



BUILDING ON THE GAINS: IMPROVING AIR QUALITY, ENSURING SUSTAINABILITY OF WATER RESOURCES AND PROPER MANAGEMENT OF SOLID WASTES



(Background) The Polo River in Valenzuela City;
(From top to bottom) Sec. Cimatu visits the air monitoring station with
Valenzuela City 1st District Representative, Wes Gatchalian(left);
Valenzuela's Material Recovery Facility

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Secretary Roy Cimatu believes in continuity in governance. The DENR's mission has not changed over decades, and he deemed that whatever significant efforts and gains made in the past to fulfil it are valuable and must be sustained.

Though he won't be "reinventing the wheel," the Secretary yet emphasized that he would "endeavour to make the systems work better, more efficient and with greater effectiveness."

He instructed DENR officials to start on life and nature's most important aspects: air, water, and healthy environment. His priority programs include programs on improving air quality, sustainable water and wastewater management, and proper solid waste management.

He would treat such priorities as matters of national security to help the nation achieve its goals of ensuring local food and water supply, clean and healthy environment, and sustained economic growth. ▶ to page 2

► BUILDING ON THE GAINS...from page 1

Improving air quality

A study by DENR Environmental Management Bureau (EMB) shows that 88 percent of the total air pollutants in Metro Manila come from motor vehicle. Air pollution, during peak hours, reaches about 250 micrograms per normal cubic meters in some areas of Metro Manila. This definitely is harmful to human health because it is more than double the allowable level of 90 micrograms per ncm set by the World Health Organization.

Secretary Roy Cimatu vowed to look personally into the alleged corruption in motor vehicle emission testing procedures, which was said to have contributed greatly to air pollution in Metro Manila. Meanwhile, the environment chief assured the public that EMB would continue to monitor and measure the Philippine Air Quality Index in designated areas in Metro Manila and other locations in the country.

Secretary Cimatu's priority programs include programs on improving air quality, sustainable water and wastewater management, and proper solid waste management.

The goal of air quality monitoring is to raise public awareness on the quality of air that people breathe in their own locality. The local government, responsible for maintaining clean air in cities and municipalities, would therefore be compelled to strictly enforce the laws and ordinances to prevent air pollution.

In relation to this, EMB has launched its Air Quality Monitoring Application, a mobile phone application, where users can download

it from the EMB website and access the results of EMB air quality monitoring program.

Recently, the Secretary has also encouraged the automobile industry to produce and commercialize electric and hybrid cars. Vehicles using such technology do not damage the environment. Carbon emissions from electric and hybrid cars are significantly less than those conventional vehicles that use fossil fuel.

Sec. Cimatu is also looking on the veracity of complaints filed against DENR relating to coal mining air pollution. He has formed a think tank group that would study the effects of coal mining operations to the health of people in particular areas.

Cleaning water resources

Secretary Roy Cimatu has his hands full in promoting partnership and implementing programs for sustainable water and wastewater management.

The Secretary has encouraged the National Water Resources Board (NWRB) to be efficient in its task of conducting water resource assessments in water constraint areas and major river basins in order to come up with more informed and science-based policies and plans for systematic water resource allocation and development for various purposes.

In separate meetings, the Secretary sat down with officials of Manila Bay Coordinating Office, Laguna Lake Development Authority (LLDA), NWRB, Metropolitan Waterworks and Sewerage System, and water concessionaires Maynilad and Manila Water, to assess the current status and related problems of the country's main water bodies.

For the rehabilitation of Manila Bay, Laguna Lake, and Pasig River, the Secretary has assigned OIC Undersecretary (Usec) for Legal, Legislative Affairs and Anti-Corruption Maria Paz G. Luna, to take charge in formulating an executive order that would fast track programs and projects, and mobilize all sectors concerned for the rehabilitation of Manila Bay, Laguna de Bay, and Pasig River. He also tasked LLDA General Manager Joey Medina to take the lead in crafting a joint six-month short term plan to address compelling issues and immediate concerns regarding the three major water bodies.

On the other hand, EMB continues with its programs such as designation of Water Quality Management Areas, Adopt-



Sec. Cimatu, with EMB-NCR Regional Director Vizmindia Osorio (extreme left) inspects San Miguel Brewery-Wastewater Treatment Facility in Valenzuela City.

an-Estero/Waterbody Program, and Ambient Water Quality Monitoring Program.

Proper management of solid wastes

Secretary Cimatu is quite alarmed by problems on solid waste management. Concerned over the 4,000 dump trucks of garbage generated everyday in the nation's capital region and the more than 500 remaining open dump sites nationwide, he ordered USec for Solid Waste Management, Local Government, and Indigenous People's Concerns Noel K. Felongco, to strictly enforce and implement the Ecological Solid Waste Management Act of 2000.

Uncollected garbage in the metropolis do not only clog drainages and esteros, causing severe and prolonged floods; they also pollute and degrade the water and river systems of the cities, said USec Felongco.

On the other hand, open dumpsites pose serious public health threats. Toxic chemicals such as dioxins and furans that go out from dumpsites could have adverse environment and health effects. They contaminate land and ground water resources as well as poison the air nearby residents breathe.

Programs on waste segregation must and will be prioritized,

said USec Felongco. "It's high time for the Ecological Solid Waste Management Commission to go back to the barangays. Barangays are the primary parties to enforce segregation because it is where segregation at source takes place," he added.

Other measures, such as establishing operational Materials Recovery Facilities in every barangay, fast tracking the submission and approval of the local government units' (LGUs) 10-year Ecological Solid Waste Management Action Plans, and encouraging LGUs to implement their anti-littering ordinances are also being pursued.

Secretary Cimatu wants all open dump sites nationwide closed and rehabilitated within his term. He conveyed the use of waste-to-energy (WTE) technology in the management and rehabilitation of dumpsites and landfills. WTE generates energy in the form of electricity or heat through the primary treatment of waste.

The National Solid Waste Management Commission issued a resolution on June 9, 2016, allowing WTE technology in the management of existing sanitary landfills, while the DENR is drafting a Department Administrative Order to adopt the WTE as the sanitary landfill's waste disposal measure. (*Alvin D. Gatbonton*)

A MODEL CITY: VALENZUELA'S IMPRESSIVE ENVIRONMENTAL PERFORMANCE

Secretary Roy A. Cimatu expressed appreciation to Valenzuela City's impressive environmental performance when he visited the City last July 13, 2017 to check how it is implementing its environmental policies. In his message before Valenzuela City Government officials and employees, he lauds how the City prioritizes environmental concerns as it pursues economic development.

"Valenzuela is a model city! I must say this to all of you. I see orderliness, and orderliness is an indicator of good governance," said the Secretary. Considering Valenzuela's growing population of 620,000, the City has managed to keep its environment clean, safe, and healthy – being able to implement sustainably its environmental programs and projects.

The Secretary told why he picked to visit Valenzuela City and how he assessed its air quality. "Sinadya ko talagang pinili ang Valenzuela because of its numerous factories ... I said to myself, if an area nests about 1,500 manufacturing companies, and there's little pollution na napupunta sa taas, tapos 'yong air around you ay medyo malinis, it means this must be the model city."

The Environment Secretary got his confirmation when the DENR technical staff measured the air quality around Valenzuela's industrial zone through the DENR's Air Quality Monitoring Equipment. The equipment registered a positive mark, exhibiting Valenzuela's remarkable effort to maintain


clean air in the City.

Secretary Cimatu also visited San Miguel Polo Brewery Plant, one of the major manufacturing plants near Tullahan River, and was pleased to see the plant's efficient wastewater treatment and monitoring systems. "I was very happy na makita ko 'yong treatment plant ninyo especially sa mga factory diyana... so that should make the river better," he exclaimed.

Barangay Balangkas was also given credit for its strict implementation of the City's waste segregation program and efficient operation of material recovery facilities (MRFs). Balangkas is one only of the 33 barangays in Valenzuela compelled by the Valenzuela City Government to strictly enforce Ecological Solid Waste Management Act of 2000.

The environment chief felt satisfied with his environmental assessment of Valenzuela and told the people that they are blessed to have a leader like Mayor Rex Gatchalian who truly understands the great value of maintaining clean, safe, and healthy environment.

He calls on every city in Metro Manila to emulate what Valenzuela has done to protect and manage the environment. He encourages LGUs to make the most of its citizen's contribution, partnering with the private and business sector because in the end, it's their people and their investors who would benefit most from such efforts. (*Jomar San Antonio*)



R AND D CONGRESS ON
 SUSTAINABLE URBANIZATION
 IN THE COURSE OF
 ASEAN ECONOMIC INTEGRATION
 JUNE 2017, SOFITEL CITY, PHILIPPINES

PRRD: BALANCING ENVIRONMENTAL PROTECTION AND ECONOMIC DEVELOPMENT (PART I)

DENR key officials with ASEAN research and development experts (top row) during the Congress on Sustainable Urbanization—ASEAN Economic Integration in Sofitel Manila.

The “Program for Environment and Natural Resources for Restoration, Rehabilitation, and Development” or PRRD will not only address environmental degradation but will also attend to the issues and challenges on environmental protection vis-à-vis economic development

The Department of Environment and Natural Resources will embark on a five (5) – year action program dubbed as “**Program for Environment and Natural Resources for Restoration, Rehabilitation, and Development**” or PRRD to address environmental degradation.

Anchored on good and effective governance, inclusive growth and social justice, the five-year program is meant to protect the country’s natural resources from naturally-occurring and human-induced degradation. The program is also envisioned to address issues and challenges on environmental protection vis-à-vis economic development.

DENR Undersecretary Jonas Leones said the program is based on the new DENR chief’s strategic approaches called SRAC or Sustainable, Research-based, Adaptive and Collaborative, and will focus on President Duterte’s five priority programs. These are (1) social justice in land titling, (2) good and effective governance in environmental protection, (3) restoration of forest and protected areas, (4) adaptation to climate change and sustainable use of natural resources, and (5) conservation of

coastal and marine resources.

According to Undersecretary Leones, the SRAC strategies are meant to improve or strengthen the implementation of DENR programs and projects nationwide. At the same time, the strategies will ensure that the expected outcomes are achieved.

He explained that strategies were culled from current program implementation strategies and put into proper perspective to address the gaps in the program implementation. “The Secretary recognized the need for new and concrete strategies to strengthen program implementation and address gaps on implementation to ensure that more people in the upland and coastal areas would benefit from them, thereby achieving inclusive growth.”

The SRAC principles will be applied in all DENR programs and projects nationwide and will also serve as basis for funding for new programs. “S” stands for *Sustainability*, which means that the interventions involve methods that do not deplete or destroy the environment and natural resources; and at the same time, would ensure that investments provide continuous benefits to the people at a certain level and at a certain rate. The program is also *Research-based*, meaning the actions or interventions are science and evidence-based and supported by exhaustive research. It is also *Adaptive* in the sense that we shall provide stakeholders with the necessary support and mechanisms to cope or adapt to the current environmental conditions in the area. Finally, it is *Collaborative* which entails engaging all stakeholders (i.e. civil societies, academe, communities, and other agencies of government) in the planning and implementation of department programs, projects, and activities.

Moreover, SRAC is consistent with the constitutional mandate on social justice where the people, regardless of status in life, could enjoy equitably the benefits derived from a clean environment and natural resources. “SRAC actually put into proper perspectives all program and project implementation nationwide to attain the maximum benefits,” Leones said.

The SRAC program is guided by ‘ENVIRONMENT IS IN THE HEART (ANG KALIKASAN AY NASA PUSO)’, which means that the government is calling for a pro-active campaign to ensure that environmentalism becomes part of the Filipino values and way of life with the end goal of ensuring that the community is motivated where they will be able to proclaim the tag line, ‘WE ARE THE ENVIRONMENT’.

The DENR will identify and promote regional models of development in the environment and natural resources sector to highlight success stories and best practices that will motivate communities and their leaders to give priority to environment-led sustainable development.

The department will also mobilize civil societies, concerned sectors, and communities from planning down to the implementation of environmental policies and programs to help the administration push for genuine reforms. Corollary to this, the government will also encourage investments from the private sector to help protect the forest areas while leasing to them lands to develop.

Moreover, it will strictly enforce all environmental laws and implement all natural resources programs to achieve environmental integrity as well as economic development in the upland and the countryside.

At the end of the five-year program, the Department envisions the following: the quality of the environment meets global standards for clean air, clean water, and solid waste management; communities are resilient to climate change hazards through the NGP and the implementation of new adaptive technologies; mined out areas are rehabilitated, safe mining operations are strictly observed, and host communities benefit from the mining operations; all legal occupants are provided with appropriate tenure instruments and all residential lots are issued free patents; and, at least 10% increase in forest cover while providing livelihood opportunities and tenurial instruments to host communities. (Adona P. San Diego)

FINE TUNING NGP FOR SUSTAINABLE DEVELOPMENT

The Department of Environment and Natural Resources took a big leap in its greening efforts when it introduced Executive Order 26 or the National Greening Program (NGP) on February 24, 2011. NGP aims to plant 1.5 billion trees on 1.5 million hectares of suitable lands in different regions of the country. Despite the encountered issues and problems, NGP is still considered a victory. In a span of six years it has reached almost 90% of its target, making it the most massive reforestation effort of the DENR in the country's history.

However, NGP is more than just tree planting; it is also instrumental to the country's pursuit for sustainable development. It is designed to help achieve poverty reduction, food security, biodiversity conservation, and climate change mitigation and adaptation. Hence, to sustain this important initiative, Executive Order 193 or Enhancing the NGP was signed on February 15, 2017.

Enhanced National Greening Program (ENGP) is a revitalized version of the NGP. It aims to expand the coverage and extend the implementation period of the NGP, consistent with the Philippine Master Plan for Forestry Development. It is considered as one of the key instruments in attaining our Nationally Determined Contribution under the Paris Agreement on Climate Change.

The ENGP has new features which can help the DENR deliver successful results in its greening efforts. Some of these are the following:

Choosing the right managers to work with

"If you choose the wrong People's Organizations (PO), there is a big chance of failure," said then DENR Undersecretary for Field Operations Marlo Mendoza in an interview. POs play a critical role in the NGP. They are the ones who actually implement, monitor and benefit in the program. In the ENGP, more defined and stricter qualifications are imposed. POs who would like to be part of the program will be scrutinized and will undergo a rigid screening. Some of the major changes in the qualifications are:

- POs must be residents of the site where the ENGP will be implemented. The DENR will only work in partnership with people who are actually living in forestlands identified as ENGP sites. It wants a more responsible handling of the reforestation. Stakeholders living in the area will be more naturally inclined and determined to protect and develop it, since it is innate in them to care for their own land. They will responsibly plant, monitor, and harvest the plants and crops for their benefit.
- POs must have a good track record in implementing programs. To be effective managers of the ENGP areas, they must be fit for the job in terms of technical skills and administrative skills.

Adopting a more systematic and scientific reforestation

Prior to any implementation of activity on the ground, the DENR Field Offices, together with their partners and stakeholders, shall conduct Survey, Mapping and Planning (SMP) to identify the remaining unproductive, degraded, and denuded forestlands.

The ENGP adopts soil and water conservation measures as part of climate change adaptation and mitigation. In this way, problems on soil erosion and surface run-off will be addressed.

The DENR is advocating scientific farming to address the seedlings survival rate difficulty. In this type of farming, quality of land, area location, plant species, and climate are all being considered prior to planting.

Further, in the ENGP, not only forest tree species will be planted, but also different species of cash crops and fruit-bearing trees. USec Mendoza explained, "We are now allowing agroforestry for faster return on investment." The DENR also commits to provide sufficient farming materials and training to POs for a more productive performance in the field.

Welcoming private partners and investors

The DENR is continuously finding ways to be more efficient in delivering its mandate and one of these is through private partnership. With ENGP, private investors are welcome as partners in this endeavor. USec Mendoza explained that during the implementation of the NGP, the DENR was solely dependent on government budget. "We had problems in implementation due to limited budget to sustain the program," he said.

In accordance with the set guidelines, qualified private companies will be provided with tenured lands where they can plant, harvest, and earn. Through this partnership, the DENR can successfully pursue its greening program without solely depending on the budget allocated by the government. Moreover, these companies will remain obliged to pay the corresponding taxes and fees as prescribed by law.

Mendoza further explained that the DENR is now creating the right investment climate and shall ensure that there will be stability in its policies to attract more private companies to join and invest in the program. Through this partnership, there is an expected increase in job creation; thus, providing livelihood to the people in the area.

Capacitating the frontliners

One of the major problems encountered during the implementation of the NGP was the lack of technical skills of the Community Environment and Natural Resources Officers (CENROs) and other field operations staff, who are the frontliners of the DENR.

"As Secretary Roy A. Cimatu directed, we have to strengthen our frontline services because all contracts and activities start with the CENRO," USec Mendoza said. "We will likewise add more technical staff on the ground and we will provide additional logistical support," he added.

Through training and capacity building activities, CENROs and field operations staff will be capacitated to increase their efficiency in their work. USec Mendoza is also positive that this strategy will lessen the staff's vulnerability to any form of corruption.

Collaborative partnership

"Gone are the days when reforestation programs are solely the task of the DENR," USec Mendoza said. He added that the ENGP adopts the sustainable integrated area development (SIAD) strategy which requires collaborative work with all the stakeholders.

In the ENGP, local government units (LGUs) and other national government agencies are now fully involved in the program. They shall assess, implement, monitor and evaluate the activities within their sites. They are consulted on the initiatives undertaken in the program and are requested to provide whatever assistance they can offer.

Application of rigid monitoring and evaluation process

A composite team from the DENR, Civil Society Organizations, and LGUs are tasked to review and assess the implementation of ENGP. This shall be done on a quarterly and annually basis. However, to promote transparency and efficiency, a third party composed of people from the universities and state colleges as well as technical experts will be requested to conduct a mandatory review and assessment of the program's implementation every five (5) years.

Usec Mendoza discussed that guidelines are provided to ensure a stable implementation standard of the program. "Third party or a disinterested party is consulted because objectivity in evaluating a program is important," he said.

Up for sustainable development

The ENGP is one of the banner programs of the DENR: it is vast, overwhelming and critical. Through ENGP, trees are planted to make our country resilient to climate change. Also, crops are planted to help our local communities create and maintain dignified lives. We are not just planting to create a better planet to live in, but also to create a safer and sustainable environment for every community.

"ENGP is very much into job and livelihood creation which is not harmful to the environment and promotes sustainable development," USec Mendoza said.

There is so much to be done in the ENGP, but the DENR is positive that this program will serve as one of the solutions to many problems our country is facing now: climate change, poverty, and food scarcity. (Martina A. Reyes)

Enhanced National Greening Program is a revitalized version of the National Greening Program (NGP), which aims to expand the coverage and extend the implementation period of the NGP, consistent with the Philippine Master Plan for Forestry Development.



In the continuing celebration of DENR's 30th Anniversary, employees of who have been in the agency for three to four decades and more were recognized and awarded for their long exemplary public service. They are the employees who have been working since day 1 of DENR and even since the agency was still known as the Department of Agriculture and Natural Resources (DANR) in 1972.

Topping the list of 158 employees who received plaques of recognition and cash incentives is Leonardo S. Fernandez, the personnel with the longest rendered service of 45 years. Officials include Assistant Secretary for Policy and Planning Service Corazon C. Davis, OIC Director Ma. Sabrina Cruz of the Strategic Communication and Initiatives Service (SCIS), OIC Director Edwin G. Domingo of the Foreign Assisted and Special Projects Office (FASPO), and Assistant Secretary Marcial C. Amaro Jr., Assistant Secretary for Field Operations, Visayas, to

name a few.

In his inspirational message, Secretary Roy Cimatu commended the employees for their loyalty, integrity, and great contributions to the growth of the Department. He said, "our Department could not have reached 30 years in good shape were it not for you people who diligently and patiently work to provide our agency a bedrock of stability and continuity, as well as wisdom of experience."

The Long Service Awards, headed by Director Rolando R. Castro of DENR Human Resource Services, was held at NAMRIA office in Taguig on June 30, 2017, in joint celebration with NAMRIA's 30th Anniversary. After the ceremony, the awardees were treated with a sumptuous meal at Max's Restaurant as they watch a video presentation produced for them by the SCIS DCD production staff. (Alvin D. Gatbonton)

DENR ROLLS OUT ITS FIRST-EVER ONE CONTROL MAP

In pursuit of efficiency and transparency, the Department of Environment and Natural Resources (DENR) developed its first-ever unified map of the country's environment and natural resources. The One Control Map (OCM) is an integrated version of all the maps produced and being used by all the offices in the DENR. In this control map, all land parcels that were subjected to surveys and were submitted for approval or application of tenurial instruments are plotted to detect their relative position vis-à-vis the adjoining properties.

This project aims to prescribe the use of standard base map using ortho rectified radar image and digital elevation model from the National Mapping and Resource Information Authority (NAMRIA).

In the previous years, the DENR encountered various issues pertaining to land management. Some of these are overlapping land surveys, as well as claims and issuance of patents to areas that are not suitable for titling. These caused conflict and inconvenience to both the agency and its stakeholders.

"Through the continuous assessment and troubleshooting of the DENR, it was found out that one of the root causes of these problems is that we use a variety of maps in the DENR," then Undersecretary for Field Operations, Marlo Mendoza, said in an interview.

These offices use multiple maps that contain only the information they need for their particular operations in their respective bureaus, regional and field offices. However, the problem arises when the map of one overlaps with the other.

Following are the list of the information provided on the current maps of each office:

Land Management Bureau (LMB)	Political Boundary Maps
Forest Management Bureau (FMB)	<ul style="list-style-type: none"> • Land Classification Maps • Watershed (critical and proclaimed) Maps • Tenured Areas • National Greening Program Sites
Environmental Management Bureau (EMB)	<ul style="list-style-type: none"> • Air Quality Monitoring Stations • Water Quality Monitoring Stations • Water Quality Management Area Map
Mines and Geosciences Bureau (MGB)	<ul style="list-style-type: none"> • Flood and Landslide Susceptibility Maps • Mining Tenement Map • Mineral Reservation Map • Groundwater Availability Map • Geology of the Philippines • Mineral Distribution Map • Mineral Potential Map
Biodiversity Management Bureau (BMB)	<ul style="list-style-type: none"> • Protected Areas • Key Biodiversity Areas • Critical Habitat • Classified Caves • Wetlands of Luzon
River Basin Control Office (RBCO)	Map of the 18 Major River Basins
Laguna Lake Development Authority (LLDA)	<ul style="list-style-type: none"> • Laguna de Bay Basin and Sub-basin Boundaries • River Networks of Laguna de Bay Basin • Flood Hazard Maps of Laguna de Bay Basin • Shore land Areas of Laguna de Bay Basin • Stream flow • Water Quality Monitoring Stations of Laguna de Bay Basin

Mapping out OCM

On July 10, 2017 through the Special Order No. 2017-526, a technical working committee was created to develop and implement the OCM. It is a composite team of technical experts and support from the DENR, NAMRIA, bureaus, LLDA, RBCO, and other concerned offices, spearheaded by Assistant Secretary for Financial Management and Information Systems Bresilda Gervacio.

The technical working committee of OCM is in charge of its monitoring and updating. They also formulated guidelines and procedures on the use of the OCM. The committee will provide trainings and workshop on the proper use and handling of this program to all the offices and individuals concerned.

While the DENR Central Office collates all the available maps, the NAMRIA is the overall in-charge of integrating all of these. Currently, there are almost 12,700 maps that are being used in the DENR especially in the regions.

Features of OCM

The OCM is a digital map that uses ArcGIS software in which all the concerned offices can access even without an internet connection. This will be installed in all the operational offices of the DENR for more efficient transaction with clients.

Since this is an integration of all the maps, OCM will feature all the information needed for all the DENR offices in just one map. Some of its features are land cover, forestland, municipal water boundary, land classification, coastal resources, watershed forests reserves, protected area, and mining tenements.



MR. GERSON B. TAOINGAN
K4 President



PARTNER'S COLUMN:

K4 AS DENR'S PARTNER IN FULFILLING ITS MANDATE

The Kalipunan ng mga Kawani sa Kagawaran ng Kalikasan (K4) a certified Sole and Exclusive Negotiating Agent (SENA) by the CSC was established in 2010 with the primordial objective to uphold the rights and welfare of the employees of DENR. It is with much gratitude and honor that we recognize the role of the very first set of elected officials of K4 who, on top of their duties and responsibilities, dedicated their time, energy, and resources to make sure the employees are properly compensated and their rights are protected.

We, the officers of the present administration of K4, take on the way our predecessors led and represented our workers, and value their sacrifices which have laid down the cornerstone of labor union in DENR.

The K4 stands firm and strong as the voice of the employees of the Department, but we do not forget that we also serve as the management's partner in empowering our employees to fulfill our mandates in protecting and conserving the environment and our natural resources. Over the years, the K4 remains supportive of the advocacies of the past secretaries, and we can assure that the administration of Secretary Roy A. Cimatu will also obtain the staunch support of K4 in implementing its priority concerns, such as cleaning our air, cleaning our water, and improving our solid waste management system.

K4 commits to continue its tree planting activities and targets to surpass the number of trees planted during the previous administrations. To free our bodies of water from garbage, K4 is also planning to hold a coastal clean-up in time for its national meeting and convention in Bohol in September 2017. To increase awareness on solid waste management, K4 intends to spearhead garbage segregation workshops among its new members and newly appointed employees.

We understand the tight schedule of the Secretary, K4 would like to invite him in a dialogue to one of these days so we can further discuss how we can strengthen our partnership in serving our people and our nation.

The K4, which represents more than 18,000 employees of DENR across the nation, heeds the call of Secretary Cimatu to put all hands on deck, and reassures the present administration that we are all geared up to work together and get the job done.

It will serve as a base map that shows fundamental information as a projection map that detects the relative positions of land surveys conducted as land information map that shows all land parcels covered by Cadastral and Isolated Surveys, and as planimetric map that reflects the correct horizontal position of natural and man-made features.

In the OCM, ortho rectified radar and satellite image, digital elevation model (digital surface model and digital terrain model), and map index are available for a more realistic view of every region. It will be set up in a prescribed scale of:

- Community Environment & Natural Resources Office- 1:10000
- Provincial Environment & Natural Resources Office - 1:10000 and 1:50000
- Regional Offices, Bureaus and Central Office - 1:50000 and 1:250000

The future in OCM

Usec Mendoza said that the DENR is very optimistic that this undertaking will address the current land management problems across the regions. "Wala ng reason para magkagulu-gulo kasi we now use one official classification map. We are expecting to minimize rin yung kalokohan sa land classification," he said.

Meanwhile, Geodetic Survey Division Chief of the LMB, Bienvenido Cruz, is pleased with this development and regards that OCM is also a way to a more transparent and excellent public service. "With One Control Map that can manage large volumes of land data, including socio-economic and environmental data, and that is digitally accessible to stakeholders and managed at a different level and at different locations, we will be able to prevent illegal and unauthorized alteration of data."

"Public knowledge of data will make the would-be perpetrator be hesitant to manipulate data. Security systems and different levels of authorization may be put in place," he added. ► to page 6

SUSTAINABLE WATER AND WASTEWATER MANAGEMENT: DENR PRIORITY

Cleaning Manila Bay, Laguna de Bay, and Pasig River as indicators

by: Alvin D. Gatabonton



DENR promotes the use of more trash boats/patrol boats to improve the agency's clean-up and river patrolling activities.

The Philippines is endowed with abundant annual rainfalls that fill the country's 421 principal rivers, 79 lakes, and extensive groundwater reservoirs. These surface waters and groundwater aquifers provide the country with a total of 146 billion cubic meters of water at any given time. However, only less than one-third of this water can be consumed because of pollution, inadequate infrastructure, and improper management.

Secretary Cimatu sensed the exigency of this problem in reference to the current global water crisis that is why he chose to prioritize sustainable water and wastewater management programs above others. He wants the country's major water resources cleaned, rehabilitated, and preserved to ensure the availability of water in the future.

Cleaning and rehabilitating Manila Bay, Pasig River, and Laguna de Bay would play a significant role in DENR's sustainable water programs. The environment chief pointed out that the successful cleanup of Pasig River and its tributaries would be his indicator - his typical way of saying that if he can clean Pasig River, he can clean any river in the country.

"Maraming nagsasabi na maraming nang gumawa niyan pero walang nangyari, but I will still do it, kahit na medyo mahirap sa umpisa pero kakayanin natin. Kung malinis natin ang Pasig River at ang mga esteros, successful tayo; at kung hindi natin malinis, ay talagang kayod pa," said the Secretary.

Cleaning Pasig River, Laguna de Bay, and Manila Bay

Secretary Roy Cimatu had two meetings with the officials of Pasig River Rehabilitation Commission (PRRC), Laguna Lake Development Authority (LLDA) and Manila Bay Coordinating Office (MBCO) to discuss how Republic Act No. 9275 or the Philippine Clean Water Act would be strictly enforced and how the agencies can fast track the implementation of their programs.

MBCO Executive Director Donna Mayor Gordove explained to the Secretary that Manila Bay, Pasig River, and Laguna de Bay are interconnected, and they all have problems on solid and liquid wastes. "One cannot really clean Manila Bay without cleaning Pasig River and Laguna Lake," she stressed.

The Secretary instructed OIC Undersecretary for Legal, Legislative Affairs and Anti-Corruption Maria Paz G. Luna to draft an executive order that would fast track programs and projects of Pasig River, Laguna de Bay, and Manila Bay

and mobilize all sectors concerned for their cleanup and rehabilitation.

The environment chief, likewise, required the three agencies to craft a joint 6-month plan to address immediate and compelling issues concerning the three major water bodies.

General Manager Jaime Medina was tasked to take the lead in crafting the integrated short-term action plan, which was then presented to the Secretary last June 2017.

For the goal of attaining Class SB level water quality for Manila Bay, MBCO has committed to fast track the following strategies:

- Inspection of companies' wastewater generation - to check their compliance with effluent and/or ambient water quality standards;
- Coordination with LGUs in its enforcement of ecological solid waste management law and the relocation of informal settlers within the Manila Bay area;
- Partnership with the private sector, particularly in the "Adopt an Estero/ Water Body" program in cleaning major and minor tributaries of the Bay;
- Collaboration with 13 other government agencies for the implementation of Updated 2017 to 2022 Operational Plan for Manila Bay Coastal Strategy (OPMBCS), in compliance with Supreme Court's continuing *mandamus* to clean and rehabilitate Manila Bay.

For the goal of attaining Class C level water quality for the whole Pasig River System, PRRC has committed to fast track the following rehabilitation strategies:

- Recovery of 3 to 10 meter easement on identified waterways from both privately-owned structures and informal settlements;
- Development of the recovered easements into environmental preservation areas (EPAs) in the form of linear parks, greenbelts, and walkways;
- Resettlement of remaining informal settler families (ISFs);
- Clean-up operations and water quality monitoring through Pasig River Unified Monitoring Stations (PRUMS);
- Use of more trash boats and patrol boats to improve the agency's cleanup activities and river patrolling within the Pasig River System;

Secretary Roy Cimatu wants the country's major water resources cleaned and rehabilitated to ensure the availability of water in the future.



An egret lands on a water hyacinth at Laguna de Bay



Colorful bancas along Pasig River

- Enforcement of PRRC Task Force Water Hyacinth in conducting massive cleanup and removal of accumulated water hyacinth in the main Pasig River.

For the cleanup and rehabilitation of Laguna de Bay, LLDA has committed to address five (5) compelling issues:

1. Reduction of water pollution
 - survey and monitoring of establishments' wastewater, enforcement of legal action, inclusion of additional parameter/s in the Environmental User Fee System, monitoring of LGUs for the "Ordinance Establishing a Sewerage and Septage Management System", preparation of project proposal for setting up STPs outside of the concession area, and organization of Sub-WQMAs in Laguna de Bay Region 2;
2. Solid Waste Management
 - undertake capacity building of LGUs on Solid Waste Management, conduct physical clean up of 2 rivers and selected shoreland areas in the Laguna de Bay Region, clear water hyacinth in Pasig River and major tributary rivers of Laguna de Bay and lakeshore areas, conduct Waste Analysis Characterization Study (WACS);
3. Recovery of easement areas
 - carry out an inventory of obstructing structures within the 200 meters distance from the shore, remove obstructing structures, profile shoreland occupants, engage partnership with PRA on shoreland regulation, create a Technical Working Group (TWG) per directive of the Cabinet Cluster on Climate Change Adaptation and Mitigation (CCAM);
4. Minimization of sediment loading
 - proposes to undertake maintenance dredging of river mouths in coordination with DPWH and formulate reforestation plan for guidance of partner
5. Dismantling of fish pens
 - continue to clear the lake with such structures

► DENR ROLLS OUT...from page 5

The OCM is expected to be launched in the last quarter of 2017. This will not only benefit the DENR in delivering its functions but other government agencies and private entities as well.

Further, according to USec Mendoza, OCM will be instrumental to the DENR in formulating new programs and projects in the future. Also, it will prevent conflicting policy issues and provide basic resolution to overlapping surveys and claims. (Martina A. Reyes)

CMS COP 12 PHILIPPINES SETS THE FUTURE OF MIGRATORY SPECIES

by: Fatima R. Leya



On the brink of pronounced global warming, we have come to realize that we and everything else in nature are all connected. Instead of letting nature go to rack and ruin, we are now making ways to reconcile misdeeds and fill in what have been lost - more importantly, build on what remains for future generations.

Such is the course the 12th Session of the Conference of the Parties to the Convention on the Conservation of Migratory Species of Wild Animals (CMS COP 12) is taking this year to set the future of migratory animals. Scheduled on October 23-28, 2017 in Manila, Philippines, member countries would meet to further strengthen conservation measures and implement resolutions to ensure the protection of migratory species.

Its slogan, "Their Future is Our Future - Sustainable Development for Wildlife & People", calls for biodiversity protection and conservation that aims at ending poverty and hunger, fighting climate change, and protecting oceans and forests.

The Convention highlights the beneficial services provided for by migratory species to people; thus, it calls for a more

proactive conservation measures. Likewise, it encourages debate to push global efforts to achieve the United Nation's Sustainable Development Goals.

This year, the conference would gear towards the following agenda:

1. Proposals to amend the Convention's Appendices
2. Illegal killing, taking and trade of migratory birds
3. African-Eurasian vultures
4. The Americas Flyway Framework
5. Species action plan for birds
6. Marine debris
7. Marine noise
8. Swimming with cetaceans
9. African carnivores
10. African Elephant and the African Wild Ass
11. Sahelo-Saharan Antelopes
12. Cross-cutting issues such as climate change, bycatch, and conservation implications
13. Impacts of the use of renewable energy
14. Trophy Hunting

Since CMS was put into force in 1983 in Bonn, Germany, it has become a global platform for the protection and conservation of migratory animals. For over three decades, the convention has able to sign up 124 countries, including the Philippines, propelling them for the sustainable management of terrestrial, avian, and marine migratory species within their range.

Philippines, a driving force for ASEAN CMS

The Philippines, a party to CMS since 1994, has benefited a lot from the convention. Its membership opened up many opportunities for coordinated efforts from member states to enhance protection and conservation measures for migratory species in the country.

The Philippines was able to establish transboundary protected area for marine turtles with Malaysia. It has



*Agenda of CMS COP12

successfully instituted programs and policies to protect and conserve migratory marine species such as dugongs, whale sharks, turtles, sea grass habitats, and shore and forest migratory birds that visit the country annually.

Hosting this year's CMS COP 12, the country would likely draw interest from neighbouring countries, since it is the only South East Asian country member, to date.

According to DENR Biodiversity Management Bureau Director Mundita Lim, the Philippines and other ASEAN member states have a lot in common in relation to migratory wild animals. Some of them are range states or along the migration pathways of some important migratory species. Thus, it can be expected that in this coming CMS COP 12 some ASEAN countries would be drawn in joining the UN Convention of Migratory Species or CMS family. (see profile of migratory sites in the Philippines at the back)

SEA OF UNCERTAINTY FOR MARINE TURTLES

Under the soft silhouette of the moonlight, in the quiet stillness of the night, where waves splashing as it embraces the shoreline, a sound of scraping sand is audible just a few meters away from where we were standing. Groping in the dark to where the sound was coming, we found a green sea turtle unflinchingly shoveling a hole behind her large body using her rear flippers. Into this hole, she will lay her eggs.

Such amazing sight is ordinary in Baguan Island Marine Turtles Sanctuary, particularly in the months of July, August and September - the peak season for nesting marine turtles. During this period, the whole island is visited by hundreds of nesters daily.

Baguan Island is one of the six (6) islands in the southernmost tip of the Philippines (Boan, Lihiman, Langaan, Great Bakkungan and Taganak) which form part of the so called Turtle Islands. Turtle Islands is a group of nine islands located in the Sulu Sea. Of the nine islands, six are in the Philippines, while three are inside the Malaysian territory.

In 1992, the whole Turtle Islands Municipality was declared as Turtle Islands Wildlife Sanctuary by Presidential Proclamation 117. In 1996, through a Memorandum of Agreement signed by the Philippines and Malaysia, the Turtle Islands Heritage Protected Area or TIPHA was established. In 2001, a Memorandum of Understanding for the Conservation and Management of Marine Turtles and their Habitats in the Indian Ocean and South East Asia (SEA) rendered recognition to Turtle Islands as a major rookery for marine turtles in SEA.

Despite positive developments, the turtle conservation in the Philippines continued to face major challenges. Most inhabitants of the Turtle Islands were dependent on turtle eggs for their livelihood. The rapid increase of the islands' population has adverse effects: pollution, and other harmful activities brought about by development destroy nesting beaches. The recent and most serious is the impact of sea level rise caused by climate change.

The DENR is exerting more effort to protect and conserve marine turtles and their nesting habitats. Regular coastal

cleanup and coastal patrolling, and establishment of hatchery, tagging, and measurement of marine turtles were instituted in the islands. An environmental task force, composed of local volunteers and law enforcement agencies, was created to stop sea turtle egg poaching and protect the nesting turtles and habitats.

Livelihood programs are also being introduced to wean the communities away from turtle egg gathering. To augment the people's income, food, and nutritional needs, the FAITH or "Food Always in the Home" program is implemented. FAITH puts home garden of plants and vegetables in every household. Through the agency's "dalaw turo," students are made aware of the significance of protecting and conserving migratory turtles in the country.

Marine turtles are known to have existed for two hundred million years. They have survived the harshest conditions of saltwater environment through the process of natural adaptation. However, their continued existence is now a matter of uncertainty. The Green Sea Turtle has been categorized by IUCN and CITES as endangered, while the Hawksbill as critically endangered.

The question now is will these marine turtle species survive for another million years? The answer would really depend on how the present generation would seriously and immediately act to save marine turtles from extinction for future generations. (Adona P. San Diego)



(From left to right): DENR-IX RPAO Chief Roserivirico Tan, and Asst. Reg. Dir. for Technical Services Ronald Gadot, DENR Central SCIS-DCD Audio Visual Section Chief Adona San Diego, and Turtle Islands PASU, Minda Bairulla, release hatchlings in Taganak Island.

Kalibaran

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MIGRATORY SITES IN THE PHILIPPINES

by: Martina A. Reyes



Candaba Swamp Bird Sanctuary
 - haven for migratory birds and bird watchers in Luzon—encompassing about 32,000 hectares of freshwater ponds, swamps and marshes—5,000 to 10,000 migratory birds flock to the area annually to escape the winter season in other countries



Sasmuan Bangkung Mapalad Critical Habitat & Ecotourism Area (SBMCHEA)
 - a mangrove islet in the heart of Sasmuan, Pampanga with rich and diverse flora and fauna - covers about 894 hectares of mangrove forest and mudflats - hosts more than 80 species of migratory birds every year - around 30,000 to 40,000 migratory birds visit the area



Las Piñas-Parañaque Critical Habitat and Ecotourism Area (LPPCHEA)
 - a nature reserve situated south of Manila Bay - first critical habitat in the Philippines established in 2007 through Presidential Proclamation No. 1412 - recognized by the Ramsar Convention on March 15, 2013 - 5,000 migratory and resident birds recorded in the area

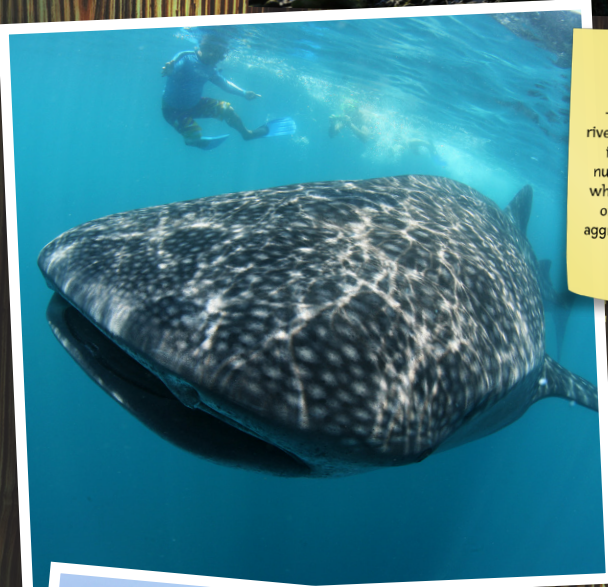


Naujan Lake Natural Park (NLNP)

- 21,655 hectare NLNP in the Province of Oriental Mindoro—proclaimed in January 25, 1968 as a protected area and was included in the Ramsar List of Wetlands of International Importance coded as the Ramsar site no. 1008—about 68 species of both endemic and migratory birds flock and breed in the area



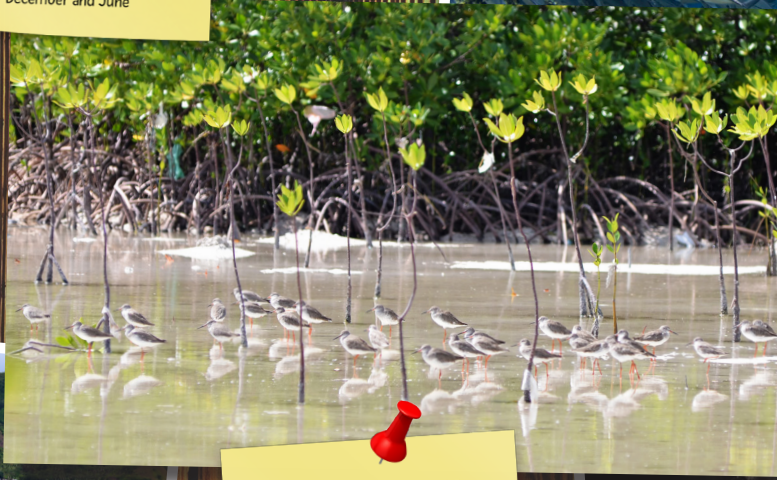
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Donsol
 - a coastal town in Sorsogon—coastal rivers of Donsol is part of Burias Pass—rich in coastal and marine resources and nutrient rich plankton—favorite spot of whale sharks or butanding for hundreds of years now—has the largest annual aggregation of whale sharks in the world between the months of December and June

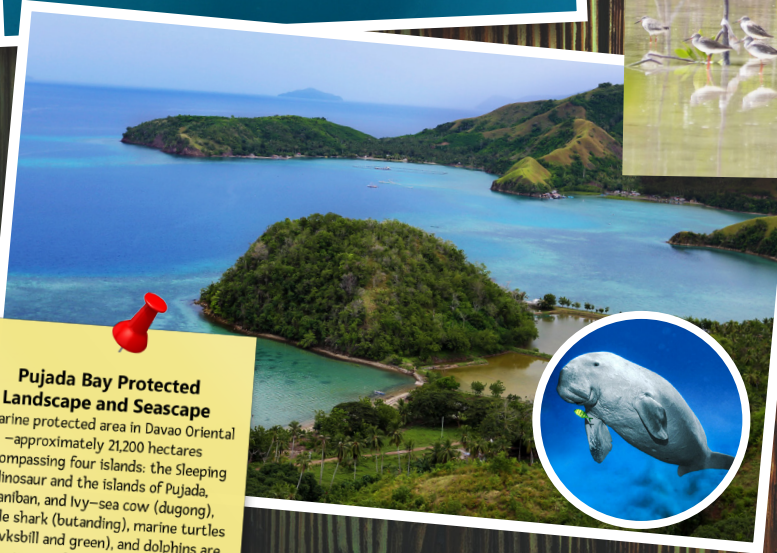


Tubbataha Reefs Natural Park
 - covers 100,000 hectares of the Sulu Sea, the geographic centre of world marine biodiversity and at the heart of the Coral Triangle - inscribed by UNESCO as a World Heritage Site in 1993 and inscribed on the Ramsar List of Wetlands in 1999—home to water birds, marine turtles, manta ray, and whale sharks



Olango Island Wildlife Sanctuary (OIWS)
 - 1,030 hectares of sandflats and mangroves that support various avian and aquatic species—proclaimed a national protected area—recognized as the first Ramsar Site in the Philippines by the RAMSAR Convention on November 8, 1994 - about 40,000 migratory birds visit the area annually

Turtle Islands
 - Six Islands (Boan, Lihiman, Langaan, Great Bakkungan and Taganak) in the southern tip of the Philippines form part of the Turtle Islands—declared in 1992 as Turtle Islands Wildlife Sanctuary by Presidential Proclamation 117—along with two islands of Malaysia, a MOA was signed in 2001 to establish the Turtle Islands Heritage Protected Area or TIHPA



Pujada Bay Protected Landscape and Seascape
 - marine protected area in Davao Oriental—approximately 21,200 hectares encompassing four islands: the Sleeping dinosaur and the islands of Pujada, Waniban, and Ivy—sea cow (dugong), whale shark (butanding), marine turtles (hawksbill and green), and dolphins are among the regular visitors

