



# 3<sup>rd</sup> INTERNATIONAL CONFERENCE ON COOPERATIVES

November 15-16, 2018  
DAP Conference Center,  
Tagaytay City, Philippines



# ABSTRACTS from ICCOOP2018

“Cooperative  
Transformation  
in the Changing  
Global Economy”

Abstracts from ICOOP2018

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# PARALLEL SESSION PROGRAM

## PARALLEL SESSION PROGRAM

## PARALLEL SESSION A: PERFORMANCE

DAY 1 (November 15, Thursday), 2:00-3:15 PM

CONFERENCE ROOM 1	CONFERENCE ROOM 2	CONFERENCE ROOM 3	DAP LEARNING CENTER
<b>Session A1</b> ISSUES AND CONSTRAINTS AFFECTING COOPERATIVES' PERFORMANCE IN THE PHILIPPINES Session Chair: aProf. Mar B. Cruz <b>A1-1</b> <b>Maria Corazon M. Samorin</b> Trends and Issues in the Cooperative Sector: The Province and City of Iloilo Experience	<b>Session A2</b> COOPERATIVES FOR SUSTAINABLE FARMING AND DEVELOPMENT Session Chair: Dr. Agham C. Cuevas <b>A2-1</b> <b>Sekar Wulan Prasetyaningtyas</b> Utilizing Stakeholders Analysis on Sustainable Organic Farming in Indonesia: The Case of Cisarua Organic Farming Cooperative	<b>Session A3</b> LEARNINGS FROM THE ECONOMIC AND SOCIAL PERFORMANCE OF COOPERATIVES Session Chair: AProf. Ma. Angeles O. Catelo <b>A3-1</b> <b>Nohreen Ethel P. Manipol</b> A Case Study of Kababaihang Masigla ng Nueva Ecija (KMNE) Cooperative	<b>Session A4</b> CREATING OPPORTUNITIES FOR THE YOUTH AND COMMUNITY THROUGH COOPERATIVES Session Chair: Dr. Asa U. Sajise <b>A4-1</b> <b>Salvador P. Catelo</b> Protecting Producers' Associations and Farmers' Cooperatives in Value Chains from Climate Change Hazards: Use of BCP
<b>A1-2</b> <b>Susan F. Afienza</b> Financial Performance of CDA-Registered Cooperatives Among State Universities and Colleges in Panay Island	<b>A2-2</b> <b>Rahmawati Zulfiningrum</b> The Role of Cooperatives in Sustainable Black Rice Farming Development in Brebes District	<b>A3-2</b> <b>Korina P. Legaspi</b> The Highs and Lows of the CBA Multipurpose Cooperative: Insights for a Viable Consumer Cooperative	<b>A4-2</b> <b>Rowena A. Dorado</b> Factors Affecting the Savings of Cooperative Members in CLDD- Calamba City, Philippines
<b>A1-3</b> <b>Yves G. Satiembre</b> Assessment of the Process, Drivers and Effects of Cooperatives' Transformation: The Case of Philippine Cooperatives	<b>A2-3</b> <b>Rene B. Hermo</b> Level of Awareness of Gubat Saint Anthony Cooperative (GSAC) Farmers on Climate Change	<b>A3-3</b> <b>Cheryll C. Launio</b> Concern for Community: Study of Cooperatives in the Cordillera Region, Philippines	<b>A4-3</b> <b>Josefina H. Lapitan</b> Sustainable Cooperatives Tourism Towards Community Empowerment
<b>A1-4</b> <b>Jose R. Domingo, Jr.</b> A Hierarchical Value Map Approach in Cooperative Core Values	<b>A2-4</b> <b>Maria Luisa G. Valera</b> Coping Mechanisms and the Likelihood of Joining a Cooperative among Farmers in Sarangani, Philippines		
<b>OPEN FORUM</b>	<b>OPEN FORUM</b>	<b>OPEN FORUM</b>	<b>OPEN FORUM</b>

## PARALLEL SESSION B: PRODUCTIVITY

DAY 2 (November 16, Friday), 10:15-11:30 AM

CONFERENCE ROOM 1	CONFERENCE ROOM 2	CONFERENCE ROOM 3	DAP LEARNING CENTER
<b>Session B1</b> <b>STRENGTHENING COOPERATIVES THROUGH SUPPORT SERVICES</b> Session Chair: aProf. Nohreen Ethel P. Manipol <b>B1-1</b> <b>Kathlene Dianne T. Amoyan</b> The Role of Cooperatives in Crop Insurance Availment among Rice Farmers in Occidental Mindoro, 2017 <b>B1-2</b> <b>James Paul R. Labindao</b> Assessment of the Production and Organizational Capability of Selected Agrarian Reform Communities in Western Pangasinan <b>B1-3</b> <b>Cesar B. Quicoy</b> Impact of Agrarian Reform Community Connectivity and Economic Support Services (ARCESS) on the Financial Performance of Agrarian Reform Cooperatives in Laguna, Philippines <b>B1-4</b> <b>Jan Lorenzo G. Alegado</b> The Effects of Institutions on Collective Action Among Irrigators' Associations in Bohol, Philippines	<b>Session B2</b> <b>INCREASING PRODUCTIVITY AND EFFICIENCY THROUGH COLLECTIVE ACTION PRACTICES</b> Session Chair: aProf. Cenon D. Elca <b>B2-1</b> <b>Melissa P. Loquias</b> Determinants of Contract Growing among Cavendish Banana Farmers in Santo Tomas, Mindoro del Norte <b>B2-2</b> <b>Dinah Pura T. Depositario</b> A Preliminary Assessment of the Productivity and Profitability of Sugarcane Block Farms: The Case of the Gulteb Sugarcane Block Farm <b>B2-3</b> <b>Blanquita R. Pantoja</b> Preparedness of Cooperatives to Undertake a Sugar Block Farming Scheme: Two Selected Cases in Batangas, Philippines <b>B2-4</b> <b>Jaquelyn T. Astronomo</b> Technical Efficiency of Cavendish Banana Growers in Santo Tomas, Davao del Norte	<b>Session B3</b> <b>ENHANCING FARMERS' INCOME WITH COOPERATIVES</b> Session Chair: Dr. Zenaida M. Sumalde <b>B3-1</b> <b>Karin L. Bulang</b> The Effect of Multi-Purpose Cooperative Membership on Income of Sarangani Farmers <b>B3-2</b> <b>Larry N. Digal</b> Assessing Impact and Lessons Learned in Sourcing Green Coffee Beans from a Cooperative of Small Scale Farmers <b>B3-3</b> <b>Marvin Louie G. Orbeta</b> Comparing Net Income Differences of Coffee Farmers Who are Members and Non-Members of Cooperatives: The Case of Coffee in Tagbina, Surigao del Sur	<b>Session B4</b> <b>UPGRADING THE ROLE OF COOPERATIVES IN AGRICULTURAL VALUE CHAINS</b> Session Chair: aProf. Rowena A. Dorado <b>B4-1</b> <b>Komalawati</b> Market Integration of Beef and the Prospects for Cooperatives in Indonesia <b>B4-2</b> <b>Ery Supriyadi Rustidja</b> Strengthening the Institutional Role of Cooperative in Agribusiness Supply Chain in Indonesia <b>B4-3</b> <b>Nguyen Thi Duong Nga</b> Changes in Farmers' Cooperative Organization for Food Safety: Case in Smallholder Pig Value Chain in Vietnam <b>B4-4</b> <b>Carol Q. Balgos</b> Enhancing the Share of Benefits in the Cavendish Banana Supply Chain: The Case of Cavendish Banana Growers in Sto. Tomas, Davao del Norte <b>OPEN FORUM</b>
<b>OPEN FORUM</b>	<b>OPEN FORUM</b>	<b>OPEN FORUM</b>	<b>OPEN FORUM</b>

PARALLEL SESSION PROGRAM

PARALLEL SESSION C: INNOVATION

DAY 2 (November 16, Friday), 3:00-4:15 PM

CONFERENCE ROOM 1		CONFERENCE ROOM 2		DAP LEARNING CENTER
Session C1 INNOVATIONS AND TECHNOLOGICAL ADVANCEMENTS FOR COOPERATIVES	Session C2 IMPROVING FINANCIAL ACCESS OF THE COOPERATIVES	Session C3 COOPERATIVE TRAINING NEEDS AND EFFECTIVENESS		
Session Chair: aProf. Bates M. Bathan	Session Chair: Dr. Marilyn M. Elauria	Session Chair: Dr. Cesar B. Quicoy		
<b>C1-1</b> <b>Mar B. Cruz</b> A Decision Support System for Purchasing Multiple Technologies for Institutional Buyers: A Case for Agricultural Cooperatives	<b>C2-1</b> <b>Dandan Irawan</b> The Partnership of Large-scale Cooperative with Other Cooperatives and Micro, Small and Medium Enterprises	<b>C3-1</b> <b>Gijanto Purbo Suseno</b> Need Assessment in Cooperative Development in West Java, Indonesia		
<b>C1-2</b> <b>Ami Purnamawati</b> The Transformation of Traditional Cooperatives Toward Digital Cooperatives in West Java Indonesia	<b>C2-2</b> <b>Ery Supriyadi Rustidja</b> Task Force in Strengthening Access to Revolving Fund of Coops in Indonesia : Success and Failure	<b>C3-2</b> <b>Maricon M. Guillermo</b> Preferences for Capability-Building and Enhancement Trainings Among Cooperative Members in Ilocos Norte		
<b>C1-3</b> <b>Lorene M. Samaniego</b> Factors Affecting the Adoption of KAYA Payment of the National Confederation of Cooperatives (NATCCO), Philippines	<b>C2-3</b> <b>Sugiyanto</b> Financial Strategy Formulation for Cooperative Development: The Case of Dairy Cattle Cooperative in West Java	<b>C3-3</b> <b>Liezel S. Cruz</b> Are Cooperative Leaders Good Listeners? Understanding the Relationship between Listening and Leadership		
<b>C1-4</b> <b>Jan Danica S. Asma</b> Enhancement of Cooperative Competitiveness through Adoption of Technology	<b>C2-4</b> <b>Genon D. Elca</b> What does a Cooperative in Sta. Maria Bulacan Consider in Granting Loans?			
<b>OPEN FORUM</b>	<b>OPEN FORUM</b>	<b>OPEN FORUM</b>		

# DEMO-WORKSHOP PROGRAM



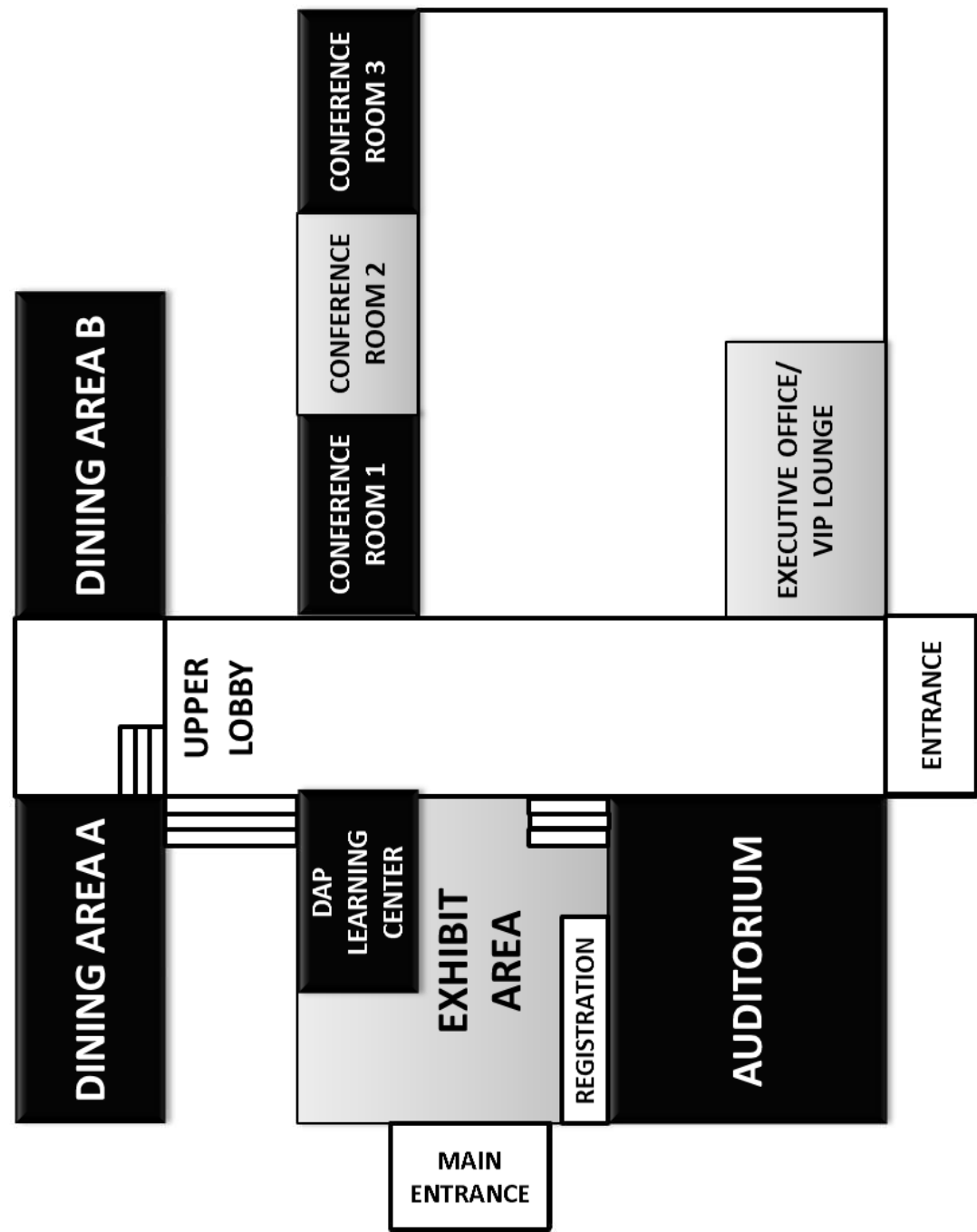
## DEMO-WORKSHOP PROGRAM

Day 1 (November 15, Thursday), 3:10 – 4:40 PM			
CONFERENCE ROOM 1	CONFERENCE ROOM 2	CONFERENCE ROOM 3	DAP LEARNING CENTER
<b>Session A1</b> Moderator: Jan Danica S. Asma  <b>LANDBANK Financing for Cooperatives and Priority Clients</b>  <b>ALEX A. HINOJOSA</b> Head, Laguna Lending Center Land Bank of the Philippines Los Baños, Laguna	<b>Session A2</b> Moderator: Alicia R. Quicoy  <b>The SNAP Method of Hydroponics: Now everyone can grow vegetables</b>  <b>PRIMITIVO JOSE A. SANTOS</b> University Researcher II Institute of Plant Breeding (IPB), College of Agriculture and Food Science, University of the Philippines Los Baños	<b>Session A3</b> Moderator: Adriann M. Quillooy  <b>General Trias Dairy Raisers MPC (GTRMPC) Carabao-based Enterprises: A Model of Inclusive and Chain-Wide Livelihood Opportunities</b>  <b>ANNA REYLENE J. MONTES</b> Senior Science Research Specialist and CBE Development Coordinator Philippine Carabao Center – UPLB  <b>SAMUEL F. POTANTE</b> Chairman (2013-2018) General Trias Dairy Raisers MPC	<b>Session A4</b> Moderator: Paul Kenneth B. Maghirang  <b>Bees at Work</b>  <b>ANALINDA M FAJARDO</b> Professor Environmental Biology Division Institute of Biological Sciences College of Arts and Sciences University of the Philippines Los Baños
Day 2 (November 16, Friday), 1:15-2:45 PM			
CONFERENCE ROOM 1	CONFERENCE ROOM 2	CONFERENCE ROOM 3	DAP LEARNING CENTER
<b>Session B1</b> Moderator: Jan Danica S. Asma  <b>Food Safety and Compliance Requirements to Local and International Standards</b>  <b>LYDIA S. MANGUIAT</b> Chief Science Research and Assistant Regional Director for Technical Operations Food Safety Team Department of Science and Technology CALABARZON	<b>Session B2</b> Moderator: Alicia R. Quicoy  <b>Farmers' Field School on Sustainable Pig Farming – An Alternative Swine Raising Technology</b>  <b>MARITES P. COSICO</b> Agricultural Training Institute Department of Agriculture Regional Training Center IV-A	<b>Session B3</b> Moderator: Adriann M. Quillooy  <b>Mobilizing Co-operatives in the Digital Age</b>  <b>CHRISTIE ROWENA A. PLANTILLA</b> Chief Executive Officer Federation of People's Sustainable Development Cooperative	<b>Session B4</b> Moderator: Paul Kenneth B. Maghirang  <b>Generating Money from Water Lily/Water Hyacinth</b>  <b>ARLENE M. PATINIO</b> Vice President Likhang Kamay ng Kalambenyo Producers Cooperative



# CONFERENCE VENUE MAP

CONFERENCE VENUE MAP



# PLENARY SESSIONS

## Rural Financial Risk in the Context of Cooperative: The Landbank Experience

**Mr. Edgardo S. Luzano**

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### Key words

rural finance, financial risks, LandBank

### Abstract

The Land Bank of the Philippines is a government financing institution with a social mandate to spur countryside development. It is considered as the largest single source of formal credit, particularly lending to small farmers and fishers directly and through conduits.

As a wholesale bank for rural credit, its delivery mechanism involves working with lending conduits which include cooperatives.

This presentation covers an analysis of its experience in lending to and through cooperatives, including the evolution of its policies and lending criteria and the resulting performance. LAND BANK considers cooperatives as major conduits in providing financial assistance to farmers and fishers, as well as major players for countryside development. Considering its experience in the early stages of providing credit assistance to cooperatives, the Bank adopts specific credit assessment parameters and capacity-building interventions to address inherent financial risks and make credit sustainable. It closes with a concise discussion of its pioneering program of giving recognition and award to exemplary cooperatives as strong partners in rural development.

# The Future of Work and Cooperatives in the Fourth Industrial Revolution

**Mr. Hideki Kagohashi**

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**Key words**

technologies, fourth industrial  
revolution, jobs

**Abstract**

The disruptive technologies and business models in the fourth industrial revolution have tremendous impact on the businesses and jobs. The cooperative business models and jobs are no exception. The impacts are already observable in many parts of Asia, and the technology and future of work is a top concern of the day among the businesses, the trade unions and the policymakers in the Philippines. The global cooperative community is trying to tap the power of new technologies to cope with the transforming market. Philippines' on-going jobs challenge and policy reforms further complicate the situation. Is the cooperative sector of the Philippines ready to change?

# Issues and Prospects on the Value Chain Financing in Cooperative with Particular Focus on Agriculture as the Key Driver in Uplifting the Lives of Members

**Dr. Ranjith Hettiarachchi**

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## Key words

value chain financing, cooperatives,  
finance, agriculture

## Abstract

Farmers rely on agriculture for their livelihoods, which are growing more uncertain due to the threats of climate change, the recent food and financial crises, and falling investments in agriculture. Farmers are the worst sufferers. The seasons, the time to plant, the time to harvest are changing. Much of the indigenous knowledge of farmers is no longer always applicable. It seems that every year, they lose their yield to floods or storms. The marginal farmers become most vulnerable. They become the poorest of the poor and their journey to financial independence is bleak.

The Association of Asian Confederation of Credit Unions (ACCU) recognizes that credit unions provide loans to farmers. However, there is a need for credit unions to be more active in making use of the available technical expertise of specialized agencies to address watershed development, livelihood promotions, organic farming, agriculture extension services, environmental impact assessments, training and capacity building, education, skills development and financial literacy among farmers.

In response to the above, ACCU developed an AgriFinance Methodology involving a whole cycle of intervention by the credit unions to ensure that farmers get out of the poverty cycle. The 10 areas of intervention are:

1. Understanding agriculture
2. Mapping agricultural resources
3. Identification of issues and concerns
4. Preparing a plan addressing issues
5. Institutional capacity building
6. Promotion of small farmers organizations
7. Value chain promotion
8. Range of agricultural financial services
9. Building linkages
10. Agricultural programs for farmers and community

Although access to financial services may prove crucial, credit unions need to fill the needs of the farmer-members to improve their lives. Thus, the inclusion of other services and intervention as above are crucial to alleviate farmers from poverty.

# Philippine Practices in Developing Statistics on Cooperatives

Dr. Josefina B. Bitonio and Chiara Carini

## Abstract

### Paper Presenter

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### Key words

cooperatives statistics, data, Philippines,  
ILO

Statistics on cooperatives is essential to quantify the impact of cooperatives on their members and the economy as a whole. Currently, reliable and comparable statistical databases on cooperatives are missing in most countries of the world. The International Labour Organization (ILO), in collaboration with its constituents and a number of national and international partners, which include the Philippines, is working towards developing guidelines on the measurement of cooperatives, both in terms of employment and economic value added.

ILO's Promotion of Cooperatives Recommendation, 2002 (No. 193) states that national policies should "seek to improve national statistics on cooperatives with a view to the formulation and implementation of development policies." This paper tackles the practices in developing cooperative statistics in the Philippines with particular focus on the institutional and legal framework, conceptual framework, data collection processes, and available statistics. The study was conducted through desk research using methodological manuals, metadata web pages, online databases, and statistics reports as well as through interviews with key informants. Based on the study, the following have been identified as priority areas of improvement:

1. Statistics should be released primarily for cooperative enterprises, meaning enterprises incorporated in the form of a cooperative according to national legislation.
2. The importance of including both a classification by economic activity – officials using classification systems that guarantee the comparability of statistics at the national and international levels and with those of other forms of enterprise – and classification based on the relationship between members and the cooperative.
3. For data collection, a combination of several methods is often necessary, i.e., in-depth case studies using a combination of statistical registers and sample surveys.
4. The process of developing statistics on cooperatives should be guided by the Philippine Statistics Authority, which guarantees scientific and methodological rigor and compliance with quality standards.



# PARALLEL SESSIONS

### Theme: *Cooperative Transformation in the Changing Global Economy*

With the constantly and rapidly changing global economy, we need to actively search for effective and appropriate strategies that could drive the transformation of cooperatives into a more competitive, resilient and sustainable enterprise that upholds the *Co-operative Identity*. This is an urgent call that we need to respond to if we want our movement to become a significant sector in the economy and a contributor to the 2030 Agenda for Sustainable Development; capable of overcoming the pressing social, economic, and environmental challenges.

Amid the dominant emerging trends that shape our economy, politics and society, our vision in the *Blueprint for a Co-operative Decade* and desire to bring our cooperatives into a higher frontier of development as builders of sustainability remain strong. Its realization will be a continuous process of cooperative transformation that will lead us to the path of becoming the (a) acknowledged leader in economic, social and environmental sustainability; (b) the model preferred by people; and (c) the fastest growing form of enterprise.

### PARALLEL SESSION THEMES

Three major factors of cooperative transformation arise from the themes of the parallel session paper contributions of ICOOP2018 – Performance, Productivity, and Innovation. These factors are recognized as the key windows of transformation for cooperatives, where they can develop and enhance themselves to achieve efficiency and effectiveness in providing services to the members and their communities and ultimately, in creating significant impacts on sustainable development and on the quality of life of the people.

#### A. PERFORMANCE

Issues and Constraints Affecting Cooperatives' Performance in the Philippines	Examining current and emerging challenges that limit the Philippine cooperatives from reaching their full potential
Cooperatives for Sustainable Farming and Development	Recognizing cooperatives' multidimensional functions in agricultural and rural development, which are anchored to the same pillars of sustainable development – economic, social, and environmental
Learnings from the Economic and Social Performance of Cooperatives	Sharing the success and failure factors of cooperatives as an organization and business in search for effective practices and new models for cooperative transformation
Creating Opportunities for the Youth and Community through Cooperatives	Building capacity of the youth and communities and addressing barriers that constrain them from contributing to the societal development

## PARALLEL SESSIONS

**B. PRODUCTIVITY**

Strengthening Cooperatives through Support Services

Featuring programs and support mechanisms such as insurance and financial services to facilitate cooperatives' business activities and operations

Increasing Productivity and Efficiency through Collective Action Practices

Identifying collective action practices that can promote effective and efficient agricultural production

Enhancing Farmers' Income with Cooperatives

Re-emphasizing the economic benefits of organizing farmers and its important roles in marketing and enterprise development

Upgrading the Role of Cooperatives in Agricultural Value Chains

Positioning the cooperatives in the agricultural marketing system in view of their greater participation and economic share in the value chains

**C. INNOVATION**

Innovations and Technological Advancements for Cooperatives

Exploring cooperative efforts and prospects for upgrading its products and services through innovation, aimed toward becoming a competitive enterprise

Improving Financial Access of the Cooperatives

Finding solutions to and strategies on how to improve financial access of the cooperatives

Cooperative Training Needs and Effectiveness

Matching the education and training services with the needs of the officers, staff and members of cooperatives and the factors or constraints in acquiring them

## Trends and Issues in the Cooperative Sector: The Province and City of Iloilo Experience

Maria Corazon M. Samorin

### Paper Presenter

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### Key words

cooperatives, Iloilo, trends, issues

### Abstract

This qualitative research aimed to analyze the issues and trends of the cooperative sector as experienced by the City and Province of Iloilo. There were twenty-five (25) key informants for the study. They were selected based on their first-hand experience in the cooperative movement. Participants' consent was solicited after they were identified. A researcher-made interview questions were prepared and utilized for the one-on-one interview and focus group discussion. There were four themes that emerged as key issues faced by cooperatives in the City and Province of Iloilo namely: taxation, governance, membership, and technology. On the other hand, four themes arose as trends in the cooperative sector - positive outlook for cooperatives, new-wave business activities, insurance and risk protection, and gender and development activities.

Cooperatives in the City and Province of Iloilo are experiencing longstanding and contemporary issues that generally affect its general conduct, be it financial, social, and operational performance. These concerns affect the quality and sustainability of the services being offered to the members and also to the trust and dependability the members have towards the cooperative. Cooperatives, being in the forefront of the promotion of equity, social justice, and economic development, are looking forward for progressive future as it embarks on trends that are benefiting to its members.

# Financial Performance of CDA-Registered Cooperatives Among State Universities and Colleges in Panay Island

Susan F. Atienza

## Paper Presenter

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## Key words

cooperatives, financial performance, COOP-PESOS

## Abstract

The study determined the financial performance and organizational commitment of Cooperative Development Authority (CDA) - registered cooperatives among SUCs in Panay Island. Nine (9) cooperatives involving 348 respondents were surveyed using a five-part questionnaire and their financial performances were analyzed using the CDA's COOP-PESOS. Descriptive analysis was done using frequency, percentages and means as well as test of correlation using Chi Square and Gamma Coefficients for the analysis of relationships.

Significant findings revealed that majority of the respondents were with the cooperative for 15 years or less, with moderate organizational commitment. The respondents specifically in the management were highly innovative as attested by being alert to changes. The prevailing leadership style was relations-oriented. As a whole, the nine CDA-registered SUC cooperatives were found to have strong membership with moderate organizational commitment in terms of affective aspect. However, in terms of continuance and normative aspects, the organizational commitment is weaker, which could probably be one of the reasons for the poor financial performance of the cooperatives as indicated by their COOP-PESOS mean rating of 48.85%.

Based on the findings, this study suggests the following recommendations: (1) Strengthen commitment of members; (2) Members and officers must further assess the factors that strongly contributed to poor financial performance; (3) Members should look reasons for high level of management innovativeness; (4) The relations-oriented leadership style and affective commitment should be utilized; (5) CDA should monitor the operations quarterly; and (6) CDA should re-evaluate the policy on COOP-PESOS ratings.

## Assessment of the Process, Drivers and Effects of Cooperatives' Transformation: The Case of Philippine Cooperatives

Yves G. Satiembre, Isabelita M. Pabuayon, Karen P. Quilloy and Nanette A. Aquino

### Paper Presenter

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### Key words

cooperatives, transformation,  
members' satisfaction

### Abstract

This study aimed to analyze the nature, drivers and effects of transformation of selected cooperatives in the Philippines, namely the Sacred Heart Savings Cooperative, La Union Multi-Purpose Cooperative, and Don Bosco Network Multi-Purpose Cooperative. It examined the factors driving their transformation from a single- to a multi-purpose cooperative as well as the effects of such transformation on their financial and social performance. A total of 90 respondents were surveyed to determine the members' satisfaction in the performance of the transformed cooperatives, using the criteria of level of patronage refund, customer service, and contribution to the community and environment. This study utilized a descriptive and evaluative research design through case analysis approach. Analytical tools used were descriptive statistics and comparative statistical test of means.

Results showed that cooperatives transform to cater to the changing and growing needs of their members. Their business directions were driven by members' needs, which were found to be influenced by globalization, government legislation, information technology, personnel competency, competition, and availability of capitalization. Cooperative members indicated high satisfaction with the transformation. High members' satisfaction and patronization of cooperative services result in improved financial position. Based on the findings, it is recommended that the cooperative anchor its product expansion and diversification to the members' needs. The cooperative as an institution should also prepare for internal capacity building. Lastly, the cooperative should give due importance on its social performance that differentiates its business model from other business models.

## A Heirarchical Value Map Approach in Cooperative Core Values

Jose R. Domingo, Jr.

### Paper Presenter

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### Abstract

The International Cooperative Alliance (ICA) prescribes the universal values of cooperative movement. While they are relatively important, a search for common core values of cooperatives in Cavite, Philippines is worthwhile. Through survey aided by a questionnaire and group discussions conducted with participants, the researcher utilized the laddering technique to identify the attributes and consequences of cooperative services and behavior of members and stakeholders as well as to probe deeper the underlying values that made the factors important.

The values cited by participants in cooperative services were honesty, transparency, discipline, accountability and responsibility; while in the aspect of members' behavior the identified values were honesty, commitment, love for God, professionalism and being reasonable. Analysis of the Hierarchical Value Map (HVM) on both cooperative services and behavior revealed that the core values of participants were honesty, commitment, concern for others and low interest rate as value in the service development.

### Key words

cooperative values, hierarchical value map, cooperatives



# Utilizing Stakeholders Analysis on Sustainable Organic Farming in Indonesia: The Case of Cisarua Organic Farming Cooperative

Sekar Wulan Prasetyaningtyas, Sobir, Aji Hermawan, Syamsul Maarif

## Paper Presenter

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## Abstract

The objective of this study was to understand the role of stakeholders in Cisarua Horticulture Organic Farming Cooperative. Stakeholder analysis was used in this study to generate knowledge about the relevant actors and to understand their behaviour, intentions, interrelations, and the influence they have brought on decision-making processes. This information can then be used to develop strategies for managing the cooperative, to facilitate the implementation of cooperative objectives, and to assess the feasibility of future policy directions.

## Key words

organic farming, soft system methodology,  
stakeholders' analysis

Data were collected using in-depth interviews with the manager and 25 farmers of the sustainable horticulture organic farming cooperative in Cisarua, Indonesia. This study used five steps in Soft System Methodology (SSM). SSM is an approach to organizational process modeling and it can be used both for general problem solving and in the management of change. Steps 1 and 2 would help to understand the situations by drawing a rich picture and SWOT analysis; Step 3 and 4 would help in thinking about systems in the situation, including identifying root definitions and creating conceptual models. In Step 5, the conceptual model was compared with the real-world situations.

From stakeholder analysis, four main results were obtained: identifying most important stakeholders; the stakeholders' knowledge level; the stakeholders' position to or against organic program in Indonesia; the stakeholders' interest towards organic program; and which stakeholders might form alliances. In conclusion, farmer's motivation, market availability, employment, and food security initiatives were the major driving forces for the stakeholders to maintain the sustainability of the organic farming cooperative in Cisarua, Indonesia.

## The Role of Cooperatives in Sustainable Black Rice Farming Development in Brebes District

Rahmawati Zulfiningrum, Sumardjo, Amiruddin Saleh, Ivanovich Agusta

### Paper Presenter

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### Abstract

Lifestyle factors and unhealthy foods consumption trigger several degenerative diseases such as diabetes and heart attack. Alternative functional food ingredients are needed to overcome these problems. One of alternatives is black rice, which has high anthocyanin content. The economic value of black rice is higher than white rice and brown rice. However, the fact shows that black rice farming is less developed, despite the program development efforts downstream of the agribusiness system. Cooperatives and Sustainable Development Goals (SDGs) have the same pillars and blueprints that aim for sustainable development in the economic, social and environmental sectors and seek to reduce poverty, especially in developing countries.

This study discusses the role and potential of cooperatives to become marketing communication media using phenomenological studies to black rice farmers. As marketing communication media, cooperatives can air and promote the farmers needs and the perspective of the actors who are involved in the program development so that black rice farming can run sustainably.

Black rice farmers themselves are the key source of information since they have indigeneous knowledge on black rice acquired from planting black rice from generations to generations. They can apply cooperation through a cooperative facility, both for the procurement of seeds and the production process up to the marketing stage. As a cooperative, farmers can collectively carry out activities leading to sustainable development of black rice farming. Cooperatives can become a movement of the farmers in developing and conserving black rice farming in order to improve their further welfare.

### Key words

agriculture, black rice, cooperatives,  
marketing communication media

# Level of Awareness of Gubat Saint Anthony Cooperative (GSAC) Farmers on Climate Change

Rene B. Hermo

## Paper Presenter

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## Key words

climate change, adaptation and mitigation, GSAC, cooperative

## Abstract

This study aimed to look into the Gubat Saint Anthony Cooperative (GSAC) farmers' level of awareness on climate change, which is an important factor in initiating their adaptation to climate change. Judgment sampling method was used in the selection of the 22 respondent-farmers who are all active members of GSAC farmers' group. The study used survey questionnaires as data gathering tool and descriptive approach in the analysis. A five-point Likert scale was particularly used to measure farmer's level of awareness.

Majority of the respondents (68%) are over 51 years old and nearly 60 years old. Sixty four percent of them reported an income that ranges from Php 10,000.00 but not over Php 70,000.00. Moreover, 50% of the respondents stated that they are high school graduates and six (27%) said that they finished college. Results of the analysis showed that GSAC farmer-members are much aware about climate change as shown by its total average weighted mean score along adaptation. The average farmer's perception about climate adaptation registered a 3.6 average weighted mean score, which is interpreted as "much aware" of the issues about climate change.

With high level of awareness of the GSAC farmer-members, it pays to further strengthen their knowledge to effectively adapt to climate change. Since adaptation to climate change is also influenced by other factors like in-depth information on adaptation measures or access to finance and agricultural services; farmers education, awareness campaign and symposia on environmental issues can help strengthen farmers' capacity to adapt to climate change. Various communication strategies can also be used to further promote understanding of climate adaptation measures to farmers.

## Coping Mechanisms and the Likelihood of Joining a Cooperative Among Farmers in Sarangani, Philippines

Maria Luisa G. Valera

### Paper Presenter

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### Key words

farmers, likelihood of joining, cooperatives,  
coping mechanisms

### Abstract

This study assesses the coping mechanisms and the likelihood of joining a cooperative among farmers in Sarangani, Philippines. The coping mechanisms in the case of unexpected events include: (1) calamity or damaged crops, and (2) illness, hospitalization and death of any family member, which were analyzed using descriptive statistics. The selected indicators of the likelihood of joining a cooperative were classified into three broad categories: household head characteristics, economic, and personal motivation using probit regression method. The findings show that majority of the farmers are depending onto cooperatives in both unexpected events. Furthermore, economic indicators top the likelihood of joining a cooperative that include planting area, annual profit, distance of farm to market, and type of crop. It is followed by personal motivation indicators such as having lack of funds, influence of relatives' membership, and attendance to a program hosted by a cooperative. Age, sex, and livelihood investment decision-makers are significant household head characteristics that contribute to the likelihood of joining a cooperative. As a whole, the study concludes that cooperatives are vital among farmers and the likelihood of joining a cooperative is highly dependent upon the economic situation among farmers.

## A Case Study of Kababaihang Masigla ng Nueva Ecija (KMNE) Cooperative

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### Key words

women cooperative, succession,  
business continuity

### Abstract

The Kababaihang Masigla ng Nueva Ecija (KMNE) is a women's cooperative based in Ilog Baliwag, Quezon, Nueva Ecija. It was organized in 2000 to provide livelihood programs and additional income to the community, particularly the farmers' wives through processing of seasonal fruits. KMNE espouses the belief, "Back to Basic, Back to Naturals" as Mrs. Vilma Joson, the proponent, wanted to embody and promote the organic way of living that the old folks used to do back then.

The study aimed to evaluate the current business environment of KMNE; analyze the cooperative's four business functions; assess the issues, challenges and opportunities faced by the cooperative; and provide recommendations for the improvement of its operations.

Data were gathered through interviews with the president and members of the cooperative and from secondary sources. It was noted that the cooperative had limited promotional activities. Furthermore, only the president, a retiree, knows the entire business operations. It is recommended that the cooperative increase its promotional activities to cater to additional markets for its products and create succession and business continuity plans.

## The Highs and Lows of the CBA Multipurpose Cooperative: Insights for a Viable Consumer Cooperative

Korina P. Legaspi and Farah A. Madulid

### Paper Presenter

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### Abstract

The College of Business Administration Multipurpose Cooperative (CBAMC) was organized in 1990 with twenty (20) cooperators. Its membership increased to a hundred several years later. However, 20 years after, the cooperative faced bankruptcy and was dissolved in 2010. This prompted the researchers to study the practices and problems faced by CBAMC. Findings showed that high trust and confidence with the cooperators, low interest rate compared to banks, good interpersonal skills of managers, presence of the BS Cooperative, among others contributed to the success of the CBAMC. On the other hand, the lack of proper understanding of the principles and the purposes of the cooperative by members and the lack of adequate safeguard against unscrupulous officers who took advantage of their position to grant loans to themselves and their “compadres” were considered as very influential to the failure of CBAMC.

### Key words

consumer cooperative, best practices, problems, challenges

It is concluded therefore that inability of members to practice the true aims and purpose of the cooperative and their lack of cooperation contributed to the closure of CBAMC. However despite the failure of CBAMC, findings showed that the members are still willing to invest in a much organized cooperative.

## Concern for Community: Study of Cooperatives in the Cordillera Region, Philippines

Cheryll C. Launio and Marycris B. Sotelo

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### Key words

cooperatives, concern for community,  
community development fund

### Abstract

Cooperatives are mandated in principle and by law to allot funds from their annual net income to be used for projects or activities that serve the community where they operate. This study used data from a mailed survey of 56 cooperatives and annual reports submitted to the Cooperative Development Authority to determine the status of cooperatives in the Cordillera Administrative Region in the area of engagements in community development projects. Findings indicate high compliance in terms of allocating funds for community development but relatively low actual utilization rate especially among small cooperatives; common projects implemented are school-related minor infrastructure and facility provision; tree planting; medical assistance; scholarship programs; donations for community and school events and activities; and various kinds of solicited donations. Relationship between selected variables and community fund use were also analyzed. Perceived challenges include limited community development fund (CDF); lack of manpower, time and participation among members; poor coordination with partner agencies; and lack of plan for using CDF. Recommendations include enhancing support to micro and small cooperatives for increasing profitability and sustainability; more proactive planning for CDF use; enhancing information dissemination on the principle of concern for community beyond its members; and enhancing opportunities and policy support to foster linkages and partnerships among cooperatives and with other agencies and organizations for community development.



## Protecting Producers' Associations and Farmers' Cooperatives in Value Chains from Climate Change Hazards: Use of BCP

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### Key words

business continuity plan,  
producers associations,  
farmers cooperatives, climate change  
hazards

### Abstract

In general, producers' association and farmers' cooperatives (PAs/FCs) around the world have been constantly adjusting to cope with the rapid agricultural and market transformation. Aimed at increasing competitiveness in value chains, they read trends, set foresight directions, strengthen market positioning for products and services and adopt models of partnership with other stakeholders in the value chain. However, climate change hazards like typhoons, floods, extreme weather changes and earthquakes may instantly derail the expansionary momentum of PAs/FCs and mire their as well as government's efforts to promote entrepreneurship, competitiveness and inclusive growth. In orchestrating a turnaround in policy and practices to protect the PAs/FCs, the Business Continuity Plan (BCP) may prove a meaningful investment by both public and private sectors.

## Factors Affecting the Savings of Cooperative Members in CLDD-Calamba City Philippines

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### Key words

savings mobilization, cooperatives, OLS

### Abstract

This study attempts to identify the determinants of savings behavior of members of cooperatives being assisted by Calamba Cooperative and Livelihood Department (CCLD) in Calamba City, Philippines. Specifically, the study aims to determine the socio-economic characteristics of members, determine the effect of cooperative on the savings of its members and to determine whether the type of cooperative affects the savings of the members. Using primary data from the cooperative members and staff under CLDD in Calamba City, an Ordinary Least Square (OLS) was conducted to determine the factors that affect the savings of cooperative members. Results show that cooperatives affect the savings mobilization of its members. Among the four types of cooperatives- Multi-Purpose Cooperative, Credit Cooperative, Consumer Cooperative and Marketing Cooperative- Credit Cooperative affect the savings of its members the most. Cooperative factors, length of membership and credit, are both significant and positively related to savings of members. The other variables found to be significantly affecting savings of cooperative members were sex, age, educational attainment and income.

# Sustainable Cooperative Tourism Towards Community Empowerment

Josefina H. Lapitan and Girlie R. Sarmiento

## Paper Presenter

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## Key words

cooperatives, coop tourism, community

## Abstract

Coop Tourism (CT) is designed to be in harmony with the provision of the Philippine Medium Term Development Plans (PMTDP). It envisions a strong and viable cooperative sector that is able to create and distribute wealth equitably, expand opportunities, generate employment and thereby bring about condition to win the people's war on poverty. While tourism, as one of the world's consistently growing industries, promotes understanding and trust among people's of different cultures, it is "the world's first peace industry." It is an industry which recognizes, promotes and supports the belief that every traveler and every host can be "Ambassador for peace," promoting understanding, goodwill, and respect among people of the world – syllogisms that run parallel and in harmony to the Transformative Cooperatives' platform of the 4P's: People, Planet, Peace and Prosperity of the Cooperative Development Authority (CDA).

CT for the Community will be a vehicle in the transformation of poverty-ridden communities in Laguna towards economic and social improvement. CT is an innovative business platform for various cooperative networks through partnerships and alliances, integrated and interconnected with the community to carry a shared vision of implementing a sustainable tourism, the COOP way. As a business platform, CT hopes to turn them into "corporatives". It envisions to be a driving force to local and regional growth and development to boost local wealth creations and social cohesiveness through sustainable jobs and business activities. CT will pursue and capitalize on tourism as new market/investment opportunities for the cooperatives through integration and active participation. A milestone was reached by CT for the Community on October 18, 2017 when the Sangguniang Panlalawigan of Laguna unanimously approved "An Ordinance Institutionalizing the Sustainable COOP TOURISM in the Province of Laguna Towards Community Empowerment and Development.

# The Role of Cooperatives in Crop Insurance Availment Among Rice Farmers in Occidental Mindoro, 2017

Kathlene Dianne T. Amoyan and Marilyn M. Elauria

## Paper Presenter

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## Key words

cooperatives, crop insurance, rice farmer

## Abstract

Rice farming is one of the main sources of livelihood of most households in Occidental Mindoro. However, this industry is known to be mostly dependent on the weather and is highly vulnerable to pest and disease infestation. To address this problem, the government established the crop insurance for the farmers' production and in coping with financial losses. To further help the farmers; cooperatives made the availment of crop insurance more accessible through membership that allows them to avail insurance and to access a wide range of services.

The study analyzed the role of cooperatives and other factors that affected the decision of the farmers in availing of crop insurance. Particularly, the study described the characteristics of farmers and their farms, features of the crop insurance package, and external factors that affected their availment. Results of logistic regression analysis revealed that age, household size, household income, level of awareness, farming experience, sources of information, extension service provider, sources of credit and type of natural disaster experienced were found to significantly affect the crop insurance availment decision of the farmers. Results also showed that farmers' membership in cooperatives played a vital role as the source of information and extension service provider towards crop insurance availment.

Thus, through farmers' membership in cooperatives, the level of crop insurance availment will definitely increase. Intensive advertisement about the program and assistance must be done by the LGU and other government entities concerned to encourage more farmers to become members of cooperatives.

# Assessment of the Production and Organizational Capability of Selected Agrarian Reform Communities in Western Pangasinan

James Paul R. Labindao

## Paper Presenter

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## Abstract

The assessment on the production and organizational capability of selected Agrarian Reform Communities in Western Pangasinan was implemented through the Agrarian Reform Community Connectivity and Economic Support Services (ARCESS) Project of the Department of Agrarian Reform. The project evaluates the opportunities available in the agrarian reform areas where the intervention will be based, and determine the needs and readiness of the agrarian reform beneficiary organizations according to Agricultural Productivity, Institutional Development, Rural Enterprises, Capability Building, and Development Support, and Economic and Technical Aspect of their Business Operation.

The Organization and Enterprise Needs Assessment and Design Assessment (OE-NADA) of DAR was used as assessment tool. Three Agrarian Reform Communities from the municipalities of Sual, Agno, and Bani of Pangasinan province were selected for this project.

The assessment validates the vital role of People's Organization (POs) as a medium for rural development. Strengthening the organizational capabilities of POs is essential because unemployment and underemployment are prevalent in the ARCs thus provision of support interventions in developing their rural enterprises can improve their household income. The assessment on the selected ARBOs in Western Pangasinan also substantiates the significant role of irrigation in enhancing crop and other agricultural production activities. On rice-farming-issues, the occurrences of force majeure (typhoons –flooding, and drought) are the significant problems encountered by ARBs. Possible interventions are accessibility to crop insurance services; establishment of irrigation system; instituting an efficient method of reporting agricultural damages; use of organic fertilizer to minimize expenses and lessen dependence on commercial-inorganic fertilizer hence, promoting organic farming.

## Key words

ARCESS, agrarian reform beneficiaries, support interventions

# **Impact of Agrarian Reform Community Connectivity and Economic Support Services (ARCCCESS) on the Financial Performance of Agrarian Reform Cooperatives in Laguna, Philippines**

**Cesar B. Quicoy and Khamile Armhynn E. Sabas**

## **Paper Presenter**

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## **Key words**

ARCCCESS, CSFs, cooperatives,  
solvency ratios, profitability

## **Abstract**

The ARCCCESS Project provided Common Service Facilities (CSF) and Agri-Extension Services (AES) trainings to selected cooperatives to improve their financial performance and extend their benefits to the community. The paper generally assessed the impact of ARCCCESS on the financial performance of agrarian reform cooperatives in Laguna. The results of the analysis showed that the agrarian reform cooperatives improve their liquidity, solvency and profitability due to the increase in asset values and revenues brought by the Common Service Facilities under ARCCCESS. The selected cooperatives showed higher solvency ratio during the implementation of ARCCCESS. The profitability of the cooperatives improved as shown by a 67% growth rate of their return on equity capital (ROE), 62% growth rate on net surplus and 25% growth rate on return on assets. The results of the analysis also showed that majority of farmer-members were aware of the project being implemented in their respective cooperative and they perceived that ARCCCESS was very helpful in improving their welfare and in strengthening the financial conditions of the cooperative. Therefore, the ARCCCESS program should be continued and extended to other cooperatives.

## The Effects of Institutions on Collective Action Among Irrigators' Associations in Bohol, Philippines

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### Paper Presenter

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### Key words

ARCCCESS, CSFs, cooperatives,  
solvency ratios, profitability

### Abstract

Successful management of common-pool resources (CPRs) such as irrigation systems often requires collective action. Unlike with public or private goods, CPRs exhibit non-excludability but rivalry in consumption, which implies that neither government control nor privatization will result in the optimal use of such goods. In order for resource-users to participate in any collective activity, certain institutions must be present to ensure that the institutional environment is conducive for resource-users to pursue their common interest.

With the foregoing premise, this paper looked into the effects of formal and informal institutions on collective action among irrigators' associations managing communal irrigation systems. Institutions refer to the "humanly-devised constraints" that influence people's interaction in an uncertain world. In this study, the unit of analysis was the irrigators' associations across the province of Bohol, Philippines. Ordinary Least Squares method was used to estimate the effects of institutional factors on collective action. The results of this study showed that land tenure, origin of the association, governance, and the level of generalized trust were all found to have significant influence on the rate of collective action within an irrigators' association. It is recommended that both the irrigators' associations and its members together with the local government units must work hand in hand in ensuring that enabling institutions are strengthened for collective action to succeed.



# Determinants of Contract Growing Among Cavendish Banana Farmers in Santo Tomas, Davao del Norte

Larry N. Digal, Carol Q. Balgos, and Melissa P. Loquias

## Paper Presenter

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## Key words

Cavendish banana, contract growing, cooperatives, spot market

## Abstract

The Cavendish banana industry was introduced to contract growing mainly due to the enactment of the Comprehensive Agrarian Reform. In Davao del Norte, Individual growers and cooperatives, mostly agrarian reform beneficiaries, are involved in contract farming which offers various advantages to farmers such as the provision of inputs, guaranteed and fixed pricing structures, and better access to reliable markets. However, contract farmers are also susceptible to risks, corruption, indebtedness, and over reliance. Because of this, some farmers opt to become individual growers and sell in the spot market. The decision to enter into contracts or not has different implications on Cavendish banana farmers and their performance in the industry considering the advantages the arrangement bring to the farmers. Thus, this study aimed to identify the factors affecting the decision of farmers to engage in contract farming or sell in the spot market. Household surveys were conducted among 187 growers and the data collected were analyzed using a Probit regression model and cross-tabulations. The results of the study show that membership to producer cooperatives, production cost per hectare, and the net profit per hectare significantly affected the decision of Cavendish growers to enter contract farming. Findings also show that 72% of the respondents we under contracts, 30% of which are members of cooperatives. Considering the number of contract growers and the advantages and the disadvantages of contract farming, it is recommended to have better governance and regulation of contracts by the government to assure the welfare of the growers.

## A Preliminary Assessment of the Productivity and Profitability of Sugarcane Block: The Case of the Guiteb Sugarcane Block Farm

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### Key words

block farm, sugarcane, productivity, profitability

### Abstract

This paper assessed the productivity and profitability of the farms of the members of the Guiteb Sugarcane Block Farm (GSBF), which was under the supervision of the North Cluster Producers Cooperative (NCPC) of Tarlac. Key Informant Interviews (KIIs) were done with all the members of the GSBF as well as the Chairman of the NCPC. Secondary data on the production performance and the farmer's revenues and expenses were gathered from the Tarlac Mill District Development Council for cropping years 2015-2016 and 2016-2017. Frequency and mean analysis, paired sample t-test, stochastic production frontier analysis and cost and return analysis were then employed to analyze the data.

The results show that the 20 farms under the block farm, with an aggregate land holding of 37.6 hectares, exhibited a 1.83% increase in average tons cane (TC) per hectare. Meanwhile, there was a significant 5.56 percent decrease in milling recovery. This suggests that there should be improvements done on the milling facilities. In terms of profitability, the farms achieved a significant increase of 10.79% in average net profit.

Despite the short-term gains achieved by the STBF, the block farmers have not yet achieved the possible optimal levels of productivity and profitability. It is thus recommended that the cooperative's members should practice collective management of the block farm to achieve cost-efficiencies across business functions like in the purchase of farm inputs and the outsourcing of labor.

## Preparedness of Cooperatives to Undertake a Sugar Block Farming Scheme: Two Selected Cases in Batangas, Philippines

Blanquita R. Pantoja and Maria Francesca O. Tan

### Paper Presenter

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### Key words

cooperative capacity, sugar block farming, BDS intervention, preparedness

### Abstract

The sugar industry in the country face problems directly linked to the sustainability of operations in fragmented farms. One suitable approach that could address the multitude of issues is Sugar Block Farming (SBF) wherein members of organizations such as cooperatives integrate their operations in order to achieve economies of scale. The SBF, a joint project of the Department of Agrarian Reform, Department of Agriculture and Sugar Regulatory Authority, aims to increase productivity of sugarcane farms of members of Agrarian Reform Beneficiaries Organizations (ARBOs) such as cooperatives and farmers' associations. In integrating members into a singularity, it is imperative to determine the level of preparedness of the cooperatives, in terms of organizational, financial, and marketing capacities, which further indicate the best practices and understand the possible disjunction in integration.

Focus group discussions with officers and members of the cooperatives and document analysis particularly of the Information Technology Enabled Maturity Assessment prepared by DAR were used to assess the Strengths, Weaknesses, Opportunities and Threats (SWOT) analysis of Taludtod Multi-Purpose Cooperative (MPC) and KAMARI Agri-Based MPC. Results of the SWOT on both cooperatives revealed a level of preparedness in two (organizational and financial) out of three aspects. Nevertheless, Business Development Interventions (BDS) are needed to further strengthen capacities and overcome weaknesses and threats. Recommendations on what BDS should be done are indicated in the study. These include identification of further trainings that are imperative to be provided to fortify strong suits and develop relatively problematic areas.

## Technical Efficiency of Cavendish Banana Growers in Santo Tomas, Davao del Norte

Larry N. Digal, Carol Q. Balgos, Ivi Jaquelyn T. Astronomo

### Paper Presenter

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### Abstract

Cavendish banana industry contributes substantially to the agricultural exports of the Philippines. The industry benefited various types of growers including smallholder farmers who obtained land upon the enactment of Comprehensive Agrarian Reform Law. Majority of them were organized into cooperatives involved in production and/or marketing of Cavendish who engaged in contract arrangement while others opt to produce individually, either with or without contract arrangement. However, it is unknown which among these options optimizes profit of small-scale growers.

### Key words

Cavendish, technical efficiency, data envelopment analysis

This research intends to determine and compare the technical efficiency of different types of growers and marketing arrangements existing in Santo Tomas Davao del Norte using Data Envelopment Analysis (DEA). DEA uses linear programming methods to create frontier and calculate its relative efficiencies. Results revealed that farmers who joined cooperatives were 3.4% more technically efficient by producing more boxes per hectare at lower cost per box than those individual growers. Meanwhile, farmers with contract arrangement to exporting companies were more technically efficient by producing 21% more volume of bananas per hectare while spending 6% lower cost than farmers without contract. Moreover, cost of fertilizers, materials, hauling, and disease control causes inefficiencies.

These findings show that excessive spending on some inputs, non-contracted production, and individual growership may contribute to inefficiency. Hence, small scale farmers must be critical on what production and marketing strategies to pursue.

# The Effect of Multi-Purpose Cooperative Membership on Income of Sarangani Farmers

Karin L. Bulang and Maria Luisa G. Valera

## Paper Presenter

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## Key words

cooperative membership, farmers,  
maximum likelihood treatment effect,  
income

## Abstract

This study aims to determine the effect of cooperative membership on farmers' income in Sarangani, Philippines. A maximum likelihood treatment effect was used which involves estimating the cooperative membership in a Probit regression as the first step, followed by the Ordinary Least Squares method for estimating the effect of economic indicators and membership on cooperative on net income. The results show that number of family labor in agriculture, influence of neighbors' and relatives' membership, attendance to a program hosted by a cooperative, land size, and cooperative membership are contributors in the net income of farmers. Overall, the development of cooperatives and becoming a member in return result to the affirmative effect on the lives of the farmers through having higher income.

## Assessing Impact and Lessons Learned in Sourcing Green Coffee Beans from a Cooperative of Small Scale Farmers

Larry N. Digal, Carol Balgos and Marvin Orbeta

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### Abstract

Many large agribusiness firms in the Philippine have projects that source their raw materials from small producers through various formal and informal sourcing arrangements to help increase income of small scale farmers while meeting volume and quality requirements. Coffee is one of these commodities where large buyers source from small farmers. This paper aims to examine one of these projects implemented involving a cooperative in the municipality of Tagbina, Surigao del Sur, Philippines, particularly the impact of strategies implemented and explore lessons learned.

### Key words

coffee, small scale farmers, double difference model, cooperative

A double difference model was used to get the net effect on income that can be attributed to the project. Primary data were collected through baseline and endline surveys having 214 and 229 randomly selected respondents, respectively, with treatment and control group. Surveys were supplemented with data from focus group discussion and key informant interviews. Results show members of the cooperative assisted by the project increased their income.

However, not all increases in income can be attributed to the project since income of coffee growers may increase even without the project. Thus, income of project beneficiaries was compared with those who were not assisted. Results show that coffee farmers who were not assisted also increased their net income. However, these increases are lower compared to those assisted by the project. A number of lessons can be learned from this project in terms of engaging with small scale suppliers. One of these is that working with organized group such as a cooperative is efficient and enhances sustainability.

## Comparing Net Income Differences of Coffee Farmers Who are Members and Non-Members of Cooperatives: The Case of Coffee in Tagbina, Surigao del Sur

Carol Q. Balgos, Larry N. Digal and Marvin Orbeta

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### Key words

cooperatives, coffee, producers, income

### Abstract

Linking small scale producers to better markets has always been an interest in examining performance of agricultural value chains. This paper intends to identify factors that explain income differences of farmers who are members of cooperatives and non-members using the case of coffee farmers in Tagbina, Surigao del Sur.

A survey of 214 farmers, of which 82% were coffee farmers and 18% were non-coffee farmers were randomly sampled. The latter were also included to compare their income with coffee farmers and to understand why they were not attracted to invest in coffee production. There were 38% cooperative members of the total farmers sampled. Results show that coffee production of farmers who are non-members are 26% more profitable compared to that of farmers who are members of cooperative. Despite the higher price received by cooperative members, this does not compensate for the higher cost they incur compared to those who are non-members of cooperative. Average total costs per tree and per kilo are 40% and 10% higher respectively. Despite lower profits for cooperative members, there are a number of advantages that cooperative members enjoy compared to non-members. Survey results show that about half of the cooperative members interviewed believed that it is beneficial for them to be a member of a cooperative because they have better access to inputs, trainings and other incentives. About 26% of the cooperative members believed that members of cooperative are given priority to projects. Various strategies are needed to improve productivity and lower cost per unit through better technologies.

## Market Integration of Beef and the Prospects for Cooperatives in Indonesia

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### Paper Presenter

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### Key words

beef, price transmission, supply chain,  
cooperative

### Abstract

Beef is one of strategic commodities and the second source of protein for people in Indonesia. As demand for beef is increasing, the price of beef is also rising. The rising price of beef in the consumer level does not substantially increase the price of beef in the producer level. Therefore, the aim of this study is to analyse the transmission of the beef price from the consumer to producer level. This study uses secondary data from the Agency for Central Statistics of Indonesia from 2008 to 2016. The data is analyzed using Vector Error Correction Model (VECM). The study shows that there is an asymmetric and a unidirectional relationship between the price of beef in the consumer and the producer level. This means the price of beef in the producer level influences the price of beef in the consumer level and does not apply oppositely. The high coefficient parameter of producer price is caused by the wide supply chain from producer to consumer, while marketing margin received by farmers is not much. There is a need for a cooperative institution to shorten the supply chain and increase the welfare of both consumers and producers.



# **Strengthening the Institutional Role of Cooperative in Agribusiness Supply Chain in Indonesia**

**Ery Supriyadi Rustidja, Tuti Karyani, and Nurul Risti Mutiarasari**

## **Paper Presenter**

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## **Key words**

cooperative, empowerment, innovation,  
supply chain

## **Abstract**

Indonesia is faced with dynamics of development such as development center of excellence commodities and spatial business development that can improve the living standards of rural community, competitive pricing, market needs and logistics efficiency, and contribution to GDP. It is inevitable that cooperative institution is one of the determinant factors of agricultural development. So strengthening cooperative institution is an important pillar and urgent factor to mobilize resources in agriculture, empower farmers, and accelerate value addition in agricultural products.

The fundamental issue that arises today is how to build a strong organization structure, an effective regulation system, an independent monitoring system, a linkage industry, an adequate infrastructure, and a public protection. This article explains how institutional strengthening of cooperative is able to increase added-value of agricultural products in business activities of cooperative. Cooperatives play their role as key element for empowering farmers inclusively with potential of contributing to the realization of downstream and upstream integration of agricultural supply chain management (SCM), particularly inbound and outbound logistics.

Based on agency theory, study found that cooperatives must assert membership of farmers and farmer groups and the role of farmers cooperative as a significant entity of agribusiness, improve motion of cooperative resources management, and revitalize existing service unit effectively and efficiently in supply chain. Such institutional strengthening strategies can lead to the proper handling of management of innovation SCM and ultimately, drive the local economy and empower the farmers in the agribusiness supply chain.

## Changes in Farmers' Cooperative Organization for Food Safety: Case in Smallholder Pig Value Chain in Vietnam

Nguyen Thi Duong Nga, Hung P.V., Hung N.V., Fred Unger, Huyen, N.T.T., Thinh N.T., Nhuan N.H., Cuong T.T., Quang B.V.

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### Key words

pig, cooperatives, food safety

### Abstract

More than two-thirds of meat production in Vietnam is pork, and pig production plays important role in rural farming system as well as creating livelihood for more than 4 million farm households in Vietnam. Due to small and scattered production, pig farmers are much dependent on market. Strong fluctuation in pig price from 2016 has caused a huge loss for pig producers. There has been a trend of re-organizing of small farmers into production group and/or cooperatives both to have better performance and better response to increasing demand for food quality from consumers. The paper explores cases in Hung Yen and Nghe An provinces, Northern Vietnam to assess the performance and to identify key factors affecting the performance of the cooperative organization of pig farmers. KII and FGD with chain actors and farmers were employed in data collection.

Results show that there has been production group and cooperatives of smallholder pig farmers established in the provinces. Most of their pig production practices are aligned with Good Agricultural Practices (GAP). The cooperatives with GAP certification are more successful as they are linked with better hygienic slaughterhouse and upgraded markets and receive strong support from local government. Linkage to market and strict compliance with GAP are vital to the existence and development of cooperatives of smallholder pig farmers. Improving consumers' awareness of food safety in pork and enhancing government role are also very important for developing newly started pig cooperatives for smallholders in Vietnam.

# Enhancing the Share of Benefits in the Cavendish Banana Supply Chain: The Case of Cavendish Banana Growers in Sto. Tomas, Davao del Norte

Larry N. Digal and Carol Q. Balgos

## Paper Presenter

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## Key words

cavendish banana, supply chains,  
inefficiencies, logistics

## Abstract

Cavendish banana supplied for export markets is produced mainly in Mindanao with 70% from Davao Region. Growers particularly in the municipality of Sto. Tomas, Davao del Norte, Philippines are mainly composed of small growers that are either members of a cooperative or individual growers. Their income varies depending on how they managed to meet the requirements of their buyers, productivity, and the type of infrastructure. However, there are number of inefficiencies that affect the ability of small growers to increase income and enhance their share of benefits from the globally competitive chain.

This study aims to analyze bottlenecks and constraints in the supply chains of Cavendish banana, identify key opportunities for efficiency improvement in physical infrastructure, and provide recommendations to improve efficiency of the supply chains. A supply chain framework was used to examine the issues in production and marketing nodes of the chains. Four chains from producer to buyer were analyzed in terms of costs and their impact on prices and margins. Analysis on the producers' node was based on survey data covering 200 growers and key informant interviews.

The study shows high logistics cost is due to inefficiencies in infrastructures and facilities particularly in the production node. These inefficiencies also affect prices. The study also shows that membership to cooperative and better infrastructure conditions can lower logistics costs significantly. Reducing the cost requires addressing inefficiencies or improving productivity to lower cost per unit and improve income of small growers.

## A Decision Support System for Purchasing Multiple Technologies for Institutional Buyers: A Case for Agricultural Cooperatives

Mar B. Cruz, Nohreen Ethel P. Manipol, Hanna D. Miranda, and Dia Noelle F. Velasco

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### Key words

cooperatives, decision support system,  
linear programming, AHP

### Abstract

In agriculture, while technologies such as drying, harvesting and transplanting machines among others are found to be useful, these are not readily accessible to smallholder farmers due to issues on budgetary constraints and economies of scale. Hence, it is more practical that these technologies are purchased at the institutional level such as cooperatives. Agricultural cooperatives may purchase these technologies and provide these to its farmer-members through rental services. This is actually one of the significant contributions of being organized through cooperatives.

Given multiple technologies with different purposes, the question on how many units of each technology to purchase given the preferences of the cooperative and its farmer-members and the budgetary requirements of the cooperative is worth exploring. This study proposed a decision support system for purchasing multiple technologies for institutional buyers such as agricultural-related cooperatives. One feature of the system is the use of a linear programming model constructed based on Analytic Hierarchy Process (AHP) framework. The model was illustrated using market research data of various agricultural technologies gathered through a market study project; hence, data used were secondary in nature. Comparison experiments were made to validate the effectiveness of the decision support system. Results show that the model indeed provides a systematic and objective way of determining the number of units to purchase for each technology considered.

# The Transformation of Traditional Cooperatives Toward Digital Cooperatives in West Java Indonesia

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## Key words

digital cooperatives, transformation,  
participation

## Abstract

Using internet is inevitable in the digital era. All aspects of life including organization take many advantages of it. However, the main problem for cooperative business in the developing countries is the lack of information technology competency. This becomes worse when human resources are reluctant or doubt to adopt innovation. As a consequence, the cooperatives may not be able to develop nor compete with other businesses to serve their members satisfyingly and let them gain the optimal benefits. In 2017, West Java government claimed that there were 25,468 cooperatives applying online annual member meeting. However, many cooperatives rarely run the digital business operation well.

The aim of the research is to describe the opportunities and the challenges of cooperatives in using digital technology. It applies the qualitative method for three cooperatives in West Java. The data are categorized and finally analyzed by thick description. The results indicate that government support, the board of directors' awareness, existing application programs, and internet providers are the opportunities for the transformation process. Nevertheless, human resources become a main factor affecting both opportunities and challenges. The most common challenges are the digital literacy and skills of the cooperative employees and its members.

Today the digital cooperative is a must, otherwise it will keep being a traditional one, unable to support the board of directors to manage the cooperative effectively, efficiently and beneficially, which in turn will prevent to increase member participation. A comprehensive socialization and training of digital cooperatives for all members and employees is one of the keys to develop their performance.

## Factors Affecting the Adoption of KAYA Payment of the National Confederation of Cooperatives (NATCCO), Philippines

Lorene M. Samaniego, Zenaida M. Sumalde, Karen P. Quillooy and  
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### Paper Presenter

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### Key words

digital finance, KAYA payment, NATCCO, cooperatives

### Abstract

This study presents the factors affecting the adoption of KAYA Payment, a digital payment platform recently established by the National Confederation of Cooperatives (NATCCO) in partnership with Philippine Federation of Credit Cooperative, and Asian Confederation of Credit Unions. Data were gathered through a survey involving six early-adopting and 74 non-adopting NATCCO member-cooperatives, particularly the Board of Directors, officers, and top management as respondents. The research was framed after the Unified Theory of Acceptance and Use of Technology models to determine product and service quality expectations of the non-adopters. The analysis involved descriptive statistics such as Chi-square test and Analysis of Variance.

Results show that the expectations of non-adopters on the KAYA payment service and product delivery are high. They expect that KAYA will help them attain their socio-economic goals and that it will be easy to use. They also expect an organization and technical infrastructure to support the use of the system. Significant factors related to adoption include asset size, cooperative location and its number of officers and the sex and digital experience of the cooperative decision-makers. These characteristics can serve as basis for identifying the target market and preparing a tailored marketing program for KAYA.

The recommended marketing objective is to attract large/billionaire cooperatives operating in rural areas to adopt KAYA Payment and to ensure satisfactory product and service delivery. It is also important to understand that since KAYA Payment is still in its introductory phase, efforts must be focused on marketing and promotions. Lastly, NATCCO must be able to foster strong relationship with the early adopters in order to build customer loyalty and the financial and social value of the technology.

# Enhancement of Cooperative Competitiveness through Adoption of Technology

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## Paper Presenter

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## Key words

Technology adoption, competitiveness,  
cooperative

## Abstract

Cooperatives are unique type of an enterprise that should balance the economic efficiency of their operation and social relevance to its members. In order to achieve economic efficiency, the cooperative should improve their production and the quality of their products through technological adoption. Through the assistance of the Department of Science and Technology, the cooperatives were able to improve their productivity through purchase of production equipment, improvement of their packaging materials and subject their products in nutritional and shelf life studies. Five DOST assisted cooperatives were assessed in the study. The Pinagdanlayan RIC MPC was able to subject their product with shelf-life and nutrient content analysis which is a requirement to penetrate the market. Palcon Multipurpose Cooperative was able to shorten their milking time from 2 hours to 30 minutes because of the acquisition of a milking machine. Buklod-Unlad Multipurpose Cooperative was able to mechanize their meat processing which led to an increase of 44.44% in terms of volume of production. San Jose Workers Multipurpose Cooperative was able to acquire bakery equipment. Lastly, the Sampaloc Talisay Producers Cooperative was able to comply with food safety standards and increase their production due to the provision of stainless steel table and smokehouse.

# The Partnership of Large-scale Cooperative with Other Cooperatives and Micro, Small and Medium Enterprises

Dandan Irawan

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## Abstract

Capital or financing is still recognized as a major obstacle for cooperatives and micro, small and medium enterprises (CMSMEs) in running their businesses. The need to provide capital or financing for CMSMEs is closely related to the needs to carry out its business activities, both for working capital and investment needs. So far, CMSMEs find it very difficult to utilize business financing mechanisms provided by banks and other financial institutions.

According to the 2015-2017 data from the Indonesian Ministry of Cooperatives & SMEs, the number of cooperatives in Indonesia reached 209,483 units with an estimated number of members of 26 million people with a total deposit of Rp. 36.4 trillion. The total assets of the cooperative reached Rp. 75.67 trillion with a business volume of Rp. 189 trillion. The data of micro, small and medium enterprises (MSMEs) on the other hand was reported to engage 57,900,787 people.

The potential will be more optimal for the CMSMEs sector if there is a synergy in partnership between MSMEs and cooperatives, especially with cooperatives that operate in large scale since these cooperatives have financing mechanisms that cater to CMSMEs. The criteria of large scale cooperatives in Indonesia are having (1) assets of at least Rp 10,000,000,000.00 (ten billion rupiahs), (2) turnover of at least IDR 50,000,000,000 (fifty billion rupiah) and (3) members of at least 1,000 people. The partnership is very necessary to increase the access of CMSMEs to capital, which can in turn improve the productivity of their businesses as well as strengthen their bargaining position in utilizing capital resources.

## Key words

partnership, CMSMEs, financing



# Task Force in Strengthening Access to Revolving Fund of Coops in Indonesia : Success and Failure

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## Paper Presenter

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## Key words

cooperative, task force, revolving funds,  
Indonesia

## Abstract

Revolving funds for strengthening cooperative finance can be effective if it appropriately reaches the target, is appropriately used and returned, and if it contributes to employment and decreases in poverty. Task force bridges revolving fund providers with cooperatives. This institution is useful for accelerating services and eliminating the weaknesses in the performance achievements of revolving funds for cooperatives. This study aimed to assess the task force and their performance in bridging the cooperative with revolving fund provider.

Based on agency, behaviour and institutional theory and also using cross-sectional regional based method and factor analysis, the study found that revolving fund distribution, financing service performance, and debt congestion settlement are determinant factors of the success of the task force. Study found that performance indicators of task force to improve the access of cooperatives to revolving fund providers are service quality, seriousness, initiative, cooperation and partnership, understanding, responsibility, attitude, information technology reliability, and time utilization.

Factors that need to be taken into account in assessing performance of task force are quality of work, quantity of work, reliability, work attitude, and problem solving from each stage and component of the process of submission, disbursement, and return in the management of revolving task force. Furthermore, key performance indicators can be specified based on stages and processes of the task force access to revolving fund for cooperative. In this paper, there are differences in strengthening the access of coopeartives to revolving fund service that create challenges for cooperatives, including an explanation of the institutional task force's failure and success.

# Financial Strategy Formulation for Cooperative Development: The Case of Dairy Cattle Cooperative in West Java

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## Key words

cooperative development, strategy  
formulation

## Abstract

Development of Indonesia's cooperatives still faces many challenges. The classic problem of cooperative development is related to access to market, human resources, technology and capital. Capital problems dairy cattle rejuvenation, procurement of milk processing equipment, and information technology are identified as common issues in development of Dairy Cattle Cooperative, based on the complaints conveyed by cooperative managers.

The purpose of this study was to identify the various problems faced by Dairy Cattle Cooperative in West Java and its needs and formulate financial strategies for cooperative development. This research used qualitative and quantitative methods of analysis. Data were obtained from direct observation of cooperative sample. SWOT analysis and ICA Grid tool were used to analyze the cooperative condition. The study results were used as a basis to develop financial strategies for the cooperative.

The study identified the following financial problems of the cooperative: limited sources of capital, especially from member participation; small surplus reserved; external capital sources not supported by sufficient guarantees and creditor trust; restricted source of government capital; and limited ability to create product added value in business activity. The needs of the Dairy Cattle Cooperative relate to certainties of market, product prices, feed supply, cow health, insurance, etc.

Financial strategies that can be done are to acquire fund sources, create hybrid financing such as issuing of bond, increase source of investment capital from investors, increase surplus reserved, and improve efficiency and beneficial of capital resources to create members benefit.

## What does a Cooperative in Sta. Maria Bulacan Consider in Granting Loans?

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### Key words

hog raising, loan repayment, credit

### Abstract

Hog raising in the Philippines is currently beset with many problems. These include low farm productivity and high cost of production. In Sta. Maria, Bulacan, hog raisers borrow a certain amount of loan from a lending institution like the Daop-Palad Multi-Purpose Cooperative (DPMPC) to address the high cost of production. A total of 40 hog raiser-borrowers of DPMPC were interviewed. The percentage of credit met by the hog raiser-borrowers was estimated using the success rate. Regression analysis was performed to determine the factors affecting the success rate of loan granted.

The results showed that success rate of loan granted to hog raisers-borrowers was significantly affected by the loan term and household income. Loan term negatively affected the percentage of credit granted. Thus, a hog raiser-borrower with the shortest repayment period will most likely attain a higher success rate of achieving the target loan. Results also revealed that household income positively affected the success rate of obtaining credit. This seems logical since lenders associate higher household income to higher capability of borrowers to repay the loaned amount.

Based on the results, following are recommended that: a) the cooperative should have a concrete policy regarding the loan repayment, b) the cooperative should create other arrangements on the repayment period of loans, c) to address additional financing concerns, the hog raisers should seek alternative sources of income.

## Need Assessment in Cooperative Development in West Java, Indonesia

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### Key words

need assessment, training, cooperative

### Abstract

Based on the 2015 data from the West Java Provincial Office of Cooperatives and SMEs, out of a total of 25,563 cooperatives in West Java, 9930 (30%) were inactive and 15,633 (61%) were active. In Bandung City, the total cooperatives were 2,538 cooperatives, where 1,200 were active (47.3%) and 1,338 (52.7%) inactive. In West Java Province there are three education and training institutions that foster cooperatives namely, Balatkop, Lapenkop and Puskopdit. They continuously foster cooperatives and SMEs in developing their businesses. The phenomenon of the number of cooperatives that are not active shows that the training programs delivered by the cooperative training institutions have not been optimal.

This study aims to analyze the process of assessing the needs for education and training done by the three education and training institutions prior to their cooperative trainings for cooperatives management and members. The research methods used are survey with cooperatives that have participated in training activities and interviews with instructors and leaders of the relevant training and education institutions. The results of the study show that: a) identification of needs (to determine material, prospective participants, resource persons) training and b) identification of stages of training material needs have not met the operational standards in analyzing the education and training needs. Identification of resource persons has fulfilled the requirements of the principal duties and functions of the trainer. There has been no consolidation between the three institutions in the implementation of identification of needs, hence it is still possible to have an overlap in trainings conducted. It is therefore necessary to prepare a road map to identify needs to be able to formulate training plans and formulations for the management and members of cooperatives in an integrated manner by the three cooperative training institutions.

## Preferences for Capability-Building and Enhancement Trainings Among Cooperative Members in Ilocos Norte

Maricon M. Guillermo and Catalina C. Exmundo

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### Key words

capability building, cooperatives,  
training preference

### Abstract

The study aimed to determine the preferences of cooperative members for capability- building and enhancement programs. Specifically, it determined the profile of members; their attitude toward trainings and seminars; preferences as to topic, venue, duration, medium of instruction and method of training; and capability building and enhancement program with regards to trainings and financial assistance. The descriptive method with questionnaire as the data gathering tool was used.

Study revealed that majority of the respondents have not attended any training although they find trainings important to leaders. Topic preferences are Cooperative Management and Governance, Financial Management, and Basic Cooperative Course which they prefer to be held within their barangay or municipality. The preferred duration of trainings was one day; preferred method of training was workshop, and preferred medium of instruction and lecture was a mixture of Ilocano, English and Filipino. Majority of the officers claimed that they have funded training programs but the allocated amount which is PHP10,000 and below is not enough. Most of them did not receive financial assistance for attendance in trainings from local government units (LGUs) and non-government organizations (NGOs) while those who received assistance said that it is minimal. Considering the preferences and findings, it is clear that respondents are interested to undergo trainings for better cooperative management. However, their limited budget may hamper to realize such.

Cooperatives should improve their capability-building programs and increase their budget. Accredited training providers should consider the training needs of cooperatives. LGUs and NGOs must put premium for assistance to capability-building programs of cooperatives.

## Are Cooperative Leaders Good Listeners? Understanding the Relationship between Listening and Leadership

Liezel S. Cruz

### Paper Presenter

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### Key words

listening, leadership, BOD,  
cooperative leaders

### Abstract

Effective listening is one of the basic interpersonal skills that cooperative leaders and officers need to develop in order to improve their performance at work. The purpose of this study was to investigate the relationship of listening and leadership among selected cooperatives in Biñan, Laguna. A survey using self-administered questionnaires was done with 31 respondents to measure their listening scores. The mean listening score was computed and those with scores higher than the mean were considered high in listening while those below the mean was low. Using a probit regression analysis, the result showed that being a member of the board of directors (BOD) was a significant determinant of listening. This implied that members of the BOD were more likely to have high level of listening than the members and staff. The findings of this study validated the role of listening among cooperative leaders. Practical implications were discussed, as were limitations of the study and suggestions for future research.

# DEMO-WORKSHOPS

## DEMO-WORKSHOP OBJECTIVES

The demo-workshop sessions aim to share and demonstrate some avenues for improving performance, productivity and innovativeness of cooperatives. They involve presenting new product development ideas, innovative business livelihood and activities, and available technical assistance for enterprise development.

Resource speakers are invited to share their knowledge and experiences with our participants in the hope that these valuable information can be used and adopted in their cooperatives or organizations and to equip them with the right knowhow and network base for lucrative activities and new ventures.

### A. PRODUCTS

Bees at Work	Institute of Biological Sciences (IBS) College of Arts and Sciences University of the Philippines Los Baños
The SNAP Method of Hydroponics: Now Everyone Can Grow Vegetables	Institute of Plant Breeding (IPB) College of Agriculture and Food Science University of the Philippines Los Baños
General Trias Dairy Raisers MPC Carabao-Based Enterprises: A Model of Inclusive and Chain-Wide Livelihood Opportunities	Carabao-based Enterprise Development Division Philippine Carabao Center at UP Los Baños (PCC)  General Trias Dairy Raisers Multipurpose Cooperative
Generating Money from Water Lily/ Water Hyacinth	Likhang Kamay Cooperative in cooperative with Calamba Cooperative and Livelihood Development Department (CLDD)
Farmers' Field School on Sustainable Pig Farming - An Alternative Swine Raising Technology	Department of Agriculture - Agricultural Training Institute (DA-ATI)

### B. SERVICES

Land Bank Financing for Cooperatives and Priority Clients	Land Bank of the Philippines (LBP)
Food Safety and Compliance Requirements to Local and International Standards	Department of Science and Technology (DOST)
Mobilizing Co-operatives in the Digital Age	Federation of People's Sustainable Development Cooperative (FPSDC)



## Land Bank Financing for Cooperatives and Priority Clients



**Mr. Alex A. Hinojosa**

Assistant Vice President and Head  
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Land Bank of the Philippines  
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### Speaker's Profile

Mr. Alex A. Hinojosa is Assistant Vice President and Head of Land Bank of the Philippines Laguna Lending Center. He served as an Account Officer for lending at LANDBANK for eleven (11) years and has been the head of the Provincial Lending Center for thirteen (13) years. He has been assigned in Quezon and Laguna.

Mr. Hinojosa is a graduate of Mapua Institute of Technology and a Civil Engineer by profession. But he opted to be with LANDBANK to engage in lending to mandated clients of the Bank, including the cooperatives. Mr. Hinojosa has undergone various trainings on lending operations. He has been with lending services for 29 years. He is a native of Laguna, residing in Lumban, Laguna with his wife Rina Velasco and three children: Juan Paolo, Alea Paula and Althea Paula

### Description

The presentation is about the financing programs and incentives being offered by LANDBANK for cooperatives and small and medium enterprises. The profile of the Bank shall be presented to brief the participants about LANDBANK, particularly its mandate to assist priority sectors through financing. The loan requirements for cooperatives and small and medium enterprises will also be discussed. The discussion will focus on the eligibility requirements, eligible borrowers and projects as well as documentary requirements. Included in the presentation are the loan facilities being offered for specific loan purpose, security requirements, terms and other lending features. These are expected to serve as input for consideration of the participants.

## The SNAP Method of Hydroponics: Now Everyone Can Grow Vegetables



**Mr. Primitivo Jose A. Santos**

University Researcher II  
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College of Agriculture and Food Science  
University of the Philippines Los Baños

### Speaker's Profile

Primitivo Jose A. Santos is a University Researcher at the Institute of Plant Breeding, College of Agriculture and Food Science, UP Los Baños where he works at the Plant Physiology Laboratory. His research includes studies related to climate change such as waterlogging, drought and salinity tolerance of various crops, off-season vegetable production and other studies related to crop production management, the soil fertility management in particular. All these studies are conducted in order to develop new crop varieties with better tolerance against drought, waterlogging and salinity and new varieties with higher fertilizer use efficiency.

Aside from having contributed to breeding new crop varieties, he is also instrumental in developing a number of technologies including the protocol for the mass production of compact flowering *Mussaendas* and the initiation of development of local longan fruit production in the highlands of Cagayan Valley Region, Davao, Bukidnon and Misamis Oriental. But among the technologies he developed, the SNAP hydroponics technology is still gaining popularity 15 years after it was developed.

### Description

SNAP hydroponics is a simple but reliable way of growing vegetables. Unlike commercial hydroponics systems that cost thousands to million pesos, it only costs less than 50 pesos per unit. Commercial hydroponics systems also hardly fit in small spaces typical under urban setting and they need electricity while the SNAP method easily fit in small areas and does not need electricity to operate. Leafy vegetables can be grown for 30 days without re-watering, weeding or pesticide spraying. Aside from its low-cost, the SNAP method is easy to maintain because there is no machine, no moving parts to watch out for.

## General Trias Dairy Raisers MPC Carabao-based Enterprises: A model of inclusive and chain-wide livelihood opportunities



**Ms. Anna Reylene J. Montes**

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University of the Philippines Los Baños, Laguna

### Speaker's Profile

Ms. Anna Reylene Montes is a Senior Science Research Specialist and the Carabao-based Enterprises (CBE) Development Coordinator of Philippine Carabao Center at UP Los Baños for 8 years. She develops, manages, links, and monitors CBEs in CALABARZON, MIMAROPA and Bicol Regions. She facilitates partnership between the CBEs and other enabling partners for the dairy cooperatives and associations' continuous development and improved profitability. She links the CBE chain components for optimum operation, increased market reach, and increased benefits.



**Mr. Samuel F. Potante**

Former Chairman (2013-2018)  
General Trias Dairy Raisers Multi-purpose Cooperative

### Speaker's Profile

Mr. Samuel Potante is the Chairman of the Board of General Trias Dairy Raisers Multi-purpose Cooperative between March 2013 – March 2018 and currently an active Member of the Board. He was instrumental in the following significant interventions and accomplishments: a) FDA LTO certification; b) Grant and financial assistance from International and Local Development Agencies (KOICA, PCC-SEARCA, DA, DOLE, PCAARRD, DOST, DTI, and others). He strengthened the Coop's partnership with the supply-chain components and a proud farmer with 11 heads of dairy carabaos (Italian Mediterranean, Bulgarian, Native).

### Description

General Trias Dairy Raisers Multi-purpose Cooperative (GDRMPC) is a primary cooperative demonstrating the viability and impact of carabao-based enterprises (CBEs) in rural community with significant impact in the local economy and the dairy industry. From 44 members and daily production of 10 liters raw milk by five farmers in 2005, GTDRMPC exhibited commendable growth in 2017: (a) 235 members, 120 of which are milk suppliers, and 18 staff; (b) Purchased 121, 054 liters of milk valued at PhP10.6 M; (c) Performance: Gross sales: PhP20.2M, Net Profit: PhP1.4M, and Total Assets: PhP8M; and, (d) produces and markets more than 20 types and variants of dairy products. Product tasting follows after the presentation.

## Generating Money from Water Lily/Water Hyacinth



**Ms. Arlene M. Patinio**

Vice President  
Likhang Kamay ng Kalambenyo Producers  
Cooperative

### Speaker's Profile

Arlene M. Patinio is the Vice President of Likhang Kamay ng Kalambenyo Producers Cooperative. She took her undergraduate degree from Bicol College University and participated in various trainings such as financial management and risk management courses. She also attended trainings and seminars from DOST on dyeing, hand-loomed, designing, coloring and weaving. In a seminar conducted early 2018, she has been awarded as the best weaver by DOST.

She has been practicing her craft in making bags and other accessories made from water hyacinth, beads and crochet for four (4) years now. She is also an established online seller for all her products and those made by Likhang Kamay ng Kalambenyo Producers Cooperative.

### Description

The presentation discusses the opportunity of converting water lily and water hyacinth into useful handicrafts such as bags, slippers and other accessories. The multi-stage process of hyacinth production will be discussed by the speaker. It starts from buying the materials from people living near Laguna Bay where they are subsequently dried. The plant's stalk is then flattened and applied with safe chemical treatment. The treated material will be woven, colored, and designed into attractive bags, slippers, baskets, containers and other finished products. The growing popularity of products made from water lily and water hyacinth makes it an attractive livelihood idea that provides value to cooperatives and MSMEs.

## Food Safety and Compliance Requirements to Local and International Standards



**Dr. Lydia S. Manguiat**

Chief Science Research Specialist and  
Assistant Regional Director for Technical  
Operations  
Food Safety Team  
Department of Science and Technology  
CALABARZON Laguna

### Speaker's Profile

Dr. Lydia S. Manguiat is the Chief Science Research Specialist, and the designated Assistant Regional Director for Technical Operations of the Department of Science and Technology- CALABARZON. She obtained her BS Food Technology from UPLB, MS Food Science from UP Diliman, and her Ph.D. in Food Science and Biotechnology from National Chung Hsing University, Taiwan R.O.C.

She concurrently holds positions in various capacities at her Office as: Regional SETUP Program Coordinator, Program Leader of the Regional Food Safety Program, Regional Project Coordinator of the DOST Scholarship Program, and Chairman of the BAC& PRAISE committees, among others.

In the past, she had been the Officer-In-Charge of the DOST CALABARZON in several occasions. She held positions as laboratory head, quality manager and food microbiologist for the Regional Service & Testing Laboratory. She also served as Food Product Development Specialist in a short-term international consultancy at the Ministry of Agriculture, Nausori, Republic of Fiji.

### Description

One of the challenges of globalization to the Philippine MSME food manufacturers is the compliance to local and international food safety standards and regulations. This is over and above customer expectations with respect to product quality and competitive price.

This presentation aims to provide relevant information on the requirements of Philippine Food Safety Act of 2013 (RA 10611) and other international food safety standards. Food MSMEs should comply with these regulations if they want their products to penetrate and/or remain in the local/international market. The initiatives of the Department of Science and Technology to assist the food MSMEs comply with these requirements will also be tackled.

## Farmers' Field School on Sustainable Pig Farming - An Alternative Swine Raising Technology



**Ms. Marites Piamonte-Cosico**

Center Director  
ATI Regional Training Center  
CALABARZON

### Speaker's Profile

The Center Director of ATI Regional Training Center in CaLaBaRZon who hails from Bay, Laguna has been with the Institute for 36 years now. She has graduated at the University of the Philippines Los Baños with the degree of Bachelor of Science in Statistics, and Master of Management Major in Cooperative Development in the same university. She has also Masters degree in Public Management Major in Rural Agricultural Development at the Ateneo de Manila University.

Marites Piamonte-Cosico worked her way up, starting as an Educational Researcher II to the then Philippine Training Center for Rural Development (PTC-RD). She familiarized herself with the different facets of training and extension service, working also as an Educational Researcher and a Media Production Specialist before becoming Training Specialist IV.

She has mastered the stages of training course development and served in various capacities. Through hard work and strong potential to steer the Center towards its goals and vision, she was promoted as Center Director of the Agricultural Training Institute Calabarzon on January 30, 2015. Since then, CD Cosico's leadership paved way for innovation of programs as she always raise the bar in delivering agri-fishery extension and training services in the region. One of these innovative programs is the birth of the Farmers Field School on Sustainable Pig Farming (FFS-SPF).

### Description

The Farmer's Field School on Sustainable Pig Farming (FFS SPF) was adopted and improved technology and extension modality of the Agricultural Training Institute- International Training Center on Pig Husbandry (ATI-ITCPH). FFS SPF started as a re-entry plan of the Provincial Veterinary Office of Laguna during the Training Course on Project Formulation, Management, Implementation and Monitoring for Region IVA Agriculture and Fisheries Network (AFEN) last July 26-29, 2011.

The program was launched last 2013 in three (3) pilot sites - Magdalena, Nagcarlan and Majayjay, Laguna. As of June 2018, fifty (50) batches of FFS SPF have already been conducted in the Calabarzon region. The project yielded positive results from the participants and partners, such as low feed cost, an average weight ranging from 85-95 kg, good quality meat, environment friendly and a healthier option for consumers, among others.

## Mobilizing Co-operatives in the Digital Age



### Ms. Christie Rowena C. Plantilla

Chief Executive Officer  
Federation of People's Sustainable  
Development Cooperative (FPSDC)

### Speaker's Profile

Christie Rowena C. Plantilla is the current CEO of Federation of Peoples' Sustainable Development Cooperative, a secondary cooperative based in Quezon City, Philippines focused on empowering the marginalized sector through the promotion of its 4P's advocacy - People, Planet, Prosperity and Peace.

She has been with the federation since its establishment wherein she was designated as an Account Officer in 1998, General Manager in 2003 and Chief-Executive-Officer from 2008 up to present.

She also holds positions in the committees of several other cooperatives and organizations namely, International Cooperative Alliance Asia and Pacific, Foundation for Sustainable Society, Incorporated, Network for the Development of Agricultural Cooperatives in Asia and the Pacific, Philippine Cooperative Center and National Anti-Poverty Council to name a few.

Ms. Plantilla completed a Bachelor's Degree in Accountancy from the Polytechnic University of the Philippines in Manila in 1986. Prior to FPSDC, she worked as an Operations Officer and Loan Officer in Technology and Livelihood Resource Center and Active Bank and as Account officer of Philippine Development Assistance Program.

### Description

For 20 years, the Federation of Peoples' Sustainable Development Cooperative (FPSDC) has been creating initiatives and services that would better the situation of its partner-cooperatives, while keeping the advocacy for sustainable development at its core.

In recent years, FPSDC took a brave leap and ventured into the distribution and marketing of its members' products. This initiative was fueled by the rising concern of partner farmers on unfavorable trade terms and limited market access. Currently, FPSDC houses around 20 cooperative and community products under its Farms and Cottages brand that has found its way into supermarket shelves, institutions and e-commerce platforms.



## Bees at Work



### Dr. Analinda M. Fajardo

Professor  
Environmental Biology Division  
Institute of Biological Sciences  
College of Arts and Sciences  
University of the Philippines Los Baños

### Speaker's Profile

Dr. Analinda C. Manila-Fajardo is a professor of pollination ecology and environmental biology at the Environmental Biology Division of the Institute of Biological Sciences at UP Los Baños. She has a doctorate degree in Botany and her researches and publications mostly included bees. For more than two decades, she has been deeply engaged in extension work on bees, beekeeping and pollination in more than 100 trainings, workshops and exhibits. From 2003-2013, she also served as the Corporate Secretary of the Beekeepers' Network Philippines Foundation, Inc. Notably, her services were rewarded as she has received various local, regional and national awards and scholarships related to bees and beekeeping. In 2016, after leaving the UPLB Bee Program, together with her husband and sibling, they formed a private beekeeping company - 3miel Bee Farm - where they continually perform training services, and product innovation and sales.

### Description

Social bees, like honey bees, are probably the most widely-known economically-important insects. They produce honey and pollen that we take to uplift our well-being, but their contribution to food production and crop pollination are often neglected. Though beekeeping - the science and art of managing bees - has contributed to the economy of many countries, it is still in its infancy in the Philippines. We have yet to realize the industry's potential for economic gains.

The presentation would include basic information on the kinds of bees, their ecological roles, management techniques, economic prospects and potential products.





**Institute of Cooperatives and Bio-Enterprise Development**  
College of Economics and Management  
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