



# NEWS ROUNDUP 20 APRIL 2023 [08:00 am]

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## **CLIMATE HOME NEWS**

# German official sees 'a chance' Cop28 can agree to phase out fossil fuels

By: Reuters and Joe Lo

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#### **CNN**

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By: Tristan Nadalo

The Philippine and German government agree to further improve cooperation in addressing the impacts of climate change, and to help those deeply affected by the climate crisis.

#### **DW AKADEMIE**

# The global jet set feels the heat over climate change

By: Andreas Spaeth

The world's super-rich contribute to climate change more than the rest of us, as their private jets leave huge carbon footprints. But could governments realistically ban these types of flights?

## MALAYA BUSINESS INSIGHT

## Five urban development aspirations for Metro Manila

Metro Manila's forecast of becoming a global power city is challenged by the consequences of rapid urbanization. The UN-Habitat lists the effects of climate change, natural disasters that hamper urban infrastructures and city competitiveness, unequal livability, job creation, and poverty reduction.

# **Preparing for El Niño**

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## **MANILA BULLETIN**

## **ELEVENTH HOUR: 8 simple ways to invest in our planet**

By: Climate Reality Project

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## PHILIPPINE DAILY INQUIRER

# Metro Manila to sizzle at 35°C on Thursday, April 20 - Pagasa

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Hot weather as high as 35 degrees Celsius is forecast for Metro Manila on Thursday, the Philippine Atmospheric, Geophysical and Astronomical Services Administration (Pagasa) said.

## PHILIPPINE NEWS AGENCY

## Legarda renews call to establish coastal greenbelt zones

By: Leonel Abasola

Senate President Pro Tempore Loren Legarda on Wednesday reiterated her call to pass a measure that seeks to establish national coastal greenbelt zones across the country that will play a critical role in disaster reduction and climate change mitigation.

#### **RAPPLER**

# Despite pledges, PH banks continue to finance fossil fuel industry - report

By: Iya Gozum

Despite pledges to reduce coal exposure, Philippine banks financed \$867.08 million (P48.97 billion) worth of coal and fossil fuel projects from the period of April 2022 to March 2023, according to a new report released on Tuesday, April 18.

# Scorching heat starts to affect daily activities in Cagayan de Oro

By: Cong Corrales

The sweltering heat has brought cycling enthusiast Pat Jared Pangantihon to a standstill, forcing him to call off all his planned mountain bike excursions in the city's upland villages this week.

## **SUNSTAR**

## **DENR-Davao continues to find trash at Mt. Apo**

By: Iona Finlay Mendoza

SINGLE-use plastics and other types of trash continue to be found at Mt. Apo, according to the Department of Environment and Natural Resources in Davao Region (DENR-Davao) on Tuesday, April 18.

## THE MANILA TIMES

# **SMEs' place in the journey to sustainability**

By: Eba May Desabelle-Tibubos

Every year, the accounting community in the country tends to latch on to one or two trendy business topics. You'll notice it by how frequent a subject is being offered as a webinar session by several accounting organizations over a given period. A "hot" talking point as of late is sustainability in business. And with the rising effects of anthropogenic climate change affecting most Philippine businesses on a yearly basis, it's really about time that it is one.

## THE PHILIPPINE STAR

Germany's climate envoy: Philippines has 'gigantic' potential in solar, wind power
By: Gaea Katreena Cabico

Germany can help the Philippines—which has massive renewable energy potential—achieve a cleaner and safer future powered by renewables, Berlin's climate envoy said on Tuesday.

## THE VISAYAN DAILY STAR

# [Opinion] The challenges of Philippine agriculture

By: Ariel Guides

Close to one year into office of the presidency, everyone is inclined to ask: What is the future Philippine agriculture under the present dispensation of power?

Information and Knowledge Management Division

#### **CLIMATE HOME NEWS**

German official sees 'a chance' Cop28 can agree to phase out fossil fuels

By: Reuters and Joe Lo

Germany sees "a chance" that a deal to accelerate phasing out fossil fuels – similar to the one reached over the weekend by the Group of Seven rich nations – could be done at this year's Cop28 U.N. climate summit in Dubai, a senior government official said.

In the joint statement at their meeting in Sapporo, Japan, G7 energy and climate ministers agreed "to accelerate the phase-out of unabated fossil fuels so as to achieve net zero in energy systems by 2050 at the latest".

The German official, who spoke on condition of anonymity, said he believed there is 'a chance' to reach a similar deal at the U.N. climate summit, to be hosted by the United Arab Emirates, a major oil producer and a member of the Organization of the Petroleum Exporting Countries, from Nov. 30 in Dubai.

"In the Gulf region, they (UAE) are the country that is most going into the (green) transition. They are sitting on oil and gas, but they know they need to go into the future with renewables in order to still have a business case in 30 years," the official said.

Germany was part of a coalition of nations which pushed at Cop27 last year for an agreement to phase out fossil fuels. But their proposal was blocked by Saudi Arabia, Iran and Russia. Under UN rules, any country can block an agreeement.

As host, the UAE will ultimately control what goes in to the draft texts, which all countries are then asked to sign up to. In February, the UAE's environment minister Mariam bint Mohammed Almheiri said "we need to...phase out oil and gas in a just way".

At the G7 meeting in Sapporo, the seven big wealthy countries agreed to speed up renewable energy development, part of a wider push to address the energy crisis provoked by Russia's invasion of Ukraine.

Sultan Al Jaber, the UAE minister of industry and advanced technology, participated in the Sapporo summit, telling a closed session that renewable capacity needs to be tripled by 2030 and increased six-fold by 2040, according to his remarks seen by Reuters.

The German official also said on Tuesday that the deal the G7 reached over the weekend on the gas sector allows upstream investments but does not welcome such investments. Japan wants to keep liquefied natural gas as a transition fuel.

"The language (of the communique) does not preclude upstream investment, so if Japan or others do that, then there is no G7 condemning of it, but on the other hand, that we are not calling for it," the official said.

The G7 said investment in the gas sector "can be appropriate" to address potential market shortfalls provoked by the energy crisis, if implemented in a manner consistent with climate objectives.

There are already a lot of investments in the gas sector, the official added, 'probably already too much – and there is no more needed because gas demand is now flat.'

Despite a push by the UK and Canada, the G7 did not call for a phase out of electricity generation with coal by 2030. Japan, the US and EU opposed the target.

## CNN

# PH, Germany eye data sharing, collaboration between scientists to address climate change impact

By: Tristan Nadalo

The Philippine and German government agree to further improve cooperation in addressing the impacts of climate change, and to help those deeply affected by the climate crisis.

German State Secretary and Special Envoy for International Climate Action Jennifer Lee Morgan recently concluded her visit to the country, where she met with survivors of Super Typhoon Yolanda in Tacloban and held a series of discussions with Filipino officials.

In an interview with CNN Philippines, Morgan said one aspect of possible cooperation is sharing of data.

"We have a project on climate research that's actually doing local projection so that you can prepare in advance," she said.

The German official added that among her priorities is to speak with German scientists and how they can work with their Filipino counterparts.

She revealed that her trip was personal since she was a climate change negotiator when Yolanda struck, and she wanted to personally hear and see how the survivors are rebuilding from the devastation.

"The world is not doing what is needed on climate change yet and still emitting so much so we can expect weather events in the future so getting people ready making sure that their homes can stand storms, winds and water is more important than ever," Morgan said.

After visiting Tacloban, the German official said she will closely work with her Filipino counterparts as they prepare for the United Nations Climate Change Conference of Parties set for November in Dubai.

Among the agenda is a breakthrough agreement creating a "loss and damage fund." Under the deal, countries responsible for high carbon emissions will compensate vulnerable nations gravely affected by climate change.

"These funds should not only be for humanitarian assistance right after the disaster but should also explore how this can be tapped during the rebuilding period," Morgan said.

#### **DW AKADEMIE**

# The global jet set feels the heat over climate change

By: Andreas Spaeth

The world's super-rich contribute to climate change more than the rest of us, as their private jets leave huge carbon footprints. But could governments realistically ban these types of flights?

There was once a time when the global jet set aroused the admiration and envy of ordinary people when they boarded private jets for a pleasure trip to the latest in-vogue destination. These days, however, amid climate change, public attitudes have turned negative.

And yet some of the superrich and famous still haven't grasped the need to kick the habit of luxury flying, risking shitstorms on social media that brandish them as "climate criminals."

Last summer, this happened to Kylie Jenner — a darling of US social media and famous for being famous — who posted a video of a 17-minute flight between two California airports barely 70 kilometers (43.49 miles) apart. The short hop caused about one ton of CO2 emissions — an amount for which an SUV would drive over 2,500 kilometers (1,550 miles).

Many prominent figures face similar finger-pointing for their hypocrisy, including former Microsoft chief and philanthropist Bill Gates. While he was writing his book "How to Avoid a Climate Disaster" in 2017, his four private jets emitted 1,629 tons of CO2 during 356 flights.

Only last week, the President of the European Council, Charles Michel, who has to defend the European Union's Green Deal, became the focus of criticism after the news magazine Politico reported he had used private jets for 64% of his travels since taking office in 2019. One trip to Beijing in December 2022 cost the European taxpayer €460,000 (\$504,000).

"I understand people find that expensive and I understand the sensitivity concerning private flights," he said, trying to defend himself in interviews with Belgian media. He then quickly added that European Commission President Ursula von der Leyen also uses private jets extensively but "Nobody blames her for it."

Private jets — the dirty secret of aviation

There is no denying that private jets are the biggest polluters in aviation, as aircraft emissions are calculated on the basis of the number of passengers on board. Rarely are there more than a few people flying on private jets.

Europe's leading clean-transport nonprofit Transport & Environment (T&E), calculated in a 2021 report that private jets cause between 5 and 14 times more pollution per passenger than commercial flights. Private jets are seven times more polluting than flying business class and up to 150 times more than electricity-powered trains.

Although the private jet market is comparatively small in size, activists claim it has a disproportionate impact on carbon emissions. In the UK, for example, private jets are responsible for a fifth of all international flights to and from the country. Globally, the 1% of air travelers who use private jets cause half of all emissions by passenger flights, T&E said.

French billionaires also face shaming campaigns for their extensive use of private flights. People like Bernard Arnault - founder and CEO of luxury company LVMH and currently the world's richest man — operate whole fleets of corporate jets. A Twitter account called "I fly Bernard," which boasts 66,000 followers, tracks Arnault's flight activities with data from publicly available sources.

Five LVMH jets spewed over 257 tons of CO2 into the atmosphere during 16 flights in November 2022. By comparison, the average French citizen causes annual emissions of about ten tons.

Shopping sprees by plane

Criticism about private jets is also growing louder because a majority of flights cover just short distances for which there are more climate-friendly alternatives.

Europe's most-frequented route for business aviation is between Paris Le Bourget — the biggest airport for private aviation on the continent — and Geneva, a distance of just 410 kilometers. A high-speed TGV train connection also runs between both cities, taking three hours and 13 minutes.

Ranking second is the 686-kilometer route from Paris Le Bourget to Nice, which is also served by high-speed rail in just under 6 hours.

How the rich wreck the climate

After France and the UK, Germany is Europe's third-biggest private jet market, with some 58,424 flights in 2022, emitting a total of 208,645 tons of CO2, according to research institute CE Delft.

Almost three-quarters of all departing business jets in Germany are routes shorter than 500 kilometers; nearly two-thirds are less than 300 kilometers. Last year, more than 500 private jets flew between Hamburg and the island of Sylt — a distance of some 190 kilometers that takes about three hours by train.

How to curb jet-set habits

Despite the huge carbon footprint of private jets, the market segment continues to grow. An unprecedented pandemic boom over the last three years often saw jets fully booked.

But climate activists and green politicians are threatening to throttle the sector's growth. Activists recently blocked Amsterdam's Schiphol airport in protest at the number of private jets, while French Transport Minister Clement Beaune seeks EU-wide regulation to restrict their use. His plan includes making the data of all private flights available to the public and higher taxes on private flying.

According to the T&E, at least €3,000 (\$3,028) in taxes should be levied on every private jet departure in Europe. Owners of private jets have an average net worth of €1.3 billion, so the penalty would hardly be felt, the nonprofit said. It also proposes that from 2030 private flights on routes below 1,000 kilometers be powered only by green hydrogen or electricity.

Meanwhile, the first airports in Europe, including Amsterdam's Schiphol airport, have announced a ban on private jets from 2025/26. The move will allow the airport to maximize the use of scarce departure and landing slots for bigger aircraft.

The move is unlikely to cause much consternation, however, as private jet operators don't really like to fly from big airports, as larger jetliners usually get runway priority, meaning they have to watch dozens of flights take off and land before they can depart.

#### **MALAYA BUSINESS INSIGHT**

# Five urban development aspirations for Metro Manila

Metro Manila's forecast of becoming a global power city is challenged by the consequences of rapid urbanization. The UN-Habitat lists the effects of climate change, natural disasters that hamper urban infrastructures and city competitiveness, unequal livability, job creation, and poverty reduction.

Is there a way out of Metro Manila's challenges? Architect and urban designer Chintan Raveshia, and urban planner and sustainability consultant Tony Chan of Singapore-based Arup emphasize urban development should also consider people's aspirations, its changing needs and expectations, and the national identity of the residents.

Finding the identity of the city

Raveshia inspires responsible stakeholders to ask themselves first the most fundamental question: "What's the identity of the city and how do we make its residents proud?"

He quips, "Singapore, a city that is high on everyone's liveability list, is also working with citizens and grass roots organizations to inculcate a sense of 'lovability' for the city. This helps to strengthen the societal bond, increase equity, improve community safety, and exude pride and a feeling of ownership of the city amongst the residents. The balance of liveability, efficiency, and lovability paves the way for a true success of our cities in this climate emergency era".

For his part, Chan believes that a successful sustainable urban development goes hand in hand with the capability to enhance people's quality of life. "We must develop and harness models of development that have low-carbon targets, which are also of a human scale, thriving and inclusive; models that are also just, secured and enhances the quality of life for all its residents. In addition, we should look at creative ways to increase local citizen participation as well as new technologies or products that can support the overarching vision and development objectives", says Chan.

If Singapore reclaims lands for more affordable housing and increased integrated city developments and Melbourne builds accessible green spaces to promote social interaction, what plans would best fit Metro Manila's sustainable and livable future while maintaining its identity? Here are five urban development aspirations Filipinos hope for the country's main political and economic hub.

## 1. Accessibility across all social classes

While Metro Manila is the Philippines' major economic driver – accounting for 32% of the country's gross domestic product (GDP) – it's often challenged in sustaining accessible living conditions for residents across all social classes. UK-based The Economist Intelligence Unit (EIU) ranked Metro Manila 105th out of 139 cities in the Global Liveability Index 2022. The increasing population density in Metro Manila has resulted in some inconveniences in daily conditions like vehicular traffic situations, least green open spaces, high carbon footprint, inaccessibility to affordable housing, and unequal income opportunities.

Urban planners and developers suggest mixed-use planning in the metropolis and coastal developments because they are crucial to achieving the 15-minute concept. Here, residents across all walks of life are encouraged to live a healthy, affordable, and sustainable lifestyle because residential, commercial, and office spaces are integrated within a single development.

# 2. Open green spaces for a healthy and sustainable living environment

Studies shows that Metro Manila has only 5 square meters of green space available per person, this number is well below the 9 square meters set by the World Health Organization.COVID-19 had the entire world reassess their health conditions, lifestyle practices, and environmental situations. The impact was even more drastic in Metro Manila due to population density, crowded space, and insufficient parks and open areas.

Aside from improving air quality and enhancing biodiversity, green spaces also moderate temperatures during the warm season.

## 3. Enhancing Human health and wellbeing

Cities with sufficient healthcare facilities, access to health coverage, and infrastructures that enhance well-being and promote a healthy lifestyle, produce prosperous societies.

The way cities are planned, designed, and executed has a crucial impact on how people live as it presents opportunities and effects on their lifestyles and overall well-being. While there is evident progress in Metro Manila's health sector, rapid urbanization continues to pose risks in communities due to challenges in overcrowded neighborhoods, vehicular emissions, heavy traffic, pollution, and flood-prone areas.

## 4. Resilient community

Resilience is the capacity of individuals, communities, and systems to adapt, survive, and grow in the face of stress and shocks, and even transform when conditions require it. Relevant dimensions under the City Resilience Index

(https://www.cityresilienceindex.org) by the Rockefeller Foundation & Arup, other dimensions include Health & Well Being, Economy & Society, Infrastructure & Environment as well as Leadership & Strategy

As Philippines and Manila grows, we face a dual challenge of adapting to climate change and the need to alter development strategies that are increasingly contributing to global warming. Philippines is among the top 10 countries in the world most affected by climate change in the past 20 years, according to the Global Climate Risk Index As an archipelago, impacts resulting from climate change are immense. In addition, metro Manila's safety and resilience are endangered by various natural disasters.

Natural disasters persist every season due to our geographical location.

Well-planned and executed urban designs have the power to build safe and resilient communities in Metro Manila. Infrastructures like proper bike lanes and walkable streets ensure residents' safety, accessibility, and comfort, whereas science and technology-based solutions that can build flexible structures, multi-use systems, and technologies can help residents adapt and prepare for changing conditions.

## 5. Global and competitive city

Metro Manila is one of Asia's premier regions. As the country's engine growth driver, it has growing investments in infrastructures and multitudes of business investments and developments.

The metropolis' rising potential can further step up by following global models like Singapore, Melbourne, and Hong Kong which created several integrated cities and coastal developments that ushered in a vibrant economy and paved for a better urban lifestyle. These visions create an avenue to further increase opportunities for jobs, better education, better lifestyle, and bustling economic activities.

These can contribute to the Philippines' national and local economies by driving tourism and infrastructure development while also creating equitable and inclusive communities. These, in turn, create a wider room of opportunities and, therefore, attracts more talent.

Building inclusive and sustainable growth centers

When all stakeholders are listened to and addressed, communities will be energized when introduced to well-designed, master-planned and implemented developments. This will result to a lasting impact on Metro Manila's future and its residents because it fosters more inclusive growth and makes the urban landscape an extension of their home.

When a city embraces its history, celebrates its milestones, innovates and adopts for the future, and most importantly, nurtures its residents and responds to their aspirations – it is a city working toward competitiveness and unlocking future potential.

How about you? What would you aspire your city to be?

# **Preparing for El Niño**

For thousands of years, this dire Pacific Ocean phenomenon has existed. It was fishermen from South America who first noticed the seasonal warming of the ocean's waters around Christmas, lasting from six months to a year or even two years. They named this dire situation that causes heavy rainfall, floods, and then a long dry spell and drought after the child Jesus, the El Niño.

As global warming deteriorates, the world has become accustomed to the presence of El Niño. The warming of the ocean surface, or above-average sea surface temperatures in the central and eastern tropical Pacific Ocean, has become a yearly occurrence although the weather phenomenon has ranged from mild to severe.

A moderate El Niño hit the country in 2009 and 2010, and these were preceded by extreme weather conditions, such as when "Ondoy" dumped a month's volume of rain in Metro Manila and Luzon in just one day in 2009.

The Philippine Atmospheric, Geophysical, and Astronomical Services Administration (PAGASA) has projected a 55 to 87 percent probability of a "weak to moderate" El Niño phenomenon in the country this year. This could intensify in the last quarter of the year or early next year, the weather office added.

PAGASA deputy administrator Esperanza Cayanan said their science-based monitoring points to the probability of an El Niño increasing from 55 percent to 80 percent in June, July, August, and September, and around 87 percent in November and December 2023, and January 2024.

Cayanan said PAGASA will issue an El Niño alert next month if the "chances of El Niño developing within the next two months" reaches a 70 to 75 percent probability.

This prodded President Marcos Jr. to direct all concerned government agencies to conserve water and energy in anticipation of, and in preparation for, the dry spell, with the added task of launching a wide information campaign to guide the public on what to do to prepare for any contingency.

The National Disaster Risk Reduction and Management Council (NDRRMC) has likewise been instructed to form an El Niño team to cope with the developing emergency, an order also given to the Office of Civil Defense (OCD).

The Chief Executive also directed the Department of Health (DOH) to anticipate and prepare for possible diseases and illnesses that may occur during the cyclical weather pattern.

The PAGASA said prior to the El Niño, the country would still experience the rainy season between late May to September, with the peak happening between July and September during the southwest monsoon months, with two to three tropical cyclones projected during these months.

This expected volume of rainwater from the southwest monsoon should be collected and stored in our dams and other facilities to mitigate another problem, the water shortage.

#### **MANILA BULLETIN**

# **ELEVENTH HOUR: 8 simple ways to invest in our planet**

By: Climate Reality Project

For many years now, the scientific community has painted a grim scenario of what the future holds if the world fails to act with the urgency and scale needed to address the climate crisis.

To ensure a livable future, the Intergovernmental Panel on Climate Change (IPCC) said that global emissions must fall by 43 percent by 2030 compared to 2019 levels.

While individual actions matter, what will ultimately save our only home, the Earth, from deterioration are systemic changes across the energy, transport, forestry, and other sectors, and the adoption of low-emission or zero-carbon pathways.

This is why we need to band together to demand our leaders and decision-makers both in the public and the private sector to shift from the current extractive, carbon-intensive, and exploitative economic system to a sustainable and low-carbon economic system.

But everyone has to start somewhere somehow. And to jumpstart your journey of being an environmental and climate warrior, here are a few tips:

First, if you can, shift to reusable and eco-friendly products.

Expand your list of reusable and eco-friendly home items from eco-bags, tumblers, and bamboo straws to shampoo bars, all-natural tooth powder, and refillable beauty and care products. Imagine the tonnage of waste, especially plastics, that can be avoided by shifting away from single-use and investing in more sustainable home items.

Second, if you can find a space, grow your own food.

Start saving the seeds of your favorite fruit and vegetable, and plant them in your backyard, pocket or vertical garden, or even in small containers or pots. Adding edible plants to your home jungle can help protect the health of your soil, reduce your own carbon footprint, and live more self-sufficiently.

Third, use active and renewable transport.

Cycling to work, to school, or to run errands is good for your heart and health. The world we live in today will never be the same in the future because of climate change. While

we still have the time, cycle going to local cafes and shops, in parks, or in places that bring childhood memories.

Both the government and private sector must work together to invest in end-of-trip facilities and bicycle-friendly infrastructure like safe bicycle lanes and public parking spaces to encourage more Filipinos to cycle and walk.

Fourth, join the call for a renewable energy transition.

We need to view renewable energy development not just from an environmental or climate standpoint, but from an economic standpoint as well. Many studies and experts are saying that renewable makes good economic sense here in the Philippines, where most electricity is sourced from dirty, expensive, and imported fossil fuels.

Renewable energy will bring down our electricity rates, allow for grid stability and fewer brownouts, provide energy access for all Filipinos, especially those living in communities not connected to the grid; create more jobs, and ultimately result in healthier for the people and planet.

Fifth, share the reality of climate change and the urgency of acting now with your family, friends, and colleagues.

Change starts at home. It starts with planting a seed of information that everyone can be part of the solution — may it be changing our own personal lifestyle to be more mindful consumers, writing to your local government leader to support a policy banning single-use plastics, or discussing with a private business owner the opportunities of installing solar panels.

Sixth, protect your mental health.

The impacts of climate change and the anxiety of climate inaction from our leaders are putting a strain on people's mental health. When everything feels overwhelming, breathe and reconnect with nature by hiking, swimming in rivers and lakes, walking in the park, or tending to your edible home garden.

Seventh, find local climate and environmental causes to support.

Be involved in your community. Learn about the climate and environmental issues in your city or municipality. Find local organizations supporting environmental protection and climate action in your city or municipality. Whenever possible, volunteer your time and talent to help make the local climate and environmental initiatives a success.

Lastly, join a climate change / environmental group.

Find a community or group that will support your climate and sustainability journey and will help you become a better advocate.

Fighting for our planet is not something you should do alone. You are not alone. We cannot work in silos. We should come together and create dynamic synergies in climate action so that we can build replicable, scalable, and sustainable projects, programs, and practices.

Collectively, our voice is stronger. You have many roles to play — from grassroots mobilizers, educators and influencers, to policymakers and project implementers in your own right.

## PHILIPPINE DAILY INQUIRER

# Metro Manila to sizzle at 35°C on Thursday, April 20 - Pagasa

By: Jean Mangaluz

Hot weather as high as 35 degrees Celsius is forecast for Metro Manila on Thursday, the Philippine Atmospheric, Geophysical and Astronomical Services Administration (Pagasa) said.

Based on Pagasa's bulletin released on Wednesday afternoon, the easterlies and the high pressure area remain the carrier of dry weather across the country from April 20 onwards.

"Bukas, mataas ang maitatala na temperatura sa Metro Manila na aabot ng 35 degrees Celsius," said Pagasa weather forecaster Aldczar Aurelio.

(Tomorrow, April 20, temperature reaching as high as 35 degrees Celsius will be recorded in Metro Manila.)

Tuguegarao would also sizzle as temperature in the province will reach up to 36 degrees Celsius. on Thursday, the state weather service also said.

Chances of brief rain showers due to localized thunderstorms are also possible, according to Pagasa, even if Thursday would be generally fair and warm for the entire country.

Below is the list of temperature ranges in key cities nationwide for April 20:

- Metro Manila: 25 to 35 degrees Celsius
- Baguio City: 17 to 25 degrees Celsius
- Laoag City: 25 to 33 degrees Celsius
- Tuguegarao: 25 to 36 degrees Celsius
- Legazpi City: 26 to 33 degrees Celsius
- Puerto Princesa City: 26 to 33 degrees Celsius
- Tagaytay: 22 to 32 degrees Celsius
- Kalayaan Islands: 26 to 33 degrees Celsius
- Iloilo City: 27 to 33 degrees Celsius
- Cebu: 26 to 33 degrees Celsius
- Tacloban City: 25 to 33 degrees Celsius
- Cagayan De Oro City: 25 to 32 degrees Celsius
- Zamboanga City: 24 to 33 degrees Celsius
- Davao City: 25 to 33 degrees Celsius

## PHILIPPINE NEWS AGENCY

# Legarda renews call to establish coastal greenbelt zones

By: Leonel Abasola

Senate President Pro Tempore Loren Legarda on Wednesday reiterated her call to pass a measure that seeks to establish national coastal greenbelt zones across the country that will play a critical role in disaster reduction and climate change mitigation.

Legarda said in the explanatory note of her proposed Senate Bill 1117, or the National Coastal Greenbelt Act of 2022, while mangroves and beach forests and seagrass beds play such important roles in mitigating effects on the environment and livelihood in the country's 822 coastal communities, especially during heavy typhoons, their existence is also at risk.

"We should revive the ecological integrity and restore the bounty of our coastal communities in view of mitigating the damaging effects of natural coastal risks on human lives and properties," she said in her statement.

Legarda said it is about time to develop and implement science-based policies that would restore and regenerate mangrove forests, as well as map coastal resources across the country.

Mangroves and beach forests and seagrass beds act as the natural defense against typhoons, coastal erosions, and storm surges.

Legarda, a known environment advocate, said mangrove forests are one of the most severely threatened and undervalued ecosystems. Land development, reclamation, pollution, and illegal conversion and conversion of mangrove forests into fishponds are just a few of the threats to the country's almost 360,000 hectares of mangrove forests.

With these challenges, she said, it is about time to establish a Comprehensive and Integrated National Coastal Greenbelt Management Plan (NCGMAP) that would protect mangroves and beach forests and seagrass beds.

The NCGMAP shall contain operational plans that will cover the reversion of all abandoned fishponds to mangroves through natural regeneration or replanting with appropriate species.

"These coastal greenbelt zones will protect the country's 822 coastal communities must be protected and the comprehensive water resources management plan must be integrated into all development plans, programs, and projects of all public and private sectors," she said.

She urged the national government and local government units, businesses, non-government organizations, local communities, and the public to participate in the development, implementation, monitoring of plans, and activities of the NTAC, which would institutionalize the coastal greenbelt framework strategy.

#### **RAPPLER**

# <u>Despite pledges, PH banks continue to finance fossil fuel industry – report</u> By: lya Gozum

Despite pledges to reduce coal exposure, Philippine banks financed \$867.08 million (P48.97 billion) worth of coal and fossil fuel projects from the period of April 2022 to March 2023, according to a new report released on Tuesday, April 18.

"The remarkable shift from loans to bonds is what facilitates continued fossil fuel investments," Avril de Torres, deputy executive director of think tank Center for Energy, Ecology, and Development (CEED), said on Tuesday during the release of Withdraw from Coal: End Fossil Fuels' (WFC-EFF) annual coal divestment scorecard.

"Banks must realize that every time they underwrite or facilitate a toxic bond, they have a direct hand in the worsening impacts of the climate crisis," she added.

The report deemed the Bank of the Philippine Islands (BPI) to be the "dirtiest bank" in the Philippines, with the BDO Unibank in second place, climbing up from ranking third in 2022.

Here are the top 10 banks financing coal projects in the Philippines, according to the report. De Torres said the first six banks were the same ones that occupied the top 6 in the 2022 report.

- Bank of the Philippine Islands
- BDO Unibank
- Metrobank
- Security Bank
- Philippine National Bank
- China Banking Corporation
- Rizal Commercial Banking Corporation
- Land Bank of the Philippines
- Development Bank of the Philippines
- Asia United Bank

Established in 2020, the WFC-EFF is a coalition of green organizations, think tanks, and religious groups, including CEED, Living Laudato Si', Catholic Bishops' Conference of the Philippines, WWF Philippines, and Manila Observatory.

Financial institutions were critiqued by the coalition based on loans and underwriting issued for fossil gas exploration and production, transport, the conversion of liquified

natural gas or LNG to natural gas in order to be utilized as fuel and power, and the construction of fossil gas-fired power plants.

Banks' spending on coal was contrasted with their divestment policies to calculate their final score.

Following the report's release, BPI chief sustainability officer Eric Luchangco reiterated the bank's divestment policies established back in 2021. In a text message to Rappler, Luchangco said BPI "remains on track" toward its target to halve coal exposure by 2026 and achieve net zero by 2032.

Meanwhile, BDO pledged to halve coal exposure by 2033.

Scientists, advocates, and world leaders around the world have been sounding the alarm on the pressing need to limit carbon emissions to 1.5 degrees Celsius. A huge part of limiting emissions is phasing out fossil fuel projects.

The United Nations' (UN) Intergovernmental Panel on Climate Change has warned that the window to reverse climate change is "rapidly closing."

What's stopping banks from phasing out coal?

The WFC-EFF report also revealed government banks – the Land Bank of the Philippines and Development Bank of the Philippines (DBP) – were leading in divestment and sustainability policies.

As of March 2022, Land Bank has approved a total of P20.1 billion (\$355.91 million) in loans to support local renewable energy projects.

DBP's Financing Utilities for Sustainable Energy Development (FUSED) Program in 2022 offered loans to increase access to electricity. It has approved 92 loans so far, of which only 27 were renewable energy projects.

However, support for renewable projects is still negated by financial institutions' continuing financing of dirty energy. A report published by the Philippine Center of Investigative Journalism last March said risk was a huge factor in banks' commitment to the industry.

Aside from risk, contractual obligations were also cited as another impediment to banks' refusal to disengage. Torres, however, reminded banks that their responsibility is not only with corporations they entered contracts into but also with customers and shareholders.

"In our scoring we don't only look into already existing transactions but the new ones. The new ones, they can opt not to enter [into] these transactions, but they [still] do," Torres said.

"Reassessing financial mechanisms is not really unheard of.... If banks are going to look at the legal perspective, they shouldn't only see contractual obligations.... There are other legal repercussions that banks should consider," she said in a mix of English and Filipino.

While the scorecard doesn't have enforceability, groups are hopeful that the evaluation would raise awareness among not only banks but also customers and shareholders.

Torres said that in the long term, reports like this – and the public pressure that would result – could pose opportunities for financial institutions to phase out coal.

"This is happening in other parts of the world," said Torres, citing initiatives like the Net-Zero Banking Alliance convened by the UN.

"It is never too late for banks to reinvent radically and urgently to provide hope to humanity in our battle against the climate crisis," added Jing Henderson of Caritas Philippines.

## Scorching heat starts to affect daily activities in Cagayan de Oro

By: Cong Corrales

The sweltering heat has brought cycling enthusiast Pat Jared Pangantihon to a standstill, forcing him to call off all his planned mountain bike excursions in the city's upland villages this week.

"I ride my bike for my health and leisure, but the heat is just ridiculous. I might collapse from heat exhaustion," Pangantihon told Rappler on Tuesday, April 18.

Meanwhile, Emelda Villafuerte, a resident of a rural community in Macapaya, Barangay Camaman-an, had to cancel all her appointments in the city due to the scorching heat. Government weather forecasters are predicting a continuing rise in surface temperature at the onset of the El Niño phenomenon.

With temperatures rising above 30°C in the city since the weekend, residents here are feeling the brunt of sweltering heat on a daily basis.

"I have many important transactions to do at city hall today, but I have to postpone them to next week. Maybe the heat won't be this scorching," Villafuerte said.

The Philippine Atmospheric, Geophysical, and Atmospheric Sciences Administration (Pagasa) has issued a warning about the rising surface temperatures across Northern Mindanao.

The temperature hit a maximum of 32°C on Tuesday, and Pagasa said it would likely be the same on Wednesday – and that's not taking into account the heat index or the measure of how hot it feels to the human body due to the air temperature and humidity.

Pagasa forecast a maximum temperature of 33°C in the city on Thursday, April 20, and back to 32°C the following day.

Based on recent conditions and model forecasts, the El Niño phenomenon will likely develop in the July-August-September season and may persist until 2024, according to Pagasa administrator Vicente Malano.

Based on Pagasa data, low rainfall will persist below 10% for the rest of the year, while high temperatures will begin at 15% during the clustered months of April to June and increase to 60-70% during the clustered months of October to December, as per the National Oceanic and Atmospheric Administration Climate Prediction Center's El Niño Southern Oscillation (Enso) based on three-month groupings.

"With this development, the Pagasa Enso Alert and Warning System is now raised to El Niño Watch. El Niño is characterized by unusually warmer than average sea surface temperatures in the central and eastern equatorial Pacific," read Pagasa's public advisory.

This means that temperatures will continuously rise towards the end of the year as the country experiences El Niño.

Pagasa also advised the public that protective measures should be taken to reduce their exposure to high temperatures, especially the elderly, children, and people with preexisting medical conditions.

Cagayan de Oro City Disaster Risk Reduction and Management Department (CDRRMD) manager Nick Jabagat told Rappler on Tuesday that they have been monitoring the heat index in the city in the past several days.

Jabagat said the CDRRMD has been documenting a heat index of more than 30°C in the city for several days already.

He advised residents to plan their day to avoid being exposed to the heat unnecessarily.

"Always use an umbrella when walking in the city streets, especially at noon," he said.

Jabagat said he was worried that the temperatures would continue to rise and the situation could worsen because of the threat of El Niño.

"We are still in the transition from the wet to dry season," he said.

Although the city hasn't had heat-related emergencies, Cagayan de Oro City Health Office chief Rachel Dilla reminded residents to take precautions.

"We advise people to keep themselves hydrated with balanced fluids containing electrolytes to prevent cramps and seizures," she said, pointing out that heat exhaustion is considered a medical emergency.

Dr. Dilla added, "We should not expose ourselves to the sun for prolonged periods between 10 am and 3 pm when the heat index is at its highest. Individuals suffering from heatstroke should be removed from hot areas and given water and electrolytes if conscious. If unconscious, do not attempt to give water, but bring the person to a hospital."

Cagayan de Oro 2nd District Representative Rufus Rodriguez, meanwhile, said more resilient and adaptive measures need to be employed as soon as possible to mitigate the devastating consequences of climate change in the country.

"I support the government's action to activate a Task Force El Niño. There shall be a national task force to coordinate all efforts to address this problem," Rodriguez told Rappler.

He said national agencies such as the Department of Agriculture (DA), the Department of Environment and Natural Resources (DENR), the Climate Change Commission, and the National Disaster Risk Reduction and Management Council should also activate their task forces.

"The time to act is now. We should not wait until the damage to the environment and our natural resources becomes irreversible," Rodriguez said.

He said his proposed Climate Change Emergency Declaration Act under House Bill No. 6385 has already been approved by the House Committee on Climate Change.

## SUNSTAR

# **DENR-Davao continues to find trash at Mt. Apo**

By: Iona Finlay Mendoza

SINGLE-use plastics and other types of trash continue to be found at Mt. Apo, according to the Department of Environment and Natural Resources in Davao Region (DENR-Davao) on Tuesday, April 18.

Regional Public Affairs Office chief Jayvee Agas said zero-waste policies are in place to prevent littering and trash being left behind at Mt. Apo Natural Park (MANP) but there are still some climbers who violate the rules.

During the monitoring activity on April 3 to 10 at MANP, DENR-Davao said traces of single-use plastics and vandalism on the natural boulders and craters were discovered.

"We cannot perfectly do this because we still have climbers who are still not responsible... (On our part), we continue to remind visitors and climbers to be responsible enough for their waste," Agas told SunStar Davao in an interview.

DENR-Davao said in a separate statement that it was "unfortunate" that trash is still present at Mt. Apo but they said they continue to monitor the activities of the climbers and enforce the zero-waste policies in order to conserve the natural park.

In accordance with the zero-waste policies, some of the banned items at MANP are plastic bottles, non-biodegradable wipes, and unregulated butane canisters to prevent fire incidents.

"The team particularly verified the climbing permits of the trekkers, their adherence to the zero-waste policy and mountaineer's creed of leave no trace. Scouting activities were also done for the possible water sources in the event of a fire incident," DENR-Davao said.

Those who are caught violating the policies will be subject to appropriate fines and in severe cases, they may be blacklisted from MANP.

Fortunately, Agas said the volume of trash they usually discover is not alarming nevertheless, the climbers should still follow the zero-waste policies.

A maximum of 50 climbers per day are allowed at MANP during peak seasons. On normal days, Agas said there are fewer climbers. However, she said they have observed overbooking during the Holy Week break but was immediately dealt with.

"The DENR and the local government unit are doing something about the overbooking. At Mt. Apo, limited carrying capacity only. Dili nato siya ginapa-overbook (We don't allow overbooking). If ever naa, ma-stop man siya on the side of the LGU (If ever there is, the LGU takes care of it). They strictly implement the 50 climbers," Agas said.

#### THE MANILA TIMES

# SMEs' place in the journey to sustainability

By: Eba May Desabelle-Tibubos

Every year, the accounting community in the country tends to latch on to one or two trendy business topics. You'll notice it by how frequent a subject is being offered as a webinar session by several accounting organizations over a given period. A "hot" talking point as of late is sustainability in business. And with the rising effects of anthropogenic climate change affecting most Philippine businesses on a yearly basis, it's really about time that it is one.

Sustainability, in the corporate sense, refers to doing business without negatively impacting the environment and society while still earning enough revenue to remain financially viable for the long term. Many governments around the world have made sustainability in business a priority for them to achieve their own climate change commitments. This usually involves requiring companies — usually large publicly traded ones — to disclose their environmental, social and governance (ESG) data in an effort to make these companies adopt sustainability goals and practices into their core business models.

In 2019, the Securities Exchange Commission released Memorandum Circular 4, Series of 2019 that details its own sustainability reporting guidelines for publicly listed companies (PLCs). It mandates PLCs to submit a sustainability report in accordance with globally accepted standards alongside their annual report. But while this is generally a step in the right direction, there is a strong case why small and medium enterprises (SMEs) should be at the forefront of sustainability efforts.

For one thing, SMEs are a juggernaut in commerce. According to the Philippine Statistics Authority, SMEs make up 99.6 percent of the 1.080 million operating establishments in 2021, supporting the livelihood of over 5 million people or 62.7 percent of the country's total employment and driving up to 40 percent of the country's gross domestic product. With 81.5 percent of these SMEs located outside the National Capital Region, these enterprises also have the indispensable role of uplifting the lives of rural Philippines by fostering trade, creating jobs and strengthening local economies. Yet despite their obvious huge impact in society, we often overlook how these less-visible entities approach these crucial ESG issues.

Many probably do not care a lot about sustainability reporting, and it's easy to understand why. Unlike bigger organizations, most SMEs lack the time, knowledge and resources to grapple with such extensive problems like climate change or social prejudice. And unlike PLCs, these businesses may be run by owner-managers who

aren't compelled to adopt sustainable practices by a board, shareholders or the public. Simply presenting a long ESG checklist and obligating them to comply would just be seen as another reportorial burden that they already don't have enough time nor funds for. So how can one convince the SMEs to adopt sustainable goals and show some accountability in pursuing them?

The most popular way is to present sustainability as an opportunity for efficiency-savings rather than a compliance matter. Practices such as energy conservation, waste recycling, using energy-efficient equipment, solar power and water-saving mechanisms help keep costs down and have proven to be more cost-effective than the usual energy use. SME accountants can use their role as financial advisers to encourage SMEs to adopt these practices by pointing out the quick gains a business can achieve over the years through efficiency.

## Popularity of a green reputation

Aside from savings, SMEs can also benefit from the popularity of a green reputation. More and more consumers are becoming eco-conscious. A 2022 research report from Carousell Media Group and Interactive Advertising Bureau Southeast Asia and India shows that 75 percent of Filipino consumers prefer sustainable and eco-friendly brands. A company with sustainability practices already incorporated in their operations will have access to these new markets supporting green businesses.

Tax laws and regulations are also used by the government to promote sustainability initiatives and projects. For example, Revenue Regulation 5-2019, which implements the tax incentives provisions of the Philippine Green Jobs Act of 2016, grants incentives to qualified enterprises a special deduction of 50 percent of the total expenses for skills training and research development expenses of qualified business entities, and tax duty-free importation of capital equipment that's to be used in creating green jobs.

But since SMEs are mostly run by owner-managers, their personal motivation for taking eco-friendly or socially responsible initiatives is what will matter more than any economically strategic or marketing-friendly incentives. SMEs with owners who are aware and actually care about ESG issues on a more personal level will be adopting sustainability practices more than those enterprises who are only in it for the financial savings.

Owner-managers may realize then that adopting sustainability practices will be less of a choice in the future. A very real existential threat faces SMEs if climate goals won't be reached. Back in 2019, the Philippines was determined as the country most at risk from the climate crisis, according to a report published by the Institute for Economics and Peace. Extreme weather, rising sea levels and death of sea life are just some of the

environmental problems plaguing the country. Unfortunately, SMEs with their limited resources, and the fact that many are located in high-risk areas tend to bear the brunt of these natural and ecological disasters. Research has shown that at least 25 percent of SMEs do not reopen following a major natural disaster.

Facing insurmountable challenges like the climate problem can be daunting, especially for SMEs. So it's imperative for us accountants that any conversations around sustainability must always include the plight of this sector. Accountants are in the unique position to actually influence SMEs. After all, there's no better person to communicate these urgent matters than someone these small businesses already trust. As we approach Earth Day in a couple of days, we should remind ourselves that the journey to sustainability is a process we should be undergoing ourselves now and must not just remain a trendy talking point we occasionally discuss in webinars.

## THE PHILIPPINE STAR

Germany's climate envoy: Philippines has 'gigantic' potential in solar, wind power
By: Gaea Katreena Cabico

Germany can help the Philippines—which has massive renewable energy potential—achieve a cleaner and safer future powered by renewables, Berlin's climate envoy said on Tuesday.

Jennifer Morgan, German special envoy for international climate action, stressed that renewable energy sources such as wind and solar not only mitigate climate change, but also bring energy security and create economic opportunities.

Morgan, the former international head of Greenpeace, is in the Philippines for a dialogue with government officials on climate action and decarbonization — the reduction of carbon dioxide emissions — in the country's energy sector.

"The renewable energy resources that the Philippines has are tremendous. I think there is a gigantic potential here for solar rooftops and offshore wind," Morgan said in an event at Yuchengco Museum in Makati City.

"I hope the discussions here can help foster that and accelerate our bilateral collaboration in those areas," she added.

The Philippines is targeting to boost renewables in its current energy mix, which it hopes will hit 35% share by 2030 and 50% by 2040.

In 2020, only 21% of the country's generated power came from renewables such as solar, wind, hydropower, and geothermal.

Morgan said that Germany, the largest emitter in the European Union, acknowledges its responsibility in contributing to the warming of the planet. Among the objections of smaller economies — including the Philippines in 2016 — to moves to decarbonization is that it could hamper national development.

The Philippines is among the countries considered most vulnerable to extreme weather events caused by the climate crisis, which the international community is trying to address through decarbonization and through ambitious conservation goals.

Morgan visited Tacloban City, worst hit by Super Typhoon Yolanda (Haiyan), on Monday.

## RE, energy efficiency

Germany targets to slash planet-warming greenhouse gas emissions by 65% by 2030 from 1990 levels on its way to becoming carbon neutral by 2045.

Morgan said that prioritizing renewable energy and energy efficiency also generates income and jobs. "We have over 340,000 energy-related jobs in Germany. Last year, our exported renewable energy technology was worth more than \$10 billion."

The German government remains committed to its goal of phasing out coal as a power source by 2030 even as it reactivates coal-fired power plants. Morgan said the step was only a "short-term emergency measure" to manage an energy crisis caused by the Russian invasion of Ukraine.

"Russia's war of aggression has certainly highlighted the connection between fossil fuel imports, energy, climate security, and peace," Morgan said.

According to Berlin's climate envoy, Europe's biggest economy is scaling up the installation of solar powers to enhance its energy security.

"We know that in the medium- and long-term, fossil fuels — they don't make you safer or more prosperous. In the long term, they make you more vulnerable," Morgan said.

"And only if we can work together can we drive that zero carbon economy and avoid even more devastating impacts... That's why I'm so pleased to be here and thinking with the Philippine government how we can accelerate our work together, how we can learn from you, and you can learn from us," she added.

## Nuclear era

Germany on Saturday switched off its last three nuclear reactors, exiting atomic power even as it seeks to wean itself off fossil fuels.

Berlin has been looking to leave behind nuclear power since 2002, but the phase-out was accelerated by former chancellor Angela Merkel in 2011 after the Fukushima nuclear disaster in Japan.

Meanwhile, the Philippines is eyeing to build nuclear power plants—a controversial pet project of the ousted dictator Ferdinand Marcos Sr.—despite opposition from groups

such as the Center for Energy, Ecology and Development and Greenpeace Philippines who have warned that nuclear energy is not cheap, clean, and safe.

The government is also ramping up the development of infrastructure that will support the import of liquefied natural gas.

"The Philippine strategy is to have more options and stop disqualifying certain technologies. However, even if we are open to these technologies, every technology should abide by our environmental laws and standards and it should be compliant with the demands of the demand sector. It should not be supply-driven," Energy Undersecretary Wimpy Fuentabella said.

#### THE VISAYAN DAILY STAR

# [Opinion] The challenges of Philippine agriculture

By: Ariel Guides

Close to one year into office of the presidency, everyone is inclined to ask: What is the future Philippine agriculture under the present dispensation of power?

Rehash or reworded, the Philippine Development Plan 2023-2028 inks that, "agriculture must be modernized and that the agriculture department the country food-secured and resilient with empowered and prosperous farmers". Ironically, the more this framework document asserts the more the measures and actions become blurry in absence of a finite, systematic with realistic working timeline consistent to the prescription of the PDP.

## MAJOR AGRICULTURAL PROBLEMS

As recognized, below are the problems the Philippine agriculture is currently beset with:

- 1. Small farm size; 78 percent farms are less than 3 hectares. Farms have shrunk due to rapid population increase. More houses are built at the expense of agriculture. Arguably, the land reform program was seen to address this concern but with limited or no success.
- 2. Land Conversions. Almost the same as the first one. Additionally, urban landscape and land uses have been re-defined that even agricultural areas are now part of the so called Metropolis.
- 3. Lack or absence irrigation systems. Irrigation is one of the most if not, the most important factor in agriculture. The worsening climate change impact necessitates irrigation and its appropriate engineering and technology must be put in place in order to make agriculture productive.
- 4. Inadequate management programs on soil, pests and diseases. Impact of climate change invites infestations as studies have shown. Without adequate research and funding for this purpose famines might not be far at hand.
- 5. Reduced farm labor. Industrialization and modernization detached from agriculture alienates many of the Filipinos especially the rural youth. While this is a global phenomenon other countries cope to this major gap in their labor force but not the Philippines.
- 6. Expensive and inappropriate agricultural and farming equipment. The ARB's and the Filipino farmers can only hope for the services and farm assistance from the

government. Acquisition of advanced and modern farm tools and equipment remains a privilege.

- 7. Climate change and natural disasters. Philippines is officially identified as one of the top 20 countries prone to natural calamities notwithstanding the dramatic decrease of forest covers, dead water tributaries caused largely human activities.
- 8. Inadequate technology transfer mechanisms. Our technology regarding agriculture is not given enough attention. Our country lacks machinery and technology to improve our produce. We lag behind compared to South East Asian neighbors.

Among the problems enumerated climate change and natural disasters are inevitable. The enacted laws and policies related to this must be synergized and consider agriculture as the fulcrum of the entire web of plans. Crucial to this is the land use planning of local governments in relation to the national agricultural development plan. Advancement of technology and infrastructure development must not sacrifice agriculture rather it must compliment the pursuit of any form of development. The role of the local governments in this light is very important.

Moreover, natural parks must be protected at all times and all other natural state of farm lands to enhance biodiversity and sustain a balanced ecosystem. Encroachment to these lands must not be allowed. In Negros, NNNP and MKNP provides feed irrigation systems to our major crops and are big deterrents to natural calamities.

The major crops that provide considerable employment and significant contributors to our local and national economies must be approached as a complete cycle from production to marketing. For example, sugar production, processing and marketing in ARB communities must seriously considered by initiating appropriate modernization of the countryside. The same goes for rice where farmers produce their own rice production, mill it in their own rice mill and market the product through their leveraging powers.

Finally, science and technology for agriculture is an imperative. Re-inculcation of the values and importance of agriculture may now come in the form of different platforms especially social media. It is important that this is integrated in our education system as part of institutionalization.\*

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