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06 February 2023 [08:00 am]

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By Michael Taylor

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GLOBAL WITNESS

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MANILA BULLETIN

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To answer it simply, yes (but with reservations). Yes, as it is now the time for sustainability — the tourism industry is compelled to be sustainable as it is, sadly, one of the most resource-intensive industries with all the events, shuttling back-and-forth, and infrastructure building. But based on numerous articles and updates from hotels, resorts, even travel agencies, they are cognizant of the need to have their operations sustainable. They have done it, still doing it, and have plans to upscale sustainability efforts. In short, if the tourism industry couldn't find ways to be sustainable, then we're doomed!

MANILA TIMES

[DICT to enhance emergency response with new equipment from UNDP](#)

The Department of Information and Communications Technology (DICT) and United Nations Development Program (UNDP) Philippines held a ceremonial handover activity of disaster response communications equipment on January 26 at the University of the Philippines Diliman College of Science Amphitheater.

MINDANEWS

[Envi groups “deeply concerned” over JICA’s claims on WTE project in Davao City](#)

By Antonio L. Colina IV

DAVAO CITY (MindaNews / 05 February) — At least 57 national and international environmental groups said they are “deeply concerned” over the integrity of the claims of the Japan International Cooperation Agency (JICA) that it has not been supporting the development of a multi-billion peso waste-to-energy (WTE) incinerator project in this city.

PHILIPPINE DAILY INQUIRER

[Nature-based solutions in climate response](#)

By: Analiza Rebuelta-Teh

The country's Philippine Development Plan (PDP) (2023-2028) assessed the progress in environmental and climate action in the last six years as modest. Progress can be seen in the increase in forest cover by 3.03 percent from 2015 to 2020 and the general improvement in the management of protected areas. However, the PDP also cited that these positive gains still fall short of improving the country's overall performance in these sectors.

[\[Opinion\] Manila Bay's fight for life](#)

Manila Bay is not dead. But whether it is barely living or has a healthy ecosystem is another matter. And whether it thrives or dies is up to government.

PHILIPPINE STAR

[Mangrove restoration should include social aspects, involve community — study](#)

By: Gaea Katreena Cabico

MANILA, Philippines — Studies on mangrove restoration need to be more inclusive and also include the social attributes of this important ecosystem to improve how conservation is done across Southeast Asia, scientists from the University of the Philippines said

[Renewable energy firm meets with Marcos for Isabela project](#)

By: Alexis Romero

MANILA, Philippines — Officials of the San Ignacio Energy Resources Development Corp. (SIERDC) recently met with President Marcos to talk about their 440-megawatt peak Isabela Power Project, which is expected to contribute to the governments efforts to promote the use of renewable energy.

[Typhoon-devastated Filipinos are vulnerable to trafficking — UN report](#)

Cristina Chi

MANILA, Philippines — Cases of human trafficking in the Philippines spiked after major typhoons wiped out local communities' agricultural industries, making the country a striking case study globally of how climate-induced income losses can lead to trafficking.

UN NEWS

[Climate change: WMO unveils plans for sustainable monitoring of greenhouse gases](#)

The WMO initiative would create a network of ground-based measurement stations that can verify worrying air quality data that's been flagged by satellites or airplanes, potentially in the next five years.

CCC IN THE NEWS:

DWIZ ONLINE

[Mahalaga ang scientific research pakikilahok ng lokal na pamahalaan sa pagtugon sa pabago-bagong klima](#)

RT: 34:n 10

ito ang binigyang diin ni Climate Change Commission Vice Chairperson at Executive Director Robert Borje sa isang event sa Ilocos Norte.

Information and Knowledge Management Division

BUSINESS WORLD

Malaysia faces 'inconvenient truth' on clean energy goals

By Michael Taylor

KUALA LUMPUR — Malaysian Chuan Zhen Ko's passion for clean energy and climate change was first ignited by his university lecturers and watching the 2006 Oscar-winning documentary *An Inconvenient Truth*, starring former US Vice-President Al Gore.

Ko, now 39, launched himself into a career in the renewables industry about 15 years ago, working on green projects in a dozen countries before returning home to the capital Kuala Lumpur.

There he teamed up with two school-friends in 2012 to co-found Plus Xenergy, a company that helps homes, businesses and buildings to develop their own solar power systems or source clean energy supplies from elsewhere.

The entrepreneur — who has worked with the likes of furniture retailer IKEA, logistics giant DHL, and entertainment conglomerate Sony and has developed six solar farms across Malaysia — said awareness about renewable energy among his country folk is the highest he has known.

Nonetheless, Ko and other energy experts warned that Malaysia is trailing its Southeast Asian neighbors on clean energy expansion, as a lack of financial incentives and investment, coupled with red-tape, hold back the big projects needed for the country to meet its ambitious climate goals.

"Malaysia is considered quite average in Southeast Asia," said Ko, adding that its renewables efforts have seen "steady growth but not super-fast."

Like many countries in the region, Malaysia is hit regularly by the impacts of extreme weather and rising temperatures — whether choking haze linked to regional forest fires, water shortages, droughts, or severe floods.

Flooding that began in late 2021 caused nearly \$1.5 billion in losses and displaced more than 120,000 people, for example.

In that same year, to help tackle climate change, Malaysia —which has pledged to cut its planet-heating emissions to net zero by 2050 — set goals to source 31% of its power capacity from renewables by 2025 and 40% by 2035.

Then last September, the previous government published a policy targeting a 17% share for renewables in the total national energy supply by 2040.

But with renewables today accounting only for about 9% of Malaysia's electricity generation capacity, the government targets seem "highly unrealistic," said Attaurrahman Ojindaram Saibasan, a power analyst at data company GlobalData.

Malaysia lacks "strong" renewable energy policies, said Saibasan, whose firm published a report on Malaysia's power sector last week.

"There are no incentives offered to large-scale renewables," he said, adding that climate-heating coal and natural gas currently make up about 75% of Malaysia's power capacity mix.

SLOW INVESTMENT

Despite expensive and deadly climate impacts and lofty clean energy targets, environmental issues did not feature in last year's election, dominated by the economy and cost of living.

Malaysia trails Indonesia, the Philippines, Thailand, and Vietnam in renewable power generation, said Saibasan.

The government has struggled to attract investment in large-scale renewable energy projects due to a "sluggish economy" and a lack of "robust policies" to make clean power more attractive than fossil fuels, he added.

Malaysia has previously provided incentives to invest in solar—which has the greatest potential, experts say. Other promising options for Malaysia are bioenergy sourced from the palm oil industry and hydropower.

But while policy encouraged initial take-up of solar, larger investments will be needed towards the end of this decade to modernize the power grid, boost energy storage, and support larger-scale renewables, said Joel Kwong, a partner at Boston Consulting Group in Kuala Lumpur.

Those measures are needed because the best areas to generate solar power are in the north, while demand is concentrated further south in the industrial Klang valley, which includes the capital Kuala Lumpur, he added.

Sabah and Sarawak states on Borneo island would also benefit from greater freedom to develop their own renewable power projects, alone or with neighboring countries, experts said.

Malaysia's 2050 zero-emissions goal is a "significant signal of intention" for a developing Southeast Asian country, noted Kwong. But consistent, longer-term plans to aid the expansion of renewables are needed to reach that and other targets, he added.

Malaysia's energy ministry did not respond to requests for comment.

COSTLY COAL

In recent months, Indonesia and Vietnam have clinched big finance deals with rich nations to shutter coal-fired power plants early and reduce greenhouse gas emissions from their power sectors.

Kwong, who focuses on energy and climate, urged Malaysia to make a clear pledge to phase out coal-fired power plants.

“It makes sense for the country because we import all our coal today, so that also improves our trade position,” he added.

Malaysia is largely reliant on Indonesia and Australia for its coal supplies.

Peter Godfrey, managing director for Asia Pacific at the Energy Institute in Singapore, said he expects Malaysia to discuss a similar energy transition deal with donors, to accelerate coal power closures.

“Retiring modern or relatively new coal capacity is a very expensive business — because who is going to pay for it?” he said.

“The way that gets managed is not only through Malaysia but through international assistance and support, and that conversation has begun,” he added.

However, Malaysia’s abundant natural gas supplies mean there is little urgency to meet renewable energy targets, he warned, underlining the importance of efforts to reduce emissions from the natural gas industry.

GRADUAL GREEN GROWTH

Despite the challenges Malaysia faces, more renewable energy is inevitable, said solar entrepreneur Ko, who is positive about the country’s green energy outlook.

Businesses have faced rising costs for labor, raw materials, and energy in recent years — which switching to solar could help alleviate while also helping narrow the “huge gap to go” on the country’s clean energy goals, he said in an interview.

Governments cannot afford to continue providing large subsidies for some power users, while smaller companies doing business with major corporations are now under growing pressure to lower their emissions and go green, he added.

Ko, whose company also organizes free engineering workshops for students, called on banks to offer favorable lending rates to companies seeking to adopt cleaner energy.

“There is room for local players and local government to trial and error, to learn from mistakes, to improve policies, quality of work and technologies,” he said.

“It can gradually grow,” he added.

GLOBAL WITNESS (PR)

[Dutch construction companies will profit from Philippines mega-airport which is devastating local communities and environment](#)

Brussels, Thursday February 2nd – Two major Dutch companies are involved in the development of a mega-airport in the Philippines which has displaced hundreds of families after armed soldiers went door-to-door leaving community members describing feeling “terrified” into leaving, according to a new Global Witness report released today.

The New Manila International Airport, currently under construction by Filipino conglomerate San Miguel Corporation was given a green light by the Philippine government in 2019, despite allegations by local communities of a coercive consultation process and questionable environmental impact assessments that downplayed the ecological significance of Manila Bay.

In 2018, the Dutch dredging giant Royal Boskalis Westminster NV signed a contract worth €1.5 billion to construct the first phase of the of the airport - a project seven times the size of New York’s Central Park. Boskalis secured insurance for the project from the Dutch state via export credit agency Atradius Dutch State Business in May 2022.

Military intimidation

Around 700 families have reportedly been displaced from their homes in the region of Bulacan, north of Manila, amidst a significant military presence in the area. The investigation reveals that armed military personnel reportedly visited residents' homes as part of a consultation process ahead of construction of the airport, alongside representatives of San Miguel Corporation. Community members described to Global Witness feeling pressured to take the compensation offers and feelings of fear following threats made by soldiers.

“Soldiers arrived every day, intimidating our community. They threatened us that if we continue to refuse to leave, something [bad] might happen. That terrified my parents and our fellow [neighbours]” - Teody Bacon, a local fisherman from Taliptip

Around half of those displaced have received no compensation, residents have alleged. Many residents were forced to destroy their own homes and sign an agreement which prohibits them from criticising the project and prevents them from requesting additional compensation.

The residents’ fears are well founded. Over the past decade, 270 land and environmental defenders were murdered in the Philippines - the worst country in Asia for recorded killings. Of these murders, 45% are reportedly linked to state authorities,

with the armed forces implicated in the majority of state-linked killings against people that had disputed land rights or environmental harms. [1]

Nature under threat

Manila bay is an internationally recognised biodiversity hotspot, yet the airport development is set to destroy protected ecosystems in the area.

The construction encroaches upon a recommended 'strict protection zone' identified by the Philippine and Dutch states. A joint study concludes that the airport “will permanently damage the natural habitats at the site” and recommends finding an alternative location for the project. [2]

The airport’s climate impacts will also permanently hurt the surrounding ecosystem. The aviation sector is a major and growing source of greenhouse gas emissions, and the New Manila Bay International Airport is designed to cater for approximately 100 million passengers by the project’s end – making it one of the world’s busiest.

Strong EU law needed to prevent corporate abuse

Boskalis is profiting from a project which dodged environmental and social diligence, failed to heed the warnings of the environmental and social impact assessments, and benefited from implicit military threats to the community that was being displaced highlights the urgent need for new rules to prevent corporate abuse.

The airport is also being constructed off the back of planning permission which did not refer to an airport – mentioning only an unspecified “land development.” This lack of transparency prevented communities from being able to assess the impacts of the project – as well as contest any harms. [3]

Rachel Cox, Senior Land and Environmental Defenders campaigner at Global Witness said: “The New Manila International Airport is being railroaded through without having consulted properly with the communities it is displacing amid threats from armed soldiers. Impact assessments that showed it would be a disaster for local communities and the delicate ecosystems in Manila Bay have been ignored, and its original planning application didn’t even mention an airport. It is an outrage that a European company like Boskalis is able to profit from it.”

Global Witness’ report highlights the urgent need for stronger rules to prevent European companies from profiting from human rights abuses and environmental destruction.

On February 9th, EU parliamentarians can help to prevent corporate complicity in abuses like those documented at the New Manila International Airport project. MEPs in the EU Parliament’s environment committee will vote on whether to companies with operations in the EU should be obliged to consult with local communities before ground is broken on projects, and in an ongoing way during the project’s lifetime. [4]

Aurelie Skrobik, EU corporate accountability campaigner at Global Witness said “Two Dutch companies are raking in huge profits while building the New Manila Bay Airport. This comes at the expense of displaced local communities and irreplaceable biodiversity hotspots. The EU has a once-in-a generation chance to stamp out this corporate abuse by obliging companies to respect the communities and the environment affected by their activities.”

Global Witness does not allege that Boskalis or Atradius were responsible for any shortcomings in the consultation process or environmental impact assessments or that these companies were involved in displacements and relocations, setting compensation or obtaining any permissions to degrade the natural habitat at Manila Bay which were all managed by local partners and government.

Atradius told Global Witness that any shortcomings in consultations and impact assessments conducted by local partners has been mitigated by subsequent reviews which have led to the imposition of international standards, including OECD guidelines and introduction of conditions in this regard into finance agreements.

San Miguel told Global Witness that it had complied with all relevant national and international social and environmental standards at Manila Bay and that the presence of soldiers had been directed by the local government.

MANILA BULLETIN

[ELEVENTH HOUR: Why we need climate accountability](#)

by Climate Reality Project Philippines

The Philippines has the highest disaster risk among 193 countries around the world in 2022, according to a global risk index.

The WorldRiskIndex (WRI) measures countries' disaster risk from extreme natural events and the effects of climate change. It calculates each nation's exposure or the extent the population is exposed to disasters such as storms, flooding, droughts, and sea level rise; and vulnerability — or its susceptibility, ability to cope, and ability to adapt to these events. The Philippines scored high in its exposure, vulnerability, susceptibility, lack of coping capacities, and lack of adaptive capacities in the face of disasters.

Many of those countries determined most vulnerable to the most visible effects of climate change — drought, flooding, storms, or rising sea levels — are also countries where experts perceive high levels of corruption in public services. None of the 20 countries deemed most vulnerable to climate change score more than 3.6 on Transparency International's Corruption Perceptions Index (CPI), indicating significant risks of corruption.

There are more than 1,500 climate laws or policies globally. These laws and others relating to human rights, environmental protection, land use planning, corporate governance, and even financial regulation are powerful tools to change the system and protect our planet. But only if they are properly enforced.

To date, the Philippines already has the following:

- *Presidential Decree No. 1566 creating the National Disaster Coordinating Council;*
- *Republic Act No. 7160 or the Local Government Code of 1991 and its amendment law Republic Act No. 8185;*
- *Philippine Agenda No. 21 (response to fulfill its commitments in the historic Earth Summit in 1992);*
- *Republic Act No. 9729 or Climate Change Act of 2009 and its amendment law Republic Act No. 1017, which created the People's Survival Fund; and*
- *Republic Act No. 10121 or the Philippine Disaster Risk Reduction and Management Act of 2010.*

The Philippines must deal with about 20 typhoons a year, some deadly and most destructive. In 2009, Typhoon Ketsana (locally known as Ondoy) obliterated 46,000 homes and left thousands stranded. Although the Climate Change Act is supposed to oversee building flood control defenses, the effective flood control system is allegedly suffering from neglect.

In addition, corruption in the granting of permits and licenses means that land development projects that do not meet building codes and zoning restrictions are nevertheless approved. In these cases, corruption has the potential to undermine adaptation efforts and puts lives at risk. We still have a long way to go in establishing transparency, participation, and accountability.

Transparency and accountability are not an end per se for climate change, but they are at the heart of the critical strategies.

Transparency

Transparency is a characteristic of governments, companies, organizations, and individuals that are open to the clear disclosure of information, rules, plans, processes, and actions. As a principle, public officials, civil servants, the managers and directors of companies and organizations, and board trustees have a duty to act visibly, predictably, and understandably to promote participation and accountability.

Simply making information available is not sufficient to achieve transparency. Large amounts of raw information in the public domain may breed opacity rather than transparency. For that to be achieved, several qualifying criteria must be added to the definition.

Information should be managed and published so that it is:

- *Relevant and accessible: Information should be presented in plain and readily comprehensible language and formats appropriate for different stakeholders, while retaining the detail and disaggregation necessary for analysis, evaluation, and participation. Information should be made available in ways appropriate to different audiences and at minimal or no cost.*
- *Timely and accurate: Information should be made available in sufficient time to permit analysis, evaluation, and engagement by relevant stakeholders. This means that information needs to be provided while planning as well as during and after the implementation of policies and*

programs. Information should be managed so that it is up-to-date, accurate, and complete.

Citizen participation

With empowered participation, stakeholders are invested in decision-making power and influence, such as having citizen representatives on boards that oversee local public service delivery.

Citizens may participate through local associations, social movements and campaigns, formal participatory governance spaces, and multiple approaches which employ several of these strategies. Participation is key to making transparency and accountability directly meaningful to citizens.

Accountability

For participation to be meaningful, there must be accountability.

Broadly speaking, accountability refers to the process of holding actors responsible for their actions. More specifically, it is the concept that individuals, agencies, and organizations (public, private, and civil society) are held responsible for executing their powers according to a certain standard (whether set mutually or not).

Accountability is an institutionalized (i.e. regular, established, accepted) relationship between different actors. One group of people/ organizations are held to account (accountees), by other groups (accounters). It is useful to think of an accountability relationship as having up to four sequential stages:

- *Standard setting: setting out the behavior expected of the accountee and thus the criteria by which they might validly be assessed;*
- *Investigation: exploring whether or not accountees have met the standards expected of them;*
- *Answerability: a process in which accountees are required to defend their actions, respond to questions, and generally explain themselves. This applies both to negative as well as positive feedback; and*
- *Sanction: a process in which accountees are in some way punished for falling below the standards expected of them, or rewarded for achieving or exceeding them.*

Most accountability sequences are not as formal, and/ or do not include all these stages. More informally, one can think of accountability as not only a set of institutional mechanisms or a checklist of procedures but an arena of challenge, contestation, and transformation.

To drive transformational change, three major building blocks need to be addressed simultaneously, which would translate increased transparency and participation into real accountability and would rebalance power relations:

- *Transparent public policy and risk management tools*
- *Civil society and citizen participation in national policy processes*
- *Direct citizen accountability through tackling political lobbying*

Transparency and accountability play a critical role in rebalancing power and building trust through:

- *Strengthening national action to lay the foundation for mutual trust, enabling greater ambition of a future multilateral agreement on climate change;*
- *Shifting the balance of power in defining national (self-)interests and responsibilities toward citizens; and*
- *Providing a basis for more comprehensive and effective policy making.*

Governments have pledged at least US\$100 billion per year by 2020 to be spent on projects and incentives to meet commitments to reduce greenhouse gas emissions and safeguard against the effects of climate change. How well this money is used and how these measures are managed will determine the effectiveness of global efforts to combat climate change.

With so much at stake, it is imperative that all actors involved — governments, civil society, and the private sector — build transparency and accountability into the system from the start.

How can you contribute to boosting transparency, participation, and accountability?

Ask yourself these questions first:

- *Is my barangay directly involved with municipal and city governments in prioritizing climate change issues and in identifying and implementing best practices and other solutions?*

- *Is our local government the frontline in the formulation, planning, and implementation of climate change action plans in our area? Is their plan consistent with the provisions of the Local Government Code, the Framework, and the National Climate Change Action Plan?*
- *Is climate adaptation integrated into the regular function of our municipality or city government?*
- *Does our provincial government provide technical assistance, enforcement, and information management in support of municipal and city climate change action plans?*
- *Is inter-local government unit collaboration maximized in the conduct of climate-related activities?*
- *Does our local government regularly update the action plans to reflect changing social, economic, and environmental conditions and emerging issues?*
- *Does our local government mobilize and allocate necessary personnel, resources, and logistics to effectively implement the action plans?*

If you cannot answer all these questions, it is time for you to reach out to your local leaders and ask them the same questions.

Transparency and accountability are not an end per se for climate change, but they are at the heart of the critical strategies. If we want to lessen the loss and damages, we need to push for more transparency, participation, and accountability in our community and the rest of the nation.

[Is low-carbon tourism possible?](#)

By: Johannes Chua

To answer it simply, yes (but with reservations). Yes, as it is now the time for sustainability — the tourism industry is compelled to be sustainable as it is, sadly, one of the most resource-intensive industries with all the events, shuttling back-and-forth, and infrastructure building. But based on numerous articles and updates from hotels, resorts, even travel agencies, they are cognizant of the need to have their operations

sustainable. They have done it, still doing it, and have plans to upscale sustainability efforts. In short, if the tourism industry couldn't find ways to be sustainable, then we're doomed!

It is possible for tourism stakeholders to be sustainable... as long as they continue to have that burning passion, not just because of the publicity or the "good branding." They (e.g. the management to the team members) shouldn't be just excited at the start, but be involved all the way – from conceptualization to implementation – or else, it will be just a futile exercise.

Aph Cruz, founder of Las Islas Travel and Tours, shared with me how low-carbon tourism is possible. She speaks from experience as her company was recognized for championing responsible and sustainable tourism. It is also the first tour-operator recipient of the 2018 ASEAN Sustainable Tourism Award in the Philippines and the first travel company in the country to be a member of Sustainable Travel International, a mission-driven organization dedicated to protecting and conserving our planet's most vulnerable destinations.

"Tourism is fundamentally linked to climate change. According to a report made by the World Travel and Tourism Council in November 2021, carbon emissions of the travel and tourism industry range from eight to 11 percent of global greenhouse gas emissions (3.9 to 5.4 billion tons of CO₂ emissions out of a total of 48.9b tCO₂e in 2019). This makes the travel and tourism sector a significant contributor to climate change," Aph said. "We cannot tell people to stop traveling, but we can make the travel industry more sustainable. The Philippine tourism industry's pathway to recovery should be anchored on the principles of low-carbon tourism, the kind of travel that contributes the least impact on the planet."

In 2022, Aph said that her company took its commitment to sustainable tourism to the next level by becoming a full-fledged member of Sustainable Travel International.

"As a pioneer member from the Philippines, we are now part of a global movement of conscientious travelers and businesses that are passionate about making a difference and giving back to the places we depend on. We are working to transform tourism's impact on nature and people by operating alongside local communities, engaging travelers and businesses in responsible practices, and strengthening destination management," she said. "We aim to safeguard nature, combat climate change, and empower communities to preserve the integrity of destinations in the Philippines and around the globe." We hope that there would be others like Aph who is conscientious about her company's role as a sustainability advocate.

She stressed that restarting travel should be done "responsibly" and "ethically" at a time of anthropogenic climate change. "Moving forward, the Philippine travel industry should ensure that it is headed for long-term success and progress by employing best practices in sustainability. This means rebuilding a Philippine tourism industry that values the health of the planet and its people."

We couldn't agree more when she has this as conclusion: "By reducing the carbon footprint of the travel industry, tourism can be used as a force for good that could benefit generations to come. Sustainability should now be the new and better normal."

PHILIPPINE DAILY INQUIRER

[Nature-based solutions in climate response](#)

By: Analiza Rebueta-Teh

The country's Philippine Development Plan (PDP) (2023-2028) assessed the progress in environmental and climate action in the last six years as modest. Progress can be seen in the increase in forest cover by 3.03 percent from 2015 to 2020 and the general improvement in the management of protected areas. However, the PDP also cited that

these positive gains still fall short of improving the country's overall performance in these sectors.

In the 2022 Environmental Performance Index ranking, the Philippines placed 158th out of 180 countries in environmental sustainability, which covers performance indicators on ecosystem vitality (e.g., biodiversity, water resources), environmental health (e.g., air quality, waste management), and climate change.

In the 2022 World Risk Index, the Philippines ranked first among 193 countries with the highest disaster risks. The PDP noted that between 2011 and 2021, the country incurred P673.30 billion worth of damage and losses due to tropical cyclones alone. These damages and losses from climate change are expected to reach up to 7.6 percent and 13 percent of the country's gross domestic product by 2030 and 2040, respectively, if there is no adequate action to address the impact of climate change. Hence, the PDP strategy framework to Accelerate Climate Action and Strengthen Disaster Resilience will prioritize enhancing adaptation as a priority climate action in the country.

Nature-based solutions (NBS) are key to sustaining the provision of ecosystem goods and services, reducing the intersecting vulnerabilities, and addressing complexities in managing the compounding and cascading risks posed by climate change across forestry, biodiversity, water, and other sectors.

NBS, or actions meant to protect, sustainably manage, and restore natural or modified ecosystems, can address climate change in three ways:

1. Avoid or reduce greenhouse gas emissions related to deforestation and land use change and degradation;
2. Capture and store carbon dioxide from the atmosphere;
3. Enhance the resilience of ecosystems, and support communities to adapt to climate hazards such as flooding, sea-level rise, and more frequent and intense droughts, floods, heat waves, and wildfires.

The protection and restoration of forests, mangroves, and wetlands, conservation of biodiversity, coastal and marine resources, and creation of urban greenspaces are major adaptation measures the Department of Environment and Natural Resources (DENR) will relentlessly pursue using integrated and ecosystem-based approaches. These initiatives demonstrate the positive role that nature plays in delivering tangible climate benefits and the potential of NBS for disaster risk reduction.

Integrating nature and climate change as a climate solution provides co-benefits such as job creation, addressing biodiversity loss, and a healthier environment. For instance, the use of a riparian wetland for flood mitigation may also support local fisheries, water quality, recreation, erosion control, biodiversity, and water nutrient management.

As part of the continuing implementation of the risk resiliency program under the Cabinet Cluster on Climate Change Adaptation, Mitigation, and Disaster Risk Reduction, resilience road maps with investment portfolio for risk resilience were recently developed for the provinces in the country that are vulnerable to climate change. These planning documents seek to strengthen province-based planning and budgeting by recommending actions to manage risks and address the provinces' climate and disaster vulnerabilities. The participation of private sector partners is critical in increasing the implementation of these climate- and disaster-related investments, especially in the most vulnerable areas in the country.

The private sector plays an important role in better driving meaningful initiatives for the planet. For example, the Land Bank of the Philippines has been implementing the Gawad Sibol (Adopt-A-Watershed) Program in partnership with the DENR since 2006, which pursues the environmental rehabilitation of open and degraded watershed areas through tree planting.

Just recently, Nestlé, One Tree Planted, and EcoPlanet Bamboo started a major reforestation project in Lanao del Sur to plant 3.5 million bamboo clumps and native trees by 2024. I took part in the tree-growing activity at the La Mesa Watershed and Eco Park that was conducted in support of the project's launch and to demonstrate the spirit of volunteerism among Nestlé PH employees and their partners.

As we traverse the pathway to achieving significant outcomes for sustainable, inclusive, and climate-resilient development in the Philippines, the government, with the other stakeholders, will ensure mainstreaming nature in climate action decisions. Nature is our only opportunity to secure a sustainable future for all.

Through all these, we recognize the importance of working with the private sector in fulfilling our mandate to protect and conserve the country's natural resources. Thus, the DENR will continue fostering meaningful public-private partnerships that can advance our shared environmental goals and help widen the reach and impact of our initiatives.

[\[Opinion\] Manila Bay's fight for life](#)

Manila Bay is not dead. But whether it is barely living or has a healthy ecosystem is another matter. And whether it thrives or dies is up to government.

Since 2000, per the Department of Environment and Natural Resources (DENR), there have been 12 oil spills in Manila Bay, which also serves as a port. Together with the discharges from industries and cargo ships that dock at the port, DENR said these oil spills have increased the presence of oil and grease in the water. DENR's fisheries

bureau has found traces of metals including copper, cadmium, and zinc coming from the bay's seabed—and because they have reduced the oxygen in the water, they have made the bay inhabitable for marine life. Fishermen have been told not to fish there because Manila Bay is supposedly dead.

But those who have been fishing in the bay have refuted this claim as reported in this paper last Jan. 31. They can still fish there, the fisherfolk said, with recent catch including “alubaybay,” a sardine variety that they would salt and dry then sell. Aside from fish, a 160 square meter coral garden was also discovered by volunteer divers in Ternate, Cavite, in June 2021. Then in February 2022 during a cleanup activity, coastal rangers of the Manila Baywalk found a sea hare and its eggs, as well as a file snake along the shore of the controversial dolomite beach. These are further proof that the bay, known for its beautiful sunset views, is very much alive.

Manila Bay, which covers the provinces of Bataan, Bulacan, Cavite, Pampanga, Laguna, Nueva Ecija, Rizal, and Tarlac, has a rich history. It has witnessed and survived historic battles such as the Battles of La Naval de Manila that ended Dutch attempts to seize the Philippines, the Battle of Manila Bay during the Philippine-American War, and World War II that destroyed its fortified islands like Corregidor.

What it might not survive are the harmful human activities that have turned it into Metro Manila's dump site. Sewage from households, industries, and agriculture flows untreated and unchecked into the bay, bringing with it solid wastes such as plastic products and food scraps, polluting the water, and causing the coastline to overflow with trash. But more than the water pollution, experts said that government-sanctioned seabed quarrying has caused massive damages and losses in the bay's fishing grounds and marine resources.

These destructive activities, the many years of neglect, and willful ignorance about the need to rehabilitate it beyond cosmetic work on but a small portion like in the case of the dolomite beach are tantamount to deliberately killing Manila Bay. Despite petitions and pleas from environmental activists to rehabilitate the bay through clean-up, conservation, and restoration of marine ecosystems, the government has instead green-lighted reclamation projects that are seen to worsen its environment, threaten its survival, and ruin its ecosystem and biodiversity for good. There are at least 21 reclamation projects that have been approved and three more are in the pipeline — these will occupy 9,000 hectares of the sea and which, environmentalists have warned, could cause more flooding in places like Cavite and Las Piñas. It was revealed in a Senate hearing last year that many of these projects — that include the construction of an international airport, an expressway, and commercial and residential areas—were approved without proper consultation with stakeholders.

Oceana cited reasons why Manila Bay must be saved: 1) it is the center of biodiversity with over eight species of shellfish and 50 species of fish, including a newly-discovered species of sardines called *Sardinella pacifica*; 2) it serves as a stopover for different species of migratory birds that seek shelter in its wetlands, particularly the Las Piñas-

Parañaque Critical Habitat and Ecotourism Area where the country's endemic ducks also seek refuge; 3) it has fruit-bearing mangroves including *Sonneratia caseolaris* whose fruit called mangrove apple ("palapat") is used to make jams, tarts, candies, vinegar, and as a souring agent in sinigang and paksiw. However, these mangroves that help prevent erosion and absorb the impact of storms have been reduced to around 734 hectares from 74,000 hectares at the start of the 20th century.

The seabed quarrying and reclamation projects are not consistent with any rehabilitation effort. They will in fact cause irreversible damage to the bay's ecosystems, displace communities whose livelihood depends on it, and make cities and towns across three regions more vulnerable to the effects of climate change. The DENR should put a stop to these reclamation and seabed quarrying activities unless it is the government's deliberate intent to murder the bay in favor of big business under the guise of development. It is ironic that while progressive countries are working toward environmental sustainability, the Philippines is destroying a very important ecosystem instead of helping it stay alive.

PHILIPPINE STAR

[Mangrove restoration should include social aspects, involve community — study](#)

By: Gaea Katreena Cabico

MANILA, Philippines — Studies on mangrove restoration need to be more inclusive and also include the social attributes of this important ecosystem to improve how

conservation is done across Southeast Asia, scientists from the University of the Philippines said.

A study published by by UP Diliman Institute of Biology Associate Professor Dr. Severino Salmo III and biology graduate student Maria Elisa Gerona-Daga and published in *Frontiers and Marine Science* found that most publications on mangrove restoration assessed ecological attributes, around three times more than those that linked restoration to social aspects

Community-based restoration (15%), eco-cultural practices (14%), and environmental education (5%) were relatively less studied.

Island biogeography graduate student Mark Angelo Bucay said the paper's findings show the lack of focus on integrative, multidisciplinary studies.

"While it is 'a must' for scientific studies to be published in peer-reviewed studies, scientific articles on community-based experiences, social attributes like community lessons from restoration success (and failure), economic profiling and ethno-botanical reviews remain lagging," Bucay told Philstar.com.

"Viewing human community dynamics as part of the total mangrove ecosystem science has not been the case for decades," he added.

According to Bucay, more collaboration between natural and social scientists will encourage more research on the social components of mangrove restoration.

Appreciating social dimensions increases value of mangroves

The study of Gerona-Daga and Salmo stressed that the integration of social dimensions in ecological restoration of mangroves can increase the ecosystem's socio-cultural value.

This can also lead to more scientific output through community engagement or through "citizen science", which includes mapping mangroves with local community partners and local knowledge and practices.

"Future restoration strategies may benefit to focus on citizen science, and include social attributes, in addition to the usual focus of ecological attributes in mangrove restoration," the study read.

Mangroves in Southeast Asia

Southeast Asia accounts for nearly a third of the world's mangrove extent and has the greatest diversity of mangrove species. Unfortunately, the region also suffers extensive mangrove losses, which result in biodiversity loss and the reduction of ecosystem services — the value that healthy ecosystems give to humans.

Myanmar is Southeast Asia's mangrove loss hotspot, suffering a 27.6% decline between 2000 and 2014, according to a survey of 355 mangrove restoration research by Salmo and Gerona-Daga.

The study also found that the Philippines has the second worst mangrove decline in the region, with the country losing 10.5% of its mangrove forests between 1990 and 2010. The rapid expansion of aquaculture ponds for fish is the main driver of mangrove loss in the Philippines.

According to the Department of Environment and Natural Resources, the Philippines had 303,373 hectares of mangrove forests in 2015, down from an estimated 450,000 hectares in 1918.

Mangroves provide a range of ecosystem services, including coastline protection, carbon storage and sequestration, and provision of habitats for various species. Mangroves also support the livelihood of coastal communities.

What should mangrove restoration research focus on?

Gerona-Daga and Salmo proposed five priority research topics that will enhance the outcomes of mangrove restoration studies in Southeast Asia:

- Restoration areas and methods
- Mangrove restoration in climate change adaptation and mitigation programs
- Monitoring recoveries of biodiversity and ecosystem services
- Policies, governance, and community engagement
- Strengthening of regional collaboration

The researchers acknowledge the topics are "biased for biodiversity and ecosystem services," noting these will highlight Southeast Asia's contribution towards realizing the targets for the United Nations Decade on Ecosystem Restoration in 2030. This aims to prevent, halt, and reverse the degradation of ecosystems across the globe.

They also suggested including more mangrove faunal and floral species that would serve as bases for selecting and prioritizing sites for restoration, and the need to design restoration projects to adapt to and mitigate climate change impacts.

They also said that correlating vegetation metrics — using plant growth to assess the health of an ecosystem — with ecosystem services would also help assess how effective a restoration program is.

"Our study aims to provide suggestions in line with international commitments of ASEAN-member countries. The pressing need is to establish and consistently monitor the state of the mangroves for each country, protect mangroves through biodiversity conservation programs, and more importantly, to stop or limit coastal reclamation projects," Salmo said.

In the Philippines, reclamation projects disturb ecosystems such as mangroves and seagrasses, and threaten the livelihood of coastal communities.

There are 187 reclamation projects across the archipelago, according to a Philippine Reclamation Authority master list of approved, pending, and ongoing dump-and-fill ventures.

At least 30 projects are in Manila Bay, while 19 projects are recorded in Negros Occidental, 15 in Panay island, 19 in Cebu and Bohol and 25 in Eastern Visayas. The list does not include the Bulacan aerotropolis and the Dumaguete reclamation projects.

Future of mangrove conservation

Proposed measures seeking to establish a national greenbelt program to protect coastal communities from the worsening impacts of climate change remain pending at the committee level in the Senate and the House of Representatives.

Coastal greenbelt zones are composed of mangroves and beach forest areas.

"We live in an archipelago with one of the longest coastlines that are also the pathways of typhoons and storm surges, yet the government favored the so-called development projects in exchange for coastal defense provided by mangroves and beach forest areas which had been decimated as a result of reclamation and dump-and-fill projects," said Gloria Estenzo-Ramos, vice president of Oceana Philippines.

For Mangrove Matters PH founder Matthew Vincent Tabilog, the future of mangrove research and conservation in the country is bright if there is inclusivity in mangrove research.

"Allowing citizen science as a pilot program for the locals can be a good start for them to contribute to mangrove studies," Tabilog said. He added that grassroots conservation measures that can be learned from coastal communities should be integrated in studies.

Bucay also stressed that the Philippines cannot be a leader in mangrove research and conservation if there is no systemic support given to mangrove science.

"Scientists and advocates can do their job on research, instructions and extensions, but these are all limited if institutional safeguards on mangrove conservation aren't in place," Bucay said.

"Environmental laws and implementations should be science- and people-based if we want our mangroves to thrive."

[Renewable energy firm meets with Marcos for Isabela project](#)

By: Alexis Romero

MANILA, Philippines — Officials of the San Ignacio Energy Resources Development Corp. (SIERDC) recently met with President Marcos to talk about their 440-megawatt peak Isabela Power Project, which is expected to contribute to the governments efforts to promote the use of renewable energy.

Presidential Communications Office Secretary Cheloy Garafil said the company is expected to start construction of the facility next year on a 400-hectare land in Ilagan City, Isabela that is being used for sugarcane and bioethanol production.

The solar power facility will begin its operation by 2025 and could generate about 700 gigawatt-hours per year, equivalent to the electricity consumption of around one million households.

“President Ferdinand R. Marcos Jr. welcomed the P18-billion 440-megawatt peak Isabela Solar Power Project seen to boost the administration’s renewable energy thrust as well as local job generation,” Garafil said in a statement issued yesterday.

The project is expected to create about 2,200 jobs during its various stages of completion, Garafil said.

French renewable energy firm Total Eren, which owns more than 3,700 MW of solar photovoltaic and wind capacity through projects that are in operation or under construction, will be SIERDC’s partner in implementing the project.

The two companies inked a joint agreement in December last year to invest in the development of the Isabela solar project.

Among those present during the meeting, which took place last Feb. 1 in Malacañang, were Special Assistant to the President Secretary Antonio Lagdameo Jr., Energy Secretary Raphael Lotilla and Science Secretary Renato Solidum Jr.

SIERDC is an affiliate of the Nextnorth Holdings Corp., a Philippine-based renewable energy developer of solar and hydro projects with around 480 MW potential energy capacity.

Total Eren and its partners Mabalacat and Sindicatum own a 60 MW peak solar farm in Tarlac that has been in operation since September 2021. TotalEnergies, another French firm, is Total Eren’s shareholder, and has been operating in the country since 1998. TotalEnergies is engaged in solar power project development, fuel and lubricants distribution and petroleum logistics and storage.

In his previous speeches, Marcos vowed to promote the use of renewable energy to address the effects of climate change, a phenomenon that he once described as the “greatest threat” affecting people.

“For the welfare of our people, it is incumbent upon us to alleviate the effects of that vulnerability. The use of renewable energy is at the top of our climate agenda. We will increase our use of renewable energy sources such as hydropower, geothermal power, solar, and wind,” he said in his first State of the Nation Address last year.

[Typhoon-devastated Filipinos are vulnerable to trafficking — UN report](#)

By: Cristina Chi

MANILA, Philippines — Cases of human trafficking in the Philippines spiked after major typhoons wiped out local communities' agricultural industries, making the country a striking case study globally of how climate-induced income losses can lead to trafficking.

This was mentioned in a United Nations Office on Drugs and Crime (UNODC) report 2022 released last January 24 that described the emerging connection between the climate crisis and the increased displacement in regions prone to harsh weather events.

The report described the situation in the Philippines, along in Bangladesh, Ghana and the Caribbean Islands, as an example of how “weather-induced natural disasters can expose communities reliant on fishing, farming and agriculture to higher risk of trafficking.”

“The widespread and intensifying impacts of climate change are heightening vulnerabilities to trafficking in persons,” the report stated.

“Rising and shifting temperatures and weather patterns are disproportionately affecting poor communities relying on the primary economic sector, including agriculture and the extraction of natural resources.”

UNODC’s study provided a “global picture of the patterns and flows of trafficking” based on an analysis of trafficking cases in 141 countries.

The study found that climate-related disasters have doubled in frequency, leading to “loss of livelihoods and increasing displacement” of 23.7 million people in 2021 alone.

“Economic hardship and other challenges put more people at direct risk of being trafficked while increasing the incentives for others to engage in trafficking activities,” the report added.

The UNODC study also warned that “as regions of the world become increasingly uninhabitable, people on the move will face high risk of exploitation along migration routes.”

Typhoons in the Philippines

The report cited the devastation left by Typhoon Yolanda (internationally known as Haiyan), one of the strongest typhoons in the world, on the more than four million people in the Eastern Visayas region in 2013.

Aside from the thousands of families it displaced, the typhoon also destroyed the local agricultural and fishing industries that many families below the poverty line relied on for income. A typhoon that lasted for nine days led to 21,000 families losing their livelihoods, which made them vulnerable to traffickers.

The report stated: “Between 2013 and 2015, national authorities recorded about 670 cases of trafficking in persons in the regions affected by the typhoon alone, and key informants in government and NGOs reported that these cases increased after the disaster.”

A similar level of destruction took place when Typhoon Odette (internationally known as Typhoon Rai) displaced more than 590,000 people in several provinces in the country in 2021

UNODC estimated that about 216 million people would migrate within their own countries by 2050 “due to slow-onset climate change impacts.” These refer to climate-related events that happen over a period of time, such as sea level rise, forest degradation and loss of biodiversity, among others.

UNODC observed a dramatic reduction in the number of detected human trafficking victims in 2020, the peak of the COVID-19 pandemic, due to restrictions on mobility.

While cases of human trafficking picked up again by 2021 in Europe and the Americas, some countries in Southeast Asia detected a lower number of trafficking cases in 2021.

THE MANILA TIMES

[DICT to enhance emergency response with new equipment from UNDP](#)

The Department of Information and Communications Technology (DICT) and United Nations Development Program (UNDP) Philippines held a ceremonial handover activity

of disaster response communications equipment on January 26 at the University of the Philippines Diliman College of Science Amphitheater.

Under the Immediate Response, Recovery, and Resilience Initiatives in Typhoon Odette Affected Areas project of UNDP, the transfer aims to ensure the assets' continued use for DICT's disaster and emergency response and strengthen the agency's coordination and communications capacity.

In the event, UNDP Philippines Resident Representative Dr. Selva Ramachandran, DICT Undersecretary Manuel Anthony Tan, and Assistant Secretary Wilroy Ticzon signed the Deed of Transfer of all disaster response equipment and assets to DICT. The four remaining emergency response vehicles were also handed over to the government agency. These will be instrumental in addressing the needs of the affected areas in the aftermath of Typhoon Odette where coordination and communication has been disrupted.

"The Philippines is vulnerable to the effects of climate change and natural disasters. How do we lessen the burden on our people? The government is proactively working hand-in-hand to provide better disaster preparedness, speedy emergency response, and faster recovery time," said Undersecretary Tan.

Dr. Ramachandran stressed in his message that UNDP will remain committed to assisting national and local governments in building resilient communities and in strengthening its adaptive capacity to climate-related natural hazards.

"I certainly would like to commend the proactive stand that DICT took to play an important role during Typhoon Odette, and we hope that this joint endeavor will help in coping with future disasters," added Dr. Ramachandran.

Assistant Secretary Ticzon also reaffirmed the DICT's commitment to disaster response and improving equal access to emergency response.

"The DICT has a collaborative engagement with UNDP in carrying out disaster response and recovery work toward community resilience with a goal to improve equal access to sustainable basic service through the provision of various emergency response equipment. These equipment will enable us to seek towards recovery, planning the restoration of bypass services and infrastructures and other measures in resilience building," stated Assistant Secretary Tizon.

In 2022, UNDP delivered the first set of assets and equipment to DICT, including six pick-up trucks, 20 units of mobile radio communication systems, 40 units of very small aperture terminals (VSATs), 50 units of generator sets, 30 units of rugged tablets, 40

units of satellite phones, and one base transceiver station. In coordination with DICT's Disaster Risk Reduction Management Division (DRRMD), these have been distributed among the Department's regional and provincial offices, and the six severely affected local government units, to provide rapid response in terms of emergency telecommunications.

This project aligns with one of the components of the DICT-UNDP's Connectivity, Capability and Resiliency through Free Wi-Fi for All (CoRe FW4A) Project, which seeks to improve disaster preparedness and response for emergency connectivity and communications. More disaster communications equipment will be deployed under the CoRe FW4A project such as generator sets, satellite phones, and base transceiver stations.

Pursuant to the National Disaster Risk Reduction Management Council (NDRRMC) Memorandum Circular No. 01, series of 2019, the DICT is designated as the Lead Agency for the Emergency Telecommunications Cluster (ETC) and is mandated to strengthen the ICT capacities at the national cluster level down to local levels to prepare for, respond to, and recover from the impacts of disasters.

UN NEWS

[Climate change: WMO unveils plans for sustainable monitoring of greenhouse gases](#)

The WMO initiative would create a network of ground-based measurement stations that can verify worrying air quality data that's been flagged by satellites or airplanes, potentially in the next five years.

“At present, there is no comprehensive, timely international exchange of surface and space-based greenhouse gas observations,” the UN agency said, as it urged “improved (international) collaboration” and data exchange to support the 2015 Paris Agreement, which provides a roadmap for reduced carbon emissions and climate resilience.

Methane mystery

“It’s not just anthropogenic emissions (that will be monitored), but what the forests are doing, what the oceans are doing,” said Dr. Oksana Tarasova, a Senior Scientific Officer at WMO. “We need this information to support our mitigations, because we have no time to lose.”

In 2022, Dr. Tarasova continued, WMO reported the largest-ever observed increase of methane “and the reasons of this increase are still not known, so one of the functions of this new proposed infrastructure would be to help fill in the gaps which we have in our knowledge regarding the observations and regarding the use of these observations.”

Climate of understanding

Cooperation between governments, international organizations and the private sector will be essential, if the proposed Global Greenhouse Gas Monitoring plan is to be viable, WMO has stressed.

Just as important will be increased coordination between surface-based, airborne and space-based observation networks.

“With more precise and more long-term data, we will gain a better understanding of our changing atmosphere,” the UN agency said. “We will be able to make more informed decisions and we will understand if the actions we have taken are having the desired effect.”

Some governments and international organizations already carry out specific atmospheric monitoring and maintain datasets, but “there is no overall steering mechanism and there is undue reliance on research funding”, WMO explained, in support of the creation of a single and internationally coordinated atmospheric monitoring body.

More electric vehicles on the road will mean less pollution and lower greenhouse gas emissions.

IMF/Crispin Rodwell More electric vehicles on the road will mean less pollution and lower greenhouse gas emissions.

Trace race

The Earth's atmosphere is mainly made up of nitrogen and oxygen, but there are also many different trace gases and particles that have a substantial impact on life and the natural environment.

Since industrialization, emissions of greenhouse gases have changed atmospheric composition dramatically.

In particular, WMO has warned repeatedly that increasing levels of greenhouse gases such as carbon dioxide and methane are contributing to global warming and driving climate change.

These and other pollutants are also affecting air quality for humans, agriculture and ecosystems, which is why accurate measurements of the air we breathe is so important, climate scientists believe.

“Accurate, reliable data and knowledge about the levels of pollution and atmospheric deposition also help us to better understand their impacts on the environment, human health, biodiversity loss, ecosystems and water quality, and to either mitigate those impacts or put protective measures in place,” the UN agency said.

CCC IN THE NEWS:

DWIZ ONLINE

[Mahalaga ang scientific research pakikilahok ng lokal na pamahalaan sa pagtugon sa pabago-bagong klima](#)

RT: 34:n 10

ito ang binigyang diin ni Climate Change Commission Vice Chairperson at Executive Director Robert Borje sa isang event sa Ilocos Norte.

Sinabi ni Borje na importante ang papel ng siyensya para makamit ang tagumpay sa climate change habang malaki rin ang ambag dito ng ibang researchers...