



NEWS ROUNDUP

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BUSINESS MIRROR

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By: The Associated Press

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By: Keisha Ta-asan

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PANAY NEWS

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Since the early 2000s, the Philippines' technology sector has been largely defined by a multitude of businesses engaged in electronics manufacturing, information technology, and business process management services—companies that belong to industries that largely cater to international markets. These services have laid the foundations for the next wave of technology-driven industries that will reshape the Philippine economy and directly affect the lives of millions of Filipinos at present and in the future.

PHILIPPINE DAILY INQUIRER

[PH halfway through in achieving SDGs as 2030 deadline looms](#)

By: Cristina Eloisa Baclig

MANILA, Philippines—As 2023 marks the halfway point in implementing Sustainable Development Goals (SDGs), data showed the Philippines remained midway through achieving 17 of such objectives.

POLITIKO

[Mariveles coal plant turns over reforestation program to DENR](#)

A coal-fired power plant in Mariveles in Bataan province has announced the turnover of its three-year reforestation program to the Department of Environment and Natural Resources (DENR).

REUTERS

[Exclusive: World Bank seeks more funds to address climate change, other crises -document](#)

By: David Lawder

WASHINGTON, Jan 2 (Reuters) - The World Bank is seeking to vastly expand its lending capacity to address climate change and other global crises and will negotiate with shareholders ahead of April meetings on proposals that include a capital increase and new lending tools, according to an "evolution roadmap" seen by Reuters on Monday.

SUNSTAR

[PH going greener in energy use](#)

By: Cherry Ann Lim

THE Department of Energy has awarded 41 renewable energy service contracts in the second half of 2022 in a bid to reduce the country's reliance on fossil fuels.

THE WASHINGTON POST

[Climate change puts more women at risk for domestic violence](#)

By: Geoffrey Ondieki, Disha Shetty and Aie Balagtas See

UMOJA, Kenya — Pilot Lenaigwanai covers her mouth as she speaks. She is trying to hide her broken tooth, a bitter reminder of all she endured before finding refuge at a shelter for abuse survivors in northern Kenya.

VERA FILES

[Experts weigh on creation of Department of Water to mitigate water scarcity](#)

By: Siegfried Aldous Lacerna and Ann Gabrielle Domingo

Staying past the bedtime hours so they can fill their jugs with water to make it through the next day is nothing new for 22-year old Lynex Joy Biquio, her family, and her neighbors in Quirino, Cagayan Valley.

Information and Knowledge Management Division

BUSINESS MIRROR

Alpine slopes face snow shortage in unseasonably warm winter

By: The Associated Press

GENEVA — Much of the Alps just don't look right for this time of year. Sparse snowfall and unseasonably warm winter weather in Europe's central mountains are allowing grass to blanket hillsides across the region, causing headaches for ski slope operators and aficionados of Alpine white.

Patches of grass, rock and dirt were visible Monday in some of Europe's skiing meccas — like Innsbruck in Austria, Villars-sur-Ollon and Crans-Montana in Switzerland, and Germany's Lenggries and far beyond. The dearth of snow has revived concerns about temperature upheaval linked to climate change.

On a swath stretching from France to Poland, but with the Alps at the center, many parts of Europe were enjoying short-sleeve weather. A weather map showed Poland racking up daily highs in the double digits Celsius — or more than 50 Fahrenheit — in recent days.

It's a sharp contrast to the frigid weather and blizzards in parts of the United States late last year.

Swiss state forecaster MeteoSuisse pointed to some of the hottest temperatures ever this time of year. A weather station in Delemont, in the Jura range on the French border, already hit a record average daily temperature of 18.1 degrees Celsius (nearly 65 Fahrenheit) on the first day of the year, over 2-1/2 degrees Celsius higher than the previous record high for January. Other cities and towns followed suit with records.

MeteoSuisse quipped on its blog: "... this turn of the new year could almost make you forget that it's the height of winter."

Forecaster Anick Haldimann of MeteoSuisse said a persistent weather system that brought in warmer air from the west and southwest has lingered, locking in warmer temperatures expected to last through the week. While slopes above 2,000 meters (over 6,500 feet) have gotten snow, lower down, "the order of the day is patience" for skiing buffs, she said.

The shortage has been particularly burdensome around Switzerland's Adelboden, which is set to host World Cup skiing on Saturday, and generally draws 25,000 fans for a single day of racing. Resorts like these look for such races to offer up bucolic wintertime

images to draw amateur skiers, but grassy, brown sides to the course can mar the landscape — and dampen the appeal.

Course director Toni Hadi acknowledged that the race will be run on 100% artificial snow this year.

“The climate is a bit changing but what should we do here? Shall we stop with life?” he said by phone, noting that other challenges such as the coronavirus pandemic and war show “life is not easy” these days.

“Everything is difficult — not only to prepare a ski slope,” Hadi said.

The start to 2023 picked up where many countries had already left off: Last year was the hottest on record in both Switzerland and France. More broadly, the United Nations’ World Meteorological Organization says the past eight years are on track to be the eight warmest on record. Its final tally on global temperature figures for 2022 will be released in mid-January.

Next door in France, national weather agency Meteo France said 2022 ended with some of the warmest weather the country has ever experienced at this time of year — capping an exceptionally warm year that saw temperature records broken and rampant forest fires and drought conditions.

Meteo France says the southern Alps and, in the northern Alps, slopes above 2,200 meters, have seen close to normal snowfalls. But snow is notably lacking at lower altitudes in the northern Alps and across the Pyrenees, it said.

To be sure, the Alps cover a lot of territory and not all of it is bereft of snow: Perhaps counterintuitively, some of the best snowfall has been reported in the Italian Dolomites, to the south of the Swiss Alps.

Early in the ski season, fortunes looked bright for snow lovers: In France, freezing weather into mid-December raised hopes that ski resorts in the Alps, the Pyrenees and elsewhere might see plenty of early snow and the lasting subzero temperatures needed to keep runs open.

But exceptionally warm weather followed, prompting some resorts at lower altitudes to close down as snow cover melted away.

“There was a good start to the season with a cold wave in mid-December which provided some white to pretty much everyone. Then, last week, there was quite a bit of rain and warm temperatures, so a certain number of runs had to close again,” Laurent Reynaud of the Domaines Skiabiles de France industry group that represents French ski resorts, lift operators and others, said on C-News television.

Germany too has seen unusually springlike temperatures — as high as 16 degrees Celsius (61 Fahrenheit) in parts of the country on Monday. New Year’s Eve is believed to have been the warmest since reliable records began. The German Weather Service reported readings of 20 Celsius (68 Fahrenheit) and just above at four weather stations in southern Germany, news agency dpa reported.

Wim Thiery, a professor of climate science at the University of Brussels, said the same jet stream that pulled down cold air from the Arctic into the US has fanned warm air from subtropical zones into Europe. He warned that climate change hasn’t finished its work — unless people cut use of fuels that trap heat in the atmosphere.

“By the end of the century [it’s] just going to be over ... skiing in the Alps as we know it,” he said, adding that lower-altitude mountain areas already feel the impact. “In the future, these problems will get worse, because the snow will continue to melt as long as the climate warms.”

Japan water hazard agency and DOST polish flood forecast, management system for Davao City

By: Manuel Cayon

DAVAO CITY—A Japanese government water hazard agency has worked out with the Department of Science and Technology to improve flood management and prediction here, with Japan asking the Philippine side to install the needed data on the equipment installed in the main river system that flows near downtown.

Dr. Mamoru Miyamoto of the International Center for Water Hazard and Risk Management (ICHARM) in Japan ICHARM led the team that met last month with Anthony Sales, regional director here of the DOST, and other key officers of the agency and other stakeholders from the academe, the national and city government agencies and other professional groups to discuss a technology-aided flood management system in the city.

The DOST Region XI and the Hydrology for Environment Life and Policy Davao Network (HELP Davao Network) and the various stakeholders in flood management were introduced to the ICHARM's Online Synthesis System (OSS), which it developed for the Davao river monitoring.

The OSS is equipped with data and information on climate change impact assessment, real-time flood monitoring and forecasting and inundation prediction models to strengthen science-policy interaction and increase resilience against water-related disasters.

Dr. Kensuke Naito, a researcher from ICHARM Japan, said his team is currently developing a prediction model of inundation that may occur in the areas surrounding the Davao river, but it still needs more data to refine the model.

“At this point, the model still needs to be polished, so we really need local research data before publishing it,” he added.

The DOST-Philippine Atmospheric, Geophysical, and Astronomical Services Administration (DOST-PAGASA) committed to share real-time data available with ICHARM Japan. The data includes water level, rainfall, temperature, and other meteorological data monitored by weather instrumentations installed along the Davao River Basin.

The meeting last month with ICHARM Japan was followed with a separate meeting of HELP Davao Network and DOST XI, along with the other stakeholders “to reinforce

efforts to achieve sustainable development, especially in view of the insufficient capacities to predict, monitor, and mitigate water-related disasters in the Davao River.”

The DOST information office said the City Planning and Development Office expressed commitment to work closely with HELP Davao and ICHARM Japan, specifically in trainings and providing data needed to improve the system.

The Department of Environment and Natural Resources XI also affirmed its commitment to the project, citing the importance of effective and coordinated climate action toward a resilient future.

Also, Dr. Miyamoto said it has discussed potential collaborations with Ateneo de Davao University (AdDU) in improving and mobilizing the Davao OSS, citing the system’s mechanism “is important for mitigation, adaptation, and disaster risk reduction, especially in a disaster-vulnerable country like the Philippines.”

Dr. Rogel Mari Sese, chairman of AdDU Aerospace Engineering Department and project leader of AdDU Community Connectivity Empowered by Satellite Services for Mindanao (ACCESS), said the satellite-enabled Automatic Weather stations they have installed in remote and isolated communities in Mindanao may also provide atmospheric data to further enhance the Davao OSS.

Dr. Sales, who is also the secretary of HELP Davao Network, said the Davao OSS would help in the proper disaster management, capacity development, and sustainable development planning, which are crucial to the continuous prosperity of Davao City.

“We need to empower our constituents by providing them with the resources, knowledge and skills to manage disasters,” Dr. Sales added.

The World Risk Report 2022 recently revealed that the Philippines is the most disaster-prone country in the world. The multisectoral coordination of DOST XI, HELP Davao Network, and ICHARM Japan is expected to enhance the preparation for managing recurrent flood events and other water-related disasters in the Davao River.

Unit of Solar PHL to convert land for industrial purposes

By: Lenie Lectura

SP New Energy Corp. (SPNEC), a subsidiary of Solar Philippines, is working on the conversion of over 3,000 hectares into industrial use.

The company told the stock exchange on Tuesday that it is preparing over 3,000 hectares in Nueva Ecija and Bulacan for industrial land conversion this year after securing off-take agreements for its projects last year.

SPNEC has already fully secured the majority of its target lands. Documentation is now ongoing to complete its acquisitions, in parallel with the submissions of the already fully secured lands for conversion to industrial use. SPNEC aims to complete the submissions of these lands for conversion by the end of the first quarter and convert over 3,000 hectares into industrial use by the end of the year.

The largest project of Solar Philippines is under Terra Solar Philippines Inc., a joint venture that has a power supply agreement with the Manila Electric Co. (Meralco) to supply 850 megawatts (MW) of mid-merit from a planned 3.5 GW (gigawatt) solar, 4.5 GWh battery project, which may require land in provinces including Nueva Ecija and Bulacan.

“Converting over 3,000 hectares for industrial use is the most significant value driver for SPNEC, and we will provide further updates as we work to create value on this for our shareholders. Land underpins an entire project, and our landbank in Nueva Ecija and Bulacan in particular is unique, in terms of its scale and proximity to Manila,” Solar Philippines founder Leandro Leviste said.

At over 3,000 hectares, SPNEC’s land bank in Nueva Ecija and Bulacan upon completion would be one of the largest industrial developments of any kind in the Philippines and larger than all the solar projects operating in the country to date combined.

BUSINESS WORLD

Companies are going green. Now customers have to follow their lead.

By: Joseph L. Garcia

WITH CLIMATE CHANGE and pollution changing the planet as we speak, it has become an imperative for people to change the way they live and consume.

Companies that provide these goods and services have adopted more conscious efforts to help preserve the planet. As an example, global beauty conglomerate L'Oreal has reported a 24% reduction in carbon emissions linked to the transport of products in their 2013-2020 Sustainability Commitment Closing Report.

In an interview, L'Oreal Philippines Country Managing Director Yannick Raynaud said a launch was once delayed after products had to be shipped over sea, instead of through air freight as part of efforts to reduce the company's carbon emissions. "It's really significantly higher in terms of CO2 emissions," said Ms. Raynaud of air freight.

On a smaller scale, L'Oreal Philippines has committed to using zero plastic in their packaging for orders shipped through online shopping platforms Shopee and Lazada, and through social network Tiktok. "We fight against plastic," she said in an interview on Dec. 9.

To show their seriousness in the matter, she noted the new packaging from skincare brand La Roche Posay uses carton on the outside, with a thin layer of plastic on the inside. The product's cap has been redesigned to use less plastic. Over at Kiehl's, she said that some products are sold as refills so customers can reuse their containers.

"It's a benefit for the planet, but also for your wallet. It's less expensive. It's a win-win, right?"

L'Oreal has since committed to using 100% biobased ingredients for their formulas by 2030. According to the company's 2021 Annual Report, L'Oreal said it has already achieved 94% of this goal.

The company committed to rejecting animal testing in 1989, 14 years before regulations against the practice came to pass. "The foray of L'Oreal into sustainability started more than 15 years ago, when it was not really in fashion," Ms. Raynaud added.

More than the products themselves, the company has also adopted more sustainable measures internally. Ms. Raynaud said that she refused two carpet samples when they were changing carpets at the office, since the samples shown to her were not up-cyclable nor recyclable.

“It’s a mantra for everything we do: in our products, in our brand, but also in how we act,” she said.

SM TURNS OVER A GREEN LEAF

Meanwhile, the country’s biggest mall operator SM Prime Holdings, Inc., under SM Investments Corp., has also turned over a green leaf.

Early in 2022, they released a line called SM Green Finds, which showed off products made with renewable materials. This was presented at SM Retail, Inc.’s new headquarters which features green facilities such as energy-saving glass, centralized air, lighting automation, and water recycling capabilities.

According to the Annual Integrated Report of SM Prime Holdings, the company has saved 8.8 billion liters of water through recycling and rain-catching, and reduced its overall carbon footprint by 14% in 2021.

“Sustainability as a business strategy is no longer an option, but an imperative business decision,” Hans T. Sy, SM Prime executive committee chairman, was quoted as saying in the report.

CHANGING CONSUMERS’ PRACTICES

New businesses are taking up the same stance and showing that sustainability has become a new imperative in order to operate. One such company is Evegrocer, which offers home products and groceries delivered in reusable packaging.

Ma. Leonelle de Leon-Sandoval started the business in 2019 with co-founder Czarlene de Leon. Evegrocer works by repacking goods like soap and food staples like rice into reusable containers. The online store gives discounts when customers return the packaging on the next order.

“The rewards system encourages customers to return the reusable packaging,” said Ms. De Leon-Sandoval in an e-mail.

Evegrocer's distribution network covers Metro Manila, Laguna, Cavite, Bulacan, Pampanga, and Cebu. In Cebu, Ms. De Leon-Sandoval said the store encourages customers to bring their own containers, "which is a simpler model."

Of course, while businesses may attempt to change their ways to better suit the planet, the rest are still dependent on consumer behavior. "We're looking at how we can reduce our footprint, but also educate the consumer," Ms. Raynaud said.

With the current crop of Gen Z consumers (those born after 1996), Ms. Raynaud has little problem. "If you're Gen Z today, you're like, 'Darn, my parents didn't do good. My grandparents are leaving me a world that is in disarray.'

"Gen Z's are influencing the use of products, but then they're influencing behaviors as well. Waste is something that Gen Z is more conscious (of) than maybe their parents."

In the case of Evegrocer, Ms. De Leon-Sandoval noted that it's easier for her to run a business, with the resources available to them. "The technological advancement and access to information has made the operations possible," she said.

"The magnitude of the impact is somewhat dependent on the customer behavior change," she said, adding that the returned container rate, despite the incentivization, comes up to only 18.5%.

WHY IS IT IMPORTANT?

For people like Ms. De Leon-Sandoval, the reasons for protecting the planet are personal.

"Me and my co-founder Czarlene... are very anxious over the devastating effects of climate change to the future generation, considering all our kids are asthmatic," she said. "Putting sustainability in trend is the best way to secure the future of the next generation. We retire with a peace of mind that we have contributed something, paying forward to the world that has nurtured us, with breathable air, healthy food and drinkable water."

Surprisingly, despite differences in scale, a message of family rings true for both companies. Ms. Raynaud says, "We have the duty of legacy. You can't just live (for) today. You have to be accountable for the world we are leaving to our children."

Speaking of scale, Ms. Raynaud noted the global impact of L'Oreal, and how changing behaviors across the board can help in activating change. By her count, L'Oreal had 85,000 employees across the globe, and approximately one billion customers.

“If you look at this, it is a powerful force. If we are able to communicate, to educate at the mass level, this is probably more power than many countries (have). At the end of the day, with one billion... together with other makers, it is our duty to do that.”

IMF says carbon pricing may raise \$7-B revenues

By: Keisha Ta-asan

THE IMPLEMENTATION of carbon pricing in the Philippines could raise around \$7 billion in revenues by 2030, the International Monetary Fund (IMF) said.

In a report, the IMF said the Philippines will need to implement carbon pricing to achieve a “substantial reduction in emissions.”

The Philippines has committed to reducing its greenhouse gas emissions by 75% by 2030 under the Paris Climate Change agreement.

Ideally, carbon pricing would be the centerpiece of the Philippines’ mitigation strategy, as it promotes reduced energy use and a shift towards cleaner energy sources, the IMF said.

The Philippines could start at \$20 per ton in 2023, and increase \$4.30 a year to hit \$50 per ton by 2030, it added.

“The policy could either represent a carbon tax, which would add a charge in proportion to carbon content to existing fuel excises and apply similar carbon charges to other fuels. Or it could represent an ETS (emissions trading system) which is imposed on top of existing fuel taxes, encompassing firms in the power and industry sectors and suppliers of fuels for other sectors,” the IMF said.

“A \$50 (around P2,800) carbon price (per ton) could potentially raise revenues of 1.05% of GDP (\$7 billion) in 2030 (accounting for the base erosion of pre-existing fuel taxes). About 44% and 37% of the revenue would come from new charges on road fuels and coal respectively,” it added.

At this carbon price, the IMF said carbon dioxide emissions would be reduced to 144 million tons or 13% below the baseline levels, with half of the reductions coming from the power sector.

“Indeed, the reform would raise the renewable share in electricity generation to more than 40% in 2030 — well above the authorities’ current target of 30% and the current renewable share of 21%,” it added.

Between 2023 and 2030, the IMF said this policy could potentially save 10,400 fatalities from exposure to local air pollution. About half of the averted death rate are Filipinos over 65 years old.

“Overall, carbon taxes have significant practical, environmental, and economic advantages due to ease of administration, price certainty which promotes investment, the potential to raise significant revenues, and coverage of broader emissions sources,” it added.

Earlier, Finance Secretary Benjamin E. Diokno said the government is currently conducting a carbon tax feasibility study.

A carbon tax is a type of carbon pricing for businesses that emit carbon dioxide, with the proceeds helping support greenhouse gas mitigation projects while forcing companies to address their own emissions to minimize their tax exposure.

“The carbon tax would impose a modest economic cost on the Philippines, equivalent to about 0.2% of GDP in 2030 but half of these costs would be offset by domestic environmental co-benefits,” the IMF said.

These economic costs consist of mitigation expenses, or mainly the annualized costs of using more expensive technologies rather than fossil-based machineries.

However, 87% of the domestic environmental co-benefits reflect lower local air pollution deaths and a 13% reduction in traffic congestion and accident externalities.

The IMF also said a \$50 carbon price would have the most impact on coal and natural gas prices and moderately affect prices for electricity and road fuels.

The IMF recommended that a balance between carbon pricing and other instruments should help enhance an effective and politically acceptable mitigation strategy.

The government should also use carbon pricing revenues to boost the economy, such as lowering taxes on work effort or funding socially productive investments, and ensure that benefits are distributed across households.

“Reforms should also be phased in progressively to give households and firms time to adjust. Recent increases in fossil fuel prices, while likely transitory in nature, are at least to some extent another reminder of the need for low-carbon energy transition to shield the economy from recurrent fuel price shocks, but they also underscore the importance

of a comprehensive and inclusive approach to reform to protect the vulnerable and gain social and political support,” the IMF said.

In a report from the Organisation for Economic Co-operation and Development (OECD), 52.4% of greenhouse gas (GHG) emissions in the Philippines are subjected to a positive Net Effective Carbon Rate (ECR) in 2021, unchanged since 2018.

Although the country does not use an explicit carbon price, fuel excise taxes covered 52.4% of emissions in 2021. There were no fossil fuel subsidies in 2021, although they covered 7.9% of emissions in 2018, the OECD said.

PANAY NEWS

[6 Technology-driven Industries That Will Be Important for the Philippine Economy in the Future](#)

Since the early 2000s, the Philippines' technology sector has been largely defined by a multitude of businesses engaged in electronics manufacturing, information technology, and business process management services—companies that belong to industries that largely cater to international markets. These services have laid the foundations for the next wave of technology-driven industries that will reshape the Philippine economy and directly affect the lives of millions of Filipinos at present and in the future.

Today, new businesses that seek to address modern challenges—like those related to climate change, the proliferation of data, and healthcare—form the backbone of the high-tech sector. Here are just some of the industries that are likely to make a major impact on the Philippine economy:

1.) Renewable Energy

Businesses today are under increasing market and regulatory pressure to adopt sustainable practices. The availability of renewable energy sources has thus become a major selling point for countries hoping to attract major investors.

In the Philippines, a few private infrastructure development companies have already taken steps to meet this demand for renewable energy. Recently, Philippine Economic Zone Authority (PEZA), together with Aboitiz InfraCapital (AIC), inked a memorandum of understanding with Junca Global Partner Inc. to develop renewable energy in the Philippines. Junca Global Partner has an especially diverse tech portfolio, with interests in stem cells biotech, fintech, and blockchain technology.

The Philippines has massive potential for renewable energy, thanks to its large geothermal reserves and its potential for developing biomass, sustainable hydro, and wind as secondary energy sources. With its existing comparative advantages as an IT and business process outsourcing hub, infrastructure development partnerships such as those between PEZA and Junca can make the country the first choice for investors interested in claiming renewable energy incentives.

2.) Data Centers

Due to the massive energy demands of their industry, data centers are among the industries most motivated to switch to renewables. The recent partnership between AIC and EdgeConnex, a noted hyperscale data center provider, is just the beginning of a trend that will see many more data centers move to AIC's economic estates, drawn by their mature infrastructure, easy access to quality labor inputs, and nascent renewable energy capacity.

Next-generation hyperscaler data centers are likely to flock to the Philippines throughout the 2020s, thanks to its competitive edge in business process management, the abundance of qualified IT workers, future renewable energy infrastructure, and strategic location. This trend may eventually see the Philippines become at par with regional rivals such as Malaysia and Thailand, perhaps exceeding them in this area by the next decade.

3.) Water Treatment

Due to population growth, climate change, and aging water infrastructure, many areas in the Philippines are already experiencing ongoing challenges with water security. While most of the country has historically had abundant freshwater reserves, it will soon need to leverage new technologies to conserve water and source it from previously unutilized sources.

Desalination and water treatment technologies powered by renewable energy may provide part of the answer. AIC recently submitted an unsolicited proposal to the Metro Cebu Water District (MCWD) to set up a desalinated bulk water project that would provide the district with up to 30 million liters of desalinated water per day. AIC intends to leverage its partnership with Singapore-based Keppel Infrastructure to supply the technologies needed by the project. The project would use reverse-osmosis technologies similar to what Singapore currently uses for its domestic water supply.

There are other bulk water supply projects that are already underway in other parts of the Philippines. One notable example is that of the Davao City Water District's Bulk Water Supply Project of AIC's Apo Agua. Apo Agua is building Davao's bulk water supply facilities that will provide over 300 million liters of clean and safe water to over 1 million Davaoenos. It will tap the Tamugan River as its main source and employ a water-energy nexus concept to run the facility on renewable energy. Given the current challenges to domestic water security, these water treatment projects and the technologies they use will become a necessary part of Filipino lives in the near future.

4.) Biotechnology

Unbeknownst to many Filipinos, the Philippines is a regional biotechnology leader, at least, according to the United States Department of Agriculture. Smart investments and policies made in the early 21st century have given the Philippines a considerable lead over its ASEAN neighbors in select areas of agriculture-based biotechnology.

Government and private entities in the Philippines operate several laboratories for both plant and animal-related biotech research. Notably, the country also operates a Biological Safety Laboratory Level 3 laboratory for infectious disease research. These biotech labs may one day become central in establishing the Philippines as a leader in specific areas of biotech within the Asia-Pacific region.

Industrial parks and economic estates in the Philippines are also poised to benefit from the local growth in biotech, thanks to an ongoing convergence between Big Data and healthcare. Cutting-edge biotechnology research requires massive data processing capacity which could be facilitated on locally based hyperscale data centers. The entry of more hyperscalers may also create the right conditions for the transfer of technology and expertise, which may eventually serve to boost some areas of the local biotech industry.

5.) Blockchain

If there is any country that is well-positioned to be a leader in blockchain technology adoption, it's the Philippines. Currently, the Philippines has the highest NFT penetration rate and also boasts a young and highly tech-savvy population. With these younger Filipinos poised to occupy more and more leadership positions in the coming years, the country may very well be the first to tap into the promise of blockchain technologies in areas other than money transfers.

Blockchain's central concept of linking immutable data blocks with encryption technology promises to pave the way for highly efficient and fraud-free lending, insurance, logistics, public benefits disbursements, and even elections. Given the high penetration of NFTs and other blockchain assets in the Philippines, the country will be in a good position to pioneer and validate all these other use cases.

One other compelling advantage the Philippines has over its regional blockchain industry rivals is the aforementioned growth of locally based data centers. Many blockchain hyperscalers are actively looking for more sustainable and affordable ways to improve their operations, and the development of renewables on AIC economic estates may further incentivize their move to the Philippines.

6.) Robotics

Aboitiz Power Corporation recently made a technological breakthrough with its development of 23 robots during a Robotic Process Automation (RPA) boot camp. However, these “robots” are probably not the physical robots that people usually imagine. Rather, these are process automation scripts that accomplish computing tasks that are normally done manually.

The Philippines already has a huge head start in this field as it is currently an international IT and business process management hub. It also notably graduates tens of thousands of IT and computer science students each year. This means that, rather than losing jobs to automation, the country may become a global hub for business process automation services, a service type that has more relative value than many other commonly outsourced services.

Virtual robotics is a field that is set to converge with additive manufacturing, hyper-personalization, and the internet of things, all trends which promise to offer extremely specific products on demand to customers, potentially upending mass manufacturing and marketing as we know it. With the Philippines’ current competitive advantages in IT, business process management, and virtual robotics, the country may become a lynchpin in the coming wave of AI-driven bespoke product development and manufacturing.

Final Words

These trends promise to bring sweeping changes not just to local businesses but to the rest of Philippine society. Should the national government, LGUs, and businesses manage to effectively direct the country’s early advantages in these areas, the net benefits to the economy and local way of life could be more far-reaching than those brought by the first wave of call centers which changed the country in the early 21st century.

Businesses and individual consumers will not only enjoy better access to more affordable energy and services, entrepreneurs will find almost limitless opportunities to find and develop new niches. As most of these trends are unprecedented in the Philippines, managing these nascent opportunities will likely prove to be a significant challenge, requiring all stakeholders to actively manage their risks and keep an eye out for ways to create lasting value. Recent developments on economic estates such as those managed by AIC may very well become key to making this all a reality.

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[PH halfway through in achieving SDGs as 2030 deadline looms](#)

By: Cristina Eloisa Baclig

MANILA, Philippines—As 2023 marks the halfway point in implementing Sustainable Development Goals (SDGs), data showed the Philippines remained midway through achieving 17 of such objectives.

In 2015, United Nations (UN) member states, including the Philippines, adopted the SDGs as a universal goal to end poverty, protect the planet, and ensure that by 2030 everyone would live in peace and prosperity.

At least 193 countries have committed to prioritizing the progress of 17 SDGs—consisting of 169 targets and 232 unique indicators that cover economic, social and environmental dimensions of development—which are expected to be used to frame country agendas and policies until 2030.

Halfway through the implementation of SDGs, data showed that the Philippines still has a long way to go before it fully accomplishes the comprehensive set of goals and “leave no one behind”—the central promise of the 2030 Agenda for Sustainable Development and its SDGs.

At a glance

Global rankings from the latest Sustainable Development Report showed that the Philippines ranked 95th out of 163 countries, with an overall score of 66.64 out of 100.

According to the UN Sustainable Development Solutions Network (SDSN), the country’s overall score measures its total progress toward achieving all 17 SDGs.

A score of 100 indicates that all SDGs have been achieved.

The Philippines’ current overall score was higher than those recorded in 2021 (66.52) and 2020 (66.09), while it was a few points lower than the pre-COVID pandemic score of 66.66.

Last year during the High-Level Political Forum for Sustainable Development (HLPF), Foreign Affairs Secretary Enrique A. Manalo noted that the Philippines’ progress in achieving the SDGs was adversely affected by the COVID-19 pandemic.

Manalo, who presented the country's third Voluntary National Review (VNR) on the implementation of the 2030 Agenda for Sustainable Development, reported at the UN headquarters in New York that "while progress on most of the goals was sustained, some were reversed."

"Reversal effects were experienced in goal 4 (quality education), with an increase of about 2 percentage points on the average dropout rate among elementary and high school students. Progress was sustained in goals 5 (gender equality), 14 (life below water), and 15 (life on land)," he explained, underscoring the country's commitment to implement the SDGs as a "top priority."

PH progress in implementation of SDGs

Out of the 17 SDGs, the Philippines was able to achieve only one so far: SDG 12, which is to ensure sustainable consumption and production pattern and which promotes resource and energy efficiency, sustainable infrastructure, and providing access to basic services, green and decent jobs, and a better quality of life for all.

The UN SDSN said the country is on track or is currently maintaining SDG achievement, which covered efforts in reducing solid and electronic waste and minimizing sulfur dioxide (SO₂) and nitrogen emissions.

For SDG 4 (quality education) and SDG 13 (climate action), data showed that although the Philippines was already on track or maintaining SDG achievement, challenges remain, specifically in the following indicators:

SDG 4 indicator: Participation rate in pre-preliminary organized learning

SDG 4 indicator: Net primary enrollment rate

SDG 4 indicator: Lower secondary completion rate

SDG 13 indicator: Carbon dioxide CO₂ emissions embodied in fossil fuel exports

The country is also facing significant challenges in some other SDGs, such as:

SDG 1: No poverty

SDG 5: Gender equality

SDG 6: Clean water and sanitation

SDG 7: Affordable and clean energy

SDG 11: Sustainable cities and communities

SDG 17: Partnership for the goals

The Philippines faces major challenges in achieving eight significant SDGs:

SDG 2: Zero hunger

SDG 3: Good health and well-being

SDG 8: Decent work and economic growth

SDG 9: Industry, innovation and infrastructure

SDG 10: Reduced inequalities

SDG 14: Life below water

SDG 15: Life on land

SDG 16: Peace, justice, and strong institutions

Positive influence

Aside from their overall score and ranking, UN member states are also ranked by their spillover scores.

“Countries are ranked by their spillover score. Each country’s actions can have positive or negative effects on other countries’ abilities to achieve the SDGs,” the UN SDSN explained.

“The Spillover Index assesses such spillovers along three dimensions: environmental & social impacts embodied into trade, economy & finance, and security,” it added.

A higher score indicates that a country causes more positive than negative spillover effects.

The Philippines ranked 55th out of 163 with a spillover score of 97.21. The UN SDSN noted that the country had achieved several SDG indicators under the three dimensions of development (environmental and social impacts embodied into trade, economy and finance, and security).

Policy efforts

The UN SDSN also monitored public statements by governments and efforts made by governments to integrate SDGs into public policies.

“Since 2018, this information has been collected through the SDSN survey on national coordination and implementation mechanisms at the central/federal level of government.”

The 2022 results for the Philippines showed that while the government was able to complete its VNR and has designated a unit for the coordination and implementation of the SDGs, there has been no official public statement by the government endorsing the implementation of the SDGs.

Although the Philippine government was able to integrate the SDGs into sectoral action plans or an overarching strategy, the UN SDSN found that the SDGs were not mentioned in the country's latest central budget document at that time.

Key moments in 2023

The UN Development Programme (UNDP) believes that this year “offers an opportunity to accelerate action to deliver progress for people and [the] planet” despite the COVID-19 and other global crises that have caused setbacks in the past years.

The UNDP listed some key moments for sustainable developments to look out for this year, which include:

- 8th biennial High-level Meeting of the Development Cooperation Forum in March
- UN 2023 Water Conference in March
- 67th session of the Commission on the Status of Women (CSW67) in March
- Global Space Conference on Climate Change in May
- High-level Political Forum on Sustainable Development in July
- SDG Summit in September
- 28th session of the Conference of the Parties (COP28) in November
- 16 Days of Activism Against Gender Violence in November

“Just seven years away from the end date of the 2030 agenda, it’s tempting to see the SDG glass as half empty. Crises such as COVID-19 have posed new challenges to development cooperation and, at the same time, have exacerbated existing trends like growing inequalities,” the UNDP said.

“But the SDGs remain our best chance to spread prosperity, security and human rights to all corners of the world. And 2023 brings the possibility to reset and recommit to this transformative agenda for humanity,” it added.

POLITIKO

Mariveles coal plant turns over reforestation program to DENR

A coal-fired power plant in Mariveles in Bataan province has announced the turnover of its three-year reforestation program to the Department of Environment and Natural Resources (DENR).

After three years of site maintenance and reforestation, GNPowder Dinginin Ltd. Co. said it officially turned over the program to representatives from DENR Miguela Ramirez and Romelo Cuaresma.

Arcel Madrid, GNPD associate vice president for community relations, said the reforestation program in 3.5 hectares of land along the 6.5-kilometer bypass road in Mariveles has 389 surviving Banaba trees.

“GNPD will continue to work with empowering progress towards the achievement of sustainable forest management, based on science and principles of good forest governance. Let us protect a forest one at a time because protecting our forest is protecting our lives,” he said.

Madrid noted that through the initiative of the company and the goal to sustain the environmental compliance certificate, GNPD supports and acts in response to various DENR programs.

“Ultimately, GNPD aims to reduce the effects of the company’s business operations on the community, health, welfare, and the environment through this kind of program,” he added.

Both DENR and GNPD said they look forward to a good partnership in having the same campaign toward empowering and protecting the environment.

The coal-fired power plants of GNPD and its sister company, Mariveles GNPowder Energy Center Ltd. Co., are located in Barangay Alas-asin.

REUTERS

[Exclusive: World Bank seeks more funds to address climate change, other crises -document](#)

By: David Lawder

WASHINGTON, Jan 2 (Reuters) - The World Bank is seeking to vastly expand its lending capacity to address climate change and other global crises and will negotiate with shareholders ahead of April meetings on proposals that include a capital increase and new lending tools, according to an "evolution roadmap" seen by Reuters on Monday.

The roadmap document - sent to shareholder governments - marks the start of a negotiation process to alter the bank's mission and financial resources and shift it away from a country- and project-specific lending model used since its creation at the end of World War Two.

The World Bank management aims to have specific proposals to change its mission, operating model and financial capacity ready for approval by the joint World Bank and International Monetary Fund Development Committee in October, according to the document.

A World Bank spokesman said that the document aimed to provide details on the scope, approach, and timetable for the evolution, with regular updates for shareholders and decisions later in the year.

The reform of multilateral development banks was a topic of fierce debate in recent months after developing countries faced mounting pressure from inflation, energy and food shortages fueled by Russia's war in Ukraine, slowing growth, mounting debt burdens and growing vulnerability to climate shocks.

The pressures laid bare the inadequacy of the World Bank and International Monetary Fund's (IMF) structures - designed at the end of World War Two to focus on rebuilding peacetime economies - to deal with current global calamities.

The development lender will explore options like a potential new capital increase, changes to its capital structure to unlock more lending and new financing tools such as guarantees for private sector loans and other ways to mobilize more private capital, according to the document.

But the World Bank Group (WBG) is not ready to bow to demands from some non-profit organizations to abandon its longstanding top-tier credit rating to boost lending, stating: "Management will explore all options that increase the capacity of the WBG whilst maintaining the AAA rating of the WBG entities."

U.S. Treasury Secretary Janet Yellen has called for the World Bank and others to revamp their business models to boost lending and harness private capital to fund investments that more broadly benefit the world, such as helping middle-income countries transition away from coal power.

A U.S. Treasury spokesperson declined comment on the World Bank document.

A spokesperson for Britain's foreign office said the UK "strongly supports" the World Bank proposals to explore all options to further increase support to developing and emerging economies.

The bank said proposals under consideration include higher statutory lending limits, lower equity-to-loan requirements and the use of callable capital - money pledged but not paid in by member governments - for lending.

Development experts say this shift would greatly increase the amount of lending compared to the current capital structure, which only utilizes paid-in capital.

"The challenges the world is facing call for a massive step up in the international community's support," the bank said in the document. "For the WBG to continue to play a central role in development and climate finance, it will need a concerted effort by both shareholders and management to step up WBG financing capacity."

INADEQUATE FUNDING

The roadmap document cautions that a build-up of lending for climate change, health care, food security and other needs may require a capital increase to boost the capacity of the World Bank's middle-income lending arm, the International Bank for Reconstruction and Development (IBRD).

IBRD's \$13 billion capital increase in 2018 "was designed to be prepared for one mid-sized crisis a decade, and not multiple, overlapping crises" including the COVID-19 pandemic, the war in Ukraine and the effects of accelerating climate change, the document said. IBRD's crisis buffers will likely be depleted by mid-2023, it said.

Another option, according to the roadmap, is for World Bank shareholder countries to step up periodic contributions to the lender's fund for the world's poorest countries, the International Development Association (IDA), which have declined in recent years despite increasing needs.

The roadmap also offers the option of creating a new concessional lending trust fund for middle-income countries that would focus on global public goods and be similar in structure to IDA, with regular funding replenishments that would be separate from the bank's capital structure.

"Such a fund may attract donor bilateral resources separate from shareholder budget lines supporting the WBG, and potentially include donors beyond shareholders," such as private foundations, the bank said.

But environmental campaign group Friends of the Earth said the proposal did not go far enough and World Bank shareholders needed to ensure the lender was not "part of the problem".

"A true evolutionary roadmap must commit to ending financing for fossil fuels, industrial animal agriculture, petrochemical infrastructure, corporate-friendly false solutions, and harmful activities in biodiverse areas," Luisa Abbott Galvao, Senior International Policy Campaigner for Friends of the Earth, said in an emailed statement.

The World Bank also said that the evolution of its mission to increase climate lending while maintaining good development outcomes will require additional staff and budget resources, which have declined 3% in real terms over the past 15 years.

SUNSTAR

PH going greener in energy use

By: Cherry Ann Lim

THE Department of Energy has awarded 41 renewable energy service contracts in the second half of 2022 in a bid to reduce the country's reliance on fossil fuels.

This will help the country meet its target to increase the renewable energy (RE) share in the country's power generation mix from the current 22 percent to 35 percent by 2030 and 50 percent by 2040.

In a statement, the Department of Energy (DOE) said the 41 RE contracts awarded from July 1 to Dec. 14, 2022 had a potential capacity of 9.2 gigawatts (GW), of which some 6.2 GW would come from offshore wind service contracts.

There has been a global push to reduce the use of fossil fuels, which include coal, petroleum, heavy oils and natural gas--the byproduct of whose combustion is carbon dioxide, a greenhouse gas that causes global warming and climate change.

The Philippines also imports much of its supply of fossil fuels, making it vulnerable to foreign exchange fluctuations and geopolitics such as Russia's invasion of Ukraine last year that continues to this day.

In contrast, indigenous sources of energy, such as the wind, sun and ocean water are seen as more sustainable forms of energy that could help the Philippines attain energy security.

The DOE said it had taken a number of measures to encourage more investors to develop and use renewable energy.

These include increasing the annual percentage increment for participants of the Renewable Portfolio Standards (RPS) for on-grid areas from one percent to 2.52 percent beginning 2023 to enable the country to meet the RE target of over 50 percent of total power generation mix by 2040, as well as starting preferential dispatch of RE-generating units in the Wholesale Electricity Spot Market.

The RPS rules obligate participants to source or produce a minimum RE percentage of their electricity requirements from eligible RE resources.

The DOE said it had also amended the implementing rules and regulations of the Renewable Energy Act of 2008 to increase the foreign ownership of RE projects from 40 percent to 100 percent.

In its push for the use of cleaner energy, the DOE said it is looking at new and emerging renewable energy technologies such as offshore wind, waste-to-energy, an expanded rooftop solar program, as well as ocean and tidal stream energy.

In line with this, it will work with the Energy Regulatory Commission to develop the policy and framework for such technologies.

Under the Philippine Energy Plan (PEP) 2020-2040, renewable energy would compose 35 percent of the energy generation mix by 2030, with solar energy making up 15 percent of total power generation, followed by hydro power at 14 percent, geothermal energy at 4.4 percent, wind at 1.4 percent and biomass at less than one percent.

Natural gas would overtake coal as the top fuel for power generation, increasing its share from 20 percent in 2020 to 40 percent, because natural gas can support the higher penetration of renewables in the generation mix.

The share of coal in the total power generation mix would drop to 24.6 percent in 2040 from 57 percent in 2020.

Natural gas, which is also a fossil fuel, is seen as a transition fuel under the PEP's Clean Energy Scenario.

The use of clean energy and move to a low-carbon future is also in line with the country's commitment to the United Nations' Sustainable Development Goal 7, which targets increasing substantially by 2030 the share of renewable energy in the global energy mix.

THE WASHINGTON POST

[Climate change puts more women at risk for domestic violence](#)

By: Geoffrey Ondieki, Disha Shetty and Aie Balagtas See

UMOJA, Kenya — Pilot Lenaigwanai covers her mouth as she speaks. She is trying to hide her broken tooth, a bitter reminder of all she endured before finding refuge at a shelter for abuse survivors in northern Kenya.

The mother of three arrived here in July after being forced from her home by escalating violence. Her husband was abusive even before the drought that's now ravaging Kenya's arid north, the worst in decades. When the family's 68 cattle — their only means of survival — died, the abuse became impossible to bear.

“He was visibly frustrated and turned the heat on me and my children,” she says. “I just think he wanted us out, because he could not provide for us anymore.”

Lenaigwanai is one of the dozens of women who have arrived at the Umoja refuge in recent months fleeing violence that they say got worse as each successive year of low rainfall plunged their families deeper into poverty. Her semi-nomadic Samburu community of pastoralists are particularly vulnerable to drought because they depend on the livestock whose emaciated corpses litter the barren lands that once provided plentiful grazing.

For these and many other women around the world, the threat of violence could become more common as climate change makes extreme weather events more intense and frequent.

Scientists have long warned that climate change disproportionately impacts the world's poorest and most vulnerable, and negotiators from wealthy countries at the U.N. Climate Change Conference in Egypt pledged to do more to help poorer countries already grappling with its devastating effects.

Until recently, relatively little attention has been paid to its disproportionate impact on women and girls. But this year the U.N. Intergovernmental Panel on Climate Change identified a link between climate change and violence, citing the growing evidence that extreme weather events are driving domestic violence, with global implications for public health and gender equality.

A 2021 study of extreme weather events in Kenya by researchers at St. Catherine University in Minnesota found the economic stresses caused by flooding and drought or extreme heat exacerbated violence against women in their homes. The research, which used satellite and national health survey data, showed that domestic violence rose by 60 percent in areas that experienced extreme weather.

That analysis, and 40 others published this year as part of a global review in the journal *The Lancet*, found a rise in gender-based violence during or after extreme weather events.

Kenya's vanishing glaciers signal what's to come in a warmer world

Terry McGovern who heads the department of Population and Family Health at Columbia University's Mailman School of Public Health, called the scientific evidence for this connection "overwhelming."

"Heat waves, floods, climate-induced disasters increase sexual harassment, mental and physical abuse, femicide, reduce economic and educational opportunity and increase the risk of trafficking due to forced migration," said McGovern, who added that the data remains limited on some fronts, including on psychological and emotional violence and attacks against minority groups.

Several academics, activists and humanitarian workers said the links between violence against women and extreme weather events need more research. Unlike the hard science of climate change, they said, the complex drivers of violence cannot easily be captured in numbers.

"The climate discourse is all about the numbers, but the evidence on violence and changes in power dynamics cannot be captured that way, and so it is not given the same weight," says Nitya Rao, a professor of gender and development at the University of East Anglia in the U.K. "It is very difficult to make a linear connection."

In Umoja, no one is in much doubt that the drought is driving up violence — its swelling numbers are proof enough. Jane Meriwas, whose nonprofit organization the Samburu Women Trust helps women who have fled abusive homes support themselves, says the number of women at Umoja has doubled to 51 in the last year.

"As communities and families lose their livelihoods and suffer hunger, there is increased experience of weak or broken family structures," Most are now engaging in dangerous activities to get a meal," she said, such as sex work and bootlegging.

With their semi-nomadic lifestyle, Samburu women are particularly vulnerable. They have little or no stable access to health facilities, police protection or support services, Meriwas said, making it harder for them to report abuse. “They are really suffering in silence.”

‘The violence peaks during the floods’

In eastern India, more frequent downpours and devastating floods are what’s driving violence. Poverty is exacerbated by sudden economic stress, and societal inequality often traps women with abusive partners or other family members because they have nowhere else to go and cannot rely on authorities for help.

A mother of five who asked to go by her middle name, Devi, to protect her identity, said she doesn’t know anything about climate change. She just knows that whenever floods come to her village in Bihar state, her husband comes home angry and violent.

With her husband working away from home much of the year as a farmhand, each season can be a challenge. But the monsoon season, Devi said, is by far the toughest. That is when the rivers in her low-lying village downstream from the melting Himalayan glaciers swell to bursting, flooding large swaths of land and making farming impossible. With no prospect of work until the floods recede, her husband returns home and takes his frustration out on his family.

“The violence peaks during the floods. Everything gets worse at that time — the hunger, the stress. We have snakes coming into the house,” says Devi, 40.

“The anger gets taken out on me. There’s a lot of stress during those times and I can’t sleep because of all the tension,” she says, wiping away tears as one of her young sons leans in closer.

Devi, who shares her small thatched-roof home with her mother-in-law, has little privacy to describe the nature of the violence. But when the older woman went out of earshot, she said her husband beats her and verbally abuses her “day and night” during the floods.

Shilpi Singh, who works with women in India’s poorest state as director of grass roots organization called Bhoomika Vihar said she sees the connection between floods and violence as straightforward.

“It comes down to economic distress. When there is no food to eat in the house, the men vent out their frustration by beating the women, who are raised with the belief that leaving is not an option.”

For Devi, the floodwaters themselves trap her. When they surround her home, they cut her and her family off from the outside world, increasing her vulnerability even further. As she talks about her situation, she repeatedly invokes a well-known Hindi phrase that translates roughly as “I endure,” which almost always refers to women’s suffering.

“If my daughters find themselves in this situation, I will tell them, they must endure,” she said. “If there are bad days, good days must surely follow.”

Lessons from a typhoon

Scientists emphasize that extreme weather events do not cause domestic or gender-based violence, but instead exacerbate existing pressures or make it easier for perpetrators to carry out such violence.

The mass displacement that follows disasters can expose women to greater danger, according to studies in Bangladesh and parts of India.

The Philippines ranks as one of the world’s most disaster-prone countries, suffering frequent earthquakes and storms that are becoming more intense as the world warms. Nine years ago, Typhoon Haiyan — one of the strongest cyclones ever recorded — flattened entire villages in the Philippines, killing more than 6,000 people and displacing around 4 million.

When Typhoon Rai hit the Philippines in December 2021, the country was better prepared. The relatively low death toll — in the hundreds — has been attributed in part to improved early warning systems and other measures put in place by local authorities. But it caused nearly as much property damage as previous storms. Just over a year later, many victims are still living in makeshift shelters after losing their homes, and in many cases, their crops and livelihoods.

Rommel Lopez, spokesperson for the local social welfare department, said these stresses often acted as triggers for abuse within families in a country where violence against women is common. One in every four Filipina women aged 15 to 49 has experienced physical, emotional or sexual violence from a husband or partner, according to a 2017 demographic survey conducted by the Philippine Statistics Authority.

“When there’s a calamity or disaster or conflict, that can put families in difficulties. The situation at evacuation centers is a contributing factor,” Lopez said. “It makes them agitated. It adds to their frustration. When someone is frustrated, they could reach a certain point and that could trigger [violence].”

Aira Nase, 37, has been running away from violence all her life. Her mother suffered beatings from her partner and as a young girl, Nase vowed never to be like her. She was proud of raising her three children alone, taking on jobs in Manila, the capital, to provide for them.

When covid hit in 2020, she decided to leave the city and take her family back to her home province of Southern Leyte on the eastern side of the archipelago that makes up the Philippines. She got together with a local fisherman, and for a time the couple enjoyed a quiet life. They would occasionally quarrel over his drinking, particularly after Nase became pregnant in 2021, but never got into physical fights.

All that changed after Typhoon Rai made landfall shortly before Christmas 2021, devastating swaths of the country and destroying the couple’s home. They spent the holidays in a school library that doubled as an evacuation site, remaining there until May.

Her partner began drinking more frequently and the couple fought daily. Then Nase’s breast milk dried up, but the couple could not afford formula for their two-month-old baby. Her 16-year-old daughter gave birth to a premature baby who died after they could not afford hospital care.

The tensions between the couple peaked in February, when Nase’s partner returned drunk and rowdy to the library, disturbing other evacuees. Nase said she tried in vain to quiet him down. When she went to leave, he kicked her before rushing out of the room. Nase passed out and when she regained consciousness the next day, he was in jail.

“It was a very stressful time for us. We were broke and jobless. He was hotheaded and often drunk,” Nase said. “I told him: you’re not the only one who suffered from the storm, our neighbors did too. If you have a problem, why don’t you talk to me?”

There’s no official data showing how extreme weather disasters affect levels of violence against women and girls in the Philippines. One study, based on in-depth interviews with 42 people including survivors of Typhoon Haiyan, aid workers and government officials found reports of domestic violence, sexual violence and incest had increased in its aftermath. A separate survey of more than 800 households in the affected area

carried out by the International Federation of the Red Cross and Red Crescent Societies (IFRC) found increases in both early marriage and domestic violence.

Humanitarian organizations working in the Dinagat Islands, which were badly hit by Typhoon Rai, sought to break this pattern. They launched a poster campaign highlighting where women can go for help if they are facing violence at home, along with a phone number to call.

For the Samburu women at Umoja, escaping the twin pressures of violence and drought has become key to their survival.

Rose Lairolkek sat in the little remaining shade afforded by the cluster of traditional mud-roofed huts that make up the refuge. She recounted how her husband came home angry after discovering all his cattle had died and attacked her, and how she still bears the scar on her right shoulder more than two years later.

“It almost cost me my life.”

VERA FILES

[Experts weigh on creation of Department of Water to mitigate water scarcity](#)

By: Siegfried Aldous Lacerna and Ann Gabrielle Domingo

Staying past the bedtime hours so they can fill their jugs with water to make it through the next day is nothing new for 22-year old Lynex Joy Biquio, her family, and her neighbors in Quirino, Cagayan Valley.

Biquio's everyday life circles around utilizing the limited water supply during daytime and fetching during late hours due to water scarcity. This has been the situation since 2005, she said.

"Since we live in an elevated land, we can only collect water from 12 midnight up to 3 a.m. in the morning. This means from 4 a.m. up to 11:59 p.m., we have no supply of water," Biquio said, adding that it has been a struggle for them, especially because they are a family of more than seven people.

Biquio also recalled some days wherein they wouldn't receive any water supply for three days, thus adding more burden to her family. by forcing them to fetch water from lowland neighbors.

"But even then, we had to wait for our turn because they have their own water jugs to fill too," Biquio said, detailing how after filling in their drums, they would still have to carry it back to their house. Amid all of these, she still has her hopes up that there would be improvements in their water supply in the near future. At the same time, the local from Quirino worries that the worsening climate situation would further aggravate her hometown's condition.

The daily ordeal of Biquio and her townmates is not isolated. According to Water.org, three million Filipinos still rely on unsafe and unsustainable water while seven million lack access to improved sanitation. This is further worsened by the world's climate situation as the World Resource Institute also claims that the Philippines is predicted to experience a "high degree" of water scarcity come 2040.

Thus, several lawmakers in the 19th Congress have filed a measure creating the Department of Water Resources which seeks to "improve water quality, sanitation, and climate change mitigation."

But, even before 2019, former President Rodrigo Duterte has already mulled about the creation of the said executive department due to water stoppages in the same year. However, it did not pass.

This year, President Ferdinand Marcos Jr. underscored the importance of a water department which would direct 20 agencies to properly manage different sources of water.

There are over 35 bills with similar objectives of creating the Department of Water Resources which were filed in the House of Representatives which aims to coordinate different executive agencies while also subsuming some offices under Department of Environment and Natural Resources (DENR), Department of Agriculture (DA), and Department of the Interior and Local Government (DILG).

The bills also pose promises on climate change adaptation and development of sustainable water resources. Last November 28, two house panels created a technical working group, led by Albay 2nd District Representative Joey Salceda, to draft a substitute bill creating a water department.

On the other hand, the senate version of the bill that was introduced by Sen. Grace Poe, would allow the DOWR to create a “ Water Regulatory Commission” as the primary water management which would also act as a quasi-judicial body. Poe’s bill focuses more on the economic and distributive aspects of water management to address water shortage in the Philippines.

The creation of the DWR may allow the Philippines to follow suit in neighboring countries that already have long-established departments that handle water resources and management. In Malaysia, the Ministry of Environment and Water (Department of Environment) aquatic functions include: river water, marine water, and groundwater monitoring; oil spill contingencies; and the development of water resources.

In Singapore, the Public Utilities Board (PUB) handles water management but is also under the jurisdiction of the Ministry of Sustainability and the Environment. Notably, these departments take a holistic approach to water management by integrating the protection of aquatic ecosystems within their jurisdiction.

Despite its promising premise, several experts have varying opinions on the bill, especially its provisions on climate change mitigation because of bureaucracy and execution.

In an exclusive interview, Prof. Jan Frederick Cruz, a lawyer and professor at the Ateneo de Manila University who teaches economics and law, mentioned enforcement, appointment, coordination, and budget as issues he can see in the creation of the Department of Water Resources.

“Sometimes, we do have these stated objectives in the law, but the agency doesn’t have power. It doesn’t have the coercive power to enforce the law,” Cruz said, adding that there is a need to promulgate rules and to enforce those that will be issued by the department.

He also emphasized the need to check the qualifications of the person that would head the agency because if the list of qualifications is too broad, it technically means that anyone can be appointed for the post.

“Even if the intention of the law is good, if there is someone who is not so invested in pursuing the spirit of the law, then the creation of the Department of Water could be a futile exercise,” Cruz said.

He also emphasized coordination as a potential problem since the bill has provisions that aim to mitigate the climate situation for instance, it has to coordinate with various existing agencies with similar objectives like the Climate Change Commission, DENR, and DA which pose further bureaucracy when the government aims to reduce it.

On his first State of the Nation Address, President Marcos said rightsizing the government is top of his legislative agenda.

Cruz also mentioned budget as a problem because the department, if enacted into law, has to compete with other similar agencies in terms of fund allocation, considering that the country has limited funds due to ballooning debts and recession.

“The president can simply pass an executive order enacting an interagency task force whose sole function is coordination,” Cruz said, adding that it would be easier because it would take a lot of funds to create and maintain another executive department.

On the other hand, Assoc. Prof. Mayzonee Ligaray of the University of the Philippines thinks otherwise. Creating an agency which solely focuses on water resources, for Ligaray, means centralizing the duty to resolve issues surrounding it.

“When I want to get information about water resources, I still have to contact several government agencies,” Ligaray said, adding that the problem of executive departments

in the country is having too many jobs designated towards few people. Thus, creating a new one means employing new people whose job is focused on one utility.

Biquio is still not convinced that help would reach them even if the water department bill is signed into law.

“There are many programs which are apparently focusing on water improvement yet nothing happens,” Biquio said, adding that if ever the bill would materialize, she hopes the department would lend a sustainable help like long-lasting water infrastructures.

Prof. Elfritzson Peralta, a Department of Biological Sciences faculty member at the University of Santo Tomas, also agrees that the water department has the potential to centralize water management to one governmental body.

But despite its potential to centralize existing mandates, the creation of a water department must not become a redundant effort in replicating the functions of existing environmental or water-related bureaus. According to Peralta, it can still be strengthened by integrating aquatic ecosystem rehabilitation with the proper guidance of scientists and stakeholders who have expert knowledge on water.

“A number of departments, in [themselves, have] good mandates to implement those laws and ordinances that we have. But the problem there, if it’s not centralized, if it’s not properly structured and backed by experts, of course, then there would be a problem in terms of the implementation,” Peralta said.

He hopes that the department would prioritize addressing flood, water scarcity, and pollution of different water resources, including helping the Filipino community, especially those who are vulnerable and dependent on water.

Peralta also underscored that as long as the implementations are in place, then the department is in good direction. However, because the bill is still in the hands of legislators, its promises remain to be paper.

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