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15 MARCH 2023 [08:00 am]

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AL JAZEERA

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BUSINESS MIRROR

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CNN

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By: Bethlehem Feleke, Larry Madowo, Duarte Mendonca and Nimi Princewill

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JOURNAL ONLINE

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The Department of Environment and Natural Resources (DENR) continues its oil spill containment efforts with the local government units, Philippine Coast Guard (PCG), and the local communities to restrict the oil leaked by sunken MT Princess Empress from afflicting surrounding marine protected areas (MPAs) in the MIMAROPA and Western Visayas regions by installing spill booms made from locally available organic materials.

MALAYA BUSINESS INSIGHT

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MONGABAY

[Cultural heritage is an essential resource for climate change science, reports say](#)

By: Ian Morse

Many of the people archaeologist Dulma Karunaratna interviews in rural Sri Lanka have never been interviewed before. And many of them, representing a variety of religions and languages, tell her of the mee tree (*Madhuca longifolia*).

[Global ecosystems are at risk of losing carbon storage ability, study says](#)

By: Maxwell Radwin

Several regions of the world are at risk of losing their ability to store carbon, which could result in the drastic transformation of ecosystems and accelerated climate change, one recent study has found.

NIKKEI ASIA

[Thailand PTT's \\$2.8bn investment paves way to decarbonization](#)

By: Kosuke Inoue

Thailand's state-owned energy company PTT Group is accelerating its shift to an environment-friendly business model.

PHILIPPINE DAILY INQUIRER

[Conserving the high seas](#)

By: Rodel D. Lasco

In what is known as the wild west of oceans, piracy used to reign supreme until about 300 years ago. The “high seas” evoke images of adventure, the unknown, and danger. Today, the high seas refer to those portions of the oceans outside nations’ boundaries. These vast waters cover two-thirds of the world’s oceans, or half our planet’s surface.

PHILIPPINE NEWS AGENCY

[Over 2K native trees to be planted along Iloilo airport road](#)

By: Perla Lena

As part of its advocacy to grow native trees, the city government will be planting on a 10-kilometer road stretch from the service road of the Iloilo International Airport going to Barangay Ungka in the municipality of Pavia.

REUTERS

[Philippines set to go from renewable laggard to leader in SE Asia](#)

By: Gavin Magguire

The Philippines is set to leapfrog Vietnam as the main renewable energy producer in Southeast Asia, thanks to an aggressive project development pipeline that will result in a 15-fold boost in combined solar and wind power by 2030.

SUNSTAR

[Bulacan solo parents tapped for cash-for-work](#)

By: Jovi De Leon

The Department of Social Welfare and Development (DSWD) in Central Luzon is tapping selected solo parents in Bulacan province for its community resilience against climate change program.

THE VISAYAN DAILY STAR

[EV accessibility](#)

Environmental business group, Philippine Business for Environmental Stewardship (PBEST), called for the current tax incentive scheme for electric vehicles (EVs) to be amended because it “lacks inclusivity,” after Malacañang released Executive Order No. 12 series of 2023 that modifies the tariff rates of EVs to help mainstream its use among Filipinos.

Information and Knowledge Management Division

AL JAZEERA

[The UN's climate handbook for a 'liveable' future](#)

Earth is hotter than it has been in 125,000 years but deadly heatwaves, storms and floods amplified by global warming could be a foretaste as planet-heating fossil fuels put a “liveable” future at risk.

So concludes the United Nations Intergovernmental Panel on Climate Change (IPCC) that started a weeklong meeting to distil six landmark reports totalling 10,000 pages prepared by more than 1,000 scientists over the last six years.

Here are some of the main findings from those reports:

1.5C or 2C?

The 2015 Paris Agreement called for capping global warming well below 2 degrees Celsius (3.6 degrees Fahrenheit) compared with the late-19th century levels.

However, a landmark IPCC report in 2018 left no doubt: only the treaty's more ambitious aspirational limit of 1.5C (2.7F) could ensure a climate-safe world. But the report cautioned achieving this goal will require “unprecedented changes in all aspects of society”.

Greenhouse gas emissions must drop 43 percent by 2030 – and 84 percent by mid-century – to stay within the threshold. Yet emissions have continued to rise. The world is likely to overshoot the 1.5C limit, even if temporarily.

Every fraction of a degree counts. At 1.5C of warming, 14 percent of terrestrial species will face an extinction risk. If temperatures rise by 2C, 99 percent of warm-water coral reefs – home to one-quarter of marine life – will perish and staple food crops will decline.

The IPCC reports emphasise as never before the danger of “tipping points” – temperature thresholds in the climate system that could, once crossed, result in catastrophic and irreversible change.

The Amazon basin, for example, is already morphing from tropical forest to savannah.

Warming between 1.5C and 2C could push Arctic Sea ice, methane-laden permafrost, and ice sheets with enough frozen water to lift oceans by a dozen metres past points of no return.

Avalanche of suffering

The 2022 IPCC report on effects – described by UN chief Antonio Guterres as an “atlas of human suffering” – catalogued the enormous challenges ahead for humanity.

Between 3.3 and 3.6 billion people are “highly vulnerable” to global warming’s effects, including deadly heatwaves, drought, water shortages, and disease-carrying mosquitos and ticks.

Climate change has adversely affected physical health worldwide, and mental health in regions where data is available.

By 2050, many flood-vulnerable coastal megacities and small island nations will experience what were formerly once-a-century weather disasters every year.

These and other effects are set to become worse, and will disproportionately harm the most vulnerable populations, including Indigenous peoples.

“The cumulative scientific evidence is unequivocal: climate change is a threat to human wellbeing and planetary health,” said the IPCC impacts report last year.

Further delays in cutting carbon pollution and preparing for impacts already in the pipeline “will miss a brief and rapidly closing window of opportunity to secure a liveable and sustainable future for all”.

Ecosystems on edge

Fortunately, forests, plants and soil absorb and store nearly one-third of all human-made emissions. But intensive exploitation of these natural resources also generates planet-warming CO₂, methane and nitrous oxide. Agriculture consumes 70 percent of Earth’s freshwater supply.

Oceans have kept the planet liveable by absorbing one-quarter of human-made CO₂ and soaking up more than 90 percent of the excess heat generated by greenhouse gases.

But this has come at a cost: seas have grown acidic, potentially undermining their capacity to draw down CO₂, and warmer surface water has expanded the force and range of deadly tropical storms.

Fossil fuels – now or never

All roads leading to a liveable world “involve rapid and deep and in most cases immediate greenhouse gas emissions reductions in all sectors”, including transport, agriculture, energy and cities, the IPCC concluded.

Meeting the Paris temperature goals will require a massive reduction in fossil fuel use, the IPCC said.

Coal-fired power plants that do not deploy carbon capture technology to siphon off CO₂ pollution must decline by 70 to 90 percent within eight years. By 2050, the world must be carbon neutral, compensating any residual emissions with removals from the atmosphere.

The world must also tackle methane (CH₄), the IPCC warns. The second most important atmospheric pollutant after CO₂ comes from leaks in fossil fuel production and agriculture, as well as natural sources such as wetlands.

Methane levels are their highest in at least two million years.

The good news, the IPCC stressed, is alternatives to planet-heating fuels have become significantly cheaper. From 2010 to 2019, the unit costs of solar energy fell 85 percent, while wind power costs dropped 55 percent.

“It’s now or never if we want to limit global warming to 1.5C,” said Jim Skea, a professor at Imperial College London and co-chair of the working group behind the report on cutting emissions last year.

BUSINESS MIRROR

[Biden OKs Alaska oil project, draws ire of environmentalists](#)

The Biden administration said Monday it is approving a huge oil-drilling project on Alaska's petroleum-rich North Slope, a major environmental decision by President Joe Biden that drew quick condemnation as flying in the face of his pledges to slow climate change.

The announcement came a day after the administration, in a move in the other direction toward conservation, said it would bar or limit drilling in some other areas of Alaska and the Arctic Ocean.

The approval of ConocoPhillips' big Willow drilling project by the Bureau of Land Management will allow three drill sites including up to 199 total wells. Two other drill sites proposed for the project will be denied. ConocoPhillips Chairman and CEO Ryan Lance called the order "the right decision for Alaska and our nation."

The Houston-based company will relinquish rights to about 68,000 acres of existing leases in the National Petroleum Reserve-Alaska.

The order, one of the most significant of Interior Secretary Deb Haaland's tenure, was not signed by her but rather by her deputy, Tommy Beaudreau, who grew up in Alaska and briefed state lawmakers on the project Monday. Haaland was notably silent on the project, which she had opposed as a New Mexico congresswoman before becoming Interior secretary two years ago, until releasing a video Monday evening.

She described Willow as "a difficult and complex issue that was inherited" from earlier administrations. Because ConocoPhillips has held leases in the area for decades, Haaland said officials "had limited decision space" to block the project but focused on minimizing its footprint.

Haaland defended the Biden administration's record on climate change by saying, "I am confident that we are on the right path, even if it's not only a straight line."

Climate activists remained outraged that Biden approved the project, which they say puts his climate legacy at risk. Allowing the drilling plan to go forward marks a major breach of Biden's campaign promise to stop new oil drilling on federal lands, they say.

Monday's announcement is not likely to be the last word, with litigation expected from environmental groups.

The Willow project could produce up to 180,000 barrels of oil a day, create up to 2,500 jobs during construction and 300 long-term jobs, and generate billions of dollars in royalties and tax revenues for the federal, state and local governments, the company said.

The project, located in the federally designated National Petroleum Reserve-Alaska, enjoys widespread political support in the state. Alaska's bipartisan congressional delegation met with Biden and his advisers in early March to plead their case for the project, and Alaska Native state lawmakers recently met with Haaland to urge support.

Sen. Lisa Murkowski, R-Alaska, said Monday the decision was "very good news for the country."

"Not only will this mean jobs and revenue for Alaska, it will be resources that are needed for the country and for our friends and allies," Murkowski said. "The administration listened to Alaska voices. They listened to the delegation as we pressed the case for energy security and national security."

Fellow Republican Sen. Dan Sullivan said conditions attached to the project should not reduce Willow's ability to produce up to 180,000 barrels of crude a day. But he said it was "infuriating" that Biden also had moved to prevent or limit oil drilling elsewhere in Alaska.

Environmental activists who have promoted a #StopWillow campaign on social media were fuming at the approval, which they called a betrayal.

"This decision greenlights 92% of proposed oil drilling (by ConocoPhillips) and hands over one the most fragile, intact ecosystems in the world to" the oil giant, said Earthjustice President Abigail Dillen. "This is not climate leadership."

Biden understands the existential threat of climate change, "but he is approving a project that derails his own climate goals," said Dillen, whose group vowed legal action to block the project.

John Leshy, who was a top Interior Department lawyer in the Clinton administration, said Biden's climate goals aren't the only factor in an environmental review process that agencies must follow.

Leshy, a professor at the University of California College of the Law, San Francisco, called the decision on Willow defensible, adding: "I think it reflects a balancing of the

things they have to balance, which is the environmental impact and the lease rights that Conoco has.”

Christy Goldfuss, a former Obama White House official who now is a policy chief at the Natural Resources Defense Council, said she was “deeply disappointed” at Biden’s decision to approve Willow, which the BLM estimates would produce more than 239 million metric tons of greenhouse gases over the project’s 30-year life, roughly equal to the combined emissions from 1.7 million passenger cars.

“This decision is bad for the climate, bad for the environment and bad for the Native Alaska communities who oppose this and feel their voices were not heard,” Goldfuss said.

The Willow project has been a particularly galvanizing issue for young activists, who flooded TikTok with videos opposing the proposal. Biden has not commented publicly on the project’s approval. However, he talked about climate change with Kal Penn, an actor who served in the White House under President Barack Obama, in an interview that was taped last week and will be aired Monday evening on Comedy Central’s “The Daily Show.”

“We’re going faster than anyone has ever gone,” Biden said when asked about young people who want him to push harder. He said the energy situation “got really complicated” with the Russian invasion of Ukraine, adding that “we’re going to need fossil fuel.”

“So it’s a matter of transitioning, but it’s not like you can cut everything off immediately,” Biden said.

Anticipating anger among environmental groups, the White House announced Sunday that Biden will prevent or limit oil drilling in 16 million acres in Alaska and the Arctic Ocean. The plan would bar drilling in nearly 3 million acres of the Beaufort Sea — closing it off from oil exploration — and limit drilling in more than 13 million acres in the National Petroleum Reserve.

The withdrawal of the offshore area ensures that important habitat for whales, seals, polar bears and other wildlife “will be protected in perpetuity from extractive development,” the White House said in a statement. The conservation announcement did little to mollify activists.

“It’s a performative action to make the Willow project not look as bad,” said Elise Joshi, the acting executive director of Gen-Z for Change, an advocacy organization.

City of Nuiqsut Mayor Rosemary Ahtuanguaruk, whose community of about 525 people is closest to the proposed development, has been outspoken in her opposition, worried about impacts to caribou and her residents’ subsistence lifestyles. “My constituents and community will bear the burden of this project with our health and our livelihoods,” she said.

But there is “majority consensus” in the North Slope region supporting the project, said Nagruk Harcharek, president of the group Voice of the Arctic Iñupiat, whose members include leaders from across much of that region.

The conservation actions announced Sunday block drilling in the Beaufort Sea and build on President Barack Obama’s actions to restrict drilling there and in the Chukchi Sea.

Separately, the administration moved to protect more than 13 million acres within the petroleum reserve, a 23-million acre chunk of land on Alaska’s North Slope set aside a century ago for future oil production. Areas to be protected include the Teshekpuk Lake, Utukok Uplands, Colville River, Kasegaluk Lagoon and Peard Bay Special Areas, which serve as habitat for grizzly and polar bears, caribou and migratory birds.

BUSINESS WORLD

SEC's ESG policies seen to face challenges as firms limit reports

By: Adrian H. Halili

The Securities and Exchange Commission (SEC) may face challenges in implementing environmental, social, and governance (ESG) policies as companies tend to highlight only positive aspects of sustainability reports, said Sustainable Fitch.

“The plan could face implementation challenges, as the SEC acknowledged that most companies tend to only make public the positive aspects of their sustainability reports,” said Sustainable Fitch, a specialist ESG unit of the Fitch Solutions group.

According to Sustainable Fitch, the Philippines is still unable to set clear details on its ESG and decarbonization strategies, which could hinder the country's progress compared with other Southeast Asian countries.

“The country's recently elected government has yet to set out clear details on its ESG and de-carbonization strategies. The lack of policy direction could hinder the Philippines' ESG progress relative to neighboring peers,” the unit said.

It added that like Thailand and Indonesia, the country's government and regulators could face the challenge of ensuring “that the transition is just for the whole of society.”

“A large swathe of people in the Philippines live in poverty and depend on brown-industry jobs to survive, with effective strategies being critical to helping these groups keep up with transition efforts,” it said.

Meanwhile, the SEC has recently confirmed that it is set to adopt a “blue” bond framework that aims to protect water-based natural resources, as the commission continues to move for wider adoption of sustainability standards.

According to SEC Commissioner Kelvin Lester K. Lee, the framework is yet to be approved by the commission but sets its initial release in the second quarter of this year.

Additionally, the securities regulator is set to implement the Association of Southeast Asian Nations (ASEAN) Sustainable and Responsible Fund Standards.

The SEC has disseminated the draft of its proposed framework last week, as it seeks to align with ASEAN member states in creating and promoting sustainable and responsible investment funds in the region.

According to Sustainable Fitch, the commission aims to mandate sustainability reporting for 2023, which requires reports from companies as well as small enterprises.

“Smaller businesses will receive support in their reporting requirements with the focus remaining on larger industries that have greater environmental or social impacts,” it said.

The commission has also previously set guidelines for the issuance of green bonds, which has allowed companies to raise funds for ESG-related projects, which is also aligned with ASEAN green bond standards.

Aside from the SEC, the Bangko Sentral ng Pilipinas (BSP) has also introduced policies in promoting ESG standards in corporate strategies and disclosures.

Under the sustainable central banking agenda, the BSP initiated vulnerability assessments for environmental risks in the economy and seeks to implement sustainability principles in banking and finance policies.

“The country also revised up its target to cut greenhouse gas emissions by 75% by 2030, up from a target of 70%,” said Sustainable Fitch.

CNN

[Malawi death toll from Cyclone Freddy rises to 190](#)

By: Bethlehem Feleke, Larry Madowo, Duarte Mendonca and Nimi Princewill

At least 190 people have died after Tropical Cyclone Freddy ripped through southern Malawi, the country's Department of Disaster Management Affairs said Tuesday.

At least 584 have been injured and 37 people have been reported missing in the country.

The Malawi Ministry of Natural Resources and Climate Change said Tuesday the cyclone is "weakening but will continue to cause torrential rains associated with windy conditions in most parts of Southern Malawi districts."

"The threat of heavy flooding and damaging winds remains very high," the report added.

Charles Kalemba, a commissioner for the Department of Disaster Management Affairs agency, told CNN Tuesday that the situation had worsened in southern Malawi.

"It's worse today. A number of places are flooding and a number of roads and bridges are cut. Visibility is almost zero. Electricity is off and also network is a problem. It's becoming more and more dire," Kalemba said, adding that rescue operations have also been affected by poor weather.

"It's tough. We need to use machinery (for rescue operations) but machines cannot go to places where they were supposed to excavate because of the rains," Kalemba added.

Malawi's Department of Climate Change and Meteorological Services warned Monday that "the threat of damaging winds and heavy flooding remains very high."

Kalemba added that an improvement in weather is expected from Wednesday. "Possibly by tomorrow, the cyclone may have passed. We are hoping to see improvement from tomorrow but today is worse. There are heavy rains and lots of water."

In Mozambique, at least 10 people were killed and 13 injured in the Zambezia province, according to state broadcaster Radio Mozambique, citing the National Institute of Disaster Risk Management.

The deadly cyclone has broken records for the longest-lasting storm of its kind after making landfall in Mozambique for a second time, more than two weeks after the first.

More than 22,000 people have been displaced by the tropical storm, according to Radio Mozambique.

“It’s quite likely that number will go up,” Guy Taylor, chief of advocacy, communications and partnerships for UNICEF in Mozambique, told CNN Tuesday.

“The size or the strength of the storm was much higher than the last time ... the impact in terms of damage and the impact on people’s lives has been more substantial,” he said.

JOURNAL ONLINE

[DENR, communities create oil spill booms from organic materials to save marine ecosystems](#)

The Department of Environment and Natural Resources (DENR) continues its oil spill containment efforts with the local government units, Philippine Coast Guard (PCG), and the local communities to restrict the oil leaked by sunken MT Princess Empress from afflicting surrounding marine protected areas (MPAs) in the MIMAROPA and Western Visayas regions by installing spill booms made from locally available organic materials.

Booms are temporary floating barriers used to contain marine spills, protect sensitive wetlands, and assist in recovery. The trajectory map of the University of the Philippines Marine Science Institute (UPMSI) serves as a guide to install the booms. The UPMSI projected that the oil spill could reach northern Palawan mainland and threaten over 36,000 hectares of marine habitats.

The use of improvised spill booms is a feasible precautionary measure to prevent damage to marine environments. These booms are made from indigenous materials which are readily accessible to the immediate communities.

The DENR-Environmental Management Bureau (EMB) MIMAROPA, together with the PCG and LGU, has installed provisional spill booms made of cogon and sawali in Casiligan River and Calimawawa River in Oriental Mindoro province to prevent the oil spill from reaching the mangrove forests, coral reefs, and other marine life.

Coconut shingles, which have effective adsorption capacities, are also vital materials in fabricating spill booms. These are used with nets in Brgy. Misong, Pola, and with rice straws in Brgy. Aplaya in Poblacion and Brgy. Anilao in Bongabong.

Coastal municipalities not affected by the oil spill have started fabricating and deploying spill booms two kilometers away from their shorelines as a precaution against the spill.

Imalaguan Island MPA in Cuyo, Palawan now has about 100-meter booms, protecting its sanctuaries inhabited by pelagic fishes, coral reefs, and mangrove forests. Volunteers in Roxas, Palawan, which caters 13 MPAs across its 11 barangays, also started deploying spill booms.

Meanwhile, the DENR-EMB Western Visayas worked with the local government of Caluya, Antique and PCG to undertake cleanup operations at the shorelines of Sitio Sabang in Brgy. Tinogboc. This included the fabrication and completion of a

1,363-meter improvised spill boom using nets and coconut shingles to help contain the oil spillage, and prevent it from reaching the shore.

The DENR remains vigilant in protecting the country's environment and natural resources, especially those in the MIMAROPA and Western Visayas regions, whose island provinces are home to hundreds of marine protected areas rich with marine biodiversity, coral cover quality and diversity, and fish composition that have significant value to communities.

MALAYA BUSINESS INSIGHT

Motorcycles must be included in tax breaks for EVs

PHILIPPINE Business for Environmental Stewardship (PBEST) Secretary General Felix Jose Vitangcol urged the government to amend the tax incentives for electric vehicles as it 'lacks inclusivity,' because two-wheeled electric motorcycles are still subject to 30 percent import duty.

LAST month Malacañang released Executive Order No. 12, effectively modifying the tariff rates for 4-wheel and selected EVs. EO12 lowered the tariff rate for certain types of EVs ranging from five to 30 percent to zero percent import duty. It did not however cover two-wheel electric motorcycles. However, with the number of registered motorcycles in the Philippines reaching nearly eight million units, electrification will help reduce emissions and dependence on fossil fuel.

Under the EO, EVs such as cars, trucks, van, electric tricycles, kick scooters, pocket motorcycles, and self-balancing cycles are included in the tax breaks. Strangely, motorcycles are not included in the tax breaks

“Only more affluent Filipinos – indeed a limited segment of the population – can afford to buy four-wheel vehicles, and hence enjoy these incentives,” Vitangcol said. The organization reiterated that the majority of motorists in the country are using two or three-wheeled vehicles including public utility tricycles.

“It is also they who are already perennially burdened by the soaring prices of basic goods and hampered by their limited income to provide for their families,” he added.

PBEST asserts that more Filipinos should be encouraged to shift to alternative energy regardless of their socio-economic status and the types of their vehicles.

“This is why the government must make these tax incentives more inclusive,” the Secretary General addressed.

Vitangcol also said that it is the government’s role to spearhead the country’s shift to electric vehicles as it will lessen the nation’s dependence on fossil fuels. Various types of renewable energy generation like wind, solar, bioenergy, hydro, and other renewables share at 23.7 percent of the country’s total power source.

The EO12 aims to help Filipinos to adapt to the usage of e-vehicles while decarbonizing and reducing the carbon emissions caused by the fueled-run vehicles. Due to the fact

that the Philippines is one of the most vulnerable countries to climate change, shifting to EVs is one of the country's solutions to help weaken its effects and go full electric by 2040.

MONGABAY

[Cultural heritage is an essential resource for climate change science, reports say](#)

By: Ian Morse

Many of the people archaeologist Dulma Karunaratna interviews in rural Sri Lanka have never been interviewed before. And many of them, representing a variety of religions and languages, tell her of the mee tree (*Madhuca longifolia*).

The tree's roots balance water levels and share underground nutrients with rice fields. Its flowers, seeds and bark can be used to treat surface wounds, and its leaves provides shade for farmers' watch huts to avoid wild animals at night while they exchange call-and-response pel kavi songs across their fields. But most importantly, its nectar attracts bats, which deposit their droppings across the rice fields. For locals, the trees offer a cheap alternative or supplement to nitrogen synthetic fertilizers and improve their resilience to disaster. For this reason, the mee tree is often called the fertilizer tree.

Many of Karunaratna's interviewees are elderly, and some face a worrying epidemic of unidentified kidney disease that some researchers link with agrochemicals and heavy metals in drinking water. After an Indigenous doctor who she interviewed died recently, Karunaratna was in shock.

"That was his first and last interview," she tells Mongabay.

Karunaratna's work to highlight traditional ecological knowledge crystallizes what climate scientists have increasingly begun publishing. Indigenous people and local communities (IPLCs) who benefit from centuries of knowledge by working closely with the land often interact with their environment in ways that reveal profound innovations and ecological tools that can benefit climate resilience and mitigation initiatives. At the same time, many of these ideas and the people who pass them on from generation to generation are under threat from a suite of factors.

At the end of last year, the International Co-Sponsored Meeting on Culture, Heritage and Climate Change, a research body sponsored by the United Nations' Intergovernmental Panel on Climate Change (IPCC), UNESCO and ICOMOS, released four reports that highlight that culture and heritage play a key role in understanding the causes and impacts of climate change and in designing responses, including low-carbon, climate-resilient pathways.

This comes on the heels of the IPCC's sixth assessment report in 2022 that highlights the importance of Indigenous and local knowledge in grappling with climate change.

"It's an emergency, right? It's very urgent that Indigenous peoples' knowledge is incorporated into climate policy," says Levi Sucre, an Indigenous Bribri leader from Costa Rica who was not affiliated with the reports and who leads rural development programs with the Mesoamerican Alliance of Peoples and Forests. "And at the moment, it is very difficult, and incorporation is almost absent. We are also victims of the changing climate. Our livelihoods are impacted. Our food systems are impacted."

First proposed in 2015, the research drew from representatives of IPLCs and experts in climate science and heritage. Impacts on cultural heritage have not been investigated globally and are rarely explored locally, they write, yet sustainable practices both ancient and current are at risk.

According to growing research, fulfilling the Paris Agreement of keeping the global temperature rise at less than 1.5° Celsius (2.7° Fahrenheit) above pre-industrial levels may not be possible without acknowledging and supporting the role of IPLCs in protecting their lands, which tend to be key carbon sinks in certain regions. In the Amazon, Indigenous conservation and sustainable use of forest resources between 2001 and 2021 removed roughly 340 million metric tons of carbon dioxide, equal to the U.K.'s annual fossil fuel emissions.

Embedded in communities that have thrived and adapted to local weather and ecosystems exist alternatives and ways of adapting to the impacts of climate change, from food systems and forest conservation to architecture and natural resources management, the reports note. Their desire now is to expand research and to include more diverse people at the "climate table" to preserve this cultural heritage and use it as a tool for climate action. Full rights to their territories, they elaborate, have also benefited conservation and equipped communities to withstand environmental disasters.

One U.N. group is also trying to tackle cultural preservation from another angle: The World Intellectual Property Organization is in the process of designing instruments to protect genetic traditional knowledge and cultural expressions. By 2024, it hopes to have a treaty.

Diverse knowledge systems, diverse solutions

The reports are part of an effort by the research group to recognize that climate mitigation strategies have excluded knowledge from Indigenous and local communities, they say.

This is because Western science has tended to sideline knowledge based on observing, interpreting and incorporating religious beliefs. The exact position of Indigenous knowledge systems in particular and the myriad traditional research practices under this category are currently the subject of heated debate within the scientific community. While some scholars deem it a type of science that shares some characteristics with Western empirical science, others say it constitutes a different, important, knowledge system altogether.

The reports cite dozens of approaches to past and current environmental threats that offer lessons for climate policy in both rural and urban settings, from ways to use natural resources and organize communities and action, to envisioning values that govern relationships with nature.

Karunarathna, who is part of CRITICAL, a cultural heritage research project at the University of Edinburgh, studies “intangible heritage” stored in the practices and stories passed from ancestors to descendants. In her chapter in one of the reports, she wrote about women who harnessed folk songs to revive ancient methods to design and govern water storage systems, which strengthened resilience to drought.

In Nunavut, Canada, where coastal erosion threatens archaeological sites, an Inuit-led initiative builds “net-zero emission homes” by including traditional materials like snow, stone, driftwood and animal skins in construction. In Aotearoa New Zealand, the city of Auckland’s climate plan relies on the Indigenous Māori cultural relationship with the environment to recognize the rights of non-human species. In Japan, stone tidal weirs that trap fish close to the coast represent an alternative to expendable plastic fishing gear, but the practice is at risk of disappearing.

In China’s Yunnan province, the Honghe Hani rice terraces, also a UNESCO World Heritage Site, use a water management system that is capable of withstanding intense drought. A group of villagers manage the water at the top of the surrounding mountains by cutting grooves into a wood barrier that allows necessary amounts of water to reach each area. The water flows through drainage systems to each village, and the forest at the top is protected as a sacred store and purifier of rainwater.

“Between 2008 and 2012, the Yunnan province suffered from a rare five-year period of drought, but the Hani terraced fields still maintained good production functions,” Rouran

Zhang of Shenzhen University writes in one report. The method has demonstrated its climate resilience in food production, but it's at risk of being lost as many villagers abandon the practice and move to cities.

In the Philippines, the Igorot people have used stone walls to support their rice terraces, but more recently they're using them to prevent erosion in settlements on hillsides. Increased rainfall caused by a warming climate is likely to worsen erosion, the authors say, and the use of stone walls offers an accessible tool to buttress hillside communities.

It's a practice that depends on feel, which makes learning the skill time-consuming and the practice susceptible to sudden loss between generations, writes Wilfredo Alangui, a professor of ethno-mathematics at the University of the Philippines Baguio, in another chapter. Builders only use local, natural materials, a cleaner option than transporting carbon-intense cement.

Religion and spirituality often form the foundation of many of these practices and give birth to the kind of values the authors argue should be used to improve our climate responses. José Arias-Bustamante, a policy analyst at the Indigenous Science Division at Environment and Climate Change Canada, says that in both Mapuche communities in Chile and the Nisga'a First Nation in Canada, a spiritual understanding of humans' place in the world guides decisions about how communities decide to use natural resources like forests.

Traditionally, when a Mapuche cuts down a tree, they should explain to the spiritual protector of the forest why the tree must be cut. This comes from a belief that other life exists in the Mapu, an Indigenous concept that encompasses both natural and supernatural parts of Earth.

However, the Chilean state restricted the Mapuche in the commune of Curacautín to live in just 0.6% of their ancestral territory of more than 30,000 hectares (74,000 acres). Now, in some communities, called *laf*, water is trucked in, and the government won't support water infrastructure because aquifers have dried up from agriculture, and the river is under private ownership. Being evicted from their ancestral lands also cut Mapuche communities in Curacautín off from the sites they held sacred. Many Mapuche say they worry their understanding of sustainable and spiritual connections is fading fast, Arias-Bustamante says.

Without the ability to farm, hunt, and gather materials from the forests, the Mapuche find other ways to feed their families, sometimes taking up logging. In that case, they can

choose to receive a forest management plan from the state to authorize logging, which often leads to further forest degradation when the most profitable trees are cut or plantations replace forests, Arias-Bustamante says.

“While doing the restoration of their forest, conserving the forest, they are contributing to climate change mitigation, even though that’s not the main primary priority. Their priority is to get the land back, to get the connection to Mapu and to the spiritual dimension,” Arias-Bustamante says.

The authors found that having access to the ecosystems that could support Mapuche communities would decrease their reliance on cutting forests and high-emitting lifestyles in cities. The conclusion reflects increasing research and widespread advocacy that protecting Indigenous communities’ rights to land can also reduce emissions.

Rapid urbanization and poverty are some of the greatest threats to sustainable ecosystem management in Mapuche communities, says Arias-Bustamante, who describes in one report how cultural heritage from others parts of the world, not just the Western cultural sphere, can inform global climate mitigation.

[Global ecosystems are at risk of losing carbon storage ability, study says](#)

By: Maxwell Radwin

Several regions of the world are at risk of losing their ability to store carbon, which could result in the drastic transformation of ecosystems and accelerated climate change, one recent study has found.

Across the globe, landscapes are showing signs of losing their ability to absorb the amount of carbon they once could, according to a study called “Diagnosing destabilization risk in global land carbon sinks,” published in Nature last month. That would pose serious obstacles to the fight against climate change, as carbon storage in forests, peatlands and other ecosystems is key to keeping the global temperature below 1.5° Celsius (2.7° Fahrenheit).

“For the first time, we’ve demonstrated that for certain regions of the world, the land might be reaching a tipping point in terms of its ability to host significantly forested land and absorb significant amounts of carbon,” said co-author Patrick McGuire, a staff meteorologist at the University of Reading and the National Centre for Atmospheric Science in the UK.

The study reviewed the productivity of carbon storage of global ecosystems between 1981 and 2018, finding that many fluctuated greatly from year to year. So much fluctuation means that some parts of the world are at risk of turning into scrubland that’s unable to host forests and other ecosystems that act as carbon sinks.

One reason for this, the researchers said, is that landscapes have a “memory” of which years had high carbon storage and which were low. Low years are more likely to be followed by additional low years, meaning that as carbon storage potential diminishes, a landscape is more likely to permanently become scrubland.

The phenomenon can be thought of as a “spiraling” effect, researchers said, in which landscapes absorb less carbon that in turn worsens climate change, which then destabilizes additional landscapes and puts them at higher risk of turning into scrubland.

“If we destabilize the carbon net uptake, that will destabilize climate even more,” said lead author Marcos Fernández, researcher at the Center for Ecological Research and Forestry Applications (CREAF). “It’s like a positive feedback loop. As you destabilize the carbon balance, then the climate becomes more unstable, as well.”

The most-affected regions include the Mediterranean Basin, South and Central Asia, East Africa and the west coasts of North and Central America. More specifically,

mapping suggests that Kenya, India, Pakistan, Russia, Kyrgyzstan and Iraq are losing their ability to store carbon while in the Americas, it's the Northern Triangle, Mexico and the west coast of the United States that are the most affected.

Researchers noted that certain parts of the world, such as the Amazon and central and northern Europe, are less likely to see this destabilizing effect. In fact, their capacity for carbon storage has increased in recent years, they said. Nevertheless, they stressed that the countless landscapes across the globe that are at risk of losing carbon storage capacity need to be addressed.

“We need to take care of our land better and not let all the trees get cut down and converted to cropland,” McGuire said. “Trees can hold a lot more carbon than crops or grasslands.”

NIKKEI ASIA

[Thailand PTT's \\$2.8bn investment paves way to decarbonization](#)

By: Kosuke Inoue

Thailand's state-owned energy company PTT Group is accelerating its shift to an environment-friendly business model.

PTT has a huge presence in the nation's energy market and recently revealed a plan to spend some 100 billion baht (\$2.86 billion) in the coming five years to increase liquefied natural gas (LNG) import stations and help produce electric vehicles. PTT's strategic change is indispensable to the Thai government's decarbonization goal.

Of the planned investment in the 2023-2027 period, more than 50% will be spent on LNG-related projects such as pipelines and import stations.

When burned, natural gas emits fewer greenhouse gases than oil or coal, positioning PTT as a key energy supplier as the country undergoes decarbonization. To this end, the company intends to increase procurement of natural gas by improving LNG-related infrastructure.

PTT also hopes to begin EV production in 2024 at Horizon Plus, its joint venture with Taiwan's Foxconn located in the Thai province of Chonburi.

Horizon is expected to make between 150,000 and 200,000 EVs by 2030, while PTT hopes to build 7,000 EV charging stations through a group company by the same year.

In addition, PTT will start producing hydrogen as a next-generation energy source. In partnership with the Saudi Arabian government, it plans to manufacture "green" hydrogen -- whose production and use discharge no carbon dioxide -- and "green" ammonia from it.

PTT is stepping up development of its circular businesses due to the difficulty of sustainable growth under its current earnings structure. Amid growing interest in companies with sound environmental, social and governance principles, investors are keeping a close eye on PTT.

The company also needs to meet its responsibility as a state-owned company. Thailand has adopted a bio-circular-green economic policy as the government targets net zero emissions of greenhouse gasses by 2050. Hence, PTT must adopt business strategies that align with this policy.

At the same time, the company is trying to lessen reliance on its fossil fuel business outside of natural gas. It completely pulled out of coal in mid-February by selling its coal development subsidiary PTT Mining to Indonesian investment company PT Astrindo Nusantara Infrastruktur.

PTT is currently experiencing a drop in net profits. In the business year ended December 2022, it logged 3,367.2 billion baht in consolidated sales, up 49% from the previous year. This was due largely to strong earnings in its main businesses of oil field excavation and development as well as petrochemistry and petroleum refining -- all helped by higher-than-average oil prices.

But net profit decreased 16% to 91.1 billion baht due to the rising cost of buying LNG on the spot market. The decline was also driven by discount sales and other measures taken by PTT to ease the financial burden on customers struggling with the impact of COVID-19 and soaring materials prices.

PTT President and CEO Auttapol Rerkpiboon blamed higher natural gas prices for slumping profits.

Procuring natural gas in Thailand has become difficult amid the global trend toward decarbonization. The company urgently needs to find gas from suppliers farther afield, as doubts have grown over its huge gas project in troubled Myanmar and the likelihood of gas fields running dry in Thailand.

It remains unclear whether PTT will be able to carry out its ambitious energy strategy. In February, the company announced the postponement of a project in Myanmar, which was slated to boost investment to as much as \$2 billion, including power generation.

Before the military takeover 2021, the Myanmar government and PTT had agreed to develop an offshore gas drilling area known as the M3 Block, in which the company is the sole shareholder. The project included the building and operation of thermal power plants and pipelines to transport gas to land. In a statement to investors, PTT said the project would be delayed due to the "local situation in Myanmar."

As corporate earnings in the natural resources sector are greatly influenced by markets, the strategic shift to decarbonization is important if PTT is to stabilize earnings. But being a state-run company, PTT is also required to build new supply chains to ensure that Thailand's energy needs are met.

PHILIPPINE DAILY INQUIRER

Conserving the high seas

By: Rodel D. Lasco

In what is known as the wild west of oceans, piracy used to reign supreme until about 300 years ago. The “high seas” evoke images of adventure, the unknown, and danger. Today, the high seas refer to those portions of the oceans outside nations’ boundaries. These vast waters cover two-thirds of the world’s oceans, or half our planet’s surface.

For some time now, scientists and conservationists have been pointing out the rising exploitation of our oceans. Overfishing, dumping of pollutants, increased shipping, and climate change are transforming life in these waters in ways we do not fully comprehend. According to the International Union for Conservation of Nature, around 10 percent of marine organisms are already threatened with extinction, and nearly half are at risk due to climate change. On March 4, the global community finally took the first decisive action. After years of back-breaking effort, the United Nations Intergovernmental Conference on Marine Biodiversity of Areas Beyond National Jurisdiction (BBNJ) has cobbled together a High Seas Treaty designed to protect marine biodiversity and provide oversight of international waters. According to Nature (2023), the treaty is “being lauded by researchers as an important step for conservation that encourages international research collaboration without hindering science.” Among the critical issues addressed by the treaty that is relevant to the Philippines is how to share the benefits of marine “genetic resources.” We are aware of the vast untapped riches submerged in the deep seas. For example, certain biochemicals in marine organisms could tame hitherto incurable diseases. According to the UN Convention on Biological Diversity, marine life could contain up to \$5 trillion worth of cancer-curing drugs. Unknown to us, wealthier countries could be stealthily surveying, testing, and utilizing this biological wealth. To prevent such inequity, the treaty aims to establish a benefit sharing committee composed of experts to adjudicate what is fair.

In addition, the treaty paves the way for the establishment of marine protected areas on the high seas, consistent with the aspiration to protect 30 percent of land and oceans by 2030. This goal is critical for keeping the planet within a safe operating boundary. For example, nature-based solutions are gaining traction for addressing global warming. The treaty also calls for environmental impact assessments for activities likely to affect the oceans significantly.

However, the work is not yet done. In fact, it has only just begun. The nations participating in the BBNJ conference ran out of time to formally adopt the treaty. Hopefully, the treaty will be ratified soon enough in future meetings of the conference.

PHILIPPINE NEWS AGENCY

Over 2K native trees to be planted along Iloilo airport road

By: Perla Lena

As part of its advocacy to grow native trees, the city government will be planting on a 10-kilometer road stretch from the service road of the Iloilo International Airport going to Barangay Ungka in the municipality of Pavia.

“If we plant at around 10 meters interval, we will be needing 2,000 native seedlings,” said Iloilo City Executive Assistant Armando Dayrit in an interview on Tuesday, adding that they will be planting 1,000 trees each side of the service road.

Dayrit said Mayor Jerry Treñas would like to make an impression, especially from those coming from the airport that Iloilo is environment-friendly, as among the first things they will see upon landing are the rows of trees along the service road.

Currently, not many trees can be seen except for the Royal Palm planted at the middle road, he added.

“In my own point of view, it also helps to have tree canopy in Iloilo because we can only see that near Camp Delgado. The requirement is that when a person goes out of his/her house, he/she can see at least three trees within the next 30 meters and a tree park after 300 meters,” Dayrit said.

Camp Delgado is the regional headquarters of the Philippine National Police in Western Visayas situated along Fort San Pedro here.

Treñas, in an interview Monday, said he has already secured the approval of the Civil Aviation Authority of the Philippines and the Department of Public Works and Highways for the initiative.

He will also be issuing an executive order requiring all real estate developers, barangay officials, and school heads to plant native trees in their areas every year.

The city government also pushes for the planting of native trees in all open spaces of subdivisions in the city.

Dayrit said he targets to plant native trees in 75 vacant spaces owned by the city government from out of the 134 subdivisions in the city.

“Every subdivision has to have a tree park as required by the law,” he said.

Currently, the city government's nursery has around 15,000 to 16,000 seedlings in Barangay Caingin, La Paz district; with around 10,000 are native species.

Native trees are those that are endemic in the Philippines, Dayrit added.

REUTERS

[Philippines set to go from renewable laggard to leader in SE Asia](#)

By: Gavin Magguire

The Philippines is set to leapfrog Vietnam as the main renewable energy producer in Southeast Asia, thanks to an aggressive project development pipeline that will result in a 15-fold boost in combined solar and wind power by 2030.

The Philippines currently ranks a distant second in the region in combined solar and wind power generation, with 1,766 megawatts (MW) of installed capacity, compared with 12,379 MW in Vietnam, data from Global Energy Monitor (GEM) shows.

By 2030, however, the Philippines will have added 17,809 MW of solar capacity and 7,856 MW of wind power to emerge as the top green power producer in Southeast Asia, one of the world's fastest-growing economic regions.

The rapid expansion in renewable energy supplies comes at a potentially critical time for the country's energy sector.

Philippine power producers relied on coal for nearly 60% of their electricity generation in 2022 and have increased coal-fired power emissions by more than 40% since 2017 to fuel the country's rapidly growing economy, which expanded by more than 7% in 2022.

With real gross domestic product (GDP) set to expand by 5.8% in 2023, according to Goldman Sachs, and remain one of the region's fastest-growing economies over the next decade, the country has the potential to steeply increase fossil fuel emissions unless large increases in renewable power can be brought online.

GOVERNMENT PUSH FOR FOREIGN INVESTMENT

A major driver behind the green power push is the looming depletion of the Malampaya gas field, which was by far the country's largest source of gas but is expected to run dry within five years.

With imports of natural gas much more expensive than domestically supplied gas, and emissions from coal-fired power generation already at record highs, the government has unveiled an array of measures designed to spur growth in renewable energy supply capacity.

A key new policy shift that was announced in late 2022 has been the removal of stipulations that require energy assets to be owned by Filipinos.

Previously, those strict ownership rules limited foreign participation in the Philippines' energy sector to a handful of oil and gas majors.

Going forward, however, the combination of new ownership rules and strong energy demand growth is expected to lure growing interest from global firms engaged in renewable energy construction, including nine Chinese firms that committed a collective \$13.76 billion in investment in the sector in January.

Firms from other countries are also expected to look for opportunities in the Philippines, which has "excellent resource potential and a strong financing environment, with public and private sector interest in renewables investment," according to the International Renewable Energy Agency (IRENA.)

TURNAROUND

Most of the swell in solar capacity already planned is set to emerge in 2025 and 2027, while the expansion in wind capacity is set to come nearer the end of the decade, GEM data shows.

In combination, those capacity additions should exceed any expansions in coal-fired power over the same period, and help boost clean power's share in the Philippines' electricity generation mix from 22.5% in 2022, according to data from Ember.

More clean power generation should also help the Philippines close the clean energy gap with the rest of Asia. For the whole continent, around 32% of electricity came from clean sources in 2022.

In turn, a greater proportion of power from clean sources should help the Philippines attract more manufacturing and other industries. The country is already a major producer of pharmaceuticals, electronics and semiconductors and is considered an attractive destination for firms looking to relocate operations outside of China.

Vietnam, Thailand and Indonesia are all also expected to rapidly increase renewable energy supply capacity over the coming years, and may sporadically compete with the Philippines as green energy hot spots.

But the combination of aggressive government policy, an urgent drop in domestic fossil fuel supplies and projections for continued rapid energy demand growth look set to push the Philippines into the top tier of all renewable energy growth markets by 2030.

SUNSTAR

Bulacan solo parents tapped for cash-for-work

By: Jovi De Leon

The Department of Social Welfare and Development (DSWD) in Central Luzon is tapping selected solo parents in Bulacan province for its community resilience against climate change program.

The DSWD on Monday said it has allotted P31.5 million for the solo parents' cash-for-work project under the agency's Risk Resiliency Program-Climate Change Adaptation and Mitigation Disaster Risk Reduction (RRP-CCAM DRR) program.

Qualified solo parents will render 10 days of community work on zero-waste livelihood program and mangrove planting in the coastal areas and along rivers in Bulacan.

The Provincial Social Welfare and Development Office of Bulacan, together with the Municipal Social Welfare and Development Office, Municipal Nutrition Action Office, Municipal Environment and Natural Resources Office and Municipal Agriculture Office have conducted meetings in preparation for the implementation of the RRP-CCAM DRR projects.

The DSWD RRP-CCAM DRR is a program that empowers communities in adopting and mitigating the effects of climate change, which not only educates the public about the effects of climate change and adaptation, but also encourages them to take care of the environment and help address global warming.

THE VISAYAN DAILY STAR

EV accessibility

Environmental business group, Philippine Business for Environmental Stewardship (PBEST), called for the current tax incentive scheme for electric vehicles (EVs) to be amended because it “lacks inclusivity,” after Malacañang released Executive Order No. 12 series of 2023 that modifies the tariff rates of EVs to help mainstream its use among Filipinos.

EO12 lowered the tariff rate for certain types of EVs ranging to 0 percent import duty, from 5 percent to 30 percent.

Under the EO, EVs such as kick scooters, pocket motorcycles, and self-balancing cycles are included in the tax breaks. Two-wheeled electric motorcycles, on the other hand, are still subject to 30 percent import duty.

In a statement posted in their Facebook page, PBEST Secretary General Felix Jose Vitangcol stated that there seems to be a problem with the EO since only a limited portion of the population can afford to buy four-wheeled vehicles. “Only more affluent Filipinos – indeed a limited segment of the population – can afford to buy four-wheeled vehicles, and hence enjoy these incentives,” he said.

PBEST asserted that more Filipinos should be encouraged to shift to alternative energy regardless of their socio-economic status and the types of their vehicles. “That is why government must make these tax incentives more inclusive,” Vitangcol said.

He added that it is government’s role to spearhead the country’s shift to electric vehicles as it will lessen the nation’s dependence on fossil fuels.

While EO12 aims to help Filipinos to adapt to the usage of EVs while decarbonizing and reducing the carbon emissions caused by vehicles that use fossil fuels, the critique of PBEST that it is not inclusive enough may need to be given attention, as government needs to do more to encourage more Filipinos to shift to EVs as soon as possible.

The Philippines is among the most vulnerable nations to the effects of climate change, and shifting to EVs is one such solution that needs to be made available to more Filipinos. Government needs to put more effort into making that option as inclusive and accessible as possible.

=END=