

DATE : 29 JUN 2019

DAY : Saturday

**DENR**

**IN THE NEWS**

**Strategic Communication and Initiative Service**



HOUSEHOLD, FARM WASTE

# BAGUIO RIVERS REMAIN HEAVILY POLLUTED—DENR

BAGUIO CITY—Two main rivers in the summer capital remain heavily polluted due in part to unregulated hog raising operations and sludge coming from Baguio's public market and slaughterhouse, the Department of Environment and Natural Resources (DENR) said.

"Trillions of fecal coliform are being discharged into the Balili and Bued rivers," Maria Victoria Abrera, Cordillera director of the Environmental Management Bureau, told reporters here on Wednesday.

Balili, the subject of rehabilitation programs by both the government and a consortium of Baguio and Benguet universities, flows down to La Trinidad, the Benguet provincial capital, and joins Tuel River in Sablan town.

Baguio shares Bued with the Benguet towns of Tuba and Ito-gon, which host some of the country's oldest mines.

### Backyard piggeries

Abrera said high concentrations of fecal matter had been detected along sections of Balili River that flow from the New Lucban area near the market and slaughterhouse, Teachers' Camp and Barangay Gibraltar near the DENR Cordillera office compound.

Balili also has large volumes of phosphate and ammonia, which suggest that laundry and fertilizers from backyard gardens have been poisoning the waterway, she said.

Compared to Balili, Bued River's pollution is slightly lower, Abrera said, adding that the

highest fecal concentration is found in the waterway along Kennon Road, where more than 1,000 piggeries operate.

A creek connecting to Bued above the famous Lion's Head landmark along Kennon Road is also polluted due to pocket mining and quarrying activities there.

The city government has been demolishing illegal backyard piggeries since 2018, as part of a 10-year plan to restore Balili and Bued rivers, outgoing Mayor Mauricio Domogan said.

The same plan focuses on an information drive to discourage households living near Balili River from dumping garbage into the water.

### Underutilized

More than 50 percent of Baguio's population (or 175,160 people) live in 74 villages where Balili flows before it enters La Trinidad, according to experts from the University of the Philippines Baguio, University of the Cordilleras, Saint Louis University and Benguet State University. These schools formed a consortium in 2011 to undertake the river's rehabilitation.

A Baguio sewage treatment plant was built in 1986 using a Japanese grant to clean water being discharged into Balili.

But the Japan International Cooperation Agency concluded that the plant was underutilized and had not stemmed river pollution, following a 1991 study to improve the facility after the 1990 earthquake devastated the city. —VINCENT CABREZA INQ



# 3 Koreans face raps for trash import

## BOC says foreigners are officers of company behind 2018 garbage shipment in Misamis Oriental

By Jigger J. Jerusalem  
@jjerusalemINQ

CAGAYAN DE ORO CITY—The Bureau of Customs (BOC) has filed criminal charges against three Koreans over the importation of several tons of garbage from South Korea unloaded at a port in Misamis Oriental province last year, a BOC official said on Thursday.

John Simon, subport collector at the Mindanao Container Terminal (MCT), said charges for violation of Republic Act (RA) No. 6969 (Toxic Substances and Hazardous and Nuclear Waste Control Act of 1990) were filed recently against Cho Chul-soo (also known as Charles Cho), Cho Jaeryang and Na Sena, all of them officials of Verde Soko Philippines Industrial Corp. (Verde Soko).

Verde Soko, Simon said, had imported 6,500 metric tons of mostly plastic trash from Pyeongtaek City, South Korea, last year. The case was filed in the Misamis Oriental provincial prosecutor's office three weeks ago.

### Unlawful

Section 13 of RA 6969 states that it is unlawful to "cause, aid or facilitate, directly or indirectly, in the storage, importation, or bringing into Philippine territory, including its marine economic zones, even in transit, either by means of land, air or sea



TRASH PILE Officials of the company that imported plastic trash from South Korea in 2018 say the materials will be used in its recycling facility in Misamis Oriental province. —JIGGER J. JERUSALEM

transportation or otherwise keeping in storage any amount of hazardous and nuclear wastes in any part of the Philippines."

The complaint filed by Simon, Misamis Oriental Rep. Juliette Uy and the Environmental Management Bureau (EMB) included as respondents Filipino officials of Verde Soko.

Irene Meso, officer in charge of the Misamis Oriental provincial prosecutor's office, said the respondents had submitted their counteraffidavits.

During an appearance in a provincial board hearing a few months ago, Neil Albuero, president of Verde Soko, told local officials that what the company had imported were materials for its recycling facility.

Albuero had said that Verde Soko would follow the decision of government agencies, such as the Department of Environment and Natural Resources (DENR) and the BOC, on the issue.

### Two batches

According to Verde Soko, the imported trash shipment, which arrived at the MCT subport in two batches, were supposed to be used in its plastic recycling facility inside an economic zone managed by the Phividec Industrial Authority at Barangay Santa Cruz in Tagoloan town.

The first shipment, consisting of 5,000 MT, arrived in July last year.

Verde Soko officials claimed that the trash would be

processed and turned into furniture and other items.

The BOC, however, seized the garbage as it was not properly declared and the importer had failed to secure an import permit from the DENR. This shipment is held at Verde Soko's plant in Tagoloan.

Simon said the second shipment of 1,500 MT that arrived in October was declared "synthetic plastic flakes" but was found to be discarded and unsegregated plastic materials.

Lawyer Abbas Lao, legal officer of the EMB in Northern Mindanao, earlier said the shipment arrived before his office could issue Verde Soko an import permit.

### Returned

On Jan. 13 this year, the 1,500 MT of plastic waste were shipped back to South Korea following an agreement between the Philippine and South Korean governments.

Simon said authorities were still looking for the Koreans although a warrant of arrest had already been issued against them.

He said the Bureau of Immigration must locate the foreigners and bring them to court so they could face the charges.

"They must be held responsible. A hold departure order must be issued so they can't get away," Simon said. INQ

DENR SUSPENDS HOUSING PROJECT

# CEBU DEVELOPER PROBED OVER MANGROVE CUTTING, RECLAMATION

By Nestle Semilla  
and Ador Mayol  
@inquirervisayas

CEBU CITY—The Department of Environment and Natural Resources (DENR) in Central Visayas is investigating a local developer for cutting mangroves and reclaiming a portion of Cansaga Bay for a housing project.

Gilbert Gonzales, DENR regional executive director, told the Inquirer that they had ordered the developer, Raul Canoy, to explain and present documents to prove that he was authorized to cut mangroves and reclaim the bay located near the bridge in Mandaue City.

### Residents' complaint

"The developer was already summoned for technical conference, and development activities in the area were already ordered stopped pending verifications of

land ownership and permit compliance," Gonzales added.

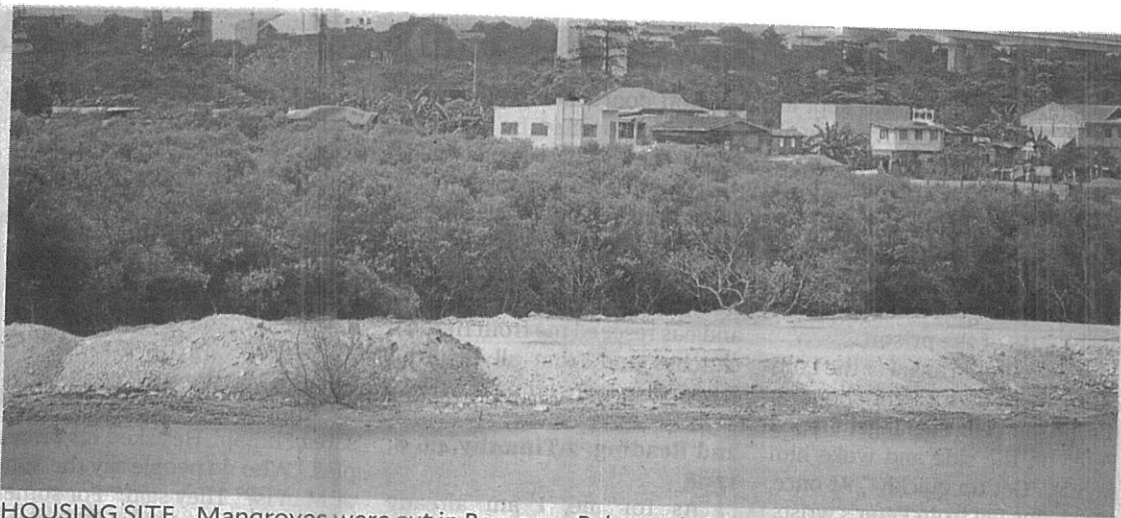
The investigation stemmed from a complaint filed by the Kahugpungan sa mga Lumulopyo sa Sitio Tulay Homeowners' Association (Kalstuhai), represented by its president, Oscar Ramos.

The group first called the attention of the Mandaue City government late last year when its members, who lived in the area, noticed that mangroves were being cut down to pave the way for a reclamation.

The Mandaue government issued a cease-and-desist order against the developer. It sent policemen to the area and ordered the property to be secured by a fence.

But the reclamation project continued, prompting Kalstuhai to raise the matter to the DENR.

On June 19, the DENR, the developer and Kalstuhai mem-



HOUSING SITE Mangroves were cut in Barangay Paknaan in Mandaue City as a developer reclaims a section of Cansaga Bay for a housing project. —JUNJIE MENDOZA

bers met in a technical conference where Canoy was told to present documents to prove that what his company did was legal.

The Inquirer tried but failed

to reach Canoy for comments on Thursday and Friday.

Jose Cleo Colis of the Provincial Environment and Natural Resources Office said mangrove patches should be preserved

and protected as these prevented storm surges and served as breeding ground for fish.

"We have to take care of mangroves. If they are gone, it will surely affect our ecosys-

tem," he said.

### Coastline protection

Section 43 of Presidential Decree No. 705, or the Revised Forestry Code of the Philippines, prohibits the clear cutting operations in all mangrove swamps intended for coast protection.

"Strips of mangrove forest bordering numerous islands, which protect the shoreline, the shoreline roads and even coastal communities from the destructive force of the sea during high winds and typhoons, shall be maintained and shall not be alienated," the law states.

"Such strips must be kept from artificial obstruction so that floodwater will flow unimpeded to the sea to avoid flooding or inundation of cultivated areas in the upstream," it added. INO



Department of Environment and Natural Resources  
STRATEGIC COMMUNICATION INITIATIVES SERVICE

TIME EXPONENT OF PHILIPPINE PROGRESS  
SINCE 1900

# MANILA BULLETIN

THE NATION'S LEADING NEWSPAPER

  
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**TOXIC GREEN** - The waters of the Pasig River are turned green by toxic algae. The algal bloom can lower the river's oxygen level and kill marine life, and could also be harmful to humans. (All Vicoy)



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**Water creature** Algae deposits have turned a portion Pasig River to a deep green hue. The organism releases toxic chemicals that pose a threat to fish, other aquatic organisms and even to humans.

ANALY LABOR



P-1

# Metro air getting dirtier, deadlier for commuters

## SPECIAL REPORT

By **Jhesset O. Enano**  
and **Krixia Subingsubing**  
@Team\_Inquirer

(First of three parts)

Anyone who routinely weaves in and out of the perilous roads of Metro Manila knows that it requires a certain formula of luck, timing and agility to wisely navigate one of the world's most densely populated areas.

For everyday commuters like former teacher Curt Marvin Cruz, it can be a matter of life and death.

Last year, the 24-year-old traveled daily from his home in Quezon City to his workplace, a public school in Santa Rosa, Laguna province. His day began as early as 5:30 a.m. with him riding a variety of public transportation—jeepneys, buses, tricycles—to get from one point to the next. On a good day, when the formula worked, his minimum travel time was five hours.

But the long road trips soon took their toll. "I noticed a change in my asthma attacks: They became more frequent and took longer," he said. "There were days when I needed to bring my nebulizer to school."

A major culprit, he said, was his daily exposure to the dust and soot blanketing Metro Manila. With millions of gas-guzzling and smoke-emitting cars plying the choked roads, its air was also slowly suffocating its residents.

And daily commuters like Cruz, who are exposed outdoors for longer periods of time, bear the heaviest burden of breathing deadly air.

### 120K deaths in PH yearly

Worldwide, ambient or outdoor air pollution is considered a major killer, causing the deaths of some 4.2 million people in 2016 alone, according to the World Health Organization (WHO). Including household air pollution, WHO estimates that 9 of 10 people breathe air containing high levels of pollutants, with 90 percent of related deaths happening in low- and middle-income countries in Asia and Africa.

The Philippines is among them. As many as 120,000 Filipinos die yearly due to air pollution from cars and fossil fuel burning, WHO reports. Related illnesses include lung problems, cardiac arrest and even cancer. With 45.3 deaths per 100,000 people, the Philippines has the third highest mortality rate in Asia due to air pollution, after China and Mongolia.

Government data indicate that mobile sources are largely to blame for the poor air quality.

According to the National Emissions Inventory, compiled by the Department of Environment and Natural Resources (DENR), emissions from transport sources accounted for over half the total emissions in the country from 2002 to 2018.

The danger has since increased: from 54 percent in 2002 to 71 percent, or nearly two-thirds of the total emissions, last year.

The two other sources of emissions—stationary sources such as industries, and area sources such as open burning—each only account for about a quarter or even less.

In the National Capital Region (NCR), deadly air from vehicles present an even more dismal picture. Latest data from the regional DENR show that vehicles are responsible for nearly 88 percent of pollutants in the metro in 2018.

These numbers align with the steady increase in registered vehicles in Metro Manila and elsewhere. Land Transportation Office records show 11.5 million registered cars nationwide last year, with 2.7 million in the metro. The number marks a whopping increase from the start of the millennium: only 3.7 million vehicles registered nationwide, including the 1.2 million in the NCR.

### Most exposed

With cars clogging urban centers, polluted air also affects sectors that have little to do with the emissions around them.

"Those who cannot afford enough ventilation in their homes and those whose occu-

pations force them to be exposed on the road are most vulnerable. Usually, these are the people at the lower levels of society," said Dr. Mylene Cayetano, who leads the Environmental Pollution Studies Laboratory (EPSL) at the University of the Philippines' Institute of Environmental Science and Meteorology (UP IESM).

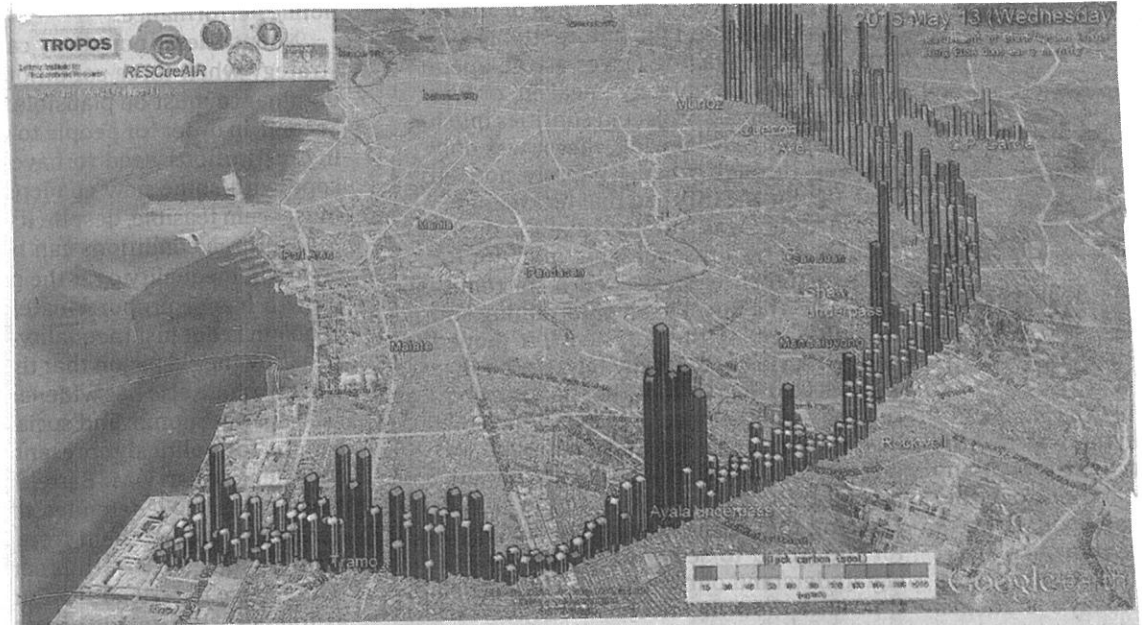
Recently, researchers led by scientist Dr. Emmanuel Baja of the National Institutes of Health in UP Manila assessed the condition of over 100 Metropolitan Manila Development Authority traffic enforcers deployed on Edsa. The enforcers' exposure to black

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 Metro air getting dirtier, deadlier for commuters



**SOOT SCALE** A 2015 study by Dr. Gerry Bagtasa of the UP Institute of Environmental Science and Meteorology shows varying levels of soot in the air along Edsa. According to a color scale he devised, green and blue indicate "acceptable" levels, yellow is "bad" and red "dangerous". The levels of soot are notably high on weekdays at Muñoz, Cubao, Shaw underpass and Ayala underpass. —IMAGE COURTESY OF DR. GERRY BAGTASA

carbon and heavy metals from the emissions was found to have affected their lung functions and blood pressure.

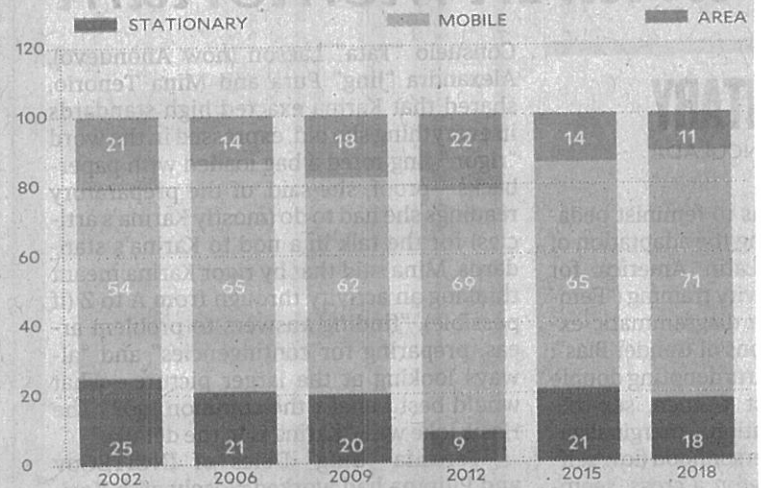
A component of a mix of solid and liquid particles called particulate matter (PM), black carbon comes from gas and diesel engines and is the product of incomplete combustion.

The commuting public, particularly students and employees who daily brave rush-hour traffic, are also very much at risk to the adverse impacts of polluted air.

Being a commute expert, Cruz is no stranger to the dangers posed by the air he breathes. He has had a fair share

### TOP SOURCE OF EMISSIONS

For the past 16 years, mobile sources of air pollution, mainly vehicles, account for over half of the total emissions nationwide, according to DENR data. Last year, they produced 71 percent of the total emissions, up from 54 percent in 2002. This spike is reflected in the growing volume of new vehicles being registered nationwide since 2000.



SOURCE: Department of Environment and Natural Resources-Environmental Management Bureau (DENR-EMB)

INO GRAPHICS



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Metro air getting dirtier, deadliest for commuters



NINO JESUS ORBETA

of trips to emergency rooms due to extreme asthma attacks that required intravenous corticosteroids just to open his airway.

Cruz wears a face mask or uses a handkerchief to cover his nose and mouth when he travels. But these little defensive acts do not prevent him from smelling strong fumes from vehicles or inhaling possible airborne organisms in packed vehicles, he said.

#### Black soot

Studies have shown that the high volume of cars and heavy traffic in the metro contribute to higher levels of air pollutants, such as PM.

Two pollutants known as PM<sub>2.5</sub> or PM<sub>10</sub> measure 2.5 or 10 micrometers or less, respectively, finer than a single strand of hair. But from a car exhaust, they can come in such high concentrations that their aggregates are visible as black soot, said Dr. Gerry Bagtasa, head of the UP IESM's Atmospheric Physics Laboratory.

A study by the EPSL in 2018 found that the highest PM concentrations were recorded during daily rush hours, particularly between 7 and 9 in the morning and between 8 and 9 in the evening, in roadside monitoring stations at the University of Santo Tomas in Manila, Muñoz in Caloocan City, the Lung Center of the Philippines in Quezon City, and Ayala Avenue in Makati City.

The study also found that Thursdays and Fridays held the most pollutant concentrations within a week, declining into the weekend with fewer cars on the roads.

In terms of exposure, those positioned closest to smoke-belchers—for example, those waiting for or alighting from jeepneys or buses—would naturally be more exposed to the pollutants, Bagtasa said.

He cited a personal exposure experiment that he conducted in 2015 on EDSA, which showed certain areas of concern where soot had reached dangerous levels. On a weekday, these included Muñoz, Cubao, Shaw Underpass and Ayala Underpass. The volume of idling passenger buses and the limited space in the tunnels affected the soot measurements in these sites, he said.

Similar to the 2018 trend, these measurements would drop significantly on weekends.

"Let's connect it: You have your rush hours, then your cars are in idle mode in traffic. At nighttime, the atmosphere contracts, so there is smaller space for the air to travel," Cayetano said. "And then you have all these people exposed outside, the whole community."

Experts agree that the rainy season presents a respite from pollution, with rains cleaning the air of its pollutants, almost like a blessing from the heavens.

"But storms don't happen every day. Emissions do," Cayetano said.

#### No public clamor

Emissions also imperil the environment.

Black carbon, for instance, is a short-lived climate pollutant. It stays in the atmosphere for a shorter period of time, but can potentially contribute to global warming by absorbing solar radiation energy and converting it to heat, according to the Climate and Clean Air Coalition.

Experts and advocates agree that there is a growing awareness of the impacts of polluted air, but there is still no public clamor for the government to ensure clean air for everyone.

"People usually ... won't complain on issues that they can tolerate. Commuters, pedestrians, drivers and bikers will just perhaps tolerate the pollution, but there are long-term impacts," said Khevin Yu, climate and energy campaigner for Greenpeace Southeast Asia.

Yu said the public silence may also be rooted in the lack of available transportation alternatives. As the public transport system, which is often blamed for pollution, takes a turn for the worse, more and more people are forced to buy their own cars, compounding the problem in the streets and in the air that we all breathe. INQ

(To be continued)



## IKA-35 TAON NG ASEAN HERITAGE PARK, PINAGHAHANDAAN

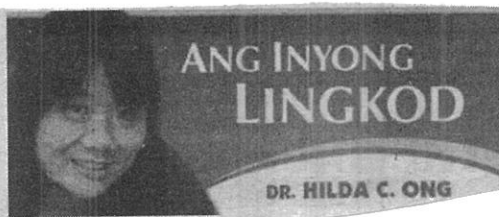
KASABAY sa paggunita ng ika-tatlumpu't limang taon ng implementasyon ng ASEAN Heritage Park, pinangunahan ng Biodiversity Management Bureau, isang sangay ng Department of Environment and Natural Resources, ang 5th Meeting / Workshop of Philippine ASEAN Heritage Parks kamakailan sa Puerto Prince-sa City, Palawan.

Taong 1994 sinimulan ang kampanya ukol sa ASEAN Heritage Park ngunit taong 2003 lamang pormal na nalagdaan ng sampung bansang ASEAN nations ang Declaration on the ASEAN Heritage Park na nagbibigay proteksyon at pagkilala sa mga protected areas ng rehiyon upang mapanatili ang ecological completeness, biodiversity richness, at conservation importance, at itinalaga ang ASEAN Center for Biodiversity bilang siyang Secretariat.

Sa kasalukuyan, forty-four (44) na ang deklaradong ASEAN Heritage Park, at siyam dito ang nasa Pilipinas

- ang Mounts Iglit-Baco National Park sa Occidental at Oriental Mindoro; Mount Apo Natural Park ng Davao City at Davao del Sur; Mount Kitanglad Range Natural Park ng Bukidnon; Mount Malindang Range Natural Park ng Misamis Occidental, Zamboanga del Norte at Zamboanga del Sur; Tubbataha Reefs Natural Park ng Palawan; Mount Hamiguitan Range Wildlife Sanctuary ng Davao Oriental; Mounts Timpoong-Hibok-Hibok Natural Monument ng Camiguin; Mount Makiling Forest Reserve ng Laguna at Batangas; at Agusan Marsh Wildlife Sanctuary ng Agusan del Sur.

Sa tatlong araw na workshop ay inalam ang progreso ng implementasyon ng ASEAN Heritage Park, nagpilitan ng mga karanasan ukol sa pamamahala ng mga parkeng ito, at paggawa ng mga aktibidades upang higit na mabigyang proteksyon ang mga deklaradong lugar na ito. Ang inputs mula sa katapos



na workshop ay iulat ng Pilipinas sa gaganaping 6th ASEAN Heritage Park Conference na gaganapin sa Lao Peoples Democratic Republic mula October 21 hanggang 24, 2019 sa temang "Sustainability and Innovation for Parks and People-Celebrating 35 Years of ASEAN Heritage Park."



## 10 pangolin nasabat sa checkpoint

INARESTO ng Cavite Police ang tatlong kalalakihan na may dalang Philippine pangolin o balintong, isang endangered species, sa compartment ng kanilang sasakyan sa isang checkpoint sa Tagaytay City kahapon.

Kasong paglabag sa RA 9147 o Wildlife Resources Conservation and Protection Act ang isinampang kaso laban kina Simfroso Salazar, 53, driver, ng 115 Talisay Calatagan Batangas; Jorlan Torrequimada, 38, at Victor Equisa, 40, pawang mangingisda at residente ng P Mabuhay Abaroan Roxas, Palawan.

Sa ulat ni P/MSgt. Jude Camitan ng Tagaytay City Police Station, dakong ala-1:30 Biyernes nang mading-araw nang naaresto ang mga suspek sa inilatag na checkpoint ng Tagaytay police sa Brgy. Mendez Crossing East, Tagaytay City kung saan nang inspeksiyunin ang compartment ng kanilang sasakyang Toyota van na may plate number

TSE-540 ay bumulaga sa kanila ang 10 pirasong buhay na pangolin o balintong.

Ayon kay Camitan, ang nasabing pangolin ay hinuli umano sa Batangas at nakatakda sanang dalhin sa Binondo, Manila.

Gayunman, iimbestigahan din kung galing ito sa Palawan na posibleng dinala nina Torrequimada at Equisa.

Ang Philippine pangolin o balintong ay isang endangered species na orihinal na nagmula sa Palawan o tinawag na Palawan pangolin.

Tinatawag din itong ant eater dahil sa kanilang pagkain ng mga langgam o mga bulate.

Nakakulong na ang mga suspek sa Tagaytay City Custodial Center habang ang mga pangolin ay nakatakdang i-turnover sa Department of Environment and Natural Resources (DENR) para sa pangangalaga. **(Gene Adsuara)**



## PH to host forum on biological threat of alien species invasion

By Cory Martinez

**THE proliferation of invasive alien species could wipe out endemic and native species of a certain country and raise countless threats to biodiversity.**

This is the concern that will be discussed in the Research and Development Congress on Invasive Alien Species (IAS) in the Asia-Pacific that will be held from July 8 to 12 at the Diamond Hotel in Manila.

The conference, which was initiated by the Ecosystems Research and Development Bureau (ERDB), the R&D arm of the Department of Environment and Natural Resources (DENR), is expected to be attended by at least 200 delegates consisting of local and foreign researchers, scientists, academics, policymakers, and guests.

During the conference, they will discuss recent IAS status, control, and management in the region as well how to raise IAS biosecurity approach within the entire stretch of the Pacific.

The conference also aims to contribute to the Aichi Biodiversity Target 9 in reducing the direct pressures of IAS on environmental sustainability.

Its goal is to help ensure that by 2020, "invasive alien species and pathways are identified and prioritized, priority species are controlled or eradicated, and measures are in place to manage pathways to prevent their introduction and establishments."

With the introduction of alien species to new environments, the indigenous flora and fauna become vulnerable

to risks.

Dr. Carmelita I. Villamor, Overall Coordinator and Chief of ERDB's Coastal Zone and Freshwater Ecosystems Research Division (CZFERD), said: "Invasive alien species can occur in different taxonomic groups and may pose great threats across all ecosystems."

She added that they could also spread in ways destructive to human and the society at large.

In recent years, international instruments are being developed to monitor IAS and the most comprehensive is the Convention on Biological Diversity (CBD).

The CBD reported that since the 17th century, IAS have been contributing to massive extinction on the world's fauna at about 40 percent.

These species continue to trigger competition, predation, and massive transmission of pathogens which then increase the stakes for survival among native species. Of the world's most common invasive species is water hyacinth (*Echhornia crassipes*), an aquatic weed indigenous to the Amazon River Basin of South America.

Due to its rapid spread, water hyacinth has aggressively invaded tropical regions. Its thick cover on waterways can cause blockage, oxygen depletion, and fish kills.

Another priority species is the African tulip tree (*Spathodea campanulata*) growing in the tropical forests of the South Pacific. The African tulip tree crowds out native species and is extremely difficult to remove as it can easily regrow from its root fragments and wind-dispersed seeds.



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MEDIUM RARE

## Those rebates

By **JULLIE Y. DAZA**

**B**IBETH Orteza Siguion-Reyna complained that when she got her bill for water service interruption, it was ₱7,000, with a rebate for ₱150, the cheapskates!

A BPI banker didn't know if she should cry for joy or in shame after she was billed ₱1,500 (in normal times, it was ₱300), followed by another bill showing a negative ₱1,000. They owe her ₱1,000!

My bill, usually between ₱280 and ₱320, was down to ₱55; how was computation done?

Giving credit where praise is due, it was a surprise to find our taps flowing, not just dripping, as Angat's level dipped to critical levels. Still, we need 13 storms to refill the dam. Right on cue, some politicians are dreaming of establishing a Department of Water, as if the saliva flowing out in copious amounts from Congress could create rain and H2O.

Worse than this wet joke is that as the 50-year-old Angat continues to age, no grandchild is being built as yet to serve the National Capital Region. There may be plans for the future, but are there ongoing programs to catch the excess water from

overflowing dams, mountains and forests during the coming typhoon season? We owe it to the next generation, whose numbers continue to grow exponentially, to store water falling from heaven and save what nature so lavishly gives us.

The way present plans are going, this is according to what an official of the National Water Resources Bored (they're so bored they can't think straight) said in a TV interview: "The Cardona water treatment plant (of Manila Water) is not the remedy." Now you're telling us.

That leaves prayer as the last resort. Do we have to keep paying top salaries to the guys in MWSS and NWRB just to watch them pray for rain?

Gabriela Congresswoman Arlene Brosas wants heavier penalties on Manila Water and Maynilad for falling on their job to distribute water; at the same time invoking force majeure, an act of God, for their failure. Her suggestion will gain traction if she calls for MWSS and NWRB to join in the rebates game. Make them pay, in pesos, for failing to anticipate yearly, seasonal, inevitable drought and water shortages. Make them pay, pray like the rest of us. No cash out - aye, there's the catch.





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EDITORIAL

# PH 'most vulnerable'

**H**umankind has developed the ability to drive itself into extinction," Associate Justice Marvic Leonen told graduates of the University of the Philippines Baguio on Monday, as he warned them of a United Nations study about global temperature warming up further by 2040.

It seems that dire future is already upon us, with the Philippines at or near the center spot in particular. According to the Global Peace Index 2019, the Philippines ranks first among the nine countries, all in Asia, that are most vulnerable to multiple climate hazards such as cyclones, floods, tsunami, drought and rising sea levels. The study found that 47 percent of the country's population are in areas regularly visited by climate-induced disasters. Worse, poor communities invariably bear the brunt of the catastrophic effects of climate change.

The two-hour downpour early this week that immediately submerged parts of the metro in waist-deep floods was a harbinger of more severe weather. According to weather forecaster Pagasa (Philippine Atmospheric, Geophysical and Astronomical Services Administration), storms with a destructive impact similar to that of Tropical Storm "Ondoy" in 2009 may be expected this rainy season due to the effects of the El Niño phenomenon. Ondoy's six-hour rainfall—the equivalent of a month's worth of rains—reduced Metro Manila and 23 other provinces to a state of calamity, caused the deaths of 464 people and damage of some P11 billion, and sparked an outbreak of leptospirosis in affected areas.

El Niño itself has been driving up temperatures to dangerous levels, devastating crops, drying up dams and causing severe water shortages. In April, the National Disaster Risk Reduction and Management Council said the dry weather has caused more than \$95 million worth of damage to agriculture, with a total of 164,672 farmers affected by the drought.

Environmental ruin is also aggravating the effects of climate change. In Metro Manila, the combination of concrete infrastructure that traps heat and vastly shrunk green spaces is proving to be a debilitating set-up, as millions of residents endure increasingly hotter spells. The Department of Environment and Natural Resources estimates that of the 55,922 hectares of land in the National Capital Region, only 21 percent—or 12,152 hectares—remain as green space planted to trees. The rest have been eaten up by unabated commercial and residential development. Only two major green spaces remain, in fact—the La Mesa Ecopark in Quezon City, and the protected Las Piñas-Parañaque Critical Habitat and Ecotourism Area.

The city of Manila suffers one of the biggest deficits, with only 140.4 hectares of green space in a total area of over 3,800 ha. New Mayor Isko Moreno appears to recognize the gravity of the situation; he has announced that destructive reclamations in Manila Bay will not be a priority, and has spared the city's last lung—Arroceros Park—from the ignominious fate of being turned into a gymnasium site, as former mayor Erap Estrada had planned.

President Duterte is right to call for greater accountability from developed countries who are the top contributors to climate change, while smaller and undeveloped nations suffer the most from its calamitous effects. "The cost is horrendous, especially for us in Southeast Asia: Displacement, destruction, and death. Real lives hang in the balance," Mr. Duterte told fellow Asean leaders at the recent summit in Bangkok.

But even as the President is voicing concern about the issue, his administration's official position still appears to be that, as he declared during his visit to Japan in May, conferences on climate change are "a waste of time and money." Thus the recent announcement by Foreign Secretary Teddy Locsin banning trips to and participation in such conferences; "We'll just vote Yes to radical proposals. No more talk," he tweeted.

That isolationist stance is not helpful, warned Albay Rep. Joey Salceda. The Philippines gets a comprehensive overview of state-of-the-art climate change responses all over the world by touching base with global partners in these events, and restricting official participation in international discussions may cost Filipinos "the right and opportunity to articulate" their views on issues of "extreme importance."

Indeed, wouldn't it be more beneficial to work with and learn from other nations undergoing similar experiences, and get the international community to listen to the stories of those in the frontlines of the battle? According to experts, the Philippines is in a particularly precarious state; why make its position, then, even more vulnerable by isolating it this way, at the very moment when it needs all the help it can get?



# Brainy monkeys outsmarting eagle



By Perseus Echeminada

IMPASUGONG, Bukidnon – If tribal leaders in this town are to be believed, native monkeys called “Umaay” are now outsmarting the famed’ monkey eating eagles, at least one of them.

Recently, a monkey eating eagle was sighted by members of the Higaonon tribe while supposedly hunting for piglets and dogs in a populated area

**Losing the monicker?** A monkey eating eagle was supposedly driven away from the jungles and outsmarted by its preys.

along Atugan Canyon in Impasugong.

The eagle, locally called as “Kalumbata” for supposedly preying on children back in the old times, was captured in 2013 by the tribesmen and was subsequently turned over to the Philippine Eagle Foundation in Davao City for proper disposition.

“The eagle was turned over for treatment of injuries. After it fully recovered in six months, it was freed in its natural habitat in the forest of Kalabugao,” Emmanuel Lumoyod, municipal envi-

ronment officer, told the *Daily Tribune*.

The giant bird was identified through a micro-chip embedded on its wings after it was captured in 2013. Then, it was also believed that the bird went out of its natural habitat and started hunting dogs and piglets in populated areas.

Tribal leaders said that the “Kalumbata” could be back to its old ways after being driven away from the forested areas by the “Umaays” that have the ability to imitate human laughter and dog barks which scare away the eagle.



Department of Environment and Natural Resources  
STRATEGIC COMMUNICATION INITIATIVES SERVICE

THE EXHIBENT OF PHILIPPINE PROGRESS  
SINCE 1898

# MANILA BULLETIN

THE NATION'S LEADING NEWSPAPER

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## Value adding as a means to mitigate challenges in the coconut sector

**T**he Foundation for Resource Linkage and Development (FRLD), together with the Department of Agriculture (DA) and its allied agencies and over 30 major Philippine trade and agricultural associations, will be highlighting Eastern Visayas and its coconut sector in this year's Agrilink, Foodlink and Aqualink happening on October 3 to 5 at the World Trade Center Manila. Agrilink's regional focus will cover Biliran, Eastern and Northern Samar, Leyte, Southern Leyte, and Samar.

Despite being a primarily agricultural region, data from Philippine Statistics Authority show that Eastern Visayas unfortunately lags behind in terms of agricultural growth. According to Elvira Torres, DA's regional technical director for research and regulations, 60 to 70% of Eastern Visayas' agricultural lands are planted with coconut trees, but its coconut sector still faces challenges in its supply and value chains.

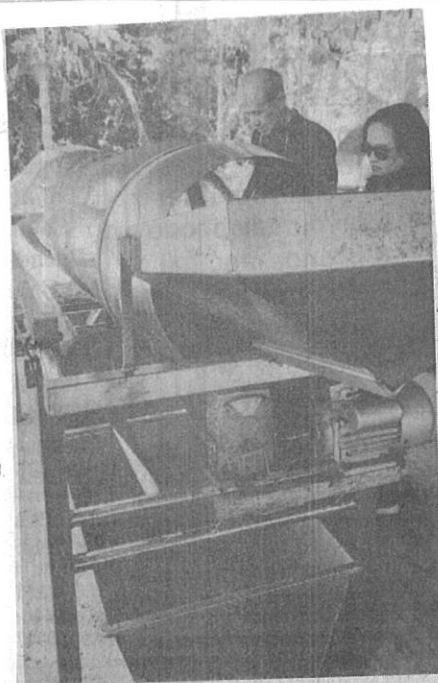
Torres said that the regional DA office has been earmarking investments

on infrastructures like farm-to-market roads and cold storage and oil milling facilities. In fact, PhilMech recently inaugurated a technology management and demonstration center in Abuyog, Leyte, which aims to provide farmers easier access to modern farming technologies, including machineries that can be borrowed by farmer associations. DA also has other measures like rice programs for farmers that will ease drawbacks from rice tariffication. In Northern Samar, 200 hectares have been eyed to serve as a production area for high-yielding rice seed varieties certified by PhilRice, which will be then

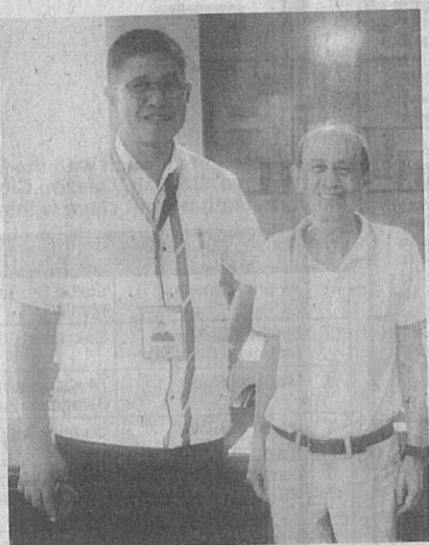
given to farmers.

Jeffrey delos Reyes, regional manager of the Philippine Coconut Authority (PCA) in Eastern Visayas, said that this can be mitigated through value-adding. Coconut farmers, for instance, can diversify their produce into food products like virgin coconut oil, organic sugar, coconut water or juice, and tuba (wine); cosmetic ingredients like shell charcoal and activated carbon; and industrial products like methyl ester, which is used in biodiesel. PCA and other local government agencies like DOST, DTI and DENR are also actively supporting social enterprises and agribusinesses. In Bagong Bayan, Bato, Leyte, there's Lolo Bobby's Handicrafts that is already exporting artisanal handicrafts, mostly made from coconut materials, to other countries. In Palo, Leyte, the E.F. Winery agribusiness naturally ferment and age locally-sourced coconut sap into wines and spirits.

Aside from featuring a variety of agricultural products and services, Agrilink 2019 will also highlight the most up-to-date and ground-breaking inputs, technologies and alliances that can enhance the profitability of the interdependent industries of agriculture, aquaculture, and food. The three-day event will include free seminars, live animal and plant display and other interactive activities that will promote and enhance the potential of different agricultural markets. For free seminar participation, email [frld.agrilink@gmail.com](mailto:frld.agrilink@gmail.com). Visitors can also pre-register their attendance through [www.agrilink.org](http://www.agrilink.org) or its official Facebook page at [www.facebook.com/agrilinkPH](http://www.facebook.com/agrilinkPH).



**MECHANIZATION** - Machinery used by farmers in Javier, Leyte for vermiculture composting.



**PARTNERSHIP** - PCA Regional Manager Jeffrey delos Reyes (left) and FRLD President Antonio V. Roces on their Agrilink partnership to help Eastern Visayas region cope up with the mitigating effects of climate change, being coconut as their primary agricultural produce.



## Our oceans are at risk

**T**HE oceans are vital for life on our planet. Our sources of income and nutritious food, they support the livelihood of billions. Economic assets dependent on healthy oceans — tourism, fisheries, shipping and offshore energy — are estimated at \$24 trillion, according to a report by the Boston Consulting Group (BCG). Despite their immense importance, marine ecosystems face dangers that put marine biodiversity at risk: climate change, ocean warming, increased acidification, oxygen depletion, pollution, overfishing and illegal fishing.

### Climate change's impact on the ocean

The oceans are being hit hard by climate change; the effects include ocean warming, ocean acidification and oxygen depletion. The UN's Intergovernmental Panel on Climate Change (IPCC) described the risks of climate change if temperatures increase by 1.5 degrees Celsius (C) by 2100, saying 99 percent of coral reefs would become extinct. However, with current efforts, the IPCC forecasts that the world is off-track and would hit 2.7 to 3.7 C warmer temperatures by 2100. The IPCC has given the world just 12 years to turn the situation around before facing irrevocable damage.

Oceans that are hotter, more acidic and more difficult place for ocean life to breathe present serious challenges. The oceans have absorbed more than 90 percent of the heat produced via greenhouse gas-associated warming since the 1850s. According to the National Oceanic and Atmospheric Administration in the United States, the global ocean temperature during the first half of 2018 was the fourth highest for the period on record. Ocean life is largely accustomed to stable temperatures. Climate change would reorder the distribution of life in the ocean, as fish and shellfish in cold waters are predicted to shift habitats to escape warming, potentially creating complications for countries that depend on the proximity of these resources for income and food.

Warmer waters result in a lower capacity for oceans to absorb oxygen (a process known

as ocean deoxygenation), leading to rapidly expanding dead zones at different depths of oceans. Indeed, a 2010 study showed warming waters had killed off a staggering 40 percent of oxygen-producing phytoplankton in our ocean since the 1950s. Since the first industrial revolution, the acidity of the oceans have increased by roughly 30 percent, making it more difficult for many organisms to form healthy skeletons and shells. According to a study published in 2017 by Unesco's World Heritage Center, if global emissions continue at current levels, all coral-containing World Heritage Sites would cease to exist by the end of this century.

Coral reefs are home to more than a million species, and their disappearance has economic consequences. A 2013 Deloitte study found that the Great Barrier Reef alone generated about \$7 billion in revenue for Australia, largely via tourism. Sea level rise from melting polar ice and more volatile weather from warming surface temperatures may be the most impactful forms of ocean-related climate change. Scientists predict that half of the population in 25 megacities — those with more than 10 million inhabitants — would be affected by sea level rise if climate change is not slowed. Miami and Shanghai have already suffered related effects. Metro Manila has been identified by Christian Aid as one of the eight cities in its case study titled "Sinking Cities, Rising Seas."

### Ocean pollution

The biggest man-made threat to ocean health is carbon pollution. In the last decade, the oceans have absorbed nearly a third of the carbon dioxide emitted by industry. This has slowed climate change, but at a great cost to ocean health. When carbon dioxide is absorbed by seawater, it increases acidity levels — threatening ocean life, ranging from the microscopic snails that feed salmon to the coral reefs that support tourism and one-third of marine biodiversity.

Plastics are a particularly insidious form of ocean pollution. According to the nonprofit



### ALL ABOUT CHOICES

LUDWIG O. FEDERIGAN

group Ocean Conservancy, coastal countries generate 275 million metric tons of plastic waste annually, and 8 million metric tons of plastic goes into the oceans every year. Just 10 rivers carry 90 percent of this plastic pollution. The Ellen MacArthur Foundation predicts that by weight, there would be more plastic than fish in the ocean by 2050. Plastic pollution has been documented in the deepest parts of the ocean — near the Mariana Trench, and in the most remote ocean ecosystems — Antarctica. Certain forms of plastic can linger for centuries.

The UN Environmental Program reports that more than 660 species of ocean animals are documented to be affected by plastic pollution. This includes sea turtles, dolphins, whales, seabirds and manta rays. Plastic pollution has also been detected in seafood sold for human consumption. A 2015 study by a team of researchers from the University of California, Davis, and Hasanuddin University found man-made debris in 25 percent of seafood market fish and 67 percent of all species sampled in the United States. The ingestion of plastic has grave effects on ocean animal health, and researchers are trying to better understand what impact it has on human health. Potential solutions for the flow of plastics into the oceans include adopting policies that curb the use of single-use plastics like bags or straws, developing alternative materials, and improving the capture of plastics that leak out of waste systems.

Another major source of ocean pollution comes from the run-off of fertilizers used in agriculture. These are carried down rivers and into the oceans, where they create population explosions of algae and bacteria. This in turn depletes oxygen levels, killing fish and creating inhospitable conditions for marine life. As a

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Our oceans are at risk

result, more than 400 ocean "dead zones" have been documented worldwide. The spread of these areas could be limited with more responsible fertilizer use.

Industrial pollutants such as heavy metals and mercury from coal power plants continue to affect marine life. Even residual traces of banned chemicals such as PCBs, which were once a common coolant, are being blamed for failed pregnancies and the rapid decline in orca (killer whale) populations, according to a 2018 *Science* study.

### Overfishing

According to the UN Food and Agriculture Organization (FAO), fish provide more than 3.1 billion people with 20 percent of their animal protein, and serve as a critically important source of nutrients essential to good health, like iron, zinc and omega-3 fatty acids.

Legal overfishing presents a major challenge. FAO's 2018 report titled *The State of World Fisheries and Aquaculture* estimated that about one-third (33.1 percent) of global fish stocks are overfished. Illegal and unreported fishing exacerbates overfishing. A study published in 2014 in *Marine Policy* found that up to a third of all wild seafood imported into the United States was believed to be illegally caught.

In the case of long-living, slow-growing marine species like bluefin tuna, a single incident of illegal fishing can set an entire ocean ecosystem back by decades. New surveillance technologies and platforms for data-sharing are needed to rein in illegal fishing. The Agreement on Port State Measures, a global treaty that went into force in 2016, could curb illegal fishing vessels' access to ports and help block the flow of illegally caught fish to markets. Greater transparency is also needed among international fishery regulators to more effectively regulate legal overfishing.

### Mass extinction

Life on land may be rapidly approaching what scientists have dubbed the sixth mass

extinction, as human-caused extinction rates approach levels last experienced during the era that saw the end of many dinosaur lineages. The situation in the oceans is a little brighter — for the moment. According to the International Union for Conservation of Nature, about 15 ocean-animal extinctions have occurred in the last 500 years. During the same period, more than 500 land animals have been driven into extinction by human activity.

However, a 2016 report in *Science* projected that rates of extinction in the ocean could increase dramatically. Ocean animals that are under threat include the Hawaiian and Mediterranean monk seals; blue whales, which were depleted in the early 1900s; and all six species of sea turtle found in US waters. Without a change to business as usual in ocean management, we could soon initiate a sixth mass extinction in the oceans.

### Human well-being and the ocean

The oceans are more than a beautiful home to impressive wildlife: they are a critically important source of nutritious food, income and stability. The oceans yield \$2.5 trillion annually in goods and services, equivalent to one of the largest single economies in the world, according to a study by BCG. The oceans also provide millions of jobs in fishing, aquaculture, tourism, energy, transportation and biotechnology.

The value of ocean resources is even more important for impoverished countries. Fishery net exports from developing countries have been valued at \$42 billion, more than meat, tobacco, rice and sugar combined, according to the FAO'S 2016 edition of *The State of World Fisheries and Aquaculture*.

*The author is the executive director of the Young Environmental Forum. He completed his climate change and development course at the University of East Anglia (UK) and executive program on sustainability leadership at Yale University (US). The author may be emailed at ludwig.federigan@gmail.com.*



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THE EXPONENT OF PHILIPPINE PROGRESS  
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# MANILA BULLETIN

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## 3 US states reject Trump policy on climate change

**T**HE United Nations Convention on Climate Change in Paris, France, in December, 2015, approved a landmark agreement for the world's nations to accelerate and intensify their efforts to combat climate change.

In April the next year, 174 countries, including the Philippines, signed the agreement at the UN headquarters in New York City, with each country submitting a "nationally determined contribution" to the goal of keeping the rise in global temperature as a result of industrial carbon emissions down to 1.5 degrees Celsius over pre-industrial levels.

It was a notable show of international unity with one major setback – the United States, now led by newly elected President Donald Trump, rejected the treaty. The US is the world's biggest industrial nation today and the No. 1 producer of industrial emissions that are causing the steady rise in world temperature and causing climate change.

California became the first American state to go against Trump's policy on climate change. Gov. Jerry Brown, signed an executive order with the goal of making California carbon-neutral by 2045.

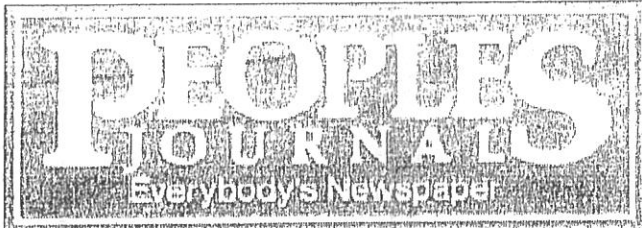
Last week, the New York State Assembly voted 104-35 to become the second US state to aim for a carbon-neutral economy. "This means that despite

the mood of anti-science in our nation, the disbelief in Washington to climate change, states can lead the way," assembly member Steve Englebright, the bill's sponsor, said. He said he hoped New York can inspire other states to enact similar state laws.

In the Oregon State Assembly, lawmakers voted to cap climate change emissions but the bill still has to go to the State Senate. The Oregon bill would reward those who slash their planet-warming emissions with credits they can sell to others who exceed government-mandated limits.

Nations around the world are moving to reduce their carbon emissions in various ways. The Philippines is developing renewable energy sources, such as wind, solar, river, geothermal, and biomass. China is moving strongly towards electric cars to cut down on emissions of cars powered by gasoline, diesel, and other fossil fuels.

But the US is still the world's biggest producer of industrial carbon emissions. Three states – California, New York, and Oregon – have now defied the national government policy against the Paris agreement on climate change and carbon emissions. We hope other states will take up the campaign which may yet move President Trump to have the US join the rest of the world in striving for a cleaner world.



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# GMA prods LWUA on short-term steps to avert water crisis

**By Jester P. Manalastas**

FORMER President now Speaker of the House Gloria Macapagal-Arroyo has asked the National Water Regulatory Board and the Local Water Utilities Administration (LWUA) to start implementing short-term measures to address the water problem.

During a public hearing in the House of Representatives, Speaker Arroyo made the proposal as the government is looking for ways to address the looming water crisis.

In the same hearing, LWUA Administrator Jeci Lapuz informed the House oversight committee that the level of Angat Dam continued to dip and was down to 158.02 meter which is lower by 0.13 meters from yesterday.

"We should now start with the implementation of the measures agreed upon during our hearing last Tuesday for the sake of our countrymen," Speaker Arroyo said.

Speaker Arroyo said LWUA and the NWRB should now begin tapping the water supply of nearby provinces to augment the water needs of Metro Manila.

In the joint hearing of the House Committee on Public Works and Highways with the Committee on Environment and Natural Resources Tuesday, it was discussed that as a short-term solution could be directing the nearby water districts to apportion their resources to the affected areas in Metro Manila.

Officials of Maynilad and Manila Water gave their full support to the

proposal saying they will arrange for the actual transportation of water supply.

Speaker Arroyo also urged all concerned government agencies to find additional ways to mitigate the water shortage including fast-tracking the implementation of infrastructure projects to augment the water supply in Metro Manila.

"This problem needs swift and decisive action. Time is of the essence," she said.

Speaker Arroyo had also pushed for the passage of her measure, House Bill No. 8068, seeking to establish the Department of Water, Irrigation, Sewage and Sanitation Resource Management as a long-term solution to the water shortage. It is set to be refiled in the 18th Congress.



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## PH in climate change talks

**THE Philippines continues to engage the world on climate change when it co-organized a panel discussion on climate change in Geneva.**

On the sidelines of the 41st Human Rights Council session in Geneva early this week, the Philippine government, represented by Permanent Representative to the United Nations in Geneva Ambassador Evan Garcia and the civil society members co-organized the panel discussion titled "Fighting Climate Change through International Solidarity".

Garcia underscored that Manila continues to recognize the need for "climate action."

"As a country that is one of the most vulnerable to the adverse impacts of

climate change, the Philippines has long recognized the dangers of inaction," Garcia said in his opening remarks during the event.

"Yet action without vision or a wide base of support is equally perilous: well-meaning response, if sporadic or isolated to a few sectors, creates a false sense of security and teases the rest into complacency."

He called for the involvement of all segments of the population and sectors of society so that the actions that will be taken will be effective.

"It has to be deliberate, relentless, strategic, and inclusive. It has to be built on a foundation of solidarity," he said.

Garcia noted that the Philippine government has already forged partnerships with key stakeholders and established a network of contacts across sectors.

"To strengthen climate action in hospitals and the health care sector, for example, the Philippines tapped the expertise of the Philippine Medical Association, the Philippine Hospitals Association, and the Philippine College of Physicians," he said.

He also cited that the country's Climate Change

Commission has signed 39 memoranda of agreement with higher education institutions.

The 2018 Special Intergovernmental Panel on Climate Change Report warned that global warming is likely to reach 1.50 degrees Celsius between 2030 and 2052 if it continues to increase at the current rate.

Garcia acknowledged that the task of fighting climate change is "certainly daunting" and although the Philippines continues to do its share, "it is not enough".

"Our President has recently called on industrialized nations to significantly reduce their carbon emissions and provide assistance to developing nations in terms of finance, capacity-building and technology transfer. 'Only by helping one another,' he said, could we 'win the fight against climate change,'" the envoy said.

"And, may I add, only by working in good faith and solidarity can we — governments, members of the academe and the media, religious organizations, interest groups — have a chance at securing the future of succeeding generations," he said.

Cristina Lee-Pisco



MGA ka-idol, posible na abutin pa ng katapusan ng Agosto ngayong taon bago maibalik sa 24/7 ang serbisyo ng Maynilad at Manila Water sa kanilang mga nasasakupang lugar.

Ito ang inamin mismo ng Philippine Atmospheric, Geophysical and Astronomical Services Administration dahil hindi pa sapat ang

pag-ulan para makabalik sa normal ang suplay ng tubig sa Angat Dam na pangunahing pinagkukuhanan ng water concessionaires para sa Mega Manila na binubuo ng buong Metro Manila at mga lalawigan ng Bulacan, Rizal, Cavite at Laguna.

Mayroon ding galing sa Lamesa Dam at Ipo Dam.

Sabi'y kahit may

nagdaang low pressure area at ilang bagyo ay hindi umuulan sa Angat dahil palihis ang tumbok.

Pero sabi naman ng PAGASA, may kasunod pang mga LPA at bagyokaya umaasa sila na mae-enhance ito ng habagat.

At kung mangyayari raw ang ganitong senaryo ay malamang na sa buwan na ng Agosto pa makarecover ng tubig in terms of pag-ulan.

Sa huling ulat ay bumagsak na ang level ng tubig sa An-

## PROBLEMA SA TUBIG

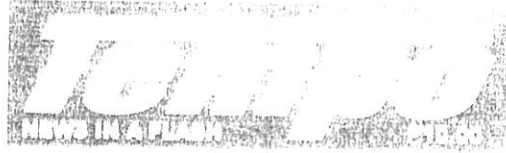
gat Dam, at kung hindi pa makararanas ng ulan sa lugar ay magiging mas mababa na sa 157.57 cubic meters, ang pinakamababang lebel nito na huling naitala noong 2010.

Todo-paliwanag naman ang Maynilad at Manila Water, na nakadepende sa suplay ng tubig ang serbisyo nila kaya magbabalik ang regular na serbisyo kapag balik-normal na rin ang suplay.

Dahil nga sa nakaambang problema

sa tubig ay iminungkahi ng local water utilities na kumuha ng dagdag suplay ng tubig ang MWSS sa mga water district mula Laguna, Cavite, at Bulacan at bumuo ng "Department of Water" na mangangasiwa sa suplay ng tubig.

Kung matatandaan nga ay nagkaroon ng kakulangan ng suplay ng tubig noong Marso at Abril, kung saan apektado ang mga nasasakupan ng Manila Water.



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It was a notable show of international unity with one major setback – the United States, now led by newly elected President Donald Trump, rejected the treaty. The US is the world's biggest industrial nation today and the No. 1 producer of industrial emissions that are causing the steady rise in world temperature and causing climate change.

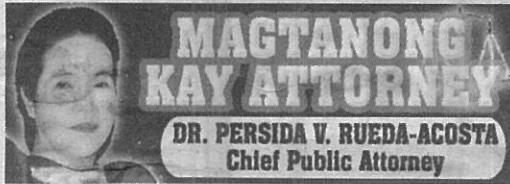
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But the US is still the world's biggest producer of industrial carbon emissions. Three states – California, New York, and Oregon – have now defied the national government policy against the Paris agreement on climate change and carbon emissions. We hope other states will take up the campaign which may yet move President Trump to have the US join the rest of the world in striving for a cleaner world.



**MAGTANONG  
KAY ATTORNEY**

**DR. PERSIDA V. RUEDA-ACOSTA**  
Chief Public Attorney

**Ahensiya ng gobyerno na  
nangangasiwa  
sa climate change**

Dear Chief Acosta,

Magandang araw! Nais kong malaman kung mayroon bang batas na tumatalakay sa climate change at anong ahensiya ng gobyerno ang nangangasiwa rito? Maraming salamat! — Grace

Dear Grace,

Para sa inyong kaalaman, ang inyong katanungan ay binigyang-linaw ng Republic Act (R.A.) No. 9729 o mas kilala sa tawag na "Climate Change Act of

2009" na inamyendahan ng R.A. No. 10174 kung saan ipinahayag sa Section 2 nito ang polisiya ng estado na sistematikong isama ang konsepto ng climate change sa iba't ibang yugto ng pagbabalangkas ng polisiya, plano sa pag-unlad, diskarte sa pagbawas ng kahirapan at iba pang mga kasangkapan at pamamaraan sa pag-unlad ng lahat ng mga ahensiya at instrumentalidad ng pamahalaan.

Itinatag sa Section 4 ng nasabing batas ang Climate Change Commission, ang ahensiya ng gobyerno na nangunguna sa paggawa ng patakaran na may tungkulin na makipagkoordinina, subaybayan at suriin ang mga

programa at plano ng gobyerno sa pagkilos upang matiyak ang mainstreaming ng climate change sa pambansa, sektoral at lokal na mga plano at programa sa pag-unlad alinsunod sa mga probisyon ng nasabing batas.

Nawa ay nasagot namin ang inyong mga katanungan. Nais naming ipaalala sa inyo na ang opinyong ito ay nakabase sa inyong mga naisalaysay sa inyong liham at sa pagkakaintindi namin dito. Maaaring maiba ang opinyon kung mayroong karagdagang impormasyong ibibigay. Mas mainam kung personal kayong sasangguni sa abogado.





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## AT GROUND LEVEL

SATUR C. OCAMPO



### Why not try using our seasoned diplomats?

**T**he State shall protect the nation's marine wealth in its archipelagic waters, territorial sea and exclusive economic zone, and reserve its use and enjoyment exclusively to Filipino citizens."

That's how direct and clear the mandate on the government is under Section 2 of Article XII (National Economy and Patrimony) of the 1987 Philippine Constitution. It states that "All lands of the public domain, waters, minerals, coal, petroleum, and other mineral oils, all forces of potential energy, fisheries, forests or timber, wildlife, flora and fauna, and other natural resources are owned by the State."

"With the exception of agricultural lands, all other natural resources shall not be alienated," the provision emphasizes, adding: "The exploration, development, and utilization of natural resources shall be under the full control and supervision of the State."

On the above-quoted constitutional provision now revolves a controversy between President Duterte and his defenders, on the one hand, and, on the other hand, all the public figures and everyone else who aver that it has been violated by his decision to allow Chinese fishermen to fish within the country's exclusive economic zone (EEZ) in the West Philippine Sea. One consistent critic has even raised the issue of impeaching the President for "culpable violation of the Constitution" and "betrayal of public trust."

In this piece, I don't want to dwell on impeachment. Given Duterte's control over the House of Representatives (which would initiate the impeachment process) and his strong influence in the incoming Senate (which would act as court and rule on the impeachment charges) such a move has scant chance of prospering.

However, Duterte's truculent response and ominous threat to those who may dare to impeach him is unfortunate, to say the least.

"Impeach ako? Kulungin ko sila lahat. Subukan nyo (Impeach me? I'll put them all in jail. Just try it," the **Philippine STAR** quoted him in its front page story yesterday. The outburst betrays Duterte's increasingly tyrannical bent towards every real, or perceived, critic of his rule. Which might have spurred this twit from the youngest and would-be-longest-surviving magistrate of the Supreme Court, Justice Marvic Leonen: "In a true democracy, leaders are not feared. They are respected."

Let's focus on how President Duterte has reacted to those who invoked the above-quoted Charter provision, starting with Supreme Court Senior Associate Justice Antonio Carpio. The others were Vice President Leni Robredo, former Foreign Affairs Secretary Albert del Rosario, and former Ombudsman Conchita Carpio-Morales. A number of senators have also weighed in on the issue critical of Duterte's stance.

"The Philippines has exclusive sovereign right to exploit all the fish, oil, gas and other mineral resources in its EEZ [including the Recto Bank]," Carpio said. "This sovereign right belongs to the Filipino people and no government official can waive this sovereign right of the people without their consent."

Duterte's reaction was derisive: he called Carpio "crazy" and "stupid." The latter soberly dismissed the personal attacks as "not worth commenting on."

But the President then went on to utter crude remarks about the Constitution (which in his oath of office he vowed to implement, protect and defend):

"That is a provision for the thoughtless and the senseless," he said. "The protection of our economic rights about the economic zone resolves this?" he asked quizzically, then added, "I am protecting the country and 110 million Filipinos."

Duterte seems to be saying that he was certain the Chinese would not respect the Philippine Constitution, regarding it as just "a piece of paper" not worth going to war over. He said:

"I will go and tell them [the Chinese], get out, this is the Constitution. They will tell you, 'You run out of toilet paper, use that.' If they say, 'You present me a Constitution like that, and we have this ruckus claiming the same place is our jurisdiction, I will say, if you do not have something to wipe your butt with, use your Constitution.'" Then he added, "Because that means war."

"That piece of paper, the Constitution," Duterte cynically averred, "will become meaningless, with no spirit except desperation, agony and suffering."

Why would asserting sovereign rights over our exclusive economic zone equate to war? Duterte recalled that in his first meeting with China's president Xi Jinping in 2016, the latter had warned him that "there will be trouble" when he talked of his plan to dig for oil in the West Philippine Sea. Apparently, he interpreted the word "trouble" to mean a shooting war. Thus, he pointed out that China's missiles could reach Manila in seven minutes should a war be provoked.

At the same time, Duterte said, he had become friends with Xi and they had come to an agreement. "It was a mutual agreement. Let us give and take: you fish there, I fish here. But China said we have others so we took this for ourselves," he recalled, referring to fishing in the Panatag (Scarborough) Shoal near Zambales, a traditional common fishing ground which China's maritime forces had seized control of since 2012.

"Now, they say, 'You have to ban China, prohibit them [from fishing]," he remonstrated in a speech before the Presidential Security Group. "If I prohibit them, how do I enforce?"



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At ground level

He segued with a ridiculous idea, challenging three allied nations that have been sailing close to China's artificially-built islands in the Spratlys. "This is my challenge, America, Britain, France," he said, "Let us assemble in Palawan and proceed directly to Spratlys. Let us seize whatever we can seize." No one, though, has called him "crazy" or "stupid" for concocting such a plan.

What, indeed, can President Duterte do to enforce his Constitutional mandate in seeking to resolve the maritime issues and disputes in the West Philippine Sea? Is he really so helpless in dealing with our giant neighbor?

I wonder if he has ever consulted, and harnessed, our country's seasoned diplomats, to creatively maximize the toolbox of initiatives, at various levels and through different institutional avenues, that is available for resolving disputes between sovereign nations?

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# China 'our friend'? By what logic?

**P**resident Duterte, in his latest pronouncements, has magnanimously decided that he would allow Chinese fisherfolk to fish in disputed Philippine waters because they are "our friends." Let us parse this statement—in the sense of examining or analyzing it minutely—starting with these last two words, and going backward.

1. "Our friends": China is our friend? By what logic does he come to that conclusion? If China is our friend, we don't need any more enemies.

A. Does a friend betray us? China did. We had a standoff with China on Panatag Shoal in 2012, and the United States brokered an agreement that required both parties to leave the shoal. The Philippines did, but China stayed and brought in warships and now acts like it owns it.

B. The Philippines filed a case with the Permanent Court of Arbitration in The Hague, which ruled in our favor in 2016, declaring China's nine-dash line (the basis of its claim over the South China sea) to be without legal or historical basis. But China is still in possession of seized islands, and is even harvesting giant clams and jeopardizing our natural resources. That's friendship?

C. Does a friend lie to us? China has. The most recent in-your-face example is the hit-and-run incident in the Recto Bank, which is, like Panatag, within our exclusive economic zone. China's version of the hit-and-run is ridiculous and belied by evidence that China cannot refute—satellite pictures of the area at the time, which showed that China's fishing boat was not "besieged" by eight Filipino fishing boats. Worse, our fisherfolk were abandoned. No help. Friends?

D. Does a friend diss us? China did, ignor-



## GET REAL

SOLITA COLLAS-MONSOD

ing the diplomatic passport the Department of Foreign Affairs (DFA) gave to former ambassador Albert Del Rosario, and deporting him from Hong Kong out of hand (proof that Hong Kong officialdom are puppets of China).

What has been the Duterte administration's response to this betrayal, this ignoring of a judgment by an international body, this lying, this dissing by China? Complete brownnosing on our part. China is exculpated, she is still our friend, and we were apparently at fault.

Example: Salvador Panelo saying there is no evidence of a US-brokered agreement in 2012, and even if there was, Del Rosario was naïve. And Del Rosario is at fault again, because he should not have used a diplomatic passport to which he was not entitled.

The DFA then canceled all courtesy diplomatic passports. As if that were the solution. And when Vice President Leni Robredo opined that that was beside the point, that we should be defending our citizens rather than blaming them (and canceling their passports),

she was excoriated as being "boba."

In sum, China may be your personal friend, Mr. President, but in no way can you say that she is a friend of the Philippines.

2. "Disputed Philippine waters." I'm sorry, President Duterte, but the issue has already been resolved by the Permanent Court of Arbitration in 2016. Recto Bank and Panatag Shoal have been declared part of the exclusive economic zone of the Philippines (see B, above). Only China has been "disputing," and she has no legal basis for doing so. That you make so little of our country's victory in The Hague, instead of making an international issue of it—isn't that a betrayal of public trust?

3. "Allow Chinese fisherfolk to fish." That's not your call, Mr. President. As Associate Justice Antonio Carpio has pointed out, the Constitution is very clear: "The State shall protect the nation's marine wealth in its archipelagic waters, territorial sea, and exclusive economic zone, and reserve its use and enjoyment exclusively to Filipino citizens" (Article XII "National Economy and Patrimony," Section 2).

What part of "exclusive" don't you understand, Mr. President?

You said early in your presidency that the Constitution was just a piece of paper, but you did take an oath to "preserve and defend" it. That you now ignore this provision is not only a betrayal of public trust, it is also a culpable violation of the Constitution. Both impeachable offenses.

Mr. President, the Filipino people have held you in the highest trust and confidence. Please live up to that trust and confidence.

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# Vizcaya, Quirino get world-class green tech

BY LEANDER C. DOMINGO

**A** PROVEN scientific method that helps produce better dipterocaps that are used in the Department of Environment and Natural Resources' (DENR) reforestation and tree-planting activities is gaining ground among tree farmers, particularly in communities surrounding mining areas.

The method is called "macro-somatic clonal propagation," where tree farmers and foresters identify a dipterocarp "mother tree" that is the best source of planting materials.

The seedling for propagation is taken from a mother tree that is fast growing and whose attributes are transferred to the clones.

In Nueva Vizcaya and Quirino provinces, the mining industry has been spearheading the use of the world-class technology for reforestation to continuously support the Environment department's National Greening Program, as mining firms rehabilitate more areas to minimize their environmental footprint.

A group of foresters from the Di-

dipio Mine, which is managed and operated by OceanaGold (Philippines) Inc. (OGPI) in the Didipio village of upland Kasibu town in Nueva Vizcaya, continuously put forward the company's reforestation and rehabilitation projects.

"We have capacitated local farmers to practice mass propagation of seedling through macro-somatic clonal propagation and nursery establishment even in their own farms," David Way, OGPI general manager, said.

Way said the mine has already planted more than 1.6 million trees in its rehabilitation areas within the Didipio mining site, including establishing reforestation planta-

tions in Nueva Vizcaya and Quirino with an impressive survival rate of 92 percent.

"This is even above the 80-percent Philippine national standard because our Didipio Mine's environment team utilizes macro-somatic clonal propagation to produce various species of trees faster and more efficient than conventional planting," he added.

He said that in the mining site's nursery, most seedlings produced include endemic species such as *narra*, *tuai*, *mayapis*, *tanguile*, *yakal*, *guijo*, *kalantas*, *kupang*, *agoo*, *balete* and *almus* as well as exotic trees like mahogany, gmelina and manguim.

"We produce approximately 500,000 seedlings in a year and with this, we have partnership arrangements with different organizations and individuals in tree planting activities," Way said, adding that through its Mining Forest Program, OceanaGold has reforested a total area of 1,258 hectares in both Nueva Vizcaya and Quirino.

Today, the Didipio Mine has progressively rehabilitated areas equivalent to 94.62 percent, includ-

ing those that are no longer needed in its mining activities.

Way said progressive rehabilitation is aligned with the company's effort to sustain the rich biodiversity in Didipio.

"Our rehabilitation activities include adding top soil to rock face walls within the mine, planting of grasses and installing coconut nets to avoid erosion. Vertiver grasses are usually planted as their roots can grow to 1 meter thereby providing better slope stabilization," Way said.

And to accelerate the mining site's progressive rehabilitation, Way said hydro-seeding technology is also applied wherein seeds, soil and organic fertilizer are mixed and sprayed on rock face walls. With this, it only takes a few weeks before grasses grow and the area eventually becomes nutrient-sufficient for trees.

Prior to the commencement of its operation in 2013, the company said it established reforestation areas in Didipio during its exploration phase.

"These areas are now rich forests that are home to numerous species," Way said.



# Toxic skin whiteners sold in Mindanao – environment group

By RHODINA VILLANUEVA

An environmental watchdog has alerted local government officials on the sale of mercury-laden skin whiteners in at least seven cities in Mindanao.

The EcoWaste Coalition said test buys of skin whiteners from June 14 to 17 in Cagayan de Oro, Oroquieta, Ozamiz, Iligan, Dipolog, Pagadian and Zamboanga showed that 75 of 93 brands were contaminated with mercury in the scale of 15 to 23,000 parts per million.

The allowable amount under the ASEAN Cosmetic Directive as well as the Minamata Convention on Mercury is only 1 ppm.

EcoWaste said the products

were smuggled from China, Indonesia, Malaysia and Pakistan and did not undergo quality and safety assessment by the Food and Drug Administration.

"We appeal to concerned city officials, especially to newly elected or reelected mayors, to act with urgency to stop the sale of mercury-laced skin whitening products," Thony Dizon, EcoWaste Coalition's chemical safety campaigner.

"As the Philippines develops its National Action Plan for mercury-added products, we also urge our councilors to consider replicating the Quezon City ordinance banning the production, importation, distribution, and sale of mercury-added skin

whitening cosmetics in their area of responsibility," Dizon added.

He stressed the need not only to promote the health and safety of citizens but also prevent mercury in skin whitening cosmetics from being discharged into wastewater and pollute the environment and food chain.

The World Health Organization (WHO) had earlier issued a warning that inorganic mercury in skin whitening soaps and creams might result in kidney damage.

"Mercury in skin lightening products may also cause skin rashes, skin discoloration and scarring... and reduction in the skin's resistance to bacterial and fungal infections," the WHO said.