

18 February 2023, Saturday



DENR

NEWS ALERTS

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STRATEGIC COMMUNICATION AND INITIATIVES SERVICE



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DENR to apply 'inputs' for environmental protection

By **CORY MARTINEZ**

THE science-based and evidence-informed solutions for forest management and biodiversity conservation provided by non-government organizations (NGOs), academe on environmental protection, and biodiversity conservation will be applied to the various needs of communities.

This was the assurance made by Department of Environment and Natural Resources (DENR) Secretary Antonia Loyzaga during the recently-held DENR Mindanao Multistakeholder Forum in Cagayan de Oro City.

The forum gathered over 300 stakeholders from local government units (LGUs), academe, NGOs, people's organizations, representatives from indigenous peoples (IPs) groups,

and the private sector to gain valuable insights on environmental protection and sustainable development.

Loyzaga stressed that the holding of these multi-sectoral consultations is very important as these partnerships are key to delivering the department's commitment to serving the Filipino community.

"There isn't a perfect approach or solution to tackling the environmental challenges we face. However, with everyone's support and collaboration, together we will be able to craft adaptive, inclusive, and sustainable development pathways built on strategic partnerships and sound science," Loyzaga added.

During the first plenary session of the two-day forum, speakers from the academe and NGOs were invited to share their respective initiatives and give insights into opportunities

and challenges in environmental governance in the Mindanao region.

Philippine Eagle Foundation Executive Director Dennis Joseph I. Salvador presented the foundation's initiatives and the challenges concerning protected areas (PAs) and biodiversity conservation.

He highlighted co-managing PAs, citing the joint memorandum circular between the DENR and the National Commission on Indigenous Peoples on managing overlapping protected areas and/or buffer zones and ancestral lands/domains.

Salvador recommended that the DENR integrate culture-based solutions that open up genuine opportunities for IPs and non-state actors, such as designating and managing all Philippine eagle nesting sites as PAs and integrating clear biodiversity targets and values into pol-

icies and programs of LGUs.

In line with bridging the experience of IPs in environmental protection and natural resource management, Kitanglad Integrated NGO, Inc. Executive Director Maria Easterluna S. Canoy underscored the equal importance of culture and development and how consultations like the forum will recognize the IPs expertise and experiences in the local context.

Society of Filipino Foresters, Inc. (SFFI) National Council President Forester Tommy T. Valdez, on the other hand, urged the DENR to optimize opportunities in forestry to ensure that the supply of ecosystems and socioeconomic services will be available to meet both present and future needs.

Meanwhile, Dr. Hilly Ann Roa-Quiaoit from Mindanao State University provided examples of

how ecosystem services can help sustain and conserve natural resources by providing incentives to local communities.

Ateneo de Davao University President Fr. Joel E. Tabora SJ also highlighted people's involvement as a key ingredient to successful climate action.

"It is appropriate that the action is based on re-

search. [People] need to be informed of what has been scientifically established as necessary to stop climate warming," Fr. Tabora said, noting that the academe engages in scientific research to accelerate and support climate action in Mindanao, such as monitoring of toxins in rivers, quality of air, and the development of new prod-

ucts from waste.

The DENR aims to incorporate these insights and inputs into its Environment and Natural Resources (ENR) Framework, which will be the foundation for science-based, data-driven, and socially, politically, and culturally-sensitive environmental policies and programs for the country.



CCC pushes for zero waste

BY BELLA CARIASO

THE Climate Change Commission (CCC) pushed for zero waste and low-carbon solutions as it co-organized the two-day Organics Fair and the 3R (Refill, Reuse, Repair) Revolution Program.

CCC Commissioner Rachel Anne Herrera presented the connection between solid waste and climate change, and the government's response to the issues.

"There's a clear imperative now more than ever for a zero-emissions society and world, which can only be achieved if we start and sustain zero waste practices and systems," she said. "It's a daunting task that requires greater cooperation from all sectors, especially from businesses and companies, and also entails changes to our behavior and mindset on consumption."

The Organics Fair included the conduct of the International Zero Waste Cities Conference which was attended by global government agencies, civil society organizations, waste management experts and community leaders.

Its topics ranged from organics waste management to the adverse impacts of plastics on climate, health and human rights, enabling sharing of knowledge and technologies on

impactful solutions to the plastic waste crisis and climate change.

Herrera reiterated the CCC's support of the adoption of "more sustainable consumption patterns ... and innovative policies and solutions to address environmental challenges."

Support agriculture

Environment Secretary Maria Antonia Yulo-Loyzaga and Senate President Pro Tempore Lorna Regina "Loren" Legarda underscored the need to strictly enforce the recently enacted Extended Producer Responsibility Act.

Legarda called on the public to veer away from the throwaway culture and instead "support consumer-supported agriculture systems where institutional buyers help small farmers and support good, clean and fair food."

The fair recognized pioneering local governments with exemplary zero waste practices including



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■ CCC Commissioner Rachel Anne Herrera asks for cooperation from all sectors of society.
CONTRIBUTED PHOTO

the municipalities of Lazi, Larena, Maria, Enrique Villanueva, Siquijor and San Juan in Siquijor; Santo Tomas in Batangas; Kasibu, Villaverde, Alfonso Castañeda,

Bayombong, Bagabag, Bambang, Diadi, Dupax del Norte, Solano and Santa Fe in Nueva Vizcaya; Basista in Pangasinan; the cities of Batangas, Malabon, Mandaluyong,

San Juan, Santiago in Isabela and San Fernando in Pampanga; and the provinces of Siquijor, Nueva Vizcaya and Quirino.
The DENR Environmental Man-

agement Bureau and National Capital Region, Mother Earth Foundation and the Global Alliance for Incinerator Alternatives co-organized the event.



BuCor eyes new HQ, staff housing in protected area

FROM A1

By Dexter Cabalza
and Dempsey Reyes
@Team_Inquirer

The Bureau of Corrections (BuCor) will push through with its plan to transfer its headquarters to a 270-hectare section of the Masungi Georeserve in Rizal province, despite opposition from the protected area's private caretaker.

Contrary to the claims of Masungi Georeserve Foundation Inc. (MGFI), BuCor acting Director General Gregorio Cata pang Jr. on Friday said that New Bilibid Prison (NBP) would not be relocated to the property, which straddles four barangays in the municipality of Tanay.

Instead, that location would be the new site of the BuCor headquarters, which is now inside the NBP compound in Muntinlupa City. BuCor would also build housing units for its personnel there and a supposed agro-production area "for the sustainment of its basic institutional food requirements."

Part of dev't plan

Details on what structures would be built and their feasibility were not available on Friday, but Cata pang said the proposal to move the headquarters to Tanay was pursuant to BuCor's five-year development plan.

The plan has already been drafted and approved in line with the Philippine Development Plan 2023-2028 of President Marcos, he said.

The BuCor headquarters currently occupies 254.73 ha



DESIRED LOCATION After dealing with armed groups and business interests trying to encroach on the protected area it is tasked to manage, looks like the Masungi Georeserve Foundation faces another, tougher challenge: the Bureau of Corrections wants a large piece of the area—270 hectares of it—for its own use, citing a need to relocate its headquarters from New Bilibid Prison in Muntinlupa City. —PHOTOS FROM MASUNGI GEORESERVE FOUNDATION/NIÑO JESUS ORBETA

out of the 551-ha NBP Reservation in Barangay Poblacion in Muntinlupa.

A separate NBP Master Development Plan, which is based on Proclamation No. 1159 signed by then President Gloria Macapagal-Arroyo on Sept. 8, 2006, would convert the remaining 366.7 ha of the NBP reservation into a mix-used

complex to generate funds for the national government.

One problem that the planned new location in Tanay might encounter is how to develop BuCor's agro-production area without prison labor. Its current agro-production area in Muntinlupa is being run by minimum security inmates.



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BuCor acquired the right to the Tanay property when Arroyo signed Proclamation No. 1158, also on Sept. 8, 2006, reserving a 270-ha parcel of government-owned land in Barangays Cuyumbay, Laiban, San Andres and Tinucan in Tanay. The proclamation said it would be the "new site of the New Bilibid Prison."

The proclamation also set a separate 30-ha lot for a field office for the Calabarzon region of the Department of Environment and Natural Resources (DENR) and for a tree nursery.

These lands were originally under the name of the national government in the Original Certificate of Title No. 3556, issued by the registry of deeds of Rizal on March 29, 1963.

TCT issued 2022

BuCor officially gained ownership of the Tanay property under Transfer Certificate of Title (TCT) No. 069-2022010986, which was put on the books of the registry of deeds of Morong, Rizal, on Sept. 28, 2022.

On Feb. 8, a tax declaration (TD No. 18-TN-003-01994) under the name of BuCor was issued by the local government of Tanay, solidifying proof of its ownership.

"Existing jurisprudence dictates that until and unless it is nullified by a court of competent jurisdiction in direct proceedings for the cancellation of title, the TCT issued under the name of BuCor remains infeasible and binding upon the whole world," Catapang said in a statement.

Catapang has been serving as BuCor's chief for almost five months after replacing Gerald Bantag, who is facing murder charges for the death of broad-

caster and vlogger Percival "Percy Lapid" Mabasa last year.

He said he "wholeheartedly" supported the Masungi foundation and its projects.

"I am a proenvironmentalist and would not oppose any plan of the foundation that would gear toward the conservation of our ecosystem," Catapang said.

But as BuCor chief, he needed to perform his task of institutionalizing a "highly efficient and competent correction services that include its land-use programs not only for administrative purposes but also [for] other programs that will promote sustainability, self-sufficiency, administrative economy and promotion."

Ocular inspection

About 20 BuCor personnel visited the site for an "ocular inspection" on Thursday, surprising the Masungi Foundation staff, said Ann Dumaliang, a trustee of tMGFI.

While they welcomed Catapang's appreciation of their conservation efforts, Dumaliang reiterated the foundation's appeal to BuCor to put the interest of the protected area above its relocation plans.

The georeserve includes parts of the Upper Marikina River Basin Protected Landscape and also serves as a natural filter for waterways to its nearby areas, including Metro Manila.

"It is with this mindset and encouragement that we appeal to [Catapang] to consider the environment as central to all issues and reconsider BuCor's plans," Dumaliang told the Inquirer in a Viber message.

"While it might not be straightforward and obvious, Masungi firmly believes that the present legal system gives premium to the environment and its protection," she said.

Dumaliang also called on the

President and Environment Secretary Ma. Antonia Yulo-Loyzaga to intervene to resolve dispute in favor of the protected area.

She said the foundation was ready to sit down and discuss the issue with Catapang and Justice Secretary Jesus Crispin Remulla.

"We also want them to visit the place so they can see for themselves the area," she added, noting that the area was mountainous and geologically "unbuildable."

Armed men

The TCT in the name of BuCor pertains to an area designated as "Lot 10," which is part of the Masungi Georeserve.

Coincidentally, it was on Lot 10 where more than a dozen armed men encamped in September last year, alarming the foundation staff.

Their presence prompted Interior Secretary Benhur Abalos and top police officials to visit the site to investigate, but the armed men had left before they arrived.

Dumaliang explained that the contested lot was part of the areas committed to a 2002 joint venture agreement between the DENR and Blue Star, Masungi's partner engineering company.

Seven years later, then-DENR Secretary Lito Atienza issued a memorandum ordering the DENR Calabarzon office to present an alternative area for the proposed BuCor headquarters within the Rizal "not later than 30 April 2009."

According to Dumaliang, Atienza's memo was in compliance with the joint venture agreement since the contested lot was "already subject to private rights."

"It's been a decade already and the discussion on these issues should have been done a long time," she said. *INQ*



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BuCor eyes office, housing sites at Masungi geopark

PRISON officials on Friday said they will proceed with plans to develop a 270-hectare property of the Bureau of Corrections (BuCor) in Tanay town, Rizal province to put up headquarters and residential sites for BuCor workers, despite the protest of a group also claiming the land.

In a statement, the BuCor reiterated that it remains as the owner of the property, which is being claimed by the Masungi Georeserve Foundation.

BuCor Acting Director General Gregorio Pio Catapang Jr. said the bureau's Tanay

property will also be used "for the sustainment of its basic institutional food requirements."

"BuCor is the registered owner of the subject property by virtue of the transfer certificate of title (NR 069-20220110986) issued in favor of BuCor," Catapang said in a statement.

"Existing jurisprudence dictates that until and unless it is nullified by a court of competent jurisdiction in direct proceedings for the cancellation of title, the title to the land under the name of the Bureau of Corrections

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remains infeasible and binding upon the whole world," he said.

He pointed out that being the registered owner of the subject property, BuCor has all the right to conduct any activity in the area, including "the questioned ocular inspection that was conducted by our personnel."

"The subject 270 hectares of land which is titled under the name of the Bureau of Corrections is not a relocation site of the New Bilibid Prison contrary to the allegations of the adversaries," he said.

Pursuant to the five-year development plan of BuCor, he said the subject property, in Tanay, Rizal will be used as the BuCor headquarters, including residential uses for its personnel and employees and other land use development plans and policies of BuCor.

"I would like to reiterate that I wholeheartedly support the noble objective of the Masungi Georeserve Foundation and its geo park projects. I am a pro-environmentalist and would not oppose any plan of the foundation that would be geared towards the conservation of our ecosystem," he said.

"However, I have also my avowed duty as the head of the Bureau of Corrections not only to safekeep all prisoners or persons who are deprived of liberty but also to safeguard their basic rights and ensure their reformation by creating an environment that would strengthen government capability that aimed towards the institutionalization of highly efficient and competent correction services..." he added.

The Masungi Georeserve Foundation earlier raised its concerns after BuCor personnel visited the Georeserve last Feb. 16 to conduct an ocular inspection for the supposed relocation site of the New Bilibid Prison (NBP).

Catapang said the land was "originally registered under the name of the Republic of the Philippines covered

by original certificate of title No. 3556 issued by the Register of Deeds of Rizal on March 29, 1963."

He said the land became "the subject of Presidential Proclamation No. 1158 issued on September 8, 2006 by then President Gloria Macapagal-Arroyo which reserved the said 270 hectares of land as the new site of the New Bilibid Prison."

He added that the Registry of Deeds of Morong, Rizal registered the title to the BuCor on Sept. 28, 2022 and later the Municipality of Tanay, Rizal issued a tax declaration denominated as TD NO. 18-TN-003-01994 under the name of the bureau.

The Masungi Georeserve Foundation on Thursday raised alarm over an area inspection conducted by BuCor personnel for the alleged relocation site of the New Bilibid Prison within the geopark's vicinity.

Masungi reported that 20 BuCor personnel went to the georeserve with orders to conduct an inspection and security threat assessment.

"They bear a newly minted title over 270 hectares of the Lot 10 property in the name of BuCor. The remaining 30 hectares of Lot 10 were reportedly titled simultaneously in the name of the Department of Environment and Natural Resources," it said.

According to the foundation, Lot 10 is home to the fragile limestone formations of Masungi Georeserve and was equitized in a joint venture project between the DENR and Blue Star Construction and Development Corp., which leads and funds the group's conservation efforts.

Lot 10 was included in conservation efforts under the Masungi Geopark Project between the foundation and the DENR through an agreement in 2017 and is also part of several protected and conserved areas.

"The Masungi Georeserve Foundation and Blue Star have been protecting the area for decades against professional squatters, physically and legally. Rangers and our conservation team have been harassed, shot, and bullied multiple times," it said.



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Masungi belongs to BuCor: Catapang

BuCor said the land is being considered as a site not for a prison but as its headquarters and housing for its personnel.

BY ALVIN MURCIA
@tribunephil_alvi

The Bureau of Corrections is not budging an inch on its position that it owns 270 hectares of land that includes the Masungi Reserve.

Those overseeing the reserve had raised the alarm that the area may be used by BuCor as a relocation site for the New Bilibid Prison presently occupying over 300 hectares of prime land in Muntinlupa City.

BuCor chief Gregorio Catapang Jr. did not mention Masungi as one of the lands being considered as NBP relocation site during an exclusive interview by *Gising Na!*, *Daily Tribune's* digital show last Tuesday.

BuCor said the land is being considered as a site not for a

prison but as its headquarters and housing for its personnel.

The Masungi Georeserve Foundation reported an inspection of the area by BuCor personnel. It has been laying claim to the land, citing agreements with former officials of BuCor and the Department of the Environment and Natural Resources.

Catapang, meanwhile, said that unless the title to the subject property under the name of BuCor is canceled legally, the bureau will continue with its plan for the property.

He said BuCor has every right to conduct any activity in the area, including the questioned ocular inspection that was conducted by its personnel.

"I would like to reiterate that

I wholeheartedly support the noble objective of the Masungi Georeserve Foundation and its Geo-Park Projects. I am pro-environmentalist and would not oppose any plan of the foundation that would be geared towards the conservation of our ecosystem," Catapang said.

But, Catapang clarified that it is his duty not only to safe-keep all prisoners or persons who are deprived of liberty but also to safeguard their basic rights and ensure their reformation as per the directive of Justice Secretary Jesus Crispin Remulla.

The land, located in Barangays Kuyumbay and Layban in the municipalities of San Andres and Tinucan, Tanay, originally belonged to the national government and was transferred to BuCor under

Transfer Certificate of Title NR. 069-20220110986 on 28 September 2022.

Previous to the issuance of the TCT to BuCor, the subject land was awarded in 2006 by then-President Gloria Macapagal-Arroyo to BuCor, through a proclamation order, as the new NBP site.

Further, BuCor said: "First, the subject 270 hectares of land which is titled under the name of the Bureau of Corrections is not a relocation site of the New Bilibid Prison contrary to the allegations of the adversaries."

"Pursuant to the five-year development plan of Bucor, the subject property in Tanay, Rizal will be used as a site for the Bucor headquarters including its residential uses for its personnel and employees," he added.



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BuCor stands pat on Masungi ownership

By **HECTOR
LAWAS**

THE Bureau of Corrections (BuCor) on Friday reiterated its legal claim over the Masungi Georeserve in Tanay, Rizal, saying former President Gloria Macapagal-Arroyo had reserved the 270-hectare land as the site for the New Bilibid Prison (NBP) in Muntinlupa by virtue of Presidential Proclamation No. 1158 issued on September 8, 2006.

However, BuCor clarified in a statement that it wouldn't use the land as a "prison site" but as new bureau headquarters, and residential compound for personnel.

"The subject property

in Tanay, Rizal will be used as a site of the BuCor headquarters, including its residential uses for personnel and employees," said the bureau in a statement.

The land situated in Barangays Kuyumbay and Layban, all in the municipalities of San Andres and Tinucan, Tanay, originally belonged to the national government.

It was transferred to BuCor under the Transfer Certificate of Title (TCT) NR. 069-20220110986 registered under the name of BuCor on September 28, 2022, by the Registry of Deeds of Morong, Rizal.

Also, previous to the issuance of the TCT to BuCor, the subject land was awarded by Mrs. Arroyo to BuCor as a new NBP site.

The controversy stemmed after the Masungi Georeserve raised the alarm over the inspection for an alleged relocation of the NBP on the land.

"At about 6 o'clock in the morning of 16 February 2023, five cars and 20 men from the Bureau of Corrections arrived at Masungi Georeserve. They said they have orders to conduct an 'ocular inspection' of the alleged 'relocation site of the New Bilibid Prison,'" Masungi Georeserve said in a statement.

Masungi Georeserve is also laying an "ownership claim" over the land, citing agreements with former Department of Environment and Natural Resources (DENR) and BuCor officials that they have the reg-

istered land title over the property.

But BuCor Officer-in-Charge (OIC) Gregorio Catapang Jr. stood pat on the bureau's claim of ownership over the disputed land in a statement issued on Friday.

"Until and unless the title to the subject property under the name of BuCor has been nullified or canceled through any of the legal means that are available, the Bureau of Corrections will continue with its plan not only in establishing the BuCor headquarters in the subject property but also to establish other prison and penal facilities in the other regions in the country where prison facilities are not yet present," Catapang said.



COMPETENCIES INCLUDE CLIMATE CHANGE MITIGATION AND ADAPTATION

More science-based ENR direction

for Region 2

THE Department of Environment and Natural Resources (DENR) Region 2 (Cagayan Valley) has appealed to environment officials and personnel to enhance their competencies in science-based ENR management, geospatial planning, and climate change mitigation and adaptation.

DENR Region 2 Executive Director Gwendolyn Bambalan called for support for the department's directions during the New Year's Call-cum-Capacity Building on Planning and Budgeting at the Go Hotel in Tuguegarao City on Feb. 6, 2023.

"The people of Cagayan Valley are expecting the commitment of DENR personnel to implement the agency's mandate to protect, conserve and manage the region's bountiful natural resources," she said, adding that programs and proj-

ects should create an impact on the lives and condition of the local communities.

She mentioned the need to sustain linkages to the region's different sectors such as law enforcement agencies, local government units, people's organizations, mining companies, the academe, the business sector, media and other government agencies.

Marcos Dacanay, DENR Region 2 assistant executive director for technical services, tackled activities in four divisions of technical services: surveys and mapping; conservation and development; enforcement; and licenses, patents and deeds.

Lawyer Ismael Manaligod, DENR assistant regional executive director for management services, said they will provide timely and sufficient logistical support, and implement a capa-

bility of upskilling or reskilling in collaboration with the technical services.

They will also implement cost-effective future-ready interventions in service delivery and back-end support by going to a digital-ready office.

More programs for implementation

Nenita Naranja, DENR Region 2 planning and management division chief, introduced to the provincial and community ENR officers this year's programs for implementation, realigning and integrating with the approved work and financial plan as discussed during the recent National Reprogramming Workshop in Tagaytay City.

These initiatives aim to increase high target setting; accelerate urgent and essential activities;

and redirect activities to align with broader national goals.

They also intend to maximize financial leverage through private sector engagement, development partners or international organizations, the academe and other nongovernment agencies to address knowledge, technology and funding gaps. Other objectives are to integrate policy across sectors and integrate them with climate change and disaster risk reduction.

Also sharing their planned interventions on the environment and mining-related programs and projects were Environmental Monitoring and Enforcement Division chief Florentino Ligan of the Environmental Management Bureau, and planning officer Diana Imee Estrada of the Mines and Geosciences Bureau.

LEANDER C. DOMINGO



Sustainability: Organic farming, conventional rice farming

SUSTAINABILITY is the responsibility to conserve natural resources and protect global ecosystems to promote health and well-being. On account of the fact that so many decisions that impact the environment are not immediately felt, a key element of sustainability is its forward-looking nature. Thus, sustainability is the practice of using natural resources responsibly so that they can support both present and future generations.

Organic farming

For some international agriculture experts, ecological scientists and agribusiness executives, organic farming can feed the world. They believe that a large-scale shift to organic farming will not only increase the world's food supply but could also be the way to eradicate hunger.

It is a well-known fact that organic farmers despise the use of pesticides, synthetic fertilizer and other means that have become synonymous with high-yield agriculture. Instead, they depend on raising animals for manure, or making compost and other sources of fertilizer that cannot be manufactured in a chemical plant but are instead grown with the concomitant consumption of land, water and other resources.

Since organic farmers cannot



AMBASSADORS' CORNER

AMADO S. TOLENTINO JR.

use synthetic pesticides, one can imagine their fields suffering from crop-munching insects and plant-choking weeds. As a result, a world dependent on organic farming would have to farm more land than it does today even if it would mean less pollution, fewer abused farm animals and lesser carcinogenic residues in our vegetables. Take note that farmers who converted to organic farming production often encounter lower yields in the first few years, as the soil and surrounding biodiversity recover from years of abusive use of chemicals. It takes many seasons for farmers to improve or perfect a new approach.

Furthermore, an organic farmer might consider altering his crop rotation — planting a crop that will resist the pest or one that will attract its predators. This requires experimentation and long-term planning.

Be that as it may, organic farming yields benefits. Studies have demonstrated, for example, that the "external" costs of organic farming — erosion, chemical pollution to drinking water, death of birds and other wildlife — are just one-third

of those of conventional farming. Surveys also show that organic farms support many more species of birds, wild plants, insects and other wildlife than conventional farms. There is even evidence that crops grown organically have considerably higher levels of health-enhancing antioxidants.

But, on the other hand, challenges to organic farming surface. For example, water will admittedly become a scarce resource in the near future. Water needed for increased agricultural production to feed a growing population will mainly have to come from green water (for instance, soil moisture used by plants and returned as vapor flow as compared to blue water which comes from rivers and streams). Poor soil maintenance naturally follows declining water availability.

All this brings into focus the matter of how to produce food. Organic farming advocates claim the world can feed itself without relying on fossil fuel-based inputs, i.e., pesticides, synthetic fertilizer, etc. But, on the other hand, more issues easily surface like man's general affinity to nature — the broader sustainability concerns, including biodiversity conservation for food security and, in general, maintaining ecosystem services.

Actually, worldwide, there are two views on food security. The first argues that food supply prob-

lems are best solved by the use of new technologies and production methods. If farmers use modern seeds (e.g., GMOs or genetically modified organisms) sufficiently and time their harvests properly, there would be more than enough food for everyone. This is the view of multinational corporations and governments of rich countries. The second view demands an appropriate socioeconomic environment that would allow farmers to supply enough food for themselves and their families, and the markets. Civil society organizations, religious and humanitarian aid agencies as well as grassroots movements in developing countries tend to promote this approach.

In the final analysis, can organic farming feed the world?

Conventional rice farming

The Philippines could be an example for conventional rice farming, with almost 12 million Filipinos out of a population of 110 million relying on the production of rice as staple food. Despite the pandemic, the country's agricultural sector declined the least. The bigger problem affecting rice yields is climate change. Strong typhoons damaged the country's rice lands in the past 10 years. In the year 2020 alone, 23

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typhoons hit the Philippines.

Among Asean (Association of South-east Asian Nations) countries, the Philippines is the most vulnerable to natural disasters brought about by climate change. The islands are seriously making use of adaptation, mitigation and resilience techniques to counter the onslaught of strong destructive winds, heavy rains and serious flooding that obstruct rice production. Decades of uncontrolled deforestation, among others, brought forth unsteady rice yields from time to time.

Rice has been part of the Filipino meal — breakfast, lunch and dinner, and even snacks in-between in the form of sweetened rice in various concoctions. Rice, after undergoing a series of processes, produces rice straw which can be used as fuel for cooking, livestock feed and fertilizer. Brown rice and rice bran oil are used as medicine or remedies, especially for skin and gastrointestinal ailments.

As previously mentioned, rice farming is the source of livelihood for many Filipino farmers. The Philippine Statistics Authority survey lists 11.5 million Filipinos are engaged in conventional rice farming. Except for some of the wet-rice agriculture in the terraces of the Cordilleras on Luzon Island, a

few indigenous tribal areas, and Covid pandemic-driven *plantitos and plantitas*, organic farming is not generally practiced despite Republic Act (RA) 10068, or the "Organic Agriculture Act of 2010."

The primary government agency exercising authority over the rice sector is the Department of Agriculture (DA). It is responsible for implementing programs promoting the production of rice with the end in view of increasing rice yields and attaining rice self-sufficiency. A Philippine Rice Research Institute under the DA helps develop high-yielding and cost reducing technologies so farmers can produce enough rice for all Filipinos.

The organizational structure of the rice sector is further enhanced by a Bureau of Soils and Water Management; Fertilizer and Pesticide Authority; National Food Authority; and a National Irrigation Administration.

Fortunately, an International Rice Research Institute funded by the Rockefeller Foundation is based in the Philippines. It is dedicated to providing solutions to poverty and hunger among the world population that depend on rice-based agri-food systems. It aims to improve the welfare of rice farmers and consumers,

and promote environmental sustainability as well in a world challenged by climate change. It maintains a Rice Gene Bank of climate-change-adapting rice varieties that were made more tolerant to heat, drought, salinity and submergence in water.

Erratic weather

The erratic weather and climate that the world is experiencing is not only about increased carbon dioxide and temperature levels, and frequency of extreme weather events. It is also about the sea-level rise that is being felt now and which increases flood risk and salinity intrusion in rice-growing environments. Be it noted that one of the effects of temperature increase is drought, causing the soil to harden due to evaporation of water, making the land impossible to grow rice.

In this connection, it is also noted that water is the key ingredient in the production of rice. Reduced investment in irrigation infrastructure, increased competition for water and large water withdrawals from underground water sources lower the sustainability of rice production. Likewise, there must be an initiative to protect the quantity and quality of our waters.

In this regard, the Philippines is not

wanting in environmental legislation to solve the problems, issues and concerns related to conventional rice farming brought about by climate change as exemplified by RA 9275, or the "Clean Water Act of 2004"; RA 8749, or the "Clean Air Act of 1999"; RA 2094, or the "Rice and Corn Production Act of 1958"; Presidential Decree 1947 Encouraging the Production of Rice, Corn and other Priority Crops; and Administrative Order 25 on the Adoption of Hybrid Technology as Strategy to Achieve Rice Sufficiency.

What is needed is effective implementation and enforcement of those laws as tools to put order in a society beset by environmental problems that hamper steady rice production. By preventing the worsening air and water conditions in the country, we will be able to reduce the increase in temperature due to climate change and the consequent increase in the intensity of typhoons that affect rice yields. This implies that food security and the climate crisis must be tackled together for the reason that they are not distinct but two aspects of one crisis.

We have to save the rice sector and all other aspects of Philippine agriculture through laws, institutional arrangements and mechanisms already in place.



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18 FEB 2023
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DHSUD REMAINS STEADFAST IN ITS MISSION TO PROVIDE DECENT SHELTER TO FILIPINO FAMILIES

The administration's flagship program aims to construct 6.15 million housing units over the next six years

By Angelika Ortega
Inquirer Research

Jose Rizalino "Jerry" L. Acuzar was named Secretary of the Department of Human Settlements and Urban Development (DHSUD) in July last year by President Ferdinand Marcos Jr. Upon appointment, he vowed to pursue the government's ambitious plan to build 1 million homes annually over the next six years through the Pambansang Pabahay para sa Pilipino (4PH) Program.

The administration's flagship program aims to construct 6.15 million housing units over the next six years, transform informal settlements into

prime residential sites and waterfronts, and rehabilitate esteros, according to a government yearend report.

Among the features of the program are in-city resettlement, high-density/vertical housing in highly urbanized areas, utilization of idle government lands and support of government financial institutions and private banks to provide loans and end-user financing, among others. Project construction has, in fact, already begun in various locations across the country.

STRONG START

As early as September last year, the DHSUD already held the first groundbreaking cer-

emony of a housing project in support of the 4PH Program. It will rise in Harmony Hills Terraces in Barangay Batasan Hills.

From the launch of the program, five other housing projects have been inaugurated in two weeks, including Mariveles Town in Bataan and in the cities of Marikina, Bacolod, Roxas and Iloilo. These first six housing projects formed part of the 100-day accomplishments of Mr. Marcos under the housing sector.

Since that time, more groundbreaking ceremonies for housing projects have been conducted in several local governments, namely, Palayan City, Nueva Ecija; Carmona, Cavite; Tanauan City, Batan-

gas; Mandaue City, Cebu; Sta. Barbara, Iloilo; Victorias City, Iloilo; Carles, Iloilo; Tagbilaran City, Bohol; Iligan City, Lanao del Norte, and Cauayan City, Isabela.

By the end of 2022, the DHSUD sealed 43 memorandums of understanding for the 4PH program with local government units (LGUs) across the country.

TRANSFORMING IDLE LAND

There were also talks last year that the President will be signing an executive order (EO) mandating various government agencies, particularly the DHSUD, Department of Agriculture, Department of Environment and Natural Re-

sources and Department of the Interior and Local Government, to conduct an inventory and to identify approximately 16,000 ha of state-owned idle lands that are suitable for socialized housing and rural development projects.

The forthcoming EO will effectively reinforce Section 24 of Republic Act (RA) No. 11201, which states that lands left idle for more than 10 years and are not held by government-owned and -controlled corporations will be prioritized for housing and urban development purposes. RA 11201 is the law which created the DHSUD in 2019.

CONTINUING PARTNERSHIPS

Early last month, the DH-

SUD continued to ink partnerships, this time with the Baguio City LGU for a township development project that would benefit some 10,000 families under the 4PH program.

This February, DHSUD also announced that it has partnered with Technical Education and Skills Development Authority (Tesda) to develop and enhance skills of workers in the housing industry, in anticipation of a high demand for workers due to a "full-blast" implementation of 4PH this year.

Sources: Inquirer Archives, dhsud.gov.ph



GMAP: From mined-out areas to mini-forests

MINED-OUT areas can still be rehabilitated through the government's Greening mined-out areas in the Philippines (GMAP) program that adopted bioremediation, or the use of live microbes and plants as biological solutions to clean up and rehabilitate stressed environments.

Mined-out areas are devoid of plants due to many biotic and abiotic factors like the presence of residual heavy metals in the mining wastes. Along with barren lands, they can be converted into mini-forests through bioremediation or "the cleaning of contaminated soil with microbes, enhancing carbon capture and reducing heavy-metal contamination to surrounding communities," says Dr. Nelly Aggangan, who leads the GMAP program.

The GMAP program is under "Sustainable Communities," the priority program of the National Integrated Basic Research Agenda of the Harmonized National Research Agenda 2017-2022 of the Department of Science and Technology-National Research Council of the Philippines.

The program's first phase was done in 2015-2018 in a copper-gold mined-out and mine tailing dumpsite in Marinduque. The protocol it developed is now be-

ing adopted by the local government units and being replicated in Surigao, the location of the program's second phase.

The GMAP in Surigao del Norte, which is expected to end this year, aims to test the effectiveness of the Marinduque bioremediation protocol by assessing Marinduque isolates potency in rehabilitating gold and nickel areas. It also looks for microbes in Surigao that can help in bioremediation.

Aggangan said if they work in Surigao as expected, "we can also introduce the Marinduque isolates in all mined-out areas in the Philippines."

The importance of inoculants

The GMAP researchers developed microbial-based fertilizers or mycorrhizal inoculants: The soil-based Mykovam and Mykorich, which is sand-based.

These developed inoculants give way to symbiosis, the give-and-take relationship between plants and the fungus: As the fungi derive nutrients from the soil, the plants give out carbohydrates and the population of microbes crucial to the bioremediation increases.

Inoculants cause plants to grow bigger and taller with more devel-

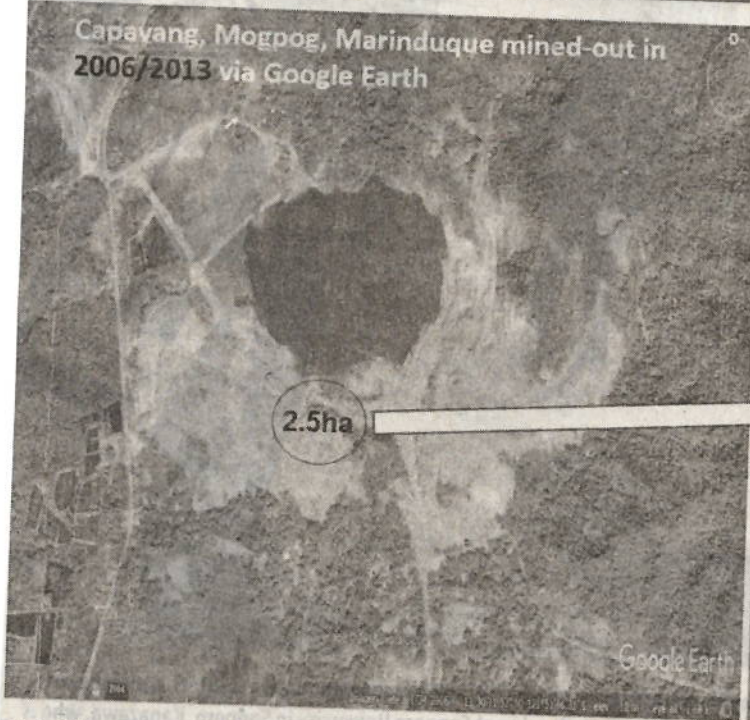


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FROM BARREN (>35 YRS) TO YOUNG MINI FOREST

Rehabilitation of mined-out area using mycorrhizal fungi and nitrogen fixing bacteria, plus soil amendments

Capayang, Mogpog, Marinduque mined-out in 2006/2013 via Google Earth



Capayang mined-out in Nov 2018 with INTERVENTION by the NRCP-DOST Project Dec 16, 2015 – Dec 15, 2018 27 MONTHS AFTER PLANTING



Photo by: Mar Marinas, Nov 2018

An illustrated projection of rehabilitation in the mined-out areas. FROM A GMAP PRESENTATION

oped roots. Meanwhile, inoculated plants remove nickel contaminants from the soil. As contaminants are drawn in by plants, the soil is cleaned of toxic materials.

Comparing the traditional fertilizer and the inoculants, Aggangan claims the former is relatively expensive, easily runs out and can

even end up polluting the ecosystem; meanwhile, the latter can only be applied once and lasts for a longer period.

"Pag palagi kang naglalagay ng abono, nagiging acidic 'yung lupa. Samantalang sa microbyo, 'yung acidic ginagawa nyang maging neutral para maging mas

malago ang halaman. Pag acidic, posibleng mamatay or maging bansot 'yung halaman," Aggangan describes the advantages of inoculants when applied in the soil of mined-out areas.

Despite the success of the program's first two phases, Aggangan appeals to the mining companies

to cooperate and allow them to conduct their research in their mining sites.

"Hindi ko kaya ito mag-isa ... Lalong-lalo na sa mga andoon sa mga mining areas, please help us para lalong maganda ang aming maituturo sa inyo," she says.

THE MANILA TIMES



Passage of People's Mining Bill sought

NATIONAL environmental network Kalikasan welcomed the approval of House Bill (HB) 259, or the "People's Mining Bill," by the House Committee on Natural Resources as an alternative to the Mining Act of 1995, which it deemed to favor the plunder of the country's natural resources.

The group's Facebook statement on Tuesday said that the passage of the bill was "a step in the right direction toward a genuinely pro-people and pro-environment framework for mining."

It criticized the provisions of the current Republic Act (RA) 7942, or the "Mining Act of 1995," for elevating the interests of foreign mining companies over those of Filipinos. The Kalikasan statement continued, "In the past 28 years, we have also seen how the Mining Act's implementation deprived local communities of access to land and natural resources, kept the domestic economy underdevel-

oped and destroyed the environment at an appalling scale."

Among the issues the group cited were the 1996 Marcopper mining disaster, the 2005 Rapu-Rapu mine cyanide spills in Albay and the 2012 tailings pond leak in the Philex mine in Tuba, Benguet.

In contrast, it said that the People's Mining Bill "covers not only the exploration, development, use, processing and transportation of the country's mineral resources — but their regulated use as well. This regulation is a much-needed aspect of any use of non-renewable resources that the current mining law virtually ignores."

Kalikasan called on environmentalists to support their call for the passage of HB 259, which "aims to reverse the liberalization of the mining industry that RA 7942 institutionalized, the very framework that allowed the plunder of our country's mineral resources." **ARIC JOHN SY CUA**