



## NEWS ROUNDUP

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## BUSINESS MIRROR

### Climate change and sports

By: Vincent Juico

You don't usually hear climate change said or written in the same sentence nor mentioned in the same breath unless it's a cause for alarm because it's making an environmental impact on soccer fields, baseball diamonds, football pitches, cricket grounds and other areas where outdoor sports are played.

### Disaster and Calamity Preparedness: Is The Philippines Ready?

As an archipelago found within the Pacific Ring of Fire and along the Typhoon Belt, the Philippines plays host to dozens of typhoons each year and is home to a handful of active volcanoes. This makes the Philippines highly prone to natural calamities and disasters – necessitating solid disaster management and preparedness plans for both national and local government units.

## **BUSINESS WORLD**

### **A model for climate change response**

By: Oscar Lagman Jr.

On Aug. 5, Makati City Mayor Abby Binay declared a state of climate emergency in the city in response to the crisis brought about by climate change. “As temperatures and sea levels continue to rise, low-lying coastal areas in cities like Makati have become more vulnerable to strong typhoons that bring floods and landslides. This will result not only in the disruption of public services but also the displacement of families and even entire communities,” Binay said during a webinar organized by Makati Disaster Risk Reduction and Management Office (MDRRMO).

## **MALAYA BUSINESS INSIGHT**

### **Winford Manila plants for a cleaner, greener PH**

Winford Manila Resort & Casino (WMRC) has joined forces with ABS-CBN Foundation, Inc. (AFI) at the La Mesa Nature Reserve for a scheduled tree-planting activity.

## **PHILIPPINE DAILY INQUIRER**

### **Extreme weather events and conflict (3)**

By Rufa Cagoco-Guiam

Cotabato City—Here in the seat of the autonomous Bangsamoro region, some regional and local officials do not seem to realize the urgency of the impacts of climate change in more than 1,000 barangays within it. Members of our small research team noticed that some officials in executive level positions tend to brush aside issues and challenges posed by the intersections of extreme weather events and community security, and on how some of their so-called urgent programs (like dumping a town’s solid wastes near a barangay road) have even aggravated the negative consequences of such environmental phenomena. In contrast, community members seem to be more insightful than their leaders.

## **PHILIPPINE NEWS AGENCY**

### **1K narra trees planted at Northern Negros Natural Park**

By: Nanette Guadalquiver

Bacolod City – Stakeholders from various sectors have planted 1,000 narra trees at the Gawahon EcoPark in Victorias City, Negros Occidental as one of the events marking the 17th year of the Northern Negros Natural Park (NANNP).

## **RAPPLER**

### **'Delikado' review: An environmental film that does not hold back**

By: John Leo Algo

What drives environmental defenders to risk their lives? This is one of the major questions answered in Karl Malakunas's *Delikado*. The closing film for this year's Cinemalaya Festival tells the intertwining narratives of environmental activists defending the forests and seas of Palawan, considered as the Philippines's "Last Frontier."

## **STANFORD NEWS**

### **Scientists identify potential bioindicators for monitoring plastic pollution in the North Pacific Ocean**

By: Alex Boss

With an estimated 8 million metric tons of plastic waste escaping to our oceans each year, plastic pollution adversely affects the environment, climate, and even our health. Many plastic products break down in the ocean and are ingested by marine wildlife. Scientists can study these organisms as potential bioindicators to measure how much plastic exists in different ocean regions and help assess the overall health of the marine environment.

## **THE MANILA TIMES**

### **Awkward accountability**

By: Ben Kritz

LAST month, in a discomfiting but obviously quite necessary candid admission, the environmental group Ocean Conservancy issued a "statement of accountability" concerning what was at the time a landmark report titled "Stemming the Tide," which the group published in September 2015. The report was significant to the Philippines because at the time, and for several years after the report's publication, the Philippines was identified as one of the world's biggest sources of plastic pollution in the ocean.

## **THE PHILIPPINE DAILY INQUIRER (BUSINESS)**

### **[BIZ BUZZ: Not just cars, but mobility solutions](#)**

The statistics for Toyota Motors Philippines (TMP) are impressive.

According to the company's chair, Alfred Ty, the firm delivered its two millionth Toyota vehicle in March of this year, just as it celebrated its 34th year in the country earlier this month.

## CCC IN THE NEWS:

### SUNSTAR

#### **Bondoc: Climate change hitting Pampanga towns**

By: Princess Clea Arcellaz

Masantol Fourth district Representative Anna York Bondoc has raised concern over the effects of climate change in the province.

### Information and Knowledge Management Division

### BUSINESS MIRROR

#### **Climate change and sports**

By: Vincent Juico

You don't usually hear climate change said or written in the same sentence nor mentioned in the same breath unless it's a cause for alarm because it's making an environmental impact on soccer fields, baseball diamonds, football pitches, cricket grounds and other areas where outdoor sports are played.

It is imperative, now more than ever, for sports organizations to incorporate climate change into their business models.

According to brinknews.com, "For example, unprecedented bushfires in Australia caused residual smoke that drifted into Melbourne during the qualifying rounds of the 2020 Australian Open Tennis Tournament. The poor air quality forced some players to withdraw from the tournament and at least one match to be suspended."

More from brinknews.com, "A 2018 study led by the University of Waterloo concluded that 'if global emissions of greenhouse gases are not dramatically reduced, only eight of the 21 cities that have previously hosted the Winter Olympics will be cold enough to reliably host the Games by the end of this century.'"

The National Atmospheric Administration projects that sea levels will go up by 2.5 meters. Rising sea levels will make hurricanes and tsunamis more intense in the coming years.

Extreme weather changes may lead to scheduling adjustments, postponements and possible cancellations of sports events be it indoor or outdoor.

A step towards the direction of factoring climate change into the business model of sports organisations is to be a signatory of the UN's Sports Climate Action Framework.

What is the UN's Sports Climate Action Framework? From the aforementioned article, "Encourages sports organizations to agree to a set of principles that will make them climate leaders."

Climate change will continue to have an unfortunate impact on event schedules, and athletes' health and wellness.

A paper published on [www.un.org](http://www.un.org) says "In a cyclical manner, the sport sector is impacted by the consequences of rising temperatures. Heavier precipitations, higher sea levels, and the increase in the number of extreme weather events are having disruptive consequences on sport."

"In addition to all of its other dangers, climate change poses a serious threat to sports. The 2020 Australian Open had to stop play due to excessive smoke from brush fires. Cricket, the world's second most popular sport, had to deal with record-breaking heat on the Indian subcontinent this spring," from [news.wosu.org](http://news.wosu.org) One organization that has factored in climate change into its business model are the National Hockey League's Seattle Kraken.

The name of the home ice of the Seattle Kraken is the "Climate Pledge Arena." It is the first zero-carbon arena in the world and is powered exclusively by renewable energy including both on-site and offsite solar, instead of the widespread standard use of natural gas found in other arenas.

### **Disaster and Calamity Preparedness: Is The Philippines Ready?**

As an archipelago found within the Pacific Ring of Fire and along the Typhoon Belt, the Philippines plays host to dozens of typhoons each year and is home to a handful of active volcanoes. This makes the Philippines highly prone to natural calamities and disasters – necessitating solid disaster management and preparedness plans for both national and local government units.

Notable and still fresh in the minds of the Filipinos are the devastating earthquake in Bohol in October 2013, the world's strongest super typhoon, Haiyan (local code name Yolanda), which hit Tacloban City in November 2013, and Typhoon Goni, which hit Catanduanes in November 2020.

With years of calamities shaking the nation in only short intervals, disaster preparedness has become a daily life routine for some Filipinos, including those living within the vicinities of fault lines and active volcanoes.

Disaster Preparedness by Albayanos: The Perfect Example

Leading the charge in bringing calamity preparedness to light are Albayanos, who have more or less perfected disaster mitigation through fool-proof evacuation plans and general preparedness. In fact, The United Nations (UN) has declared Albay as its Global Model in climate-change adaptation (CCA) and disaster risk reduction (DRR), and Salceda, a multi-awarded campaigner for CCA and DRR, as its Senior Global Champion and spokesman on CCA-DRR.

Albay, one of the most disaster-prone areas in the country, has initiated pioneering programs in CCA-DRR, which have earned its awards and recognitions from both national and international institutions. Among such honors are three Gawad Kalasag Awards and a Hall of Fame niche from the National Disaster Risk Reduction and Management Council.

Albay has invested substantially in strengthening infrastructures to mitigate damage during calamities, as well as disaster preparedness products to ensure that they are well-equipped when calamities are due to hit.

Its multibillion-peso Albay Guidacale (Guinobatan-Camalig-Daraga-Legazpi) Economic Township Program was initially a geostrategic intervention to move people from risky areas to safer grounds but is now fast shaping up as an economic development platform to transform its 64,000-hectare area into a sprawling business boom center.

The Albay provincial government now conducts regular training on risk reduction in schools and local communities and has set in place early warning systems and emergency management equipment.

**What Moves Has the Government Made for Disaster and Calamity Preparedness?**

Faced by the growing concerns about uncaused events, such as typhoons, floods, earthquakes, and volcanic eruption, the government, through the National Disaster Risk Reduction and Management Council (NDRRMC), formerly known as the National Disaster Coordinating Council, recognized the value of setting aside a designated period for people to focus their attention on the need to prepare for natural disasters. Some of the government efforts in place today include:

**Government Agency Earthquake Response Programs**

According to the Republic Act 10121, or the Philippine Disaster Risk Reduction and Management Act of 2010, mandating government agencies are required to create programs aimed at reducing risks from earthquakes. These may include plans that address vulnerabilities to disaster, the implementation of disaster risk reduction programs, as well as policy and socioeconomic development planning.

**DOST Geohazard Mapping**

The Department of Science and Technology has developed earthquake- and volcano-related maps that aim to increase the accessibility of crucial environmental and risk information for Filipinos online.

## National Building and Structure Regulations

The Philippine Institute of Volcanology and Seismology has highlighted the need to strictly impose regulations on buildings and structures in order to minimize the impact of earthquakes, citing a study that half-a-million residential buildings in Metro Manila area will be heavily or partly damaged if a magnitude-7.2 earthquake occurs in the West Valley Fault, also known as the Marikina fault line, which runs through Bulacan, Rizal, Laguna, Cavite and Metro Manila, as well as Quezon City, Pasig, Taguig and Muntinlupa.

In addition to these government plans and programs, various groups and individuals see the need to assess whether Filipinos have already conformed to the requirements of the new Building Code and other pertinent regulations, including the retrofitting of houses, buildings, and other structures.

There's also the need to check if the country has enough essential resources in the event of earthquakes, in the form of hospitals, disaster-management centers, roads, broadcast media, fire and ambulance stations, and telecommunication facilities.

Proper information dissemination is also necessary to properly prepare citizens for the impending disaster. Through learning programs and even international days for disaster risk reduction, various government agencies and non-government organizations can reach Filipinos and ensure that they are equipped with all the needed information so that they know how they will respond for their own safety.

## Has The Philippines Been Successful in Softening the Blow from Disasters and Calamities?

Fortunately, through the countless mitigation efforts of the Philippine government, as well as the efforts of non-government institutions in disseminating crucial information as well as creating plans and systems for disaster and calamity preparedness, we have now begun to see palpable effects in our disaster reliability. From lower death tolls to effective supply distribution to affected families, the Philippines has now started to finally get disaster preparedness right.

In 2014, Typhoon Ruby hit Eastern Samar and Masbate. Due to early preparations and efforts of the government, we experienced a general success in avoiding a massive death toll, showing that the Philippines has finally found a way to mitigate the damage inflicted by storms. While Ruby was not as strong as Haiyan – one of the most devastating typhoons in the Philippines, there was no comparison when it comes to loss of life.

This success was highly credited to three words: "Preemptive Mandatory Evacuation." Data from the National Disaster Risk Reduction and Management Council show that over 1 million Filipinos were moved out of Ruby's path, compared with the 125,000 who were forced to evacuate their homes when Yolanda approached the country in November 2013. Interestingly, the initial paths of both storms were almost the same.

“The government’s swift evacuation response has saved many from injury and even death,” United Nations Children’s Fund Philippines Representative Lotta Sylwander said in a statement.

Executing an evacuation plan of this magnitude is not easy, by any measure. It takes strict coordination, from the very top to the individual who has the job of knocking on the doors of those who need to be moved. Supplies must be put in place and protected from damage.

As our response to Ruby showed, we had a good system in place and people who properly implemented it.

## **BUSINESS WORLD**

### **A model for climate change response**

By: Oscar Lagman Jr.

On Aug. 5, Makati City Mayor Abby Binay declared a state of climate emergency in the city in response to the crisis brought about by climate change. "As temperatures and sea levels continue to rise, low-lying coastal areas in cities like Makati have become more vulnerable to strong typhoons that bring floods and landslides. This will result not only in the disruption of public services but also the displacement of families and even entire communities," Binay said during a webinar organized by Makati Disaster Risk Reduction and Management Office (MDRRMO).

Legend has it that in one of his upriver expeditions after torrential rain, the Spanish conquistador Miguel Lopez de Legaspi stopped over in one of the barangays of Manila. When he came ashore, the tides were rushing up the river banks. Legaspi asked the barangay chief what the place is called. Not understanding Spanish, the chief pointed to the fast receding waters, saying "Makati na, kumakati na," which means "The tide is ebbing." Legaspi took the chief's words as the answer to his question. So, he wrote down "Makati" as the name of the barangay. My father taught me how to drive on the runways of the abandoned airport in Makati in 1955. The town was marshland then. Behind Makati Medical Center in 1969 were rice paddies. The Asian Institute of Management moved to its new campus on Paseo de Roxas, Makati in 1970. While a group of faculty members were having coffee in the Faculty Lounge, one professor said to us, "Look out the window, many years from now you will be talking about it." The scenario was of the operator of the tractor answering the call of nature. What used to be rice paddies had been filled up and was being graded. That is now Legaspi Village.

I relate all this to point out to the generation born after 1980 that Makati is a low-lying area and prone to floods. CNN reported every day last week that Arctic and Greenland glaciers are melting four times faster than those in other parts of the world. Scientists project that if emissions continue to rise unchecked, the Arctic could be ice free in the summer as soon as the year 2040 as ocean and air temperatures continue to rise rapidly. The rise in the sea level could threaten low-lying cities like Makati with perennial floods.

Since the early 1900s, many glaciers around the world have been melting at a rapid pace. Carbon dioxide and other greenhouse gas emissions have raised temperatures higher in the poles, resulting in the rapid melting of glaciers. According to the data from the Philippine Atmospheric, Geophysical and Astronomical Services Administration (PAGASA), there has been a 0.75 degrees Celsius increase in the country's annual temperature over the past 70 years and by 2050, the temperature increase is expected to reach as high as 1.8° Celsius. Even if emissions are reduced significantly in the coming decades, scientists predict more than one third of the world's remaining glaciers will melt before the year 2100. Melting glaciers raise sea levels, which in turn increases the rate of erosion of coastal communities and elevates storm surges as warm air and ocean temperatures create more frequent violent typhoons.

As glaciers melt and oceans become warmer, ocean currents will continue to alter weather patterns worldwide. Countries that consider fisheries a major industry will be affected as warmer waters will kill certain species of fish. The flood caused by the rise in sea level and the increased salinity of the flood waters call for raising crop yields significantly to offset the loss of agricultural land and to increase the income of farmers.

Violent typhoons and wide-scale floods will wreak tremendous damage on coastal towns, even on whole provinces, as they have done in recent years. Climate change has also caused changes in seasonal rainfall patterns and droughts, resulting in considerable losses to the farming sector.

Scientists consider it reasonable to assume that the sea level will rise by 30 to 40 centimeters in the next 50 years. That means not only a loss of land for farming and housing but the increased susceptibility to floods as already being experienced in many parts of Metro Manila and in many towns of the Central Plain provinces of Bulacan and Pampanga.

Climate change demands well-thought-out action plans such as preparing communities for impacts that are already being experienced now. It also means looking to the future, like reducing gas emissions. Last Saturday, the CNN anchor asked the scientist studying the situation in Greenland what his message is to the people in their homes. His curt message: "Clean the air." It calls for the support and involvement of every sector of society, businessmen, professionals, academics, the youth, ordinary folks, and even Indigenous People.

Makati Mayor Binay's programs and initiatives intended to mitigate greenhouse gas emissions in the city include the purchase of electric vehicles (e-vehicles) to be used by the city government, installation of solar panels in public schools and government offices to minimize energy consumption and to ensure continuity of services during calamities. The program also strictly implements the Solid Waste Management Code, Makati Green Building Code, the plastic ban among households and business establishments, a ban on cigarette smoking, an Anti-Smoke Belching Ordinance, and the Greenhouse Gas Reduction Ordinance.

We bring our used plastic food packages and empty soft drinks bottles to a junk shop for recycling. My driver said, "Why don't you save yourself the trouble by just throwing them away as many neighbors do."

That brought to mind the time I was teaching in the Ateneo Graduate School of Business (AGSB). The International Labor Organization (the ILO) offered the school study grants on Environmental Management at the Centre d'Études Industrielles (CEI) in Geneva. The ILO specified that one of the grantees be a Marketing professor to reorient his thinking to environmental protection and preservation.

Marketing practitioners have the reputation of being spoilers of the environment. They are the ones who came up with the idea of plastic grocery bags and soft drinks bottles, throw-away styropor food packs, tetra packs, air fresheners, wet wipes, etc. Fr. Thomas Fitzpatrick, S.J., dean of the school, nominated me as I was then the chair of the marketing faculty. I was supposed to replicate the CEI program in Ateneo.

While in Geneva, I and the other attendees of the program were taken to a plant which converted solid waste into energy. The power generated was enough to light up half of Geneva at night. The residue from the process was something like asphalt. Mayor Binay had announced previously that electric buses (e-buses) will soon be a part of the regular public transportation sector in the city following the signing of a Memorandum of Agreement between the city government and an international government organization on the establishment of a smart public transport system in the city. She said, "Apart from the Makati Subway, this new public transport system is in line with our efforts to transform Makati into a smart city. We need to upgrade our systems because smart transportation is more convenient, safe, and cost-effective for both the city and commuters than traditional frameworks."

The city government will provide the land for the construction of the EV bus depot and parking area, oversee the implementation of the project, and secure a sufficient amount from its budget to cover the expenses required for the operation of the project, including the cost of proper storage, utilities for operation, and maintenance of ICT system and EV buses.

Laudable is Mayor Binay's initiative. Many of the cities in Metro Manila — Navotas, Malabon, Manila, Pasay, Parañaque, and Las Piñas — lie on the shore of Manila Bay. The major port cities of Cebu, Iloilo, Cagayan de Oro, and Davao are vulnerable to the dangers of climate change, as are all the other coastal cities of the Philippines. Heads of these government units should emulate Abby Binay and imitate her initiatives.

In fact, Mayor Binay made this appeal: "We call upon everyone to come together and act now. We must ensure aggressive application of the whole-of-society approach in combating climate change. We heard the data. We understood the science, and we are feeling its impact. Now is a crucial time to act, and we need to act fast. We need thinkers, doers, and movers. The time for action is now. As the new breed of Makatizens and global citizens, it is our responsibility to take care of our city and ensure that it remains a liveable place for future generations. We must promote sustainability and climate consciousness in all our actions. We must be the change we want to see in our city and the world."

That brings me back to the executive program on Environmental Management I was developing for Ateneo's Graduate School of Business. After attending the program in Geneva, Fr. Fitzpatrick, Associate Director Lydia Echauz, a number of AGSB professors, CEI Environmental Management program director Michael Royston, and I went to a conference venue in Caliraya to develop the Ateneo version of the program.

Just as we had finalized the curriculum and I had written some teaching materials, Fr. Fitzpatrick asked to be assigned as a missionary, as was his original goal in joining the Jesuit order, in Africa. A lay person, an MBA from Stanford, replaced him. The new dean immediately scrapped the proposed course. He didn't find it appropriate for graduate studies in Business.

Some heads of local government units very vulnerable to problems caused by climate change may not consider response to climate change challenges important. Philip Bowring, editor of the Far Eastern Economic Review, who has an across-the-board and objective view of the Philippine situation, points out in his book, *The Making of the Modern Philippines*, that many local government units are run by and for an elite of families and interests, provincial and central. To them, political interests come first before good governance.

Has the call of Mayor Abby Binay to come together to combat climate change fallen on many deaf ears?

## **MALAYA BUSINESS INSIGHT**

### **Winford Manila plants for a cleaner, greener PH**

Winford Manila Resort & Casino (WMRC) has joined forces with ABS-CBN Foundation, Inc. (AFI) at the La Mesa Nature Reserve for a scheduled tree-planting activity.

Bannered under WMRC's Green Drive corporate social responsibility (CSR) program geared toward promoting environmental sustainability through employee engagement, WMRC executives and employees were welcomed by Sarah Alcayde-Agcaoili, AFI operations manager for Save La Mesa Watershed project.

The project is part of AFI's environmental program, Bantay Kalikasan, which is committed to preserving and enhancing Philippine biodiversity and making every Filipino a vigilant steward of the environment.

Jeff Evora, WMRC president and chief operating officer, said in 2019, WMRC held its first tree-planting activity at Angat Watershed in Bulacan "to raise awareness of climate change and how planting trees can help diminish its negative effects."

"Today, we revisit our environmental cause by appreciating our country's biodiversity up close," Evora added. "All these trees provide fresh air and clean water not just for us to breathe and drink, but for our grandchildren and future generations to benefit from as well."

Evora and his WMRC team then proceeded to plant 400 young trees across one hectare of forest as part of their efforts to realize the shared vision with AFI for a cleaner and greener Philippines. WMRC participants were guided by experienced Bantay Kalikasan forest workers during the activity.

"With the help of partners like WMRC, we have rehabilitated 1,552 hectares of forest for over 20 years now," said Agcaoili. "We have also established protocols and systems that ensure successful reforestation based on science and best practices."

## PHILIPPINE DAILY INQUIRER

### **Extreme weather events and conflict (3)**

By Rufa Cagoco-Guiam

Cotabato City—Here in the seat of the autonomous Bangsamoro region, some regional and local officials do not seem to realize the urgency of the impacts of climate change in more than 1,000 barangays within it. Members of our small research team noticed that some officials in executive level positions tend to brush aside issues and challenges posed by the intersections of extreme weather events and community security, and on how some of their so-called urgent programs (like dumping a town's solid wastes near a barangay road) have even aggravated the negative consequences of such environmental phenomena. In contrast, community members seem to be more insightful than their leaders.

Community discussion participants of the four towns covered in our study (Datu Piang, Rajah Buayan, Datu Salibo, and Pagalungan) shared how they coped with extreme weather events, sans government aid. These municipalities have one thing in common—they are situated in low-lying parts of Maguindanao province that are straddled by the sprawling Ligawasan Marsh, one of the Philippines' largest wetlands. These areas are flooded even on rainless days: heavy downpours in mountainous areas from Bukidnon in Northern Mindanao; Isulan and Esperanza towns in Sultan Kudarat province cause water levels in local rivers and streams to rise.

Prolonged droughts make waterways dry up, creating patches of arable land for planting crops that can be harvested after two months. Community members welcome this, but it also gives rise to tensions among them since they compete against one another to plant on these artificially created patches of land. Community members who own work animals shared being wary of gumandel (Magindanawn pun on the English word "commander") that refers to cattle rustlers. The Magindanawn root word gandel means "to pull." A gumandel pulls a carabao or cow stealthily in the dead of the night, and this is done easily and faster during prolonged droughts. Informants also shared they have witnessed how victims of cattle rustling resorted to violent confrontations against suspected perpetrators. This is one root cause of revenge killings, locally referred to as rido (a Maranaw term) or to kapedsulia (Magindanawn term for revenge).

Older community informants also recalled that at the height of martial law years (1970s), violent encounters between Philippine military forces and Moro rebel fronts intensified in the Ligawasan Marsh areas. A prolonged dry season facilitated the mobilization of army tanks and other war materiel, causing more casualties and damaging huge swaths of corn fields. One former rebel group member shared that he and his brothers had planted corn in one hectare of their farmland and were about to harvest the corn when military tanks flattened their corn field, destroying it completely. The money they would have received from the sale of their corn was intended for their mother's hajj (pilgrimage to Mecca) as their gift to her.

One municipal official said in an interview that they have come to “befriend water,” as flooding is almost a daily occurrence in the areas we studied. One research team member asked the official the meaning of “making friends with water,” expecting the municipal government will implement climate change mitigating measures for flood control, among other related initiatives. But for them, “making friends with water” simply meant that all of their social and cultural activities will be held in the Pulangi or Rio Grande de Mindanao.

#### Your daily dose of fearless views

Given this simplistic understanding of the nature of water and flooding, local officials will realize too late that not preparing to mitigate its effects can wreak havoc on their already impoverished local government units, destroying poorly constructed infrastructure and other facilities. Community tensions can also arise, as resources become scarce and costly to acquire during episodes of natural disasters. In the words of former UN secretary-general Ban Ki-Moon, the “Extreme weather events continue to grow more frequent and intense in rich and poor countries alike, not only devastating lives but also infrastructure, institutions and budgets—an unholy brew which can create dangerous security vacuums.”

Our community respondents have felt this security vacuum during heavy rains that happened when government forces chased suspected rebel or terrorist groups in the marsh. As one of them said, “dito, umulan ng bala at tubig” (literally: it rained bullets and water here).

## **PHILIPPINE NEWS AGENCY**

### **1K narra trees planted at Northern Negros Natural Park**

By: Nanette Guadalquiver

Bacolod City – Stakeholders from various sectors have planted 1,000 narra trees at the Gawahon EcoPark in Victorias City, Negros Occidental as one of the events marking the 17th year of the Northern Negros Natural Park (NNNP).

“We would like to thank our partners for making the celebration a success,” Joan Nathaniel Gerangaya, officer-in-charge of the Provincial Environment and Natural Resources Office and concurrent protected area superintendent of the NNNP, said in a statement on Monday.

The trees, which were planted on Sunday to cap the two-day 1st NNNP Day celebration, symbolized the continuing commitment of Negrenses to preserve, protect and manage the NNNP, which was declared as a protected area on Aug. 15, 2005.

The event, which was hosted by the City of Victorias headed by Mayor Javier Miguel Benitez in partnership with the Department of Natural Resources and Environment, also included other activities such as environmental symposium, guided birdwatching, bike tour, biodiversity tour and trade fair and exhibit.

Themed “Healthy and Green at 17”, the celebration recognized the stakeholders’ laudable collective efforts in conserving and protecting the rich biodiversity of the NNNP.

Initially proclaimed as the Northern Negros Forest Reserve on April 28, 1935, the now 70,826-hectare site was declared as a protected area by virtue of Presidential Proclamation No. 895 signed by then President Gloria Macapagal-Arroyo on Aug. 15, 2005.

The proclamation was pursuant to Republic Act 7586 or the National Integrated Protected Areas System Act (NIPAS) of 1992.

It was named the NNNP as a legislated protected area through RA 11038 or the Expanded NIPAS Act of 2018.

The NNNP, which has unique biophysical and geographical features and is part of the largest watershed in Negros Occidental, falls under the jurisdiction of 11 local government units.

These include the cities of Talisay, Silay, Victorias, Cadiz, Sagay and San Carlos, and the towns of E.B. Magalona, Toboso, Calatrava, Salvador Benedicto and Murcia.

In a statement, Third District Rep. Jose Francisco Benitez, who attended the event at Gawahon EcoPark, urged stakeholders to help protect the natural resources that abound

in the NNNP and ensure that the balance of nature is maintained in the protected area as among the province's greatest resources.

## RAPPLER

### **'Delikado' review: An environmental film that does not hold back**

By: John Leo Algo

What drives environmental defenders to risk their lives? This is one of the major questions answered in Karl Malakunas's *Delikado*. The closing film for this year's Cinemalaya Festival tells the intertwining narratives of environmental activists defending the forests and seas of Palawan, considered as the Philippines's "Last Frontier."

One of these stories follows local lawyer Bobby Chan and his group of para-enforcers who confiscate chainsaws from illegal loggers to prevent deforestation. The other features then-El Nido Mayor Nieves Rosento as she campaigned for reelection against an alleged corrupt opponent.

Hidden by the allure of tourism and promises of development are decades of illegal logging and fishing in the province, enabled by incompetence of the local government in enforcing environmental laws. The movie presents the numerous dangers they faced within battlegrounds ranging from slander in the political arena to violence within the forests. Malakunas's direction does not hold back on bluntly capturing the tension and precariousness that hovers over their lives. The film heavily features footages of Chan's group trekking through the forests and catching illegal loggers in the act. The use of POV shots and shaky camera angles emphasized the grittiness and chaos during their operations, a depiction of heroism that is in contrast with the glorified, romantic, and at times overproduced portrayals in other media.

What *Delikado* also features effectively is that these environmental defenders are real people living ordinary lives. They sing during their moments of rest, they joke around, and they also struggle when preparing speeches and reports. They have families to go home to and take care of. They face real consequences, losses, and hardships, just like the rest of us.

Malakunas fittingly accomplishes this by giving footage of the daily activities of Chan, Rosento, and others time to breathe as they go to church or come home to their families after a day's work. Interviews with these defenders were also conducted to present their raw emotions. Some of these scenes are even conjuncted with majestic shots of Palawan's mountains, forests, islands, and seas, as if to remind the audience of what is at stake for them. The human side

Humanizing environmental defenders is needed at a time when red-tagging them and being branded as nothing more than anti-government nuisances is becoming normalized. Politicians and their allies openly threatening activists is not just a trend in Palawan; it is arguably enabled by the brashness of national government leaders in recent years, which has led to the Philippines becoming the deadliest nation for environmental defenders worldwide, as shown in the film.

The boldness of the “enemies’ side” of this narrative may be shocking to some viewers, especially foreign audiences, but it only adds to the emotional impact of the movie. From politicians outright stating that all of them offer money to voters, to some of their allies threatening to kill defenders on live radio, it challenges viewers to openly reflect on these realities that many Filipinos know but do not want to confront out of either fear or blissful ignorance.

As a Game of Thrones character once said, “Perhaps we’ve grown so used to horror we assume there is no other way.” But the truth is there is another way. Delikado ultimately shows the viewers that when the authorities that should live up to their mandate of protecting the environment fail to do so, the people can actually stand up, demand action and accountability, and also do something about it themselves. The stories of Chan, Rosento, and their allies are representative of other Filipino environmentalists who are facing similar struggles in their respective regions, whose own narratives are waiting to be told.

Through all of the death threats, accusations of being a drug trafficker, and unfortunately the loss of lives, what drives these Palaweños to be defenders of the lands and seas?

The film presents several answers to this question. For some, it is protecting the environment as it is an inseparable part of their community, their culture, and their collective identity. For others, it is to provide a future for their children and grandchildren such that decades from now, they will still have towering forests and pristine waters to appreciate and take care of. And there is also the motivation of saving God’s creation as part of being stewards of the Earth, a moral responsibility that moves them to be people for others.

Delikado is an emotionally moving film that shows how environmental protection is not just a one-dimensional issue. It involves political corruption, human rights, intergenerational justice, and the narratives and motivations that drives ordinary people to do extraordinary actions.

The question now is, will the current government listen to what the environmental defenders are telling them? Or will it simply let the system of impunity continue to perpetuate the dangers imposed on those daring to go against the narrative it wants to control?

Even writing this review for this media platform is dangerous nowadays, you know. Yet the truth shall set us free.

## STANFORD NEWS

### **Scientists identify potential bioindicators for monitoring plastic pollution in the North Pacific Ocean**

By: Alex Boss

With an estimated 8 million metric tons of plastic waste escaping to our oceans each year, plastic pollution adversely affects the environment, climate, and even our health. Many plastic products break down in the ocean and are ingested by marine wildlife. Scientists can study these organisms as potential bioindicators to measure how much plastic exists in different ocean regions and help assess the overall health of the marine environment.

To advance these efforts, several research organizations, including the National Institute of Standards and Technology (NIST) and Stanford University, conducted a meta-analysis, in which they statistically analyzed and combined current scientific literature to identify key marine species for monitoring plastic pollution in the North Pacific Ocean. The study provides a systematic framework for collecting data from these marine species to minimize variability in results observed between different organizations. The results will help improve information important to understanding the extent of plastic pollution in the North Pacific Ocean, the effectiveness of plastic reduction measures, and possible impacts on wildlife.

The researchers published their findings in the scientific journal *Environmental Pollution*.

“The scientific community has an incredible amount of data on which marine species so far are ingesting plastic pollution. It’s imperative to synthesize this data and turn it into knowledge that can help us understand and mitigate this problem,” said Matthew Savoca, a postdoctoral scholar at Stanford University’s Hopkins Marine Station in Pacific Grove, California.

Plastic pollution is a problem that affects all of the world’s oceans. The researchers focused on the North Pacific Ocean because they are part of a working group under a multinational science organization known as the North Pacific Marine Science Organization (PICES) that coordinates research in the region. Site of the “Great Pacific Garbage Patch,” the North Pacific is an ocean region that is one of the most heavily impacted by plastic pollution, further emphasizing the importance of the study.

Conducting an extensive literature review, the researchers used statistical analysis on key information extracted from research articles on a variety of marine wildlife groups, such as invertebrates, fish, seabirds, marine mammals, and sea turtles.

The collaboration focused on marine wildlife species that are already known to ingest plastic pollution. “These animals forage in the ocean, ingest the plastic, and bring it back to us. This makes the human job of monitoring plastic pollution easier. We’re making the best use of animals that have already died from a variety of reasons and collecting the data from them,” said NIST researcher Jennifer Lynch.

Using a scoring rubric that was modified from a similar one used by a United Nations working group, the researchers evaluated 352 different marine species and identified 12 as the best potential bioindicators for the North Pacific.

These best bioindicators ranged from the Pacific oyster and long-nosed lancetfish to the green sea turtle and black-footed albatross. Within the highlighted species are a few that were not previously identified as potential bioindicators, such as the Manila clam, multiple anchovy species, and a small seabird known as Leach's storm petrel.

The criteria for species to serve as bioindicators included a variety of factors, such as their distribution throughout the ocean, both the North Pacific and globally, and whether they are consumed by humans.

"There are a handful of things that make a good bioindicator," said Savoca. "The first thing is accessibility: Is it easy to get samples of these species? Second, we are looking for species impacted by plastic. We are looking for changes in plastic pollution over time to determine if things are getting worse or better."

At the same time, Lynch said, "we recognize there is no one species that can cover everything. When sea turtles forage, they might reveal the presence of certain plastics. But bivalves, such as mussels and clams, might be better bioindicators for other plastics near the seafloor." Also, different species might be experts at detecting the presence of plastics of a particular size, whether it's visible pieces of plastic or nearly invisible microfibers. Another key part of the study was developing monitoring plans for these marine species. The authors include recommendations for the frequency of collecting samples (at minimum once per year), number of samples taken, and the best way to collect and store them. The researchers proposed new monitoring plans as well as ones already used by other organizations. For example, for monitoring sea turtles the authors recommend an existing project called Biological and Environmental Monitoring and Archival of Sea Turtle Tissues (BEMAST) which is a collaboration between NIST, the National Oceanic and Atmospheric Administration (NOAA), and the U.S. Geological Survey (USGS).

The sea turtles monitored through BEMAST were accidentally caught and killed by fishing gear throughout the Hawaiian longline fishery region. Scientists can then conduct postmortem examinations of the turtles' gastrointestinal tracts to reveal and quantify the plastics that the turtles had eaten for two to three weeks before they died. Using a variety of laboratory techniques, they can analyze these plastics to gather data on color, shape, size, mass, polymer type, and markings that indicate the sources of the plastic litter.

For each category of marine species, researchers recommend a detailed monitoring plan so that if other organizations use these methods, there would be consistency in results obtained. In addition, the monitoring plans can be useful to policymakers by serving as potential mitigation steps toward plastic pollution.

This study is part of a series of papers that each focus on different aspects of monitoring plastic pollution quantities in the North Pacific Ocean. Prepared by researchers in the PICES working group, the papers explore plastic pollution in seawater and along shorelines in addition to bioindicators.

For what's on the horizon, "the next step is to initiate new monitoring programs in addition to keeping existing ones going. We need to think about turning what we propose in the paper into reality," said Savoca.

## THE MANILA TIMES

### Awkward accountability

By: Ben Kritz

LAST month, in a discomfiting but obviously quite necessary candid admission, the environmental group Ocean Conservancy issued a "statement of accountability" concerning what was at the time a landmark report titled "Stemming the Tide," which the group published in September 2015. The report was significant to the Philippines because at the time, and for several years after the report's publication, the Philippines was identified as one of the world's biggest sources of plastic pollution in the ocean.

Ocean Conservancy has since retracted that report, and in its statement dated July 10 (which you can find at <https://oceanconservancy.org/trash-free-seas/take-deep-dive/stepping-the-tide/>) the group explained and apologized for several errors it had made.

Before I get into those details, let me offer a couple of puzzling observations. First, given the dent the original report inflicted on the Philippines' reputation, it is surprising that its retraction did not receive much media attention. This country has historically been hypersensitive to perceived slights, so it would have been understandable — and probably even justified — for the withdrawal of and apology for a rather substantial one that has persisted for a few years to have been big news. It wasn't, and I'm frankly mystified as to why not.

Second, I was rather surprised that the anti-climate action zealots among us did not immediately seize on Ocean Conservancy's mea culpa, as it would seem to be just the sort of "gotcha" moment they seem to be so desperately wishing for. Their entire campaign to sabotage any effort to minimize destruction of the planet and forestall human extinction is based on loudly and repeatedly arguing that climate activism uses selective science to drive hysterical fearmongering, and from a tree-hugger's point of view, I'd have to say Ocean Conservancy walked right into it. Or would have, if the thought processes of the anti-climate types and the right-wing media hacks they copy and paste didn't lie so close to the surface and cause them to overlook it.

The Ocean Conservancy report, the group explained in its statement, was based on an otherwise scientifically bulletproof study published in the journal *Science* in February 2015, which had inventoried the plastic waste production of all 192 countries and territories with a coast. Using that as a starting point, Ocean Conservancy worked with several outside consultants to develop its report, which focused on the East and Southeast Asia regions.

The "Stemming the Tide" report was wrong on three counts, according to the Ocean Conservancy statement. One, the report endorsed incineration and waste-to-energy technology as acceptable means to prevent plastic waste from reaching the oceans. This was wrong, the accountability statement said, because "[w]e did not consider how these

technologies support continued demand for plastic production and hamper the move to a circular economy and a zero-carbon future."

Two, the September 2015 report "failed to confront the root causes of plastic waste or incorporate the effects on the communities and NGOs working on the ground in the places most impacted by plastic pollution," which the statement implies would have changed the conclusions about who is most responsible for marine pollution. Finally, that misappropriation of blame was compounded by the report's narrow focus on East and Southeast Asia, which "failed to acknowledge the outsized role that developed countries, especially the United States, have played and continue to play in generating and exporting plastic waste to this very region." The statement of accountability is welcome only in the sense that it was the right thing to do, but it is not at all admirable because the damage the faulty report has caused to climate mitigation efforts is substantial. Worse still, these were not errors in misinterpreting or having incomplete scientific data, but errors in judgment that led to exactly what the anti-environment trolls accuse the climate change movement of doing regularly: selectively framing existing data to present a conclusion that depicts reality as being somewhat worse than it is.

I would assume Ocean Conservancy has learned its lesson, but confessing an error does not necessarily absolve one of any consequences for it. We simply cannot afford for credible environmental organizations to act so recklessly, no matter how well-meaning they may be, and if sanctions are in order to prevent it from happening again, then they should be imposed. That would be a matter for Ocean Conservancy's funding benefactors to decide; the organization took in about \$53.5 million in financial and in-kind contributions in 2021, according to its financial statements.

With all that being said, it is important not to take the Ocean Conservancy's statement of accountability the wrong way. It does not mean that the Philippines (or any other country in the region) doesn't have a serious pollution problem; the original study published in *Science* objectively shows that it does, and one that is not simply serious, but extreme. Whether the problem here can be fairly and accurately described as the worst, or one of the worst in the world is debatable. It is also completely irrelevant. There is no spectrum for human pollution of the environment in any form; there is no "acceptable" level of plastic pollution.

All Ocean Conservancy's statement really means is that causes, effects and solutions are a great deal more complex than we perhaps wish them to be, and that in order to understand and productively respond to them, we must be very thorough and objective in gathering and distilling data. Most environmental advocates who, after all, are simply trying to make sense of a visible reality all around us rather than trying to make that reality fit ideological assumptions and self-serving opinions, already understand that. But it is good to be reminded of it once in a while, even if the reminder makes us uncomfortable.

## THE PHILIPPINE DAILY INQUIRER (BUSINESS)

### **BIZ BUZZ: Not just cars, but mobility solutions**

The statistics for Toyota Motors Philippines (TMP) are impressive.

According to the company's chair, Alfred Ty, the firm delivered its two millionth Toyota vehicle in March of this year, just as it celebrated its 34th year in the country earlier this month.

More importantly, they expect to deliver the one millionth vehicle from their world-class Toyota Santa Rosa plant by the end of 2022, to make the Philippines the tenth largest market for the Japanese global automaker.

Employing over 63,000 employees throughout the group, the company has also contributed an estimated \$17.1 billion in terms of auto component exports to the global Toyota network since 1997.

In return, Toyota's inward investments to the country have reached P73 billion while TMP's total contributions to the government in terms of taxes have reached P426 billion over this same period.

But what does a company do when it is already the largest automotive company in the Philippines with a dominant share of the local market? How does one grow further when one is already the undisputed leader?

For TMP, the answer is simple: change the game. Last week, TMP launched Toyota Mobility Solutions Philippines Inc., a wholly owned subsidiary that will be a provider of mobility-related services.

Beyond just selling cars, Toyota Mobility Solutions will develop and offer a range of new solutions that will enhance the brand "that creates value for society through a service business model."

According to TMP president Atsuhiko Okamoto, this new venture will "better shape the industry's role in building our modern societies and enriching human lives."

This translates to a suite of technology and data-driven lifestyle and business solutions that will provide fleet-connected services, on-demand shuttle booking app, car sharing or rentals, a logistics matching service, and fleet management service.

Additionally, this will complement Toyota Financial Services Philippines Corp. in promoting and managing units under its full operating lease product called KINTO, similar to vehicle lease programs in the United States.

More importantly, the company is also doubling down on its investments in hybrid and electric vehicles, as more and more people become conscious about tempering the effects of climate change by reducing their carbon footprints.

All told, it's a whole new ballgame for Toyota and the Ty family empire. Watch this space, folks.

—Daxim L. Lucas

SM . . . hall of famer

One of the country's biggest conglomerates gets another feather in its huge cap.

We are referring to the Sy family's SM Investments Corp., which was recently recognized as a "Hall of Famer" in the corporate governance category of the Asia Responsible Enterprise Awards.

The awards are regarded as the gold standard for corporate social responsibility. These have been handed out to leaders in business across a host of categories for 11 years.

A total of 260 submissions across 19 countries were vetted this year based on effectiveness and reach, relevance and sustainability.

SM was cited for "demonstrating transparency and completeness of disclosure and reporting of governance practices in their annual report."

It was likewise recognized for "safeguarding integrity in financial reporting, promoting ethical decision making through a structured board of committee, respecting the rights of shareholders and remunerating fairly and responsibly."

In a statement, SM Investments president and CEO Frederic DyBuncio said they were happy for the recognition.

“As SM is a company that touches different industries in the country, we ensure our publicly listed business units produce a transparent report through our Integrated Reports that tell the story of our sustainability across the group’s wide ecosystem of businesses,” he said.

—Miguel R. Camus

David vs two Goliaths

Is the telecommunications industry witnessing a fight between David and two Goliaths?

DITO Telecommunity recently filed an anticompetitive case against its rivals Globe Telecom and Smart Communications to reveal and resolve the complaints of their subscribers. The third telco firm said their users were having a hard time calling the subscribers of the two major players due to lack of interconnection capacity.

But the industry giants did not cave in. Instead, they called on DITO to address first the fraudulent calls going through its network. The telco firms detected international calls that are masked as local calls, resulting in forgone revenues.

Globe has even asked the National Telecommunications Commission to compel DITO to pay P622 million as penalty for said calls. It warned that the penalty increases by about P2.5 million daily given the number of fraudulent calls being detected.

Smart also said it would not grant the third telco player’s request for capacity augmentation as long as the “fraudulent calls continue to proliferate.”

This week, the Philippine Competition Commission is set to decide on the case DITO lodged against Globe and Smart. Will this lead to further investigations? Let’s see!

—Tyrone Jasper C. Piad INQ

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## CCC IN THE NEWS:

### SUNSTAR

#### **Bondoc: Climate change hitting Pampanga towns**

By: Princess Clea Arcellaz

Masantol Fourth district Representative Anna York Bondoc has raised concern over the effects of climate change in the province.

In her meeting with the Climate Change Commission (CCA) led by Executive Director Robert E.A Borje, Bondoc discussed the situation in some towns in the province's fourth district which could be caused by climate change. These include the perennial flooding in the coastal towns of Macabebe and Masantol.

It was noted in the meeting that water from the Pampanga River can hardly drain down due to the rising level of the Manila Bay.

This causes floodwater to stagnate for months in some areas of Masantol and adjacent Macabebe town. In May 2022, the CCA and local government of Masantol has initiated a climate adaptation study in the said town.

The study is focused on the cause and effect of flooding in the area.

Formulation of science-based solutions to the problem is also included.

Aside from Macabebe and Masantol, Bondoc also raised concern over the flooding being experienced in portions of the McArthur Highway.

She said flooding in major thoroughfares should be considered a national security concern as it may affect the flow of goods and services to Metro Manila.

"Ang McArthur Highway at NLEX (North Luzon Expressway) ay naapektuhan na ng climate change at ito ay isang national security concern at dapat ipaalam sa Office of Civil Defense. 'Pag baha ang McArthur at sarado NLEX, maapektuhan ang daloy ng goods and services sa Metro Manila,'" she said.

The solon assured his constituents continuous coordination with the CCA to craft an adaptation and mitigation plan on flooding in the fourth district of Pampanga.

**=END=**