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By: Maddie Molloy

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BUSINESS MIRROR

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MANILA BULLETIN

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MANILA STANDARD

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By: Alena Mae Flores

The Department of Energy said Monday it plans to bid out 21 renewable energy sites for private sector development. Energy assistant secretary Mylene Capongcol said the agency was initially looking at bidding out 15 hydro, three geothermal and three wind sites by next year.

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By AFP

Miner Thokozani Mtshweni, 37, looks spent as he readies for a 12-hour shift huddled under a carport shelter to avoid the scorching sun. He fixes his belt weighed down by an oxygen tank and gas detecting tools.

PHILIPPINE DAILY INQUIRER

[Changing climate claims railways, houses and beaches in California](#)

By Agence France-Presse

SAN CLEMENTE, California — Steve Lang can see catastrophic erosion worsened by climate change happening in real time along one of the world's most scenic railroad lines, where the sea is swallowing homes, tracks and California's beautiful beaches.

THE MANILA TIMES

[\[OPINION\] Saving our coral reefs](#)

AN environmental group has said that only 2 percent of the Philippines' coral reefs remain healthy. Plastic pollution is killing the corals and there are 5 trillion plastics in the world's surface water, says Haribon Foundation chief operating officer Anna Varona.

THE PHILIPPINE STAR

[\[OPINION\] An environmentally-resilient Philippines \(PART 1\)](#)

POINT OF VIEW - By Federico R. Lopez

I've been asked to share my thoughts on what an environmentally-resilient Philippines could look like. To understand what this involves, let me take a step back and place it in the context of what the world needs to get to and why. It's often said that the COVID-19 pandemic was just a dress rehearsal for how we will face an even more perilous world from the impacts of climate change.

[\[OPINION \] An environmentally resilient Philippines \(PART 2\)](#)

POINT OF VIEW - By Federico R. Lopez

(Conclusion)

Cornerstone : Electrify everything. With a greener grid you should now seek to "electrify everything" from transport to various industrial processes where possible. Innovation in the transport and industrial sectors that accomplishes this is crucial for this cornerstone too.

CCC IN THE NEWS

RMN

[\\$100-B na commitment para sa Pilipinas sa ilalim ng Paris Agreement patungkol sa climate change, naging tema ng pag-uusap sa United Nations Framework Convention on Climate Change](#)

By RadyoMaN Manila

Nagbunga na ang ginawang pag-giit ng Pilipinas sa United Nations para makatanggap ang mga developing countries ng tinatawag na climate finance.

Information and Knowledge Management Division

AL JAZEERA

[Massive protest in Paris against inflation and climate crisis](#)

Tens of thousands of protesters marched in Paris adding to growing defiance and anger about inflation, three weeks into a refinery strike that caused fuel shortages across France.

The demonstration against the rising cost of living on Sunday was called by the left-wing political opposition and led by the head of the France Unbowed party, Jean-Luc Melenchon.

It was a show of anger against the bite of rising prices and to crank up the pressure on the government of President Emmanuel Macron.

Organisers called it a “march against the high cost of living and climate inaction”.

As well as calling for massive investment against the climate crisis, they also demanded emergency measures against high prices, including freezes in the costs of energy, essential goods and rent, and for greater taxation of windfall profits by corporations.

Some protesters wore yellow florescent vests, the symbol of often violent anti-government protests in 2018 that shook Macron’s pro-business centrist government.

Opponents of Macron are hoping to build on the momentum created by the refinery standoff that began at the end of September.

Transport strikes called for Tuesday threaten to dovetail with wage strikes that have already hobbled fuel refineries and depots, sparking chronic gasoline shortages that are fraying nerves among millions of workers and other motorists dependent on their vehicles, with giant lines forming at petrol stations.

“We’re going to have a week the likes of which we don’t see very often,” Melenchon said from atop a truck in the middle of the crowd. “Everything is coming together. We are starting it with this march, which is an immense success.”

Organisers said 140,000 people attended Sunday’s rally. Police earlier predicted about 30,000 people would attend.

BBC NEWS

COP27: Swimmer attempts Red Sea crossing for climate change

By: Maddie Molloy

Endurance swimmer Lewis Pugh is attempting what is thought to be the world's first swim across the Red Sea. He wants to highlight the vulnerability of coral reefs and oceans ahead of a major climate meeting in Egypt in November.

He told BBC News he wanted world leaders to "put your heads in the water to see what we risk losing if we don't take urgent action".

He hopes to swim the 160km (100 miles) distance over two weeks.

Nations will be gathering in Sharm el-Sheikh for COP27 in November to discuss how the world is tackling rising temperatures.

Mr Pugh, a UN Patron of the Oceans, will face warm sea temperatures, very salty water, and long hours of exposure to the sun as he swims around 10km (6 miles) a day.

His journey started in Saudi Arabia, and will take him through one of the world's busiest shipping lanes leading to the Suez Canal. He will touch land again in Hurghada, Egypt.

He describes the precious coral reefs he is swimming over as "magnificent".

"I've swum in coral reefs that are so incredibly beautiful and biodiverse. There's fish of every single colour and description. But then I've come back a few years later and there's very little left there," he told BBC News.

Coral reefs are particularly vulnerable to climate change. The UN warns that if global temperatures rise by 1.5C, 90% of reefs will disappear.

Mr Pugh is calling on governments to take action to significantly cut their greenhouse gas emissions and for 30% of the world's oceans to be protected.

"The vast majority still have some way to go to understanding how quickly it's happening and the huge impact this will have on everyone around the world," Mr Pugh says.

He has been swimming for 35 years and is the first person to complete a long-distance swim in every ocean.

"This is a fight to get people to understand the huge impact [climate change] is having not just on current generations, but every single future generation on this planet," he explains.

He was accompanied by Dr Mariam Saleh Bin Laden, a Saudi endurance swimmer, for 9km. She described the swim as "short and tough and adventurous".

"I wanted the coral swim to include swimmers from around the region. I invited Mariam to join me on the first section because she is a passionate humanitarian and has pioneered endurance swimming in Saudi Arabia," Mr Pugh said.

After finishing the swim, Mr Pugh will attend COP27.

BUSINESS MIRROR

Increased collaboration, awareness crucial to tackling biodiversity, climate concerns

By Jonathan L. Mayuga

The Philippines is one of the most biologically diverse countries in the world. However, it has also been identified as one of the world's biodiversity hotspots due to biodiversity loss.

Aggravating the challenges posed on the country's biological ecosystem are population growth, rapid urbanization, global warming and the global pandemic caused by Covid-19.

Biodiversity experts believe that maintaining a healthy ecology or strong biodiversity, is essential to human survival. Eventually, they believe it will lead to the path of sustainable growth and development

Ecosystem services

Ecosystem services are the direct and indirect benefits humans obtain from nature, Executive Director Theresa Mundita S. Lim of the Asean Centre for Biodiversity (ACB) told the BusinessMirror in an e-mail interview on October 1.

Citing various studies, Lim, an international biodiversity expert, said different ecosystems provide different types of services.

More importantly, she cited the provisioning services that include the supply of food, water, fiber, wood and fuels.

"Different ecosystems provide different types of services. Forests and trees aid in healing damaged ecosystems and in providing livable conditions," Lim said.

Importance of forests

In addition to producing tangible goods, Lim, a former director of the Biodiversity Management Bureau of the Department of Environment and Natural Resources, said forests reduce the effects of noise, floods and droughts.

"They purify water, bind harmful substances; they maintain soil fertility and water quality; they aid in controlling erosion; they protect drinking water resources; and they can help with wastewater processing," she said.

Besides reducing climate change, forests help in controlling infectious diseases.

At the same time, Lim said oceans and seas provide a different set of ecosystem services.

There is also an increasing body of research in the indirect impact of biodiversity on human health, proving that exposure to nature, including urban green space, parks and woods, have measurable good effects on mental and physiological health, she pointed out.

Threats to ecological services

The ecological services provided by forests, however, are threatened by deforestation, pollution and biodiversity loss.

Food production, Lim noted, impacts all ecosystems. Agriculture, the main economic driver, along with habitat loss, are recurring threats to biodiversity and remain the primary concern.

Population growth also places added pressure on natural resources.

“Some countries are experiencing a rapid increase in population, while some experience close to negative growth,” she said.

Many parts of the world are experiencing increased pressure in the consumption of food and resources due to the increasing population.

Climate change and biodiversity loss

Scientists and experts have time and again identified climate change as a major driver of biodiversity loss.

According to the Convention on Biological Diversity (CBD), climate change has already adversely affected biodiversity at the species and ecosystem levels.

“Some species and ecosystems are demonstrating the capacity to adapt naturally. However, others show negative impacts under current levels of climate change,” Lim noted.

Meanwhile, the United Nations Environment Programme said biodiversity-rich forests are likely to be less vulnerable to climate risks and impacts than degraded and/or fragmented forests and plantations dominated by a single or a few species.

However, the current regulating service of forests as carbon sinks may be lost entirely and turn land ecosystems into a net source of carbon dioxide.

Meanwhile, in marine and coastal ecosystems, warmer temperatures lead to increased rates of coral bleaching or a decline in coral health, Lim noted, citing a 2010 Asian Development Bank study.

Climate change's impact on agriculture

A study by the Southeast Asian Regional Center for Graduate Study and Research in Agriculture (Searca) states that changes in climatic patterns consequently alter the spatial distribution of agro-ecological zones, habitats, distribution patterns of plant diseases and pests, fish populations, and ocean circulation patterns that can significantly affect agriculture and food production.

The manifestation of identified climate change-induced hazards and risks to agriculture will vary due to differences in geographical and socioeconomic conditions across the region, according to the Searca study in 2013.

Lim noted that agrobiodiversity remains the main raw material for agroecosystems to cope with climate change as it contains the reservoir of traits for plant and animal breeders and farmers to select resilient, climate-ready germplasm, and produce new breeds, citing a study by Marambe and Silva.

Protected areas' limited defense

Climate change is likely to result in biodiversity loss, forest degradation, and reduction, migration and extinction of species.

Citing a World Wide Fund for Nature (WWF) report, Lim said protected areas indeed have a limited defense against climate change and they should be improved to withstand climate impacts.

“Climate change also adds to pressures of already vulnerable biodiversity hotspots. If there is a significant rise in sea level, all wetland and marine and coastal Asean Heritage Parks (AHPs) will be affected,” she explained.

According to WWF, Lim noted, species existing in about 60 percent of AHPs are vulnerable to climate change due to decreasing niche space, considering these AHPs are 1,000 meters above sea level.

AHPs in Cambodia, the Philippines and Vietnam have been previously affected by past cyclones.

Lim pointed out that endangered plants and animals are the most common components in almost all AHPs that are sensitive to climate change.

Zoonotic disease

Biodiversity loss and climate change aggravate the threat of zoonic diseases, Lim said.

“The exposure to vectors is increased or altered by activities connected to deforestation, such as mining, hydroelectric projects, road construction, mineral exploitation and agriculture. [They] have a profound impact, not only on the biology of vectors or potential vector populations, but also on the exposure of both native populations in the area and migrant populations,” she explained.

Lim pointed out that land-use changes are also associated with the creation of road networks, further enhancing pressures on wildlife populations.

“A series of emerging infectious diseases, for example, severe acute respiratory syndrome, Ebola and Middle East respiratory syndrome, have been linked to wildlife use, trade and consumption,” she said.

Mainstreaming biodiversity

How can mainstreaming biodiversity conservation help mitigate the impact of climate change and reduce, if not totally avoid yet another global pandemic?

Lim said that in many cases, different national government agencies work on climate change and biodiversity separately.

She pointed out that “convergence” among relevant stakeholders on both issues is necessary to comply with commitments to both the United Nations Framework Convention on Climate Change and the CBD.

“Regionally, there is a recognition of the vulnerability of Asean to the impacts of climate change. But an understanding of biodiversity conservation as an effective mitigating measure against climate change impacts needs to be emphasized,” Lim said.

“Increased collaboration, sharing of expertise and public awareness on the interrelationship between climate change and biodiversity are crucial to addressing these twin issues,” she added.

According to Lim, there is already an increasing recognition that protected areas may buffer against the emergence of novel infectious diseases by avoiding drastic changes in host/reservoir abundance and distribution and reducing contact rates between humans, livestock and wildlife.

The current Covid-19 pandemic further emphasizes the fact that protected areas are at the forefront of preventing future disease outbreaks by maintaining ecosystem integrity, she said.

BUSINESS WORLD

[Opinion] EPR law: A good start but not enough

By: Ron Jabal

The Philippines is in a conundrum when dealing with plastics — it wants to reduce plastic consumption, but the economy cannot live without it. So, policy makers are in a quandary on how to balance competing interests in a classical dilemma of, to plastic or not to plastic.

Recently, a proposed measure requiring enterprises with total assets over P1 billion to recover some portion of their plastic packaging wastes or suffer a fine. This is the Extended Producer Responsibility (EPR) Act of 2022, or Republic Act No. 11898 which neither former president Rodrigo Duterte nor President Ferdinand Marcos, Jr. signed 30 days after receipt from Congress.

Touted as a “solution” to the ever-growing volume of plastic waste in the Philippines, the law was also supposed to enhance the image of the country which was tarnished by an unwanted recognition as one of the top plastic polluters in the world. Many legislators hailed the enactment as a breakthrough in the country’s fight against solid wastes which is currently governed by the two-decade-old Ecological Solid Waste Management Act of 2000. Not a few said this is the way forward to address plastic garbage that has gone unchecked for decades.

And the law looks like it has major merits especially in managing the problem from the producer’s vantage point as the law places the responsibility of ensuring that the materials and waste they produce do not end up in landfills. Instead, these wastes should be reused, recycled, or allowed to biodegrade in an ecologically sound manner. Largely adopted from the framework established by the Organization for Economic Cooperation and Development (OECD), EPR is an environmental policy approach in which a producer’s responsibility for a product is extended to the post-consumer stage of a product’s life-cycle.

According to the new law, the following plastic products are included:

- Sachets, labels, laminates, and other flexible plastic packaging products, whether single-layer or multi-layered with plastics or other materials.
- Rigid plastic packaging products, whether layered with other materials, which include containers for beverages, food, household goods, personal care and cosmetic products, including their coverings, caps, or lids and other necessities or promotional items such as cutlery, plates, drinking straws, or sticks, tarps, signage, or labels.
- Plastic bags, which include single-use plastic bags, for carrying or transporting of goods, and provided or utilized at the point of sale.

At this point, it should be made clear that the law's emphasis is only waste recovery which includes, among others, buying back material or waste from consumers; putting up collection points where the material or waste can be dropped off after consumption then collected for reuse or recycling; cleaning up of waste from coastal areas, public roads, other places; and establishing recycling, composting, thermal treatment, and other waste diversion or disposal facilities.

And this is the contentious issue that has so far doused optimism about this law. Cause-oriented groups said the absence of more "teeth" in the law worries them. The inability of the law to penalize plastic producing companies from continuing to produce and use plastics makes the law weak and downright inutile in the fight to reduce plastic waste in the country. Instead of merely recovering waste, environmental groups called for a nationwide ban on single-use plastics. They also raised a howl on the exclusion of other enterprises that also use plastics as the law only applies to large enterprises. Without a ban, they argued, the problem of plastic waste will not be resolved.

According to a World Bank report, the plastic waste problem has been steadily worsening due to the growth of municipal solid waste (MSW) in the Philippines. It estimated that 14.6 million tons of MSW was generated in the Philippines in 2016. By 2019, MSW generation grew to 15.8 million tons. By 2030, the World Bank forecasts MSW generation to reach 20 million tons in the Philippines, 37% growth compared to 2016.

Surely legislators may have had some reasons why they focused their attention only on waste recovery and not a total ban. I can only surmise that they looked at the contribution of the plastic industry to the national economy, which was estimated to be \$2.3 billion in 2018. Moreover, they probably took into consideration the country's "sachet economy" — lower income families' overly high dependence on single-use plastics, such as multilayer sachets and pouches.

But studies have shown that single-use disposable plastic is the greatest obstacle to sound waste management. Inadequate waste management systems and human negligence may have appeared to be some of the main contributors to plastic waste leakage and yet brand audit data by independent organizations show that it is the unfettered production of disposable plastics that is the culprit.

Indeed, for as long as the mass production of disposable plastics continues unabated, countries of the world will find it harder and harder to cope. Put simply, disposable plastic is a pollution problem, and the only way to prevent it is to stop it at its source or to find sustainable alternatives to disposable containers.

A fairly recent report by the NGO Mother Earth Foundation disclosed the following disturbing data:

1. The average Filipino uses 591 sachets, 174 shopping bags, and 163 plastic labo bags (thin, semi-transparent plastic bags), yearly.

2. Every day, almost 48 million shopping bags are used throughout the Philippines, or roughly 17.5 billion pieces a year.

3. Plastic labo bag use throughout the Philippines is at 45.2 million pieces per day, or 16.5 billion pieces a year.

4. Around three million diapers are discarded in the Philippines daily, or 1.1 billion diapers annually.

The sheer volume of the plastic waste generated daily is simply too much for the national and local government units to handle and manage. The problem indeed lies in the production and use of single-use plastic and not how the waste is being managed.

Based on the experiences in GAIA's Zero Waste Cities project, by implementing zero waste strategies such as establishing working materials recovery facilities or MRFs, conducting door to door segregated collection, composting organics, and maximizing recycling of high-value materials among others, the government can only achieve a maximum of 70-80% waste diversion. Cities, municipalities, and barangays are still left stinking with 20% of the waste that they cannot manage. Thus, zero waste is simply a dream without solving the problem at its source.

From the looks of its, the Extended Producer Responsibility Act of 2022 is a valiant attempt at addressing the plastic menace in the country. Unfortunately, it was designed to tackle only the symptoms of the crisis, not the cause — the production of virgin single-use plastic. There is no law, standard, or formal safeguard to prevent companies from producing more and more plastic and plastic waste.

As one lady Senator said, the new law is a good start. But, dare I say, it is not enough.

MANILA BULLETIN

[Group pushes for more renewable energy investments](#)

By: Ariel Fernandez

A large multi-purpose cooperative urged the Philippine government to invest more on renewable energy to supply as source of power in various parts of the country.

ACDI chairman retired military general Gilbert Llanto said one of the best sources of renewable energy is the solar energy, which he said, is now being pushed in the Philippine cooperative sector.

Llanto said the ACDI is also leading by example as its main office in Taguig City is run by solar energy. He added that they will duplicate such energy source in Cagayan de Oro City.

“The ACDI is aiming to supply 80 to 100 percent of the Cagayan de Oro office’s power demand through the newly installed rooftop solar farm. This, however, is only the beginning of ACDI’s grand visions for a greener future,” said Llanto.

He said they are now formalizing a partnership with a local solar power company and is pushing to expand its use of solar panels to its 133 offices throughout the country, including its farm in Batangas and its complementary business line facilities.

“Beyond pushing for a wider adoption of solar panels, however, ACDI is also inspired with the hopes of helping ease demand from the national grid. With the Philippines’ heavy reliance on imported coal and oil in fueling our country’s various power plants, ACDI aims to inspire others to follow its path as a stopgap measure to what is perceived as the lack of sufficient power plants in the country,” said Llanto.

The official said they also initiated other various efforts that include investing in transition from internal combustion engines to hybrid powered ones.

He said the aim is to contribute to the national government’s thrust for cleaner and greener vehicles.

MANILA STANDARD

[DOE to bid out 21 renewable energy sites](#)

By: Alena Mae Flores

The Department of Energy said Monday it plans to bid out 21 renewable energy sites for private sector development. Energy assistant secretary Mylene Capongcol said the agency was initially looking at bidding out 15 hydro, three geothermal and three wind sites by next year.

“Those are service contracts that were terminated. Those are small ones [in terms of capacity], but we already conducted the resource assessment for that,” Capongcol said.

The DOE held the third open and competitive selection process in January 2021 where five geothermal areas and 17 hydro areas were offered for private sector participation.

Energy undersecretary Giovanni Carlo Bacordo said hydro areas offered under the 4th OCSP would have a total capacity of 101.35 megawatts.

Bacordo said the private sector support in the development and utilization of these RE resources would significantly contribute to the energy supply requirements of the Philippines.

“By 2040, the department aims to significantly increase the shares of cleaner energy sources in the energy mix, with the development of more renewable energy sources which are supported by the more flexible plants fueled by natural gas,” Bacordo told participants of the recently concluded Norway-Philippines Maritime & Energy Conference.

The agency crafted the Philippine Energy Plan 2020-2040 which provides ambitious targets to make the energy transition a reality.

“Under the Clean Energy Scenario of the Plan, we aim to achieve the aspirational target of at least 35 percent RE share of the total generation mix by 2030 and 50 percent share by 2040, which is in line with the goals of the National Renewable Energy Program,” Bacordo said.

He said the Philippines had identified 25 strategic areas with the highest wind and solar resource concentration.

“The country has a total potential capacity of 58,110 MW solar, as well as the potential for other RE sources such as wind, geothermal, hydro, and biomass,” Bacordo said.

The country also has the potential to install 178 gigawatts of offshore wind power with the right long-term vision, policies, infrastructure development and investments based on the recently released Philippines Offshore Wind Roadmap, he said.

Bacordo said investor support in the development and utilization of these RE resources would significantly contribute to the country's energy supply requirements.

Green future is cause for worry in South Africa's coal belt

By AFP

Miner Thokozani Mtshweni, 37, looks spent as he readies for a 12-hour shift huddled under a carport shelter to avoid the scorching sun. He fixes his belt weighed down by an oxygen tank and gas detecting tools.

An hour's drive from Johannesburg, Khutala Colliery is among more than 100 coal mines and a dozen coal-fired plants that dot the industrial landscape of the northeastern province of Mpumalanga, an area known as South Africa's coal belt.

Workers kitted in soiled yellow overalls breathe in the hazy air as they wait to board trucks that will drive them to an underground shaft.

"Closing these mines would affect our lives a lot," Mtshweni tells AFP. "It would be chaos".

Coal is a bedrock of South Africa's economy, employing almost 100,000 people and accounting for 80 percent of electricity production.

But the sector's future is uncertain, as Africa's most industrialised economy looks to wean itself off the carbon-emitting fuel in line with global efforts to tackle climate change.

Last year, the government secured \$8.5 billion in loans and grants from a group of rich nations to finance the transition to greener alternatives.

Fraught negotiations around how the money should be spent are expected to end before the COP27 climate summit in Egypt in November.

Supporters hope the money could act as a catalyst to transform the energy landscape in what is one of the world's top 12 largest polluters.

But questions remain over the country's ability to make swift inroads towards its goal of reaching net-zero carbon emissions by 2050.

Money and jobs

"Significantly more funding" will be needed, said Daniel Mminele, who heads the finance task team of a climate commission set up by President Cyril Ramaphosa.

A study by South Africa's Stellenbosch University put the figure at \$250 billion over the next 30 years.

Recent studies suggest more jobs will be created than lost by going green, but analysts say the swap will not be painless.

The coal industry is concentrated in Mpumalanga, which accounts for about 80 percent of all coal production.

“We need coal,” says Isaac Mahumapelo, a Khutala Colliery section manager, as piles of the black stuff are crushed behind him.

“The cities, the towns in and around Mpumalanga have been established through the coal mines.”

Trade unions worry job losses will not be reabsorbed by the renewable sector. Unemployment is above 30 percent nationwide.

“Wind and solar is not engineered in South Africa, it is fabricated elsewhere,” says energy analyst Tshepo Kgadima.

After a decade spent in the pits, Mtshweni, the miner, is among those fearing for their future.

“Everyone is dependent on this coal to provide for their loved ones,” he says.

International pressure on South Africa to clean up its act is seen with antipathy by some.

Europe’s renewed appetite for coal in the wake of the gas crisis sparked by Russia’s invasion of Ukraine is often cited as evidence of double standards.

“Coal will still be around for some time and whilst we wish to collaborate ... Let’s have our own agenda that realistically recognises the socio-economic imperatives of South Africa,” says Mike Teke, CEO of Khutala Colliery’s operator, Seriti.

No turning back

Yet, things are starting to move.

Khutala Colliery lies near Kendal, an industrial town surrounded by coal silos and plumes of thick smoke.

The mine feeds a nearby power station—one of the world’s largest—operated by state energy firm Eskom.

The plant and neighbouring mines are surrounded by maize and livestock farms.

Cattle graze under the grey polluted skies. Lumps of coal sit on the side of the road as trucks come and go.

Still, Seriti recently set up a green energy branch to invest in wind and solar.

“We need to diversify in line with what might be coming,” says Teke.

Climate activists have tried to force the government to push the throttle forward by taking it to court.

In a first victory this year, judges ordered authorities to reduce pollution in Mpumalanga — which Greenpeace says has some of the dirtiest air in the world.

As Eskom’s ageing plants struggle to produce enough energy to keep the lights on, the government has laid out plans to ramp up renewables.

Acting is a must, says Gaylor Montmasson-Clair, an economist at the Trade & Industrial Policy Strategies, a think tank, warning the cost of sticking to coal will be much higher in the long term.

The European Union is set to introduce a carbon tax on imports—a move that could be followed by other countries, and hit economies like South Africa hard, he warns.

“If we do not decarbonise, job losses will be significant. We’ll lose our access to markets and finance,” he says.

“Not transitioning is not an option. The consequences will be dire”.

PHILIPPINE DAILY INQUIRER

Changing climate claims railways, houses and beaches in California

By Agence France-Presse

SAN CLEMENTE, California — Steve Lang can see catastrophic erosion worsened by climate change happening in real time along one of the world's most scenic railroad lines, where the sea is swallowing homes, tracks and California's beautiful beaches.

"Every day I come here and watch this, and it makes me want to cry," the 68-year-old tells AFP on rail tracks he crosses to go surfing.

Powerful waves wash in from the Pacific over the rails where the "Pacific Surfliner" runs, ferrying sightseers through the stunning coastal landscapes of southern California.

Not long ago, the railway was cushioned by hundreds of feet (tens of meters) of golden sand. But violent southern swells have washed that sand away.

With the beach gone, there was nothing to protect the rails from the fury of Tropical Storm Kay as it lashed the coast in September, eating away at the land on which they stood.

The track, which carries 8.3 million passengers annually between San Diego and San Luis Obispo, is now closed for emergency work.

Climate change

In the luxury Cyprus Shore settlement, an enclave of about a hundred plush villas that was once home to former president Richard Nixon, residents look on uneasily.

Without the beach to protect it, the hillside on which it is built is being eaten away and multi-million dollar homes are sliding towards the sea.

The cliffside parking lot is collapsing and two villas with cracked walls are now officially uninhabitable.

"These homes were valued at minimum \$10 million each," says Lang.

"We've been trying to raise the alert for years, but we don't get much traction."

The tragedy of the encroaching waters is not limited to San Clemente, says acting mayor Chris Duncan, but a problem for the whole state.

"This area here in Cyprus Shore... is a microcosm," he says.

“The entire California coast is threatened by climate change and threatened by coastal erosion.”

Erosion is a natural phenomenon that has helped shape our continents over millennia.

But scientists say it is being speeded up by the warming of the planet; exacerbated by rising sea levels brought about by melting ice caps and glaciers, and by the more powerful waves that warmer oceans hold.

Humanity’s unchecked burning of fossil fuels since the industrial revolution has pushed average global temperatures up by 1.2 degrees celsius. They are expected to continue rising.

‘Lost battle’

By 2050, between \$8 billion and \$10 billion of infrastructure could be underwater in California, and other construction valued at \$6 billion to \$10 billion will be in a high-tide hazard zone, according to a 2019 study released by California’s state legislature.

In San Clemente, local transport authorities are trying to stabilize the shifting tracks.

Every day, tons of rocks are dumped to reinforce the seawall and protect them, in a \$12 million project expected to last more than six weeks.

But “it’s a losing battle,” Duncan sighs.

The line was closed in September 2021 to add 18,000 tons of rock, and that didn’t solve the problem.

“While the rock might temporarily stabilize the slope, it causes exponential sand loss,” he says.

“Because now when the waves hit, it doesn’t hit a soft beach. It hits a hard rock, bounces off, takes all other sand with it.”

Duncan wants federal money to build back the beaches.

“I’m talking about breakwaters, about living shorelines, about possibly groins where it might be appropriate.”

Some advocate a more radical solution to save the railway line.

“The best would be to move (the track) back away from the coast,” says Joseph Street, a geologist at the California Coastal Commission.

“But of course that’s obviously a big, big effort to do that, very expensive.”

And, he points out, it does nothing to protect the homes that are at risk behind the track.

Retreat

“A lot of our urban planners and decision makers have really dragged their feet on responding to this problem,” says Stefanie Sekich-Quinn, of Surfrider Foundation.

The environmental NGO advocates moving the line away from the coast, an option put forth in a 2009 federal report.

California has a handful of such initiatives. On the same rail line, authorities in nearby San Diego announced this year a \$300 million project to relocate a portion of tracks further inland.

But in San Clemente, that’s really a last resort, says Duncan.

“People are going to want officials like me to work to save our homes, to save our rail corridor, and not just give up,” he says.

THE MANILA TIMES

[\[OPINION\] Saving our coral reefs](#)

AN environmental group has said that only 2 percent of the Philippines' coral reefs remain healthy. Plastic pollution is killing the corals and there are 5 trillion plastics in the world's surface water, says Haribon Foundation chief operating officer Anna Varona.

"There are more plastics than there are people on the planet Earth. Imagine what plastics do for us, what plastics do for ecosystems — nothing. They suffocate the marine environment, they suffocate the forest, and the land and the mountains. The land where they [are] dumped, dies," Varona said.

She cited a study released by the Department of Science and Technology (DoST) on the dwindling coral reefs. In 2017, the DoST said initial findings of coral reefs nationwide showed 90 percent of the 166 reefs that were sampled were classified as either poor or fair. The latest study was that we only have 2 percent healthy coral reefs in the Philippines.

"We are an archipelago surrounded by the oceans, and we are made up of islands. We are the center of the center of biodiversity on the planet. If coral reefs are not healthy, the animals, the turtles, the octopus and fish are also affected," Varona said.

She gave an alarming fact that every seafood eater must know. "Because there are so many plastic particles in the marine environment, they have already entered our food chain. When you are a lover of seafood, most likely you have 70,000 particles of microplastics... in your system, every year on an average," she added. Of the 90 species of whales, it is estimated that 18 percent are considered endangered species. Five of them have an alarming rate of death. Many die because of climate change.

This environmentalist has put her finger on the pulse. The effects of climate change have, indeed, been felt in the last 10 years. They have been seen in the deserts of Saudi Arabia experiencing heavy rains, Australia being flooded, and the Philippines being lashed by the strongest typhoons in the world.

It is a situation that is particularly alarming for people in Asia. Etty Riani, an expert in fisheries resource management from the Bogor Agricultural University in Indonesia, sounded the alarm bells.

He said the climate crisis has triggered a rise in sea levels, water temperature and acidification. This affects fishery production and the carrying capacity of the ecosystem. Rising seawater temperatures interfere with fish reproduction, and drive the fish to move to deeper, cooler locations. This results in catch areas moving and tending to be further away than usual. "It is not surprising that fishermen now often complain that their catch is smaller," said Dr. Etty. "And also fishermen have to sail farther from their catch areas because of fish migration."

Bleaching due to climate change and destructive fishing activities has also disrupted coral reef ecosystems and other marine biota, which in turn affects the number of fish the sea can carry, Etty said. Experts have said that extreme weather will occur more frequently with longer duration, including heavy rains accompanied by lightning and thunder, tropical cyclones, high waves, hail and droughts.

But all is not lost. The Philippines has some of the most comprehensive environmental laws in the world, which when implemented would mitigate the effect of climate change. We can also adapt what Indonesia has done. It set up a "Climate School" as an effort to equip fishermen and farmers with knowledge about the growing crisis and how to deal with it. The Ministry of Maritime Affairs and Fisheries in collaboration with a service provider company PT XL Axiata Tbk has also launched an application called "Laut Nusantara" to make it easier for fishermen to catch fish.

The United Nations Development Program in the Philippines used to have programs to save the coral reefs, among them a project where tires were submerged in areas with dead corals. Seaweed, fish and other marine life began to grow around the tires that resurrected as corals. Residents near the beaches used to pick up plastic sachets and trash left on the beach by visitors or thrown back by the sea itself. Banning fishermen from fishing within 12 kilometers from the shore three months of the year should continue so the fish can regenerate.

We need to save our corals — and ourselves — from the apocalyptic effects of climate change.

THE PHILIPPINE STAR GLOBAL

[OPINION] An environmentally-resilient Philippines

POINT OF VIEW - By Federico R. Lopez

I've been asked to share my thoughts on what an environmentally-resilient Philippines could look like. To understand what this involves, let me take a step back and place it in the context of what the world needs to get to and why. It's often said that the COVID-19 pandemic was just a dress rehearsal for how we will face an even more perilous world from the impacts of climate change.

The overriding goal is to "solve climate change" – which means mitigating it as well as adapting to its impacts that are already here, with more yet to come. Because if we don't get it right, the exponential deterioration of global climate systems and the environment will make it impossible to solve other problems like poverty, inequality, disease, food production, freshwater scarcity, mass migration, social displacement, mass extinction of species and biodiversity loss, among others. All of this we will feel during our lifetimes.

Paris Conference of Parties (COP) 21 applauded the agreements that signaled we could limit global warming to 2.0 degrees Celsius if all commitments were met. Since then, the IPCC issued in October 2018 a Special Report on the impacts of Global Warming of 1.5 degrees Celsius, followed last year and this year by its Sixth Assessment Reports from Working Groups I, II and III, all with dire warnings and consequences for a 2-degree Celsius warmer world. Taken together, they underscored the scientific consensus that our targets must not exceed 1.5 degrees by end century. The 1.5 degrees therefore must be our base case.

Consequently, "Solving Climate Change" means:

Phase 1: We reduce greenhouse gas (GHG) emissions (of carbon dioxide, methane, nitrous oxides and fluorinated gases) from the current 50 gigatons (Gt) of GHGs per year. (Emissions peak by 2025). We cannot stop here.

Phase 2: Aim further to eliminate all emissions of GHGs (get to Net Zero emissions by 2050.) By 2050, to begin the arduous task of reducing the concentration of GHGs in the atmosphere.

Phase 3: Get to what's called net negative emissions. This is best described in the words of NASA climate scientist James Hansen: "If humanity wishes to preserve a planet similar to that on which civilization developed and to which life on Earth is adapted...CO2 will need to be reduced...to at most 350 ppm."

For reference, pre-industrialization levels were at 280 parts per million (ppm) and we sailed past 350 ppm in 1986. We continued to blow through 400 ppm in 2013, the same year Super Typhoon Yolanda, the most powerful typhoon on earth to ever make landfall,

announced to the world, through the suffering of millions of Filipinos, that climate change is here and that we better get our acts together now.

We now need to realize Phases 1, 2 and 3 above within the rapidly diminishing timeframe of the next 28 years. Failing to do this over the timeframe will trigger irreversible tipping points, the effects of which we are already seeing in news reports from all over the world every day. The clock ticks as we speak.

Progress through Phases 1 to 3 in the battle to “solve climate change” has many facets beyond just energy; it spans agricultural practices, food production, waste management practices, industrial processes, deforestation, f-gases used in refrigeration and many others. For now, let me just focus on what the foundations to the global energy transition will look like as it’s important that we appreciate what the transition to net zero demands.

Cornerstone 1: Reduce carbon intensity of electricity. Clean up the electricity grid’s generation sources with the intent of progressively lowering carbon intensity per kwh. We must keep in mind that as we do this, we need to keep the lights on and keep power prices affordable.

Cornerstone 2: Scale up energy efficiency efforts. Scale up energy efficiency as the “first fuel” and encourage and incentivize its use everywhere.

(To be continued)

[OPINION] An environmentally resilient Philippines

POINT OF VIEW - By Federico R. Lopez

(Conclusion)

Cornerstone : Electrify everything. With a greener grid you should now seek to “electrify everything” from transport to various industrial processes where possible. Innovation in the transport and industrial sectors that accomplishes this is crucial for this cornerstone too.

Cornerstone 4: Use carbon-neutral fuels for hard-to-tech sectors. With a green grid there will now be the possibility of producing carbon-neutral fuels like green hydrogen and green ammonia for industrial processes and transport sectors (such as long distance trucking, shipping and aviation) that cannot be electrified by 2050. This as the technology matures and gets cheaper during this period.

Cornerstone 5: Deploy carbon capture use and storage (CCUS). A zero-emissions grid will be a critical component for deeper deployment of electricity-run Carbon Capture and Sequestration technology to arrest more emissions from other hard-to-reach sectors. Innovation in CCUS technology is also expected to accelerate in the coming decades. Eventually, post-2050, these are envisioned to be deployed at scale in Phase 3 to get the world to net negative emissions and atmospheric carbon concentrations back to the deemed safe levels of 350 ppm.

The global energy transition appears straightforward when viewed from its five cornerstones. However, they have immense implications for the central role of the electricity grid. The most important point is that by 2050 we will need five times the electricity we use today; and we will need 10 to 12 times the clean energy in use today. Even as we do this, we must continue to improve access to 24/7 electricity for billions of people (in the case of the Philippines, millions of households) who currently do not have it reliably in their lives, if we are to even begin uplifting them from poverty.

Decarbonizing and scaling up a green electricity grid over the next three decades is probably the greatest energy transition in the history of mankind. It's not just changing the electricity system but building a new global energy system with components we have never built before and on a massive scale. This will need nothing short of collaborative action among various players that today often consider themselves competitors. And these also need well-coordinated and timely action on the part of leaders, policymakers and regulators who must be decisive and well-versed in the elements that make for a successful and just energy transition.

You may ask why the Philippines should undertake this energy transition given our limited resources and the fact that we account for only 0.4 percent of global emissions. I would answer that in this way: It's apparent that the world is changing, not as fast as it

needs to yet, but eventually it will, and it must. The impacts of the climate crisis as well as climate action that will be demanded of everyone are among the forces in history which will transpire “gradually and then suddenly.” Global finance, supply chains, service providers, employees and consumers will reflect this.

If we’re not prepared and conveniently kick the can down the road, we’ll be overwhelmed and not recognize the world around us in the coming 30 years. The science tells us we no longer have a choice. Unless we have more of these pandemics that choke growth, there will no longer be any time extensions. Since we have limited resources, we must choose to spend it judiciously and in a future-proof manner. The earlier we build on these five cornerstones of the energy transition, the better positioned our country will be for the massive change that’s coming.

The last point I’d like to make is something I remember Al Gore saying in 2016 at the Climate Reality Project leadership training at the Sofitel Manila. He said: “All our infrastructure was built for a world that’s now changed.”

At 1.2 degrees Celsius of warming, where we are today, the world has already changed, but it will be more so even as we successfully navigate the journey to limiting warming to 1.5 degrees Celsius. Warmer global temperatures have multiple knock-on effects on the global climate system that were stable as we know it for thousands of years. That’s all changing now. We should begin by understanding what the science is telling us to prepare for and how it will affect each of us locally – stronger typhoons, higher rainfall, flooding, longer drier summers, freshwater shortages, wildfires, more mosquito-borne diseases, sea-level rise and more violent storm surges, etc.

With 60 percent of Filipinos living in coastal areas, sea-level rise is a major threat. This is compounded by the fact that land subsidence is widespread, given the over-extraction of our freshwater aquifers. Sea-level rise will be uneven throughout the world and even locally. Not only will this threaten coastal infrastructure, cities and communities with storm surges but will also affect freshwater aquifers even more with seawater intrusion.

Temperatures on the planet are rising fastest at the poles. This will have grave consequences for sea-level rise here as tipping points are triggered in the world’s cryosphere. The book “Vanishing Ice” by Vivien Gornitz gives you a sense of the kind of fire we’re playing with: “The last time carbon dioxide concentrations in the atmosphere were 417 ppm was in the Pliocene epoch 3-5 million years ago, average temperatures were 3-4 degrees warmer than today and 10 degrees warmer at the poles. Consequently, sea levels were 5-40 meters higher than they are today.”

Almost every major developed city has climate change action plans. Tokyo has its network of underground tunnels and cathedral-sized cisterns that can divert flooding with high-speed pumps that can empty a 50-meter Olympic-sized pool in 6 seconds flat. They originally built for rains of 55 millimeters (mm) per hour but are now upping this standard for new flood control projects to 65-75 mm per hour. Malaysia has its famous

9.7-kilometer SMART Tunnel that converts an underground roadway into a flood diversion tunnel when needed. London has its famous Thames barrier that protects London from similar flooding events. I've heard of similar projects being planned for Singapore, New York, Boston and other major cities around the world.

We need a comprehensive, coherent and well-studied national decarbonization and adaptation plan, backed by continuous feedback that engages with what the science is telling us we should prepare for. This, in turn, should be mirrored in all succeeding Philippine Development Plans and budget appropriations and relentlessly executed. We have very little time.

Try as we might to solve many of our sustainable development goals, it will be futile if we don't build for the resilience we need, and if we don't collaborate locally and as a global community to decisively "solve climate change." Having a credible vision and a dynamically executed plan is the most effective way to attract the scale of investment and funding we need to build a resilient Philippines in "a world that's now changed."

CCC IN THE NEWS

RMN

[\\$100-B na commitment para sa Pilipinas sa ilalim ng Paris Agreement patungkol sa climate change, naging tema ng pag-uusap sa United Nations Framework Convention on Climate Change](#)

By RadyoMaN Manila

Nagbunga na ang ginawang pag-giit ng Pilipinas sa United Nations para makatanggap ang mga developing countries ng tinatawag na climate finance.

Ayon kay Philippine Representative Climate Change Commission Vice Chairman and Executive Director Robert E.A. Borje, naging agenda sa 27th Session of Conference of the Parties ang patungkol sa climate finance partikular na ang na financial commitment para sa mga developed country gaya ng Pilipinas na lubhang apektado ng climate change.

Sinabi ni Borje na ang \$100-B commitment ay manggagaling sa kontribusyon mula sa mga mayayamang estado bilang finance obligation at suporta sa mga at-risk developing nations.

Ang hakbang ay nasa ilalim ng Paris Agreement at bahagi ng target na makakuha ng mas mataas na Goal on Climate Finance sa pamamagitan ng New Collective Quantified Goal of the Glasgow Climate Pact.

Una nang iginiit ni dating Pangulong Rodrigo Duterte na dapat magbayad ang mayayamang bansa ng danyos dahil sa ambag nito hinggil sa lumalalang climate change.

Ito naman ay sinegundahan ni Pangulong Ferdinand Marcos Jr., na kung saan ay sinabi nito sa nakaraang United Nations General Assembly (UNGA) na dapat tuparin ng industrialized countries ang kanilang obligasyon na may kinalaman sa climate financing.

- END -