

# Roundup

OFFICIAL NEWSLETTER OF THE  **PHILIPPINE CARABAO CENTER**  
 Department of Agriculture

## Positive results are achieved in PCC-DSWD joint program

BY MA. CECILIA IRANG AND MA. THERESA SAWIT

**Milk supplementation carried out for daycare children in Aliaga, Nueva Ecija and Talibon, Bohol for 120 days proved to achieve significant results.**

Evaluation of the outcome of the program showed that none of the previously reported 123 underweight children in Aliaga, Nueva Ecija remained malnourished after the milk supplementation. On the other hand, the number of underweight daycare children in Talibon, Bohol decreased from 309 to 222 after the program.

It was also revealed that there was a significant difference in the anthropometric measurements (weight and height) of the schoolchildren before and after the milk supplementation. Daycare children in Aliaga and Talibon gained an average weight of 3.23kg and 1.56kg, respectively; and grew by 4.85 cm and 4.34 cm in that order.

The pilot collaborative program of PCC and the Department of Social Welfare and Development (DSWD), titled "Pilot Nutrition and Livelihood Interventions through a Milk Supplementation Program under the Supplementary Feeding Program (SFP) and Sustainable Livelihood Program (SLP)", was completed last May. It consisted of two components: milk supplementation and livelihood.



Some of the daycare children in Aliaga, Nueva Ecija who get free carabao's milk for 120 days under the collaborative program of PCC and DSWD. (Photo by CMarcelo)

*"Milk supplementation program is important for the development of the local dairy industry".*

—**Dr. Arnel N. Del Barrio**  
 PCC Executive Director

The milk supplementation component aimed to improve the height and weight of the children using the Child Growth Standard (CGS) by providing them with 200ml of toned milk for 120 days. It was in addition to the daily regular meals they received under the Supplementary Feeding Program of DSWD.

The livelihood component, on the other hand, aimed to improve the socioeconomic

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# Using rice straws as carabao feed is good alternative to open-field burning, PCC nutritionist stresses

BY MERVALYN TOMAS

**The use of rice straws as fodder for feeding carabaos is a better way to dispose these rice farm by-products compared to open-field burning.**

This was stressed by Dr. Daniel Aquino, animal nutrition expert and Center Director of the Philippine Carabao Center at Central Luzon State University (PCC@CLSU) in the heels of widespread farmer's practice of disposing this waste by burning it.

The Solid Waste Management Act (RA 9003) and the Philippine Clean Air Act of 1999 prohibit open-field burning of rice straws. But a cursory look at the rice field right after the palay harvest indicates that they are largely unheeded.

"Rice straws, when they are burned, emit 0.7 to 4 kg methane per ton contributing to global warming," Aquino explained.

Many carabao farmers in Nueva Ecija, and in many other provinces in the Philippines, have already been using rice straws as carabao feed, but for other farmers who have not tried it yet, Dr. Aquino encourages them to do the same.

He explained that rice straws are readily available everywhere in the country during rice harvest seasons, hence, it is a practical and cheap source of fodder for the carabaos.

"Although rice straws have low protein content (4-4.5%), it can be sprayed or treated with molasses and urea to increase its nutritive value and feeding quality. The urea-treated rice straws' protein content ranges from seven to nine percent. When fed to dairy buffaloes, the feed intake is

increased by 12%, milk production is improved by 18% and farmer's profitability increased by 33%," he explained.

## Rice straw baling

Aside from being a cheap feed source, Dr. Aquino added that rice straw baling serves as an additional source of income for the farmers.

The use of baling machine can compress the hay, rice straw, and other raked crops into tightly-packed, easily transportable in rectangular or cylindrical bales that can be sold to livestock farmers or mushroom growers.

A rice farmer from Carranglan, Nueva Ecija, Victor Pagarigan, proves the economic benefit to him of baling rice straws. He supplies PCC with baled rice straws during rice harvest seasons.

"I get rice straws in several rice farms in Bunga, Carranglan because rice straw from my own farm is not enough to supply the needs of PCC," Pagarigan, who is also into rice farming, explained.

Using a semi-mechanized baling machine lent to him by the PCC@CLSU, he gets the rice straws from the other farms.

"On the average, I bale 5,000 cubes of rice straws every after harvest from the nearby rice farms in Carranglan, Nueva Ecija," Pagarigan said. "Each cube, weighing 10 to 15 kilogram, is sold at P10, or an income of Php50,000," he added.

He attested that rice straw baling is a way of augmenting his income from rice farming to support his family. **R**

## Positive results...

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conditions of sustainable livelihood program (SLP) beneficiaries or poor, smallholder-dairy farmers with the acquisition of profit-generating enterprises or employment in carabao-based enterprises (CBEs).

It also targeted to help the dairy farmers in marketing their carabao's milk and to encourage partnerships among other institutions.

"Milk supplementation program is important for the development of the local dairy industry. Through our partnership, we have seen the importance of tapping other agencies to meet our development objectives not only in improving the nutrition of children of rural farming families but also in increasing the income of dairy farmers", Dr. Arnel del Barrio, PCC executive director, said during the recent joint program evaluation workshop on the completed pilot milk supplementation project.

During the evaluation workshop, each region presented and discussed how the program was implemented in its area of coverage. It also tackled the results, issues and concerns, as well as recommendations they encountered.

Each case was further evaluated by the regional teams using SWOT (Strengths, Weaknesses, Opportunities and Threats) analysis.

"It was proven that PCC is a good partner to DSWD, therefore, we will definitely continue partnering with you. Based on the presentations, the expected outcome was met. However, we need to rethink of a strategy to meet the desired livelihood outcome. We can develop and propose a separate guideline for this (carabao-based) business module based on the context of carabao value chain," Ms. Amada Pornaras, DSWD SLP Director, said.

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# 1st 'Dairy Box' in Bohol launched

BY LEINEFE LIBRES



PCC Executive Director Dr. Arnel N. Del Barrio (in white polo shirt) and Governor Chatto's Chief of Staff for External Affairs Mr. Isabelito "Tatay Billy" Tongco lead in the ribbon-cutting ceremony during the launching of Dairy Box outlet last August 17 at Camanayan, Tamboan Carmen, Bohol. (Photo by JCSalas)

**It is not just the heart of tourism in the province, but the municipality of Carmen has also now become a history maker in the field of dairy business enterprise as it launched the first-ever Dairy Box outlet in Bohol on August 17, 2017 at Camanayan, Tamboan, Carmen, Bohol.**

Managed by Tamboan Farmers Multipurpose Cooperative (TFMPC), the outlet is dubbed "Dairy Box of Bohol Dairy" and it is the 2nd outlet in the entire country.

Dairy Box is a modern yet local business model created by the Business Development and Commercialization Unit (BDCU) of the Philippine Carabao Center (PCC) to showcase the various carabao-based products on top of the locally-produced consignments. It is commonly handled by a cooperative.

"Sa buong Pilipinas ay iisa lamang ang itsura ng Dairy Box. Dahil naniniwala kami na 'yong pagmamahal ng PCC sa kanyang kliyente ay pinapatunayan ng iisang layunin lamang", explained Dr. Liza Battad, chief of the Planning,

Information and Management Division (PIMD) of PCC, in her message during the launching program.

On the other hand, in his statement of purpose, Dr. Arnel N. Del Barrio, executive director of PCC, emphasized that the Dairy Box is a response to one of the findings of a Value Chain Analysis conducted two years ago stating that one of the reasons why carabao-related programs are not expanding is due to lack of market.

The establishment of the Dairy Box of Bohol Dairy was realized through the collaborative efforts of both government and non-government organizations. During the program, this was highlighted thru a symbolic simultaneous milk toasting and milk drinking among the representatives from private institutions and government agencies together with the selected schoolchildren and parents, which was facilitated by Dr. Caro B. Salces, center director of PCC at Ubay Stock Farm (USF). The milk toast further symbolizes Bohol's united goal of making Bohol the milk Capital of the Visayas and

supporting the production of at least 10% increase of the total demand in line with the national government's goal.

Emphasizing the importance of multi-sectoral collaborations, Mr. Isabelito "Tatay Billy" Tongco, who represented Gov. Edgar M. Chatto of the province of Bohol cited in his keynote address prior to the milk toast, that an activity can achieve its goals and success if there is enthusiasm, faithfulness to help, unity, coordination, and diligence among partners, recipients and constituents.

Mr. Tongco further expressed the governor's commitment to support the cooperative and its initiatives as the latter sees the beauty and the significant contributions it can bring to the entire province.

Counterparting the edifice of Dairy Box was the TFMPC and Bohol Dairy Cooperative (BODACO) that contributed Php422,366.89 each. The Department of Social Welfare and Development (DSWD) through its Sustainable Livelihood Program (SLP) will grant Php514,864.00 as its starter kit or capital fund while PCC and the Southeast Asian Regional Center for Graduate Study and Research in Agriculture (SEARCA) allocated Php1.3 million for building enhancement, and promotional activities and materials. The local government unit (LGU) of Carmen also extended technical and industrial support.

"And all these things that have been entrusted to us, through our management, we will make it grow, with the intervention of the Holy Spirit, that all of these will be sustainable and successful until the next generation," Ms. Jesusa Danila, chairperson of TFMPC, said as she described how they have dreamt and worked hard for this moment to happen for the past two years.

# PCC conducts workshops to strengthen its animal health program

BY CHRISSALYN MARCELO  
& MARI JOAN NEFULDA

To strengthen its animal health program, the Philippine Carabao Center (PCC) conducted recently two separate workshops.

The PCC @ Mariano Marcos State University (PCC@MMSU) in Batac, Ilocos Norte was the venue of the first workshop last July 28 while the second was at the Livestock Innovations Biotechnology Complex of the PCC National Headquarters in the Science City of Muñoz in Nueva Ecija last September 4-8.

Titled, "Seminar on Health Management and Common Diseases of Buffaloes", the first workshop was attended by 80 participants composed of farmers entrusted with Italian buffaloes, village-based artificial insemination technicians, bull loan program recipients, farmer livestock school (FLS) graduates, and animal caretakers of the center from two northern Luzon provinces.

Resource persons were Dr. Michelle Balbin, Dr. Ermyn Ermitanio and Dr. Lawrence P. Belontidos from the PCC's Biosafety and Environment Section. They discussed the characteristics, prevention and treatment of surra, bloat and leptospirosis; concerns on mastitis and liverfluke; degnala, diarrhea, and prolapse.

The second workshop centered on "Strategic Planning in Strengthening the PCC Animal Health Program and Veterinary Refresher Seminar for PCC Center Veterinarians and Animal Health Coordinator". Nineteen veterinarians and ten animal health coordinators from the PCC national headquarters and from regional centers participated in this workshop.



The participants of the seminar on Health Management and Common Diseases of Buffaloes conducted at the Mariano Marcos State University (MMSU), Batac City, Ilocos Norte and organized by the Philippine Carabao Center at MMSU. They are composed of farmers entrusted with Italian buffaloes, village-based artificial insemination technicians, bull loan program recipients, farmer livestock school (FLS) graduates, and animal caretakers of the center. (Photo by MJNefulda)

Dr. Vijay Muley, Dr. Ester Flores, Dr. Kristine Joy Prades, Dr. Elizabeth Molina, Dr. Alan Dergantes, Dr. Daryl G. Dela Cruz, Dr. Ermyn D. Ermitanio, Dr. Lawrence P. Belotindos, and Dr. Marvin Villanueva served as resource persons.

They discussed topics on mastitis, ultrasonography for fasciola, foreign body syndrome and rumenotomy; fasciolosis; trypanosomiasis in water buffalo; updates on the encountered diseases in water buffaloes; herd health program of the PCC; recent findings on the outputs of animal health researches; animal mortality and morbidity of the PCC in the years 2012-2016, and the gaps and opportunities in the current animal health program as well as challenges faced by PCC veterinarians.

Dr. Villanueva, officer-in-charge of the PCC's Biosafety and Environment Section and one of the organizers of the second workshop, said that the activity was conducted to enhance the capabilities of the PCC's animal health coordinators in dealing with emergency cases in water buffaloes being encountered in

the field.

It also identified, he said, the gaps in the current implementation of the PCC's program on animal health and subsequently provided solutions to these gaps.

Villanueva said among the gaps, which were on technical and policy aspects, were:

1. For the social part - Late reporting of animal diseases by the farmer-clients, poor delivery of services to some farmers, weak linkages or partnerships with some local government units and other key stakeholders, limited number of vet aides, and weak information dissemination, were identified.

Strengthening of communication services was agreed as a measure in addressing the gap. It includes creation of animal health hotline per center, creation of directory of all the agency's animal health coordinators in the PCC website, assigning a focal person responsible for answering questions and relaying information related to animal health concerns.

It also listed activities such as





PCC Genomics and Bioinformatics Unit Head Dr. Ester S. Flores (in white t-shirt) shows to the participants where the anaesthetic should be injected to the carabaos before conducting rumenotomy operation. The demonstration was part of the hands-on training on "Strategic Planning in Strengthening the PCC Animal Health Program and Veterinary Refresher Seminar for PCC Center Veterinarians and Animal Health Coordinator" last September 4-8. (Photo by CMarcelo)

holding of trainings on how to deal with clients, establishment of good partnerships with LGU's and other stakeholders, holding of trainings for vet aides' or additional workforce that will provide animal health services to various areas, and dissemination of information through production and distribution of printed materials, audio-visual presentations, investment in radio programs and conduct of FLS.

2. For the technical part - Lengthy release of laboratory result, unavailability of some confirmatory diagnostic tools for some diseases, weak monitoring of diseases on surveillance program, lack of protocols or studies with regards to the use of some drugs as a prevention and as a treatment, lack of training for trainers, lack of awareness on some technologies related to animal health, strict implementation of biosafety measure, and others that can be found online, were identified.

They are planned to be addressed by the PCC through agreement on common time length on the release of laboratory results, outsourcing of

testing samples, and scheduling of sample collection for surveillance of diseases (yearly or semi-annual).

Additional measures are the holding of training for trainers to increase capability of PCC's staff, providing more awareness on the use of online references such as "Science Direct" and others, and enhancing awareness on biosecurity measures through posting of signages and other materials and conduct of trainings.

3. Gaps on policy aspect - More awareness on the implementation of good animal husbandry practices (GAHP) and food safety act (FSA) (under Republic Act 10611) of 2013 in consideration of the Animal Welfare Act (under Republic Act 8485), unavailability of standard health protocol in the regional centers, and difficulty of release of animals for emergency culling.

They are planned to be addressed by the PCC through conduct of seminars or trainings on GAHP and FSA, standardization of animal health protocol, and regular follow-up on the progress of the application

for release of animals for culling.

"These strategic plans would be submitted for approval of the top management," Villanueva said. "We are confident that the PCC's animal health program will be strengthened since all of the participants agreed to implement innovative and attainable strategies to address the identified gaps," he added.

The top management, meanwhile, supported and shared its perspective as regards the conduct of the two separate seminar-workshops.

"The first workshop was a good venue for our farmer-clients to be informed about common diseases in water buffaloes. They learned how to diagnose signs and treatment for a common diseases in water buffaloes," PCC@MMSU center chief Grace Marjorie R. Recta, said.

"Both of the workshops were conducted in support to the goal of the government to increase local milk production from 1.3% to 10%. Capability building of animal health service providers to address common diseases of carabaos, and facilitate technology dissemination to farmers would greatly reduce animal mortality and morbidity," PCC Executive Director Arnel N. Del Barrio, on the other hand, said.

He added that such activity would not only strengthen animal health program but will also increase herd build-up for dairy animals, which is included in the mandate of the PCC to propagate carabaos in the country.

Facilitators of the workshops were Ms. Grace Marjorie R. Recta, Dr. Catherine Dabalos, Dr. Claro N. Mingala, Dr. Lawrence P. Belotindos, Dr. Daryl dela Cruz, Dr. Ermyrn D. Ermitanio, Dr. Marvin A. Villanueva, Ms. Charito A. Gutierrez and Mr. Eduardo Nastor Jr. 

## DA Official to livestock biotech scientists, researchers: Utilize biotechnology in realizing 'Ambisyon Natin 2040'

BY MARAH AGATON-ARQUERO

In a brief message by the Undersecretary for Policy and Planning, Department of Agriculture (DA), and DA-Biotechnology Program Steering Committee Chair, Undersecretary Segfredo R. Serrano, stressed the use of biotechnology as a tool in livestock productivity amidst the challenges in climate change and scarcity of land resources for agriculture during the 2nd International Livestock Biotechnology Symposium held on August 30, 2017 at the B Hotel, Quezon City.

A seasoned researcher himself and speaking to the audience consisting mostly of biotechnology researchers, he reminded that, "There is only so much information that you can digest and that duplication of research efforts are highly probable, bioinformatics will be useful in translating raw data into useful data."

He also enjoined active involvement of the livestock biotechnology stakeholders in realizing Department of Agriculture's Ambisyon Natin 2040 utilizing biotechnology for industry, agriculture, health and environment towards a national long-term vision of the country wherein Filipinos live in a prosperous, middle-class society where no one is poor.

Serrano commended the

organizers for a timely conduct of the event due to the commercialization of genetically-modified (GM) products in other countries with the possibility of entering the Philippine market.

With the theme, "Industry-Driven Biotechnology R&D in Addressing Global Challenges in Livestock Productivity and Sustainability", the Symposium served as a platform for exchange of ideas between international and local biotechnology experts on thematic areas such as immunology and vaccine development, vaccine design, embryo transfer technology, informatics tools and animal biotechnology regulations.

The International Livestock Biotechnology Symposium is annually organized and hosted by the Livestock Biotechnology Center that convenes livestock biotechnology scientists, researchers, international experts, policy makers, regulatory bodies, the academe and key players in the livestock industry. Through the activity, participants are kept abreast with the latest technologies, relevant biotechnology research and shared best practices from international partners. This year's event was co-organized by the National Research Council of the Philippines. 

## 1st Dairy Box in Bohol... FROM PAGE 3

Atty. Eliezer Cagol, Jr., municipal administrator from the LGU of Carmen also expressed his gratitude for choosing the town to house the 1st Dairy Box in the province. He further expressed the LGU's continuous support to the co-op's endeavors.

Also expressing their support by gracing the event are: Hon. Manuel Valentos, barangay captain of Tamboan; Engr. Rene Espinosa from the Office of the Congressman of the 3rd District of Bohol, Mr. Cresente Vistal, DSWD-SLP Provincial Coordinator of Bohol, Mr. Ely Cañete from the office of the Vice-Governor, Sangguniang Bayan (SB) members, Tamboan barangay kagawads, and the members of TFMPC and Tamboan Sustainable Livelihood Program Association (Tamboan SLPA).

A ribbon-cutting ceremony was done towards the end of the program. There were also an unlimited ice cream for an hour, discounted prices of some products, and milk feeding program in Tamboan Elementary School. 

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## Positive results... FROM PAGE 2

"I also want to recognize the support given by the LGU for this initiative," she added.

One of the program participants, Evangeline Mercado, Municipal Social Welfare and Development Officer I in Aliaga, also shared her feedback, saying:

"We've seen the importance of the program considering that it helped address malnutrition by eradicating the incidence of being underweight among daycare children in our town." 

# Gov says dairy processing center to help reduce malnutrition, livelihood problems in Ilocos Sur

BY MARI JOAN NEFULDA

**Reduction of malnutrition cases and opening of opportunities for income generation among farmers were seen as big benefits that will come from a newly inaugurated dairy production and processing center in a village in Santa, Ilocos Sur.**

This optimistic view was emphasized by Governor Ryan Singson during the recent inauguration of the center in Barangay Cabangaran.

The processing facilities, located inside the dairy farm of the Ilocos Sur provincial government, were put up upon the initiative of Gov. Singson and provincial veterinarian and project head Dr. Joey Warren Bragado.

According to the governor, since the time he was vice mayor of Vigan City years back, he already nurtured an interest in putting up a government-led dairy project. He said then Vigan City mayor Eva Marie Medina allocated Php1 million for the carabao dairy project in the city.

He added he personally saw the success of the project in that city and how this helped the farmers a lot in providing for their daily needs.

Gov. Singson underscored that the establishment of a dairy project for the whole province was his first priority when he assumed leadership of the provincial government.

The Provincial Government of Ilocos Sur allocated Php14 million budget for the initial procurement of 17 crossbred heifers, three pure Bulgarian Murrah buffaloes (BMB), and two BMB bulls; construction of animal facilities and milk processing center; and development of 20-ha pasture area.



**PCC at MMSU center director Grace Marjorie R. Recta and Governor Ryan Singson lead in the ribbon-cutting ceremony during the inauguration of the dairy production and processing center at Barangay Cabangaran in Santa, Ilocos Sur. (Photo by MJNefulda)**

The Philippine Carabao Center at Mariano Marcos State University (PCC@MMSU), he said, assisted in sourcing out and selecting crossbred heifers (with at least 75% Murrah bloodline) and purebred bulls to be raised in the center. It also provided seed stocks and planting materials such as forage grasses and legumes.

The dairy processing center has since served as a training venue for hand-milking and milk processing, he added.

"We want the province to have its own source of milk and we also eye the project as an answer to malnutrition cases in many municipalities. Also, this will become a source of livelihood of the farmers who will engage in dairying," Gov. Singson said.

The governor said he envisions the province to become a model province in the implementation of a dairy project and milk supplementation program for the malnourished children.

Three of the buffaloes are currently lactating and according to Gov. Singson he intends to donate the first batches of milk produced in the center for the evacuees from the

Marawi City conflict as well as the victims of the earthquake in Leyte.

He thanked the Department of Agriculture (DA) Region I and the PCC for their support as he voiced the hope for a continuing and fruitful partnership between the provincial government of Ilocos Sur and these agencies.

PCC@MMSU center director Grace Marjorie R. Recta, in her message, said the provincial government's dairy farm has other projects in the offing. Among these, she said, are vermi-composting, feedlot fattening, and agri-tourism.

She expressed hope that the processing center can also absorb the milk coming from the dairy farmers in other places in the province and also serve as a marketing outlet for the milk products produced by the dairy farmers' families.

Other officials present during the inauguration were Dr. Annie Bares representing DA Regional Executive Director Edillo Narciso, the members of the provincial board, officials of the local government unit of Santa, Ilocos Sur, and heads of offices and departments at the provincial capitol. 

## PCC to host intern'l confab on Carabao-based Enterprise Development set on October 26-27

BY MERVALYN TOMAS

**An International Conference on Carabao-based Enterprise Development (CBED), expected to be attended by about 200 participants from the Philippines and other Asian countries, is set to be held at the Philippine Carabao Center (PCC), National Headquarters, Science City of Muñoz, Nueva Ecija on October 26-27, 2017.**

The event is organized by the PCC and the Southeast Asian Regional Center for Graduate Studies and Research in Agriculture (SEARCA).

It is meant to boost efforts in developing the carabao industry toward food and nutrition security and livelihood development in the country and some member countries of the Association of Southeast Asian Nations (ASEAN).

The CBED stakeholders will exchange during the conference scientific and technological knowledge and best practices on buffalo-based enterprise development, discuss government policies, regulations, support facilities and logistics that are vital in the development of carabao-based dairy enterprises; and, explore mutually beneficial partnerships, collaboration and cooperation in relevant research and development and initiatives, the organizers said.

Senator Cynthia Villar, Chair of the Committees on Agriculture and Food and Government Corporations and Public Enterprises, is keynote speaker during the opening program on October 26.

The plenary sessions will start after the opening ceremonies.

Resource speakers from the

Philippines, India, Thailand and Laos will present their respective topics during the two-day event.

In the first plenary session, institutional perspective on CBED will be tackled. Dr. Libertado Cruz, former Executive Director and Technical Adviser of PCC will discuss "Carabao-based Enterprise Development: from Theory to Practice"; Mr. Sriram Singh, Executive Director of the National Dairy Development Board (NDDB) Dairy Services in India will share the "History and Lessons from India's National Dairy Development Board"; Dr. Avnish Kumar, Principal Scientist of the National Bureau of Animal Genetic Resources (NBAGR) in India will discuss "Application of Information Technology in Field Survey and Dairy Buffalo Recording System".

Perspective from the private sector in Asia will be discussed during the second plenary session. Mr. Ram Mohan Rao, Senior General Manager of the Mother Dairy Fruit and Vegetable Pvt. Ltd. in Delhi, India will discuss "Innovative Practices and Products from Mother Dairy". Ms. Susie Martin, CEO and Director of Sales and Marketing in Laos Buffalo Dairy, and Ms. Chairinee Chaiyochlarb of Murrah Farm in Thailand, will also share their experiences in

enterprise development.

In the third plenary session, the continuation of discussions from the private sector's perspective will be carried out, featuring speakers from the Philippines. Mr. Mike Mercado, owner of Mr. Moo's Milk Planet Co will discuss "Mr. Moo: Sustaining Cooperative Gains through Innovative Partnerships" while Mr. Danilo Fausto, proprietor of the DVF Farm, Inc. will present "The DVF Gatas ng Kalabaw Experience in Value-adding and Mainstreaming Products in the Market".

Topics on "Mainstreaming CBED in the Philippines and ASEAN" will be discussed during the final plenary session on the second day of the event. Dr. Flordeliza Lantican, SEARCA Value Chain Analysis Project Team Leader will tackle "Strengthening and Enhancing Competitiveness of CBED through Sustainable Value Chains. Dr. Eric Palacpac, Chief of the PCC's Knowledge Management Division, on the other hand, will discuss "The Science of Delivery: Exploring Dynamics between Technical and Local Knowledge within Delivery Systems for CBED".

The event will be concluded with a tour of dairy facilities and dairy farms at PCC and nearby areas. 

