something produced near you to reduce the carbon emission of a delivery rider.

Set one degree higher. Turn up the air conditioner's thermostat by one degree Celsius when the party starts getting too cold. Setting higher thermostats will make everyone feel comfortable and decrease energy bills by as much as 10 percent. WWF-Philippines said that homes and offices should be kept between 23 to 25 degrees Celsius.

Give reusable gift items. Greenpeace Philippines advises that one chooses presents that can be used many times before it will be disposed. According to the organization, the longevity of presents diminishes the amount of waste discarded in landfills. How about reusable water containers, travel utensils, accessories made of up-cycled materials.

Don't buy decorations with glitter. Avoid buying Christmas decorations with glitters. Greenpeace Philippines said these will harm the environment. Glitters come in small

amounts that cannot be recycled. Glitters also do not degrade, “they end up clogging drains or are washed away into local water systems, where they absorb chemicals and other pollutants.”

Ditch typical gift wrapping. There are several greener options in packing Christmas presents aside from the typical Christmas-themed paper wrappers that turn into waste. Use old gift bags, canvas bags, cloth bags, newspapers, magazines, and glass jars.

Switch on LED Christmas lights. According to WWF-Philippines, Christmas lights made of energy-saving light-emitting diode (LED) lights are 90 percent more efficient than regular tungsten bulbs. LED lights are also more durable and safe. Just avoid leaving them for too long to save power and cut costs.

Avoid single-use plastics. Drop the use of single-use plastics not only during the yuletide season but throughout the year. If you are hosting the Christmas party this year, use reusable plates, cups, and cutlery.

Take a more serious thought about being green in your Christmas party. Greenpeace Philippines suggests using biodegradable and disposable cups, straws, and cutlery, reusing shopping bags, buying gifts not made from plastic, and patronizing businesses that “promote eco-friendly and sustainable practices.”

PBBM pitches PH priorities in EU summit; makes his mark as credible, competent leader

“I am delighted that my first visit to Europe in Brussels, which has the seals of the European Commission, and the Council of the European Union, is a success and I can see the outcomes of this visit will generate opportunities for the benefit of the Filipino people.”

Thus did President Ferdinand Marcos, Jr. sum up upon his return the outcome of his first trip to Europe as the country’s leader.

He reported that some P9.8 billion in fresh investments had been pledged by Unilever and other leading European firms. These would translate into hundreds of new jobs as well as expanded business and trade opportunities.

He also met with King Philippe of Belgium at the Royal Palace in Brussels, as well as with leaders from the European Commission, Estonia, Sweden, Czech Republic, the Netherlands, and Spain.

Addressing the ASEAN-EU commemorative summit, the President urged consideration of a free trade agreement between the Philippines and the European Union to rev up economic recovery and cushion the harsh impact of the Covid-19 pandemic. He also raised anew the importance of upholding the United Nations Convention on the Law of the Sea (UNCLOS) amid the maritime disputes in the South China Sea. Moreover, he called attention to the imperative need to address climate change repercussions on climate vulnerable countries like the Philippines.

One of his most significant meetings was with EU Commission President Ursula von der Leyen. He asked that the country be given sufficient opportunity to address the continuing concerns raised by the European Maritime Safety Administration (EMSA) on Filipino seafarers’ compliance with Standards of Training, Certification, and Watchkeeping (STCW) requirements.

The EMSA as well as the Maritime Safety Committee of the International Maritime Organization (IMO) have, in the past, repeatedly deplored what they describe as substandard maritime training received by Filipino seafarers. The Philippine government is now working closely with the business sector to ensure that these concerns are addressed adequately so that the country could maintain its position as the leading source of global seafarers, a distinction it has enjoyed over the past decades.

According to President Marcos, President von der Leyen promised that the European Commission itself will provide technical assistance to enable the country to get the EMSA’s seal of approval.

Over and above what he has achieved through top-level diplomacy, President Marcos also won the admiration of other heads of state as he soldiered on through the hectic

pace of day-long meetings despite nursing a cold and a sore throat condition. Indeed, the demands of summitry could challenge and impair the health of presidents and prime ministers.

Nearing the completion of the first half of his first year in office, President Marcos could look back on having established his presence as a credible and competent leader in the global community.

MINDA NEWS

[A year after Odette, Siargao folk put the pieces of life back together](#)

By: J-ann Avila

GENERAL LUNA, Siargao (MindaNews / 17 December) — The sun has just risen over the surfboards lined up along the white-sand shore of Cloud 9, the world-famous surfing spot here in the town of General Luna. Local and international tourists are doing a dry run with their surfing instructors before riding the ocean waves on a warm, early morning in August.

It still feels like summer. Here in Siargao, it always feels like summer.

Jessie Noguerra started surfing here when he was 16, taught by older local surfers whose names are now well known in local and international tournaments. Back then, he says, they borrowed surfboards and skipped lunch to ride the waves.

“We enjoy it (surfing) very much. After you first try it, you want to do it again and again, until you find yourself surfing every day,” Noguerra said in the Cebuano language spoken in central and southern Philippines. “The best feeling is when you finally catch a wave on your own, no longer with an instructor assisting you from behind.”

At 32, Noguerra is now the one teaching others to surf in this island that is commonly called the Philippines’ surfing capital and ranks among the top global destinations for recreational and competitive surfing, as well as beach holidays.

A year after super typhoon Odette (international name: Rai) ravaged Siargao and some 10 months since the Philippines reopened its borders during the COVID-19, more tourists have been making their way back to the island. In October 2022, the Siargao International Surfing Cup was held here after a two-year break due to the pandemic.

But the sun, sea and waves that are Siargao’s trademark were farthest from the locals’ minds one year ago.

On 16 December 2021, Odette – the strongest typhoon that hit the Philippines that year —made its first landfall in the country. Siargao, located in the northeastern coast of southern Mindanao region, bore the brunt of this Christmas ‘surprise’ storm, which made eight more landfalls across Mindanao and the central Visayas region with torrential rains, storm surges, floods. Its maximum sustained winds of up to 195 kilometres per hour earned it a Signal No 4 warning, just one level below the maximum, and gusts reaching 270 kph.

By the time the typhoon exited after two days, it had led to 409 deaths, displaced 641,000 people and damaged or destroyed more than 2 million homes across the country of over 115 million people, according to United Nations data in January 2022.

Odette's fury caught Siargao residents off guard, since the last devastating typhoon that affected their hometown was Nitang (international name: Ike) in 1984.

Memories of Odette's fury

"It was as if a tornado had entered the house," Noguerra said, recalling how Odette's winds shattered the windows of the concrete home his family had sheltered in, and sent shards of glass flying about.

One fragment of glass got into his left eye, requiring treatment. His wife, then six months pregnant with their first child, hid behind a thick bed cushion.

Several meters away from the shoreside stands the now-restored Cloud 9 boardwalk. Though now reconstructed, with the reuse of some materials from the original one, the sight of it remains a reminder of destruction to Noguerra every time he goes to work.

Towards the main entrance from the boardwalk, 48-year-old Ritchel Ambalgan tends to her reconstructed 'sari-sari' store (corner store), which reopened in June. "This was all gone! We just recently built this again from scratch," Ambalgan said in the Cebuano language spoken in central and southern Philippines.

Noguerra and Ambalgan were among the 12 million people that the UN Office for the Coordination of Humanitarian Affairs says were affected by Odette.

Noguerra rebuilt his house with financial help from former surfing students. "I have great gratitude for them," he said. "We are doing better right now because we already recovered. There are many tourists again and it's like we are going back to normal days," said Ambalgan.

'Stronger and better'

Siargao's tourism industry, a major income earner for the island community, took a direct hit from Odette – in the middle of the sharp drop in visitors during the pandemic.

General Luna town accounted for three-fourths of the economic damage on the entire island, or 1.2 billion pesos (23.9 million US dollars in December 2021), says data from the Post Disaster Needs Assessment by the Philippines' tourism department.

Half of the 5,494 tourism workers on Siargao affected by the typhoon were from General Luna, as of February 2022. The island itself is home to over 136,000 people.

Siargao received 75,132 tourists – 94% of whom were domestic ones – from January to September 2022, official figures show. This is just over 40% of the total 181,352 tourist arrivals in the first three quarters of 2019, before the pandemic.

Tourism is certainly what sustains General Luna, says its vice mayor, Romina Rusillon-Sajulga.

“That’s why we really cleaned up the entire town,” she said in an interview. “We did not have the equipment, so what we did was contact all the contractors with projects here,” she said, adding that several of these helped out by lending equipment and providing gasoline. “We’re going to rebuild it (the town) stronger and better.”

Siargao’s jump-off point, from where tourists depart to go island-hopping to enjoy clear green lagoons and coves, was first on the reconstruction list, followed by the Cloud 9 boardwalk.

The rebuilt boardwalk has posts made of cement and planks made of PVC, features that should make it “stronger than before,” Sajulga explains. “But it’s the same route (of the boardwalk), just different material. We just still lack the budget for the (viewing) tower.”

Restarting the surfing tournaments is part of the local government’s ‘Bangon Siargao’ (Rise, Siargao) recovery programme. Dapa, which is located next to General Luna and is the tourists’ entry point to Siargao via ferry, hosted its first-ever National Dragon Boat Regatta in July.

Its local officials have grander plans for their town – if General Luna is well-known for surfing, Dapa aims to be known for diving.

Developing tourism infrastructure would provide more jobs, they say. Despite Odette, local officials and residents remain focused on tourism as a main economic resource.

“Odette happened 37 years after Nitang so we thought maybe the next one is still after 47 years,” Sajulga jokingly said. “But you know, with climate change, we really don’t know.”

Changing typhoon patterns

The Philippines ranks highest (46.82 on a scale of 0-100) among 193 countries in the 2022 World Risk Index.

While the country is used to getting typhoons of up to 20 in a year, these have been passing through at periods of time outside the typical storm season of June to October and roaring through regions, such as the Philippines’ southern parts, that did not regularly have them many years ago.

There have been conflicting statements from scientists studying typhoon behavior in the context of today’s climate, explains Bernard Alan Racoma, a Filipino researcher in meteorology as well as oceans and climate.

“Some scientists say that tropical cyclones are moving more poleward, in the recent years start(ing) to form further away from the equator,” he explained, a trend that would tend to point to fewer chances of such making landfall in the Philippines. But others say that such typhoons have been moving nearer, “albeit ever so slightly,” to the equator during October to December, which would mean the reverse – that tropical cyclones are more likely to hit the country.

“In short, it’s complicated,” said Racoma, who is pursuing a dual doctoral degree in meteorology at the University of the Philippines and in atmosphere, oceans and climate at Britain’s University of Reading.

But it is a fact that Mindanao has experienced an increase of passages by typhoons within the last decade. From 2012 to 2020, Mindanao saw an unprecedented 480% increase in ‘Christmas typhoon’ events – such as Odette – that come around December to February.

At a time of climate emergency, the Philippines needs to use, for disaster-related planning and risk assessment, data that reflect more closely what has been actually happening around typhoons and the probable hazard scenarios that arise from these, explains Alfredo Mahar Lagmay, a geologist who is executive director of Project NOAH (Nationwide Operational Assessment of Hazards).

It can no longer refer to worst-case scenarios around typhoons in the past, and plan and act on the assumption that only events that have happened before can possibly happen today, or later on.

“We cannot underestimate the hazards. We have to represent in scenarios the hazards of the future, especially (given) that there is a threat of the adverse impacts of climate change,” explained Lagmay.

He advocates for the country’s use of maps that assess “probabilistic risk”, which create hazard scenarios bigger than what it has experienced or what is in its historical record. Such maps are part of the UN Office for Disaster Risk Reduction’s guidelines, and are mentioned in the country’s Climate Change Resolution 2019-001.

“Unfortunately, until now, it is still not yet being implemented on a national scale, because the maps that we have on a national scale, or at least the official maps that are recommended by the government, are the deterministic maps,” Lagmay added. Unlike probability-risk maps, “deterministic” ones only refer to worst-case, often single-situation, scenarios of the past, he says.

The use of such maps has already been proven unreliable in disasters such as super typhoon Yolanda (known as Haiyan internationally) in 2013, which hit the central Visayas region, he continues. (Yolanda, which came in November, was among the most powerful typhoons ever recorded globally. Described as the deadliest in the Philippines, it led to 6,300 deaths.)

The evacuation centers in central Tacloban City that were destroyed by Yolanda's storm surges were located in areas identified as non-critical ones in the hazard maps long used in the Philippines, Lagmay explains.

Project NOAH, whose website has disaster prevention information based on "near real-time weather data" and hazard maps for floods, landslides and storm surges, is managed by the University of the Philippines' Resilience Institute.

Formerly the flagship research programme on disaster prevention and mitigation set up in 2012 under the national science and technology department, it was shut down in 2017 by the administration of President Rodrigo Duterte due to "lack of funds."

'Help us recover'

"If you're going to visit Siargao, you're not only going to enjoy Siargao but you're going to help us recover," explained Sajulga, whose dream is for the island to become the number one destination among local tourists.

Bleeding hues of yellow and orange at dusk, the sun descends beyond Catangnan Bridge in General Luna as a couple takes in the scenic view while their four-year-old son, Remrem, plays with 'racing robot' toy on the pavement. "He thought the heavy rains days after Odette's landfall were another typhoon," his mother recalled.

Typhoon bulletins now make 62-year-old Erma Aurora, who lives near the seawall, nervous. "Others joke about us being already used to typhoons, but that's only for the small ones," she said in Surigaonon.

"They're inevitable and we can't escape them. We just have to accept whatever our fate is," said boatman Xander Dole, who ferries visitors who go island-hopping.

Rexon Coro, who lives right behind the seawall with his wife and 11 children, added: "If another typhoon is coming, then we run again."

PHILIPPINE DAILY INQUIRER

[UP scientists race to find plastic-eating microbes](#)

By: Krixia Subingsubing

BOLINAO, Pangasinan, Philippines — Inside the country's first and only plastics research laboratory, a team of scientists from the University of the Philippines Marine Science Institute (UPMSI) is looking at an unlikely ally — microbial organisms — that could literally take a bite out of the mammoth problem of plastic pollution.

The team led by oceanographer Dr. Deo Florence Onda said it had identified bacteria that could break down that kind of garbage.

"It's just a matter of trying to explore and search for that 'superbug' that can actually degrade the plastics," Onda told the Inquirer. "It's just a very long process."

Breakthroughs in this pursuit could open up new ways to tackle the ecological crisis of plastic waste piling up on the planet and littering the oceans.

In the Philippines, serious research into that phenomenon, besides being relatively new, is further hampered by lack of funding.

This has limited such efforts to mostly monitoring how much of that trash gets thrown into the environment, rather than how it affects particular ecosystems.

The country has earned the unflattering distinction of being the third biggest plastics polluter worldwide after China and Indonesia, according to a 2021 World Bank report which affirmed an earlier study done in 2015.

Gaps, opportunities

In 2020, Onda's team published a study titled "Marine Microbes and Plastic Debris: Research Status and Opportunities in the Philippines."

It identified gaps as well as opportunities in local plastics research — such as exploring how microbes interact with these materials which otherwise would take some 1,000 years to decompose.

Microbes are the "first and last organisms to interact with plastics," said Justine Bitalac, a senior research specialist and former graduate student of Onda.

She noted that these hardy survivors cling to and feed on plastic waste as they drift into the ocean.

In the study, the team members took note of earlier research done abroad which already showed that some bacterial species could be "good models for metabolizing

plastic.” Such species include the bacterium *Ideonella sakaiensis*, which — as Japanese scientists discovered in 2016 — was able to degrade polyethylene terephthalate, the synthetic commonly used for manufacturing beverage bottles and other liquid containers.

The study urged local researchers to explore how microbial biodegrading “could be further harnessed.”

But this is no mean feat, as biodegradation itself “is very difficult to measure [and] takes a long time,” said Norchel Gomez, another senior research specialist on the team like Bitalac.

‘Pits and holes’

Nevertheless, the two researchers set off to examine microbial biodegrading in heavily polluted Manila Bay.

There, Gomez found “members of microbial communities” from the bay’s sediments, collected those samples and incubated them for about three months.

She identified 18 bacterial entities, or “taxa,” most of which were cited in previous studies as being able to break down hydrocarbons—the same compound found in gas, coal, and crude oil.

“[This] makes sense because plastics share the same structure with them,” Gomez said.

The next step was “to isolate the specific species [that] are actual biodegraders of plastics,” said Bitalac, who took off from Gomez’s discovery.

She isolated 10 different species, the majority of which were from the *Halomonas* genus.

Bitalac said these bacteria punctured the plastic, creating “pits and holes” within 60 days.

It was as if they were eating it, she said.

‘Problematic byproduct’

Gomez’s findings were accepted for publication on Dec. 2 by the Archives of Microbiology Journal in Berlin, while Bitalac’s research is undergoing revision for publication in the Netherlands-based Journal for Hazardous Materials. But the team members are still careful about “overselling” their initial results, especially since plastic biodegradation releases carbon dioxide.

Onda said: “Even if we do get to a point that we’re able to completely degrade [plastic], most of it would be converted to greenhouse gases—and how much of that byproduct would be problematic to the climate?”

While it’s good to know that there are plastic-eating bacteria out there, efforts to curb pollution “should be at each stage of the life cycle of the plastic—from production to consumption and recycling,” he said.

Still, understanding how microbes work could lead to other remedies.

Manufacturers, for one, could start redesigning their products to make them easier for biodegrading. And scientists may craft more accurate climate solutions based on how much greenhouse gases are released by decomposing materials.

“Even if we don’t reach our end goal of finding that ‘superbug,’ we might be able to learn more about something else,” Onda said.

“That’s the beauty of it—the more you know, the more you understand.”

PHILIPPINE NEWS AGENCY

[CDO seeks enhanced climate change action plan](#)

By: Nef Luczon

CAGAYAN DE ORO CITY – The city government has moved to enhance the Local Climate Change Action Plan (LCCAP) for integration into the city's climate disaster risk management.

During the 11th-year commemoration of Severe Tropical Storm Sendong (Washi) on Friday, Mayor Rolando Uy reaffirmed the commitment of the city government to make the area resilient to natural disasters, especially with the onset of climate change impacts.

"We should not forget the pain and destruction Sendong brought us. We need to continue and strive on how our people safe from disasters," he said.

Uy said building a resilient city is a "very difficult challenge" as it includes rehabilitating forests outside its boundaries.

He said the city government's LCCAP will also be aligned with climate change protocols, even as he vowed to "cooperate and contribute to the commitments of the Philippine government to international agreements on climate change."

"As a city that is highly vulnerable to climate change impacts, we need to do more for the safety of Kagay-anons (residents) and contribute more to national efforts at climate change adaptation and mitigation," he said.

Remembering the tragedy brought by Sendong here, Uy said the lives lost in the storm can only be honored if the local government maintains a clear-cut plan with the help of different sectors in the community.

In mid-December of 2011, Sendong poured heavy rains for two days in the city's vast watersheds, which stretches up to the slopes of Mount Kitanglad and Kalatungan in Bukidnon province.

The flash floods left at least 674 people dead and displaced some 230,000 residents, and damaging over PHP2 billion in properties.

POLITIKO

[Marcos rising as champion of climate-vulnerable states – Villafuerte](#)

By: Billy Begas

Camarines Sur Rep. LRay Villafuerte said President Ferdinand Marcos is becoming a champion of the climate-vulnerable states seeking compensation from the world's heaviest carbon polluters largely responsible for the rising global temperature.

Villafuerte made the statement after Marcos' trip to Brussels, Belgium where the President raised the issue of climate change and the need to address its impact, especially on the most vulnerable countries like the Philippines.

He said Marcos "pushed the envelope in his just-concluded journey to Belgium by pitching for more concrete guidelines on how affluent economies that are the world's biggest greenhouse gas (GHG) emitters could compensate highly vulnerable economies like the Philippines that have contributed little to planet heating for their 'loss and damage' resulting from the increasingly deadlier climate-induced natural disasters."

"In making such a pitch for loss-and-damage compensation, whose concept was agreed upon by participant-countries in last month's COP27 summit in Egypt, President Marcos has focused global attention anew, whether he likes it or not, on his rising international stature as the champion or unofficial spokesman of the world's most vulnerable economies that are seeking climate justice from wealthy nations like those in Europe that have grown even richer from being the heaviest carbon polluters," Villafuerte said.

The compensation is intended to finance reconstruction efforts in countries whose physical and social infrastructures have been damaged by increasingly worsening natural calamities.

Villafuerte, who is the president of the National Unity Party, lauded Marcos for "earning an early win on his climate justice advocacy while still in Brussels after getting the support of European Council President Charles Michel on his proposal to quickly operationalize the green fund on climate change and the 'damage and loss' policy."

Michel supported the call of Marcos during the ASEAN-EU working luncheon.

Villafuerte said Marcos also "walked the talk" in his advocacy and make moves to reduce the Philippines' carbon footprint by securing investment pledges from European companies engaged in renewable energy and sustainable infrastructure solutions.

SUNSTAR

[\[Opinion\] Rich countries to pay for typhoon damage](#)

By: Nini Cabaero

When a typhoon causes destruction and death, there will be money involved for the repairs and the effort to move on from the loss.

Families tend to gather resources to help a member caught in an emergency caused by a destructive typhoon. Communities round up support and local governments do what they can to address immediate needs, try to save life, and locate the missing. But then all the support is not enough when there is a swath of destruction and several priorities have to be met at almost the same time.

This is the simple rationale behind the call for climate finance that asks developed countries to pay for loss and damage caused by global warming. As Oxfam Pilipinas country Director Lot Felizco explained in a statement after severe tropical storm Paeng hit last month, the Philippines and other climate-vulnerable countries in Asia continue to grapple with the problem of having to face the effects of a climate emergency that more developed countries have caused. Paeng was the latest deadly typhoon to hit the Philippines.

For Cebuanos, last Friday marked a year after super typhoon Odette struck on Dec. 16, 2021, and affected two million people in Cebu alone. The destruction was widespread and, although local officials believe that most of Cebu has recovered, structures such as school buildings, electrical posts and lines, churches and others still bear the marks.

Oxfam Pilipinas has called on the global community to support countries like the Philippines “that are facing the double whammy of being extremely climate-vulnerable while not being prepared enough for the disasters to come.”

The Climate Finance in Asia report showed that Asian countries have seen an annual 28 percent rise in climate finance to \$20.5 billion in 2020, yet that is not enough to correct the injustice in developing countries. Oxfam said Asian countries need \$1.3 trillion a year from now to 2030 to meet their estimated climate needs. Oxfam said “current levels are woefully inadequate” and that a “significant share of these estimated needs must come from international support.”

This was exactly what was agreed upon during the COP27 held in Egypt from Nov. 6 to 20. The COP27 is the 2022 Conference of the Parties of the United Nations Framework Convention on Climate Change. Rich countries agreed to pay for climate damage in poor nations.

The next focus will be on where the money will go, how much rich countries will contribute, and which countries can benefit. A committee will work on the details next year.

Another lesson we can derive from the Odette experience is the need to push for rich and industrialized countries to pay for the costs of destruction and loss from typhoons and droughts fueled by global warming. How to do that is to insist that environment agencies in government take the lead to demand compensation.

THE MANILA TIMES

[PACU taps UN Sasakawa laureate for Climate Smart Academia 2050](#)

THE Philippine Association of Colleges and Universities (PACU) has launched Climate Smart Academia 2050 in an effort to improve the climate change mitigation and adaptation capabilities of the country's higher educational institutions (HEIs). The long-term, nationwide program aims to develop net-zero emission (NZE) or decarbonization or low carbon diet roadmap for the academic sector through the green house gases (GHGs) accounting; develop and implement a climate change adaptation-disaster risk reduction and management (CCA-DRRM) solution for the country; and conduct regional trainings, capacity buildings, and consultation workshops on climate and sustainability financing.

To achieve these goals, PACU enlisted the aid of UN-awarded science diplomat Glenn Banaguas, president and founder of the Environmental and Climate Change Research Institute (ECCRI).

He established the Climate Smart Philippines to bring science to the public and capacitate all levels of stakeholders in addressing disasters and preventing losses from climate change and other hazards.

"It is an honor for me to be able to help our country's future generation of leaders to become more empowered and better prepared for the challenges of tomorrow," Banaguas said.

For his pioneering work, Banaguas received the prestigious UN Sasakawa Award for Disaster Risk Reduction, the Asia Leaders Award for Sustainable Leadership, and other international accolades.

The oldest umbrella organization of private institutions of higher education in the Philippines, PACU aims to contribute to nation-building through transformative private higher education in a deregulated environment imbued with a global perspective and anchored on social responsibility and mutual cooperation.

[PH terraces included in global climate project](#)

By: Eireene Jairee Gomez

MANULIFE on Thursday announced a new partnership with the National Geographic Society to deliver on an ambitious global project to safeguard several historical and culturally significant heritage sites, including Philippines' Banaue Rice Terraces, from the impact of climate change and protect the physical and financial well-being of the communities that depend on those sites for their livelihood.

The Philippines' Banaue Rice Terraces is among the 10 natural and cultural sites providing tourism and economic resilience to surrounding communities from Asia, North and South America, and Europe that will be protected under the newly launched project titled "Preserving Legacies: A Future for Our Past."

To safeguard these cultural heritage sites, Preserving Legacies will build community capacity to visualize climate impacts on a local scale and make the science of climate change relevant and applicable to the conservation of specific sites. Led by National Geographic Explorer Victoria Herrmann and connected to Manulife's Impact Agenda, this project will focus on network building between sites, where knowledge sharing will be key to developing climate change adaptation plans.

"By partnering with Manulife and the National Geographic Society, our ambitious approach to addressing this critical issue will not only lead to tangible protection of cultural heritage sites; it will be the game-changers needed to increase access to heritage adaption and transform conservation as a field to meet the challenges of a climate-changed world," said Herrmann.

"As a health and wealth company with a 130-year history serving customers, colleagues and communities across the globe — it's important we work to protect our environment and drive inclusive economic opportunities to create a more even playing field for all," said Sarah Chapman, global chief sustainability officer of Manulife. "Through our partnership with National Geographic, we have an opportunity to equip communities throughout the world with the tools to better anticipate worsening climate impacts and safeguard them for the future."

"The Philippines is considered one of the countries most vulnerable to climate change. With this partnership, Manulife Philippines aims to contribute to efforts to mitigate its risks to people's lives and livelihoods, expanding our initiatives to advocate for the well-being of people, communities and the environment while driving sustainability and creating long-term value," said Rahul Hora, president and chief executive officer of Manulife Philippines.

Manulife and National Geographic will support local communities throughout the world to turn scientific knowledge into actionable management plans that will safeguard these sites cohesively with community priorities and values. Additionally, they will support

continued community adaptation through peer mentoring programs and educational materials to inspire and activate future generations.

Using local weather data, localized climate models give every historic site a way to visualize how much flooding, heat, sea level rise and changing seasonality will threaten their site in different warming scenarios. This allows community leaders and site managers to answer critical questions about which climate impacts they should plan for and when they are likely to experience them.

The 10 sites included in the project are Banaue Rice Terraces of the Philippine Cordilleras; Petra, Jordan; Angkor Archeological Park, Cambodia; Border Fields, USA and Mexico; Historical Mosque City of Bagerhat, Bangladesh; Nan Madol, Micronesia; Levuka, Fiji; Koutammakou, the Land of the Batammariba, Togo and Benin; Sceilg Mhichil, Ireland; and Port, Fortress and Group of Monuments at Cartagena, Columbia.

Real threats in Philippine agriculture and food security

A SURVEY released by OCTA Research in early December highlighted inflation as the people's top concern. The October 23 to 27 survey showed that 57 percent of the 1,200 respondents cited inflation as the top worry, followed by a lagging wage increase of 48 percent and access to affordable food at 46 percent.

Other national issues such as creating more jobs (29 percent), free quality education (26 percent), reducing poverty (24 percent), fighting graft and corruption (11 percent), promoting peace and order, fighting criminality, and Covid-19 control (all 9 percent) all pale in comparison to the inflation and food challenge.

The release of the 8 percent November inflation rate confirmed the suspicion that the current bout of inflation is related closely to food more than anything else. The food inflation for the month ran at 10 percent and accounted for 59 percent of the price increase. Moreover, domestic-produced food items are taking the lead in price hikes and are responsible for the highest inflation in 14 years. For example, the price of sugar is 38 percent higher than last year; corn, 27 percent; vegetables, 26 percent; and meat, 9 percent.

The supply-side challenge in food inflation

Food inflation refers to a broad rise in the prices of foods across the economy that erodes the purchasing power of the people. The poor bear the brunt of the food inflation because they spend more of their income on food than the rich. The lower 50 percent of the country's households spend more than 50 percent of their expenditure on food.

In a nutshell, food inflation reflects an imbalance in the supply and demand of a broad range of foods. The demand for food is inelastic, and its growth is predictable. Demand change is more closely related to population increases than other factors. Therefore, food supply and demand imbalances often happen on the supply side.

The most common cause of supply disruption in food are calamities, but their impact is usually short-term. Most food crops are short-cycle products; their growing season is just a few months. The production system disrupted can recover after the calamity and return the price quickly in a new harvest. In addition, most countries keep an inventory in the food supply chain to mitigate supply disruption from calamity.

However, when there is a persistent broad rise in food prices over time, one must look at the supply side issue of food production. In the latest Philippines Economic Update (PEU) released by the World Bank last week, the multilateral agency highlighted the need to boost farm productivity and urged the government to repurpose public investment to ensure food security. The country's agricultural sector is forecast to grow by only 0.1 percent from 2022 to 2025 after registering zero growth in 2020 and 2021. If the World Bank forecast is correct, one can easily see a food supply deficit of close to

10 percent by 2025 if we assume an annual population growth of 1.5 percent from 2020 to 2025.

Climate change complicates food supply security

The concern over climate change on global food production is intensifying as drought in China, Europe and the US happens at almost the same time in early summer this year. Preliminary results of a study at the Water and Food Systems (J-WAFS) Lab at Massachusetts Institute of Technology indicated the risk of extreme weather of too much rain or too little rain in any one place around the world has increased, and even worse, the risk of synchronous flood or drought has increased. The climate is getting more variable worldwide, with the world getting 15-20 percent more floods and 15-20 percent more droughts for only a small increase in average precipitation. As a result, the world's food supply chain is getting brittle. The study recommended an increased emphasis on storing excess grain in times of surplus to cut price and supply volatility during synchronous drought.

The storing of grains is often done in exporting countries globally for simple economic reasons. However, the practice leaves countries relying on importation to balance the supply shortfall to the food security challenge. In the politically sensitive food staple of the country, rice, the country imported more than 20 percent of its requirement or around 3.4 million tons in 2022; such a high ratio of importation exposes the country to food supply challenge, not to measure price volatility resulting from the timing of importation to avoid price collapse when importation landed during harvest time.

A holistic approach to address food supply challenges

The root cause of the food supply problem lies in stagnant productivity in the agricultural sector. For example, the country's rice yield stays at less than 4 metric tons per hectare and sugar yield at less than 5 MT/hectare for years while the population increases, and climate change introduces more volatility to the production. Therefore, the traditional approach of boosting production through subsidies for fertilizer, seeds, machinery and improving irrigation might not increase production sufficiently. Moreover, climate change could dry up the irrigation canal, rendering traditional seeds vulnerable to adverse new climate conditions and fertilizer not working well to boost production.

The challenge to food production is worldwide, and the advent of precision farming started with drought-resistant seeds, spatial field management techniques that match field fertilization to plant growth and dripping systems cutting field water requirements are all designed to ensure food production stability under the new global climate change environment.

The Fourth Industrial Revolution offers many solutions to the world's new challenges. The country should use the new technologies to formulate a holistic approach to address the worsening food supply problems.

Saving the sardine from warming seas

By: Rhaydz Barcia

LIGAO CITY: Couple Romeo de Luna, 62, and Elvira de Luna, 59, of Sitio Tambac, Maonon village in Ligao City survived daily through fishing within the Ticao-Burias Pass, the second-largest seascape in the Philippines.

The couple, both elementary graduates with two children, are living in the fishing village at Sitio Tambac, Maonon, Ligao City, and have been involved in fishing for more than 40 years.

Romeo said that he went home almost empty-handed in the last five years as fish continue to decline because of the increasing weather conditions and warming ocean.

"Forty years ago, fishing was profitable with a daily good catch. But these past few years, I went home almost empty-handed or went home with just a kilo of fish like "lawlaw" (sardines) and first-class fish. It is tremendously dwindling because of the hottest weather and warming seas. Oftentimes, we came home without a catch which hardly fed our family," he said.

"We've noticed that the very warm and humid weather causes warming ocean, prompting the fish to go on the deeper part of the ocean which is difficult for us marginalized fisherfolk to go on to the high seas," he narrated in the dialect as he and his wife Elvira sat on their boat under the tree.

He said that the changing and very humid weather started to affect them 10 years ago. The changing and now very humid weather is driving the fish away from the municipal waters.

"A few decades ago, the weather was not as warm and humid as today. We endured the sea for a long time and went home happily with 15 iced boxes full of a high-grade variety of fish including sardines after three hours in the 1970s to early 1990s. But in 2000, the sea temperature was different, rising and was getting warmer, driving away the fish near the shoreline," he said.

He said that sardines and other varieties of fish are one of the important sources of their livelihood and survival in the countryside. To survive daily, they resorted to loan sharks, who lend at a 20 to 50 percent interest rates.

The Ticao-Burias Pass is home to lawlaw and high-grade fish species. Many Filipinos depend on fish not only for food but also for livelihood, making this one of the most important resources in achieving food security in the country.

Citing data from the Philippine Statistics Authority, Joyce Siera, Oceana communications manager, said that the usual catch of sardines locally called tamban

declined from 442,045.75 metric tons in 2010 to 325,226.20 metric tons or a 26.4 percent decline in 2019.

Oceana, an international nonprofit advocacy organization focused solely on ocean conservation, was founded in 2001.

Siera said GPS trackers were installed on fishing vessels operating in the Fisheries Management Area (FMA) 7 covering Bicol to Visayan seas and allowed the team to monitor fishing activities in the area over time.

This method has led the research team to discover that 60 percent of the total 60,000 metric tons caught in FMA-7 were from Bulan station along the Ticao-Burias Pass.

It said that fish caught in Bulan fall below the size of the first maturity. Many juveniles are caught in this area and there's a need to implement measures to reduce by regulating the fishing — the number of vessels, the frequency of catches, and when they are allowed to operate, Oceana said.

Oceana urged the government's fisheries agency and stakeholders to conduct a participatory process to address the challenges in managing its sardine stocks in the Bicol Region, part of the country's sardine-rich fisheries management area, in response to the incident of sardine spoilage in Bulan, Sorsogon.

THE PHILIPPINE STAR

[Baguio City, 12 other cities feted for commitment to address climate crisis](#)

By: Artemio Dumlaog

BAGUIO CITY, Philippines — Baguio City, together with 12 other cities, has been recognized by the Worldwide Fund (WWF) for Nature for their commitments and efforts toward sustainability and developing a low carbon footprint.

Baguio City — along with Batangas, Cagayan de Oro, Legazpi, Makati, Ormoc, Pasig, San Carlos, San Fernando (La Union), Santa Rosa, Tagum, Zamboanga, and Vigan — were honored at the One Planet City Challenge (OPCC) 2022 Local Awarding Ceremony in Manila hosted by the Worldwide Fund Philippines.

One Planet Cities share a commitment to work toward the Paris Agreement goal to keep global temperatures from rising more than 1.5 °C through clear climate mitigation plans and adapting the most innovative solutions to individual city circumstances, according to the WWF website.

Innovations for cleaner, greener cities include long-term solutions to traffic, which the WWF consider the biggest contributor to outdoor air pollution.

The WWF suggests reducing traffic emissions through shift from car dependency to active transportation as well as building bike paths and pedestrian safety improvements, creating dedicated public transport lanes including switch to battery-powered electric buses.

The WWF believes that as urban populations grow, land becomes ever more precious thus the need to design streets for people rather than vehicles as one of the ways cities can reduce sprawl, emissions, traffic, and pollution, leaving the way open for improved health, more access and interaction with nature, and clearer, cleaner air.

[IMO climate talks end without clear emissions-reduction goal for shipping](#)

By: Gaea Katreena Cabico

LONDON, United Kingdom — The climate talks at the International Maritime Organization saw more countries supporting the move to decarbonize shipping by 2050, but the meeting failed to adopt a concrete target to eliminate pollution from the maritime industry.

IMO member states met in London from December 12 to 16 for the 79th session of the agency's Marine Environment Protection Committee and discussed how the shipping industry can fast track its climate mitigation efforts.

IMO, the United Nations agency that regulates global shipping, is currently revising its existing climate strategy, which aims to only halve emissions from ships by mid-century. Member states are set to meet again in July 2023 to conclude the negotiations.

Scientists and experts, however, stressed that emissions from ships must be halved by 2030 and must reach net zero by 2050 to meet the Paris Agreement's goal of keeping global warming to 1.5 degrees Celsius.

They also said that early action will save the maritime industry around \$100 billion per year in costs of decarbonization, preserving this capital for shipping's green transition and support for the most vulnerable countries.

"While no decision was reached this week on tackling the damage shipping does to our planet, we have definitely seen important progress in this direction," said Delaine McCullough, shipping emissions policy manager with Ocean Conservancy.

Only 10 countries expressed opposition to increasing the level of ambition at MEPC 79.

"What we have been calling for for years, is finally happening: the IMO is slowly, but without a doubt, making progress on climate. More and more countries now support eliminating shipping's pollution by 2050," said Lucy Gilliam, a campaigner with Seas at Risk.

Ships are responsible for around 3% of global greenhouse gas emissions annually, or equivalent to the emissions of Germany or Japan.

Just transition for seafarers

In preparation for the decarbonization of the shipping industry, seafarers will need to be equipped with adequate skills and training to operate new technologies and handle alternative fuels like ammonia, which could pose a significant health and safety risk to them.

At the IMO climate talks, the Philippines requested for technology transfer and capacity building. The Philippines is the world's largest supplier of seafarers.

"We need to find ways to help developing countries like the Philippines in the preparation of our seafarers to transition into low- to zero-carbon shipping," said Neil Azcuna, technical adviser on maritime affairs at the Philippine Embassy in London.

"We realize that the success of our decarbonization goals is heavily dependent on people and their capacity building," he added.

In a meeting with the Department of Environment and Natural Resources last month, President Ferdinand "Bongbong" Marcos Jr. discussed the need to upskill and reskill the maritime workforce. How his government plans to do that remains unclear.

Martha Selwyn, United Nations Global Compact manager, told Philstar.com the lack of clarity on the decarbonization trajectory is a bottleneck for the just transition of the shipping industry.

"This lack of clarity and uncertainty is making it difficult to plan for the creation of curriculum, testing, and training programs," she said.

Level of ambition

"It cannot be stressed enough how crucial it is that we keep the momentum and deliver an ambitious and fair, revised IMO GHG Strategy at MEPC 80 next year," said IMO Secretary General Kitack Lim.

In an interview with reporters, Lim said that while all countries recognize the seriousness of decarbonization, they were concerned about the economic impacts of the move and the compensation.

"The final destination is July. The key element is we adopt a level of ambition, whether we support in 2050 net zero or [whatever] aspiration, and how we develop the tools... and how we produce alternative fuels for the future, and whether we agree on market-based measures," Lim said.

IMO member states also adopted resolutions urging voluntary cooperation between the port and the shipping sectors to contribute to reducing emissions, and urging member states to develop and submit voluntary National Action Plans to address emissions from ships.

IMO is also negotiating on a "basket" of different measures to reduce pollution from ships in the medium term including a fuel standard and a carbon levy. Under the carbon levy proposed by the Marshall Islands and the Solomon Islands.

Philippines prepares anti-cholera efforts as global cases increase

MANILA, Philippines — The Department of Health is preparing more anti-cholera programs as global cases of acute diarrhea increase.

According to the department, there were 5,860 cholera cases logged from January 1 to November 26 this year. Most were reported in the Eastern Visayas (3,620), Soccsksargen (810), and Central Luzon (336) regions.

"We have many teams on-ground addressing our current cholera cases, while we further strengthen our surveillance and response systems nationwide," Health officer-in-charge Maria Rosario Vergeire said in a statement on Sunday.

The DOH notes that although no local government units have declared a cholera outbreak as "cases remain manageable," this year's cholera cases tally is still 282% higher so far than the 1,531 reported in 2021.

The death tally recorded this year stands at 67 fatalities. The DOH said it is extending assistance to ensure that necessary treatments and clean drinking water will be available to patients in critical areas.

The ingestion of contaminated food or water can lead to a bacterial infection, which may cause diarrhea. To address this, the DOH said it is working with concerned government agencies on water and sanitation programs through the Inter-Agency Committee on Environmental Health.

According to World Health Organization's Cholera Team Lead, Dr. Philippe Barboza, the world is "under threat" from cholera. Cholera infection is seen in 30 countries, compared to previous years where only less than 20 countries are affected.

"The situation is quite unprecedented, for not only are we seeing more outbreaks, but these outbreaks are larger and more deadly than the ones we have seen in the past years," Barboza said.

He added that situations caused by climate change, such as major flooding, unprecedented monsoons, and cyclones, have also made a "very visible impact" on this year's cholera cases.

Quezon City, 14 other cities seek to reverse nature loss

By: Pia Lee Brago

MANILA, Philippines — Quezon City and 14 other cities around the world called for increased investment to halt and reverse nature loss.

At the largest biodiversity conference in a decade that kicked off in Montreal, Canada on Dec. 10, the United Nations Environment Program (UNEP) said mayors from 15 cities around the world called for increased direct financing to allow cities to implement ambitious greening and ecosystem restoration projects.

With the planet experiencing a decline in nature at rates unprecedented in human history and the largest loss of animal and plant species since the dinosaurs, UNEP said cities can play an important role to address biodiversity loss.

“Cities must be part of the solution to the biodiversity crisis,” said Sheila Aggarwal-Khan, director of UNEP’s Economy Division. “We hope mayors’ call for increased, direct investment will not fall on deaf ears so that they can unleash the power of nature in cities.”

Cities are on the frontline of the socio-economic impacts of climate change and ecosystem loss, and already taking ambitious action to protect and restore nature.

According to UNEP’s 2022 State of Finance for Nature, current finance flows to nature-based solutions must double by 2025 and triple by 2030 to halt biodiversity loss, limit climate change to below 1.5 °C and achieve land degradation neutrality, and resilience to climate impacts such as heatwaves and flooding. These investments should support restoration efforts by sub-national governments.

The call at the 15th meeting of the United Nations Biodiversity Conference (COP15) came from Quezon City Mayor Joy Belmonte and the mayors of Athens, Austin, Barranquilla, Dhaka-South, Freetown, Kampala, Kigali, Melbourne, Miami-Dade, Monterrey, Montreal, Paris, São Paulo and the environment secretary of the Mexico City government.

It was backed by the UNEP, ICLEI, C40, World Economic Forum, Global Environment Facility, Climate Policy Initiative’s CCFLA, the University of Pennsylvania, Cities4Forests and UrbanShift.

The mayors called on the finance community and national governments for reform of financial infrastructure and greater direct collaboration with the private sector. This would equip cities to fund nature-based solutions, such as forests, green belts, water streams, and parks in and around urban areas.

UNEP said “Up until now, funding for nature infrastructure solutions has gone to national governments, which then distributes it to cities and regions.”

Responding to the call from mayors, UNEP and partners launched a new project to support cities in taking action for nature and contribute to the UN Decade on Ecosystem Restoration.

The project, funded by the German Federal Ministry of Economic Cooperation and Development, will run for three years (2023 to 2025) to inform, inspire and enable policymakers, practitioners, businesses and finance institutions to promote ecosystem restoration in cities.

UN NEWS

[Global cholera surge likely accelerated by climate change, warns WHO](#)

“The map is under threat (from cholera) everywhere,” said Dr. Philippe Barboza, from the World Health Organization, speaking in Geneva, via Zoom. Available data points to cases of infection in around 30 countries, whereas in the previous five years, fewer than 20 countries reported infections, on average.

Reversing recent successes

“The situation is quite unprecedented, for not only we are seeing more outbreaks, but these outbreaks are larger and more deadly than the ones we have seen in past years,” said Dr. Barboza, WHO Team Lead for Cholera and Epidemic Diarrhoeal Diseases.

“This increasing number of cholera outbreaks is occurring after several years of regular reduction in the number of cases and deaths.”

Dr. Barboza explained that all the “usual factors” had played their part in the global uptick of cholera in 2022, not least conflict and mass displacement.

Added to this was the “very visible impact” of climate change, he insisted.

“Most of these larger outbreaks and the fact that they are simultaneously occurring - which makes the situation much more complex - is a direct impact of the increase in adverse climate troubles.”

The cholera crisis has been playing out across the Horn of Africa and the Sahel accompanied by “major floods, unprecedented monsoons (and) a succession of cyclones”, the WHO cholera expert said.

Pakistan floods focus

Many other countries have also been affected, including Haiti, Lebanon, Malawi and Syria, where there are large outbreaks.

In Pakistan, where previous years have seen only sporadic cases of cholera, there have been more than 500,000 reported cases of watery diarrhoea this year after devastating summer floods, but “less than a few thousand” laboratory-confirmed cases of cholera.

Triple La Nina threat

Equally worrying is the WHO assessment that the situation is “not going to change quickly” in 2023, because meteorologists have forecast that the La Nina climatic phenomenon is likely to persist for a third successive year.

Natural disasters associated with La Nina are prolonged droughts and rains and an increase in cyclones, “so we are very likely to see (a) similar situation that we saw at the beginning of 2022”, Dr. Barboza said, indicating that the worst-hit areas were likely to be in Eastern and Southern Africa, the Caribbean and Asia.

Shortages worldwide

Although cholera is preventable, a global shortage of vaccines persists, with sole producers South Korea and India, already at “maximum production” of a reported 36 million shots per year.

A South African initiative to produce the vaccines there is underway, but this could take “a few years” to materialize, Dr. Barboza said. He explained that vaccines are so scarce, the International Coordinating Group (ICG) had to decide in October to reduce its global vaccination strategy from two doses to one, to tackle cholera outbreaks.

Despite vaccine shortages, the WHO official stressed that cholera “is easy to treat” in comparison with other illnesses which require ventilators or specialised intensive care units, but only if patients can be given intravenous fluids or antibiotics quickly.

Disease of poverty

According to WHO, every year, there are 1.3 to four million cases of cholera, and 21,000 to 143,000 deaths worldwide from the disease. The disease is an acute diarrhoeal infection caused by eating or drinking food or water that is contaminated with the bacterium *Vibrio cholerae*.

“Very clearly, cholera is a disease of poverty, of vulnerability, it’s the most fragile part of the population in any given country which are most at risk and for a very simple reason: it’s just because they don’t have access to safe water and to basic sanitation,” said Dr. Barboza.

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