

DA-BFAR R02 awards 8.4M fishery projects to fisherfolk

TUGUEGARAO CITY, Cagayan – The Department of Agriculture-Bureau of Fisheries and Aquatic Resources Region 02 has awarded Php 8.4M worth of fishery projects to marginal fisherfolk in Cagayan and Isabela during a ceremony held at Centro, Sta. Ana, Cagayan on November 26, 2020.

BFAR Director Commodore Eduardo B. Gongona (PCG, Ret.), BFAR R02 Director Milagros Morales, and

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COMMITTED TO FISHERIES PRODUCTIVITY. BFAR Director Eduardo B. Gongona (PCG, Ret.) together with BFAR R02 Director Milagros Morales hands over fingerlings to a fisherfolk beneficiary as part of the 8.4 M fishery project grant.

New BFAR tech promises 3-fold rise in fishpond yield



Fishpond operators now have a means to drastically increase their yield following the launching of Solar Venturi System Project in Tuao, Cagayan last December 11, 2020.

A techno-demo and livelihood project under the Department of Agriculture's Ahon Lahat, Pagkaing Sapat Kontra sa COVID - 19 (ALPAS Kontra sa

COVID 19) program, the Solar Venturi System is an aeration device intended to increase the dissolved oxygen level in fishponds, making it possible to increase stocking density.

"From the previous 5 pieces fingerlings per square meter under semi-intensive fishpond culture

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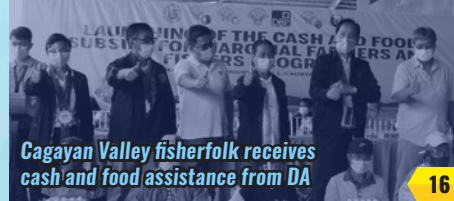
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KALAP is a semestral newsletter of the Bureau of Fisheries and Aquatic Resources Regional Office No. 02. The publication is a compilation of news and feature articles released by the Bureau during the given period.

For information and feedback, please send to:

Department of Agriculture
Bureau of Fisheries and Aquatic Resources - Region 02
Regional Government Center
Carig, Tuguegarao City
Telefax: (078) 304 5331 / (078) 396-9774
E-mail us @
bfar_ro2@yahoo.com
bfar2fis13@gmail.com

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PFOs and UNITS
PIA Region 02
Contributors

LEO REYES
JAYLORD A. CABULAY
Layout and Design

ADVISORY BODY AND TECHNICAL CONSULTANTS

MILAGROS C. MORALES, DrFT, CESE
Regional Director

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PFO, Quirino

MR. LEO S. PALOLAN
PFO, Nueva Vizcaya

REGIONAL DIRECTOR'S Message

MILAGROS C. MORALES, DrFT, CESE



Magandang araw po! Sa lahat ng nakipagkaisa sa aming pagdiriwang ng ika-57 na Fish Conservation Week maraming maraming salamat po. Patuloy ang BFAR sa iba't-ibang aktibidad upang mapanatili natin ang suplay ng isda sa kabila ng pandemya na ating nararanasan sa panahong ito. Nariyan ang pamamahagi ng semilya ng isda, ang pagsasagawa ng regular na law enforcement activities, pamamahagi ng iba't-ibang teknolohiya at mga proyekto tulad ng mga fishing gears, mga bangka at mga kakailanganin ng ating mga mangingisda. Upang matulungan pa natin ang mga mangingisda sa pagmamarket o pagbebenta ng kanilang huli ay mayroon po tayong isinasagawang KADIWA na kung saan ang ating mga mangingisda ay nagdadala ng kanilang mga nahuling isda dito sa lungsod upang ipagbili. Ang KADIWA center natin ay isa ng regular na aktibidad ng BFAR at ito'y isinasagawa tuwing ikalawang linggo ng buwan.

Isinagawa rin ang pagsira ng mga nakumpiskang illegal fishing gadgets at illegal fishing gears kasama ng ating mga panauhin na kinabibilangan ng mga nasa Philippine Navy, Philippine Marines and Philippine Coastguards, at mga Local Government Units.

Sa Cagayan, Quirino at Isabela sisimulan na rin ang isang proyekto upang sa gayon ay maiwas ang ating katubigan mula sa invasive species. Mayroon po tayong tinatawag na janitor fish sa Cagayan River at ito ay lubhang mapanira dahil kinakain po niya ang maliliit na anak ng ibang mga isda sa ating Cagayan River System. Kaya naman bibilhin ng BFAR ang mga janitor fish na mahuhuli ng mga mangingisda upang magamit ang mga ito sa eksperimento sa pagbuo ng isang produkto, ihihiwalay po ang oil ng janitor fish sa tulong ng Cagayan State University. Bilang selebrasyon din ng FishCon and Municipality ng Basco sa Batanes, ay nagsagawa ng mangrove planting gamit ang mga mangrove-related species na dati nang nandoon.

Ang pangangalaga at pagpapahalaga sa ating mga resources ay hindi lang responsibilidad ng ating ahensya kundi, responsibilidad nating lahat. Considering na ang management ng ating fisheries resources entails holistic approach, kailangan po nating magkaisa upang ang mga ito ay ating mapangalagaan. Gaano man kaliit ang ating ginagawa ito ay makatutulong at magbibigay ng malaking kontribusyon sa pangangalaga ng ating mga likas na yaman. Ang pagmementena ng kalinisan, pag-iwas sa pagtapon ng mga dumi o basura sa mga katubigan, panghihikayat sa ating mga kababayan o mangingisda na huwag gumawa ng mga iligal na pamamaraan ng pangangisda. Ang lahat ng ito ay makatutulong upang maiwasan at mabawasan ang pagkasira ng ating mga likas na yaman at sa ganitong paraan ay maari nating makamit ang sustainable development at productivity ng ating mga resources.

Sa inyong lahat, maraming salamat po sa inyong suporta!

**Message delivered from Regional Director during the 57th Fish Conservation Week Celebration.*



ALPAS: The New Normal approach to Food Security

Life situation has profoundly changed as the world adapts to life in this time of pandemic. As things start to settle, all-new issues have begun to crop up, putting many communities at risk and finding it hard to adjust.

With the rippled effect of this pandemic, one of the greatly affected sectors are the providers of food, farmers and fisherfolk. Poverty among farmers and fisherfolk has fallen over time—lack and loss of income. As they run out of money, their ability to produce food will lessen. Eventually, they won't be able to produce food at all, which will become a great problem for those living in the cities. With food producers unable to make food, markets will collapse and the Philippines might spiral further into a nationwide food crisis.

Looking ahead, policy makers plan beyond the crisis with an initial framework developed by the Inter-Agency Task Force, “We Recover as One.” Planning for the COVID-19 aftermath, rebuilding is much challenging, yet it presents a

unique opportunity to promote the reconstruction of an agriculture and fishery sector that is more resilient, inclusive, competitive, and environmentally sustainable than it was before.

In fact, Ahon Lahat, Pagkaing Sapat (ALPAS) Kontra sa COVID-19 has been launched as soon as the pandemic strikes. The ALPAS Kontra sa COVID-19 aims to roll out immediate interventions for food production and availability, food accessibility and affordability, and food price stabilization, the Department of Agriculture (DA) with the Bureau of Fisheries and Aquatic Resources (BFAR).

Small-scale Aquaculture for increasing Resilience of Rural Livelihoods in the Region

Over the years, aquaculture has been developed as one of the fastest growing food production sectors. Even so, local fish supplies are extremely inadequate to meet the ever increasing demand in the region. Cagayan Valley imports substantial quantities of fish and

fishery products from different parts of the country.

Integration of aquaculture in existing crop-livestock-based farming system is believed to be effective in increasing local fish supply and diversifying livelihood options of a large number of small-holder farmers’ plains and mid-hill valleys, thereby also increasing resilience of rural livelihoods. There is growing appreciation of the role of small-scale aquaculture in household food and nutrition security, income generation, and empowerment of women and marginalized fisherfolk.

However, access to financial and social assistance is also a driving factor in successful aquaculture production. Because they are vulnerable to price volatilities, small-farm holders rely on access to capital for farm development and financial and social assistance to provide a safety net.

As a solution, the government, through the Bureau of Fisheries

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DA-BFAR RO2 launches ALPAS – Kontra sa COVID-19 Project



YES TO PROGRESS. Regional Director Milagros C. Morales spearheads launching of Fishcage for Livelihood in Silagan, Allacapan, Cagayan.

TUGUEGARAO CITY - In an effort to effectively generate higher income, increase fisheries production and ensure affordability and availability of fish supply during this pandemic; the Department of Agriculture - Bureau of Fisheries and Aquatic Resources Region 2 in collaboration with the Local Government Unit of Allacapan, launched a Fish Cage Livelihood Project at Barangay Silagan, Allacapan, Cagayan on December 8, 2020.

The said livelihood is a pilot project of the bureau under the Enhanced Aquaculture and Sustainable Capture Fisheries of the "Ahon Lahat, Pagkaing Sapat (ALPAS) Kontra sa COVID-19" of the Department of Agriculture which aims to ensure food sufficiency during the pandemic. Despite the bumpy road and a holiday, it did not stop the concerned personnel to pursue in launching the project. The ceremonial fish stocking was spearheaded by Dr. Milagros C. Morales, BFAR RO2 Regional Director, together with Mr. Venchito Villarao, Provincial Fishery Officer for Cagayan,

Mr. Eliseo Galura, Municipal Agriculture Officer, and Mr. Gary Pacis, Chairman of Barangay Silagan, both from Allacapan, Cagayan.

Aside from the 2 units fish cages measuring 5m X 10m X 2.5m each, awarded to Napuparan SWISA (Napuparan Small Water Impounding System Association), the bureau also provided 60 bags of feeds and 6,000 pieces of tilapia fingerlings. Culture period is 4 months and expected profit shall be used for succeeding operations to ensure sustainability of the project.

According to Director Morales, the assistance of the government is not new to barangay Silagan because fisherfolk in the area had received other fishery projects in the past which were well managed and successfully operated.

Director Morales reiterated that the Government through BFAR will remain steadfast in its support to the needs of its people. That this project is just the beginning, the bureau can still provide additional fish cages if the project becomes successful. After project operation, the bureau will also train the cooperators on post-harvest technologies so that they can add value to their produce and increase their income.

In addition to the assistance provided, the municipality will also receive 10 units of motorized flat bottom fishing boats and 4 units of non-motorized flat bottom fiberglass-reinforced plastic (FRP) boats which will be used during project operation. Other fisherfolk organizations managing the other small water impounding projects and rivers in the municipality will also be given a share of the fishing boats.

Lastly, Mr. Danilo M. Vilorio, Chairman of Napuparan SWISA encouraged the recipient fisherfolk to nurture and protect the project entrusted to them. The fisherfolk also hope to be granted a farm-to-market road for them to transport their products easily to the market and distribution centers.

❖ Kimberly D. Sahilan



NFRDI project augments local fingerling supply

TUGUEGARAO CITY, Cagayan – Fishpond owner Marvi Baltazar, could not believe her eyes, when she saw the tilapia fingerlings she ordered from Filemon Guzman, a fellow fish farmer from Tuao town, this province.

“These fingerlings look big and are uniform in size, compared to previous stocks we purchased from the neighboring province which were too small and can hardly be seen,” an elated Baltazar said.

Guzman himself is a newbie in the fingerling production business, but he was able to produce quality seed materials, being recipient of the Adoption of Modified Intensive Fry Production and Nursery Rearing of *Oreochromis niloticus* for Village Level Production in the Northern Luzon project from the Manila-based National Fisheries Research and Development Institute (NFRDI).

The 5,000 pieces fingerlings purchased by Baltazar, is the very first production since the formal start of the project in September this year.

Guzman’s fry rearing project is part of a 2-component project being implemented by the NFRDI in partnership with the BFAR Regional Office here that aims to disseminate appropriate technology to boost or make available tilapia fingerlings in areas where supply is scarce.

Per project design, Guzman is set to receive a total of 1.2 million pieces fry from the NFRDI c/o the National Freshwater



TOWARDS ABUNDANT HARVEST. Local fish farmers happily receive their seed materials from Mr. Filemon Guzman, a fish farmer who adopts Modified Intensive Fry Production.

Fisheries Technology Center in Muñoz, Nueva Ecija good for two cycle operation. He will then rear these to fingerling size for a period of 30-45 days then dispose to fish farmers within his radius. Operational cost such as feeds, and labor (pakyaw) during harvesting and farm paraphernalia and equipment such as hapas, fish graders and water pump will also shouldered by the NFRDI.

Proceeds of the project, estimated at PhP of 92,000 per cycle (30-45 days), will go to the cooperator. Nursery rearing will run for 45 days per cycle or 6 cycle operation per year.

Intensive tilapia hatchery

The other component of the project is the adoption of Modified Intensive Fry Production, currently being implemented at the farm of Hermogenes Dingil, also from Tuao. Rearing of fingerlings for the development of tilapia breeders is on-going.

The two projects are designed to be complementary. Dingil will produce tilapia fry, which Guzman will rear to fingerling size. In such a way, fry production cycle can be shortened and more fingerling can be produced by utilizing areas of both farms.

Consequently, local fish farmers’ income can be raised by having ready source of quality seed materials, lesser transport expenses, and more affordable fingerlings.

“We thank the NFRDI through its Interim Executive Director, Dr. Lilian C. Garcia and BFAR NFFTC Center Director Ms. Jodecel C, Danting for showcasing these new technologies in our area. Surely, said technologies are much needed and can go a long way in boosting fingerling production and fish production in our region,” BFAR RO2 Regional Director Dr. Milagros C. Morales said. ❖ Maximino C. Prudencio Jr.

Gonzaga town wins 1st Place in the MMK Regional Search

TUGUEGARAO CITY, Cagayan – Municipality of Gonzaga bagged the 1st place award with P2M worth of livelihood projects as prize, in the recently concluded CY 2020 Malinis at Masaganang Karagatan (MMK) Search for Outstanding Coastal Community – Regional Level.

Gonzaga topped the MMK evaluation process, followed by Sta. Ana and Aparri which won 2nd and 3rd place receiving a P1M and P0.5M prize worth of livelihood projects, respectively. All towns are located in Cagayan province.

“We are fortunate in Region 02 to have candidates on MMK Search, which shows serious efforts of communities to protect and conserve our fisheries and aquatic resources” BFAR R02 Director Dr. Milagros Morales said in her welcome remarks during the MMK evaluation process. “With these collaborative efforts, we can ensure an increase in fish production and fish sufficiency level in the region, contributing to food security and sustainable development as a whole”, she added.



The municipality of Gonzaga will represent Region 02 in the MMK Search at the National Level.

MMK awarding ceremony was held during the opening program of the 57th Fish Conservation Week on September 14, 2020 at BFAR R02. Present during the ceremony were Municipal Agriculturist Ferdinand Baclig and staff for the municipality of Gonzaga, MA Richard Alibania for Sta. Ana, and Mayor Bryan Dale G. Chan and MA Marites Robinion for Aparri, other LGUs, Philippine Coast Guard, PNP Maritime, and Zoological Society of London.

The MMK, a banner program of DA-BFAR which started in 2016, aims to evaluate and

recognize outstanding initiatives and contributions of coastal towns to sustainable fisheries development. It centers on the significance of sustainably managing the country’s fisheries and aquatic resources and promoting fishery stakeholder’s engagement in resource protection and conservation.

The coastal towns were evaluated based on five criteria: (1) absence of illegal fishing, (2) observance of closed fishing season, (3) establishment of MPAs, (4) clean coastal waters without domestic and industrial wastes and, (5) effective mangrove protection and rehabilitation program.

A Regional Technical Search Committee (RTSC) composed of DA-R02 Executive Director, DENR-R02 Representative, DILG-R02 Representative, Philippine Coast Guard R02 Representative, BFAR R02-FMRED, headed by BFAR R02 Regional Director conducted the MMK evaluation process.

❖ Aeron D. Mayor



MALINIS AT MASAGANANG KARAGATAN. Overview of Marine Protected Area in Matara, San Jose, Gonzaga which has been designated for the conservation of marine fisheries and aquatic resources.

Macos receives its 2M MMK prize



The municipality of Maconacon, Isabela, thru its liaison officer Mr. John Ignacio, received its Php 2 million Regional First Placer prize under the Malinis at Masaganang Karagatan (MMK) Search for Outstanding Coastal Community,

The simple turn-over of cheque was facilitated by BFAR RO2 Regional Director Dr. Milagros

Morales at the BFAR Regional Office in Tuguegarao City last Friday, July 3, 2020.

The municipality will use the amount to further improve its fisheries sector thru the purchase and awarding of several livelihood projects and inputs such as freezer, GPS, luring devices, Fish Aggregating Devices, fiberglass reinforced plastic fishing boats with

engine, fish stall, fish pond demo and capability building for its MFARMC and fisherfolk associations.

"We congratulate the municipality of Maconacon for its exemplary achievement with regards to the 5 main criteria under the MMK," RD Morales said. The criteria mentioned by the RD are, 1) no illegal fishing, 2) observance of off-fishing season, 3) declared MPAs, 4) clean coastal waters without any garbage or industrial effluent flowing to the sea and 5) effective mangrove protection and rehab program.

On the other hand, MMK Regional Focal Person Dr. Emma Ballad is calling on other LGUs to participate in this year's stage, with deadline of submission of nomination papers set on Aug. 31, 2020. ❖ Maximino C. Prudencio Jr.

BFAR gives boats, lifevests to Rizal fisherfolk

TUGUEGARAO CITY, Cagayan, 8 Aug. (PIA) –The Bureau of Fisheries and Aquatic Resources (BFAR) here recently gave fiberglass - reinforced plastic boat and lifevests to fisherfolk in support of the National Task Force to End Local Communist Armed Conflict (NTF-ELCAC) Convergence Program.

"This is BFAR's share in our government's program through Executive Order No. 70 or the whole-of-nation-approach through the NTF - ELCAC under the Poverty Reduction, Livelihood and Employment Cluster (PRLEC)," BFAR Regional Director Milagros Morales said. This came after the Technical Education Skills and Authority (TESDA) launched two of



SUPPORTING ALL THROUGHOUT. BFAR gives fiberglass reinforced plastic boats and lifevests to fisherfolk during the project launching of Anurturu Organic Farm.

its Convergence Projects in identified barangays under the Retooled Community Support Program (RSCP) of EO No. 70 and spearheaded the establishment of Organic Farm at barangay Anurturu, Rizal and at barangay Balanni in Sto. Niño to support residents on food security.

"BFAR has been supporting marginal fisherfolk even those in the mountains and islands through the provision of trainings and livelihood because they are one of the poorest of the poor sectors of society," Morales said. ❖ (ALM/BME/GVB PIA - 2/Cagayan)

Eel Culture Technology Verification seen as first step towards export market



TECH INNOVATION IN EEL CULTURE. Isabela State University Freshwater Fisheries Center Director Isagani Angeles together with BFAR staff and recipients of elvers stocked elvers to be cultured in tanks located in Isabela State University Echague Campus.

TUGUEGARAO CITY, Cagayan – The fisheries bureau in Region 02 provided 180,000 pieces elvers (*Anguilla spp.*) to fish farmers in Isabela and Nueva Vizcaya as part of the collaborative Technology Verification (TV) trial on eel culture.

Co-operators of the TV trial are selected fish farmers who are members of the newly registered Cagayan Valley Aquaculture Producers Cooperative (CVAPCo) based in Isabela province, specifically from Ramon, Echague, Cauayan City and San Mateo, and a fish farmer from Quezon, Nueva Vizcaya.

While BFAR RO2 provided the elvers (young eel) which were procured from gatherers in Aparri, the facilities and inputs are shouldered by the cooperators.

“Partnering with individual fish farmers who have the capital and with Isabela State University – Echague Campos, which serves as main technology source, is the best way for us to undertake culture studies for this locally-abundant but new aquaculture species that has high export potential,” Bureau of Fisheries and Aquatic Resources – Region 02 Director Dr. Milagros C. Morales said.

While Region 02 has been a big source of elvers in previous years with price reaching as high as Php 45,000 per kilo in the export market, this lucrative industry has been put to a halt due to reimposition of the ban on export as embodied under Fisheries Administrative Order 242.

This regulation was issued to forestall issues of over-exploitation due to the high export price.

This TV trial will enable the region to re-enter the export market. Sizes allowed for export, which are more than 15 cm will be made available thru the TV trial, and thus enable local farmers to earn more up the eel value chain, Dr. Evelyn Ame, eel focal person of BFAR RO2, said. “The bureau will monitor and document the culture techniques of each cooperator and select the best technology in terms of profitability, which will then be disseminated to fisherfolk,” Ame 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.

Technology

As stated in the project proposal, glass eels are 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. 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.

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

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Aparri implements anti-COVID 19 measures for its fisherfolk

TUGUEGARAO CITY, Cagayan – Aparri town, this province, will purchase equipment and gadgets needed to protect its fisherfolk against the COVID-19 virus.

According to Agricultural Technologist Gerthruide Banadero, the local agriculture office came up with the decision taking into consideration gravity of the pandemic and the 24/7 anti-COVID checkpoint in the town and related ordinance that imposes Php 500.00 fine for those found not using face mask.

The planned anti-COVID interventions include purchase of infrared thermometer, thermal scanner, mask, shoe cover, googles and provision of insurance.

Eel culture Technology Verification...from p8

with high-energy and 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 (6) months to one (1) 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. ❖ *Aeron D. Mayor*



REWARD OF ZEALOUSNESS. Ms. Marilyn T. Teng of LGU-Aparri receives their cash prize amounting to P0.5 M through BFAR R02 Director Milagros C. Morales with the presence of other BFAR R02 officials.

Fund for the said intervention comes from the town's Malinis at Masaganang Karagatan (MMK) Search for Outstanding Coastal Community prize for 2018. A consecutive regional third placer, the town will also use its winnings for 2019 to purchase life vests for its fisherfolk, specifically fishing boat operators who have recently renewed their registration. The provision of life vests will enable the fisherfolk to comply with the inspection being conducted by the Philippine Coast Guard.

As for the current year, Banadero said that the town will again vie for the MMK. "We will put forward new accomplishment vis-à-vis the MMK criteria," Banadero said. The new accomplishment include the operation of the town's sanitary landfill, riverbank restoration, among others.

Meanwhile, MMK Regional Focal Person Dr. Emma Ballard mentioned that the LGU of Uyugan, Batanes have received its Php 1 million second placer prize earlier this year. The prize will be used to fund renovation

of their fish processing center and wet market, and purchase fisheries post-harvest equipment.

Regional MMK first placer went to the town of Maconacon, Isabela with top prize amounting Php 2 million.

Dr. Ballard reiterated the deadline of submission of nominations for regional evaluation which is this coming August 31.

The MMK is a flagship program of the Bureau of Fisheries and Aquatic Resources that aims to evaluate and give recognition to municipalities that have outstanding accomplishment with regards to the Search criteria.

Municipalities are evaluated based on 1) implementation of anti-illegal fishing measures, 2) observance of off-fishing season, 3) declared MPAs, 4) clean coastal waters without any garbage or industrial effluent flowing to the sea and 5) effective mangrove protection and rehab program.

❖ *Maximino C. Prudencio Jr.*

DA-BFAR, sinimulan ng ipatupad ang Ludong “closed season”



OPLAN SAGIP LUDONG. Makikita sa larawan ang isdang ‘ludong’ na siyang pinakamahal na isda sa bansa kung kaya’t patuloy na tinitiyak ng BFAR ang pagpaparami nito sa pamamagitan ng pagpapatupad ng closed season kada taon.

Alinsunod sa Bureau Administrative Circular (BAC) No. 247 s. 2013, inihayag ng Department of Agriculture - Bureau of Fisheries and Aquatic Resources (DA-BFAR) ang muling pagsisimula ng “Closed Season” ng Ludong simula ika-1 ng Oktubre hanggang ika-15 ng Nobyembre ngayong taon sa Northern Luzon.

“Ang pagpapatupad ng closed season kada taon ng BFAR ay patunay na tayo ay seryoso na protektahan at pangalagaan ang napakahalaga ngunit nanganganib ng maubos na isdang Ludong upang sa ganun ay maparami natin ang kanyang populasyon, sa ganitong paraan ay mapapanatili ang kagandahan at kayamanan ng ating ilog para sa susunod pang henerasyon” aniya ni DA-BFAR national director Comm. Eduardo B. Gongona (PCG, ret.).

Sakop ng BAC 247 ang kabuuan ng Cagayan River at mga tributaryo nito sa Region 02 at ang Abra River at mga tributaryo nito sa Ilocos at Cordillera.

Layunin ng closed season na bigyang pagkakataon

ang mga buntis na Ludong na makapangitlog sa tubig-alat upang maparami ang populasyon nito, na siyang mahalagang pinanggagalingan ng kabuhayan ng mga mangingisda.

“Ang mga BFAR R02 law enforcers ay nakatalaga na sa mga Ludong hotspots maging sa ilog o lupain man sa rehiyon dos para sa implementasyon ng BAC 247” aniya ni Sherwin Buguina, Fisheries Protection and Law Enforcement Group (FPLEG) Chief.

Kasabay ang implementasyon ng BAC 247 ay ang pagsasagawa ng IEC campaigns ng BFAR habang hinihintay ang pagbaba ng Ludong para makapangitlog na sumasabay sa pagtaas ng tubig ng Cagayan River dulot ng bagyo o matinding pag-ulan.

Nagbibigay tayo ng babala sa mga mangingisda na huwag ng pumalaot sa mga panahong ito sapagkat ang ating mga fishery law enforcement ay nakahandang manghuli kapag sila ay nakitaan ng paglabag.

Nakasaad sa BAC 247 na ipinagbabawal ang pagkakaroon,

pagtataglay, pagbebenta, pag-export at paghuli sa anumang pamamaraan at anumang produkto galing dito kaalinsabay ng closed season. Ang parusa sa paglabag na ito ay pagkabilanggo mula anim (6) na buwan at isang (1) araw hanggang anim (6) na taon at/o multa na 6,000 pesos. Mas mabigat na parusa naman na pagkabilanggo mula anim (6) na buwan at isang (1) araw hanggang walong (8) taon at/o multa na 80,000 pesos kapag ang paglabag ay paghuli ng buntis na Ludong o di kaya ay sexually mature na lalaki. Samantala, ang pag-export ng buntis na Ludong o di kaya ay sexually mature na lalaki ay may kaparusahan na pagkabilanggo ng walong (8) taon, pagkumpiska o multang katumbas ng dobleng halaga ng Ludong at pagkansela sa lisensiya at permit.

“Nakikiusap kami sa mga kasama nating mangingisda, mamimili o konsyumer na sundin ang BAC 247 upang sa ganun ay bigyang pagkakataon na makapangitlog ang Ludong at maparami ang kanyang populasyon, ang pakinabang nito ay hindi lang para sa atin kundi maging sa susunod pang henerasyon” aniya ni BFAR RO2 Regional Director Dr. Milagros C. Morales.

Ang DA-BFAR ay patuloy na nakikipag-ugnayan sa mga mangingisda, LGUs, ibat-bang ahensiya ng gobyerno at mga fishery stakeholders sa pagpapatupad ng mga pamamaraan para mapangalagaan at mapigilan ang tuluyang pagkaubos ng Ludong. ❖ Aeron D. Mayor

BFAR 2 opens scholarship for SY 2021-2022

TUGUEGARAO CITY, Cagayan – The fisheries bureau in Region 02 has opened its campaign relative to its scholarship offer for a course leading to a bachelor's degree in Fisheries.

From two categories namely, Fisheries Industry Leaders Grant (FILG) and Fisherfolk Children Educational Grant (FCEG), the Bureau has added new category for Indigenous Cultural Communities / Indigenous Peoples (ICC/IP). As such, total slots for Region 02 have also increased to 26 for SY 2021 - 2022, Dr. Ronaldo Libunao, Bureau of Fisheries and Aquatic Resources – Region 02 regional scholarship coordinator, said.

The FILG is open to senior high school graduate or graduating students. Applicants must not be more than 25 years of age and have not earned any units in college, and must belong to the top ten of his/her graduating class. The applicant must be a resident of a municipality in Region 02 for at least six months and should also be of good moral character.

The FCEG on the other hand, is open to any senior high school graduate or graduating student whose parent(s) is



a registered fisherfolk. For senior high school graduate applicants, general weighted average (GWA) shall not be lower than 80%. For graduating students, GWA during Grade 11 must be 80% and above. Other qualifications under the FILG, not in contradiction with the above, also apply.

The ICC / IP category on the other hand, is available for any Senior High School graduate or graduating student who is a member of ICC / IP, and must not be more than 25 years old at the time of exam. GWA under this category must not be lower than 75%.

Application forms are available at the Municipal Agriculture Office and at BFAR RO2 regional & provincial offices, farms and stations. Application forms are also downloadable at BFAR

RO2 Facebook account – BFAR Cagayan Valley. Deadline of submission of application form is on Oct. 15, 2020 and can be submitted at same offices.

Scholarship support for all three categories includes free matriculation and required school fees, monthly stipend of P4,000.00, OJT support of P3,000.00, book allowance of P2,000.00 per semester, thesis support of P7,000.00 and graduation support of P1,500.00.

Dr. Libunao said that qualified applicants will be invited to take qualifying examination scheduled on November at designated testing centers in every province.

Scholarship grantees will be allowed to enroll at CSU, Aparri, Cagayan; ISU, Roxas, Isabela; and NVSU, Bayombong, Nueva Vizcaya, CLSU and UP Visayas, subject to independent admission requirements of these colleges.

“Qualified and willing students should apply now. We render continuous monitoring and technical support to scholars – during their studies and after, during job placement, to ensure their success,” Dr. Libunao, said.

✦ Maximino C. Prudencio Jr.



FUTURE BFAR SCHOLAR. Student applicants took their qualifying examination to avail the Bureau of Fisheries and Aquatic Resources Scholarship Program.

DA-BFAR R02 celebrates 57th Fish Conservation Week



TUGUEGARAO CITY, Cagayan - The Bureau of Fisheries and Aquatic Resources Region 02 kicked-off the week-long celebration of 57th Fish Conservation Week with the theme: “Karagatan ay Pangalagaan Upang Ani at Kita ay Makamtan Maging sa Gitna ng Pandemyang Hamon sa Bayan”.

During the first day of the celebration, Dr. Milagros C. Morales, BFAR Region 02 Director in her speech commended the collective efforts of the fishery stakeholders, as one of the front-liners in ensuring food security, protecting the fisheries and aquatic resources in this time of pandemic.

The ceremony was also graced by Commodore Hostillo Arturo E. Cornelio, Commander of Philippine Coast Guard, he pointed out the importance of strong collaboration with BFAR in the protection and conservation of fisheries and aquatic resources, which resulted to significant accomplishments in the fisheries sector.

BFAR celebrates Fish Conservation Week every year

during month of September to increase awareness on the need to conserve and protect the country’s fisheries and aquatic resources.

Highlights of the week-long celebration are the following:

- Awarding of Gawad Pagkilala sa mga Kabalik sa Pangisdaan to Zoological Society of London, PLGU Quirino and MLGU Maddela, and Gawad Pasasalamat sa mga Kabalik sa Pangisdaan to PNP Maritime Unit 2 and PCG Claveria.
- Recognition of outstanding coastal municipalities with exemplary efforts in protecting and conserving their marine environment in Region 02 through the Bureau’s Malinis at Masaganang Karagatan (MMK) program wherein the municipality of Gonzaga won the first prize in Regional Level.
- Awarding of Loyalty Awards for BFAR R02 Employees to recognize the significant contributions and role of its employee in delivering outstanding services as the bureau continues to give

the best public service it can offer to its clientele, the fisherfolk. During the program, Gawad Pagkilala were given to PFO Ritchie Rivera, Mr. Rodel Pasaraba, Ms. Imelda Pascual, Dr. Emma Ballad, Ms. Potenciana Anog, PFO Venchito Villarao and Dir. Milagros C. Morales.

- Dismantling of illegally caught fishing gears and paraphernalia
- Signing of Commitment on Good Governance and No to Corruption by BFAR R02 employees as pledged to support good governance and corruption-free agency in response to President Rodrigo Roa Duterte’s call for transparency and integrity in all government offices
- Agri Aqua Trade Fair and exhibits
- SCUBASurero and Coastal Clean-Up Drive in Cagayan province at San Vicente Port, San Vicente, Sta Ana; Matara Beach at Sitio Matara, San Jose & Minanga, Gonzaga; and Taggat Mingay Beach, Sta Praxedes. River Clean Up Drive at Ganano River, Ganano, Diffun, Quirino. The activity aims to promote clean waters and safe seas for fisheries and aquatic organisms through removal of trash and debris along water bodies. Waste collected were properly segregated and disposed. The activities were participated by representatives from, LGUs, PNP Maritime, Coastguard, MENRO, MFARMC officers and members of different fisherfolk associations.

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DA-BFAR R02 conducts implementers training on EAFM

Tuguegarao City - Department of Agriculture-Bureau of Fisheries and Aquatic Resources Region 02 held a 3-day Implementers Training on "Ecosystem Approach for Fisheries Management (EAFM)" on December 1-3, 2020 at MIS Hall, BFAR R02, Tuguegarao City.

The training, participated by selected personnel of the bureau, aims to capacitate implementers in the application of an EAFM in a Fisheries Management Unit (FMU) (i.e species-based, gear-based, area-based or combination of all of such).

"BFAR R02 leads the implementation of Fisheries

Management Area (FMA) 1 covering the coastal provinces of Region 02, Region 03, Region 4A and Region 05. This training is a preparation to be able to harmonize and synchronize efforts of FMA in these regions. Fisheries management is an un-ending effort, so let's make ourselves useful and relevant to the needs of fisheries development" BFAR R02 Director Dr. Milagros C. Morales said in her message.

Fisheries Administrative Order (FAO) 263 establishes 12 FMAs – a 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).

The EAFM approach is a practical way to implement sustainable development and sustainably maximize the ecosystem benefits of a fishery system. It emphasizes the balance of ecological well-being with human well-being founded on good governance for future generations.

Meanwhile, second batch of trainers will attend the same training scheduled on December 9-11, 2020. ❖ *Aeron D. Mayor*

DA-BFAR R02 celebrates 57th Fish Con...from p12

- Eel dispersal under Stock Enhancement Component of Project Balik Sigla sa Ilog at Lawa (BASIL). A total of 50 kgs or 250,000 pcs elvers (young eels) fingerlings were stocked along the Cagayan River Basin System in municipalities of Lallo, Alcala, Amulung, Gattaran, Tuguegarao City, Enrile, Iguig and Penablanca, all in Cagayan province. The project aims to rejuvenate the country's major bodies of water to optimize its economic benefits that will enhance fisheries towards sustainability. It was participated by LGU, Member of Regional Inspection Committee, FLDTs and fisherfolks.
- Tipon Tipan sa PIA via virtual platform attended by BFAR R02 Director Milagros C. Morales; Atty. Arsenio Banares, Chief FMRED; Dr. Severina Bueno, Chief FPSSD; and Dr. Evelyn C. Ame, Chief RFTFCD. Discussions focused on activities during the 57th Fish Conservation Week celebration.
- Planting of Mangrove and Mangrove associate species at Brgy. San Antonio, Basco, Batanes. A total of 3,853 pcs mangrove propagules were planted in collaboration with PFO Batanes, LGU Basco, PLGU Batanes, Philippine Coast Guard and members of Basco Fisherfolk Association.
- Conduct of Training on Statistical Concept Principles and Application in Research and Development Training
- Fisheries Research and Development In-House Review CY 2020
- Seaborne patrolling against Illegal Unreported and Unregulated Fishing (IUUF) in the municipal waters of Claveria, Cagayan.
- Conduct of four (4) harvest field days: Integrated Fish Farming at Bagumbayan, Dupax Del Sur, Nueva Vizcaya and Sta Cruz, San Manuel, Isabela; Polyculture Techno Demo at San Ramon, Aurora, Isabela; and Aquasilviculture Techno Demo at Kinali, Sta Teresita, Cagayan
- Distribution of 412,000 tilapia and pangasius fingerlings to fish farmers regionwide.
- Distribution of 119 units gill net and 21 units cast net to fisherfolk regionwide.

BFAR R02 made sure that the health and safety protocols were strictly observed during the week-long celebration.

❖ *Aeron D. Mayor*

DA-BFAR R02 awards 8.4M... from p1

Local Government Unit officials awarded the fishery projects such as fiberglass reinforced plastic (FRP) fishing boats, fishing gears and other fishing paraphernalia.

The fishery projects worth Php 3.5M awarded to Isabela Province include 30 units motorized V-bottom and 15 units non-motorized flat bottom fishing boats for the municipalities of Palanan, Dinapigue, Sta. Maria and San Mateo.

One-unit lambaklad, 7 units payao, 8 units motorized V-bottom and 8 units motorized flat bottom fishing boats, 31 units gill net and 31 units life vest worth Php 4.9M were awarded to the towns of Camalaniugan, Aparri, Sta. Ana, Sta. Praxedes, Baggao, Gattaran and Ballesteros, province of Cagayan.

The distribution of fishery projects is part of the commitment of DA to fisherfolk and under the bureau's regular and rehabilitation program that aims to replace old and wooden municipal fishing boats and provide livelihood assistance to marginal and calamity-stricken fisherfolk. The program also aims to uplift economic status of fisherfolk through provision of weather-proof fishing boats and environment-friendly fishing gears and at the same time empower fisherfolk on sustainable use of fishery resources.

According to Dir. Morales, FRP boat is more cost-effective as compared to traditional wooden boats, last longer, are not susceptible to rotting and abrasion, and have lower maintenance cost. It also has built-in safety features such that it does not capsize even if overturned. It is equipped with floatation chambers which can be turned into lifebuoys or 'salbabidas' for fishers in case of accidents at sea.

"The FRP boats were fabricated by the bureau and by fishers who were

paid through the bureau's cash for work program. A fishing gear and lifevest were given along with the fishing boats", Dir. Morales added.

Also included under the project for Cagayan is a Lambaklad worth Php 2.85M which was awarded to Pasiguit Fisherfolk Association of Sta. Ana, Cagayan. Lambaklad is a Japanese (Otoshi-Ami) type of set net derived from the words "lambat" (net) and "baklad" (corral) that traps fish and enable its harvest. Lambaklad is considered as one of the most viable and durable fishing method used for catching first class highly migratory fishes such as tuna and tuna-like species (i.e yellow fin, skipjack, marlin, spanish mackerel, caranx spp., crevalle, and other migratory fish).

"The Philippines is a tropical country where several high value and migratory fish species abound like tuna, our country produces tuna like Indonesia and Papua New Guinea, but the fish migrates as it grows and are being caught in temperate countries. While the Lambaklad fishing gear will help you grow and catch these high value fishes, we urge the LGUs and fisherfolk to protect its municipal waters and practice sustainable fishing as these areas provide food for our high value and migratory fishes, so that we could catch bigger size fishes before it will leave the country and gain economic benefits from these fishery resources" Dir. Gongona said.

According to the bureau Director, LGUs and fisherfolk need to protect and manage municipal waters to ensure fish supply, and attain good harvest and high income as espoused under the Department's battle cry "Masaganang Ani at Mataas na Kita".

During the event, calamity assistance such as sets of sleeping materials (mat, blanket, towel, mosquito net) were also given to Indigenous People of Sta. Ana, Cagayan while hygiene/essential kits and food packs were given to fisherfolk.

"With all these fishery projects, the government is here to give what should be given to you especially to our small scale fisherfolk who are the most vulnerable to typhoon hazards. The President of the Republic loves you, we hope that you can use these fishery projects for you to have an immediate livelihood source and we encourage you to support the program of the government" Dir. Gongona added.

Meanwhile, Dir. Gongona also attended the funeral of BFAR R02-Cagayan Flood hero Henry Kelly Villarao on November 25, 2020 who died while rescuing victims of flood brought by Typhoon Ulysses at Tuguegarao City. The Director also awarded 67,500 tilapia fingerlings and 70 sets of sleeping materials to registered fisherfolk of Sta. Teresita, Cagayan on the same day.

❖ Aeron D. Mayor



BFAR RO2 harvests aquaponics-cultured fishes



MAXIMIZING YIELD THRU AQUAPONICS SYSTEM. Bureau of Fisheries and Aquatic Resources Region 02 gets to harvest tilapia from the Aquaponics Project launched in the 2nd Quarter of the Year.

Nearly four and a half months since BFAR Regional Office 02 launched the Aquaponics Project, 64.8 kilograms (4-5 pieces per kilo) of tilapia were harvested. Regional Director Milagros C. Morales decided to distribute the harvested tilapia to BFAR-R02 employees as food assistance during the pandemic.

It was noted also that almost 60 bundles of kangkong (more or less 5-8 bundles in every 2 weeks) were regularly harvested during the culture period. Initially, 450 pieces of tilapia were stocked however, some mortalities were observed during the first two weeks, hence, stocks were reduced to approximately 380 pieces.

According to Ms. Jennifer Tattao, Senior Aquaculturist of Fisheries Production Division, more or less 77.5 kilograms of feeds were consumed during the culture

period giving a Feed Conversion Ratio (FCR) of 1.2. Operating cost was estimated at PhP 7,250 to include expenses on feeds, fingerlings and other utilities. Return on Operating Expenses (ROE) was 30.22%.

The Aquaponics project launched by BFAR R02 in June 2020 is the combined conventional fish and plant production using aquaculture or raising of aquatic animals; and hydroponics system which is growing plants without the use of soil.

This mutualistic and recirculating operation allows the fish waste to be used as source of nutrients for the plants. The plants (along with micro-organisms) clean the fish wastewater, and with filtration, the water is returned to the fish tank. Plants grow rapidly with dissolved nutrients both directly from fish and processed by the microbial breakdown of fish waste. ❖ *Kimberly D. Sahillan*

New BFAR tech promises 3-fold rise... from p1

particularly for tilapia, fish farmers can now increase this up to 15 pieces using the Venturi system," Jennifer Tattao, head of the Aquaculture Section of the Bureau of Fisheries and Aquatic Resources – Region 2, said. While investment cost for the device at Php 267,000.00 is quite high, Tattao said that this can be recouped within 2 years, when used in a minimum of 1,000 square meter fishpond.

Main parts of the system consists of 6 units solar power panels at 200 watts each, 6 units 12 volts battery with capacity of 60 watts each, solar charge controller, inverter, 2 pieces circuit breaker, 2 units 100 watts submersible pump, lightning arrester, pipings and casing.

The device can be turned-on intermittently during the first month, however, it is necessary to put it on 24/7 during the rapid growth rate period from second to the fourth month or harvest time.

Aside from the installation of said aeration system, there are no other changes as to the technical management of the fishpond, Tattao further explained.

The project was awarded to Agkaykaisa SWISA based in Brgy. Mambacag, Tuao.

Aside from Tuao, the BFAR RO2 will also launch similar project in Gattaran, Cagayan, two in Quirino province, and one each in Bagabag, Nueva Vizcaya and Ramon, Isabela.

❖ *Maximino C. Prudencio Jr.*



Solar Venturi System

Cagayan Valley fisherfolk receives cash and food assistance from DA

Over 5,449 fisherfolk in Cagayan Valley Region benefited in the distribution of the Cash and Food Subsidy for Marginal Farmers and Fisherfolk (CFSMFF) launched by the Agriculture Secretary William Dar on December 2, 2020, held at Nungnungan 1, Cauayan City, Isabela and Piat, Cagayan.



Secretary Dar lauded the farmers and fishers in the region because of their diligence and consistency in providing food for the nation despite the pandemic and imminent threat of climate change. "Thank you sa ating mga magsasaka at mangingisda, dahil sa inyo ang ating bansa ay may pag-asang umahon. Aahon tayong lahat because of your hard work!" said Dar.

The CFSMFF is a digital cash and food aid system or e-voucher system for the efficient and transparent implementation of cash and food subsidies to marginal farmers and fisherfolk. With a budget of P4.5 billion under the Bayanihan to Recover as One Act or "Bayanihan 2," almost 900,000 marginal farmers and fisherfolk in the

various sectors of agriculture and fisheries will benefit from the cash and food assistance. It primarily aims to augment the impacts brought about by the pandemic to qualified farmer-beneficiaries from the coconut, sugarcane, and fishery sectors, including the Indigenous Peoples (IPs).

Based on the implementing rules and regulations, the beneficiaries must have a lot/pond area of not more than one hectare and must come from fourth, fifth, and sixth class municipalities. They must not be covered by any social amelioration program of the Department of Social Welfare and Development or other government agencies.

The said cash and food subsidy which totaled P5,000 each is

divided into two sets—P3,000 of the subsidy were given as cash assistance, while the remaining P2,000 were food items specifically rice (P1,000), chicken (P600), and egg (P400).

The DA has also partnered with the Development Bank of the Philippines (DBP) and rice farmers and poultry industry groups to implement the CFSMFF program nationwide.

On the other hand, the Bureau of Fisheries and Aquatic Resources Regional Office 02 through the leadership of Regional Director, Milagros C. Morales together with the Provincial Fishery Offices continued the distribution of cash and food subsidy to the eligible fisherfolk in the region.

❖ Kimberly D. Sahilan



KADIWA ni ANI at KITA - Binuksan na ng Department of Agriculture Regional Field Office No. 2 katuwang ang SM Center Tuguegarao Downtown at Bureau of Fisheries and Aquatic Resources Region 2 ang DA Cagayan Valley Harvest #KadiwaniAniAtkita2020 sa SM Center Tuguegarao Downtown ngayong araw, Nov. 20 hanggang Nov. 30, 2020.



Pinangunahan din nina DA Regional Executive Director Narciso A. Edillo, DA-BFAR RO2 Regional Director Milagros C. Morales at Assistant Mall Manager Rowinson Valmonte ang ceremonial awarding ng mga enhanced KADIWA Food Supply Chain Program at Financial Grant Assistance.

Ang programa ay kaisa sa selebrasyon ng National Rice Awareness Month at Organic Agriculture month sa buwang ito.

Sugod na sa SM at #BuyLocal #SupportLocal #NRAM #OrganicAgricultureMonth

BFAR R02 ensures sustainable eel supply in Cagayan River through BASIL Program



A TOOL FOR FISHERIES MANAGEMENT. BFAR staff, LGU employees and fisherfolk dispersed elvers as part of Stock Enhancement Program under Balik Sigla sa Ilog at Lawa (BASIL).

TUGUEGARAO CITY, Cagayan – 978,600 pcs elvers were released along the Cagayan River, through the Balik Sigla sa Ilog at Lawa (BASIL) Program of the Bureau of Fisheries and Aquatic Resources Region 2.

“Elvers (young eels) are indigenous in the Cagayan River so that stocking of non-invasive fish species already present in the river will not only increase fisheries production but also promote biodiversity conservation in the riverine system.” Ms. Apple Joy B. Usquisa, Region 02 BASIL project leader said.

“The activity will increase the capacity of eel population to regenerate and mitigate the possible decline of supply due to overexploitation, high fishing pressure, indiscriminate fishing and difficulty in enforcing regulatory activities on eel species” she added.

Elvers procured from Aparri were distributed in Cagayan River and its tributaries along the municipalities of Lallo, Alcala, Amulung, Gattaran, Tuguegarao City, Enrile, Peñablanca and

Iguig, Cagayan; Cabbaroguis, Aglipay, Diffun, Nagtipunan and Maddela, Quirino; and Ilagan City, Gamu, Naguillan, San Pablo, Sta Maria, Delfin Albano, Cabagan, Tumauni, and Sto Tomas, Isabela.

Dispersal of elvers is one of the components of BASIL Program, a science-based approach implemented by BFAR in partnership with LGUs, which aims to rejuvenate the country’s major bodies of water to optimize its economic benefits towards enhancement of fisheries sustainability.

As emphasized by Ms. Usquisa, in order to gain optimum economic benefits from these eel resource, fisherfolk should practice sustainable fishing

through the use of environment-friendly fishing gears.

Eels are highly valued fishery commodity which can command a price as high as P1,000 per kilo dried eels in the local market while live eels are preferred by Chinese and other Asian migrants.

In the previous years, the high global market demand of elvers has led to a huge price increased as high as P40, 000 per kilogram elvers which led to its unabated gathering for export. This prompted the government to issue Fisheries Administrative Order 242, banning the export of elvers less than 15 centimeters in length to prevent possible collapse of wild population due to indiscriminate fishing.

The regulation was also enacted to encourage eel grow-out ventures, and thus increase local benefit from the eel value chain.

Moreover, the BASIL project team also conducted IEC activities to increase awareness of the community on the importance of eel resources and the need for its conservation and management. ❖ *Aeron D. Mayor*



Sec. Dar commends BFAR RO2 rescuers

TUGUEGARAO CITY, Cagayan – Department of Agriculture Secretary Hon. William Dar issued a Certificate of Commendation to BFAR RO2 fisheries law enforcement officers who responded to victims of the flood brought by Typhoon Ulysses.

The certificates were issued to six BFAR RO2 employees, including one posthumous certificate to Henry Kelly Villarao, a Fisheries Regulations Officer of the agency.

The government employees were recognized for their selfless act and choosing to render official duty despite the imminent threat posed by the flood.

THE FLOOD HERO: Taking hold the calling of service to good in any situation

In times of impending danger and distress, many people focus their attention on their own safety and does whatever it takes to keep safe for their family. However, even though he was greatly concerned in his life for his family, for Kelly, there was something more important to him—dedication in his service and saving people whatever the circumstances may be.

Kelly Villarao, 34, belonged to Fisheries Resource Protection Group, under the Bureau of Fisheries and Aquatic Resources (BFAR). He has always been committed in serving the public with his best effort. He made sure that everything was in good place and all missions are accomplished very well.

And there comes the onslaught

From Aparri, the responders proceeded to Brgy. Linao, this city, evening of Friday, Nov. 13. Along the way, the said responders rescued flood victims particularly in Amulung town.

Linao, including other barangays of the city, were then under threat of a still-rising flood.

Using the BFAR patrol boat, the team was then navigating outskirts of the barangay looking for safe passage and for calls for rescue.

Suddenly, according to team leader Sherwin Buguina, debris hit and tripped a high powered line causing the electrical charge

to transfer to the government boat which was still several meters away.

Villarao died on the spot due to electrocution while 3 others sustained third degree burns. The casualties include Jennah Mae Arellano, also a FRO 1 of the agency and 2 volunteers from Peñablanca town.

Aside from Villarao, Buguina and Arellano the other members of the rescue team who were awarded certificate are Sammuel Cataggatan, Alfredo Domingo and Charlie Abiva.

BFAR RO2 RD Dr. Milagros C. Morales echoed the commendation issued by Sec. Dar and also expressed sympathy to the bereaved family. ❖ *Max Prudencio*



HENRY KELLY R. VILLARAO
FISHING REGULATIONS OFFICER I

of Typhoon Ulysses on the 13th of November, 2020, which brought massive flooding in some areas in Cagayan Valley. Others are left with the tremendous tragedy and need to be rescued. Government agencies sought the group of Kelly to help for a rescue mission since they were trained

in diving, SOLAS (safety of life at sea), and basic life support (BLS). As such, they are being tapped in emergency situations, along with their floating devices. On that day, they were tasked to take care of the Northern part of Tuguegarao, particularly Linao and Annafunan. During the rescue operations, Kelly died of electrocution while trying to rescue trapped residents in Linao Norte, Tuguegarao City, Cagayan.

That is how dedicated he was. He may be an average person for some, but he is much more than what people imagined him to be. He took hold his calling of service until the end for he is designed a HERO and will always be remembered for his profound sacrifices and amazing works to his family, in the community and in the Government.

❖ *Kimberly D. Sahilan*

ALPAS: The New Normal approach...from p3

and Aquatic Resource in Region 2 supports fisherfolk particularly in rural areas wherein a Fishcage Livelihood Project was recently launched as one of the interventions of the bureau under the Enhanced Aquaculture and Sustainable Capture Fisheries of the “Ahon Lahat, Pagkaing Sapat (ALPAS) Kontra sa COVID-19”. Fishcage farming in freshwater bodies stimulates the development of aquaculture sector which significantly contributes to the production of fresh and affordable animal protein source to the locality.



Fishcage livelihood project in Silagan, Allacapan, Cagayan.

The said project shall be monitored by the Bureau to ensure its successful operation. Cooperators of the project also undergo training on post-harvest technologies to add value to their produce and increase their income.

The Bureau also provided a techno-demo and livelihood project in the region which is also under ALPAS COVID 19 program—the Solar Venturi System, an aeration device intended to increase the dissolved oxygen level in fishponds and aims to double the income of the fisherfolk beneficiaries with a

higher yield of production through doubling the standard stocking density of the given fishpond area - from five to 10 pieces of tilapia fingerlings per square meter.

Apart from this, BFAR also promotes the Aquaponics, a combination of aquaculture and hydroponics. It is a system using the combination of aquaculture or growing fish and hydroponics or growing of plants without soil but with the waste produced by the fish or other aquatic animals as fertilizers. It can help communities to have food resources available

at home even during community lockdown. This farming system can be located wherever is most convenient.

Since its launching, Aquaponics project has been awarded to selected fish farmers and farm schools in the Region.

Through these various ALPAS Covid-19 projects, fish farming, specifically in rural communities will be able to generate resources and higher income for fish farmers, which will consequently result in significant improvements to their livelihoods leading to associated benefits such as sustaining the schooling of their children from primary to university levels.

Most importantly, it could further improve sufficiency of food supply and increase a fresh affordable animal protein source to the nearby communities. With the utmost support of the government to the agriculture and fishery sector, farmers and fisherfolk can be able to withstand in any drastic situation securing adequate food supply for every Filipino.



Salvador Fish farm located at Dipintin, Maddela, Quirino.

A scientist with a noble purpose

by: Kimberly D. Sahilan

Scientists and researchers are poised to make important contributions when they successfully strengthen the representation of science within government. One of these scientists has proven the great potential of their profession in uplifting the strategies toward the development of the country.

"Pursuing fisheries profession was not my own decision at first, but I eventually learned to love fisheries science during my college years because of its ecological, food, and economic importance. That's when I realized that I belong to this profession and explore more on the field," these are the words of Dr. Angel B. Encarnacion, current Agricultural Center Chief II of the Department of Agriculture-Bureau of Fisheries and Aquatic Resources Regional Office No. 02.

He was conferred as Career Scientist I by the Department of Science and Technology (DOST) and Civil Service Commission through the Scientific Career System on October 16, 2020 and

Career Executive Service Eligible by the Career Executive Service Board on January 23, 2020. He earned his doctorate in Marine Science at Tokyo University of Marine Science and Technology, Tokyo, Japan as Japanese Government scholar where he received the University President's Award in his graduation, 2011. Back in his college days, he is a government scholar at the University of the Philippines Visayas.

Thereafter, and even before his post-graduate study, Dr. Encarnacion has published various publications such as book chapters and research articles in reputable journals. He received prestigious awards such as 1st Place Best Paper Award in 2002 by the DOST-Philippine Council for Marine and Aquatic Research and Development; 1st Place, Student Award for Poster Presentation during the 62nd Annual Meeting of Pacific Fisheries Technologists Association at Vancouver, Canada, 2014 1st Prize National Academy of Science and Technology



Angel B. Encarnacion, DMSc, CESE
Career Scientist I

(NAST) Talent Search for Young Scientist, 2018 Outstanding Young Scientist Awards of the DOST-NAST; and 2018 Dangal ng Lahing Cagayano and many others.

He characterized extracts from waste of edible mushrooms and its application as natural anti-melanosis and anti-oxidant in farmed crustaceans and fish in response to key issues on food security particularly on seafood quality and safety, and waste utilization. He is also currently leading stock assessment studies in Region 02 which are now being used by different institutions in formulating science-based policies to improve fisheries production. Furthermore, he never cease to embark on studies and doing collaborative works on the characterization of fish waste and processing techniques for better postharvest utilization and management.

He encourages aspiring scientists to continue loving their work and explore more possibilities to promote better life through science.

