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AL JAZEERA

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BUSINESS MIRROR

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By: Jonathan L. Mayuga

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CTV NEWS

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MONGABAY

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By: Keith Anthony S. Fabro

In the mountainous village of Jayobo in the central Philippines, internet and mobile connectivity are spotty. The nearest town center is an hour's drive along a rough, unpaved road, and electricity has only recently reached the village and remains intermittent. To get information about the weather, Indigenous Suludnon farmers like Adelfa Lebuna must either brave the trip to town — risky during the rainy season — or rely on a battery-powered radio. However, thanks to their traditional knowledge and strong connection to the local agroecosystem, farmers like Lebuna have so far managed to prepare for disasters.

MANILA BULLETIN

[SHDA backs review of housing industry roadmap](#)

By: Bernie Cahiles-Magkilat

Subdivision and Housing Developers Association, Inc. (SHDA) strongly backed the review of the housing industry roadmap 2012-2030 to stay current with the ever-evolving landscape of the industry.

PHILIPPINE DAILY INQUIRER

[Disasters in PH: Experts say there's nothing natural about it](#)

By: Cristina Eloisa Baclig

In the Philippines, the term “natural disasters” is commonly used to describe calamities—typhoons and tropical storms among them—but experts stressed that there is no such thing as natural in disasters.

PHILIPPINE NEWS AGENCY

[No weather disturbance expected in next few days](#)

No storm is expected to enter the country in the coming weeks while the southwest monsoon continues to affect only the western section of Luzon, according to the Philippine Atmospheric, Geophysical and Astronomical Services Administration on Sunday.

[PhilSA, KOICA partner to boost air quality monitoring in PH](#)

By: Ma. Cristina Arayata

The Philippines and South Korea will work together to boost the former's capacity in monitoring and crafting plans and policies concerning air quality.

RAPPLER

[The Green Report: Gen Zs and millennials in the face of climate anxiety](#)

Aside from its impact on livelihood and economy, the climate crisis has also been causing psychological distress, commonly known as “climate anxiety.”

THE PHILIPPINE STAR

[DENR explores co-processing to combat plastic crisis, climate change](#)

By: Gaea Katreena Cabico

The Department of Environment and Natural Resources is exploring the potential of co-processing as a “sustainable” waste management option, a move that green groups said will not address the fundamental causes of the plastic crisis.

[Senate sets August 9 probe on perennial flooding problem](#)

By: Marc Jayson Cayabyab

The Senate has set a hearing on Aug. 9 to investigate the perennial problem of flooding, with the aim of forming a comprehensive master plan that would integrate regional flood control programs in the country.

CCC IN THE NEWS:

THE MANILA TIMES

[\[Opinion\] We should act now before it's too late](#)

By: Commissioner Albert Dela Cruz

WITH Super Typhoon "Egay" (international name: Doksuri) leaving behind hundreds of millions of pesos worth of damage and at least 16 deaths, there is no point in doubting its impact on our food production and security.

Information and Knowledge Management Division

AL JAZEERA

[Record floods ravage Slovenia, PM calls it 'worst' disaster in its history](#)

Slovenia has faced “the biggest natural disaster” in its history, Prime Minister Robert Golob said on Saturday, after devastating floods caused damage estimated at 500 million euros (\$550m), killed three people and destroyed roads, bridges and houses.

Speaking after a meeting of the country’s National Security Council on Saturday, Golob said, “Luckily, last night was easier than the one before”, adding that two-thirds of the small Alpine nation’s territory had been affected.

Record rainfall

The floods were caused by torrential rains on Friday, which caused rivers to swell swiftly and burst into houses, fields and towns. Slovenia’s weather service said a month’s equivalent of rain fell in less than a day.

Experts say extreme weather conditions are partly fuelled by climate change. Parts of Europe saw record heat and battled wildfires during the summer.

Golob said road and energy infrastructure were hit particularly hard, as well as hundreds of homes and other buildings. Thousands of people have been forced to evacuate their homes, and many had to be rescued by helicopters or firefighters in boats.

Slovenia’s army has joined the relief effort, with troops reaching cut-off areas in the north to help.

The STA news agency reported that main roads in parts of Slovenia also remained partially closed on Saturday because of the flooding, including the main highway through the country. Dozens of bridges have also collapsed, and the authorities urged people not to go anywhere until damage is fully assessed.

After three weather-related deaths were reported on Friday, Slovenian media said on Saturday that one more person was found dead in the capital, Ljubljana. Police are yet to confirm the report.

Several severe storms in Slovenia earlier in the summer blew off roofs and downed thousands of trees.

Extreme weather across Europe

Saturday's storms mark just the latest episode in what has been a summer blighted by extreme heatwaves, flooding and landslides across Europe.

Flash floods were reported in Austria, which neighbours Slovenia, on Saturday. About 80 people were forced temporarily to leave their homes in the southern Carinthia province.

At least 16 people were killed, and dozens were missing after a landslide at a resort town in northwestern Georgia, Shovi – famed for its vast forests and mineral water springs, officials said on Saturday.

The landslide occurred on Thursday in the mountainous northwest of Georgia.

“Sixteen bodies have been found in the disaster area, and their identification is under way,” said Teimuraz Mghebrishvili from the interior ministry.

Images showed rescue workers picking through debris while teams worked to shift the soil.

Last month, three people died in Serbia during another deadly storm that tore through the Balkans.

BUSINESS MIRROR

Amid El Niño, UP scientists highlight need for research in marine science

By: Jonathan L. Mayuga

Amid the looming El Niño, scientists find themselves in a tight spot, compelling them to do more research to come up with science-based solutions to the problem brought about by climate change to the country's rich marine biodiversity.

At the forefront of recent discussions on the future of the country's marine ecosystem and the people who depend on the so-called blue economy, scientists from the University of the Philippines Diliman-College of Science's Marine Science Institute (UPD-CS MSI) presented over 100 papers at the recent 17th National Symposium on Marine Science in Batangas City from July 20 to 22.

With the theme, "Saving Our Seas: Restoring Marine Systems for People and Nature," the national symposium was sponsored by the Philippine Association of Marine Science (PAMS).

It was held on the heels of the World Meteorological Organization's warning that global sea surface temperatures hit all-time record highs in June.

Knowledge-sharing, best practices

During the event, Dr. Gil Jacinto, who recently retired from MSI, highlighted the importance of the country's researchers in his speech.

Dr. Florence Onda, MSI deputy director for research, meanwhile, said that symposiums like that by PAMS give UPD MSI an opportunity to share results and best practices to other researchers.

"The discussions allow us to build on what we already know, help others progress in their own work and learn from feedback on how to improve further," Onda said.

"Moreover, PAMS strengthens camaraderie, widens networks, and facilitates future collaborations," he added.

Dr. Jayvee A. Saco, PAMS 17 president and organizer of the event that is held every two years, said it is an avenue for everyone in the Philippines, and even those from abroad, to gather in one venue and share scientific research on marine science.

Wealth of knowledge in marine science

The Philippines has a wealth of knowledge in marine science, thanks to scientists and researchers who tirelessly work to learn about the effects of climate change to the country's marine ecosystem.

During the event, at least 230 oral presentations and more than 130 poster presentations geared toward the restoration of marine research, said Saco, a 2020-2021 Balik Scientist of the Department of Science and Technology (DOST). He is also the head of the Verde Island Passage Center for Oceanographic Research and Aquatic Life Sciences-Labo Campus.

"This is the best time for us to share our research and have information on best practices from different universities, NGOs [nongovernment organizations], academe and government," said Saco, an expert from the Batangas State University who the BusinessMirror interviewed via Zoom on July 30.

Experts from various fields of marine science spoke during the plenary. Besides the plenary, a total of 230 parallel sessions were simultaneously held during the three-day symposium, wherein current trends in marine science, best practices and the latest technology, such as in aquaculture, were discussed, especially those being cultured, to boost production.

Younger scientists, researchers

Scientists and researchers in marine science are now attracting younger generations of scientists and researchers as observed in the symposium.

"The trend is that many young scientists and researchers are now getting involved in marine science," which is very encouraging for the future of marine science in the Philippines, Saco pointed out.

He said that younger researchers are actively helping in the knowledge-generation task of experts in various fields of marine science.

"We observed that a lot of participants are joining and doing more research and their studies are very much aligned to the theme of the symposium," Saco said.

Resilience to climate change

The symposium, he noted, covered challenges posed by the changing climate and changing environment, including El Niño, which is seriously posing a threat to the country's marine ecosystem and rich biodiversity.

In the face of El Niño, the importance of research in marine science is highlighted, said Charina Lyn Amedo-Repollo, program head, Professional Masters in Tropical Marine Ecosystems Management and Assistant Professor in Physical Oceanography at the UPD MSI.

"Marine science is very important; you learn a lot of disciplines. It is very important for an archipelagic country like the Philippines," said Amedo-Repollo, underscoring the vast potential of harnessing resources in the so-called blue economy during a separate interview with the BusinessMirror via Zoom on July 30.

Filling the knowledge gap

According to Amedo-Repollo, while there are tons of researches in marine science, there is still a wide gap that compels more studies on the subject matter, particularly because of climate change.

For one, she said the Philippines has no economic valuation of the various ecosystem services. Studies on putting value to the country's natural resources, like corals, mangroves, and other habitat-forming species, or the marine species themselves are still lacking.

She added that the country lacks a national database on marine resources, which is a must for the country to know on what needs to be protected, harnessed, or used to maximize the benefits from the so-called "blue economy.

"Other countries like Japan and the US have national database of their natural resources. We don't," Amedo-Repollo lamented.

"We are recommending to our national government to have a centralized database. We have database from Namria [National Mapping and Resource Information Authority], there is also database on biodiversity, but they are bits and pieces," she explained.

Climate change-related research

According to Amedo-Repollo, El Niño is very evident in the country's weather pattern.

“We feel it. If there’s El Niño, we experience drought [while] there’s flooding in other parts. It impacts on agriculture, fisheries, flora and fauna, and there are organisms and animals that could not cope with the effect of El Niño,” she pointed out.

It’s adverse impact in terrestrial area also affects the marine environment.

“We have this so-called ridge-to-reef approach in environmental protection and conservation. What happens to our forest also affects our reefs and coastal and marine environment,” she added.

On the marine environment, El Niño has adverse impact, such as coral bleaching.

Amedo-Repollo said while there are indeed tons of researches, the challenge is how to translate them into policies.

“The government knows there is a need for scientific research. They even fund some researches. Even the DENR [Department of Environment and Natural Resources] recognizes the importance of research and they use it in planning. This includes taking into account climate change,” she said.

Target-specific research

Dr. Aletta T. Yñiguez, an expert in Marine Ecology, Biological Oceanography and Ecological Modeling, said there is still a wide gap in marine science research, to ensure science-based management of the country’s marine resources.

A professor at the UPD MSI and head of UP Cradle that is based in Puerto Galera, Yñiguez told the BusinessMirror via telephone interview on July 31 that impacts of climate change, such as on El Niño, affect behaviors of fish and other marine wildlife.

Yñiguez, whose most recent work on long term trends for the northern Zamboanga sardine fishery including climate/the El Niño-Southern Oscillation, said sardines are affected by change in temperature of the ocean.

She cited a recent study by a team of researchers focused on the effect of El Niño on sardines production, underscoring the economic importance of sardines as part of the dietary requirements of Filipinos, to canning industry, and of subsistence fishermen who depend on the bounty of the ocean.

“We need long-term planning for fisheries based on this research. We need to know why fisheries production is going down, besides overfishing, what is affecting our fish stock,” she said.

According to Yñiguez, other marine species and the marine environment are affected by climate change.

She agreed that there is a need to come up with science-based policies to effectively manage the country’s resources, with intense research focusing on marine science.

“We really need to do more collaborative research—a collaboration between the academe, the government and other funding institutions and other stakeholders—and translate these researches into meaningful policies and action to maximize the benefits of having a healthy and biodiversity-rich marine environment,” Yñiguez pointed out.

CTV NEWS

[More people go missing and thousands are evacuated as northeast China is hit by more floods](#)

Rain continued to pelt northeastern China in the wake of Typhoon Doksuri Saturday, as authorities reported more fatalities and missing people while evacuating thousands more.

One person died and five went missing in the city of Shulan in Jilin province, which has seen five straight days of rainfall, according to state media.

Over 14,300 people were evacuated from the city of more than 700,000, according to the local disaster relief agency. State news agency China News Service showed images of waterlogged streets around homes and factories. The average precipitation in the city had reached 111.7 millimetres (4.4 inches) by Friday afternoon.

China is struggling with record-breaking rainfall in some areas while others suffer scorching summer heat and drought that threatens crops. The heavy rains - remnants of Typhoon Doksuri - have battered northern China since late July, disrupting the lives of millions. Flooding near Beijing and in neighbouring Hebei province this week killed at least 22 people.

In northeastern Heilongjiang province, which is known as China's "great northern granary," rain inundated farms and flooded streets, leading to the evacuation of thousands.

In the city of Shangzhi, heavy rainfall turned roads into rivers and inundated thousands of households.

National emergency management authorities said 25 rivers across Heilongjiang threatened to burst their banks, while disaster relief groups have been dispatched to the province.

In Heilongjiang's capital of Harbin, more than 53,000 people had to be evacuated as multiple reservoirs and rivers exceeded safety levels while some 41,600 hectares (103,000 acres) of crops were damaged.

In the city of Yushu in Jilin province, about 120 kilometres south of Harbin, flooding forced the evacuation of around 19,000 people.

Meanwhile, in Hebei province around Beijing, which saw some of the region's worst flooding in the past few weeks, authorities issued fresh alerts for rainstorms on Saturday.

Floodwaters in Zhuozhou, southwest of Beijing started to recede Saturday, state media reported, allowing some of the 125,000 evacuated residents to return to their homes.

The death toll in the 11 million-strong city of Baoding reached 10 while another 18 people are still missing, local authorities said Saturday.

Floods damaged roads and washed away bridges in the city's Yesanpo Scenic Area, a national park known for its gorges and mountains.

MANILA BULLETIN

[SHDA backs review of housing industry roadmap](#)

By: Bernie Cahiles-Magkilat

Subdivision and Housing Developers Association, Inc. (SHDA) strongly backed the review of the housing industry roadmap 2012-2030 to stay current with the ever-evolving landscape of the industry.

SHDA Chairman Arlene Keh noted in a statement that the roadmap was initially created for the years 2012 to 2030 in collaboration with the Centre for Research and Communication.

However, to stay current with the ever-evolving landscape, Keh explained that the roadmap is presently undergoing updates to account for emerging trends and new developments in the industry.

She cited the need to meet the young working middle-class needs and address the challenges with immediate intervention. These two goals are also aligned with the housing roadmap. The industry has estimated a housing backlog of 5.6 million units.

Likewise, she highlighted the importance of tackling climate change and embracing disruptive technologies for improved construction and project management.

“Roadmap solutions are aimed to help the government bridge this [supply and demand] gap and serve as a guide for both the government and the private sector in the pursuit of strategies, policies, and overall growth and development in the housing industry,” said Keh.

SHDA envisions the next decade to be a transformative period where housing becomes a flourishing sector and a driver of economic growth and a catalyst for social intervention.

According to the group, the housing industry roadmap should center around four crucial pillars: firstly, ensuring access to land for settlements and streamlining the permitting process; secondly, finding sustainable and affordable housing solutions; thirdly, boosting the production of resilient and innovative housing communities; and finally, incentivizing private sector engagement in segments grappling with high housing backlogs.

In line with these efforts, SHDA has also expressed their support to the creation and institutionalization of the Department of Human Settlements and Urban Development (DHSUD), as well as the Pambansang Pabahay Para Sa Pilipino (4PH) Program of the current administration.

For his part, SHDA National President Ar. Leonardo “Bido” Dayao noted that critical to the roadmap is the maintenance of their strong partnership with the Home Development Mutual Fund (HDMF), also known as the Pag-IBIG Fund. This includes sustainable financing for both developers and buyers as the common objective of SHDA and Pag-IBIG.

“HDMF has actually announced the availability of some P125 billion for home financing and SHDA members will continue to build and deliver quality and affordable housing to support and access the HDMF plan,” said Dayao.

SHDA also aims to assist a substantial number of overseas Filipino workers in owning homes in the Philippines, utilizing online platforms and exhibitions to showcase available housing units and products.

Keh cited SHDA’s active involvement in promoting sustainability and inclusivity in housing. They support government policies and planning at both national and local levels, integrating these values into strategies, policies, and programs for the benefit of developers and homebuyers.

MONGABAY

[In Philippines, climate change tests Indigenous farming like never before](#)

By: Keith Anthony S. Fabro

In the mountainous village of Jayobo in the central Philippines, internet and mobile connectivity are spotty. The nearest town center is an hour's drive along a rough, unpaved road, and electricity has only recently reached the village and remains intermittent. To get information about the weather, Indigenous Suludnon farmers like Adelfa Lebuna must either brave the trip to town — risky during the rainy season — or rely on a battery-powered radio. However, thanks to their traditional knowledge and strong connection to the local agroecosystem, farmers like Lebuna have so far managed to prepare for disasters.

Days before Typhoon Haiyan hit on Nov. 8, 2013, Lebuna says her husband, Leopoldo, had a disturbing dream. “There was someone shouting, giving a warning. He woke up and asked, ‘What was that? Why did I dream that?’ He told us to find shelter because a storm was coming,” the 51-year-old mother of six tells Mongabay.

The day after the premonition, the Suludnon community noticed signs of the approaching calamity: birds, snakes and bees retreating into the mountains, tree leaves turning upside down, and farm animals acting erratically. Well acquainted with these natural climate hazard indicators and warning systems, families like the Lebnas harvested their crops and stocked up on firewood to help weather the storm and its aftermath.

Later, they heard a warning through the radio about Haiyan, known in the Philippines as Yolanda. The typhoon went on to become the deadliest storm in the country's modern record, killing more than 6,000 people. But initially, the tribe didn't expect it to be stronger than previous storms.

When Haiyan hit, the wind sounded like a crashing airplane, Lebuna recalls. It forced her family to take cover on the floor as their roof peeled away and trees toppled. “Fortunately, we were not hit by those falling objects,” she recalls. “Oh, I cried and cried. Our belongings were soaked, our house was destroyed, and only the skeletal structure remained on the ground.”

The Lebnas and their neighbors rebuilt their lives, relying on their agroecosystem and traditional agroecological knowledge.

However, the Suludnon tribe, like other upland Indigenous farming communities across the Philippines, have found themselves grappling with the climate crisis, which triggers increasingly frequent extreme weather events, as well as crop pests and disease. These rapidly escalating catastrophes strain their time-refined coping mechanisms, making it challenging to sustain farming traditions without adequate government support.

Biodiversity-based farming system

The central Philippine province of Iloilo lies 465 kilometers (290 miles) from the capital, Manila, and hosts the Suludnon, also known as the Panay-Bukidnon. For generations, Philippine Indigenous communities like the Suludnon have practiced biodiversity-based farming systems to sustainably ensure year-round abundance of food and income. “The land is as precious as gold to us as it sustains our livelihood — it’s been our home since the beginning,” Lebunga says.

Farmers in Jayobo practice agroforestry, with corn, root crops like cassava, sweet potato and taro, and a variety of native and fruit trees intercropped. This approach helps with water and soil retention, as well as mitigating the recurring problem of flash floods and landslides here.

Around the Lebungas’ hilltop home, they cultivate a diverse range of fruits, including rambutan, jackfruit, avocado, coconut, lanzones, coffee and bananas, to supplement their income. They also preserve native trees like narra (*Pterocarpus indicus*), recognizing the importance of adhering to state forest regulations.

“We are taking care of the forest because if it is destroyed, those below, like the crops you plant, will also be affected,” says Leopoldo, pausing from weeding his lowland farm and taking shelter under a tree shade to speak to Mongabay.

Leopoldo looks out over the rolling hills where his tribe grows resilient upland rice varieties like caporcas, sulig, malido, asuzena, putot, kapigsik and tresmarias. These varieties naturally adapt to climate hazards, tolerating changes in temperature and moisture. Farmers prepare the upland for planting using cooperative soil layering, a practice called dagyaw, creating terraces near irrigation areas.

By cultivating a variety of crops, the Suludnon have been able to safeguard their food supply and income year-round, reducing vulnerability to climate change’s economic impacts.

“We shouldn’t underestimate their traditional practices because even without formal education, they understand the importance of crop diversification,” says Jelly Brillan, a

Suludnon and retired professor of agriculture at West Visayas State University who co-authored a related study. In case of calamities or pest and disease outbreaks affecting their bananas and rice, they can turn to root crops as substitutes: “They have alternatives for survival because if they don’t think of solutions, they won’t immediately receive assistance from the government.”

Edwin Labordo, president of the Lambunao Natural Farmers Association, emphasizes this adaptability and harmonious relationship with nature, maximizing available resources and embracing seasonal changes. Labordo, a retired education supervisor, says his community prioritizes environmental well-being by avoiding synthetic fertilizers that can pollute the water, degrade the soil, and contribute to greenhouse gas emissions.

Instead, they enrich their soil with high-nutrient ashes from burned weeds during the *kaingin* (swidden farming) to sustain their primary cash crops: banana and coffee.

“We also enhance soil fertility with compost made from [nitrogen-fixing] *madre de cacao* [*Gliricidia sepium*] and *agoho* [*Casuarina equisetifolia*] leaves, and carefully weed around the crops to prevent competition for organic fertilizer absorption,” the 62-year-old organic farmer adds.

Choosing when and where to plant is also key to agricultural productivity.

“During the rainy season, you should not plant in lowland areas to avoid the crops from being waterlogged and rotting; plant in the upland instead,” Lolita Tizon, a 66-year-old tribal leader, tells Mongabay one rainy Sunday in her lowland home. “When it’s dry season, it’s preferable to plant in the lowland because that’s where the water is.”

During the upland rice harvest, the Suludnon carefully use the *kayog*, a triangular blade with a wooden handle, in a quiet manner as a mark of respect for the crop, as they believe that excessive noise during harvesting can diminish yields. After the harvest, they refrain from consuming the freshly gathered rice until granted permission by their ancestors, and their initial harvest becomes a joyous occasion of gratitude, marked by an offering of animals proportional to the size of their family.

“Their keen and close relationship with the environment has enabled them to develop, practice, and pass down these strategies across generations, which have proven invaluable for their survival and adaptation, particularly in the face of observed environmental changes,” Brillon says.

Indigenous beliefs and rituals

Anna Razel Limoso Ramirez, a cultural researcher at the University of the Philippines Visayas, says Suludnon communities value their environment deeply due to the profound influence of their worldview on their traditional and ecological knowledge.

“There exists a spiritual connection wherein every action they do is deeply rooted in their belief of interacting with the unseen guardians of those spaces,” she tells Mongabay in an instant message.

The Suludnon have a deep-rooted tradition of rice farming, intricately woven with rituals passed down from their ancestors. As part of their cultural heritage, they offer sacrifices like butchered chickens in front of the rice fields to appease the spirits called mariit. On an altar, they also present offerings like ibus (sticky rice wrapped in young coconut leaves), suman and alupi (cassava wrapped in banana leaves). These are done to seek protection for their farms, ensure a fruitful harvest, and ward off potential threats from pests and disease.

Before harvest, the Suludnon walk around the rice fields, piercing the ground with sticks at each corner, and tying turmeric with black fabric. This act serves as a protective measure, warding off malevolent spirits from entering the fields and disrupting the harvest.

“By performing this ritual, the spirits are sent away, signifying that you, as the landowner, have reclaimed the space. They will not be able to cross the boundary that you have set,” Leopoldo says. Failure to perform this, he says, may result in the spirits themselves harvesting the rice, causing losses and difficulties for the community, especially during disasters.

The Suludnon people have also honed their keen observation skills of their environment, enabling them to develop their own climate hazard indicators and warning systems.

“They can read environmental signals as their ancestors have done, and this knowledge ensures their protection from calamities and shows their resilience,” Ramirez says.

They closely observe animal behavior and changes in plant characteristics around them, Tizon says. The blooming of orange flowers on the dapdap tree (*Erythrina* spp.) signals the start of the rainy season, while their falling indicates the beginning of the dry season. The presence of numerous fireflies on the biri tree (*Ficus cumingii*) warns of potential floods and landslides.

The tribe interprets the position of the moon and other celestial bodies in relation to their farming activities, Labordo says. When the moon tilts sideways (tagilid ang buwan), it predicts an upcoming food scarcity. Periods of unusual cold presage heat waves, and vice versa, guiding them to plant crops that can withstand specific extreme environmental conditions. For instance, during excessively hot weather, they don't cultivate water-dependent rice, corn and vegetables, Labordo says.

More support needed

The Suludnon harvest their coffee between November and December. However, when Typhoon Haiyan struck, triggering destructive landslides, their coffee trees were completely devastated. It took years to recover, and subsequent harvests still haven't been able to match the abundance they once enjoyed.

"The newly grown coffee plants have started producing fruits, but the yield is still small, just a few," says Adelfa. It's a slow process. Now, we're getting around 100 kilos, which is much lower compared to the 200 to 500 kilos we used to harvest annually before Typhoon Yolanda," she says, while demonstrating the picking of small green coffee beans.

Forecasts of five to seven tropical cyclones hitting the Philippines in the second half of 2023 have intensified her concerns.

"Well, if I plant now and it gets destroyed anyway, I might as well hold off for now," Adelfa says. However, she says she worries about their rice and corn that have already been planted. "But if you don't sow, you won't reap."

Besides typhoons, a crop disease called bunchy top virus threatens Suludnon farms, as well as banana-growing areas across the globe. The disease is spread by aphids, something research suggests is happening at ever higher elevations due to climate change. Hevel Lazara, 35, says his family's banana plantations are often knocked down during typhoons, while the virus has stunted the remaining stands. In the early 2000s, they used to have 3 hectares (7.4 acres) of banana plantations and harvested 1 metric ton per month, but now they only have 1 hectare (2.5 acres) left, and the yield is significantly reduced.

"You can no longer benefit from them because they die. Once the mother plant is infected, the same fate awaits the offspring. Efforts to eradicate the disease are in vain as it persists. Despite a promising growth for a few weeks, it suddenly turns yellow and wilts," says Lazara, a father of three who now resorts to driving a motorbike taxi to support his family.

These ongoing challenges emphasize that even self-sufficient Indigenous communities like the Suludnon now require sustained government support to better navigate the increasingly hostile climate.

“While government support exists, it may not always reach everyone in the mountains immediately,” Brillon says. “Therefore, they rely on Indigenous knowledge to adapt and survive in these new environmental conditions.”

The Suludnon say they need sustainable farm inputs, support for alternative livelihoods such as raising chicken and pigs, product marketing, and market access, in addition to the university’s agricultural technology transfer assistance and the government’s farm-to-market road project.

“The government should support us farmers by providing machinery like a hand tractor, and offering assistance with fertilizers and seeds,” Adelfa says. “While we usually plant local rice seeds, having high-quality ones would be beneficial. Also, creating livelihood opportunities through crops suitable for our fields is essential.”

Brillon emphasizes the need for two-way knowledge sharing to build a food-secure society in the face of climate change, where the government and civil society learn from Indigenous farmers’ practices, and farmers contribute to climate-proofing the agricultural sector through integration of their techniques into national and local plans.

“It is crucial to share this knowledge with other communities,” he says, “as the strategies and practices that work for one community may also be applicable and beneficial to others, and vice versa.”

PHILIPPINE DAILY INQUIRER

[Disasters in PH: Experts say there's nothing natural about it](#)

By: Cristina Eloisa Baclig

In the Philippines, the term “natural disasters” is commonly used to describe calamities—typhoons and tropical storms among them—but experts stressed that there is no such thing as natural in disasters.

In a country where an average of 18 to 20 typhoons are projected to hit per year, the term natural disasters have been widely used to describe such climatic events—which also includes heatwave, drought, storm surges, and flooding.

Throughout the years, various literature and news reports have used the phrase. In his recent State of the Nation Address, President Ferdinand “Bongbong” Marcos Jr. likewise used it in detailing the administration’s disaster response.

“We have learned many painful lessons from past disasters but we continue to be alert and prepared in our disaster response. It has, in fact, been commented that sometimes we are over-prepared for such natural disasters,” Marcos said.

“Our evacuation centers are being upgraded to withstand the greater forces of the new normal of extreme weather, as well as other natural and man-made disasters,” he added.

However, several experts have called for a stop to using the phrase natural disasters. They also warned of the possible danger of using the term, which a previous study described as a “misnomer.”

No such thing as ‘natural’ disasters

According to the United Nations Office for Disaster Risk Reduction (UNDRR), “there is no such thing as a natural disaster.” However, it believes that disasters often follow natural hazards.

The #NoNaturalDisasters—an international campaign that aims to change the way organizations, politicians, media, and people in positions of power talk about disasters—stressed that the widely-used term is incorrect and misleading.

“Disasters are not natural. A hazard does not have to turn into a disaster. The decisions that we take as humans are what turn a hazard into a disaster,” said Kevin Blanchard of the #NoNaturalDisasters international campaign in a previous statement.

According to the campaign, several experts have been questioning the use of the term since 1756.

In a previously published article, Mami Mizutori, the special representative of the United Nations secretary-general for disaster risk reduction, said efforts to replace the term natural disasters have been underway since the end of the International Decade for Natural Disaster Reduction in the 1990s.

To understand why the term natural disaster is incorrect and misleading, the campaign cited the most widely used definition of a disaster that has been developed by the International Federation of Red Cross and Red Crescent Societies (IFRC). It states that a disaster is:

“A ...sudden, calamitous event that seriously disrupts the functioning of a community or society and causes human, material, and economic or environmental losses that exceed the community’s or society’s ability to cope using its own resources.”

According to the international campaign, this means that a hazard—defined as the dangerous process, phenomenon, or human activity that may cause loss of life, injury, or other impacts—can only become a disaster once it affects society or communities.

“A hazard is natural, disasters are not. For instance, earthquakes, typhoons, and volcanoes are natural processes that have occurred for millions of years and are not controlled by humans,” the campaign said.

“A hazard will only become a disaster should it impact the workings of a society or community. As such, a disaster can only happen where a society or community exists,” it added.

“That society has made (often historic and often made by elites in positions of power) economic, planning and other socio-economic decisions that will alter their vulnerability to the hazard and change how the hazard impacts them,” the campaign said.

The international campaign underscored that using the word natural to describe disasters sets off the idea that the event would occur anyway despite decisions taken by humans and that there is not much humans can do to alter it “due to its natural origins.”

It added that the term natural disaster might feed an idea that disaster losses from nature were an “act of God,” and further allows powerful decision-makers to not take responsibility for allowing or forcing people to live in vulnerable conditions.

“[T]o say a disaster is natural is wrong. What’s worse, it misleads people to think the devastating results are inevitable, out of our control, and are simply part of a natural process,” the international campaign said.

“Hazards (earthquakes, hurricanes, flooding) are inevitable but the impact they have on society is not.”

Experts then suggest simply using the term disaster.

One-off event, Filipino resilience

Although the Philippines has made strides in disaster risk and preparedness since the creation of NDRRMC after Republic Act (RA) No. 10121 became law, some experts said there are still many things to be considered and issues to be addressed.

Among these issues is the way the country and its government see or frame disasters. In a previous interview with INQUIRER.net, Timothy James Cipriano—a geographer and professor whose research focuses on hazards and disasters—said disasters are often framed as a one-off event.

“We see disasters as a one-off event that happens, [and then] after that, we recover. Like once a disaster ended, we [automatically] go back to our [day-to-day] lives. But in fact, there are what we call compounding hazards that also lead to complex disasters,” Cipriano said.

“I think it is crucial [to examine] how we see disasters. Do we see disasters as a one-off event, or do we see disasters as something that is lingering and is affecting our lives for a longer period,” he added.

Another issue, which experts have time and again criticized, is the tendency to romanticize Filipino resilience whenever disasters and calamities hit and devastate the country.

Filipino resilience has been often depicted through photos and videos of people smiling and laughing amid floodwaters “as if to show that, despite the hardships, everything’s all right.”

“At the individual level, there’s nothing wrong with this narrative: It is certainly true that Filipinos manage to smile even in the direst of circumstances. But to equate smiling faces with resilience, and ending the story at that, is problematic for a number of reasons,” said medical anthropologist Dr. Gideon Lasco in an opinion piece published on INQUIRER.net.

For Dr. Emma Porio, professor emeritus and project leader and principal investigator of the Coastal Cities at Risk in the Philippines (CCRPH), resilience should refer to everyday action and efforts to prepare for disasters and calamities.

“Resilience is everyday action prepared. It’s the ability to absorb the shock, to resist the effects of the shock, and to transform our ways of doing things that we can proactively respond better,” she told reporters.

“I feel that we have focused really on evacuating and all that stuff but I think we have to build the capacities of everyone [to respond effectively to the impacts of disasters],” she continued.

Sen. Loren Legarda stressed the need to pass and enact laws since there is a limit to Filipino resilience.

“I would like to see a time when there is no time for resilience because we did it right the first time,” the senator said.

Addressing, reducing disaster risk

Some environmental groups and organizations reacted to the President’s second Sona, particularly the absence of mention of crucial environmental issues and the specific steps to address the climate crisis.

Greenpeace Philippines also reacted to what Marcos Jr. said about the country being “over-prepared” for disasters.

“The fact that [Mr. Marcos] was proud of the country being ‘overprepared’ in response to natural disasters shows a lack of awareness of the reality on the ground,” the organization said.

“When people and the local economies suffer after every major typhoon, that is not preparedness. Data also shows that [many] of our coastal cities stand to lose billions [of

pesos] from sea-level rise. We have yet to see a clear government plan to address these climate impacts,” it added.

Data gathered from the Department of Agriculture (DA) and the National Disaster Risk Reduction and Management Council (NDRRMC) showed that so far, over 200,000 hectares of land used for agriculture has been affected by extreme weather conditions that hit the country since January of this year.

This equates to an estimated P4 billion loss in agriculture and more than 128,000 metric tons of crop volume loss.

In its latest situational report released on August 3, the NDRRMC revealed that Typhoon Egay (international name: Doksuri) and the southwest monsoon (habagat) affected nearly 3 million people in the country.

According to the UNDRR, countries and their governments need to manage risks and not just disasters.

“Although DRM includes disaster preparedness and response activities, it is about much more than managing disasters. Successful DRR results from the combination of top-down, institutional changes and strategies, with bottom-up, local and community-based approaches,” the UN agency explained.

“Approaches need to address the different layers of risk (from intensive to extensive risk), underlying risk drivers, as well as be tailored to local contexts,” it added.

UNDRR likewise stressed that much can be done to reduce the exposure and vulnerability of populations living in areas where natural hazards occur, whether frequently or infrequently.

PHILIPPINE NEWS AGENCY

No weather disturbance expected in next few days

No storm is expected to enter the country in the coming weeks while the southwest monsoon continues to affect only the western section of Luzon, according to the Philippine Atmospheric, Geophysical and Astronomical Services Administration on Sunday.

Ilocos Region, Batanes, and Babuyan Islands will have cloudy skies with scattered rain showers and thunderstorms.

Metro Manila and the rest of the country will have partly cloudy to cloudy skies with isolated rain showers or thunderstorms.

Sunset is at 6:24 p.m.

Meanwhile, Ambuklao and Binga dams in Benguet province are still releasing water, each with one gate open as of the 6 a.m. update.

Ambuklao is 0.62 meters above its normal high water level of 752 meters while Binga 0.15 above the 575 meters normal level.

[PhilSA, KOICA partner to boost air quality monitoring in PH](#)

By: Ma. Cristina Arayata

The Philippines and South Korea will work together to boost the former's capacity in monitoring and crafting plans and policies concerning air quality.

On Friday, the Philippine Space Agency announced that it has inked partnership with the Korea International Cooperation Agency (KOICA) for the Pan-Asia Partnership for Geospatial Air Pollution Information and the Pandora Asia Network (PAPGAPI-PAN) project.

This involves technology transfer, data sharing, and capacity building initiative on air pollution using data from the Geostationary Environment Monitoring Spectrometer (GEMS) aboard Korea's GEO-KOMPSAT-2B satellite complemented by ground-based remote sensing instruments called Pandora.

GEMS is reportedly the world's first geostationary satellite sensor for air quality monitoring, enabling hourly monitoring of air pollution levels in almost 20 countries in Asia, including the Philippines.

PAPGAPI-PAN will enable PhilSA to combine satellite and ground measurements for a comprehensive overview of air quality in the country.

Earlier, PhilSA Director General Joel Marciano Jr. said through remote sensing technologies and ground validation techniques, trends such as air quality patterns and environmental characteristics such as climate change vulnerabilities will be properly accounted for, described, analyzed to inform decisions on climate change mitigation and adaptation programs and in disaster risk response and management efforts.

Pandora instruments will be installed in the country within the year. This will provide real-time standardized, calibrated, and verified air quality data and help to craft more evidence-based policies to address air quality issues.

KOICA and PhilSA will provide technical and operational support to implement the project in the identified sites: Puerto Princesa, Palawan; Manila Observatory in Quezon City; and Metro Manila.

The proposed Pandora sites were selected considering different concentrations of air pollutants, such as nitrogen dioxide and particulate matter, across the country based on historical records both from ground and satellite observations. Meteorological

parameters such as rainfall and cloud cover are also considered in the selection process.

Other potential sites are Ilocos Norte, and Cebu City, according to PhilSA.

The ground vertical column measurement of air pollutants from Pandora will be used in conjunction with the GEMS observation for comprehensive and improved monitoring of air quality across the country and the Asia Pacific region.

GEMS will provide measurements of different air pollutants such as nitrogen dioxide, sulfur dioxide, ozone, formaldehyde, and particulate matter at an hourly rate during daytime, PhilSA said.

"Air quality can significantly affect the quality of health and life of people everywhere. Satellites and measurements from space provide additional perspectives that complement and enhance ground measurements and existing air quality monitoring initiatives in our country," Marciano said in a statement.

Meanwhile, KOICA Country Director Kim Eunsub said the project will highlight the substantial contribution of space science and technology applications in the Philippines' socio-economic development.

The USD230,000 (PHP12.6 million) project is a collaboration among the PhilSA, KOICA, the United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP), Korea National Institute of Environmental Research (NIER), and Korea Environment Corporation.

It is expected to contribute to further enhance the strong and dynamic relationship between the two countries through the sharing of satellite air quality data, GEMS data application and technology, and joint research.

RAPPLER

[The Green Report: Gen Zs and millennials in the face of climate anxiety](#)

Aside from its impact on livelihood and economy, the climate crisis has also been causing psychological distress, commonly known as “climate anxiety.”

A 2021 paper about climate anxiety published in The Lancet found that among all the countries included in the survey, young people in the Philippines were the most worried about the climate crisis.

In this episode, Rappler digital communications specialist Ivy Pedida and multimedia producer Nina Liu join environment editor Jee Geronimo and reporter Iya Gozum to talk about their personal ways of coping with climate anxiety and the importance of journalists’ work in finding solutions to the crisis.

LIVE



In this #TheGreenReport episode, some of Rappler’s millennials and Gen Zs

THE PHILIPPINE STAR

[DENR explores co-processing to combat plastic crisis, climate change](#)

By: Gaea Katreena Cabico

The Department of Environment and Natural Resources is exploring the potential of co-processing as a “sustainable” waste management option, a move that green groups said will not address the fundamental causes of the plastic crisis.

The DENR sees co-processing as a viable solution to establish a circular economy and mitigate the impacts of climate change. Co-processing converts waste materials such as end of life plastics into alternative fuel for cement manufacturing plants, reducing landfill space and dependence on fossil fuels.

The agency issued the statement after Environment Secretary Maria Antonia Yulo-Loyzaga visited the new shredder platform of Republic Cement in Taysan, Batangas.

Republic Cement, through ecoloop, pioneered the use of waste-to-fuel in local cement manufacturing. The firm is a joint venture between the Aboitiz Group and CRH, a manufacturer and distributor of construction materials.

Through co-processing, Republic Cement manufactures cement with reduced dependence on coal. The high temperatures used in manufacturing cement allow for alternative fuels to be completely consumed, with any waste byproduct fully integrated into the final output.

“Using solid waste as fuel enabled the company to avoid potential methane emissions at landfill sites while at the same time decreasing the carbon of their cement products,” the DENR said.

‘Not a sustainable solution’

But for some groups, co-processing is not a sustainable waste management solution.

“Co-processing of plastic and its related waste will not address the root cause of the plastic crisis, which is the overproduction of plastic. Plastic is a problematic product made of fossil fuel and chemicals, and across its lifecycle produces climate, environmental and social impacts,” Rei Panaligan, national coordinator for Plastic-Free Pilipinas Project, told Philstar.com.

Greenpeace Philippines zero-waste campaigner Marian Ledesma also told Philstar.com that burning plastic waste emits carbon dioxide, making it “unsuitable as a form of mitigation and a climate change contributor.”

Ledesma urged the DENR to instead adopt reuse and refill models to reduce plastic production and people’s dependence on disposable materials.

For Panaligan, the government should curb plastic production, sale and use through the listing of non-environmentally acceptable products and packaging. In February 2021, the National Solid Waste Management Commission included only plastic soft drink straws and coffee stirrers in the NEAPP list, a move that groups said was not enough.

The two-decade-old Ecological Solid Waste Management Act mandates the issuance of NEAPP.

The country’s environment chief earlier acknowledged that the Philippines was “not winning the war against single-use plastics” as she stressed the need to address social issues to effectively tackle the plastic crisis.

The Philippines has an Extended Producer Responsibility law, which aims to address the mismanagement of plastic waste and uphold circularity by requiring large enterprises to recover or offset their plastic packaging footprint.

Senate sets August 9 probe on perennial flooding problem

By: Marc Jayson Cayabyab

The Senate has set a hearing on Aug. 9 to investigate the perennial problem of flooding, with the aim of forming a comprehensive master plan that would integrate regional flood control programs in the country.

In a Zoom interview with reporters yesterday, Senate Majority Leader Joel Villanueva said the chamber will conduct an inquiry in aid of legislation on the government's plans to protect Metro Manila and other vulnerable provinces from floods.

Villanueva expressed dismay at the severe flooding that has affected barangays in his home province Bulacan. He said the Department of Public Works and Highways (DPWH) has a comprehensive flood control plan for Central Luzon, of which Bulacan is part, but the program has yet to curb flooding in the region known as the country's rice granary.

The Senate will grill officials of the DPWH for failure to curb flooding despite its flood control budget this year of P182 billion, which was increased in next year's proposed budget to P215.6 billion, Villanueva said.

"It's just heartbreaking to know we have a flood control program and yet the province suffered from flood. I'm not just pointing fingers at the DPWH, but all agencies of the government," Villanueva said.

Senators are proposing an integrated master plan nationwide that would streamline the flood control programs in flood-prone regions across the country.

Villanueva said that President Marcos is amenable to having a major flood control master plan, which may be part of the mandate in the proposed Department of Water Resource Management, a measure seen to address the El Niño phenomenon as mentioned in the second State of the Nation Address.

29 dead

Twenty-nine persons were reported killed due to the effect of the southwest monsoon enhanced by typhoons Egay and Falcon, the National Disaster Risk Reduction and Management Council (NDRRMC) said yesterday.

In its latest situation report, the NDRRMC also said that as of 6 a.m. yesterday, 165 persons were reported injured while 11 were missing.

The NDRRMC said 17,349 persons from Regions 1, 2, 3, Calabarzon, Mimaropa, Region 6 were pre-emptively evacuated, with 805,621 families or 3,026,040 individuals affected.

A total of 287,057 persons were displaced, many seeking shelter in evacuation centers.

The same NDRRMC situation report showed that 56,694 houses were damaged, consisting of 54,406 partially damaged and 2,288 totally damaged houses.

In Central Luzon, disaster authorities said more than 2.2 million residents were affected by the southwest monsoon enhanced by Egay and Falcon.

NDRRMC-3 latest report said 640,449 families or 2,246,464 individuals were displaced in the region following the continuous moderate to heavy rains in the past days. Some 1,010 barangays in the region were hit by floods, forcing some 8,344 families or 29,466 individuals to stay in various evacuation centers.

The report said Egay's wrath likewise destroyed 450 houses while 365 were partially damaged. The estimated damage in fisheries and aquatic resources in the region was at P1,042,406,061.

Three road sections in the region, particularly in Pampanga, are still not passable to motorists due to flooding.

CCC IN THE NEWS:

THE MANILA TIMES

[\[Opinion\] We should act now before it's too late](#)

By: Commissioner Albert Dela Cruz

WITH Super Typhoon "Egay" (international name: Doksuri) leaving behind hundreds of millions of pesos worth of damage and at least 16 deaths, there is no point in doubting its impact on our food production and security.

PERSPECTIVE

We should act now before it's too late

BY ALBERT DE LA CRUZ

WITH Super Typhoon "Egay" (international name: Doksuri) leaving behind hundreds of millions of pesos worth of damage and at least 16 deaths, there is no point in doubting its impact on our food production and security.

This is why I have repeatedly stressed the importance of climate action in the face of extreme weather conditions like what we have experienced recently, and I urge everyone to act now and prepare as climate change is not something that has happened in the past or is about to happen but is actually happening and affecting our lives with increasing severity.

The evidence that we see every day supports the fact that the change wrought by the global phenomenon cannot simply be explained by natural variation because the most recent scientific assessments have confirmed that this warming of the climate system is apparently triggered by anthropogenic or human activities.

Since the mid-20th century, we have seen that climate change and global warming are most likely due to human activities, and thus, the observed increase in greenhouse gas concentrations is due to human activities such as the burning of fossil fuels and land use change.

I just recently visited Tuguegarao City, and here I was informed by its mayor, Mailla Rosario Ting-Que, of its mounting problems with waste management and disposal, compounded by the fact that its sanitary landfill is now past its capacity and has actually been behind a recent wildfire caused by methane emissions from tons of garbage dumped daily.

Immediate action

Currently, with our government's prioritization of immediate climate change action under its National Development Plan (NDP), some autonomous adaptation is taking place, but we still need to consider more pro-active adaptation planning in order to ensure sustainable development.

Yet we ask the important question of what it takes to ensure that our adaptation planning has a scientific basis.

It is simple. First, we need to be able to investigate the potential consequences of anthropogenic or human-induced climate change, and to do this, a plausible future climate based on a reliable and accurate baseline (or present) climate must be constructed.

Climate change scenarios

This is what climate scientists call a climate change scenario, which will project the response of our climate system to future emissions or concentrations of greenhouse gases and aerosols.

This can be simulated using climate models, and essentially, it will describe possible future changes in climate variables (such as temperatures, rainfall, storminess, winds, etc.) based on baseline climatic conditions.

Our projections of climate change scenario outputs are an important step forward in

improving our understanding of our complex climate, particularly in the future. This is because these projections will show how our local climate could change dramatically should the global community fail to act toward effectively reducing greenhouse gas emissions from the continued burning of fossil fuels and the use of landfills for waste management and disposal.

President Ferdinand Marcos Jr. has repeatedly urged Filipinos to become part of the solution to climate change and to join efforts to protect our environment and save our only home from destruction and devastation.

In this, I have invited everyone to learn more about climate change, as it poses a real danger to our country and is the world's biggest environmental challenge.

At this time, let us stop, slow down and dedicate the moment to helping our planet breathe and heal anew. We must be reminded that environmental preservation is an inter-generational responsibility and that it should become our individual and collective priority in the pursuit of progress and prosperity.

Let us become part of the solution and embark on advocacy, programs and initiatives that will help us protect and preserve our home.

Our participation and everyone's involvement in unified action are critically important, as our country is among the most vulnerable countries to the impacts of climate change.

The Philippines is hit with an average of 20 typhoons annually. As our planet's temperature gets warmer and the global carbon footprint reaches a new all-time high of 36.8 gigatons in 2022, our world braces for the irreversible impact of climate change.

Meanwhile, we in the Climate Change Commission (CCC) will continue to do our part in leading and accelerating climate action and in enhancing the integrity of our ecosystems. We must now focus on accelerating and completing the work that has been long outstanding for us to deliver on our international commitments, which include a national greenhouse gas inventory, a national adaptation plan and its financial plan, a national determined contribution implementation plan, and the local climate change action plans (LCCAPs) of our local government units (LGUs).

After going to Isabela, I also visited Caraga, and here I witnessed the enthusiasm of our LGUs and their local chief executives (LCEs) in supporting the Marcos administration's National Climate Change Action Plan (NCCAP).

There is so much to hope for. The Philippines is now increasingly becoming a model in the region for our whole-of-society approach to disaster risk reduction and climate action. But there is much more to accomplish.

We need ecosystem-based, ridge-to-reef approaches that can enhance ecosystems, prevent disasters, mitigate the impacts of hazards and explore how nature-based solutions can address the food, water and energy security outcomes we aim to achieve.

Albert de la Cruz is a commissioner of the Climate Change Commission.

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