



FISEARCH

Official Newsletter of the National Fisheries Research and Development Institute ○ Vol 2 Issue No. 2 Apr-Jun 2020

ISSN: 2362-9037



*A food secure and resilient Philippines
with prosperous farmers and fisherfolk*

In This Issue

Refocused Projects as DA-NFRDI’s Response to COVID-19	5
First GB Virtual Meeting Held	6
NFRDI to Collaborate for ISDApp.....	6
NFRDI Supports BFAR’s BASIL Program.....	7
Milkfish Fry Stocked and Distributed.....	7
DA-NFRDI lends qPCR	8
NFRDI-BFRDC Eyed as a Tourist Attraction	8
Online Training-Workshop on Video and Audio Production Successfully Concluded	9
Virtual Workshop for Developing Training Modules	9
Low-cost Formulated Feed May Increase the Weight and Survival Rate of Milkfish and Tilapia ...	10
Potential Species For Pond Propagation Under Conventional And/Or Organic Regimes.....	11
Ciguatera fish poisoning: Do reef fishes or “isdang bato” really contain toxins?	12
Learning Never Stops at NFRDI.....	12
Issuances Section	13
Inspirational Section	14
Keeping Employees’ Mental Health Healthy during Pandemic	15
Be Positive!	15
Femininity is Power: Breaking the Pedestal.....	16



Cover photo:
Harvested milkfish from Igang, Guimaras.
Read the story on page 10

FiSEARCH is a quarterly publication of the National Fisheries Research and Development Institute (NFRDI), an attached agency of the Department of Agriculture (DA).



For comments, suggestions and inquiries, please contact: Information and Education Section, Training Division, National Fisheries Research and Development Institute. Corporate 101 Bldg., Mo. Ignacia Ave., Quezon City 1103

Website: <http://www.nfrdi.da.gov.ph/>

Email: iestd.nfrdi@gmail.com

Tel. No.: (+632) 8376-1178

@NFRDIPhilippines

@DA_NFRDI



From the Acting Executive Director

Warm greetings!
Once more, we are happy to deliver to you this second quarter issue of FiSearch for CY2020 just as we have promised. Let me take this opportunity to thank those who warmly appreciated and read our initial issue of the newsletter.

In this issue, we present NFRDI’s response to Covid-19 and how we have actively participated in the Department of Agriculture’s call to ensure food security in the country.

As we are all aware, the current pandemic is indeed a very challenging situation for all of us. Just like you, we in government have not been spared to the ill-effects of Covid-19. We have to adjust to a “new normal” that is being required of us by the Inter-agency Task Force (IATF) and by the Civil Service Commission (CSC) to avert the spread of the virus.

Our physical presence to be with you, our dear stakeholders has been limited and now, most of our activities are done online, such as virtual meetings and trainings. Some of our employees are forced to work from home due to valid reasons qualified by the CSC. Hence, we are hoping that through FiSearch you will be able to feel our presence and more than this, our Lord’s presence, as we will be including an Inspirational Section that will surely add zest to your spiritual life and boost your faith—something that each of us truly needs in this time of crisis.

My wish for all of us is: Do not allow Covid-19 pandemic to be a stumbling block to the achievement of **a food-secure and resilient Philippines with prosperous farmers and fisherfolk**. Read on, be aware, and be inspired!

Thank you.

Dr. LILIAN C. GARCIA, CESO V



From the Secretary
Department of Agriculture



From the
Undersecretary of Fisheries, DA
& Bureau Director, BFAR

Current Chairperson,
NFRDI Governing Board

Although we have yet to win the battle against the COVID-19 pandemic, my fighting spirit is buoyed by the promising news of 1.6 percent growth achieved by the agricultural sector in the second quarter of 2020.

Attained despite the series of unfortunate events that pummeled the agriculture sector from the Taal eruption and the ASF breakout late last year to the COVID-19 pandemic early this year, this humble triumph serves as a symbol of hope and fitting tribute to the men and women of the Department of Agriculture as they relentlessly strive to sustain the productivity and profitability of our agriculture and fisheries.

It is in this context of struggle and hope, the DA family welcomes the continued publication of **FiSearch Magazine** by the **National Fisheries Research and Development Institute (NFRDI)**.

We also commend the NFRDI for its unwavering commitment to pursue excellence in fishery research and information dissemination as part of DA's efforts to help our food sector survive, reboot and grow during and beyond the COVID-19 pandemic and for promptly heeding our call to refocus its 2020 programs towards enhancing and expanding Philippine aquaculture, increasing fisheries productivity and competitiveness and ensuring fish sufficiency amidst the COVID-19 crisis and lockdowns.

As we therefore navigate our way in and out of this pandemic, I am confident that the NFRDI will further expand its research towards the use of frontier technologies not only in improving and diversifying fish breeds, but also in remotely monitoring and managing various fishery projects and resources, including those related to climate change, and in making management decisions on every node of the fishery supply chain.

As we in the DA recognize and applaud NFRDI's contributions in harnessing scientific research toward boosting our fisherfolk's productivity and uplift, I urge you to further strengthen the spirit of cooperation and positivity within the DA family to move the fishery sector forward and ultimately win our war against COVID-19 and other challenges.

Mabuhay ang NFRDI!
Mabuhay ang mga magsasaka at mangingisdang Pilipino!

William D. Dar, Jr.
WILLIAM D. DAR, Ph.D.

The start of the second quarter was a challenging period for the whole country. Rising to the occasion, the Department of Agriculture found itself at the core of public service during the height of the covid-19 pandemic. We braved the threats of the virus through diverse programs and activities, all aimed at ensuring a steady supply of agri-fishery products in the country.

In the fisheries sector, the National Fisheries Research and Development Institute, working together with Bureau of Fisheries and Aquatic Resources Regional Offices initiated efforts to create a fish sufficient community through stocking, distribution and dispersal of fingerlings, and provision of technical support to our fisherfolk.

The publication of this newsletter is another vital step towards this goal. Through this newsletter, we are able to promote awareness among the public and our stakeholders on the importance of research shaping our policy regarding the protection and preservation of our fisheries resources.

My warm congratulations to the NFRDI for this important publication. May we continuously carry the Department of Agriculture's vision of "Masaganang Ani at Mataas na Kita" for a food-secure and resilient Philippines with prosperous farmers and fisherfolk.

Eduardo B. Gongona
Commodore EDUARDO B. GONGONA

The NFRDI Governing Board

- Chair:** Commodore Eduardo B. Gongona
- Vice Chair:** Drusila Esther E. Bayate, CESO IV
- Members:** Dr. Lilian C. Garcia, CESO V
 Alonzo L. Tan
 Norberto O. Chingcuanco
 Felizardo C. Lim
 Joseph Martin H. Borromeo
 Reynaldo V. Eborra
 Tirso A. Ronquillo
- GB-Secretary:** Atty. Benjamin F.S Tabios, Jr.

Editor's Note

Since the government cannot afford to lay everything into a standstill because it must provide what the country needs during this pandemic, it meant rallying its biggest and most important asset to work towards this goal: human resources. While the focus is to keep the economy afloat, the government has also carefully considered the government employees' well-being and more importantly, their mental health. Psychosocial interventions were considered as among the support mechanisms an agency must provide (CSC MC NO. 10 s. 2020) during this crisis.

Even before the onset of COVID-19, burnout, stress, and anxiety were significant issues in the workplace, and society in general. The World Health Organization reported that the Philippines has one of the highest cases of depression in Southeast Asia (WHO, 2019). The United Nations urged governments to have a "whole-of-society approach to promote, protect, and care for mental health" citing the need for the inclusion of mental health care in health care benefit packages and insurance schemes to guarantee that essential mental health needs are covered (United Nations, 1992). In response, the Philippines passed Republic Act No. 11036 – the Philippine Mental Health Law on 21 June 2018 to establish the national mental health policy.

In a survey of 450 Filipino employees from May 5 to 16, 2020, Premier Value Provider Inc., reported that the respondents experience critical levels of stress (15%), anxiety (29%), and depression (21%). Millennials and Gen Zs were most affected with 43% reported to have severe stress levels, followed by 87% with severe anxiety levels, and 62% with severe depression levels (Philippine Star, May 21). Although the results of the survey showed that employees who work from home (WFH) during the ECQ had higher levels of anxiety and depression compared to those who worked on-site or a combination of WFH and work-on-site, it also found that employees who work at home with children and spouse as companions is good for mental health as they seem to dampen the impact of the ECQ.

We have long known that stress and anxiety are manifested physically. Mindfulness programs that help people cultivate mind-body awareness will be more crucial than ever (Forbes, May 2020). DA-NFRDI had a mental wellness program in place. However, the fear of stigma is probably the factor that prevents the employees in getting the help they need. Yet, if everyone will realize that mental health is just as important as physical health because they are one and can't be separated from each other, then taking care of this aspect of their well-being would lead to productivity and creativity that their job demands from them.

As an old adage says: **Health is wealth!**



Editor-in-Chief

Norvida C. Gatdula

Associate Editor

Myrna D. Alonte

Editorial Assistant

Cyrenes M. Moncawe

Contributors

Kimbert Agustin

Tyrone Buico

Cathleen Dela Cruz

Lea Mae Dela Cruz

Ma. Adelaida Fernandez

Zaldy Hechanova

Liza Mina Lorraine Iwag

Rene Geraldo Ledesma

Romualdo Pol

Bryan Tanyag

James Villanueva

Layout Artists

Mark Christian C. Bermejo

Norvida C. Gatdula

Photographer

Patrick John G. Gaspi

Board Chairperson

Dr. Lilian C. Garcia, CESO V

Board Vice Chairperson

Dr. Mudjekeewis D. Santos

Editorial Advisers

Eunice C. Bognot

Dr. Ma. Theresa M. Mutia

Ma. Salvacion R. Ferrer

Elsa F. Furio

Dr. Ulysses M. Montojo

Nonita C. Cabacaba

Celestina Q. Jumawan

FISEARCH

ISSN: 2362-9037

Philippine copyright © 2020

Refocused Projects as DA-NFRDI's Response to COVID-19

The Department of Agriculture-National Fisheries Research and Development Institute (DA-NFRDI) implements its FY 2020 refocused projects in line with the directives of DA Secretary Dr. William D. Dar. This step is towards the enhancement and expansion of aquaculture practices in the Philippines which aims to increase fisheries productivity, competitiveness, and profitability while ensuring sufficiency of fish food supplies amidst the COVID-19 pandemic.

Under the Aquaculture Research and Development Programs are twenty-two refocused projects that are divided into two sub-areas: 1) the collaborative projects between NFRDI and BFAR National Centers, and 2) Technology Promotion projects.

Fifteen (15) projects are under the NFRDI and BFAR National Center Collaborative Agreement. These projects totalled Php23M in funding. To this date, these projects have been finalized by the respective project leaders through the comments and supervision done by the NFRDI Technical Working Group. Six BFAR National Centers submitted their research projects.

These are:

National Integrated Fisheries Technology Development Center

1. Siganid culture (*Siganus guttatus* and *S. vermiculatus*) and hybridization for quality and increased seed production
 - Study 1. Cross breeding of *S. guttatus* and *S. vermiculatus* and its larval, nursery and grow-out culture trials
 - Study 2. Genetic profiling of *S. guttatus* and *S. vermiculatus* and hybrids
 - Study 3. Effect of temperature manipulation on the reproductive activity of siganids
2. Slipper oyster (*Crassostrea iredalei*) fattening and quality improvement in ponds using *Skeletonema* spp. diatoms

National Freshwater Fisheries Technology Center

3. Refinement of Induce Breeding and Larval Rearing of Mudfish *Channa striata*
4. Technology Verification of Low Cost Feeds in Fry Rearing of Tilapia
5. Morphological and Molecular Identification, Culture and Breeding Evaluation of Jungle Perch (Aguning) *Kuhlia rupestris* in Captivity
6. Genotyping of *Oreochromis niloticus* species and other improved strains of tilapia at BFAR-NFFTC towards marker assisted selection in breeding and

production

7. Development of Induce Breeding and Larval Rearing of Climbing Perch *Anabas Testudineus*
8. Molecular identification of bacterial tilapia diseases and other emerging bacterial pathogens in freshwater fishes

National Inland Fisheries Technology Center

9. Larval Rearing of Naturally Bred Therapon (*Leiopotherapon plumbeus* or Ayungin) and Goby (*Glossogobius giuris* /Biya) With Focus on Diet and Nutrition

National Brackishwater Fisheries Technology Center

10. Resource Assessment and Technology Verification of the Hatchery and Nursery Rearing of Mangrove Crab in the Philippines

National Seaweeds Technology Development Center

11. Sea Based Culture of Laboratory Grown *Kappaphycus alvarezii* propagules
12. Cryopreservation of Spores of Some Economically Important Red Seaweeds in the Philippines
13. Technology Verification on the Land and Sea-based Culture of Sargassum

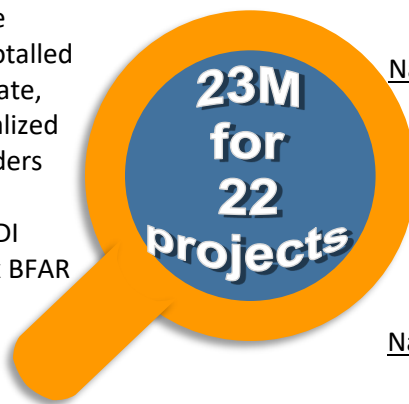
National Mariculture Center

14. Growth and Survival of Tiger Lobster (*Panulirus ornatus*) in Nursery Marine Floating Cage at Different Stocking Densities
15. Growth and Survival of Milkfish from Fry to Fingerlings at Different Stocking Densities

Seven projects fall under the Technology Promotion. These projects are towards the application of verified fisheries technologies on production, nursery rearing, among others. The NFRDI-National Centers (BFRDC, FFRDC, and MFRDC) initiated these projects with the aim to provide materials and technical assistance to selected cooperators/beneficiaries. A total of Php5.6M was allotted for the fulfillment of these projects, which include:

1. Technology Promotion of Bangus Nursery Rearing in Brackishwater Ponds
2. Technology Promotion of Tilapia Nursery Rearing in Brackishwater Ponds
3. Increased Fish Productivity Through Technology Promotion and Agricultural Support to Fisherfolk
4. Technology Promotion on the Seed Production of Common Carp (*Cyprinus carpio*) for Stock Enhancement
5. Technology Promotion on the Culture of Tilapia and Milkfish Using Extruded Floating Feeds
6. Technology Promotion on the Production of Bigger

(Continued on page 8)



First GB Virtual Meeting Held, Ratified Resolution Endorsing Dr. Lilian C. Garcia as NFRDI Executive Director

Another history in the Covid-19 chronicle of DA-NFRDI happened last May 15, 2020. This was the first-ever virtual meeting of the Governing Board (GB).

The “no to social gathering” rule of the Inter-agency Task Force (IATF) and Civil Service Commission (CSC) did not hinder the GB to meet and tackle issues on the refocused programs, projects, and activities. Aside from this, the GB also discussed an important agenda—the filling up of plantilla positions.

In the said 1st GB virtual meeting, NFRDI’s Human Resource Management Unit - Officer-in-Charge (HRMU-OIC) Ms. Norvida C. Gatdula echoed CSC Field Office

Director Fe Lacaba’s recommendation that NFRDI has to create its Human Resource Merit Promotion and Selection Board (HRMPSB) to enable the filling up of plantilla positions. However, the agency needs an Executive Director or even an Acting Executive Director (AED) to sign/ approve documents of the HRMPSB.

As explained by Ms. Gatdula, if the agency has a GB, the signatory will depend upon the GB’s Resolution. Hence, the HRMU OIC emphasized the importance of a GB Resolution to recommend an Executive Director so that NFRDI can constitute its HRMPSB to act on vacant positions.

Thus, it was on this 1st virtual meeting that the GB ratified a Resolution endorsing to the President the Interim Executive Director, Dr. Lilian C. Garcia as Executive Director of NFRDI. Then, on June 9, 2020, the GB, in its 2nd virtual meeting, resolved to designate Dr. Garcia as Acting Executive Director. *(MDAlonte)*

NFRDI to Collaborate with iNON Technologies & Globe Telecom for ISDApp

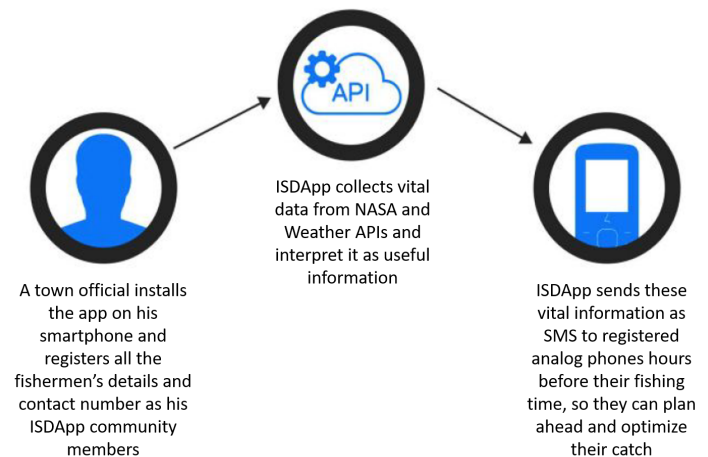
Mobile applications or apps are now considered vital part of human life. From online shopping, food delivery, mobile banking, to even simple tasks like making a grocery list, marking our calendars, and so many others, technology has proven its efficiency. These applications have transformed the use of mobile phones from just a telecommunication device to many things possible which before were thought of as impossible. Soon, fishers will enjoy the benefits of these apps, too!

The Department of Agriculture–National Fisheries Research and Development Institute (DA–NFRDI) has partnered with iNON Technologies and Globe Telecom to develop a specialized app for our fisherfolk: ISDApp.

ISDApp is the first community app in the Philippines that will aid fisherfolk with the power of data, even if they don’t have smartphones and internet connection. Installed on a municipal official’s smartphone, ISDApp will send daily information such as real-time weather, tide status, wind speed, cloud coverage, and, sunrise and sunset.

ISDApp also has its emergency features which include alerts on impending storms. For added safety, a fisher can also send an SOS signal and a locator for finding his/her last fishing spots when he/she is stranded or lost in the sea.

With the data sent to them hours before fishing time, our fisherfolk can plan ahead and optimize their trip to the seas. Extra features to be added on the mobile app



Workflow of ISDApp from the town officials to the fisherfolk’s smartphones or analog phones.

are the fishing rules and regulations from the Bureau of Fisheries and Aquatic Resources (BFAR).

This is how ISDApp will be used by town officials and fisherfolk.

The town official or community leader uses the ISDApp, sends broadcast message (ex. 2 hours forecast) using templated and translated notifications.

Sample messages:

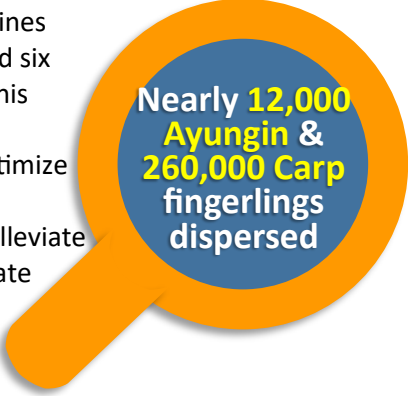
“Kabayan, ito ang taya ng panahon ngayong Dec 31, mamayang 4:00 AM. May manaka nakang pag-ulan. Siguraduhing magdala ng raincoat o anumang pananggalang sa ulan. Tandaan, ito ay gabay lamang para sa mas ligtas at masaganang pangingisda. Kung may katanungan, mag-text o tumawag sa iyong ISDApp Community Leader. Ingat!”

Fishers then receive information via SMS.

(Continued on page 9)

NFRDI Supports BFAR’s BASIL Program

The NFRDI - Freshwater Fisheries Research and Development Center (FFRDC) in Taal, Batangas supports the Balik Sigla sa Ilog at Lawa (BASIL) program of BFAR through dispersal of fingerlings for the stock enhancement activities of BFAR regions. BASIL is a project launched by BFAR to restore the freshwater resources of the Philippines especially the seven major lakes and six major river basins in the country. This program aims to bring back the conditions of lakes and rivers to optimize their economic benefits, enhance fisheries towards sustainability to alleviate poverty in rural areas, and repopulate indigenous species in support of biodiversity conservation and food sufficiency.



Being a Center for freshwater fisheries research and development, FFRDC conducts breeding and production studies on native fishes like Ayungin, Biya, and Maliputo under its project, "Breeding and Stock Enhancement of High-Value Indigenous Species." From the breeding and production experiments, a total of 11,850 Ayungin fingerlings were produced and dispersed, of which 10,350 were stocked by BFAR IVA-BIFTOS at the Taal Lake Sanctuary in San Nicolas Batangas and 1,500 were



Packing of common carp fingerlings (inset: common carp fingerlings).

stocked to a pond of a cooperator of BFAR-IVA for grow-out culture.

On the other hand, FFRDC’s project on “Technology Promotion on the Seed Production of Common Carp” produced carp fingerlings for grow-out culture and BASIL stock enhancement activities of BFAR regions. A total of 290,850 common carp fingerlings were dispersed by NFRDI-FFRDC to three BFAR regions (CAR, RFO III, and

(Continued on page 8)

More Bangus (Milkfish) Fry Stocked and Distributed by NFRDI-MFRDC

To contribute to the Department of Agriculture’s program of ensuring food security in the time of COVID-19, a total of 70,000 bangus or milkfish (*Chanos chanos*) fry were stocked and distributed by the National Fisheries Research and Development Institute – Marine Fisheries Research and Development Center (NFRDI-MFRDC) in Eastern Samar last May.

Of the 70,000 bangus fry, 40,000 were stocked in a concrete pond of the Bureau of Fisheries and Aquatic Resources – Guiuan Marine Fisheries Development Center (BFAR-GMFDC) in Guiuan, Eastern Samar to be grown to fingerling size. The remaining 30,000 fry were given to



Counting of 40,000 milkfish fry for stocking in concrete pond (inset: bangus fry for stocking).

Mr. Ramon Mengullo, a private beneficiary in San Policarpio, Eastern Samar.

The said activity is part of the project “Technology Promotion of Milkfish Fingerling Production in Ponds and Cages” being spearheaded by NFRDI-MFRDC under the leadership of Center Chief Ms. Nonita S. Cabacaba. This project is among the new refocused activities of DA-NFRDI that aims to distribute a total of 460,000 fingerlings throughout Region 8 to produce 92 metric tons of milkfish supply in the market. *(NFRDI-IESTD, with report and photos from NSCabacaba)*

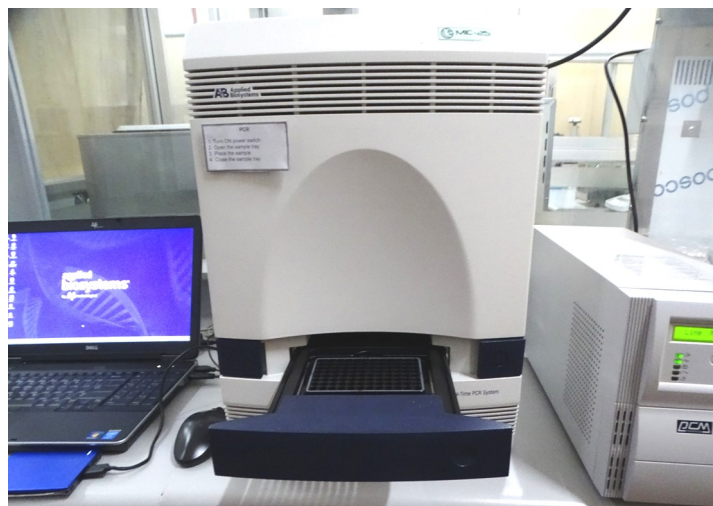
On our Next Issue. . .

- ◆ DA-NFRDI Awards Agricultural Inputs on Maliputo Grow-Out Culture
- ◆ NFRDI Creatively Celebrated Civil Servants Health and Wellness Month Amidst Lockdown
- ◆ First Run of Bangus and Saline Tilapia Dispersal

... and many more!

DA-NFRDI lends qPCR to support COVID-19 testing of DOH and UP

At the height of COVID-19 pandemic, DA-NFRDI lent a quantitative polymerase chain reaction (qPCR) machine to the Department of Health (DOH) and the University of the Philippines (UP) last April 14. The Institute saw it as an opportunity to support one of the many strategies of DOH and UP to fight the threats of COVID-19. Since both institutions had limited number of qPCR, they had difficulty reaching their target for COVID-19 tests. Hence, the Department of Agriculture extended its assistance by lending existing machines from across the department to enhance the country’s testing capabilities. The Bureau of Agriculture and Fisheries Standards (BAFS) facilitated the coordination, proper turnover, and mobilization of the said equipment. **(NCGatdula)**



The qPCR unit lent by the FPHRDD of DA-NFRDI



The administrative building of BFRDC

NFRDI-BFRDC Eyed as a Tourist Attraction in Lanao del Norte

Last January 31, the Department of Tourism had visited Brackishwater Fisheries Research and Development Center (BFRDC) looking for places that might be developed as one of the tourist spots in Lanao del Norte. For years now, the Center attracts local tourists due to its administrative building surrounded by brackishwater ponds.

BFRDC uses 10 hectares of the 28-hectare pond facilities of BFAR Region 10’s, Lala Fish Farm. **(CQJumawan)**

(Continued from page 7)..... NFRDI Supports BFAR’s BASIL Program

RFO IVA) as of July 2020. The carp fingerlings were stocked to BFAR BASIL sites which were pre-identified as a suitable inland water for stock enhancement under the BASIL criteria standards.

Thus, NFRDI-BFRDC dispersed the carp fingerlings to the following: 1) 20,000 to BFAR CAR, 2) 238,950 to BFAR IVA, 3) 1,200 to BFAR III; and 4) 700 to Mr. Conrado Pavino of Lucban Quezon, a cooperator of BFAR IVA for grow-out culture in pond.

The fingerlings were stocked at BFAR BASIL sites in Magat Dam, Alfonso, Lista Ifugao in CAR; Pandin Lake in San Pablo City, Tadalac Lake in Los Baños, Laguna Bay, and grow-out ponds in Nagcarlan, Laguna, and Pililla, Rizal in Region IVA; and Pampanga, Tarlac, and Bulacan BASIL sites in Region III.

These stock enhancement activities being conducted by BFAR regions are expected to increase the fish production of the BASIL sites, thus promoting increased fish harvest among local fisherfolk in the long run. **(CZTaglorin, FBMuyot, MTMutia)**

(Continued from page 5)

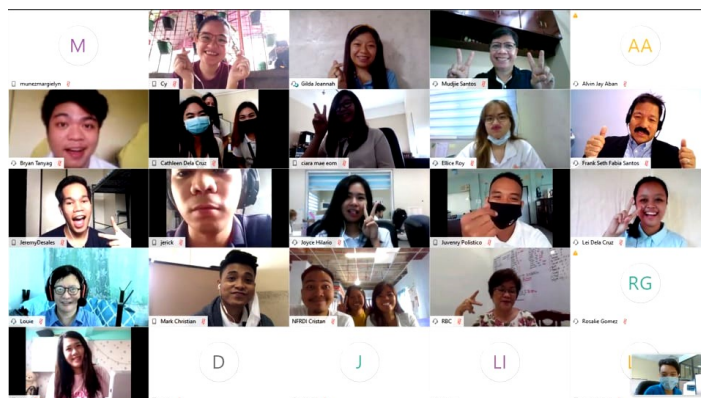
- Sized Tilapia and Milkfish Fingerlings for Cage Culture
- 7. Technology Promotion on the Milkfish Fingerlings Production in Ponds and Cages

Overall, these projects are bold manifestations of the zealously of DA-NFRDI in aligning its current projects with the eight paradigms established by Dr. William Dar. These refocused projects address the modernization (diversification of fish food and introduction of agripreneurship) and farm consolidation (mechanization and cooperative farming) in the fisheries sector. **(TBUico)**

Online Training-Workshop on Video and Audio Production for NFRDI Personnel Successfully Concluded

The first-ever Online or Virtual Training-Workshop on Video and Audio Production for DA-NFRDI staff was successfully concluded last June 15.

The 23 participants from the different divisions and stations/centers of NFRDI lauded the Training Division (TD) and the resource speaker, Mr. Louie D. Amongo, for providing them with the needed knowledge and skills that are necessary in video and audio materials production. The TD, through its Training Section, initiated the conduct of the activity and scouted for a resource person who is a multimedia and development communication specialist from the University of the Philippines Los Baños.



The participants to the Online Training Workshop together with Dr. Mudjekeewis Santos (top row, extreme right), Mr. Francisco Santos (2nd row from top, extreme right) and the resource person, Mr. Louie D. Amongo (4th row from top, extreme left)

(Continued on page 14)

Virtual Workshop for Developing Training Modules Held

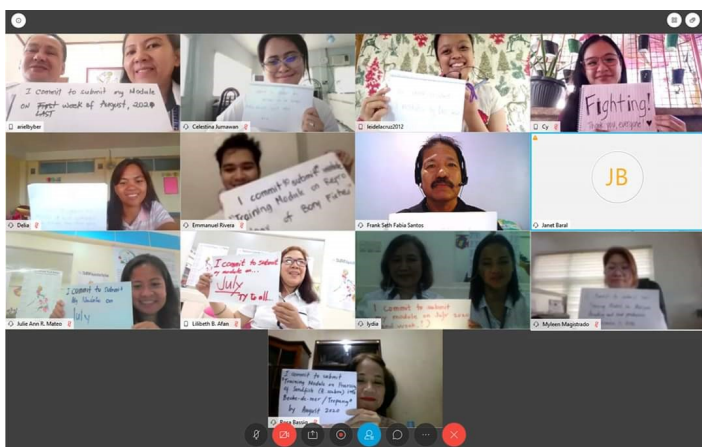
The National Fisheries Research and Development Institute's Training Division (NFRDI-TD) has recently conducted a successful virtual workshop on Developing Modules for NFRDI Trainings last June 25-26 and 29. The activity was attended by personnel of NFRDI, BFAR-

National Freshwater Fisheries Technology Center (BFAR-NFFTC) in Muñoz, Nueva Ecija, and BFAR-Batangas Inland Fisheries Technology Outreach Station (BFAR-BIFTOS) in Batangas who have been resource persons of trainings conducted by NFRDI-TD.

Ms. Cyrenes M. Moncawe and Ms. Lea Mae S. Dela Cruz of NFRDI-TD were the lecturers of the workshop. They attended DA-Agricultural Training Institute's (DA-ATI) Training on Module Development in Baguio City in April 2018, and they shared what they've learned to potential module developers of NFRDI and BFAR. Topics discussed during the lecture were the basic concepts of module development and the standard format used by DA-ATI, while practical session of the workshop consisted of actual drafting of the modules by the participants.

Participants' outputs were presented and were commented by Mr. Francisco F. Santos, NFRDI-TD's Training Section Chief, Dr. Mudjekeewis D. Santos, Scientist II and OIC of NFRDI-TD, and Dr. Rex Traifalgar, Director of UPV's College of Fisheries and Ocean Sciences.

As part of the workshop activity and to achieve completion of the draft modules, the participants were asked for "fan sign" pledges which contained target dates of completion for their modules. (LMDelaCruz)



Participants were asked for "fan sign" pledges, which contained target dates of completion for their training modules

(Continued from page 6)... NFRDI to collaborate with iNON technologies...

DA-NFRDI will assist in piloting ISDApp by:

- identifying a community (eg. municipality to be supported under the pilot);
- liaising with the community in the preparation and implementation of the pilot project;
- assisting in securing necessary endorsements and clearances from the selected community

- serving as a technical resource on program improvements and impact assessment of the pilot
- aiding in liaising with relevant national government units such as BFAR for collaboration on the pilot and long-term continuity of the program.

In the long run, iNON Technologies will further enhance ISDApp by enhancing it with Globe Observer app's data such as water temperature, barometric pressure, and cloud cover which all provide helpful tips for a successful fishing. (CMMoncawe)

Low-cost Formulated Feed May Increase Body Weight and Survival Rate of Milkfish and Tilapia

A new feed formulation for milkfish and tilapia was developed through a collaborative project of NFRDI, BFAR and SEAFDEC. Initial results of the formulated diet tend to promise a lowered production cost in aquaculture and increased profits for small-scale fish farmers.

The collaborative project, called Aquafeed Research, Development and Extension Project or ARDEP, finished two of its field-testing trials in Guimaras, Iloilo and in the Science City of Muñoz, Nueva Ecija. These verification studies on the development of the new feed formulation aimed to produce aquaculture feeds that are cheaper than commercial feeds.

The novel feed formulation by SEAFDEC/AQD incorporated minimal fishmeal for sustainability and sourced locally available ingredients as alternative protein source to make it cheaper. These ingredients include distiller's dried grain with solubles, poultry by-product meal, and the protein enriched copra meal. After four months of verification trials, culmination of the two project sites commenced wherein cultured milkfish and tilapia were given two types of feed: commercial and the formulated low-cost feed. Milkfish and tilapia were then harvested for data collection to draw conclusion on the efficiency of the low-cost formulated diet by ARDEP.

MILKFISH HARVEST IN IGANG, GUIMARAS

The experimental site at Igang Marine Station is located on the coastal coves of Nueva Valencia, Guimaras where mariculture activities of SEAFDEC/AQD are being conducted. Floating net cages to culture the milkfish were used wherein milkfish juveniles with an average body weight of 33 grams were stocked at a stocking density of 33 fish per cubic meter (2500 fish per cage). Growth trial experiments officially started on June 6, 2019. Throughout the duration of the experiment, monthly samplings were done to adjust feeding rates and check the operations. The milkfish were harvested after 120 days of culture when they weighed about 350 to 400 grams of marketable size.

The ceremonial harvest of milkfish at Igang Marine Station was held on October 3, 2019. During the harvest, 1-ton fiberglass tanks were filled with crushed ice and water to produce a slurry where the fish were transferred and euthanized for sorting of the buyer. Sorting of the milkfish into three sizes was done, then weighed and packed into 20 kg Styrofoam boxes layered with crushed ice, secured, stacked, and were delivered to respective buyers.

Recorded data showed an average body weight of **393.45 grams** for milkfish fed with SEAFDEC/AQD diet, while milkfish fed with commercial diet weighed an average of 325.35 grams. Total biomass harvested for milkfish fed with the formulated diet was at **2795.30 kg** while total biomass harvested for milkfish fed with the commercial diet was at 2234.92 kg. Survival for milkfish fed with SEAFDEC/AQD Diet and milkfish fed with commercial diet was **92.83%** and 91.45%, respectively.

The focal persons involved in this experimental site were Ms. Salvacion Ferrer, co-project leader from NFRDI-Aquaculture Research Development Division (NFRDI-ARDD), Regional Director Remia Aparri, Mr. Florante dela Torre, and Katherine Gatilogo from BFAR Region VI.



Milkfish being hauled from their cages by SEAFDEC technicians at the start of the harvest

TILAPIA HARVEST IN MUÑOZ, NUEVA ECIA

The 2nd ARDEP field testing was done at the Bureau of Fisheries and Aquatic Resources—National Freshwater Fisheries Technology Center (BFAR-NFFTC) in Science City of Muñoz, Nueva Ecija. Six 300-square meter ponds were used for the tests where the actual growth trial was officially started on June 27, 2019. Tilapia juveniles with an average body weight of around 21 g were stocked in the ponds at a stocking density of five fish per square meter.

(Continued on page 13)

Potential Species for Pond Propagation under Conventional and/or Organic Regimes

Experimental trials are underway to propagate endemic species for food production and stock enhancement of freshwater finfish endemic to lakes and estuarine coves. Among these, the challenge is to breed the silver perch or “ayungin” (*Leiotherapon plumbeus*) and the flathead goby or “biyang puti” (*Glossogobius giuris*) to determine its viability for propagation under fish pond and fish cage structures. The studies were funded by DA-BAR in April 16, 2015 under BAR/QSF-A.01.02. Two fisheries centers were tapped to jointly undertake the studies: the University of the Philippines Los Banos’ (UPLB) Limnological Research Center (LRC) in Los Banos, Laguna and the Bureau of Fisheries and Aquatic Resources’ (BFAR) National Inland Fisheries Technology Center (NIFTC) in Tanay, Rizal.

Captive breeding of silver perch under natural spawning and using hormone induction has been achieved in ponds and concrete tanks. Placing of breeders directly in pond/tank enclosed within an “organza” increased yield of seed production. Since silver perch spawns directly in the nursery pond/tank it is no longer necessary to transfer eggs from breeding tanks to nursery tanks. This reduces handling and prevents water quality change stress. Larval diet consists of high protein shrimp feeds and ground *yap-yap* (small shrimps). Preliminary grow-out trials in ponds and in cages revealed that silver perch reach an average weight of 5 grams and 15 grams, respectively in 6 months. Growth of fish in cages is reported to be more favorable in terms of morphology and weight gain.

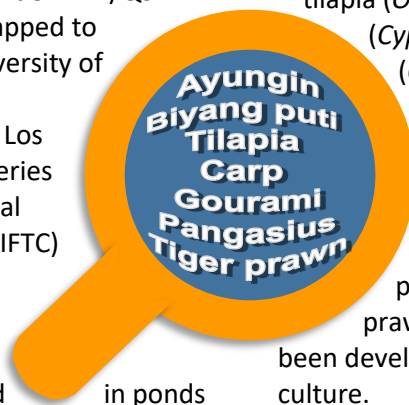
Hatchery trials to breed the flathead goby are currently being refined by the two BFAR fisheries centers particularly in the larval rearing stage. Zooplankters smaller than 200 µm (*Lecane bulba* and *Euplotes spp.*) were identified as good natural food candidates since they were found in the gut of newly hatched *biyang puti* larvae. Like the silver perch, the flathead goby is a carnivorous species. Preliminary grow-out trials in ponds and in cages revealed that *biyang puti* reach an average

weight of 6 grams and 12 grams, respectively in 6 months. However, survival of fish in ponds is reported to be more favorable with survival rate of 70% compared to 30% survival from cages. Both species are commercially important for local and foreign markets. Despite declines in population and commercial harvest, the demands remain high and commands good price of Php250.00 to Php 450.00 per kilo of whole fish depending on the season.

Organic finfish species developed by the BFAR National Freshwater Fisheries Technology Center (NFFTC) and NIFTC are now available for commercial propagation. Omnivorous or herbivorous species include the Nile tilapia (*Oreochromis niloticus*), the common carp (*Cyprinus carpio*), the giant gourami (*Osphronemus goramy*), and the Pangasius (*Pangasianodon hypophthalmus*). Adaptability of these species to different aquaculture structures and their growth rates from the consumption of natural food and organic feeds needs to be investigated. Polyculture protocols for organic finfish with freshwater prawn (*Macrobrachium rosenbergii*) have also been developed to increase income from extensive pond culture.

Organic tilapia farming utilizing duckweed (*Lemna perpusilla*) as one of the natural food sources is being practiced in Luzon by farmer organizations such as the Community-based Participatory Action Research (CPAR) projects in Lamut, Ifugao that were funded by DA-BAR. Other initiatives to spread organic tilapia culture include the organic aquaculture trainings in Cagayan conducted by the BFAR-2 Regional Fisheries Training Center and those funded by the BFAR Organic Aquaculture Committee.

Consequently, organic marine shrimp farming in Southeast Asia represents an emerging new market that is gradually gaining acceptance in the country. Tiger prawns grown in organic-certified mangrove ponds are exported to the United States, Japan, the European Union countries and even the Philippines by CAMIMEX of Vietnam. One kilogram of whole frozen prawns (17 gm/piece) costs US \$26.00 (Php 1,300.00) in Healthy Options stores. This is a potential area for R & D funding for interested parties. (*RGGLedesma, RPol, ZHechanova, and JVillanueva*)



DID YOU KNOW...

...more than half the seafood eaten worldwide comes from aquaculture?

Source: FAO 2012. *The State of the World's Fisheries and Aquaculture*. United Nations Food and Agriculture Department, Rome.



Ayungin fry

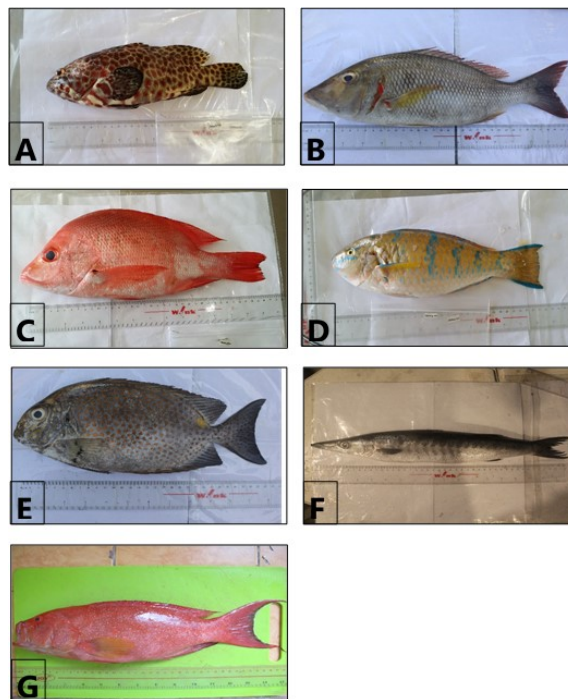
Ciguatera fish poisoning: Do reef fishes or “isdang bato” really contain toxins?

Ciguatera fish poisoning is a threat to public health and fish trade of commercially important reef fishes. Thus, scientists from the Department of Agriculture – National Fisheries Research and Development Institute (DA-NFRDI) explored whether our reef fishes (commonly called *isdang bato*) contain toxins.

What is Ciguatera fish poisoning? It is a form of poisoning primarily caused by ingesting or eating reef fishes that are contaminated with ciguatoxins (CTX), a poison produced by the *Gambierdiscus* species. Ciguatoxic reef fishes include the barracuda (*Sphyraena barracuda*), parrotfish (*Scarus quoyi*), rabbitfish (*Siganus guttatus*), grouper (*Ephinephelus merra* and *Variola albimarginata*), snapper (*Lutjanus campechanus*), and emperor fish *Lethrinus lentjan*.

Based on the data derived from fish samples taken from three sampling sites - Carles, Iloilo; Daangbantayan, Cebu; and Cajidiocan, Romblon, DA-NFRDI gathered the following results: 4.46% of the total reef fish samples were positive for ciguatoxins; fish toxin occurrence was found to be site-specific, that is, geographical conditions affect the frequency of toxic samples; and, fish weight is not a good predictor of fish toxicity.

The study concluded that fish toxicity is directly proportional to the occurrence of benthic dinoflagellates in areas where these are seen during the dry season. Hence, to promote food safety and fair trade, it was recommended that appropriate monitoring and management of Ciguatera fish poisoning be done in areas where its causative benthic dinoflagellates are found. To know more about the study, you may visit <http://www.nfrdi.da.gov.ph/tpjf/>. (BETanyag and UMMontojo)



Commercially important reef fishes positive for Ciguatoxin: (A) *Epinephelus merra*, (B) *Lethrinus lentjan* (C) *Lutjanus campechanus*, (D) *Scarus quoyi*, (E) *Siganus guttatus*, (F) *Sphyraena barracuda*, and (G) *Variola albimarginata*.

Miscellaneous

Learning Never Stops at NFRDI

Learning never stops at NFRDI despite the current alternative work arrangement being implemented in this time of pandemic. The institute believes that staff development is a way to strengthen its major asset, the employees.

The brain behind this learning program is no other than the Interim Executive Director, Dr. Lilian. C. Garcia, CESO V. She instructed the heads of each division to explore online courses or even create their own exams that they can require their personnel to answer and complete. One good example is for technical personnel to read and study relevant laws in fisheries specifically Republic Act 8550 or the Philippine Fisheries Code of 1998. Employees in the administrative position, on the other hand, were asked to study laws on good governance such as Republic Act 6713 or “Code of Conduct and Ethical Standards for Public Officials and Employees” and Republic Act 3019 or “Anti- Graft and Corrupt Practices Act.” A weekly test was conducted to gauge how much employees have learned.

Succeeding the series of readings and examinations,

the Finance and Administrative Division personnel enrolled in the TESDA On-line Program (TOP). The TOP, according to TESDA’s website, is an open educational resource that aims to make technical education more accessible to Filipino citizens through the use of information and communication technologies. It provides an effective and efficient way to deliver technical education and skills development services to a broader audience at a lower cost.

The courses offered to personnel who are handling administrative positions are Receiving and Responding to Workplace Communication (RRWC) taken last May and Participating in Workplace Communication (PWC) taken last June 15. Thirty six staff received the certificates for RRWC and thirty one for PWC.

According to HRDO Outreach of the United Nations Development Programme (UNDP), “Human development approach focuses on improving the lives people lead rather than assuming that economic growth will lead, automatically, to greater opportunities for all.” It also further stated that, “Income growth is an important means to development, rather than an end in itself.” (CCFernandez)

The NFRDI had issued pertinent office orders and memoranda to provide guidance to employees, implement programs and support its operation. The list below are some of these communications for reference.

NFRDI MEMO/COMMUNICATION LETTERS

DOCUMENT DATE	SUBJECT/ PARTICULAR
Apr-13	Dissemination by Individual Personnel of Relevant Information on DA Programs, Project and Related Matters, Particularly on the Department’s Intervention Relative to the Current Emergency Situation Due to the COVID-19 Pandemic
Apr-13	Guidelines on NFRDI Social Media Posting/Sharing
Apr-17	NFRDI Announcements
June-2	Refocused NFRDI Programs Projects and Activities (PPA's)
June-18	New Contract Format for Contract of Service (COS) Employees
June-18	Contract of Service Personnel Documents Submission
June-22	Participation to the Virtual Workshop on Development Modules for NFRDI Trainings

NFRDI OFFICE ORDER

NOO NO.	SUBJECT	DOCUMENT DATE
8	FiSearch Editorial Board	Apr-06
9	Electronic Signatures in Official Documents	13-May
10	Guidelines on the Issuance of Load Allowance to the Authorized Personnel of NFRDI while on Alternative Work Arrangement (AWA)	11-May
11	NFRDI Interim Guidelines while on Alternative Work Arrangements (AWA) on the Pre-Employment Screening of Applicants	26-May

(Continued from page 10)..... Low-cost Formulated Feed

Throughout the duration of the experiment, monthly samplings were done and after 124 days of culture when the tilapia was estimated to weigh at 300 to 350 g of marketable size, harvest was done. The ceremonial harvest of the field trial experiment took off on October 28, 2019.

The harvest included a “Seminar on Freshwater Fish Propagation” conducted by the NFRDI Fisheries Biotechnology Center and the ARDEP to enhance the knowledge and skills of the fish farmer participants on fish propagation and provide them with starter fish fry and fingerlings.



Harvest of Tilapia in BFAR-NFFTC

The ceremonial harvest and program in both sites were attended by BFAR directors and personnel from different BFAR Regional offices.

With the goal of lowering the production cost in aquaculture and increasing profits for the small-scale fish farmers, the recent success of these field trial experiments encourages the project collaborators, the ARDEP group, and NFRDI to continue the research and assessment of the novel formulated feed, to address further gaps, and widen the scope of the verification studies across regions with varying culture environments for milkfish and tilapia. This will give more foundation to the data acquired from the research and eventually transfer the polished technology to our small-scale Filipino aquaculturists who need it the most. *(MTMutia, LMIwag, CDelaCruz)*

Recorded average body weight (ABW) of SEAFDEC-treated tilapia was at **338.24 g** while the control fed by commercial diet was at 308.24 g. Total biomass harvested for tilapia fed with the formulated diet was at **1502.27 kg** while the total biomass harvested for tilapia fed with commercial feed was at 1375.73 kg. Survival for SEAFDEC fed tilapia was at **85.91%** and 80.64% for tilapia fed with commercial diet. These findings greatly motivated the participants/attendees on the usage of the formulated diet.

Persons involved in this project site were Dr. Dennis Tanay and Dr. Christopher Rayos from NFRDI-ARDD, Ms. Jodecel Danting - Center Chief, Ms. Lydia Morales, and Ms. Rossana Cinense from BFAR-NFFTC.

Man Shall Not Live By Bread Alone

(Inspiring Devotional For Our Hungry Souls)

We decided to include this section in the quarterly publication of Fisearch to inspire the readers about spirituality. The cares of this fast-paced world add undesirable baggage to our daily burdens. We deserve more than that.

I believe that there is more to life than seeking the cares of this world. Life is also about feeding our hearts and souls with God’s presence so that we may have peace and enjoy life.

But in reality, it’s not always like that. Usually, when troubles come, instead of turning to God for help, we try to solve it by ourselves. We are blind to what God can do in our situations.

COVID-19 is a kind of problem capable of disturbing our peace. Who would imagine a virus could bloom to global scale and would affect millions of people in terms of health, life, and source of living? Even those who live in mansions and

palaces could no longer guarantee their safety from this unseen killer.

In situations like this, may we not allow the voice of problems become bigger than the voice of God in our life! To sulk, to worry, and to give up are not the solutions. Instead, let us turn to the Lord. He can change our circumstance. He is our stronghold and we can always trust in Him. He is our place of safety.



The Lord told Joshua not to be afraid nor to be discouraged while Joshua led the Israelites into the Promised Land (Joshua 1:9). Virgin Mary, when she was found conceiving the Messiah, was told by Angel Gabriel to be at peace and not to be afraid (Luke 1:30). Both of them fulfilled their missions in life because they trusted in Him.

Lastly, our God has these promises that we can lean on: “Peace I leave with you; my peace I give to you. Not as the world gives do I give to you. Let not your hearts be troubled, neither let them be afraid.” (John 14:27).

Those who live in the shelter of the Most High will find rest in the shadow of the Almighty.

This I declare about the Lord: He alone is my refuge; my place of safety; He is my God, and I trust Him. (Psalm 91:1-2).

God bless us all! (LCGarcia)

(Continued from page 9)..... Online Training-Workshop on Audio and Video Production

The participants were amazed that a highly technical topic on communications technology can be effectively shared through an online platform. The effectiveness of the platform was demonstrated in the high percentage score of 88% garnered by the participants in the final diagnostic test given by Mr. Amongo and in their group output — an audio-visual (AV) production.

DA-NFRDI conceptualized the training-workshop out of the need to equip and prepare its staff in the ‘new normal’ of providing Virtual Trainings to its stakeholders. From the “brick” form or face-to-face training modality, NFRDI will be offering virtual trainings on fisheries-related topics that are results of the agency’s research endeavors. Topics in the training-workshop included: Key Concepts in AV production, Script Development, Video/ Smartphone Camera Operation, Operation of the AV editor, and Putting Materials All Together through various roles as

scriptwriter, researcher, production assistant, videographer, director and AV editor.

During the training-workshop, each participant was provided with a free and licensed software to use in video and audio editing. Operation of the software was thoroughly explained by Mr. Amongo and it was used by the participants during the workshop to come up with an AV material which they presented on the last day. Aside from the AV editor software, each participant also received digitally signed Certificates of Training Completion. TD staff members Gilda Joanna Calderon and Myrna D. Alonte facilitated/moderated the activity under the guidance of Mr. Francisco F. Santos, Section Chief of the Training Section and Dr. Mudjekeewis D. Santos, OIC-Division Chief of the Training Division. (MDAlonte)

Got a story to tell?
Use **#NFRDIInAction** and **#NFRDITeach** in your FB posts or submit your articles to

It is the hard-working farmer who ought to have the first share of the crops

2 Timothy 2:6

Keeping Employees' Mental Health Healthy during Pandemic

The ramifications of the COVID-19 pandemic have caused enormous changes to our daily lives as a whole and a 360-degree shift to employees' work habits.

In an article written by Emma Greedy of HR Magazine, she wrote that in an interview with Elizabeth McManus, head of leading transformation and engagement at City & Guilds Group, the rise and spread of Covid-19 has presented both an unprecedented and unforeseen crisis across the globe that has led to new pressures that could affect employees' mental health.

It is inevitable that workers across the globe are feeling stressed at work amid the fears and growing uncertainty of the virus. But, let it not be a standing ground to disrupt expected performance and institute's productivity especially in supporting the Department of Agriculture's mandates in the fisheries sector.

Accordingly, what can NFRDI do for its employees' mental health in this emerging reality?

This prompted the Human Resource Management Unit (HRMU) to initiate a mental health program that started last June 1 to help *keep its employees mentally healthy through the program "Coping with the New Normal."* The primary aim of the program is to address employees' mental health concerns and thus, strengthen it in the time of the pandemic so that they will remain productive regardless of the work scheme they adopted.

With this objective in mind and knowing that coping schemes are not one-size-fits-all, four activities were designed in a facile way and can be done in employees' work stations, office, or at home.

To avoid burn-out, a daily Routine activity providing daily nourishments in spiritual, emotional, and simple

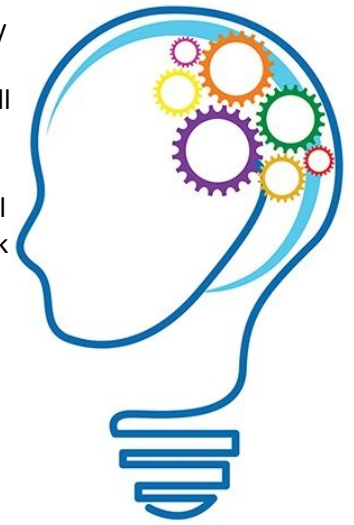
physical activities is sent online.

Coping supports are also laid down for those who need them. The statement "Coping with the New Normal" is intended not to have period, comma, question mark, exclamation point, and other punctuation marks since it's a free form of expression.

While some may have already adopted, others may still be uncertain, and others may still have strong feelings about this. It is important to simply imply that it's okay not to feel okay and it's also okay to seek help and support. For the artist-born type of people who tend to express their apprehensions through writing, a freedom wall is placed at the HRMU office while those who prefer expressing themselves in social media, HR@ FB account and hmr.nfrdi@gmail.com are there to babble thoughts. Online chat is also available for those who just need someone to listen to so they can relieve their pent-up feelings or emotions. For those who seek professional help, a list of online counseling and steps on how to register are provided.

HRMU scouts free online webinars which will tackle relevant subject matter as part of employee development and ultimately alleviate stress caused by this pandemic.

The program "Coping with the New Normal" is simple and not costly but this is one way of telling NFRDI employees that they are not alone and that even in tough times, together, we are capable of handling any situation. *(CCFernandez)*



Be Positive!

by Norvi Cruz-Gatdula

"Be positive!" is what was heard
at the beginning of this year
Hopes and dreams and plans abound
with excitement and good cheer.

"Be positive!" directs the brain
to make it think good thoughts
the energy it can bring forth
douses all those doubts.

"Be positive!" is what we say
to someone who is ill,
It lifts the spirits of the one
who needs those words to heal.

But lo, behold,
Who would have thought
this phrase could bring great fear?
A sense of dread may fill the heart
of one with fever or chill.

"Be positive!" are words that now
we need to be careful uttering
let's just make sure when saying this
they're not about to have a
COVID testing!

Femininity is Power: Breaking the Pedestal

While enjoying the privileges and power they have now, women still have a long way to go to achieve the real freedom of femininity. What exists now can be traced back few centuries ago before women have been considered part of humanity. They have become subject of abuse and slavery, in short, they are being commodified by the patriarchal system that endorses them.

When the first wave of feminism succeeded in raising the voice of the women, they were given the opportunity to participate in politics and in voicing out the materialistic difference between the two sexes. On its second wave, it emphasized the politics of reproduction, women's experience, and sexual differences. Presently, on its third wave, it focuses on uplifting the minorities that are most of the time being neglected not just on social activity and interaction, but with their gender and roles. Why do we need to highlight the waves of feminism? By identifying and scrutinizing this timeline of event, it will be deduced that the struggle in equality cannot be instantly attained after a night or two. It expresses that the fight is not over, gender stereotyping and pedestalizing the minority is still an issue of femininity.

As manifested by events that defined history and the culmination of cultural highlights through literary texts and documents, traditional gender roles concentrated on emphasizing the distinguishing marks that men are rational, strong, powerful and protective, while women are irrational, dependent, and inferior in terms of leadership and authority. By posing this identification, the inequality in women and underrepresentation were justified and is being strengthened by focusing on the negative view of women as mere commodity without the ability to decide and lead. This traditional gender roles are concentrated in different institutions such as academe, politics, corporate world, and even home.

Gender has always been an issue in the partition that divides inferior women from superior men. Right after birth, a person is already tagged of what s/he is expected to be: the socially-constructed roles based mainly on gender.

Cultural diversity, likewise, contributes in the establishment of gender roles in the community. For instance, the universality of the "inclusive *he*" as pronoun in most of the narratives contribute to the denial of women's power and social contribution. This enables the misrepresentation of human being—both men, women—in the construct of identification and social attribution.

In her book "Critical Theory Today: A User-friendly Guide (2nd Ed)," Lois Tyson (2006) states that, "patriarchy continually exerts forces that undermine women's self-confidence and assertiveness, then points to the absence of these qualities as proof that women are naturally, and therefore correctly, self-effacing and submissive."

Therefore, the ferociousness of fight for equality among men and women in the society is a manifestation that what the people need now is a real equality. Equality that gets rid of traditional gender stereotyping and by creating space for women to emphasize, or at least contest, their existence with patriarchy that denies women of their right to fairly lead and exist. It is important to note that, giving women their liberation does not mean a sudden disappearance of masculinity. For masculinity should co-exist with femininity, recognizing both party's contribution in social inquisition and leadership.

Moreover, the deletion of gender roles and other social constructs that pedestalize women are big steps that will redeem their lost and neglected rights as set by patriarchal system. The lifting of stereotypes for women create a more conducive and productive society as opposed to the general belief of being weak, irrational, and emotion-driven decision making among them.

Women empowerment does not mean eradicating men. It simply means that presenting women beside (not behind) men as people and as human being celebrated with every right that—whether natural or legal—protect and give a free rein to everyone.

Empowering women means celebrating them, recognizing them, and giving the privileges every "he" enjoys. They are not mere shadows of men, nor accessories of the past; they are the shadows of their own, the beauty amidst chaos, and the potent ones who bore those "powerful" men. *(KLAGustin)*

WE WANT YOU EMPOWERED!

Report Sexual Harassment at

bit.ly/NFRDICF2019

For GAD training needs fill out the form at

bit.ly/GADTNA

Email us at gadsec.nfrdi@yahoo.com



G Ra D

GAD for Research and Development