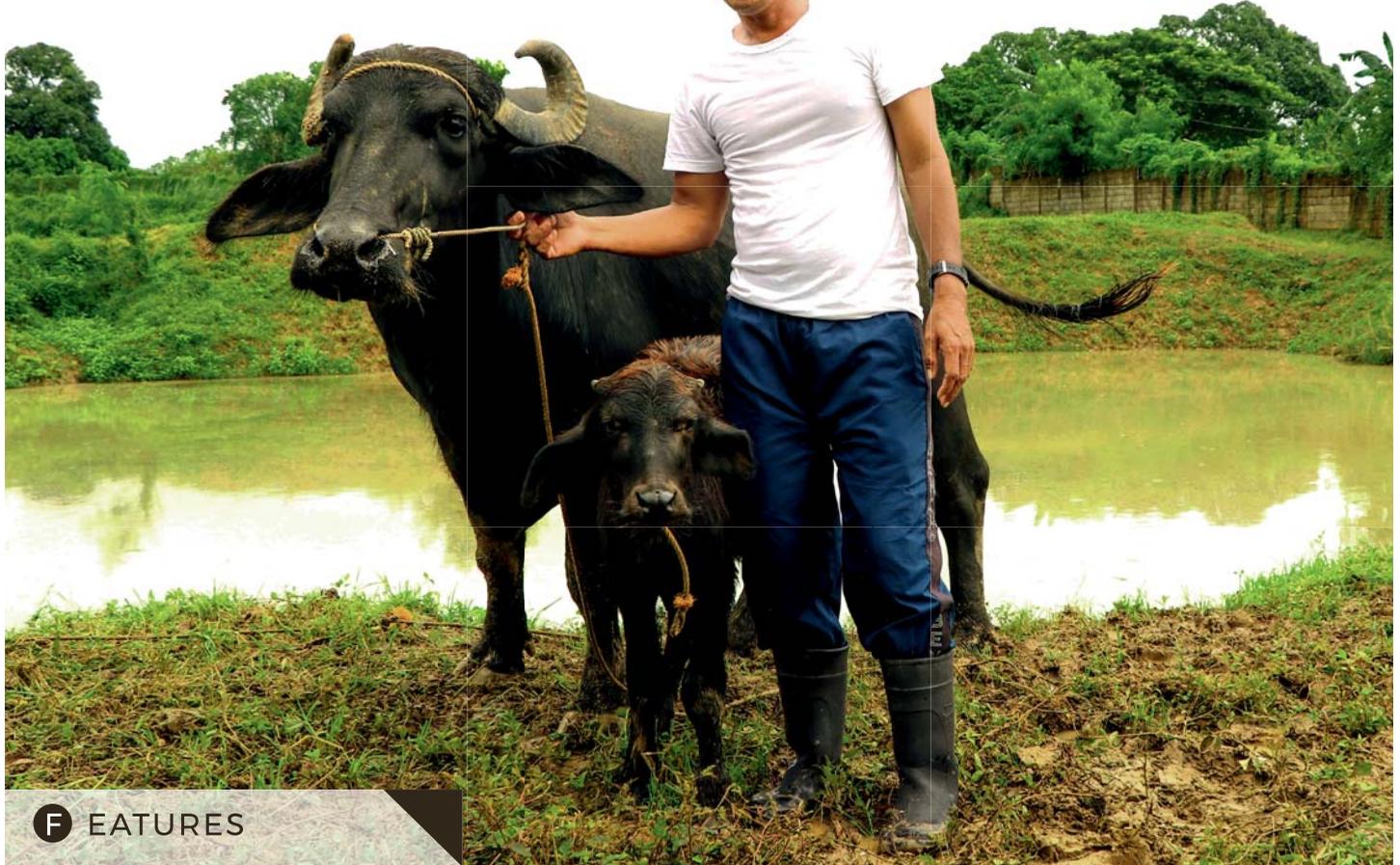


# Bubalus

Quarterly Newsletter of the Philippine Carabao Center

Vol. 1 No. 3 • 2018



## F EATURES

### Beneficent outcomes, arise from a unique dairy buffalo

By Charlene Corpuz

It is but natural for humans to look for and admire something of unique and amazing characteristic—a distinction that would easily catch attention.

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### PCC new Deputy Executive Director reveals plans, directions

By Ma. Cecilia Irang

Dr. Caro Salces, former center director of the Philippine Carabao Center at Ubay Stock Farm (PCC@USF) in Bohol, has been named deputy executive director of the Philippine Carabao Center (PCC). His appointment papers were signed by Department of Agriculture (DA) Secretary Emmanuel Piñol.

Dr. Salces, who brings with him splendid performance as chief of

the PCC@USF that oversees PCC's operations in Cebu and Bohol, bared that his initial focus would be on improving the reproductive efficiencies specifically calving interval of buffaloes to significantly contribute to the development of carabao industry.

He said he is fully supportive of all

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# Editor's Word



Once again, we are delighted to share with you Bubalus stories as they unfolded during the 3rd quarter of 2018. Foremost is a feature on Dr. Caro B. Salces, PCC's newly appointed Deputy Executive Director, who shared his vision and plans for the institution, among which is his call for improving the water buffalos' reproductive efficiency. We also featured PCC's new partnerships with Thailand's Department of Livestock Development for R&D and with Iloilo's LECOFADA, Cebu's COMAVEMCO, and Tarlac's EDLAFI for enterprise development endeavors. Of special interest, too, are stories about the high performing dairy buffaloes whose dam was a true albino, and how they benefitted their owner-caretakers; the first-ever School-on-the-Air on Dairy Buffalo Production launched in Iloilo; and the importance of assuring milk quality for better income. Enjoy reading and learning!

Dr. Eric P. Palacpac

## About the cover

Vicente Santos Jr. proudly shows off his dairy buffalo whose sire is a true albino and its calf. Not only does the former help him provide for the needs of his family through its milk production, but it also boosts his passion in rearing carabaos.



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**Bubalus** is a quarterly publication published by the Philippine Carabao Center that gives its readers new updates and inspiring stories happening in the carabao industry.

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## Ceremonial turnover of crossbreds to LECOFADA marks partnership towards carabao-based enterprise development

By Charlene Corpuz



Members of LECOFADA happily receive the crossbred buffaloes turned over to them by the PCC.

Eighteen crossbred buffaloes were turned over to Leon Confed Farmers Cooperative (LECOFADA) thru a “paiwi” program of the Philippine Carabao Center (PCC) on August 29 held at the Auction Center, Leon, Iloilo City.

The “Ceremonial Turnover of 1st batch of crossbreds to LECOFADA”, as spearheaded by PCC at West Visayas State University (PCC at WVSU) signifies a great opportunity for the municipality of Leon to boost its carabao-based enterprises.

Around 100 crossbred buffaloes from Leon were gathered at the municipality’s Auction Center as a way of strengthening support towards progressive dairy industry.

During the event, PCC at WVSU center director Arn Granada provided a program briefing that allows the participants understand better the goals and mandate of PCC.

He also mentioned about the recent Communication for Development (ComDev) activation program (with a tagline “Karbawan”) in Leon as a pilot area in Iloilo City. Ensuing ComDev interventions include School-on-the Air (SOA), which has aired three

sessions so far, a planned Farmer’s Livestock School (FLS) on Dairy Buffalo Production, and production (and distribution) of printed materials in the Ilonggo dialect to complement further learning among farmers.

Dir. Granada encouraged them saying, “These platforms let you maximize learning and enhance your skills on dairy buffalo production based on your preferred communication interventions with the assistance of the PCC’s Knowledge Management Division.”

Meanwhile, Dr. Arnel N. del Barrio, PCC executive director, noted the event as a celebration of partnership saying, “This is not just a simple turnover of buffaloes, but this marks an alliance with National Dairy Authority (NDA), Local Government Unit (LGU), Department of Agriculture Regional Field Office VI (DA-RFO VI), Department of Agriculture - Regional Agriculture and Fisheries Information Services VI (DA-RAFIS VI), Non-Government Organizations (NGOs), National Government Agencies (NGAs), Agricultural Training Institute Regional Field Office VI (ATI VI) and other stakeholders.”

He expressed gratitude to more than 100 carabao raisers gathered in the event that signify commitment along with other agencies that continuously support PCC at WVSU in implementing and disseminating its programs and services in reaching more dairy farmers.

Thus, he challenged Perlito Echeche, LECOFADA chairman, to contribute to the PCC’s aim for higher milk production in the country in support of RA 11037 - Healthy Food for Children Act, which includes Milk Supplementation Program.

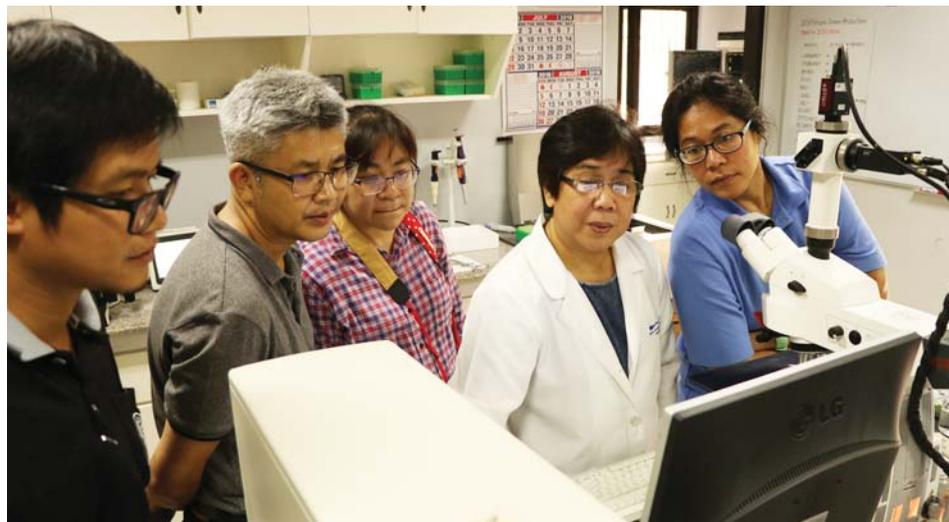
The guests that joined and gave inspirational messages were NDA PDO III Arden Calesina, Consultant of DA-ASEC for Visayas and Regulations Ramona Gonzaga, 2nd district Political Affairs Officer III Ramie D. Corillo, representative from the Municipality of Davao City, Leon City Mayor Cahilig and Brgy. Captain Jalandoni.

They emphasized that this is an opportunity of the government to communicate with the farmers towards adoption of PCC-developed technologies and create a sustainable source of livelihood

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# PCC, DLD of Thailand strengthen partnership on scientific and technical cooperation

By Ma. Cecilia Irang



(Upper photo) On the second day of the meeting, the DLD delegates were toured to the National B... (Right photo) PCC Executive Director Dr. Arnel del Barrio (2nd from right) and DLD Director of Nakorn R... Cooperation Meeting.

Specific areas of cooperation have been identified by the Philippine Carabao Center (PCC) and the Department of Livestock Development (DLD) of Thailand and were agreed upon during the second “Technical Cooperation Meeting (TCM)” by the representatives of the two agencies last July 11-12.

These areas are on nutrition management and forage breeding, animal breeding, genomics and reproductive biotechnology, product development, and exchanges of study mission.

This event happened following the signing of the Implementing Arrangement between PCC and

DLD on March 21, 2017 and the 1st TCM on June 21-24, 2017. The TCM supports the Memorandum of Understanding (MOU) on Agricultural Cooperation between the Government of the Kingdom of Thailand and the Government of the Republic of the Philippines signed on October 2003 in Bangkok.

Mr. Jakkapop Chansaad, DLD’s Director of Nakorn Ratchasima Artificial Insemination and Biotechnology Research Center, and Dr. Arnel del Barrio, PCC’s Executive Director, led the two teams in discussing specific areas of cooperation during the said meeting held at the PCC National

Headquarters and Gene Pool in the Science City of Muñoz, Nueva Ecija.

Joining them in the meeting were Andrea Paola Flores, representative of the International Affairs Division of the Department of Agriculture for Southeast Asia; Dr. Ronnie Domingo, director of the Bureau of Animal Industry (BAI); and other BAI officials.

“As we venture into our mandate, we also recognize the value of strategic partnership and collaboration. Thailand is one such important partner-country in this endeavor considering its many advances in livestock production and related enterprises,” Dr. del Barrio said.



al Bull Farm and Semen Processing Laboratory of PCC in Digdig, Carranglan, Nueva Ecija. (Lower photo) PCC officials with the DLD delegates. m Ratchasima Artificial Insemination and Biotechnology Research Center Mr. Jakkapop Chansaad, sign the excerpts of the second Technical

He expressed his hope that “this technical cooperation meeting be an avenue for both parties to forge long-term and meaningful collaborations”.

For his part, Mr. Chansaad expressed his enthusiasm and support to the identified areas of cooperation.

The partnership’s goal is to strengthen collaboration on scientific and technical cooperation, specifically to promote, exchange [ideas] and collaborate on breeding, reproduction, nutrition management and other areas.

After several presentations of concepts, the PCC and DLD-

Thailand identified their respective objectives and goals for each area of cooperation. Excerpts of the second TCM were signed by Dr. del Barrio and Mr. Chansaad.

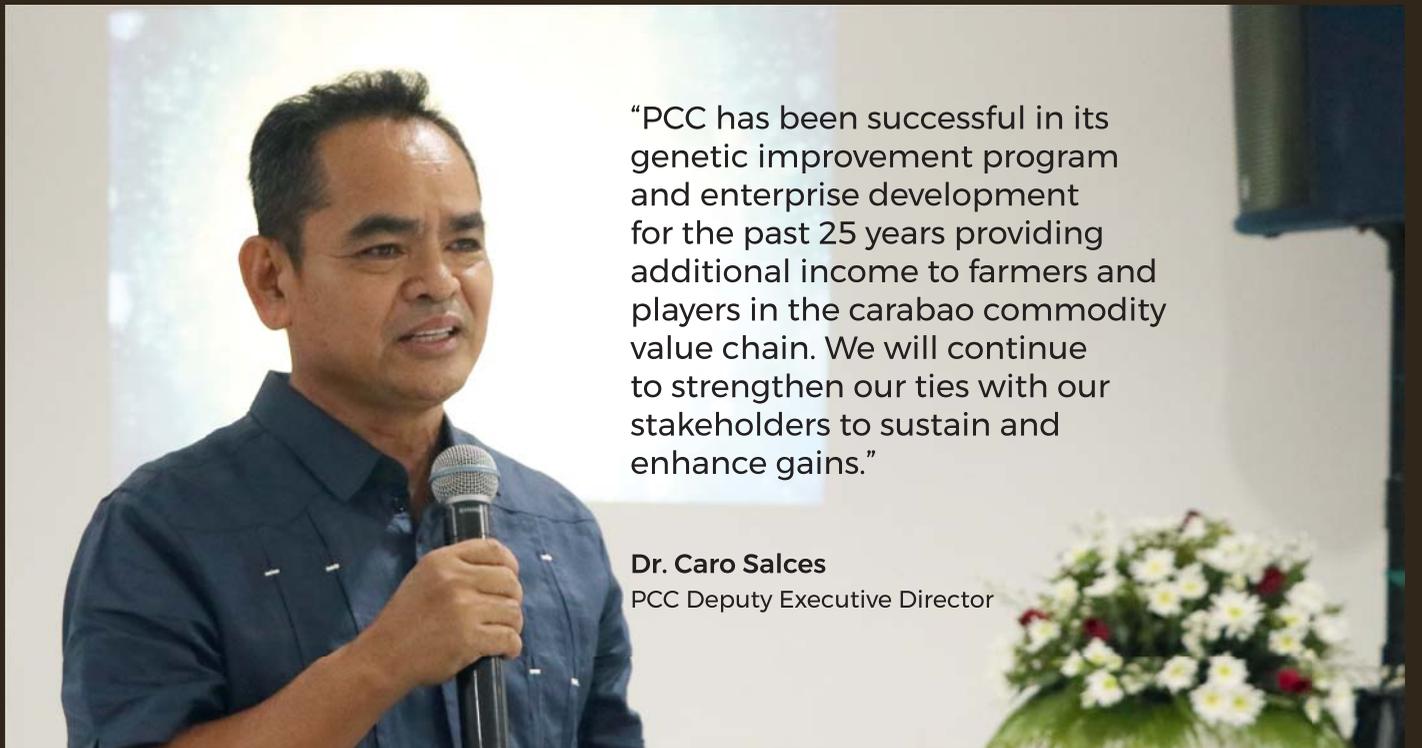
“After the discussion, we had summed up those areas that are doable. Then we will submit this to the Secretary of Agriculture for his final approval and to the approving official of DLD,” Dr. del Barrio said.

The PCC top officials joined the DLD delegates in touring the National Bull Farm and Semen Processing Laboratory in Digdig, Carranglan, Nueva Ecija on the second day of the meeting. In this facility, they were briefed about its operations and

semen processing procedures.

Thereafter, they were ushered to the cryobank facility and national gene pool to visit the purebred buffaloes and later toured the Central Dairy Collection and Processing Facility. Their last stop was at the Milka Krem facilities where the carabao’s milk products, such as mozzarella cheese, bocconcini, kesong puti, pastillas, yoghurt, fresh milk, espasol de leche, rice cakes, and different flavoured milk drinks were presented to them and served for their appreciation.

Before the conclusion of the meeting, the PCC and DLD delegates motored to Manila to pay a courtesy call to other BAI officials.



“PCC has been successful in its genetic improvement program and enterprise development for the past 25 years providing additional income to farmers and players in the carabao commodity value chain. We will continue to strengthen our ties with our stakeholders to sustain and enhance gains.”

**Dr. Caro Salces**  
PCC Deputy Executive Director

## PCC new Deputy Executive Director...

From page 1

the programs and initiative of his immediate boss at PCC, executive director Dr. Arnel del Barrio and would work with him closely.

According to him, the problem is the declining population of buffaloes due to low reproductive efficiencies and that slaughter rates overrun birth rates.

He said this is one of the areas that PCC would work on closely to meet the problem squarely.

“Operational research and research for development must work hand in hand,” he added.

Dr. Salces took his oath of office last July 9 before Secretary Piñol at the DA. He succeeded Dr. Felomino Mamuad, who took his compulsory retirement last November.

As deputy executive director, one of his main functions is to oversee the regional centers’ operations and guide them towards achieving their major final outputs to contribute to the development of

carabao-based enterprises.

Prior to his appointment, Dr. Salces was the center director of PCC@USF since 1994 and one of the pioneers during PCRDC (a precursor of PCC) years. He became the “most outstanding center director of PCC” in 2016.

Under his leadership, he helped turn the PCC@USF as the “Best Performing Center” in 2015 and “Outstanding Regional Center” in 2018. The center was issued ISO certification in 2013 and has thus served as a driving force towards the envisaged transformation of the Province of Bohol, as the “Dairy Capital of the Philippines”.

It was also under his leadership that the center was successfully transformed into self-liquidating farm and enterprise operation with milk production in the area of coverage from zero to 1000 liters milk yield per day with annual sales of Php36 million in four Dairy Box outlets.

As a researcher, he has conducted more than 20 studies in agriculture and as a life member of the Philippine Society of Animal Science (PSAS), he authored or co-authored six best paper awards from 1987 to present. He also received the “Gawad Saka Award” of the Department of Agriculture for applied research in 2000-2001.

Dr. Salces finished his Bachelor of Science Degree in Agricultural Education at the Bohol Agricultural College in 1983 with cum laude honors. Seven years later, he earned his Master’s Degree in Animal Science at the University of the Philippines, Los Baños. In 2000, he finished his Doctor of Philosophy degree in the same field also at UPLB.

He is married to Agapita O. Jandayan, who is a professor of Animal Breeding at UPLB. They are blessed with five children: Faye Yvonne, Cary Yrvin, Mariale Yasmin, Christian Ysrael, and Angelo Yzmael.

## 4th Dairy Box outlet in Visayas, now open to the public in Compostela, Cebu

By Charlene Joanino



Dr. Caro Salces, PCC deputy executive director; Ebonito Alivio, general manager of the Dairy Box; and Vilma Gulane, COMAVEMCO MPC chairperson spearhead launching of the Dairy Box in Compostela, Cebu. (Photo by Ebonito Alivio)

Locals and tourists can now relish on a variety of buffalo dairy products offered at the newly launched “Dairy Box” at Brgy. Poblacion, Compostela, Cebu, last August 12.

Spearheading the event is the Compostela Market Vendors Multipurpose Cooperative (COMAVEMCO MPC) that had partnered with the Philippine Carabao Center (PCC) in acquiring management of Dairy Box.

Dairy Box is a local outlet that serves as a venue for PCC’s partner cooperatives in showcasing their products. The outlet sells flavored milk, ice cream, pastries and pastillas from COMAVEMCO MPC members and other dairy buffalo cooperatives.

Apart from the adoption of PCC’s local business model, the agency also provided assistance to COMAVEMCO MPC in terms

of knowledge in technical and processing goods.

“The shop provided value-added benefits to the milk sold by farmers and at the same time promotes Compostela’s local product Queso” Ebonito Alivio, general manager of the Dairy Box, said.

Queso or local white cheese is the One Town, One Product (OTOP) of Compostela where an annual Queso festival was being held.

More than a hundred people have visited during the outlet opening led by the cooperative’s Board of Director Chairman Vilma Gulane. Amongst present from PCC were Dr. Caro Salces, Deputy Executive Director; Guillerma Abay-Abay, Carabao-based Enterprise Development Coordinator; and Dr. Glen Bajenting, Ubay Stock Farm Officer-in-Charge.

Also in attendance were representatives from the Department of Agriculture, Cooperative Development Authority, Department of Trade and Industry, Lamac Multi-Purpose Cooperative (LMPC), Aboitiz Land Inc., and local government officials led by Mayor Joel Quiño.

Coinciding with the opening of Dairy Box is the blessing of the new three-story building of COMAVEMCO MPC. The cooperative includes farmers, fishermen and market vendors.

The three other Dairy Box outlets in Visayas are situated in Carmen, Bohol; Parian, Cebu City; and Island City Mall, Tagbilaran City. The managing cooperatives are the Tamboan Farmers Multipurpose Cooperative, LMPC and Bohol Dairy Cooperative.

## PCC researchers 'sharpen saw' for research proposal writing

By Charlene Joanino



Participants immerse themselves in an activity during the "Training Workshop on Writing Proposals for Funding Application".

"Rich fieldwork experiences can be meaningful sources of ideas for research. One just needs to process these first-hand data into a plausible project proposal," said PCC Executive Director Dr. Arnel del Barrio during the Training Workshop on Writing Proposals for Funding Application held last August 6-10 at the PCC National Headquarters and Gene Pool in Muñoz Nueva Ecija.

More than 15 PCC point persons and researchers from the PCC national headquarters and regional centers participated in a series of lectures, mock writing and editing exercises, mentor-mentee consultations and discussions.

According to Dr. Caro Salces, PCC Deputy Executive Director, the said activity is a way to help the participants align their future research projects to the PCC agenda and market their research ideas for funding and support.

Participants of the said training were expected to understand operational research thrust, write a project proposal, edit manuscript for brevity and coherence, search for and manage references.

To gauge learning, seven project

proposals relating to the program proposal on the "Development of Carabao Improvement Service Protocol to Enhance Reproductive Efficiencies" were presented by the group. This particular research program aims to address the need to increase carabao population.

The PCC Operations Team and the Research and Development

Division (RDD), headed respectively by Dr. Salces and Dr. Annabelle Sarabia, organized the said training workshop.

The resource persons were seasoned PCC researchers namely Dr. Claro Mingala, Dr. Danilda Hufana-Duran, Dr. Eufrocina P. Atabay, Dr. Peregrino G. Duran, Dr. Ester B. Flores, and Dr. Eric P. Palacpac.

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### Ceremonial turnover...

anchored on buffaloes.

The ceremonial turn over was also capped by a Php1.8 million buyback fund from NDA, Php 3.7 million for biologics and veterinary supplies from DA-RFO VI, and Php1 million for ComDev campaign, SOA, and FLS-DBP from RAFIS VI and ATI VI.

The event also saw the oath taking of elected AI technician officers and a response to the turnover of buffaloes from Mr. Echeche and PAFC chairman Isabelo Luscares.

They both expressed their commitment and eagerness to maximize the dispersed crossbreds

for Carabao-based Enterprise Development (CBED). As Mr. Echeche encourages teamwork and unity among the members, Mr. Luscares, for his part, reminded the cooperative-members about proper feeding management. He emphasized the importance of secured forage grasses to be given to the crossbreds.

Throughout the event, the Karbawan jingle for Iloilo was played and heard in the venue, as its composer Virgilio Petchelier gave an intermission number, followed by a closing remarks from Dir. Granada.

# PCC launches SOA on Dairy Buffalo Production

By Charlene Corpuz



PCC KMD Chief Dr. Eric Palacpac (in the middle) and PCC at WVSU Center Director Arn Granada serve as guest speakers during the pilot broadcast of the SOA on Dairy Buffalo Production over DYFM Bombo Radyo Iloilo.

Harmonized with an on-going intervention led by the PCC's Knowledge Management Division (KMD) entitled "Strengthening Carabao Development Program (CDP) Communication for Development (ComDev) Campaign in Visayas and Mindanao", a learning platform called School-on-the-Air (SoA) on Dairy Buffalo Production was launched on August 4 to further enhance the knowledge and skills of carabao raisers in Iloilo.

It is a pilot activity of PCC hosted by its regional center based in West Visayas State University (PCC at WVSU), as supervised by its Center Director Arn D. Granada.

Together with Mr. Granada, Dr. Eric P. Palacpac, the project leader of the ComDev campaign and chief of KMD, served as guest speakers during the launching of the SOA.

The said intervention will be aired for four months (August – November) every Saturdays over DYFM Bombo Radyo Iloilo. Around 500 farmer-enrollees will be catered by the SOA program from seven municipalities of Iloilo namely Calinog, Lambunao, Bingawan, Badiangan, Janiuay, Dueñas,

and Leon and one municipality (Sapian) in Capiz.

The SoA module covers different lessons under Feeding Management, Health Management, Breeding Management, Carabao Enterprise, and Technology Adoption.

During this program, the enrollees will be given quizzes to assess their learnings for a couple of lessons to be discussed. The SoA coordinators from each respective municipality, as identified by PCC at WVSU, will facilitate the pre-test, quizzes among farmer-enrollees during SOA program, and a post-test evaluation afterwards.

Meanwhile, selected 30 farmers representing four municipalities of Iloilo will be concurrently enrolled in a Farmers Livestock School on Dairy Buffalo Production (FLS-DBP), according to Dr. Myrtel Alcazar of PCC at WVSU.

"FLS-DBP is a 34-week on-site training course with practicals or hands on to fully introduce PCC's developed technologies and hone the skills of farmers", she said.

On the other hand, the 'blended'

approach of integrating FLS with SoA is intended to create an interactive learning among farmers. Thus, the SoA program will also adopt the innovation of engaging some farmer-leaders as resource persons in some of the lessons to further facilitate learnings.

Strategies and methodologies are adopted from the imparted practices of ATI VI with the help of Ms. Nicolasita G. Gallego, Information Officer III/Chief, Information Services Section.

The Agricultural Technology Institute Region VI (ATI-RVI) and Department of Agriculture Regional Agriculture and Fisheries Information Division (DA-RAFID VI) joined forces in the implementation of the program and extended support to the funding of the air time, training materials and other logistics of the SOA.

As the PCC expands its communication campaign, a series of interventions are also expected to be soon developed in other regional centers of PCC in Mindanao. This is to further reach buffalo raisers or carabao keepers and continuously disseminate programs, services, and technologies in these parts of the country.

## Milk quantity, quality determine bigger income for ‘dairypreneurs’

By Ma Cecilia Irang

Eliseo “Eli” Mislang of Eastern Primary Multipurpose Cooperative in San Jose City, Nueva Ecija regretted those days when 14 liters from his total milk harvest were rejected by their cooperative which buys his milk. Main reason for the rejection: poor quality of milk he brought in.

Those rejections meant only one thing for him and his family: Low income.

Their cooperative buys the milk at Php60 per liter. Translated to peso value, what he lost due to those rejections was Php800 per day, a good income supposedly for him.

“I realized then that I made mistakes. It was not enough that I only follow good milking practices. I should also use appropriate milk utensils or containers and make sure that the milk harvest will be well protected during delivery,” Eli said.



“I realized then that I made mistakes. It was not enough that I only follow good milking practices. I should also use appropriate milk utensils or containers and make sure that the milk harvest will be well protected during delivery.”

**Eliseo Misleng**

Member, EPMC

Interventions” of PCC and the Philippine Council for Agriculture, Aquatic and Natural Resources Research and Development (PCAARRD), which provided funding of the project.

According to Abella, the project is in line with the program’s goal of increasing the milk production of buffaloes in Nueva Ecija and San Agustin and assuring its quality and safety within the program implementation.

“Poor quality of milk has been one of the perennial problems of our dairy farmers for many years. We should not only teach them how to increase the milk production of their buffaloes but also share with them the technologies on how to maintain and improve the milk quality from the farm, to the milk processing plant, and finally to the consumers,” she explained.

She added that the absence of cooling or break in the cold chain allows microorganisms to grow and quickly multiply, eventually reaching levels unsafe for consumption. The resulting decrease in milk quality and safety and supply negatively impacts on the processors and consumers along the dairy value chain.

The project is also in preparation for the Dairy Safety Regulations under the Food Safety Act of 2013 wherein the responsibilities and roles of key players in the supply chain to ensure the quality and safety of milk are indicated.

Specifically, the project is aimed at reducing milk spoilage and rejection through improving the hygienic milk handling practices of farmers and quality of milk for safe consumption.

The project has three main activities: assessment of existing

Eli was accustomed to using only plastic milk containers for the milk harvest that he transported for delivery from his farm to their milk collection center cum processing plant.

Examining his ways of doing things for his milk harvest, he determined that the primary reasons for his milk spoilage and eventual rejections were the unhygienic milk handling practices he followed, the use of plastic milk containers, and the lack of milk cooling system.

Eli is practicing twice-a-day milking thus he needs to immediately deliver his collected milk to their cooperative in the afternoon to avoid spoilage.

“I tried my best to deliver my milk harvest before our co-op closes. As much as possible, I didn’t want to store the milk placed in plastic containers inside our freezer,” Eli said.

### **PCC, PCAARRD project**

Eli considered it a blessing when he became one of the beneficiaries of the project titled “Milk Quality and Safety Assurance from Farm to Milk Processing Plant”. It was spearheaded by Mina Abella, PCC’s supervising science research specialist.

The three-year project is one of the components of the program “Enhancing Milk Production of Water Buffaloes through S&T

**Continued on page 22**



## In Capas, Tarlac 'Feel revitalized, agri-wiser' when visiting EDL Agritourism Farm

By Ma. Cecilia Irang

Tourists everywhere can relish and experience the bucolic setting and become more learned on almost all the components of the agriculture industry at the EDL Agritourism Farm Incorporated (EDLAFI), located at barangay Dolores in Capas, Tarlac.

Immersion experience on this farm will surely make the agri-tourists understand and appreciate more the beauty of nature and feel a sense of authentic farming life.



Photos by EDL Farm

EDLAFI is one of the agritourism destinations accredited by the Department of Tourism. As such, top-notch service and facilities are thus expected on this farm set-up.

The farm is six-hectare complex named "EDL Farmhouse" or "Farmhouse by Estancia de Lorenzo". Carved out of total of 30-hectare farmland by the company, it was conceptualized "to be an attractive option to the usually visited sun and beach areas and to be a model contributor to sustainable source of income for farmers".

The farm is seven kilometers from the town proper. It can be reached from Manila going north by land for two hours. From the Clark International Airport, it can be

reached by a vehicle within 30-40 minutes.

"What we really wanted to achieve here is for the young generation to observe it and to appreciate farming. It's not often that we see what goes behind the products prepared and consumed on our tables. Participating in agritourism farm offers a deeper appreciation that agriculture-related activities are fun," Allan Casajeros, Vice President for Operations of EDLAFI, said.

Aside from its refreshing and cozy accommodation, EDLAFI also provides visitors varied stimulating farm experiences.

As tourists range thru the well-defined subdivisions of the farm,



they get a hands-on experience of milking and feeding the cattle, carabaos, and black pigs. They can even experience the thrill of having fun in rice planting.

Furthermore, the tourists can observe demonstrations on how to make organic fertilizer, balut and salted eggs and how aquaponics and hydroponics facilities work; tour of the herb and vegetable gardens, and check out the free-range chicken coops and egg hatchery.

Aquaponics, as defined by the experts, is a system of aquaculture in which the waste produced by farmed fish or other aquatic animals supplies nutrients for plants grown hydroponically, which in turn purify the water. On the other hand,

hydroponics is a method of growing plants with added nutrients but without using soil.

One noteworthy service of EDLAFI is its mode of transportation to be used by the visitors in roaming around the farm. Aside from the tractors and typical vehicles, it also uses a modified farm carriage pulled by a native carabao.

Although, it has only been a year since its registration on April 2017, thousands of tourists have already visited EDLAFI and left positive comments and feedbacks on its exquisiteness which are proofs of its being one premiere farm tourism destination in Central Luzon.

EDLAFI was registered under

the name of its owner Dr. Eulalio Lorenzo.

### Partnership with PCC

Due to the limited number of dairy buffaloes being raised at the EDLAFI and to utilize its milk production potential, Casajeros coordinated with the Philippine Carabao Center(PCC) and applied for a contract under PCC's family module project.

After thorough evaluation and assessment, they were entrusted with six Bulgarian Murrah buffaloes (two calves and four dams) last March.

**Next page**



“What we really wanted to achieve here is for the young generation to observe it and to appreciate farming. It’s not often that we see what goes behind the products prepared and consumed on our tables. Participating in agritourism farm offers a deeper appreciation that agriculture-related activities are fun.”

**Allan Casajeros**  
Vice President for Operations,  
EDLAFI

#### From page 13

Currently, EDLAFI has a total of 16 buffaloes, seven of which are confirmed pregnant, thus its milk production output is expected to increase in the coming years.

According to Casajeros, they use artificial insemination for breeding the buffaloes. For feedstuff, they use improved varieties of grasses such as Pakchong, Mombasa, and Mulato. Concentrates and silage are also used as feed supplement during summer time.

“Carabaos are docile and easy to manage. We let them graze in the morning and bring them back in the barn when evening comes,” Casajeros said.

EDLAFI is comprised of three enterprises. The first one is the

EDL Farmhouse which showcases farm tourism; the second is the EDL Farm Selection which focuses on the selling of live animals (Peking duck, black pig, and Japanese eel) as breeders, and the third, the EDL Farm Fresh which produces and sells different farm products.

For the products made from carabao’s and cow’s milk, the PCC trained select employees of EDL on how to process different milk products.

“As I am a nutritionist by profession, I know how to fortify the selenium content of our protein products such as milk, meat, and egg,” Casajeros explained.

He added that selenium has antioxidant properties which help protect cells from damage.

All dairy products of EDLAFI underwent thorough research and development works prior to their commercialization. Among those milk products being processed by the farm are pastillas, cream cheese, and milk jam. Its own concocted ice cream product will be made available soon.

“Frankly speaking, majority prefers carabao’s milk for pastillas and ice cream because of the creaminess of the products,” Casajeros attested.

#### Plans in the offing

EDLAFI continuously strives for excellence in service delivery to help sustain the growth of agri-tourism in the country.

Among its lined-up activities for implementation are establishment



of a “sample farm” or “agritainment park” for biosecurity purposes, launching of its restaurant, expansion of rooms for bigger occupancies, construction of seminar halls and villas, development of pasture area which is targeted to support 50 heads of mature ruminants, and establishment of feed mill and farm school for future as well as practicing farmers.

“If we have a farm school here, we can share our technical knowledge and farm practices to the farmers so that our progress and growth will be inclusive to the community,” Casajeros averred. Aside from PCC, other government agencies which have partnered with EDLAFI for its continuous development include the National Dairy Authority (NDA), Agricultural Training Institute (ATI), DOT, and Villar SIPAG.



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## Beneficent outcomes, arise from a unique dairy buffalo

### Having unique traits

Alluring is a “true albino” dairy buffalo. This is said to be very fascinating due to its appearance that is different from the usual black carabaos. A carabao or buffalo that is considered an albino has a white fur and pinkish skin because of the absence of melanin pigment; the distinctive characteristic of a ‘true albino’ is caused by albinism that is a recessive trait. An albino is also considered as light sensitive and is prone to eye cancer.

On a positive note, an albino of whether a purebred or a carrier type could give a high yield of milk because of its good genetics.

### The joy of having albino-carrier buffaloes

Vicente Santos Jr. and Ryan Delos Santos, both from San Miguel, Bulacan, are two of the privileged carabao-keepers raising albino-carrier buffaloes, which are offspring (through artificial insemination) of a true albino buffalo.

Vicente is a 46 year old carabao raiser from barangay Magmarali. He has been engaged with carabao-raising for the past 22 years, a livelihood that he inherited from his grandmother.

Based on Vicente’s description, his albino-carrier buffaloes is a docile animal with a long tail, and has a

higher milk production compared to his other dairy buffaloes. It has five teats that make it more different from the others that he is currently taking care of.

Since Vicente is not yet really used to milking the buffaloes, he usually gets a 4.5 liters of milk during peak lactation and 1.5 liters of milk during drying-off period.

He brings an average daily yield of 26 liters of carabao’s milk to a milk candy store in a nearby barangay – Pulong Bayabas, every day. This milk yield was collected from his three dairy buffaloes. All of which are crossbreds.

Each liter of milk was bought at an



“It gives me joy whenever I see my buffaloes.”

**Vicente Santos, Jr.**  
Dairy Farmer

average cost of Php30, but if the milk will be picked up from the dairy farmer’s place, it will only cost Php25 per liter. From October to December, the milk price increases up to Php35 a liter.

Vicente survives the needs of his family through milking buffaloes, farming of rice, vegetables and other crops. He proudly shared that he was able to send all his children to school through this livelihood. In fact, one of his children is already a training seaman in Manila, the other one is currently in college while two more are presently at secondary education.

Aside from the financial benefits gained from the dairy buffaloes,

it is also evident that Vicente has the passion for raising carabaos or buffaloes. “It gives me joy whenever I see my buffaloes”, he said.

He also stated that these dairy buffaloes really help to sustain them for their everyday needs. Milk from dairy buffaloes gives them cash weekly, which is often used for buying groceries during Saturdays or for buying school supplies.

“Raising carabaos gives double benefits because by feeding them I am also able to clean my farmland”, he added.

Meanwhile, the same kind of happiness takes over Ryan, a 35 year-old carabao raiser at the nearby

barangay - Balong, San Miguel, Bulacan. Since Ryan is a bachelor, he said that the money he gets from the sale of carabao’s milk is more than enough for him.

He narrated that during the pregnancy of his buffalo with its third calf, it unfortunately had a miscarriage at 7 months and 20 days. Without much reason and explanation, their attending AI technician advised him to milk the buffalo.

Despite his hesitation to milk the said buffalo, he tried to do so, after which, he was amazed that it

**Next page**

“I really prefer rearing a carabao for livelihood. Whenever there are unexpected expenses, I can actually get money from selling a carabao but I choose not to because as much as possible I don’t want to sell them.”

**Ryan Delos Santos**  
Dairy Farmer



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gave 10.5 liters of milk daily that eventually went down to 4 liters a day at its drying-off period. Since then, he was more convinced that this buffalo could potentially give higher milk yield.

“I really prefer rearing a carabao for livelihood. Whenever there are unexpected expenses, I can actually get money from selling a carabao but I choose not to because as much as possible I don’t want to sell them”, he added.

The first calf of the albino-carrier was sold due to lack of money. However, his experiences throughout taking care of the said animal gives him more reason to cherish all other buffaloes that he has right now. “Hard work really pays off in raising buffaloes, even if it requires time and efforts, it is all about loving what you are doing”, he said.

Ryan sells his milk to a candy store for Php26 per liter. He is expecting

He is expecting to have more milk yield from the 2nd calf of his albino, which is currently around 2 years of age.

Taking care of buffaloes requires bundle of perseverance and determination, but for Vicente and Ryan, this is a blessing not just because of its financial value but for the hope and joy they bring to their lives.

# PRDP World Bank funds development of carabao industry in Region 2,7

By Charlene Joanino



Further enrichment of the carabao industry in Region 2 and 7 is to be expected through the utilization of the fund given by World Bank for the Philippine Rural Development Project (PRDP).

Under the PRDP, four PCC-assisted cooperatives became beneficiaries. It includes Integrated Farmers Cooperative (IFC) at Namabbalan Norte, Tuguegarao City, Cagayan; Rang -Ay Ti Pussian Farmers Cooperative (RTPFC) at Alcala, Cagayan; San Agustin Dairy Cooperative(SADACO) at San Agustin, Isabela, and Bohol Dairy Cooperative (BODACO) at Ubay, Bohol.

The PRDP aims to “establish a modern, climate-resilient and market-oriented agri-fishery sector.” It was deemed that through the partnerships between the Department of Agriculture and other government agencies and offices, local government unit (LGU), and private sector, rural life can be uplifted.

## PRDP and its benefits

The project has four components that includes I-PLAN for planning,

I-BUILD for infrastructure development, I-REAP for enterprise development, and I-SUPPORT for project implementation assistance. According to Hector Tabbun, Chief, DA Regional Agriculture and Fisheries Information Section of Field Office No.2, PRDP started in 2014. The Philippine government received Php27.5 billion loan from the World Bank that now serves as the PRDP fund.

“PRDP not only involves business but there are also farm-to-market roads that apart from being intended for dairy and product transportation, can also be used by everyone,” said Dr. Caro Salces, PCC Deputy Executive Director.

In I-REAP, the business plans of IFC, RTPFC, SADACO and BODACO were approved. The help they will received from PRDP includes various equipment and facilities for carabao raising and milk processing.

Connected to the I-REAP component is I-BUILD which refers to the construction of roads, buildings, and structures such as animal shelter milk parlour and processing facilities.

“Sixty percent of I-REAP fund for projects is from PRDP, 20% from the national government and the remaining 20% is from the provincial government. While in I-BUILD, 80% is from PRDP, 10% each will be provided by the national and provincial government,” Tabbun added.

## The beneficiaries

The PCC as an agency that focuses on carabao industry, is one of those who are helping and guiding the beneficiaries.

“Mainly, we help them by providing knowledge on the propagation and right management of buffalo to increase dairy production,” said Director Franklin Rellin of PCC at Cagayan State University (CSU).

The PCC also provides seminar to its assisted cooperatives on the production of quality dairy products. Relating to PRDP, Director Rellin pointed out that PCC at CSU created a Value Chain Analysis (VCA) on dairy for year 2014-2015 in Region 2. The VCA was used to determine the considerations and possible problems in the production, collection and marketing of milk



or dairy products. VCA was also used as a basis for the Provincial Commodity Investment Plan and Business Plan which are both requirements in PRDP.

Overall, the said beneficiaries will receive up to Php30 million worth of help under the I-REAP component. IFC, RTPFC and SADACO are in Region 2 while BODACO is in Region 7.

*Integrated Farmers Cooperative (IFC).* The IFC has about 200 members who are dairy, corn and rice farmers. The cooperative produces at least 50 liters of milk a day.

The total grant that IFC will receive under I-REAP is Php11, 657,075. So far, IFC had already received a new delivery car, a new building and

equipment for processing.

“With the help from PRDP, not only the transportation cost in milk delivery was lessened but also we can increase the production of our dairy products by using the new equipment granted to us,” Juan Abagin, manager of IFC products outlet, stated.

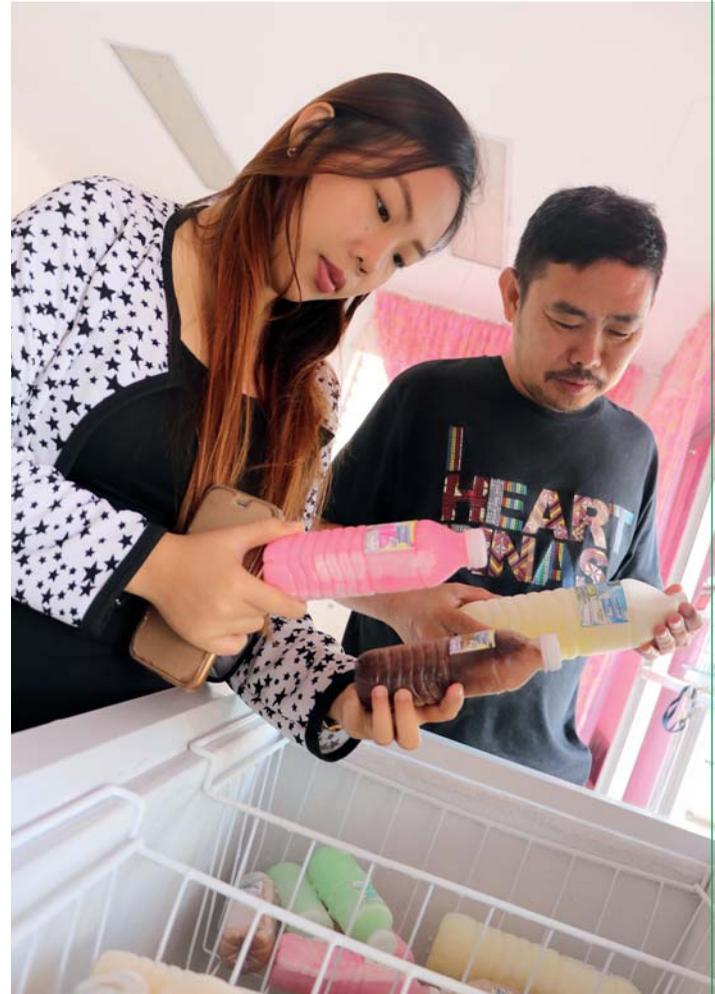
*Rang-ay Ti Pussian Farmers Cooperative (RTPFC).* The wide agricultural fields and the 1,247 recorded count of caracow by the municipal agriculturist in 2014 depicted the high potential of Alcala in dairy where RTPFC is situated. “PCC gave us buffaloes for milking. Before, we are earning three 50ml bottles of milk from a native carabao, now it became possible for us to get three liters per caracow,” Dolores

Sayo from RTPFC said.

In PRDP I-REAP, Php10,616,595 is the total value of the cooperative’s receivables. RTPFC had already acquired milk cans, freezer and a transport vehicle.

Also, in connection to I-REAP is I-BUILD where construction of animal shed, milking parlour and dairy processing area and outlet had begun. The construction of a farm-to-market road was also started to enable efficient transportation of the cooperative’s products.

*San Agustin Dairy Cooperative (SADACO).* In 2010, PCC dubbed San Agustin, Isabela as the “Crossbred Buffalo Capital of the Philippines”. SADACO is comprised of dairy farmers from the said town. It is



being assisted by PCC by making sure that the milk they collect is of good quality and safe until processed into various products.

“To attain sustainable dairy industry in San Agustin, SADACO wants to produce not less than 300 liters of milk everyday,” stated by Joel Cabading, manager of SADACO product outlet.

About Php8.5 million is the grant that will be given to SADACO in the I-REAP component.

*Bohol Dairy Cooperative (BODACO).* In 2016, the Bohol Dairy Producers Association (BoDPA) was registered with the Cooperative Development Authority as BODACO. Its members are from Ubay, Mabini, Alicia, Dagohoy, Carmen and San Miguel in

Bohol.

“Although we are using the name BODACO, it was decided that BoDPA will still be used since it was approved by PRDP. At present, BODACO and BoDPA exist and work together in managing their operation,” Guillerma Abay-Abay, PCC Carabao-Based Enterprise Development Coordinator, said. “Through the help of PRDP, we hope that we can prosper our livelihood in dairying,” Lita Aranas of BoDPA added.

According to Dr. Salces, PCC Deputy Executive Director, PCC helped the cooperative in the creation of a six-year business plan proposal and the agency is also by their side in executing the plan.

Overall, PRDP allotted about Php9 million worth of help under I-REAP for BODACO. It involves equipment and other related needs in regards to the cooperative’s business plan.

There are many blessings brought by carabao-based livelihood. Apart from fresh liquid milk, the processed products from milk like chocolate milk, yogurt, pastillas, ice cream and many more, give additional income to farmers. The opportunity for IFC, RTPFC, SADACO and BODACO to be among the beneficiaries of PRDP ushers the initiation towards the success of the said cooperatives’ businesses. According to the interviewed beneficiaries, they will receive the complete allotted help from PRDP within 2018.

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## Milk quantity...

milking and milk handling practices and farm level milk quality; provision of interventions such as trainings, coaching and mentoring, support facilities and milk testing kits for improved milk quality; and monitoring and evaluation.

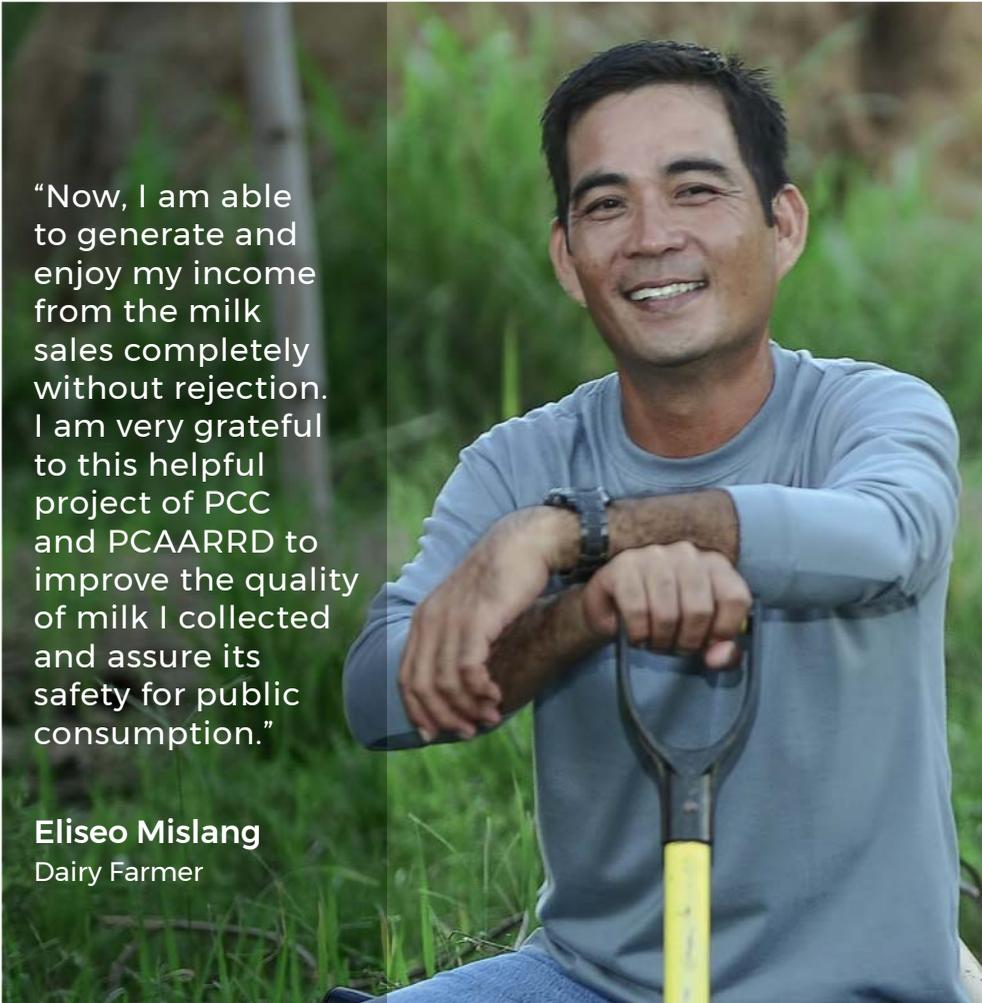
According to Abella, adoption of the recommended hygienic milking and milk handling practices from the milk production to milk collection and transport until the milk is received at the milk processing plant are essential for improved milk quality and safety assurance.

“For the cooperatives to implement regular quality control of milk, we also provided milk testing kit which they can use for simple platform tests such as organoleptic test, alcohol test and lactometer test,” she said.

Although the project is still ongoing, the research team has already documented significant changes particularly in the conformance of farmers to adopt hygienic milking and milk handling practices and proper sanitation of milking utensils.

Data from the PCC Central Dairy Collecting and Processing Facility (CDCPF) revealed that rejection of milk delivered by dairy cooperatives to CDCPF decreased from 7.94% in 2016 to 1.07% last May.

For Eli, due to his dedication and willingness to adopt the recommended hygienic milking and milk handling practices, he was thankful that he received support facilities from the project. The facilities included a



“Now, I am able to generate and enjoy my income from the milk sales completely without rejection. I am very grateful to this helpful project of PCC and PCAARRD to improve the quality of milk I collected and assure its safety for public consumption.”

**Eliseo Mislang**  
Dairy Farmer

20-L stainless milk can, stainless milk pail, and insulated box.

“When I started using the stainless milk can for my harvested milk, I observed that the milk I deliver to our processing plant is now always able to meet the quality standards,” Eli happily attested.

He added that the project also taught him an alternative method of cooling the milk harvest. He uses salt-ice mixture in an insulated box in which he places his milk harvest. It is beneficial for dairy farmers like him, he said, who practices the afternoon milking but do not have the facilities to cool the milk.

“Because of this technique, even if I deliver the milk I harvested in the afternoon the next day, it

passes the quality control. It is cost-effective since I don't have to use electricity to cool the milk,” he said.

Currently, Eli has 23 buffaloes, 10 of which are confirmed pregnant and are expected to give birth within the year.

He collects 25 liters of milk a day from his buffaloes, which he then delivers to their cooperative.

“Now, I am able to generate and enjoy my income from the milk sales completely without rejection. I am very grateful to this helpful project of PCC and PCAARRD to improve the quality of milk I collected and assure its safety for public consumption,” Eli delightedly said.

## 1ST LIVESTOCK TECHNOLOGY

# EXP

“MASAGANANG PAGHAHAYUPAN  
SA TEKNOLOHIYANG MAAASAHAN”



<b>October 2-5</b>	2019 Planning and Performance Review
<b>October 7-10</b>	1st Livestock Technology Expo 4th National Carabao Conference
<b>October 10-13</b>	67th PMC Meeting
<b>October 24-26</b>	HR Summit 2018
<b>October 29-31</b>	Island Cluster Consultation and SPMS Workshop (Visayas Group)
<b>November 5-9</b>	System Audit of PCC's Organizational Outcome Reporting Process
<b>November 6-9</b>	Island Cluster Consultation and SPMS Workshop (Luzon Group)
<b>November 12-15</b>	Island Cluster Consultation and SPMS Workshop (Mindanao Group)
<b>November 19-23</b>	Dairy Box Business Value Creation Workshop
<b>December 6-8</b>	Externally Funded Projects Year End Evaluation
<b>December 12-15</b>	Workshop on Technical Writing for PCC-OED Researchers



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**PHILIPPINE CARABAO CENTER**  
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