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# NEWS ALERTS

STRATEGIC COMMUNICATION AND INITIATIVES SERVICE





## DENR to review forest fire prevention measures

Man-made forest fire is usually an offshoot of kaingin or slash and burn farming, smoking of honeycombs to gather honey, cigarette butts, and other forms of activities that involve fire

Published 5 hours ago on April 3, 2022 03:18 AM

By **Elmer Navarro Manuel** @tribunephilmer



The Department of Environment and Natural Resources (DENR) recently directed its field officers to review existing forest fire prevention measures due to increasing incidents of man-made forest fires during the dry season.

According to DENR-Forest Management Bureau records, forest fire incidents went down to 429 in 2020 from 1,282 in 2019, attributed to lockdown measures due to the coronavirus disease 2019 (Covid-19) pandemic.

The agency also noted that it has partnered with the Bureau of Fire Protection (BFP) to conduct cluster trainings for DENR's field personnel and implementers on the various aspects, technicalities, and principles of forest fire.

The BFP-trained DENR field personnel conduct forest fire preparedness and response trainings with DENR-engaged upland communities in its various programs, particularly those covered by the Expanded National Greening Program (ENGP) within their areas of responsibility.

"Forest fires are mostly fueled by human activities, making it imperative for us to recalibrate our response readiness and forest fire prediction alertness to pre-pandemic levels, which calls for tighter coordination with people's organizations and family beneficiaries of the National Greening Program," DENR Acting Secretary Jim Sampulna said.

"The field offices and communities are considered our front liners in combating forest fires. The first line of defense against forest fire is to avoid starting a fire," he added.

Man-made forest fire is usually an offshoot of kaingin or slash and burn farming, smoking of honeycombs to gather honey, cigarette butts, and other forms of activities that involve fire.

In 2020, 389 of the 429 outbreaks occurred in plantation sites under the ENGP, covering 7,830 hectares valued at P119.3 million.

Forty outbreaks occurred in natural forests, or forestlands populated with naturally growing indigenous trees, where some 1,278 hectares were affected with estimated damages of P4.27 million.



In 2019, a total of 1,282 outbreaks were reported (1,205 in ENGP sites; 77 in natural forests), affecting 24,091 hectares (22,3723 hectares in ENGP sites; 1,719 hectares in natural forests), with a damage cost of P417.9 million (P396 million in ENGP sites; P22.2 million in natural forests).

Source: [https://tribune.net.ph/index.php/2022/04/03/denr-to-review-forest-fire-prevention-measures/?utm\\_source=rss&utm\\_medium=rss&utm\\_campaign=denr-to-review-forest-fire-prevention-measures](https://tribune.net.ph/index.php/2022/04/03/denr-to-review-forest-fire-prevention-measures/?utm_source=rss&utm_medium=rss&utm_campaign=denr-to-review-forest-fire-prevention-measures)



## DENR: Readiness for man-made forest fires crucial

April 2, 2022 [Cory Martinez](#)

**EXISTING** forest fire prevention measures must be reviewed as man-made forest fires increase during the dry season.

This was the order issued by the Department of Environment and Natural Resources (DENR) acting Secretary Jim O. Sampulna to the agency's field officers as part of their continuous efforts to beef up its partnership with the Bureau of Fire Protection (BFP).

"Forest fires are mostly fueled by human activities, making it imperative for us to recalibrate our response readiness and forest fire prediction alertness to pre-pandemic levels, which calls for tighter coordination with people's organizations and family beneficiaries of the National Greening Program," Sampulna said.

The BFP has been conducting cluster training for DENR's field personnel and implementers on the various aspects, technicalities, and principles of the forest fire.

The BFP-trained DENR field personnel conduct forest fire preparedness and response training with DENR-engaged upland communities in its various programs, particularly those covered by the Expanded National Greening Program (ENGP) within their respective areas of responsibility.

"The field offices and communities are considered our frontliners in combating forest fires. The first line of defense against forest fire is to avoid starting a fire," Sampulna said.

Man-made forest fire is usually a result of "kaingin" or "slash-and-burn farming", smoking of honeycombs to gather honey, cigarette butts, and other forms of activities that involve fire.

As national case trends of COVID-19 continue to decline, Sampulna said the easing of restrictions on movements of people in many parts of the country is also likely.

Based on the record of the DENR-Forest Management Bureau, forest fire incidents went down to 429 in 2020 from 1,282 in 2019.

The DENR-FMB attributed the decreasing number of forest fire incidents to strict COVID lockdown measures in the country.

In 2020, 389 of the 429 outbreaks occurred in plantation sites under the ENGP, covering 7,830 hectares valued at P119.3 million.

40 outbreaks occurred in natural forests, or forestlands populated with naturally growing indigenous trees, where some 1,278 hectares were affected with estimated damages of P4.27 million.

In 2019, however, 1,282 outbreaks were reported (1,205 in ENGP sites; 77 in natural forests), affecting 24,091 hectares (22,3723 hectares in ENGP sites; 1,719 hectares in natural forests), with damage cost of P417.9 million (P396 million in ENGP sites; P22.2 million in natural forests).



Meanwhile, BFP Director Louie Puracan underscored the pivotal role of DENR-partner communities in forest fire prevention and detection, saying the preparedness of DENR field officers and partner communities “gives them precious lead time to respond accordingly” to a forest fire outbreak.

“A protocol is already in place for the BFP, including other appropriate agencies such as the DENR and the concerning disaster risk and reduction management council to respond,” Puracan said.



# DENR, BFP to combat forest fire incidents

April 2, 2022, 1:47 pm



(Photo courtesy of BFPCAR-Kabayan Facebook)

**MANILA** – Department of Environment and Natural Resources (DENR) field officers have been ordered to review existing forest fire prevention measures due to increasing incidents of man-made forest fires during the dry season.

As national case trends of Covid-19 continue to decline, the easing of restrictions on movements of people in many parts of the country is also likely, according to a DENR news release on Saturday.

Based on the record of the DENR-Forest Management Bureau, forest fire incidents went down to 429 in 2020 from 1,282 in 2019, attributed to lockdown measures.

DENR and the Bureau of Fire Protection (BFP) have been conducting cluster trainings for DENR's field personnel and implementers on the various aspects, technicalities, and principles of forest fire.

The BFP-trained DENR field personnel conduct forest fire preparedness and response trainings with DENR-engaged upland communities in its various programs, particularly those covered by the Expanded National Greening Program (ENGP) within their areas of responsibility.

“Forest fires are mostly fueled by human activities, making it imperative for us to recalibrate our response readiness and forest fire prediction alertness to pre-pandemic levels, which calls for tighter coordination with people's organizations and family beneficiaries of the National Greening Program,” DENR Acting Secretary Jim Sampulna said in a statement.

“The field offices and communities are considered our front liners in combating forest fires. The first line of defense against forest fire is to avoid starting a fire,” Sampulna added.

Man-made forest fire is usually an offshoot of kaingin or slash and burn farming, smoking of honeycombs to gather honey, cigarette butts, and other forms of activities that involve fire.

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BFP Director Louie Puracan underscored the pivotal role of DENR-partner communities in forest fire prevention and detection, saying the preparedness of field officers and partner-communities “gives them precious lead time to respond accordingly” to a forest fire outbreak.

“A protocol is already in place for the BFP, including other appropriate agencies such as the DENR and the concerned disaster risk and reduction management council to respond,” Puracan said.

The BFP was created by virtue of Republic Act 6975, otherwise known as the Department of the Interior and Local Government Act of 1990, which mandates the agency to be responsible for the prevention and suppression of all destructive fires including forest fires, among others. **(PR)**



# DENR, GSIS, private sector make Marikina Basin greener

Published 6 hours ago on April 3, 2022 02:20 AM

By **TDI** @tribunephil



The Department of Environment and Natural Resources (DENR) has inked a five-year agreement with the Government Service Insurance System (GSIS) and three major firms for the rehabilitation of the Upper Marikina River Basin Protected Landscape (UMRBPL) under the Expanded National Greening Program (ENGP).

In a memorandum of agreement (MoA) with the DENR-Region 4A (CALABARZON), 70 hectares of ENGP-graduated sites inside UMRBPL will be sustained and protected by GSIS, together with D.M. Consunji Inc. (DMCI), Toyota-Oben Group of Dealers (TOGD), and Meralco Industrial Engineering Services Corporation (MIESCOR).

Ramil Limpiada, DENR-Provincial Environment and Natural Resources Officer (PENRO) for Rizal, said that ENGP-graduated areas are previously established NGP plantations that need assistance from government institutions and private sector partners.

“These ENGP-graduated sites are areas turned over to the DENR by the people’s organizations and local government units after fulfilling their three-year site development contracts to raise tree plantations,” Limpiada said.

The adopted sites under the five-year agreement comprised four separate ENGP areas in Sitio San Ysiro, Barangy San Jose in Antipolo City, which the DENR has set aside for the “Adopt-a-Site Program” to ensure continued maintenance and protection of the ENGP sites under a Public-Private-Partnership (PPP) scheme.

“Common to these four areas is they are the most challenging to maintain and protect in their respective NGP (National Greening Program) plantation sites, owing to their location.

Source: [https://tribune.net.ph/index.php/2022/04/03/denr-gsis-private-sector-make-marikina-basin-greener/?utm\\_source=rss&utm\\_medium=rss&utm\\_campaign=denr-gsis-private-sector-make-marikina-basin-greener](https://tribune.net.ph/index.php/2022/04/03/denr-gsis-private-sector-make-marikina-basin-greener/?utm_source=rss&utm_medium=rss&utm_campaign=denr-gsis-private-sector-make-marikina-basin-greener)





## Maynilad honors 14 water, environment champions at 7th World Water Day Awards

BY BUSINESSMIRROR APRIL 3, 2022



West Zone concessionaire Maynilad Water Services Inc. (Maynilad) honored 14 water and environment champions at the recent World Water Day PH Awards 2022 (WWD.PH Awards) as the culminating event in the country's recent week-long celebration of World Water Day.

Maynilad held the event virtually together with the National Water Resources Board (NWRB) and Department of Environment and Natural Resources (DENR).

Maynilad's "Water Warrior Awardee" was the Parañaque City Environment and Natural Resource Office for actively promoting proper wastewater management through an ordinance establishing a septage management system in the City of Parañaque.

The NWRB's "Water Wise Awards" went to Coca-Cola Beverage Philippines for its Reduce, Reuse, Replenish program, and the local government unit (LGU) of Pavia, Iloilo and Pavia National School, which served as the pilot location for the NWRB's Groundwater Management Plan.

The Local Water Utilities Administration's "Humarang Lingkod Tubig Award" recipients were Puerto Princesa City Water District in Palawan, Bayawan Water District in Negros Oriental, and San Francisco Water District in Agusan del Sur.

The Damayan Irrigators Association Inc., PPATTABA Irrigators Association Inc. and Silway 7-Klinan 6 Communal Irrigators Association Inc. were named the "Most Outstanding Irrigator's Associations" by the National Irrigators Association.

Efforts in protecting the Laguna de Bay were also recognized through the Laguna Lake Development Authority's "Kampeon ng Lawa Awards," which were given to the LGUs of Morong, Rizal; the Muntinlupa City Lake Management Office's paddle wheel project; and to Rev. Msgr. Jerry Veluz Bitoon, Rector of San Pablo Cathedral, in San Pablo City.

Completing the roster of honorees were Metro Pacific Water's "Kampeon ng Kalikasan" awardee Metro Iloilo Water District, and Aboitiz InfraCapital's "Agos ng Kinabukasan" awardee Metro Lipa Water District.

Emphasizing this year's World Water Day theme "Groundwater—Making the invisible, visible," Maynilad President and CEO Ramoncito S. Fernandez said, "With climate change continuing to threaten our surface water sources, sustainably managing our groundwater sources is critical. We need to make the invisible visible by bringing discussions on groundwater management and protection to the mainstream."



For more than five years now, the WWD.PH Awards has been a platform for honoring champions for water and the environment—individuals, institutions and programs—that have contributed to achieving water and water-environment sustainability in the Philippines.

Each WWD.PH-participating government agency and private company submits their nominees, which are then screened and vetted by a multi-organization committee before being included in the list of awardees.

The event was shot at the El Deposito Museum in San Juan City, which showcased the largest underground water reservoir in the country.

It presented the history of the 1882 Carriedo Waterworks, which provided potable water to the residents of Manila, carried from the Marikina and Pasig Rivers, in the 19th century. It could be considered the forerunner of today's Maynilad and Manila Water.



# Palace denies rumors ex-DENR chief Cimatú got fired over corruption

Robie de Guzman • April 1, 2022



**MANILA, Philippines** – Malacañang on Friday denied rumors that former Environment and Natural Resources Secretary Roy Cimatú was fired over corruption allegations.

Acting Presidential Spokesperson Martin Andanar reiterated that Cimatú resigned due to health reasons and that he left his post on good terms with President Rodrigo Duterte.

He also said that Duterte commended Cimatú, on numerous occasions, for the successful transformation and clean-up of Boracay and Manila Bay.

“The Office of the Presidential Spokesperson on February 18, 2022, even released a statement wishing the former DENR Secretary good health,” Andanar said.

“There is, therefore, no truth to the insinuation and /or rumor of his involvement in corruption,” he added.

Andanar issued the statement to clarify Duterte’s recent remarks about several Cabinet members who were sacked over the issue of reclamation projects in front of Manila.

In a speech on Thursday, Duterte mentioned that some Cabinet members were sacked over corruption allegations.

“Si (Environment) Secretary (Jim) Sampulna is new because I fired them all. I won’t name anybody because it’s painful for them for this to have happened,” he said.

“I’m not fond of announcing to the media pero about — in the process, I’ve fired five or six Cabinet members because of corruption,” he added.

He said he has ordered all the applications for reclamation projects to be stopped and have it reviewed to ensure that they all went through proper and legal processes.

Duterte also said he would no longer sign appointments or approve big projects until his term ends in June.

“And then ‘yung discretion sa itong magbigay sa reclamation areas sa Manila. I said it’s either I’ll suspend it for the meantime and just leave it to the next administration,” he added.

Source: <https://untvweb.com/news/palace-denies-rumors-ex-denr-chief-cimatu-got-fired-over-corruption/>





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# NWRB: No water supply cut for Metro Manila

[Ramon Efren Lazaro](#) - The Philippine Star April 3, 2022 | 12:00am

MALOLOS, Philippines — The National Water Resources Board (NWRB) is not reducing the allocation from Angat Dam for Metro Manila residents this month.

Sevillo David Jr., NWRB executive director, said there is no change in the allocation for Metro Manila's water needs at 48 cubic meters per second (cms).

Irrigation allocation, on the other hand, was reduced to five cms since many farms are either in their terminal drainage situation, meaning there is less water requirement.

The irrigation allocation for rice fields at the start of the cropping season was at 28 cms for the north zone or the north portion of Bulacan and parts of Pampanga and 12 cms for the south zone in the Bulacan service area.

Robert de la Cruz, National Irrigation Administration manager for Bulacan, said the current supply to the north zone is eight cms and six cms for the south zone.

The Bulacan provincial disaster risk reduction and management office said water elevation in Angat Dam was at 190.72 meters yesterday morning.

The water level in Bustos Dam, which regulates irrigation supply to farms in Bulacan and parts of Pampanga, was at 16.74 meters.

The water elevation in Angat Dam yesterday was only 10.72 meters above its minimum operating level.

Bustos Dam's water level was 0.26 meters below its spilling level.

The Philippine Atmospheric, Geophysical and Astronomical Services Administration confirmed that cloud-seeding operations are being conducted over the Angat watershed to raise the water level in the dam.



# Manila Water pushes for water security

[Catherine Talavera](#) - The Philippine Star April 3, 2022 | 12:00am

MANILA, Philippines — Concessionaire Manila Water Co. Inc. has emphasized the need for water security in the country through its water supply contingency and augmentation plans to support the government's efforts in developing water sources and actively promoting responsible use of water.

Manila Water president and CEO Jocot de Dios said the East Zone water concessionaire continues to work toward water security.

“Water security is at the core of our operations, not only during summer months when we contend with Angat Dam’s lower-than-projected levels while ensuring our customers do not experience interrupted supply, but all year round to achieve our water supply sustainability targets,” De Dios said.

As early as January, government agencies such as the National Water Resources Board (NWRB) and Philippine Atmospheric, Geophysical and Astronomical Services Administration (PAGASA) urged the public to conserve water as the Angat Dam ended 2021 with lower than expected water levels.

Latest data from PAGASA showed Angat Dam’s reservoir water level stood at 190.85 meters as of Friday morning, lower than the normal high level of 212 meters.

De Dios said Manila Water continues to closely work with the Metropolitan Waterworks and Sewerage System (MWSS) and the NWRB in developing new water sources even as the agencies have approved the implementation of the much-needed interim additional sources especially as the summer peaks.

These include the maximization of the 100 million-liter-per-day (MLD) capacity of the Cardona Water Treatment Plant, which draws water from Laguna Lake; operation of deep wells that can provide additional 115 MLD; and operation of the 20-MLD Marikina Portable Water Treatment Plant, which can treat water from the Marikina River.

The MWSS and its Board approved the projects, while NWRB allowed Manila Water to harness groundwater through deep wells as part of their contingency and augmentation measures while waiting for long-term water sources.

Manila Water is set to implement operational adjustments, such as backwash recovery or re-treating the wastewater byproduct of the water treatment process while ensuring the efficiency of its network distribution, maximizing its distribution reservoirs and operating line boosters so that water supply continues to reach elevated and far-flung areas of the concession.

The concessionaire added that it is also eyeing to harness additional inflows to the La Mesa Reservoir from the nearby Alat Dam.

It is also advocating responsible use of water to support Oplan Tubig Para sa Kinabukasan, a collaborative project initiated by the Metro Manila Development Authority, NWRB, MWSS, with the two water franchisees.

Manila Water holds activities that help remind users of the value of the wise use of water in line with this advocacy.

“Implementing water supply contingency measures, tapping into additional water sources, and promoting responsible use of water, while working with the concerned agencies as well as partners, are part of Manila Water’s holistic effort in working for lasting water security,” Manila Water said.





Manila Water serves the east zone, covering parts of Makati, Mandaluyong, Pasig, Pateros, San Juan, Taguig, Marikina, Quezon City, portions of Manila as well as several towns in Rizal.

Last year, the company signed a revised concession agreement with the MWSS, which allows it to serve the east zone until 2037.



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Isang spinner dolphin ang nakitang stranded sa Barangay Poro sa Magsingal, Ilocos Sur Linggo. Ayon kay Ilocos Sur Provincial Fishery Officer Martin Allayban, may haba itong 1.5 metro at nang makita ay may sugat malapit sa dorsal fin na kagat aniya ng cookiecutter shark. Pinakawalan din ang dolphin kalaunan.

Isang Philippine eagle naman ang nasagip sa Barangay Pangyan, Trento, Agusan del Sur Huwebes. Ayon kay Marilyn Mique na nagbahagi ng mga larawan, nakita ng magsasaka na si Rey Borlaza ang agila na na-trap sa kaniyang bitag sa sakahan.

Aniya, nagulat si Borlaza bakit napadpad ito sa sakahan at ipinaliwanag nito na ang bitag ay inilagay niya para sa ibang hayop.

"Kahit kami nagtataka kung bakit napadpad ang agila doon sa sakahan na malayo naman kami sa gubat o sa kakahuyan," ani Marilyn.

Nagtamo ng maliit na sugat si Borlaza dahil sa tulis ng kuko matapos dumapo sa kaniya ang agila. Nasa pangangalaga na ng mga awtoridad ang agila. Itinuturing na critically-endangered species ang Philippine eagle dahil tinatayang nasa 400 na pares na lamang nito ang nasa kagubatan.

Isang sugatan na Brahminy kite naman ang nailigtas ng isang residente sa Barangay Polocate, Banga, Aklan Sabado.

Ayon kay Joselito Saldivar, may sugat ito sa pakpak kaya minabuti niyang iturn-over sa pulisya. Nailipat na ito sa pangangalaga ng Provincial Environment and Natural Resources Office para maalagaan bago pakawalan. (📷: Allayban; Banga PNP) | via Grace Alba; Hernel Tocmo; Rolan Escaniel

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# Legarda: Stop degradation of Phl ecosystems

Published 14 hours ago on April 2, 2022 04:41 PM

By [TDI](#) [@tribunephil](#)



Senatorial bet Loren Legarda appealed to Filipinos to stop deforestation and degradation of Philippine ecosystems.

“I will be a guardian and restorer of this land and help the people living here do that,” Loren said.

Legarda has been supporting essential laws that have helped begin to turn the tide of environmental destruction wrought during the last century.

Early this year, she was instrumental in presenting to the House the Philippine Ecosystem and Natural Capital Accounting System bill, which, if passed would be a landmark natural capital accounting law factoring in the cost of using natural resources. Adding depreciation into the equation overrides the assumption that clean water, air, land and oceans are freely exploitable without negative social, environmental or economic impact.

“We will never be able to undertake restoration if the economic indicators we use value only the incomes and ignore the destruction of our natural capital in generating those revenues,” said Legarda,

“The proposed law hopes to bring about a fundamental shift in how we see the world, how we understand our place in it, and how we value it. It corrects the misconception that we have to choose between the environment and the economy because it highlights the fact that our economy will only ever be as robust as our natural capital.”

Legarda is a keen advocate for the environment, also holding other influential roles, notably, as the U.N. Office for Disaster Risk Reduction’s Global Champion for Resilience, the U.N. Framework Convention on Climate Change’s National Adaptation Plan Champion, and as a Commissioner of the Global Commission on Adaptation.

Legarda noted other challenges and said that “we need to strategically select around 30 percent of our 30 million hectares and stand our ground. Already, our protected areas are full of people, almost urbanized. We need to determine what level of restoration we are aiming for because it is possible to live inside a protected area and still restore it.





“The climate crisis and unabated biodiversity loss only further increase the risk of future pandemics that would cause even greater damage on economies and take even more lives if we fail to act now.

“Restoration action is always local. We succeed and fail depending on how well we do at the level of communities, which are at the frontlines.”



# Greening the election

Environment groups search for 'green' candidates

BY JONATHAN L. MAYUGA APRIL 3, 2022



As the May 9 elections draw near, environmental groups under the Panatang Luntian launched on March 26 a fact-checking study to assess the positions and track records of candidates on Philippine environmental concerns.

“Our #EnvibeCheck is a research project that we made as a community to draw the line on who are the greenest and dirtiest candidates today,” Leon Dulce, head of secretariat of Panatang Luntian, said in a statement.

“We want to educate the public on how their vote can affect the lives of more than 40 million fellow Filipinos dependent on our environment and natural resources,” Dulce said.

Dulce, national coordinator of the Kalikasan-People’s Network for the Environment (Kalikasan-PNE), said the research data challenged national candidates to do better by taking the pledge to uphold the pro-environment Pantang Luntian agenda.

The fact-checking study covered research on environmental pronouncements and track records of eight presidential and six vice-presidential candidates on issues surrounding extractive and destructive projects, waste management, just energy transition, green spaces and mobility, environmental defense, climate justice, and biodiversity and environmental conservation.

The full details of the study #EnvibeCheck is accessible for public viewing.

## Why the need for ‘green’ candidates?

When asked why there is a need for green candidates, Dulce told the BusinessMirror via Messenger on March 30: “Pro-environment leaders in government help enhance and enforce our environmental laws that benefit more than 40 million natural resource-dependent Filipinos.”

He added: “A green leadership is crucial in the remaining eight years where the Philippines can make or break its urgent response to the ecological, climate, health, and human rights crises we face.”

According to Dulce, the next president must prioritize the immediate end to the extractive and destructive projects—like mining, dams and reclamation—that cause immeasurable damage to our ecosystems and depletion of our natural resources.

“They must nurture our watersheds, protected areas and natural resource corridors, and empower the various land and environmental defenders protecting them,” he said.

The leaders, he added, “must take drastic action in demanding just compensation from the top climate-polluter countries for causing widespread loss and damages to vulnerable nations such as the Philippines.”



According to Dulce, the next administration must usher in doable steps toward the just transition of the economy to clean energy, mobility, green jobs and urban renewal.

### **Mainstreaming environment in policy discourse**

As the election noise intensifies, environmental groups noticed the environment and climate change concerns are seemingly being left out, if not sidelined by pressing social, economic and political issues.

Dulce said: “We are seeing less and less discourse over social media and coverage over news regarding the environment and climate issues.”

He maintained that environment and climate discourse is greatly lacking among candidates and the public.

“These issues are not considered gut issues [that is why] they are slow at the onset and infrequently [discussed] compared to daily economic hardships. The marginalized communities in far-flung, underserved areas who are the frontlines of these ecological impacts are unfortunately far away from public view and concern,” Dulce said.

### **Green deals, climate leadership**

In the first 100 days of the new administration, Dulce said the country’s leaders must immediately set to work on implementing a moratorium on extractive and destructive projects.

“They must also pass a People’s Green New Deal that would inject emergency economic stimulus into green solutions for the persisting pandemic and climate impacts our countrymen are still suffering from,” he said.

Chuck Baclagon, the regional finance campaigner of 350.org, highlighted the need for climate leadership given the country’s status as highly vulnerable to the impacts of climate change effects.

“Climate leadership is of utmost importance in our part of the world given our status [being] among the countries that are at the frontlines of climate-induced disasters,» Baclagon told the BusinessMirror via Messenger on March 29.

He added that protecting the environment and responding to the challenges of climate change directly translates to social and economic benefits for the Philippines now and for generations to come.

### **Putting the green agenda forward**

“We have less than a decade to get climate change under control. Our leaders need to do more on climate action. That is why we hope that the candidates vying for the highest position in this coming elections should put forward an agenda that puts communities and ecosystems ahead of corporate interests,” Baclagon explained.

Beyond the candidates, environmental groups and advocates are building up an informed electorate that votes for candidates based on their platforms as well as their track record of standing up for the interest of the people and the planet.

He said that as a climate-justice organization, 350.org believes that the most urgent task for the incoming president is about ensuring our country’s capacity to thrive amid the climate crisis.

“Our failure as a country to take decisive action on climate change sends a message that legitimizes the current inaction of big historical and per capita emitter countries,” he explained.

Sadly, Baclagon said that among the candidates only two, who have a proven history of being involved in environmental-justice work even before they entered the electoral race, have articulated clear programs of actions.





“But as far as the entire electoral discourse is concerned, we think more efforts should be done by the candidates to explore the intersectionality of democracy, human rights and economic development with environmental protection,” he pointed out.

### **‘Tragic’ reality**

Baclagon described as tragic what is currently happening in the electoral debates with the environment and climate being sidelined in the electoral discourse.

However, he explained that the election is also happening under a unique set of circumstances where there are clear lines drawn between values translated into electoral platforms.

On the one hand there are candidates who instead chose to valorize through historical revisionism, a status quo that married crony capitalism with environmental plunder, undermine historical grievances that cost the lives of Filipinos and wrecked the Philippine economy.

On the other hand, he noted that there is also a pushback that champions active citizenship and restores governance that respect democratic institutions and fundamental principles like human rights, press freedom and defense of national patrimony.

Asked what are the most serious environmental and climate change problems the national and local electoral leaders should prepare for, he said it is the transition from fossil-fuel-based to clean, renewable energy sources.

“We believe that a government’s seriousness in climate action is best measured in its energy policy. We hope that whoever wins this election would build on the major wins that have been achieved by the campaign for energy transition during this regime, such as the Department of Energy’s recent moratorium on coal power plants,” he said.

According to Baclagon, securing a renewable energy future does not only limit pollution and mitigate carbon emissions. It also ensures stable and equitable access to power for an archipelagic country like the Philippines.

“Whoever wins the elections, it is incumbent on the new government to prioritize the provision of affordable and reliable electricity for all Filipinos,” he said.



# Research: Thousands of undiscovered mammal species may be hidden from sight

BY DANIELLE PARSONS AND BRYAN CARSTENS, THE OHIO STATE UNIVERSITY / THE CONVERSATION CC

APRIL 3, 2022



Photo of tamaraws at the Philippine National Museum of Natural History. Natural history museums are largely responsible for collecting the raw data analyzed, and genetic and biodiversity databases provided the infrastructure to make it accessible.

Taxonomy, the study of how living organisms relate to one another as species, has been around since the 1700s. Though scientists and philosophers have long debated what makes a species a species, taxonomists treat each species as a group of organisms that share common biological characteristics.

Discovering and describing new species is essential to biology researchers and conservationists because they use species as a unit of analysis. Species are also economically important to agriculture, hunting and fishing, and have special legal status, such as under the US Endangered Species Act.

Despite this, scientists have been able to formally name and describe only an estimated 10 percent of species on the planet, based on discovery trends over the years.

This gap in knowledge is known as the Linnean shortfall. It remains unclear whether poor research methodology, disagreements on how to define a species, or other factors are to blame for this gap.

We are scientists in evolutionary biology, and figuring out ways to better identify species is central to our research.

Using genetic analysis and artificial intelligence, we were able to disentangle hidden species that have been lumped together in a single group and predict where and what types they might be.

Our findings also pinpoint a potential cause for this shortfall in species identification: an underinvestment in the science of taxonomy.

## Hidden species remain to be discovered

For this study, we chose to focus on mammals. Because of their relatively large size and importance to people as a source of food, companionship and entertainment, we predicted that it was more likely that a large proportion of mammalian species have been already been identified.



Our first task was to identify known species that might actually contain two or more species.

To do this, we analyzed 1 million gene sequences from 4,300 named species, identifying clusters of sequences that showed high genetic diversity and fitting the data to an evolutionary model.

We found potentially hundreds of hidden species that were previously classified as a single group. This finding was expected, as it mirrors results from previous studies, albeit on a larger scale.

### **Where and what are these hidden species?**

Once we identified the presence of these potentially hidden species, our second task was to determine what specific traits they have in common.

To do this, we used a data science technique called “random forest analysis,” a form of machine learning that draws information from a large number of different variables in order to make a prediction about a particular outcome.

It’s similar to the technique that Netflix uses to suggest shows you might be interested in watching.

In our case, we wanted to predict whether a known species contained hidden species.

The predictor variables we used spanned environmental factors, such as the climate of common mammalian habitats, and species-specific factors, such as physical traits, geographic range, reproductive and survival patterns.

We also included research-based factors on the techniques scientists used to conduct their studies.

In total, we collected some 3.8 million data points to build our model.

Based on our model, we found that three types of predictor variables stood out the most.

The first type comprised attributes of the species itself, such as body mass and geographic range.

These results suggest that small mammals with relatively large ranges are more likely to have hidden species. This makes sense as, all things being equal, it is more difficult for scientists to recognize physical differences in smaller animals than larger ones.

The second type was climate—there are likely to be more hidden species in wet, warm areas with a large difference in day and night temperatures.

This likely reflects the fact that tropical rainforests tend to have very high levels of mammalian diversity.

The third type was research effort, including the geographic dispersion of samples in museum collections and the number of recent publications mentioning the scientific name of a known species.

This implies that researchers are generally effective in identifying new mammals, as how much attention the scientific community has focused on a specific mammal predicts whether that creature is identified.

This is supported by how the general characteristics we’ve identified match new mammalian species described over the past 30 years, as well as the fact that our model recognizes areas that scientists are already investigating for hidden species.



## Unknown species face extinction

At a time when Earth is facing its greatest extinction crisis since an asteroid killed off the dinosaurs, we believe that identifying and describing the many undiscovered species on Earth is crucial to aiding the preservation of its biodiversity.

Even though our study still found a large number of mammals waiting to be discovered, mammalian diversity is already relatively well captured compared with that of other species.

We found that roughly 80 percent of existing mammal species have already been described, a proportion far higher than in nonmammal groups with even higher diversity, such as beetles or mites.

Discovering and describing new species, as with all scientific research, takes a village.

Natural history museums are largely responsible for collecting the raw data we analyzed, and genetic and biodiversity databases provided the infrastructure to make it accessible to us.

A culture of information sharing among peers and large computer networks supported the thousands of hours of computation time we needed. Our work was made possible only by ongoing investments in taxonomic research.

Biodiversity scientists are racing to better understand the processes that create and maintain biodiversity while in the midst of the planet's sixth mass extinction, one that is entirely caused by human actions.

Taxonomists face the challenge of describing the species around us before they go extinct. As our findings suggest, there is still a long way to go.

Image credits: [Julan Shirwod Nueva/Wikipedia CC-SA-4](https://www.wikipedia.org/wiki/File:Julan_Shirwod_Nueva/Wikipedia_CC-SA-4)



03 APRIL 2022, SUNDAY



**DENR**

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## DENR to review forest fire prevention measures

Man-made forest fire is usually an offshoot of *kaingin* or slash and burn farming, smoking of honeycombs to gather honey, cigarette butts, and other forms of activities that involve fire

The Department of Environment and Natural Resources (DENR) recently directed its field officers to review existing forest fire prevention measures due to increasing incidents of man-made forest fires during the dry season.

According to DENR-Forest Management Bureau records, forest fire incidents went down to 429 in 2020 from 1,282 in 2019, attributed to lockdown measures due to the coronavirus disease 2019 (Covid-19) pandemic.

The agency also noted that it has partnered with the Bureau of Fire Protection (BFP) to conduct cluster trainings for DENR's field personnel and implementers on the various aspects, technicalities, and principles of forest fire.

The BFP-trained DENR field personnel conduct forest fire preparedness and response trainings with DENR-engaged upland communities in its various programs, particularly those covered by the Expanded National Greening Program (ENGP) within their areas of responsibility.

"Forest fires are mostly fueled by human activities, making it imperative for us to recalibrate our response readiness and forest fire prediction alertness to pre-pandemic levels, which calls for tighter coordination with people's organizations and family beneficiaries of the National Greening Program," DENR Acting Secretary Jim Sampulna said.

"The field offices and communities are considered our front liners in combating forest fires. The first line of defense against forest fire is to avoid starting a fire," he added.

Man-made forest fire is usually an offshoot of *kaingin* or slash and burn farming, smoking of honeycombs to gather honey, cigarette butts, and other forms of activities that involve fire.

In 2020, 389 of the 429 outbreaks occurred in plantation sites under the ENGP, covering 7,830 hectares valued at P119.3 million.

Forty outbreaks occurred in natural forests, or forestlands populated with naturally growing indigenous trees, where some 1,278 hectares were affected with estimated damages of P4.27 million.

In 2019, a total of 1,282 outbreaks were reported (1,205 in ENGP sites; 77 in natural forests), affecting 24,091 hectares (22,3723 hectares in ENGP sites; 1,719 hectares in natural forests), with a damage cost of P417.9 million (P396 million in ENGP sites; P22.2 million in natural forests).

ENM





## DENR: Readiness for man-made forest fires crucial

By CORY MARTINEZ

**EXISTING** forest fire prevention measures must be reviewed as man-made forest fires increase during the dry season.

This was the order issued by the Department of Environment and Natural Resources (DENR) acting Secretary Jim O. Sampulna to the agency's field officers as part of their continuous efforts to beef up its partnership with the Bureau of Fire Protection (BFP).

"Forest fires are mostly fueled by human activities, making it imperative for us to recalibrate our response readiness and forest fire prediction alertness to pre-pandemic levels, which calls for tighter coordination with people's organizations and family beneficiaries of the National Greening Program," Sam-

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The BFP-trained DENR field personnel conduct forest fire preparedness and response training with DENR-engaged upland communities in its various programs, particularly those covered by the Expanded National Greening Program (ENGP) within their respective areas of responsibility.

"The field offices and communities are considered our frontliners in combating forest fires. The first line of defense against forest fire is to avoid starting a fire," Sampulna said.

Man-made forest fire is usually a result of "kaingin" or "slash-and-burn farming", smoking of honeycombs to gather honey, cigarette butts, and other forms

of activities that involve fire.

As national case trends of COVID-19 continue to decline, Sampulna said the easing of restrictions on movements of people in many parts of the country is also likely.

Based on the record of the DENR-Forest Management Bureau, forest fire incidents went down to 429 in 2020 from 1,282 in 2019.

The DENR-FMB attributed the decreasing number of forest fire incidents to strict COVID lockdown measures in the country.

In 2020, 389 of the 429 outbreaks occurred in plantation sites under the ENGP, covering 7,830 hectares valued at P119.3 million.

40 outbreaks occurred in natural forests, or forestlands populated with naturally growing indigenous trees, where some 1,278 hectares were affected with estimated damages of P4.27 million.

In 2019, however, 1,282 outbreaks were reported (1,205 in ENGP sites; 77 in natural forests), affecting 24,091 hectares (22,3723 hectares in ENGP sites; 1,719 hectares in natural forests), with damage cost of P417.9 million (P396 million in ENGP sites; P22.2 million in natural forests).

Meanwhile, BFP Director Louie Puracan underscored the pivotal role of DENR-partner communities in forest fire prevention and detection, saying the preparedness of DENR field officers and partner communities "gives them precious lead time to respond accordingly" to a forest fire outbreak.

"A protocol is already in place for the BFP, including other appropriate agencies such as the DENR and the concerning disaster risk and reduction management council to respond," Puracan said.



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## DENR, GSIS, private sector make Marikina Basin greener

The Department of Environment and Natural Resources (DENR) has inked a five-year agreement with the Government Service Insurance System (GSIS) and three major firms for the rehabilitation of the Upper Marikina River Basin Protected Landscape (UMRBPL) under the Expanded National Greening Program (ENGP).

In a memorandum of agreement (MoA) with the DENR-Region 4A (CALABARZON), 70 hectares of ENGP-graduated sites inside UMRBPL will be sustained and protected by GSIS, together with D.M. Consunji, Inc. (DMCI), Toyota-Oben Group of Dealers (TOGD), and Meralco Industrial Engineering Services Corporation (MIESCOR).

Ramil Limpiada, DENR-Provincial Environment and Natural Resources Officer (PENRO) for Rizal, said that ENGP-graduated areas are previously established NGP

plantations that need assistance from government institutions and private sector partners.

"These ENGP-graduated sites are areas turned over to the DENR by the people's organizations and local government units after fulfilling their three-year site development contracts to raise tree plantations," Limpiada said.

The adopted sites under the five-year agreement comprised four separate ENGP areas in Sitio San Ysiro, Barangy San Jose in Antipolo City, which the DENR has set aside for the "Adopt-a-Site Program" to ensure continued maintenance and protection of the ENGP sites under a Public-Private-Partnership (PPP) scheme.

"Common to these four areas is they are the most challenging to maintain and protect in their respective NGP (National Greening Program) plantation sites, owing to their location.





## DENR lauds Maynilad estero clean-up project

THE Department of Environment and Natural Resources-National Capital Region (DENR-NCR) recognized the invaluable contribution of Maynilad Water Services, Inc. (Maynilad) in the multi-sectoral effort to protect and rehabilitate the Manila Bay through its wastewater management and estero clean-up

drives.

DENR Acting Secretary Jim O. Sampaña thanked Maynilad and the city government of Parañaque for partnering with DENR's Metropolitan Environmental Office-South in developing projects that will reduce pollution in Estero de Tripa de Gallina, Parañaque, including the installation of sewer inter-

ceptor lines and construction of a communal septic tank for households near the estero.

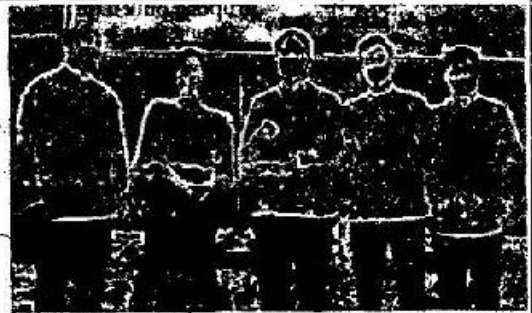
Maynilad has been actively supporting the Manila Bay Rehabilitation Program of DENR through various initiatives such as its Adopt-an-Estero program, ongoing rehabilitation of the Central Manila Sewerage System, and sewage collection service under the "Project Kubeta Ko" Movement to prevent open defecation in waterways.



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**MAYNILAD ESTERO CLEAN-UP EFFORTS LAUDED BY DENR**—The Department of Environment and Natural Resources—National Capital Region (DENR-NCR) recognized the invaluable contribution of Maynilad Water Services, Inc. (Maynilad) in the multi-sectoral effort to protect and rehabilitate the Manila Bay through its wastewater management and estero clean-up drives. The photo shows Maynilad Wastewater Sewer Network Management head Reynaldo Angeles (3rd from left) receiving a plaque of appreciation from DENR-NCR Regional Executive Director Jacqueline Caangan, CESO III (2nd from left) for being DENR's environmental partner, given during the "Gawad Taga-Ilog 2.0: Search for Most Improved Estero in Metro Manila" held recently at Park Inn by Radisson in Quezon City. Maynilad helped in the clean-up of Estero de San Miguel in Manila, which was awarded the "Most Improved Estero" citation this year.



Meanwhile, DENR Acting Secretary Jim O. Sampaña thanked Maynilad and the city government of Paranaque for partnering with DENR's Metropolitan Environmental Office-South in developing projects that will reduce pollution in Estero de Tripa de Gallina, Paranaque, including the installation of sewer interceptor lines and construction of a communal septic tank for households near the estero.

Maynilad has been actively supporting the Manila Bay Rehabilitation Program of DENR through various initiatives such as its Adopt-an-Estero program, ongoing rehabilitation of the Central Manila Sewerage System, and sewage collection service under the "Project Kubeta!Ko" Movement to prevent open defecation in waterways.



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## Maynilad honors 14 water, environment champions at 7th

### World Water Day Awards

**W**EST Zone concessionaire Maynilad Water Services Inc. (Maynilad) honored 14 water and environment champions at the recent World Water Day PH Awards 2022 (WWD.PH Awards) as the culminating event in the country's recent week-long celebration of World Water Day.

Maynilad held the event virtually together with the National Water Resources Board (NWRB) and Department of Environment and Natural Resources (DENR).

Maynilad's "Water Warrior Awardee" was the Paranaque City Environment and Natural Resource Office for actively promoting proper wastewater management through an ordinance establishing a septage management system in the City of Paranaque.

The NWRB's "Water Wise Awards" went to Coca-Cola Beverage Philippines for its Reduce, Reuse, Replenish program, and the local government unit (LGU) of Pavia, Iloilo and Pavia National School, which served as the pilot location for the NWRB's Groundwater Management Plan.

The Local Water Utilities Administration's "Huwaring Lingkod Tubig Award"



recipients were Puerto Princesa City Water District in Palawan, Bayawan Water District in Negros Oriental, and San Francisco Water District in Agusan del Sur.

The Damayan Irrigators Association Inc., PPATTABA Irrigators Association Inc. and Silway 7-Kinlan 6 Communal Irrigators Association Inc. were named the "Most Outstanding Irrigator's Associations" by the National Irrigators Association.

Efforts in protecting the Laguna de Bay were also recognized through the Laguna Lake Development Authority's "Kampeon ng Lawa Awards," which were

given to the LGUs of Morong, Rizal; the Muntinlupa City Lake Management Office's paddle wheel project; and to Rev. Msgr. Jerry Veluz Bilbon, Pastor of San Pablo Cathedral, in San Pablo City.

Completing the roster of honorees were Metro Pacific Water's "Kampeon ng Kalikasan" awardee Metro Iloilo Water District, and Abotiz InfraCapital's "Agos ng Kinabukasan" awardee Metro Lipa Water District.

Emphasizing this year's World Water Day theme "Groundwater—Making the invisible, visible," Maynilad President and CEO Ramoncito S. Fernandez said, "With climate change continuing to

threaten our surface water sources, sustainably managing our groundwater sources is critical. We need to make the invisible visible by bringing discussions on groundwater management and protection to the mainstream."

For more than five years now, the WWD.PH Awards has been a platform for honoring champions for water and the environment—individuals, institutions and programs—that have contributed to achieving water and water-environment sustainability in the Philippines.

Each WWD.PH-participating government agency and private company submits their nominees, which are then screened and vetted by a multi-organization committee before being included in the list of awardees.

The event was shot at the El Deposito Museum in San Juan City, which showcased the largest underground water reservoir in the country.

It presented the history of the 1882 Carried Waterworks, which provided potable water to the residents of Manila, carried from the Marikina and Pasig Rivers, in the 19th century. It could be considered the forerunner of today's Maynilad and Manila Water.



## Estero de San Miguel gets recognition from DENR

By **CORY MARTINEZ**

**THE Estero de San Miguel in Manila has been recognized as Metro Manila's "most improved estero."**

The Department of Environment and Natural Resources-National Capital Region (DENR-NCR) has given the recognition during the recently 2nd "Gawad Taga-Ilog" awarding ceremony wherein the Estero de San Miguel is this year's grand winner.

The Gawad Taga-Ilog recognizes the efforts of local governments in Metro Manila – barangays in particular – in keeping their waterways clean and trash-free, as well as their active participation in the ongoing rehabilitation of Manila Bay.

It also encourages change in the attitude and outlook of Metro Manila residents regarding their role in keeping and maintaining waterways clean.

Meanwhile, the 1st runner-up was Estero Tripa de Gallina in Pasay City and Makati City; 2nd runner-up, Park Creek, 23 in Marikina City; 3rd runner-up, Polo River in Valenzuela City; and 4th runner-up was Zapote

River in Las Piñas City.

The awarding ceremony was also in time with this year's celebration of "World Water Day" under the theme, "Groundwater: Making the Invisible, Visible".

DENR acting Secretary Jim O. Sampauna commended the search for the most improved estero, noting that it should be "replicated in other regions, specially selected areas of the Manila Bay regions."

"This should be done to recognize the efforts of local government units (LGUs), partners, stakeholders, and communities in cleaning, restoring, and protecting our waterways," Sampauna said in his speech delivered by Undersecretary for Field Operations – Luzon, Visayas, and Environment Juan Miguel Cuna.

Meanwhile, citations were given to the different esteros in Metro Manila, namely, Estero de Maypajo in Navotas City, Sucol River in Malabon City, Ermitaño Creek in the City of San Juan, Estero de Maypajo in Caloocan City, Mavtunas Creek in Mandaluyong City, Lanuza Creek in Pasig City, and Tipas River in Taguig City.

judge's functions, manifest impartiality and have a sense of perspective.

DENR-NCR Regional Executive Director Jacqueline Caancan, on the other hand, said that the Gawad Taga-Ilog was launched in 2020 "not to promote competition but to inspire cooperation among our partner barangays."

"Indeed, Gawad Taga-

Ilog is built on the premise that Manila Bay is a watershed. All rivers and esteros within the watershed drain their waters – together with all the liquid and solid wastes from our households, offices, factories, etc. – to Manila Bay. Cleaning the historic water body, therefore, necessitates an integrated or ecosystem-based approach, from ridge

to reef," Caancan said.

In 2020, a total of 33 waterways were nominated with three barangays emerging as winners, which include Bgys. NBBS Dagat Dagatan and Bangkulasi in Navotas City as 2nd runners-up, Bgy. Marikina Heights in Marikina City as 1st runner-up, and Bgy. Lingunan in Valenzuela City as the grand winner.

Judges for Gawad Taga-Ilog 2.0 include DENR officials and partners who are professionals in the field of environmental protection, possess independence, which means being free of any royalties, duties, or interests that might inappropriately influence the performance of a





# Rody: I fired corrupt Cabinet members

By HELEN FLORES

President Duterte on Thursday said he fired five or six members of his Cabinet due to corruption and announced he would no longer make appointments or approve big projects until the end of his term.

"When I became President, I heard reports of corruption. So (acting Environment) Secretary (Jim) Sampulna is new because I fired them all. I won't name anybody because it's painful to them this had to happen. But you know, whether you helped me during the elections or contributed something good, I am very thankful," Duterte said in Cebuano in a speech in Lapu-Lapu City.

Yesterday, Malacañang clarified former environment chief Roy Cimatu was not among the officials dismissed for corruption.

"I'm not fond of announcing to the media but about - in the process, I fired five or six Cabinet members because of corruption," the President said. Duterte said the sacking happened "a long time ago."

"But if you ask me, I'll say who are the Cabinet members that I fired. I fired them a long time ago. I've probably fired around six of them - at an unholy hour, I really - I also expressed my frustration," he said.

"I'm not campaigning, I'm just talking about what ails the system. I'm not even naming names, but to those who are listening now, did you know about this?" Duterte said.

The President also ordered Sampulna to "stop" all reclamation proj-

ects, including those in Cebu and Mindanao.

"And then the discretion to approve reclamation areas in Manila, I said it's either I'll suspend it for the meantime and just leave it to the next administration," the President said.

"All the applications right now for reclamation - all and it could include Cebu and Mindanao - I told the acting secretary to stop all of it. It's either we give it to them last minute for as long as it's honest and the legal requirements are complied. You review everything and if you think it's proper and legal, give it to them," Duterte said.

"I have plenty of work to do. A lot of people are going to Davao because I'm winding up, so to speak. A lot of people want to see me. But I won't

anymore, I won't sign appointments, neither will I approve huge amounts of money for projects," he also said.

Yesterday, Malacañang made it clear Cimatu was not among those fired by Duterte for corruption.

"Former Department of Environment and Natural Resources Secretary Roy Cimatu resigned due to health reasons," acting presidential spokesman Martin Andanar said in a statement. Cimatu quit his post in February.

"President Duterte (on) numerous occasions commended former Secretary Cimatu in the successful transformation and cleanup of Boracay and Manila Bay," Andanar said.

"There is therefore no truth to the insinuation and/or rumor of his involvement in corruption," he said.

Andanar made the statement when acting deputy presidential spokesman Michel Kristian Ablan was asked at a press briefing yesterday whether cases had been filed against the DENR officials fired by Duterte for corruption.

"I don't know if you are insinuating former DENR secretary Cimatu. But Secretary Cimatu resigned last February due to health reasons. In fact, the Office of the Presidential Spokesperson sent out a message of thanks for the many years of service of Secretary Cimatu," Ablan told a reporter.

"The President himself commended Secretary Cimatu for his achievement as DENR secretary insofar as the Boracay and Manila Bay cleanups are concerned," Ablan said.



STRATEGIC  
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# THE PHILIPPINE STAR

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## NWRB: No water supply cut for Metro Manila

**MALOLOS** - The National Water Resources Board (NWRB) is not reducing the allocation from Angat Dam for Metro Manila residents this month.

Sevillo David Jr., NWRB executive director, said there is no change in the allocation for Metro Manila's water needs at 48 cubic meters per second (cms).

Irrigation allocation, on the other hand, was reduced to five cms since many farms are either in their terminal drainage situation, meaning there is less water requirement.

The irrigation allocation for

rice fields at the start of the cropping season was at 28 cms for the north zone or the north portion of Bulacan and parts of Pampanga and 12 cms for the south zone in the Bulacan service area.

Robert de la Cruz, National Irrigation Administration manager for Bulacan, said the current supply to the north zone is eight cms and six cms for the south zone.

The Bulacan provincial disaster risk reduction and management office said water elevation in Angat Dam was at 190.72 meters yesterday morning.

The water level in Bustos

Dam, which regulates irrigation supply to farms in Bulacan and parts of Pampanga, was at 16.74 meters.

The water elevation in Angat Dam yesterday was only 10.72 meters above its minimum operating level.

Bustos Dam's water level was 0.26 meters below its spilling level.

The Philippine Atmospheric, Geophysical and Astronomical Services Administration confirmed that cloud-seeding operations are being conducted over the Angat watershed to raise the water level in the dam.

- Ramon Efren Lazaro





## Cloud seeding sa Angat Dam sinimulan ng NWRB

Sinimulan kahapon ng National Water Resources Board (NWRB) ang pagsasagawa ng cloud seeding sa Angat Dam sa Norzagaray, Bulacan para mapanatili ang sapat na supply ng tubig dito ngayong panahon ng tag-init.

Sinabi ni NWRB executive director Sevillo David Jr. na may nakalatag na rin silang mga hakbang upang mapaangat ang water level sa dam dahil sa inaasahang pagtaas ng demand sa tubig ngayong

summer months.

Una nang nagbabala ang Philippine Astronomical, Geophysical and Astronomical Services Administration (Pagasa) na posibleng umabot sa critical level ang tubig sa dam sa Hunyo batay na rin sa pagkakarulad ng pinakahuling datos nito sa naranasang sitwasyon sa krisis sa tubig noong 2010.

Samantala, ipinacupad na ng Maynilad ang

off-peak na pagputol sa serbisyo ng tubig sa ilang lungsod sa Metro Manila simula kahapon hanggang Abril 15.

Mararanasan ito mula alas-10:00 ng gabi hanggang alas-kuwatro ng madaling-araw sa mga barangay sa Bulacan, Valenzuela, Parañaque, Pasay, Makati, Navotas, Malabon, Quezon, Maynila at Caloocan. (Miko Cueto/Orly Barcelona)

### NEWS BRIEF



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## Pagasa confirms cloud seeding over Angat

By **EFREN LAZARO**

**MALOLOS** – The Philippine Atmospheric, Geophysical and Astronomical Services Administration (PAGASA) has confirmed that cloud-seeding operations are being conducted over the Angat watershed in Bulacan since March 21.

The cloud-seeding operations

were intended to raise the receding water level at the Angat Dam.

The dam serves as a primary source of potable water for Metro Manila households.

Records from the Bulacan disaster risk reduction management office showed that the water elevation of Angat Dam was at 190.94 meters as of yesterday morning. The figure is only 10.94 meters

above its minimum operating level of 180 and 21 meters below its end of the year normal high water level of 212. Vic Malano, PAGASA administrator, said the cloud-seeding operations would run until April 15. He said the organizing agency of the cloud-seeding is the Manila Waterworks and Sewerage System and is funded by Maynilad.





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## ENVIRONMENT GROUPS SEARCH FOR 'GREEN'

CANDIDATES

# Greening

# the election

BY JONATHAN L. MAYUGA

**A**S the May 9 elections draw near, environmental groups under the Panatang Luntian launched on March 26 a fact-checking study to assess the positions and track records of candidates on Philippine environmental concerns.

"Our #EnvibeCheck is a research project that we made as a community to draw the line on who are the greenest and dirtiest candidates today," Leon Dulce, head of secretariat of Panatang Luntian, said in a statement.

"We want to educate the public on how their vote can affect the lives of more than 40 million fellow Filipinos dependent on our environment and natural resources," Dulce said.

Dulce, national coordinator of the Kalikasan-People's Network for the Environment (Kalikasan-PNE), said the research data challenged national candidates to do better by taking the pledge to uphold the pro-environment Pantang Luntian agenda.

The fact-checking study covered research on environmental pronouncements and track records of eight presidential and six vice-presidential candidates on issues surrounding extractive and destructive projects, waste management, just energy transition, green spaces and mobility, environmental defense, climate justice, and biodiversity and environmental conservation.

The full details of the study #EnvibeCheck is accessible for public viewing.

### Why the need for 'green' candidates?

WHEN asked why there is a need for green candidates, Dulce told the BUSINESSMIRROR via Messenger on March 30: "Pro-environment leaders in government help enhance and enforce our environmental laws that benefit more than 40 million natural resource-dependent Filipinos."

He added: "A green leadership is crucial in the remaining eight years where the Philippines can make or break its urgent response to the ecological, climate, health, and human rights crises we face."

According to Dulce, the next president must prioritize the immediate end to the extractive and destructive projects—like mining, dams and reclamation—that cause immeasurable damage to our ecosystems and depletion of our natural resources.

"They must nurture our watersheds,

protected areas and natural resource corridors, and empower the various land and environmental defenders protecting them," he said.

The leaders, he added, "must take drastic action in demanding just compensation from the top climate-polluter countries for causing widespread loss and damages to vulnerable nations such as the Philippines."

According to Dulce, the next administration must usher in doable steps toward the just transition of the economy to clean energy, mobility, green jobs and urban renewal.



### Mainstreaming environment in policy discourse

AS the election noise intensifies, environmental groups noticed the environment and climate change concerns are seemingly being left out, if not sidelined by pressing social, economic and political issues.

Dulce said: "We are seeing less and less discourse over social media and coverage over news regarding the environment and climate issues."

He maintained that environment, and climate discourse is greatly lacking among candidates and the public.

"These issues are not considered gut issues [that is why] they are slow at the onset and infrequently [discussed] compared to daily economic hardships. The marginalized communities in far-flung, underserved areas who are the frontlines of these ecological impacts are unfortunately far away from public view and concern," Dulce said.

### Green deals, climate leadership

IN the first 100 days of the new administration, Dulce said the country's leaders must immediately set to work on implementing a moratorium on extractive and destructive projects.

"They must also pass a People's Green New Deal that would inject emergency economic stimulus into green

solutions for the persisting pandemic and climate impacts our countrymen are still suffering from," he said.

Chuck Baclagon, the regional finance campaigner of 350.org, highlighted the need for climate leadership given the country's status as highly vulnerable to the impacts of climate change effects.

"Climate leadership is of utmost importance in our part of the world given our status [being] among the countries that are at the frontlines of climate-induced disasters," Baclagon told the BUSINESSMIRROR via Messenger on March 29.

He added that protecting the environment and responding to the challenges of climate change directly translates to social and economic benefits for the Philippines now and for generations to come.

### Putting the green agenda forward

"WE have less than a decade to get climate change under control. Our leaders need to do more on climate action. That is why we hope that the candidates vying for the highest position in this coming elections should put forward an agenda that puts communities and ecosystems ahead of corporate interests" Baclagon explained.

Beyond the candidates, environmental groups and advocates are building up an informed electorate that votes for candidates based on their platforms as well as their track record of standing up for the interest of the people and the planet.

He said that as a climate justice organization, 350.org believes that the most urgent task for the incoming president is about ensuring our country's capacity to thrive amid the climate crisis.

"Our failure as a country to take decisive action on climate change sends a message that legitimizes the current nation of big historical and per capita

emitter countries," he explained.

Sadly, Baclagon said that among the candidates only two, who have a proven history of being involved in environmental-justice work even before they entered the electoral race, have articulated clear programs of actions.

"But as far as the entire electoral discourse is concerned, we think more efforts should be done by the candidates to explore the intersectionality of democracy, human rights and economic development with environmental protection," he pointed out.

### 'Tragic' reality

BACLAGON described as tragic what is currently happening in the electoral debates with the environment and climate being sidelined in the electoral discourse.

However, he explained that the election is also happening under a unique set of circumstances where there are clear lines drawn between values translated into electoral platforms.

On the one hand there are candidates who instead chose to valorize through historical revisionism, a status quo that married crony capitalism with environmental plunder, undermine historical grievances that cost the lives of Filipinos and wrecked the Philippine economy.

On the other hand, he noted that there is also a pushback that champions active citizenship and restores governance that respect democratic institutions and fundamental principles like human rights, press freedom and defense of national patrimony.

Asked what are the most serious environmental and climate change problems the national and local electoral leaders should prepare for, he said it is the transition from fossil-fuel-based to clean, renewable energy sources.

"We believe that a government's seriousness in climate action is best measured in its energy policy. We hope that whoever wins this election would build on the major wins that have been achieved by the campaign for energy transition during this regime, such as the Department of Energy's recent moratorium on coal power plants," he said.

According to Baclagon, securing a renewable energy future does not only limit pollution and mitigate carbon emissions. It also ensures stable and equitable access to power for an archipelagic country like the Philippines.

"Whoever wins the elections, it is incumbent on the new government to prioritize the provision of affordable and reliable electricity for all Filipinos," he said.



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## QC gov't to bet: Stop using plastic campaign materials

By AARON DIOQUINO

The Quezon City government on Friday urged all candidates in the May 2022 elections to avoid using campaign materials made of polyethylene or plastic.

The city government made the call as it reminded them of an ordinance implemented in 2013, which prohibits the installation of advertisements and propaganda materials made of plastic in the city.

According to the local government, there are two materials (plastic and polyvinyl chloride (PVC)) commonly used for campaign posters, which usually end up in creeks.

"Due to the volume needed during election season, plastic posters are everywhere as they are cheaper than PVC. But these are also the materials that litter the city for years after the

elections are over," Department of Sanitation and Clean-up Works (DSOC) Chief Richard Santuile said.

Santuile added that plastic advertising and campaign materials are the most frequently collected during their clean-up activities.

"When the city banned these materials, it was because of their long-term negative impact on our environment. Even broken down or torn pieces increase the risk of flooding, especially now that heavy downpour is unpredictable and can happen even in the heat of summer," he said.

On March 7, the Department of Public Order and Safety (DPOS) led by retired Gen. Elmo San Diego started removing the said campaign materials that are not placed in areas assigned by the Commission on Election (Comelec).

San Diego said they confiscated 24 truckloads or 21 tons of ads (including those made of plastics) only for the month of March.

"We can still see ads and posters made from plastic during our routine clearing operations. That's why the city will ramp up our operations and penalize those who have violated the ordinance," San Diego said.

Individuals and businesses caught violating the ordinance will receive a notice of violation on their first offense, according to the local government. They will be fined ₱3,000 and are required to do community service for second offense.

For third offense, violators will be fined ₱5,000 and will be required to do a three-day community service.

Corporations will also receive a notice for first offense once caught violating the ordinance. They will be fined ₱3,000 for second offense, ₱5,000 fine and revocation of the "Mayors Permit to Operate" for third offense.



## Let us save the biodiversity of the planet

**T**HE planet as we know it today will never be the same tomorrow or in the months and years yet to come. Life on earth is diminishing with the massive loss of biodiversity to environmental effects of logging, deforestation, invasive species, mass chemical-based agricultural production, climate change and many other reasons.

The COP25 (Conference of Parties) attended by all nations in Geneva is trying to agree on ways to protect every form of life on Earth and stop the extinction of thousands of species of plants and living creatures. To succeed, wise people and moral leaders with love of nature have to be elected. The wise must educate and convince the human species that its survival is not to be found in excessive consumption and exploitation of the natural world by pollut-



### REFLECTIONS

**FR. SHAY  
CULLEN SSC**

ing the environment but in its protection and conservation.

Many species are becoming extinct 100 times faster because of us humans. We are the most deadly, most destructive force ever to evolve. We are the T-Rex dinosaur of our time. Our bigger brains have evolved to be able to eliminate all other living creatures, and they are busy doing that.

What drives human destructive lifestyle is the uncontrolled desire to possess, exploit, consume and dominate nature. What the complacent, unthinking human population, living in a fossil fuel-dependent world does not understand is that life on Earth depends on a healthy balanced relationship

among all species in the natural world and to live and let live in a sustainable climate; that this respectful relationship with nature is the only way to preserve healthy food sources and sustain all life. Our global warming activity is destroying that balance.

As a result of human activity, populations of wild animals have more than halved since 1970 while the human population has doubled. Never before in our planet's history have so many species and so much biodiversity been lost as quickly as at this time. The fifth extinction event was when the dinosaurs were wiped out. Now is the sixth mass extinction of creatures on earth and it is taking place before our eyes. The loss of biodiversity today is "biological annihilation."

People living in cities are unaware of this great loss to the

planet although Indigenous people in remote communities see it happening all too quickly. While many of the delegates at COP25 struggle to get agreements to preserve the biodiversity of the planet, there are hidden forces working against them.

Lobbyists for business interests are doing their best to prevent COP25 passing strong resolutions that would, for example, limit the use of pesticides that destroy the biodiversity of the land and rivers and pollute the sea. They hopefully might advise greater reduction in the use of palm oil in industry to save biodiversity.

Expansion of the massive palm oil industry in Southeast Asia is a root cause of the damage to biodiversity. Political corruption destroys biodiversity on a huge scale. Corrupt politicians abuse their power and give their relatives

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■ CULLEN FROM A4

## Let us save the biodiversity of the planet

and cronies in industry so called "rights," claims and permits to exploit the lands of poor farmers and the ancestral land of Indigenous people. They work in cooperation with local and multinational mining and agri-corporations. They allow them to deforest and plant palm oil trees. The mining corporations cut the forests for destructive open pit-mining. This is happening on a large scale in the African and Amazonian rain forests and in the Philippines, too.

The government reports that the Philippines is losing approximately 47,000 hectares of forest cover every year. In 2003, the country's forests comprised 7.2 million hectares, but in 2010 it went down to about 6.8 million hectares, which is about 4.6 percent decline. The country is down to less than 24 percent of the original forest cover in the 1900s.

Mass poverty is the result of the greed of the ruling political dynasty of the area and their cronies in the multinational corporations. The people, deprived of land, go hungry and migrate to the city slums of Manila to eke out a precarious survival. There, they huddle together in the shadow of the giant towers of condos of the one percent that make up the super rich. Corrupt officials are allowing it to happen.

These corrupt political and economic forces that cause poverty and provide a great pool of low-cost labor for the rich to exploit should be held accountable. These same forces are damaging the environment around the globe and in Southeast Asia, including the Philippines. All nations are suffering a loss of their biodiversity.

Once the natural habitat is damaged, the animals, birds, reptiles and

insects die out. The spraying of pesticides further advances the destruction of life on earth. Kill the insects and the food of millions of birds is diminished and some will soon be extinct.

Allow an invasive species into a nation and disaster to natural wildlife follows. In the Philippines, the golden snail caused the extinction of native apple snails. They poisoned fishponds with their toxicity, killing the fish fingerlings and they attacked rice fields destroying the crops. It is a real environmental disaster.

A government report from the National Biodiversity Strategy and Action Plan (2002), says, "The Philippines is considered as one of the world's "biodiversity hotspots" with at least 700 threatened species thus making it one of the top global conservation areas. Based on reports of the number of illegal wildlife trade, the country's ports have been a hub for illegal wildlife trading. The Philippines also has the highest number of threatened species per unit area in the world."

We can change things around by demanding accountability from the government bureaus in charge of the natural resources, the Department of Agriculture and forest management. The people can demand that they preserve, not destroy. We can show children videos like the "Blue Planet" by David Attenborough. Teach the children to love nature.

We can plant trees, create a fenced-off area in our gardens and farms to allow wildlife to thrive. We can support environmental NGOs saving the damaged environment. We can be good stewards and protectors of biodiversity and the natural world.



**PHOTO** of tamaraws at the Philippine National Museum of Natural History. Natural history museums are largely responsible for collecting the raw data analyzed, and genetic and biodiversity databases provided the infrastructure to make it accessible.

JULIAN SHERWOOD NUENA/WIKIPEDIA, CC-BY-SA

## Research: Thousands of undiscovered mammal species may be hidden from sight

**T**AXONOMY, the study of how living organisms relate to one another as species, has been around since the 1700s. Though scientists and philosophers have long debated what makes a species a species, taxonomists treat each species as a group of organisms that share common biological characteristics.

Discovering and describing new species is essential to biology researchers and conservationists because they use species as a unit of analysis. Species are also economically important to agriculture, hunting and fishing, and have special legal status, such as under the US Endangered Species Act.

Despite this, scientists have been able to formally name and describe only an estimated 10 percent of species on the planet, based on discovery trends over the years.

This gap in knowledge is known as the Linnean shortfall. It remains unclear whether poor research methodology, disagreements on how to define a species, or other factors are to blame for this gap.

We are scientists in evolutionary biology, and figuring out ways to better identify species is central to our research.

Using genetic analysis and artificial intelligence, we were able to disentangle hidden species that have been lumped together in a single group and predict where and what types they might be.

Our findings also pinpoint a potential cause for this shortfall in species identification: an underinvestment in the science of taxonomy.

### Hidden species remain to be discovered

**FOR** this study, we chose to focus on mammals. Because of their relatively large size and importance to people as a source of food, companionship and entertainment, we predicted that it was more likely that a large proportion of mammalian species have been already been identified.

Our first task was to identify known species that might actually contain two or more species.

To do this, we analyzed 1 million gene sequences from 4,300 named species, identifying clusters of sequences that showed high genetic diversity and fitting the data to an evolutionary model.

We found potentially hundreds of hidden species that were previously classified as a single group. This finding was expected, as it mirrors results from previous studies, albeit on a larger scale.



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mammal species may be hidden from sight

## Where and what are these hidden species?

ONCE we identified the presence of these potentially hidden species, our second task was to determine what specific traits they have in common.

To do this, we used a data science technique called "random forest analysis," a form of machine learning that draws information from a large number of different variables in order to make a prediction about a particular outcome.

It's similar to the technique that Netflix uses to suggest shows you might be interested in watching.

In our case, we wanted to predict whether a known species contained hidden species.

The predictor variables we used spanned environmental factors, such as the climate of common mammalian habitats, and species-specific factors, such as physical traits, geographic range, reproductive and survival patterns.

We also included research-based factors on the techniques scientists used to conduct their studies.

In total, we collected some 3.8 million data points to build our model.

Based on our model, we found that three types of predictor variables stood out the most.

The first type comprised attributes of the species itself, such as body mass and geographic range.

These results suggest that small mammals with relatively large ranges are more likely to have hidden species. This makes sense as, all things being equal, it is more difficult for scientists to recognize physical differences in smaller animals than larger ones.

The second type was climate—there are likely to be more hidden species in wet, warm areas with a large difference in day and night temperatures.

This likely reflects the fact that tropical rainforests tend to have very high levels of mammalian diversity.

The third type was research effort, including the geographic dispersion of samples in museum collections and the number of recent publications mentioning the scientific name of a known species.

This implies that researchers are generally effective in identifying new mammals, as how much attention the scientific community has focused on a specific mammal predicts whether that creature is identified.

This is supported by how the general characteristics we've identified match new mammalian species described over the past 30 years, as well as the fact that our model recognizes areas that scientists are already investigating for hidden species.

## Unknown species face extinction

AT a time when Earth is facing its greatest extinction crisis since an asteroid killed off the dinosaurs, we believe that identifying and describing the many undiscovered species on Earth is crucial to aiding the preservation of its biodiversity.

Even though our study still found a large number of mammals waiting to be discovered, mammalian diversity is already relatively well captured compared with that of other species.

We found that roughly 80 percent of existing mammal species have already been described, a proportion far higher than in nonmammal groups with even higher diversity, such as beetles or mites.

Discovering and describing new species, as with all scientific research, takes a village.

Natural history museums are largely responsible for collecting the raw data we analyzed, and genetic and biodiversity databases provided the infrastructure to make it accessible to us.

A culture of information sharing among peers and large computer networks supported the thousands of hours of computation time we needed. Our work was made possible only by ongoing investments in taxonomic research.

Biodiversity scientists are racing to better understand the processes that create and maintain biodiversity while in the midst of the planet's sixth mass extinction, one that is entirely caused by human actions.

Taxonomists face the challenge of describing the species around us before they go extinct. As our findings suggest, there is still a long way to go. *Danielle Parsons and Bryan Carstens, The Ohio State University/The Conversation CC*





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# Lowly bamboo declares war on climate change

**N**ASUGBU, Batangas—In a world fighting the accelerating effects of climate change, an abundant, resilient, and sustainable construction material has proven itself to be one of the best tools in mitigating this environmental phenomenon: bamboo.

"Bamboo is able to take carbon out of the atmosphere faster than almost any other plant," said Pablo Jorillo, general manager of Base Bahay Foundation. "The housing sector and construction industry at large can play a great role in reducing our carbon emissions if they are able to use bamboo as a mainstream building material," Jorillo claimed.

### Practical way to do battle

With the amount of carbon dioxide increasing in our atmosphere because of human activities—mainly the burning of fossil fuels—and therefore amplifying the warming effect of trapped greenhouse gases, carbon sequestration has become one of the most effective ways to reduce the levels of carbon in our atmosphere.

Carbon sequestration is recognized by the 1997 Kyoto Protocol as one of the most practical ways to combat climate change—and bamboo, explained Jorillo, is a natural and renewable resource that is able to rapidly sequester carbon in biomass and soil.

### Sustainable construction material

Bamboo naturally sequesters carbon in the atmosphere through photosynthesis, and naturally stores it in its culms. When it is harvested, treated, and eventually used as building material, Jorillo says the sequestered carbon still stays in the bamboo biomass. This presents bamboo as a truly sustainable construction material, as opposed to steel, cement, and glass, the manufacturing of which represents 11 percent of carbon dioxide emissions in 2018, according to the Global Status Report for Buildings and Construction 2019.

The same report states that the buildings and construction sector accounted for 36 percent of final energy use, and 29 percent of energy- and process-related carbon dioxide emissions in 2018.

Using bamboo, on the other hand, has a completely opposite effect. A carbon pool is created when you use harvested wood like bamboo. Bamboo products such as houses, furniture, boards, or engineered bamboo are durable and can store carbon for a long time, hence becoming a carbon pool or carbon reservoir. Carbon storage in harvested biomass is more significant in bamboo than in trees because of the former's fast growth and renewability.

### Global reference

As a non-profit that advocates for and implements the use of Cement-Bamboo Frame Technology in affordable housing, Base Bahay Foundation is leading the charge on research and innovation surrounding the use of bamboo for the affordable housing sector, and, eventually, the construction industry at large.

Initiated by the Hilti Foundation in 2014 to provide alternative and affordable housing solutions to people in the Asia Pacific that are exposed to natural disasters such as typhoons and earthquakes, Base Bahay's Cement-Bamboo Frame Technology is certified by the

Accreditation of Innovative Technologies for Housing (AITFCH) by the National Housing Authority.

Ultimately, what Base Bahay aims to achieve is to incorporate the mainstream use of bamboo in the National Building Code, so as to standardize its use across all kinds of structures.

"Our vision is to be the global reference for bamboo and sustainable construction, in order to help countries find alternative construction methods," Jorillo said.

For more information on Base Bahay Foundation and ongoing projects, visit <http://www.base-builds.com>.





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## SOLAR PANEL MANUFACTURER TAPS EMERGING PH RENEWABLE ENERGY MARKET

By Karl R. Ocampo  
@KAROcampo

In many places, solar panels are now by far the cheapest way to produce electricity. In the Philippines, however, tapping the unlimited although intermittent resource—sunlight—is only beginning to emerge.

Producing solar energy on a large scale requires huge capital and land, but over the long term, it can trim electricity costs. Currently, solar energy developers mostly cater to commercial and industrial sites.

Solar technology company LONGi aims to change that by giving end consumers access to solar grids through the installation of rooftop solar systems.

LONGi, the world's largest solar panel manufacturer in 2021, is now branching out to the Philippines. It has made a name for itself for being extremely well-priced as it is able to offer "high-quality" products at an affordable rate.

On average, LONGi's solar panels are estimated to be almost P4 per watt cheaper than other low-cost manufacturers. In comparison with mid-range panels, the price difference can be as big as P7 per watt.

"With the sudden increase of household electricity costs



Viktoria Locson

from the stay-at-home situation arising from COVID-19, the Filipino family innovated for smart solutions to decrease their costs while at the same time advocating for clean, green energy," says Viktoria Locson, LONGi's lead business partner in the country.

Established in 2000, LONGi has grown to become China's largest solar enterprise. Its affordable solar energy products include monocrystalline silicon ingots, monocrystalline silicon wafers, semiconductor materials and solar cells. Last year, it raked in revenues of over P446 billion.

LONGi has 15 manufacturing bases, mostly in China, and more than 30 branches all over the world. It currently employs over 60,000 people.

It decided to enter the Philippine market in 2017, starting out as a supplier to 132 megawatts of wind hybrid projects in Ilocos Norte. Since then, it has branched out to the supply of panels for residential and industrial use.

### Cost versus savings

End users who would like to try solar energy can start from small installations. According to LONGi, the cost of installing a rooftop solar system can be as low as around P5.5 kilowatt per hour and can save households an average of about P4.50 per kWh for 25 years.

Across Southeast Asia, the Philippines has one of the highest electricity costs. In areas that are connected to the grid, the rates can be excessive.

"Due to the sharp declining costs of photovoltaic technology (PV), solar PV provides the most economical, fastest, and modularized solution to this problem—it can be installed without any grid capacity provided that energy storage is also included," says Locson.

"We have effectively seen 20 to 50 percent reductions on electricity bills of residential homes which have opted to switch to solar (energy). Of course, this is in consideration of

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STRATEGIC  
COMMUNICATION  
AND  
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Emerging PH Renewable Energy market

**FROM B1** their current load profile," she adds.

She believes that with both local and foreign conglomerates investing heavily in the country's solar potential, the solar market is not going anywhere but up. Some banks have also committed to stop financing fossil-fueled power plants, as is the case in Japan, South Korea, and recently, China.

The push for solar or renewable energy, in general, is for the country to steer away from fossil fuel use. While burning coal is often touted as a cheap source



**We have effectively seen  
20 to 50 percent reductions  
on electricity bills of residential  
homes which have opted  
to switch to solar [energy]**

**Viktoria Locson**

LONGI PH lead business partner

of energy, its impact on public health and the environment can be harrowing.

Coal-fired power plants are among the major contributors to carbon dioxide emissions, which drive climate change. The rising sea levels and the extreme weather conditions show the dire effects of a warming planet.

"Filipinos are sensitive to the issue of climate change as we are a nation that experiences the most tragic typhoons, and these solar panels are part of the solution to our global warming scenario," says Locson. **INQ**



# PH eyes UAE's innovative energy efficiency programs

By CHINO S. LEYCO

The Philippines is looking at working with the United Arab Emirates (UAE) in conceptualizing and implementing innovative energy efficiency programs to contribute to the global effort to reverse the devastating effects of climate change, a Cabinet official said.

During the Climate Change Virtual Conference hosted by the UAE Embassy in Manila, Finance Secretary Carlos Dominguez III welcomed Abu Dhabi's ongoing efforts to deploy and use clean energy solutions as one of the main pillars to address the climate crisis.

UAE, a member of the Organization of Petroleum Exporting Countries (OPEC), unveiled in 2017 a strategy that aims to increase the share of clean energy in its total energy capacity mix from 25 percent to 50 percent by 2050.

It will host the United Nations Climate Change Conference of the Parties (COP) next year.

The Philippines has also been at the forefront of taking concrete actions in the fight against climate change, which has become "a real threat and a daily reality" for the country, said Dominguez.

Dominguez, who is the designated representative of the President to the Climate Change Commission (CCC), cited as an example the municipality of Masantol in Pampanga, where he led a team from the CCC and its National Panel of Technical Experts (NPTE) on a visit.

The town has endured prolonged flooding because of climate change. Storm surges and sea-level rise are among the hazards threatening Masantol's survival.

Representatives from the CCC and the NPTE volunteered to stay in Masantol for months to assess the area firsthand and continuously engage with its residents in order to come up with science-based recommendations and risk-informed solutions to address the town's flooding problem, Dominguez said.

The perennial flooding in Masantol is not an isolated case as it is happening as well in other parts of the country, he noted.

Dominguez said he expects the recommended solutions of the CCC-NPTE team in Masantol to be replicated, if possible, in other vulnerable communities across the country.

"We will strive to send assistance, one community at a time. This is possible with strengthened coordination and with the guidance of science," he said in this afternoon's virtual conference hosted by the UAE Embassy.

"Reversing the trend towards global warming will require the work of generations. It will be hard and interminable work. We have to put in that work to save our planet. There is no other alternative," Dominguez added.

According to the 2020 World Risk Index, the Philippines ranks 9th out of 181 nations in the world as the countries most affected by extreme weather events.

The Philippine archipelago is also sinking at a rate four times faster than the global average and continues to endure cycles of drought and flooding.

Dominguez said that over the last decade, the Philippines incurred losses and damages from climate-related hazards estimated at about \$10 billion, which is equivalent to an annual average of about \$1 billion.



## WORLD WATER DAY 2022. IPINAGDIWANG SA LAGUNA

IPINAGDIWANG sa Laguna ang tinatawag na World Water Day 2022 at may kabuuang 1,000 sari-saring prutas at punla sa kagubatan ang itinanim sa lugar ng scenic mount view area, na binubuo ng mga species ng mangga, santol, mnyog at narra.

Nakiisa ang Provincial Government-Environment and Natural Resources Office (PG-ENRO), sa pakikipagtulungan ng

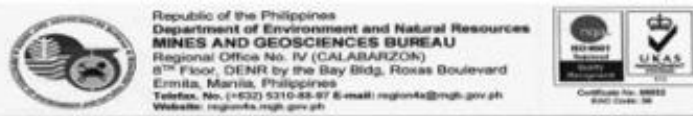
munisipyo ng Nagecarlan, sa pandaigdigang pagdiriwang ng World Water Day 2022 na may temang "Ground-water: Making Invisible Visible".

Nagsagawa rin ng Information, Education, and Communication (IEC) activity sa pamamagitan ng paglalagay ng tarpaulin sa entrance gate ng Provincial Agriculture Demonstration Farm Facility sa Barangay Calios, Sta. Cruz, Laguna,

na nagtataguyod ng social awareness ng World Water Day o Philippine Water Week of Fiscal Year-2022.

Highlight ng event ay ang Tree Growing activity sa Landing Point sa Barangay Abu-Bucal, Nagecarlan, Laguna. Ang aktibidad ay kaakibat din ng Go Greening and Restoring Laguna for a Healthy Environment Program sa loob ng lalawigan. *(Benjamin Chavez)*





9 September 2021

**MR. RENATO C. SUNICO**  
President  
Republic Cement & Building Materials, Inc.  
Menardo Tower, 32nd Street  
Bonifacio Global City

Dear Mr. R. C. Sunico:

This refers to the application for Exploration Permit of Republic Cement & Building Materials, Inc. (RCBMI) denominated as EPA-IVA-149 covering an area of about 12.0529 hectares situated in the Teresa, Rizal.

RCBMI is required to cause the publication and radio announcement of the pertinent "NOTICE OF APPLICATION FOR EXPLORATION PERMIT OF REPUBLIC CEMENT AND BUILDING MATERIALS, INC." as provided in Section 21 of Department of Environment and Natural Resources Administrative Order No. 2010-21, to quote:

*"Within five (5) working days from receipt of the Notice, the Exploration Permit applicant shall cause the publication thereof once in two (2) newspapers: one of general circulation published in Metro Manila and another published in the municipality or province where the proposed permit area is located, if there be such newspapers; otherwise, in the newspaper published in the nearest municipality or province. The pertinent affidavits of publication shall be submitted by the Exploration Permit applicant to the Regional Office concerned within five (5) days from the date of publication of the Notice x x x."*

*The radio announcements shall be made daily for one (1) week in a local radio program x x x. The publication and radio announcements shall be at the expense of the applicant.*

*Within five (5) working days from the last date of x x x radio announcement, the authorized officer(s) of the office(s) concerned shall issue a certification(s) that the x x x /radio announcement have been complied with."*

Enclosed is a copy of the said Notice of Application and the corresponding sketch plan.

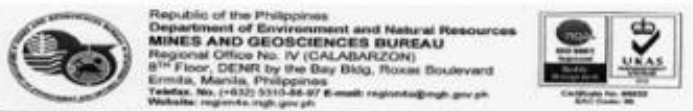
Thank you.

Very truly yours,

**DONDI B. SARMIENTO**  
OIC, Regional Director




Encl: As stated



**NOTICE OF APPLICATION FOR EXPLORATION PERMIT OF REPUBLIC CEMENT AND BUILDING MATERIALS, INC.**

Notice is hereby given pursuant to Section 76 of Department of Environment and Natural Resource (DENR) Administrative Order (DAO) No. 2010-21, the Consolidated Implementing Rules and Regulations of Republic Act No. 7942, otherwise known as the Philippine Mining Act of 1995, that Republic Cement and Building Materials, Inc., with address at Menardo Tower, 32nd Street, Bonifacio Global City, Taguig City 1634 has filed an application for Exploration Permit particularly described, as follows:

- I. Application No. : EPA-IVA-149
- II. Date of Filing : December 17, 2019
- III. Area Location : Teresa, Rizal
- IV. Description of the Applied Area
  - A. Geographical Coordinates

CORNER	LATITUDE	LONGITUDE
1	14° 33' 07.71"	121° 12' 00.00"
2	14° 33' 27.05"	121° 12' 00.00"
3	14° 33' 27.05"	121° 12' 05.04"
4	14° 33' 26.93"	121° 12' 05.45"
5	14° 33' 25.82"	121° 12' 06.03"
6	14° 33' 25.49"	121° 12' 06.38"
7	14° 33' 25.33"	121° 12' 07.03"
8	14° 33' 25.05"	121° 12' 07.47"
9	14° 33' 24.29"	121° 12' 07.89"
10	14° 33' 22.15"	121° 12' 09.58"
11	14° 33' 20.87"	121° 12' 08.27"
12	14° 33' 19.83"	121° 12' 57.75"
13	14° 33' 11.88"	121° 12' 04.04"
14	14° 33' 07.71"	121° 12' 06.91"

Sketch Plan: Please refer to "Annex A"

Size: The applied area covers Twelve and 529/10000 (12.0529) hectares.

**B. Restrictions**

The applied area shall be subject to Section 15 ("Areas Closed to Mining Applications"), Section 16 ("Ancestral Lands") and Section 105 of DAO No. 2010-21, and Section 4 of DAO No. 2012-07, as amended, which provide, among others, that:

- a. The following areas are closed to mining applications: areas covered by valid and existing mining rights/applications, old growth/virgin forests, proclaimed watershed forest reserves, protected areas and other areas expressly prohibited by law;
- b. The following areas shall also be closed to mining applications except upon written consent/prior clearance by the concerned government agency or private entity: areas near or under public or private buildings, cemeteries, archeological and historical sites, bridges, highways, waterways, railroads reservoirs, dams and other infrastructure projects, public or private works, including plantations or valuable crops;
- c. In cases of areas occupied by Indigenous Peoples (IPs) and/or covered by Certificates of Ancestral Domain/Land Claims/Titles (CAD/CALC/CADT/CAL), the Free and Prior Informed Consent shall be secured from the concerned IPs;
- d. In cases of surface owners, occupants and concessionaires that may be covered by the applied area, their permission shall be obtained prior to entry into their lands by the eventual Permittee for purposes of undertaking sand and gravel extraction therein.
- e. Prime agricultural lands, in addition to land covered by RA No. 667 or the Comprehensive Agrarian Reform Law of 1988, as amended, including plantations and areas devoted to valuable crops, and Strategic Agriculture and Fisheries Development Zones and fish refuge and sanctuaries declared as such by the Secretary of the Department of Agriculture.
- f. Tourism development areas, as identified in the national and local tourism development plans; and
- g. Other critical areas, island ecosystems, and impact areas of mining as determined by current and existing mapping technologies, that the DENR may hereafter identify pursuant to existing laws, rules, and regulations, such as, but not limited to, the National Integrated Protected Areas System.

**VII. Activities to be undertaken**

Per the submitted Exploration Work Program the following activities will be conducted:

- Reconnaissance/Regional Survey or Studies

**Remote Sensing**

Available satellite images of the exploration area and immediate vicinity will be studied for possible clues in stratigraphic, structural and/or tectonic signatures. Information on geomorphology will likewise be strengthened through images from this remote sensing information.

**Regional Geological Survey**

Regional geological survey conducted in the neighboring RCMBI mining tenements will be utilized for the available geological information. Review of the results from these activities will be conducted. Sample locations will likewise be revisited for validation of available data and ground exposure. Supplemental mapping may or may not be pursued depending on the data that may be gathered from previous works.

**Regional Geochemical Survey**

Regional geochemical survey will be conducted concurrent with the



geological survey. Gaps will be identified among the available previous reports and supplemented to cover on the missing/incomplete information.

• **Semi-detailed Survey or Follow-up Studies**

**Geological Mapping/Alteration Studies**

Semi-detailed geologic mapping will be conducted on the entire exploration area. Mapping will be focused on the spatial and temporal distributions and contact of different lithological units. Critical and key samples will be collected and tested for major oxides suitable for cement manufacturing.

The coverage of the semi-detailed geological mapping of this exploration program will be the review of the results from previous works. Data Consistency will be checked by revisiting and re-sampling of the areas previously covered.

**Geochemical Survey**

Similar to the semi-detailed geological mapping, the need for semi-detailed geochemical mapping will be determined later upon the review of the results of previous works. Field visits and resampling will be made to confirm the consistency of data previously gathered.

In any case that sampling will be needed, rock units along creeks and other tributaries within the exploration area will be made.

• **Topographic Survey**

Topographic survey of the entire exploration area will be conducted. Surveying using the available technology.

• **Detailed Survey or Studies**

**Detailed Geological Mapping**

Detailed geological mapping and geochemical studies will be conducted particularly at the western portion of the exploration area.

Review of the results from previous works shall also be conducted to determine further geological and geochemical analysis needed.

**Detailed Geochemical Survey**

Detailed geochemical survey will be determined on the basis of review and analysis of the previously available data. In case of gaps, sampling will be pursued to determine the geochemical continuity and/or consistency of the different rock units within the areas of information gap.

• **Subsurface Investigation**

**Drilling**

Diamond core drilling may be conducted on the applicant area. Around four holes will be drilled at an average depth of 80 meters.

**Trenching/Test Pitting**

Trenches are excavated to expose mineralized zones for sampling and testing.

Any and all persons having adverse claims, protests and/or opposition to the subject application are hereby notified that their adverse claims should be filed within thirty (30) calendar days from the last date of posting with the Mines and Geosciences Bureau (MGB) Regional Office (RO) No. IV-CALABARZON Regional Office concerned or through any Community Environment and Natural Resources Officer or Provincial Environment and Natural Resources Officer concerned of the DENR for filing in the MGB RO No. IV-CALABARZON for purposes of its resolution by the Panel of Arbitrators pursuant to the provisions of Republic Act No. 7942 and DAO No. 2010-21. Adverse claims, protest or opposition should be accomplished in accordance with Sections 203 and 204 of DAO No. 2010-21 and a copy thereof shall be furnished to the applicant by the adverse claimant.

For further particulars, please course your inquiries to the Regional Director, MGB RO No. IV-CALABARZON located at 8<sup>th</sup> floor, DENR by the Bay Building, 1515 Roxas Boulevard, Ermita, Manila.

**DONDIO SARMIENTO**  
OIC, Regional Director



Source: <https://mb.com.ph/2020/09/03/denr-hit-for-planning-to-fill-manila-baywalk-with-white-sand/>



03 APRIL 2022, SUNDAY



**DENR**

# **NEWS ALERTS**

# **COVID-19 NEWS**

**STRATEGIC COMMUNICATION AND INITIATIVES SERVICE**





## 2,500 bagong COVID-19 cases naitala sa loob ng isang linggo

[Danilo Garcia](#) - Pang-masa April 2, 2022 | 12:00am



Commuters queue for the free ride at the MRT-3 North Avenue Station in Quezon City on Monday morning, March 28, 2022. The MRT-3 offers free rides to commuters for a month, from March 28 to April 30, following the completion of the rehabilitation project of the train system and as part of the government's effort to help ease the commuters' financial burden.

The STAR/Miguel de Guzman

MANILA, Philippines — Naitala ng Department of Health (DOH) mula Marso 24 hanggang 30 ang nasa 2,500 bagong kaso ng COVID-19 para umakyat ang kabuuang kaso sa 3,677,924.

Sa lingguhang monitoring ng DOH, nakapagtala ng arawang average na 364 bagong kaso ang bansa na mas mababa ng 24% sa nakalipas na Marso 17-23.

Pinakamataas ang naitalang kaso sa National Capital Region (NCR) na may 887, kasunod ang Region 4A na may 311 kaso, Region 6 na may 266 kaso, Region 3 na may 201 kaso at Region 7 na may 196 kaso.

Kasalukuyang nasa 40,142 ang bilang ng mga aktibong kaso na 1.10% ng kabuuang bilang ng COVID cases. Nasa 38,989 nito ay mga asymptomatic, mild at moderate cases habang 1,423 ang severe at critical cases.

Umabot naman sa 562 pasyente ang nasawi sa buong linggo para sa kabuuang bilang na 59,125 na 1.61% ng kabuuang bilang ng kaso sa bansa.

Sa recoveries, naitala ito sa 3,578,387 na 97.29% ng kabuuang kaso, makaraang madagdagan ng 6,666 gumaling na pasyente.

Source: <https://www.philstar.com/pang-masa/police-metro/2022/04/02/2171663/2500-bagong-covid-19-cases-naitala-sa-loob-ng-isang-linggo>





# DOH studies booster inclusion on fully vaxxed status

By Joyce Ann L. Rocamora April 2, 2022, 3:48 pm



(PNA file photo)

**MANILA** – The Department of Health (DOH) is studying proposals to include booster doses in the country's primary vaccine series.

Once approved, Health Undersecretary Myrna Cabotaje said this would require Filipinos to get a booster to have a fully vaccinated status, which is often required before a person can travel and physically report to work.

"We recognize that boosters are very important, *kasalukuyang tayong nire-review kung pwede nang i-include ang booster or third dose as part of primary series* (we are currently reviewing proposals if we can include the booster or third dose as part of primary series)," she said in a Laging Handa briefing on Saturday.

"We may encourage the need for a booster dose so *baka kailangan ng booster card* (so we might also need a booster card)," she added.

Cabotaje said the DOH, in the meantime, would strategize ways to encourage more Filipinos to get their third doses.

"In the next two to three weeks *tingnan natin kung ano ang pwede pa nating isagawa para makumbinsi ang ating mga mamamayan magkaroon ng booster doses* (In the next two to three weeks let's see how we can encourage others to get their booster doses)," she said.

The statement comes following the proposal of Presidential Adviser for Entrepreneurship Joey Concepcion to require a booster card to ensure that Filipinos will get their third dose of coronavirus vaccine shot.

Concepcion noted that with the increased mobility, especially during the campaign period, Filipinos would need additional protection against coronavirus disease 2019. **(PNA)**

Source: <https://www.pna.gov.ph/articles/1171269>

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




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



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