



# DA RFO 02, BFAR R02 hold 1st Regional Food Security Summit in the Philippines

by Aeron D. Mayor

The Department of Agriculture Regional Field Office No. 02 (DA RFO 02) and Bureau of Fisheries and Aquatic Resources Region 02 (BFAR R02) jointly held a Food Security Summit in Cagayan Valley Region on March 18-19, 2021 at the FNDy Amphitheater, Provincial Capitol of Isabela in Alibagu, Ilagan City, Isabela and via virtual platform.

With the theme “Food Today and Beyond”, the regional summit, which was the first to be conducted in the Philippines, focused on plans and strategies of agriculture and fishery sector to attain one of the 17

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(From L to R) Isabela Provincial Agriculturist Dr. Marites E. Frogoso, Department of Agriculture Regional Executive Director Narciso Edillo, and DA-Bureau of Fisheries and Aquatic Resources Regional Director Milagros C. Morales spearheaded the 1st Regional Food Security Summit in the Philippines.

# Santiago City breaks ground for P10-M Multi-Species Hatchery

by Kimberly D. Sahilan



Santiago City will soon have its Multi-species Freshwater Hatchery to ensure sufficient supply of quality fingerlings in the province of Isabela. The project, with a total cost of P10 M, will be constructed in the 1.7 hectare land area of Gunot Seed Farm, located at Barangay Rizal, provided by the City Government of Santiago. This will serve as a hatchery for tilapia, ulang and hito.

The ceremonial ground breaking, held on February 8, was led by Isabela 4th District Representative Atty. Alyssa Sheena P. Tan, Santiago City Mayor Joseph Salvador Tan, BFAR-RO2

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**MULTI-SPECIES HATCHERY** - DA-BFAR 2 Regional Director Milagros C. Morales, Mayor Joseph Tan, Isabela 4th district Representative Sheena Tan, Provincial Agriculturist Marites Frogoso, and Provincial Fishery Officer Emmerson Tattao led the groundbreaking ceremony for the construction of Multi Species Hatchery in Santiago City Isabela.

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KALAP is a semestral newsletter of the Bureau of Fisheries and Aquatic Resources Regional Office No. 02. The publication is a compilation of news and feature articles released by the Bureau during the given period.

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# REGIONAL DIRECTOR'S Message



**MILAGROS C. MORALES, DrFT, CESE**

**N**ais kong batiin ang lahat ng ating mga magsasaka't mangingisda dito sa Rehiyon Dos, mabuhay kayong lahat! Saludo kami sa inyong sipag, lakas, at tiyaga.

Bilang pagdiriwang ng Farmers' and Fisherfolk's Month na may temang "May Pandemya Man o Wala, Magsasaka't Mangingisda, Maaasahan ng Bansa", nais nating kilalanin ang kahalagahan ng sector ng agrikultura at pangisdaan sa ating ekonomiya.

Kaugnay nito, nais kong ipabatid na ang BFAR Region 02, sa tulong at suporta ng ating DA Sec. Hon. William Dar, ang ating Undersecretary for Agri-industrialization and for Fisheries Cheryl Marie Natividad-Caballero, at ang BFAR National Director Commodore Eduardo B. Gongona, ay patuloy na umaagapay at nagpapatupad ng mga programa upang sa gayon ay matugunan ang pangangailangan ng ating mga mangingisda at upang mapanatili natin ang ating fish supply. Tunay nga na ang pandemya ay hindi hadlang upang maiparating sa lahat ang mga serbisyo at programang ito ng ating ahensya.

Sa ating mga magsasaka at mangingisda, kayo ang frontliners on food production. Lubos na nagpapasalamat ang Bureau sa inyong pagsuporta sa ating pagpapanatili ng food supply dito sa ating rehiyon hindi lang ngayong COVID 19 pandemic kundi sa lahat ng panahon at napakalaking bagay ang inyong mga ginagawang pagsisikap upang matugunan po natin ang pangangailangan sa isda ng ating rehiyon.

Muli, ang BFAR Region 02 ay nakikiisa sa pagpugay ng ating bansa sa mga Pilipinong magsasaka at mangingisda. Ang ating mga kasama sa agrikultura at pangangisda ay patuloy nating kinikilala at pinupuri sa kanilang mahalagang kontribusyon para sa ikauunlad ng ating rehiyon at bansa sa gitna ng pandemya. Mabuhay ang ating mga magsasaka at mangingisda! Isang makabuluhang Buwan ng Magsasaka at Mangingisda sa bawat isa!

*\*Message delivered from Regional Director during the Farmers' and Fisherfolk's Month Celebration*



# BOOSTING FOOD SECURITY

**M**ore than a year living under lockdown in the shadow of COVID-19 pandemic, the country still continues to grapple with food security. Hunger, especially in disadvantaged community and low-income families, has worsened in the wake of prolonged and recurring lockdowns imposed during the heights of pandemic. Of immediate concern, especially in rural areas, is the disruption to food systems and impact on food security, with strong negative consequences for the most vulnerable sectors.

We might pummel our minds with the question, "With these challenges faced by the agriculture and fisheries sector, how will we move towards ensuring food security?"

To address this concern, in June 2021, the Department of Agriculture (DA) established the One DA reform agenda which aims to transform the sector by employing major strategies towards an efficient and industrialized Philippine agriculture-fisheries through an inclusive approach. It also seeks to empower farmers and fisherfolk through collective action and attract private sector investments with inclusive agribusiness towards agricultural efficiencies, productivity, sustainability and resilience.

The reform agenda is anchored on 18 fundamental strategies divided into four pillars: consolidation, modernization, industrialization, and professionalization.

Under Consolidation are six (6) strategies or components: Establishment of Bayanihan Agri-clusters; Collective action/Cooperatives development; Province-led Agriculture and Fisheries Extension Systems; Mobilization and Empowerment of Partners; Diversification; and Credit Support. Particularly, these pillars will enable better farmers' or fisherfolk participation in the value chain.

Under Modernization pillar are four (4) strategies: Technology and Innovation including Digital Agriculture; Farm Mechanization and Infrastructure Investments; Climate Change

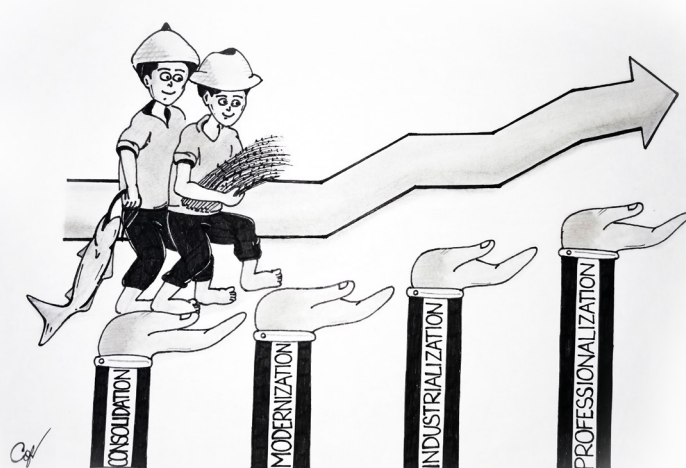
Adaptation and Mitigation Measures; and Food Safety and Regulations.

Under Industrialization are three (3) strategies: Development of Agri-industrial Business Corridors; Global Trade, Export Development and Promotion; and Postharvest, Processing, Logistics, and Marketing Support.

Lastly under Professionalization, the five strategies are: Agriculture Career System; Education and Training for Agribusiness Management; Youth and Women Engagement; and Ease of Doing Business and Transparent Procurement; and Strategic Communication.

According to Agriculture Secretary William Dar, these strategies' overall objective is to modernize and industrialize Philippine agriculture-fisheries value chains in an inclusive way to enhance productivity, uplift rural people from poverty, improve livelihoods and increase farmers and fisherfolk income, so everybody—the DA family, officials and staff, farmers, fishers, partners, other stakeholders, and the public—can harvest the fruits of shared success.

In particular, these strategies hopes to improve further the fisheries production in the countryside. Notably, Philippine Statistics Authority reported that fisheries production of Region 02 on the first quarter of 2021 dipped by 1% compared to the same quarter in 2020. The decline was due to the significant drop of all province's production in municipal and commercial fishing sub-sectors, caused by successive typhoons, dry docking of fishing vessels, and Local Government Units restrictions on fishing during the implementation of Enhance Community Quarantine. However, on the second quarter of



2021, fisheries production in the region surpassed its 2020 second quarter output as it posted a 3% increment. The increase in the production was attributed mainly to the volume of harvest from marine municipal fisheries and aquaculture farms, which is dominated by Tilapia culture.

Data shows a positive growth in the fisheries sector in the first semester of the year in the region. However, this could be further maximized with improved production system of the sector. Accordingly, Dr. Glenn B. Gregorio in his article entitled "Outlook for the Philippine Agriculture Sector in Second Half of 2021" published in the journal of Southeast Asian Regional Center for Graduate Study and Research in Agriculture said that fishery sector shows promise but more integrated infrastructure support is needed. DA admitted that the efforts of the government to produce more fish through its "intensive hatcheries" and push for improved fish production techniques will pave way to Philippines' food security.

The bureau stands to support the vision of "a food-secure and resilient Philippines", as it remains true to its goal and responsibility to develop, improve, manage, and conserve the country's fisheries and aquatic resources. What remains is its stance to improve and continue the programs and accelerate the transformation of the sector into a dynamic and highly productive sector through sustainable and innovative interventions to make the fisheries food system responsive to food security and poverty reduction targets in Region 2.



## DA-BFAR R02 awards water pumps and boat engines to fisherfolk-beneficiaries

by Jemimah Keren A. Carag



**The Department of Agriculture-Bureau of Fisheries and Aquatic Resources Region 2 (DA-BFAR 02) is continuously providing livelihood support to fisherfolk in Cagayan Valley.**

On May 26, DA-BFAR-02, through its Provincial Fisheries Office, awarded 10 units of water pump with complete accessories to selected fishpond operators in Quirino Province. On the same day, 10 units of said equipment

were also distributed to fishpond operators in Nueva Vizcaya. On May 28, 11 units of water pump and 4 boat engines were awarded to fisherfolk in Cagayan.

Recipients were selected on the basis of three criteria. First, fishpond must be at least 500-1000 square meters. Second, fishpond must be productive. Third, the recipient must be registered in the Fisherfolk Registry (Fish-R).

DA-BFAR R02 Director Milagros Morales said that the assistance aims to boost fish production and to increase income of the fishers.

"The distribution of equipment seeks to support the food security and sustainable income for the fisherfolk. If it comes out that it increases our fish production, then BFAR will consider to give more. So with this engine, we hope to see a positive outcome," RD Morales said.

On the other hand, Dr. Angel Encarnacion, Planning, Monitoring and Evaluation Unit (PMEU) Chief, encouraged the recipients to persuade their fellow fisherfolk to register in Fish-R because that's the basis for the programs and assistance being implemented.

Since May is a month-long celebration of Farmer's and Fisherfolk's month, the distribution of engines is part of the culminating activity.

## DA-BFAR R02 turns over fiber reinforced plastic boats and water pump engines to the Isabela fisherfolk

by Jemimah Keren A. Carag

**The Department of Agriculture-Bureau of Fisheries and Aquatic Resources Region 2 (DA-BFAR 02) turned over 13 units of Fiber Reinforced Plastic (FRP) boats and 15 water pump engines with complete accessories to the marginalized fisherfolk of Isabela through its Provincial Fisheries Office at City of Ilagan on June 3.**

Fisherfolk whose boats were totally damaged by the super typhoon Lawin, which struck Northern Luzon last October 2016, were prioritized in the giving of FRP boats.

Mr. Emerson S. Tattao, Jr., Provincial Fishery Officer of BFAR Isabela, said boats and water pump engines are given as continuous support for sustainable development of the fishery sector in the province.

During the awarding ceremony, DA-BFAR-02 Director Milagros Morales

recognized the efforts and sacrifices of farmers and fisherfolk in the province and said that this assistance aims to increase fish production in the province and to generate income for the fisherfolk.

"The Province of Isabela is only 14% fish sufficient. It means that only 14% of the total fish requirement of the province is supplied. In order to attain higher sufficiency level, there's a need to increase efforts in the fisheries sector particularly on aquaculture and capture fisheries. So with this, we hope to see a positive result in fish production," RD Morales said.

She also reminded the recipients that receiving these units of FRP boats and water pump engines comes with responsibility, it is expected that they would take good care of it.

Moreover, Director Morales emphasized the importance of Fishery Registration.

"Please help us encourage your fellow fisherfolk who are still unregistered to register in the Fisherfolk Registration (Fish-R) for them to also avail the programs and benefits that DA-BFAR offers because the priority target beneficiaries of government's assistance and support are those registered," she said.

This activity is part of the observance of the Farmers' and Fisherfolk's Month that is annually celebrated in the month of May.







**BOATS FOR FISHERS** - Eight units of motorized fiberglass boats were distributed to marginalized fisherfolk of Fuga Island.

## Fuga Island fisherfolk receive motorized boats

by Jemimah Keren A. Carag

Despite the rainy weather on June 30, 2021, it's a good day at Claveria, Cagayan when 22 fisherfolk beneficiaries from Fuga Island formally received 8 units of Motorized V-Type Fiberglass Reinforced Plastic (FRP) boat with 16 horsepower Briggs and Stratton engine, equipped with fishing gear from the Department of Agriculture- Bureau of Fisheries and Aquatic Resources Region 2 (DA- BFAR 02) in collaboration with Cagayan Provincial Office and Local Government Unit of Aparri.

According to Crisanto Laeno, OIC-Capture Section and FRP Boat Construction Project Leader, each unit

will be operated by three (3) fisherfolk to promote shared ownership and responsibilities to ensure its upkeep and maintenance. Moreover, they signed a memorandum of agreement (MOA) to prevent them from selling the boats and to assist in the deterrence of illegal fishing.

The boats were fabricated by DA-BFAR technical staff, but the outrigger or "katig" which could be made out of bamboo poles were set up by the fisherfolk themselves.

Prior to the turnover of boats, the beneficiaries were required to undergo series of training for them to be adept

in repairing and maintaining their respective boats and boat engines.

The distribution was headed by DA-BFAR 02 Director Milagros Morales along with Provincial Fisheries Officer of Cagayan Mr. Venchito Villarao, Mrs. Richelle Chan, as representative of LGU Aparri Mayor Bryan Chan, and Municipal Agriculturist Marites Robinion.

In her message, Dir. Morales recognized the importance of fisherfolk as the bureau's partner in fisheries sector and said that the boats were given as livelihood assistance to marginalized fisherfolk, to increase income and food production or harvest.

## Santiago City breaks ground for P10-M...

Regional Director Milagros C. Morales, Provincial Agriculturist Marites P. Frogoso and Provincial Fishery Officer Emerson Tattao.

According to BFAR RO2 Director Morales, the 10 M fish hatchery project will cater the fingerlings needs of fish farmers in the region. She stated that Isabela province is only 14% fish sufficient and the province contributes 45.39% total regional aquaculture production. There are 1,480 units fishcages and 1,745 hectares of fishponds. Said projects need about 88.78M pcs fingerling stocks for fishponds per annum and about 12.95M pcs fingerling stocks for fishcages. The existing hatcheries, owned both by BFAR, LGUs, and private sector, cannot cope with the fingerling requirements of fish farmers in the province.

"We need hatcheries accredited by the government that produce quality fingerlings because if we do not start from quality fingerlings, we cannot expect good harvest. Through our collaborative efforts, this hatchery when operational is expected to produce 3,442,500 pcs tilapia fingerlings, 226,800 pieces catfish fingerlings 115,000 ulang post larvae per year." Regional Director Milagros asserted.

She challenged the City Government and fisherfolk associations to increase the fish production of Isabela by at least 3 percent thru this project.

In response to Director Morales' statement, Mayor Tan accepted the challenge and expressed his gratitude

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for giving them such opportunity to contribute to fingerling production and ultimately to the overall fish production of the region. He also pledged that the City Government of Santiago will extend additional fund assistance and will put serious efforts towards the success of the project.

Isabela 4th District Rep. Sheena Tan also conveyed her gratitude for granting her proposal for the hatchery project. She also assured that she will take any available national projects and bring these to her constituents in every possible way she can.

Further, the bureau assures the city government of their support throughout the endeavor.





**EEL FISH (KUROKO) TANK-BASED CULTURE SYSTEM** - Dr. Isagani Angeles, Jr. demonstrates to participants the farming techniques of culturing Eel (Kuroko in Japan) using tank-based system at ISU's freshwater farming facility.

## Training fish farmers on eel culture tech, one way to boost eel industry

by Aeron D. Mayor

**Priming up the eel industry in order to contribute to fisheries production and to provide economic benefits to fish farmers in Region 02, the Department of Agriculture-Bureau of Fisheries and Aquatic Resources Region 02 (DA-BFAR R02), in collaboration with Isabela State University-Echague Campus held two batches of training on "Eel (Kuroko) Production in Tank-Based Culture System" at the Freshwater Fisheries Center located at Isabela State University-Echague Campus, San Fabian, Echague, Isabela.**

Participants were Isabela-based Cagayan Valley Aquaculture Producers Cooperative (CVAPCo) members who are fish farmers cooperators of the eel culture technology verification trial; Nueva Vizcaya fish farmers; BFAR R02 fisheries technologies; Fisheries Livelihood Development Technicians; LGU-Municipal Agriculturist; and Agricultural Technicians on fisheries of Isabela Province.

In her welcome remarks, DA-BFAR R02 Director Dr. Milagros Morales appreciated the participant-fish farmers on their interest and enthusiasm in learning the technology and produce Kuroko eels (>15 cm length size). "This is what we need in the eel industry operation, since eel production in the wild is limited,

venturing into eel aquaculture will enable the fisheries sector to respond to requirements on export market. So far, our eel production in Region 02 which is exported is mostly composed of Kiwet (*Monopterus albus*), but it would be better if we could also export *Anguilla* species of eels to enable our local farmers to level up in the eel value chain and earn more" said Director Morales.

Topics discussed during the training were Status of Eel Industry presented by Dr. Evelyn Ame, BFAR R02-Regional Fisheries Training Fisherfolk Coordinating Division Chief and eel national focal person; Eel Disease Management by Dr. Jefferson Soriano, BFAR R02-Fish Health Laboratory Chief; Nursery Management of Eel in Tanks by Dr. Frolan Aya, Binangonan Freshwater Station Head SEAFDEC-Aquaculture Department; Culture of Eel in Tanks by Ms. Joyce Hilario and Ms. Maria Theresa Tarampi, researchers of DA-NFRDI; Biology, Reproduction and Culture, Nutrition, Feeding and Feed Formulation and General Management of the Culture Stocks by Dr. Isagani Angeles Jr, ISU-FFC Director.

Hands-on training on feed formulation, feeds and feeding, water quality monitoring, sampling and

stock management, and tank design and management were also facilitated.

As presented during the training, glass eels can be cultured in tanks up to Kuroko size (15 cm) following all site selection protocols. At least two tanks measuring 1.2m width x 3.0m length x 0.8 m height can be used to culture 28,800 pcs. elvers at 5,000 pcs. per cubic meter stocking density. Roofing and shading are installed to control sunlight exposure of eel and to maintain required standard water temperature.

Prior to stocking, glass eels are acclimatized in tanks for 20 to 30 minutes and disinfected with 5 ppt to 35 ppt brine solution for 30 seconds to 1 minute.

Small aquatic worm (*Tubifex sp.*) is an ideal first feed for elvers and, after two or three days, commercial feed is added progressively until the tenth day, when only a paste of minced fish is given. As an alternative to *Tubifex sp.*, combined commercial feeds and squid with cassava flour as binder can be used. Eels are fed twice a day, in the morning and afternoon to ensure its rapid growth.

Later, glass eels during developmental stages can be fed with high-energy and

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# BFAR 2 empowers fisherfolk amid pandemic

by Aileen D. Silva

**TUGUEGARAO CITY – Amid threats of COVID-19 pandemic, the Department of Agriculture - Bureau of Fisheries and Aquatic Resources Region 02 (DA-BFAR R02) fulfilled its mandate in empowering the fisherfolk of Cagayan Valley Region through the conduct of skills training on Package of Technologies (POT) to ensure that tilapia fish reach consumers' dining table.**

The Bureau assures the public that tilapia production in the region continues despite new normal condition. "We are encouraging our tilapia fish farmers to continue their operations in producing tilapia and other freshwater fishes to ensure fish sufficiency and contribute to food security especially this time of pandemic", said Ms. Jennifer T. Tattao, head of the Aquaculture Unit.

Series of skills training have been recently conducted in the provinces of Cagayan, Quirino, and Isabela as part of the regular training programs of the bureau. It was participated by the cooperators of pond-based technology demonstration (techno demo) projects for CY 2021.

Participants were trained and provided with updates on various concepts in



**KNOWLEDGE IS POWER** - Region 02's fish farmers took home loads of information in fish farming as the agency dished out basic concepts and package of technologies in fisheries which in turn can be used as tool for future investments.

aquaculture technologies namely; Basic Biology of Tilapia and Freshwater Prawn (Ulang); Polyculture of Tilapia and Ulang; Integrated Farming System; Fish Health Culture; Organic Farming; Grow-out Culture of Tilapia and Bangus; Guidelines on Good Aquaculture Practices; and Gender and Development.

After the training, cooperators of pond-based techno demo livelihood programs will be provided with fingerlings, feeds, and fertilizer for two cycles of operations, while fish

cage structure, fingerlings and feeds are given to fish cage techno demo cooperators.

Techno demo projects are given to cooperators as part of the extension activities of the Bureau to showcase different aquaculture technologies as well as to increase source of income of fish farmers. Income generated from the first cycle of operation goes to the cooperator which in turn will be used to finance the succeeding culture period.

## Training fish farmers on eel culture...

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protein-rich artificial feed. Elver starts to feed at 15°C water temperature and its metabolism starts at 23-28°C. Eels are nocturnal feeders, so the feeding spot is usually covered with boards or other suitable materials, to make it as dark as possible. A 50-60% protein content diet is recommended for elvers while 40-45% protein content for sub-adult eels.

Harvest can be done after six months to one year culture period. Live kuroko eels are sold locally or exported for aquaculture and can be valued as high as Php. 25-50/piece in the market.

After the training, BFAR R02 will provide the elvers (young eel) for the Technology Verification trials, while

the facilities and other inputs will be shouldered by the cooperators. "This project supports the Bayanihan Agri Clusters (BACs) espoused under "One Department of Agriculture approach" of the government where in elvers as input assistance, trainings and technical support services will be provided to fish farmer cooperators who are members of the cooperative, to attain better resource management and higher income", RFTFCD Chief Dr. Evelyn Ame said.

"The bureau together with LGUs will monitor and document the TV trials and the verified technology will be disseminated to fisherfolk. Kuroko production of eel farmers will be combined to meet the volume

requirements of market for export", she added.

Among the 16 *Anguilla* species in the world, *A. marmorata*, *A. bicolor*, *A. japonica*, *A. celebesensis*, and *A. luzonensis*, which are all economically important, are found in Cagayan Valley Region.

Meanwhile, Dr. Ricmar Aquino, ISU President thanked the participants, BFAR R02 and ISU-FFC for their collaboration on Research, Development and Extension and hopes for a stronger partnership in the sustainable development of the fisheries sector.





# The "Eva" of the Sea:

## Beacon of Women's Formidable Strength

by Aileen D. Silva

### Humble Beginning

Dubbed as Paradise of the north, the coastal municipality of Claveria is located at the Northwestern tip of Cagayan province where verdant and lush full mountain serve as a backdrop against the vast stretch of coastline etched along the ridge of the town.

A top notch tourist spot, this town literally sired a daughter whose name became famous in the fish trading business. A seasoned "fishpreneur" in her own right, Helen Eva Guzman was born in the coastal barangay of Taggat where most fishing activities are done. As a child, she grew up in the company of her grandmother in Sinaít, Ilocos Sur since her father's job as security guard of the then famous Taggat Industries Incorporated requires them to hop from one place to another.

With lady luck on her side, in 1990 after graduating in AB Economics from Divine Word College in Laoag, Helen Eva landed her first job at the Domestic Airport General Aviation thru the recommendation of a pilot friend.

Equipped with her thirst for adventure, she was called by a relative to work at DSWD NCR in 1991.

Young and carefree at that time, Helen Eva's zest to explore foreign soil accepted her cousin's invitation who is

about to give birth to work for her in Macau in October 1992.

Helen Eva's stay in Macau for a decade introduced her to various odd jobs in a chain of restaurant, law firms, architectural and construction companies. She lasted in a construction firm as a secretary until she decided to return home in 2001 to look after her then sick mother. At the time the company that she worked for is no longer economically stable during the transition period when Macau became a Special Autonomous Region (SAR) of mainland China in 1999.

### Gateway to fish trading business

Helen Eva's family business on fish trading was founded by her mother who used to manage it in 2001-2008. "In 2008 I assumed the management of Loling's Helen Eva Fish Buying Station, because my mother do not have employees, that's her business style", revealed Eva when asked how she became a full time entrepreneur. Eva's vigor to make the fish trading business flourish into what it is today, formalized it by employing staff who work regularly in the fish stall. To date, there are six employees (2 drivers, 3 ladies and 1 babysitter for her old-aged mother) working along with her. Her knowledge in economics and wealth of experience as an Overseas Filipino Worker (OFW) prodded Helen Eva to employ her own business acumen.

Her name is not only famous in Claveria but also in the Ilocos Norte area where most of their fish products are transported in the province. This strategy enables her to save on transportation cost considering the proximity of Laoag City compared to Tuguegarao City. For Helen Eva, time is essential since her product is highly perishable.

Helen Eva sells fish merchandise in the form of big fishes (sliced blue marlin, Dorado, red snapper and oversized grouper) in Laoag area, while round scads and other fin fishes are usually sold in Cagayan to meet protein requirements in the province.

Apart from engaging in fish trading, Helen Eva also ventures in fishing activities in the high seas by financing fishing operations of contracted offshore fishers. Often, it is paid by boat operators on installment basis.

### A woman with formidable strength

"It's not all bed of roses in the realm of business. Like any ventures, there are ups and downs", says Helen Eva when asked on the challenges she encountered while managing the family's fish trading business.

She acknowledged that it takes courage to operate a business dealing with high perishable products. One of her strategies in keeping the



business continue its operation is selling aquaculture products like tilapia and bangus during off season of marine fishes. She admitted that the unpredictable weather in Claveria plays a vital role in keeping the business. Instead of streamlining her staff, she thinks of alternative products to sell so that she can still generate income for the salary of her staff. "I cannot afford to see their families suffer when I am out of business" beams Helen Eva.

## A "Woman Knight" in Shining Armor

For Helen Eva, the sea where most coastal communities depend their subsistence from also needs to be taken cared of. Her active involvement in conservation programs initiated by the Bureau of Fisheries and Aquatic Resources made her aware of the importance of keeping the pristine condition of the fishing ground for incessant availability of resources.

As president of Deputized Fish Wardens in the area, her office serves as coordinating center for law enforcement activities, rescue operations and even sightings of foreign vessels and local poachers are coordinated to her by initiating agencies like BFAR, PNP Maritime, Navy and Coast Guards.

During lean days, she initiates cleanup activities along the shore in the company of children and nearby neighborhood. According to her, the children must be taught to protect and conserve God-given resource to enjoy its bounties.

Helen Eva's civic duties are also being tapped during life and death instances. She recalled one instance wherein her "compadre" asked financial help from her for the hospitalization of a dengue patient even in the wee hours of the night.

Gifted with a golden heart, Helen Eva also acts as a surrogate mother of her nephews and nieces especially the children of her elder sister who has a hearing defect. Her orphaned niece by her older brother also lives with her along with her 89 year-old mother.

"I am grateful with the Good Lord that He made me realized my calling in life. My being single became a blessing

especially to the people who are close to me. My greatest achievement so far is for me being instrumental to what they have become. One of my nieces now lives in America and the other is working in Macau, while my other nephew is currently taking up engineering course".

Helen Eva also shows her appreciation to the work of her staff by throwing a simple birthday party to them.

In times of calamities and during the pandemic, Helen Eva readily shares

a helping hand to the needy by providing "ayuda" and other forms of assistance.

Literally, Helen Eva's name resonates not only in the business world but also in civic congregations. Her friendly personality made her gain the trust of high ranking government officials and affluent families as well.

"I want to leave a good legacy into this world, even when I am gone my name will remain untarnished" she quipped.



**ENVIRONMENTAL PROTECTION ADVOCATE** - Literally an "Anak ng Dagat", Eva takes lead in activities that aims to restore pristine condition of the sea such as coastal cleanup drives and offshore patrolling against illegal fishing operations.





**OATH TAKING CEREMONY FMA 1 KEY OFFICIALS** - Key officials comprising the management board of the Fisheries management Area 1 confirmed their commitment to perform their duties and responsibilities in the implementation of programs and activities in the Northern Pacific Seaboard in a virtual oath taking ceremony administered by no less than National Director Commodore Eduardo Gongona.

## DA-BFAR R02 holds organization of FMA 1 Management Board

by Aeron D. Mayor

**Tuguegarao City, CAGAYAN – The Department of Agriculture-Bureau of Fisheries and Aquatic Resources Region 02 (DA-BFAR R02), as lead agency in the implementation of Fisheries Management Area 1 (FMA 1), hosted the organization of FMA 1 Management Board via zoom platform on March 16, 2021.**

The event was attended by BFAR Director Commodore Eduardo Gongona (PCG Ret.), BFAR Regional Directors, Regional FMA 1 Focal Persons and BFAR staff and personnel, Local Chief Executives, Regional Sectoral Representatives from the Academe, Non-Government Organizations, Municipal Fisheries, Commercial Fisheries, Aquaculture, Traders/Processors, Indigenous People's Group and IFARMC of FMA 1 member regions 2, 3, 4A, 5 and Cordillera Administrative Region (CAR).

The meeting was facilitated by Dr. Emma Ballad, FMA 1 Alternate Focal Person.

In her welcome remarks, BFAR R02 Director Dr. Milagros C. Morales thanked the participation of everyone. "Your presence today signifies your interest in the holistic management of our fisheries and aquatic resources. Maraming Salamat po at kaisa namin kayo sa pagtataguyod ng Masaganang

Ani at Mataas na Kita para sa ating mga mangingisda" said Director Morales.

Fisheries Administrative Order (FAO) 263 series of 2019 establishes 12 FMAs – delineated bodies of water in the Philippines based on approximation of fish stocks and their boundary, range and distribution and other considerations for the purpose of fisheries management or governance that is science-based, participatory and transparent, applying the ecosystem approach to fisheries management (EAFM). BFAR R02 with RD Morales as the Chairperson of the Management Board, leads the implementation of FMA 1, which covers coastal provinces of Batanes, Cagayan and Isabela in Region 2; Aurora in Region 3; Quezon in Region 4A; Albay, Camarines Norte, Camarines Sur, Catanduanes and Sorsogon in Region 5; and the inland waters of the province of Apayao in CAR.

"While we launched last year a lot of FMA activities under provisions of FAO 263, we were hindered by the situation brought by COVID-19 pandemic. As we commemorate the anniversary of the national lockdown which impeded most of our activities, we are all gathered here to continue what is expected from us" Director Morales said. She also greeted all the women participants as the country celebrates

this March the National Women's Month.

Atty. Arsenio S. Bañares, FMA 1 Focal Person discussed the rationale, program flow, and selection process which was followed by the breakout sessions to elect the sectoral representatives. The sessions were facilitated by BFAR Staff from the member regions. The following were elected to compose the FMA 1 Management Board:

**Co-Chair: HON. SHIERWIN H. TAAY;** Municipal Mayor of Dinggalan in Aurora Province

**Indigenous People: MR. JORDAN DELA CRUZ** of Sulong Ipagtanggol Karapatang Katutubo in Casiguran, Aurora

**Municipal Fisheries Sector: MR. JUSTINO DACILLO** of Samahan ng mga Maliliit na Mangingisda ng Sibulan in Polilio Quezon

**Processors/Traders/Market Organization: MS. SANNY CORTEZ** of Women In Fisheries Enterprise (WIFE) in Gonzaga, Cagayan

**Aquaculture Sector: MR. VICTOR SUGUITAN;** Fishpond Operator in Aparri, Cagayan

**Commercial Fisheries Sector: MR. CLAUDIO RODRIGUEZ;** CFVGL operator in Pamplona, Cagayan

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**KALAP NEWSLETTER**



## LGU Sta Ana receives 1M cash grant as 2nd best MMK Awardee

by Aileen D. Silva

TUGUEGARO CITY, Cagayan – The local government unit (LGU) of Sta. Ana, Cagayan has received check amounting to one million pesos as reward for being adjudged second place during the regional search for Masagana at Malinis na Karagatan or MMK CY 2020-2021.

Started in 2016, the search aims to recognize coastal LGUs that were able to meet the criteria set by the awarding body's National Search Committee.

Dr. Emma L. Ballard, MMK Regional Focal Person said that "to ace the search, official entries must have exemplary initiatives and accomplishments in the effort to curb illegal fishing; observe ecosystem approach to fisheries resource management measures such as off-fishing season and ban on the collection of endangered species; have established, formulated and adopted Marine Protected Area (MPA) or Fisheries Management Area; have kept coastal waters clean of domestic solid and/ or liquid waste, garbage or industrial effluence flowing to the sea as a result of innovative waste



The Local Government Unit of Sta. Ana headed by Municipal Agriculturist Richard Alibania joyfully received their 1M worth check as reward for landing second spot during the CY 2020 Regional Search for Outstanding Coastal Municipality or the Malinis at Masaganang Karagatan (MMK). (L-R, Dr. Emma Ballard, Atty. Arsenio A. Bañares, RD Milagros C. Morales, Josefina Baltazar, Richard Alibania, Corazon A. Hipolito)

management or other programs; and lastly, have a successful mangrove protection and rehabilitation program".

Following the awarding ceremony, Richard Alibania, Municipal Agriculturist of LGU Sta. Ana extends deep gratitude to the fisheries bureau for being included in the list of cleanest oceans in Region 02.

"The fisherfolk of Sta. Ana, will be benefitted the most through the cash award which will be utilized for the enhancement of Municipal Fisheries

and Aquatic Resources Management Council (MFARMC) office and processing center," said Alibania.

Meanwhile, BFAR Regional Director Milagros C. Morales added that once the project is in place, it will cater to the needs of around 2,339 (as of May 2020) registered fisherfolk especially during the pandemic. "The fisherfolk whatever sector they are from are considered frontliners in food production, BFAR will always be here to support them, without our fisherfolk, we will not be able to achieve our mandate," Morales said.

## DA-BFAR RO2 holds organization of FMA 1....

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**IFARMC: MR. ARNEL BOHOLTS** of Lagonoy Gulf IFARMC

**Academe: PROF. AGNES FAUSTINO** of Central Bicol State University of Agriculture in Bicol

**NGOs: MR. ARSENIO TANCHULING** of Tambuyug Development Center in Addangan, Quezon

Comm. Eduardo Gongona (PCG Ret.), BFAR National Director, administered the virtual oath-taking and congratulated the elected Management Board. "I am very happy that FMA 1 MB is already formed. I hope that our direction and activities that will be done are really on track and will address all issues we have been into since 2015 and since I became the incumbent Director of BFAR" Director Gongona said.

He also extended regards of Dr. William Dar, Secretary of the

Department of Agriculture, to everyone especially to FMA 1 MB who took their oath today. According to him, Sec. Dar is also promoting local formation of big brother-small brother partnership - a collaboration that addresses the problem of poverty through harnessing the participation of the rich in poverty alleviation and in the pursuit of achieving shared and inclusive growth.

Dir. Gongona emphasized the need to protect our FMAs and to be guided with the principles under the "New Thinking in Agriculture" built around 8 paradigms and the "12 new key strategies" dubbed as the "One DA Holistic Approach to Agriculture and Fisheries Transformation", in order to attain a food-secure and resilient Philippines with prosperous and empowered farmers and fishers. "I urge everyone to concentrate

protecting the municipal waters under FMAs so that we can secure the needed fisheries production, ensure sustainability of resources and increase fisheries productivity. When that time comes, fishing is no longer a right but becomes a privilege", he added.

Meanwhile, in his closing remarks, Hon. Shierwin Taay, Mayor of Dinggalan, Aurora and elected co-chair of FMA 1 MB, has affirmed the support of LGUs to the Bureau's programs, projects and activities, and policies and regulations for the continuous sustainable development of the fisheries sector.

Elected participants shall constitute the FMA 1 MB while the unelected shall automatically become a member of the Technical Working Group of FMA 1.





Residents collect free food packs at community pantry organized by DA-BFAR RO2 in Ambaguio, Nueva Vizcaya.

## DA-BFAR 02 sets up community pantry

by Jemimah Keren A. Carag

**One hundred residents received food packs in a community pantry organized by the Department of Agriculture-Bureau of Fisheries and Aquatic Resources Region 2 (DA-BFAR 02) through its Provincial Fisheries Office in Nueva Vizcaya last June 2.**

DA-BFAR 02 gave a total of 500 kilograms of rice, 100 packs of dried

fish, and more than 150 kilograms of tilapia to the local residents of Ambaguio, Nueva Vizcaya.

Dr. Angel Encarnacion, Planning, Monitoring and Evaluation Unit (PMEU) Chief, said the target recipients of the community pantry were the poor farmers and fisherfolk of the locality.

DA-BFAR-02 Director Milagros Morales stated the activity was in line with the celebration of Farmers and Fisherfolk Month, which is being held every month of May.

These series of food donation prove that the fisheries sector is one with the nation in ensuring the country's food security amid the crisis.

## Not Fishy! DA-BFAR donates tilapia to Asaclat Community Pantry

by Jemimah Keren A. Carag

**The Department of Agriculture-Bureau of Fisheries and Aquatic Resources (DA-BFAR) in Region 2 gave 270 kilograms of freshwater tilapia to a community pantry set up in Brgy. Asaclat, Nagtipunan, Quirino.**

Barangay Asaclat Chairman Ruben Malagda, personally received the 270

kilos of tilapia that were immediately distributed to the families in the community.

DA-BFAR identified the recipients with the concurrence of the Local Government Unit of Nagtipunan through Mayor Nieverose Meneses and Municipal Agriculture Officer Heidi Marquez, who organized the

setting up of community pantry in Brgy. Asaclat.

Most families' means of livelihood in Barangay Asaclat is farming. To encourage them to engage in fisheries, DA-BFAR RO2 Director Milagros Morales said that training and inputs for fish farming and fish processing technologies demo-projects can be provided to them.



## DA RFO 02, BFAR R02 hold 1st Regional Food...

from page 1

Sustainable Development Goals – Goal 2: end hunger, achieve food security and improve nutrition, and promote sustainable agriculture.

“On this monumental day, we have gathered to discuss and firm-up our strategies that will form part of the national blueprint to address the impact of the risks and challenges on our ability to put sufficient, safe and affordable food on the table of every Filipino family. In this extra ordinary time, we need extra ordinary efforts to ensure that food needs of the population are met now and, in the future. Let us focus on the doable solutions now and the more ambitious solutions in the future to transform our agriculture,” Agriculture Secretary William Dar said in his message delivered via webex.

DA Regional Executive Director Narciso Edillo presented the current state of Cagayan Valley’s Agri-industry highlighting the performance, major challenges, and the new DA framework to transform the agri-industry. According to him, despite challenges in the Agriculture sector, Region 02 remains the top corn producer in the country for the last 14 years with about 23% or 1.87M MT contributions to national production and ranks 2nd as rice producer nationwide contributing 14% or 1.6 MMT to national production from 2012 up to the present.

For the fisheries sector, BFAR R02 Director Milagros Morales presented the current state of the region’s fishery industry, issues, challenges, performance and major strategies to attain the twin goals “Masaganang Ani at Mataas na Kita” in the sector.

“BFAR has to manage the 220-million-hectare Philippine waters which is seven times bigger than our land area of 29.8 million hectares. Our activities on the management of these resources are limited to the funds being allocated for us including the number of staff assigned to the Bureau. BFAR, just like DA also needs additional budget,” Director Morales said in her presentation.

“In order to properly manage the fisheries and aquatic resources, and increase fisheries production and

income of fisherfolk, the bureau needs to strengthen its institutional capacity, gain more engagement and support from LGUs and concerned stakeholders, intensify institutional joints commitments among concerned NGAs, and collaborate closely with the business sector” she added.

Selected farmers and fisherfolk representatives also delivered their perspectives which highlight their partnerships with the government and needed support for them to contribute to the attainment of food security.

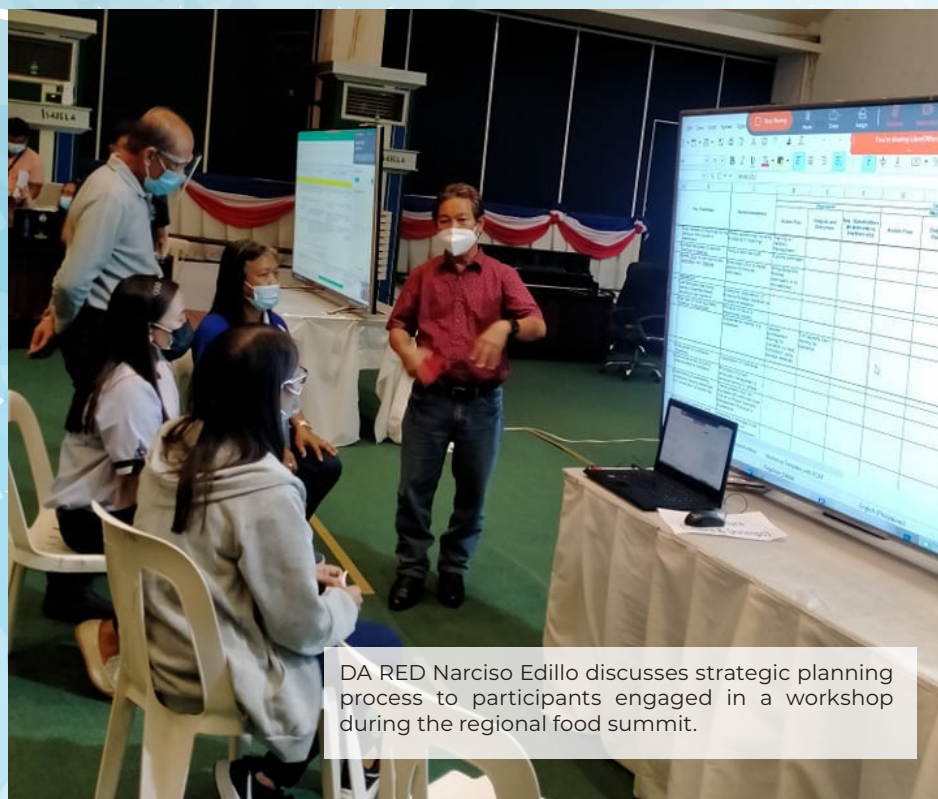
“Hindi po sumusuko ang ating mangingisda sa hamon ng kahirapan at patuloy po kaming nagsusumikap upang matugunan ang pangangailangan ng pagkain sa ating bayan at sa kabila ng lahat ng ito ay nakasama po namin ang gobyerno, hindi po kami pinabayaan at patuloy pong sinasamahan ng ating mga kabalikangin mula sa DA at BFAR, bawat hamon ay pilit pong binibigyan ng tugon. Malayo pa po ang ating lalakbayin at marami pang hamon na haharapin ngunit alam po namin na kung ipagpapatuloy po natin ang mgandang nasimulan at mas palalakasin pa ang ating pagbabalikatan, sigurado po na sa bandang huli ay meron po tayong sapat na pagkaing ihahapag sa mesa

ng bawat mamayan” Babuyan IFARMC Chairperson, Alexander Agra said.

To firm up plans and strategies for the agri-fisheries sector, participants had breakout sessions on different banner commodities namely rice, corn and livestock, vegetables and coffee, Tilapia and Shrimps, and Aramang, during the rest of the days.

Mr. Isidro Acosta Sr., Chair, Regional Agriculture and Fishery Council (RAFC) for Cagayan Valley presented their Policy Agenda for 2021. Outputs of breakout sessions on the different commodities were also presented and evaluated. These outputs will be finalized for submission to DA Central Office as input for the upcoming National Food Summit scheduled on April 28-29, 2021.

The summit was hosted by the Provincial Government of Isabela and attended by approximately 300 participants regionwide from DA RFO 02, BFAR R02, other DA attached Bureaus, Government Owned and Controlled Corporations, Local Government Units, National Government Agencies, Non-Government Organizations, State Universities and Colleges, civil society, private sectors, farmers and fisherfolk associations and cooperatives, and other agriculture and fishery stakeholders.



DA RED Narciso Edillo discusses strategic planning process to participants engaged in a workshop during the regional food summit.



## GAD, VAWC seminar educates BFAR R02 staff on gender sensitivity, respect of women and children's rights

by Aeron D. Mayor



To foster a gender-sensitive working environment, DA-BFAR R02 staff participated in a two-day seminar with topics on gender sensitivity, respect of women and children's rights in time for this year's celebration of Women's Month.

**Tuguegarao City, CAGAYAN – In response to gender issues and to emerging threats to the welfare of women and children, the Department of Agriculture-Bureau of Fisheries and Aquatic Resources Region 02 (DA-BFAR R02) has oriented its staff on Gender and Development (GAD) and Violence Against Women and Children (VAWC).**

The seminar is part of the country's celebration of the National Women's Month with the theme "We Make Change Work for Women, Juana Laban sa Pandemya: Kayal", which honors women who perform extraordinary roles in society amidst the COVID-19 pandemic.

"We purposely organized these seminars because we would want that

everybody is aware of their rights, privileges, and how these would guide them in dealing harmoniously not only within the family but with other people outside their homes" BFAR R02 Director Dr. Milagros C. Morales said in her welcome remarks.

The event is also in line with the bureau's continuing program to mainstream gender concerns as an integral part of the design, implementation, monitoring, and evaluation of programs, projects, activities and policies of the bureau as mandated under Republic Act No. 9710, or the Magna Carta of Women.

"Five percent of the total budget of each government institutions are allocated for the implementation of GAD programs. This seminar is under our GAD program which aims to attend

to women's needs and issues and as our contribution to gender equality and empowerment of all women and girls as one of the targets under the 17 Sustainable Development Goals (SDGs)." BFAR R02 RFTFCD Chief and GAD Focal Person Dr. Evelyn C. Ame said.

Topics discussed include Fundamentals of Gender Mainstreaming; Review of Imperatives on GAD and Gender Mainstreaming Concepts; Differentiation of Sex and Gender; Republic Act 9262 or the "Anti-Violence Against Women and Their Children Act of 2004; Financial Literacy; and Moral Recovery.

In her closing remarks, RD Morales thanked the speakers and inspired the participants. "Rebooting is needed not just for computers but also for us. It is very timely that we have this seminar because next week it will be holy week, a time for us to get back to the things that happened in our life, have a look at our relationship with God and our fellowmen and how we can redirect all these for each and everyone to live happily and have peace of mind where ever we come from and where ever we shall be going. I hope your learnings here will bring us to where God really has planned for us" RD Morales said.

The seminars were done consecutively in two batches on March 23-24, 2021 and March 25-26, 2021 at the MIS Hall, BFAR R02, Tuguegarao City and via zoom.

### PHOTONEWS

**#CASHANDFOODSUBSIDY** || 154 Fisherfolk in Diffun and 22 from Madella, Quirino receive cash and food subsidy from the Department of Agriculture during the ceremonial distribution led by BFAR R02 Regional Director, Milagros Morales.

Eligible beneficiaries received P5,000 worth of assistance. P3,000 of the subsidy were given as cash assistance, while the remaining P2,000 were food items specifically rice (P1,000), P600 (chicken), and P400 (egg).

The Cash and Food Subsidy for Marginalized Farmers and Fisherfolks (CFSMFF) Program is under the Bayanihan II which caters specifically for social protection and social amelioration program.





## BFAR launches agribiz for youth in Cagayan Valley

by Vincent Verzola, MAYA Intern

The Department of Agriculture - Bureau of Fisheries and Aquatic Resources Region 02 (DA-BFAR R02) launched the DA's Mentoring and Attracting Youth in Agribusiness (MAYA) Program on March 15, 2021 at MIS Hall, BFAR R02, Tuguegarao City. Fifteen (15) interns out of 808 interns nationwide will be mentored under the guidance of the DA-BFAR in the region.

These interns will undergo training for six months and expected to become innovative "aquapreneurs" and highly skilled future government officials through seminars and hands-on trainings on agri-fisheries production, management and innovation. A monthly allowance of 20,000 pesos will be given to the interns as they cultivate their skills and passion for the aqua-fisheries industry.

Precious Mira Bautista, an intern and a fisheries graduate from Cauayan City, Isabela, hopes to learn the necessary skill sets to help her expand her tilapia pond which provides her family's daily source of income. "Gusto kong matutunan yung marketing aspect ng pond farming para magkaroon ako ng sarili kong business. Yun talaga ang pangarap ko ever since nakapagtapos ako ng college. Alam ko na matutulungan ako ng MAYA



The 15 MAYA interns of DA-BFAR R02 with Dr. Angel B. Encarnacion, Planning, Monitoring, and Evaluation Unit Chief, and Mrs. Gemma N. Libunao, Head of Marketing Section.

program na makamit ito at sana maka-inspire ako ng mas maraming kabataan na pumasok sa agri-fisheries or agribusiness" Bautista said.

Aiming to encourage more youth to venture into agri-fisheries, MAYA internship focal person in Cagayan Valley Dr. Angel Encarnacion assured that the future is 'bright' for those willing to take part in the development of the agri-fisheries industry in the region. "Once you are done with the internship, you will either become entrepreneurs or future agriculture officials in your respective provinces. Regardless of which track you want to pursue, the opportunities in the

agri-fisheries sector are limitless," said Encarnacion during the event. "More than the financial rewards, you will help communities relying on agriculture to improve their lives as well. That in itself is rewarding. There's a bright future in agri-fisheries waiting for you and this internship program will help you discover that," he added.

The Department of Agriculture initiated the MAYA internship program, as coordinated by the Bureau of Agricultural Research (BAR), to mobilize the youth on becoming country's frontliners on food security and agri-fisheries development.

## DA-BFAR R02 implements best practices for solid waste management

by Kimberly D. Sahilan



**Pursuant to R.A No. 9003 or the Ecological Solid Waste Management Act of 2000, the Department of Agriculture—Bureau of Fisheries and Aquatic Resources Regional Office No. 2 (DA-BFAR R02) implements a systematic ecological solid waste management.**

The Bureau created an Ecological Solid Waste Management Technical Working Group (TWG) and Evaluation Team to facilitate implementation of best practices in solid waste management. Trash bins for compostable, recyclable, residual and hazardous wastes were provided in all divisions and sections in the regional office. Not only labels are placed on the bins but also pictures

of different types of waste to ensure proper garbage segregation.

The TWG conducted an extensive orientation on proper waste segregation and disposal to BFAR R02 staff and personnel. Fines and penalties shall be imposed for violations of said campaign. The bureau will also construct facilities like compost pits for compostable waste and Material Recovery Facility for recyclables.

Regional Director Milagros C. Morales expects for the full cooperation of the employees and encourages them to minimize their waste to create a more environment-friendly workplace for all.





## PARROT-FISH FACTS

Parrot fish (known to scientists as *Scaridae*) are a large family of some 80 different species that frequent coral reefs throughout the Tropics. Their name comes from their distinctive mouth that looks somewhat like a parrot's beak. The length of parrot fish ranges from 20 to 40 inches (50 to 100 cm).

WHERE does sand come from? There are many sources. But the one described in this article might surprise you. It is a fish that grinds coral into fine sand—the parrot fish!

Parrotfish are colorful, tropical creatures that spend about 90% of their day eating algae off coral reefs. This almost-constant eating performs the essential task of cleaning the reefs which helps the corals stay healthy and thriving.

After swallowing crushed coral, they extract tiny food morsels and then expel the rest in the form of sand. To do its job, the parrot fish uses its powerful beaklike jaws and strong back teeth and produces hundreds of pounds (kg) of sand a year.

Parrot fish usually sleep concealed under a ledge, but such a hiding place will not always protect them from a hungry shark.

For additional safety, some parrot fish wrap themselves up for the night. They secrete a protective mucus that envelops them, looking somewhat like a transparent nightgown. Marine scientists believe that this foul-smelling wrapping protects them from predators.

The parrot fish is one of the most visible and attractive fish of the reef. Male and female parrot fish often come in a whole palette of vivid colors, which change as they grow to adulthood. But best of all, parrot fish become quite tame in areas where they are not overfished. So they are some of the easiest fish to observe.

Source: jw.org



## FISH NUGGETS

Raw Material : 3 cups minced fish\*

### Ingredients:

- 1 ½ cup onion (chopped)
- ¾ cup breadcrumbs
- 1 tbsp. cooking oil
- 2 tsp. white sugar
- ¼ cup garlic (minced)
- 2 pcs. shrimp cube or ½ cup shrimp flesh
- cooking oil for frying
- ½ cup flour
- ½ tsp. iodized salt

### Procedure:

1. Mix all ingredients.
2. Mold or form into desired size.
3. Dip nuggets into the prepared batter mix, then coat with breadcrumbs.
4. Pack in a polyethylene bag and seal.

5. Keep the product frozen for longer storage.

### Batter Mix Preparation:

- 2 pcs. Egg
- 1 tsp. iodized salt
- ¾ cup cornstarch

- \*\* Beat the eggs, add cornstarch and salt then stir.

### Cooking Procedure:

- \*\* Deep fry until light brown.

### \*MINCED FISH PROCESSING (TILAPIA)

1. Remove the head, viscera, scales and wash thoroughly.
2. Fillet the fish.
3. Pass through in a meat grinder.
4. Keep frozen until used for product development or processing.

