

Anthology of Food Security and Food Systems Perspectives

August 2024 (First Edition)

SDSN Philippines Working Group on SDG 2

Table of Contents

Foreword by Dr Philip Arnold Tuaño, Dean ASOG

Abbreviations

Acknowledgements

Introduction to Reader on Food Systems and Food Security and Nutrition

- Introducing the Working Group on SDG2: Ending Hunger and Malnutrition: its history and evolution

Framework and Contents of the Anthology

- Key themes of the webinar series by year
 - Food Systems as a CSO preparation for the Food Systems Summit
 - Food Security in Political Platforms of Senatorial Candidates for 2021 Elections
 - Different Actors in Sustainable Food Systems
 - Food Systems Policy
 - Focus on Nutrition and Food Loss and Safety

Webinar Summaries: 2021-2024

APPENDIX A. List of all Webinars and Youtube Links 89

APPENDIX B. List of Speakers, Reactors, and Presentations 91

APPENDIX C. Working Group SDG2 Members: SDSN, AIS, ADMU, ADDU, AdC/XU.....96

Foreword

On behalf of the Ateneo School of Government (ASoG), it is with great pride that this compilation on food sustainability—a subject that resonates deeply with the core mission of our school and the integral ecology thrust of the Ateneo de Manila University- is being published. At ASoG, we are committed to cultivating leaders who can navigate the complexities of governance with a focus on the common good. Food sustainability is a vital aspect of this mission, as it lies at the intersection of environmental stewardship, social justice, and economic resilience, and hopefully contributes to the furtherance of good governance and transparency in the country.

Since 2021, the series of webinars organized under the banner of this initiative has evolved into a robust platform for deepening the knowledge and understanding of food sustainability among stakeholders across various sectors. These webinars have provided valuable insights into the challenges and opportunities within the food system, fostering a community of practice among educators, policymakers, and civil society leaders.

The evolution of these webinars reflects our ongoing commitment to advancing food sustainability as a critical component of sustainable development. Through these sessions, we have engaged with experts, practitioners, and advocates who have shared their experiences and strategies for building a more sustainable and equitable food system. This dialogue has been instrumental in raising awareness and enhancing the capacity of educational institutions and civil society organizations to address food sustainability issues within their respective spheres of influence.

The Ateneo School of Government, in collaboration with its partners, will continue to support initiatives that promote food sustainability as part of our broader effort to integrate the principles of integral ecology into governance and development practices. We believe that by fostering a deeper understanding of food sustainability, we can contribute to a more just and sustainable future for all. I thank all those who have participated in organizing the webinars these past years, including colleagues at the following institutions:

- Ateneo de Manila University: Edgar Valenzuela and Tina Liamzon of ASoG, Emman Delocado, Juan Carlos Alonsagay, Vicson Visperas and Kin Campos of the Ateneo Institute of Sustainability, Jim Acevedo and Justin Badion of the Theology Department and Enyeng Ibana of the Philosophy Department; Ophalle Pornela at the Office for Social Concern and Involvement; Leland dela Cruz, JC Capuno and Ica Pan-Villarama of the Office of the Assistant Vice President for Social and Environment Engagement for Development and Sustainability; and Milet Tendero and Michelle de Guzman of the Office of the Vice President for Mission Integration;

- Xavier University- Ateneo de Cagayan: Ruel Ravanera and Gail dela Rita, Seigred Jade Paigalan of the Office of the Vice President for Social Development;
- Ateneo de Davao University: Macoy Samante of the Social Development Council, Grace Salvie Demol.

Much thanks also to Aya Gulapa who documented and compiled the webinar summaries.

This compilation is dedicated to the memory of Lino Rivera, former Vice President for Mission Integration at the Ateneo de Manila University, who was an early supporter of this webinar series. His encouragement and vision were pivotal in inspiring the core group to continue its quest to empower stakeholders in the critical discussions on food sustainability. His legacy of commitment to integral ecology continues to guide and inspire our work

I commend the organizers and participants of these webinars for their dedication to this important cause and encourage everyone to continue their engagement in this vital work.

Philip Arnold P. Tuano, Ph.D.
Dean, Ateneo School of Government
Ateneo de Manila University

Abbreviations

ACED	Ateneo Center for Educational Development
AdDU	Ateneo de Davao University
AdeC/XU	Ateneo de Cagayan/Xavier University
ADMU	Ateneo de Manila University
AIS	Ateneo Institute of Sustainability
ASOG	Ateneo School of Government
FAO	Food and Agriculture Organization
FFW	Federation of Free Workers
FICCO	First Community Cooperative
ICCA	Indigenous Community Conserved Areas
NATCCO	National Confederation of Cooperatives
OSCI	Office For Social Concern and Involvement, ADMU
PAN	Pesticide Action Network
PMNP	Philippine Multi-sectoral Nutrition Project
PIDS	Philippine Institute of Development Studies
SEEDS	Social and Environmental Engagement for Development and Sustainability
SDG	Sustainable Development Goals
SDSN	Sustainable Development Solutions Network
UCEAC	University Community Engagement and Advocacy Council - AdDU
UNFSS	United Nations Food Systems Summit
WG	Working Group
WHO	World Health Organization
XSF	Xavier Science Foundation

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The SDSN Working Group on SDG2 acknowledges the following for their various contributions in the past to organizing the webinars:

Past WG Members: Mr Lino Rivera+, Dr Jaime Acevedo, Dr Rainier Ibana, Dr Anselmo (Boy) Mercado, Mr Charles Roberts Avila

Past Secretariat Members: ADMU: Ms Michelle de Guzman, Ms Millette Tindero, Mr Javier Baquiran, Mr Joaquin Campos, Mr Vicson Cedric Visperas, Mr John Carl Alonsagay

Current Secretariat Members: JC Capuno and Jessica Louise Pan-Villarama under ADMU AVP Dr Leland dela Cruz of the Social and Environmental Engagement for Development and Sustainability (SEEDS)

For compiling and synthesizing the presentations and inputs from speakers and reactors: Ms Aya Gulapa of ASoG.

Introduction

This Anthology of Food Security and Food Systems Perspectives is a compilation of all the webinar reports organized by the Sustainable Development Solutions Network (SDSN) Working Group on Sustainable Development Goal 2 (SDG2-Zero Hunger) in collaboration with the Ateneo School of Government (ASOG) which provided some resources for this endeavor.

The SDSN Philippines is the Philippine partner of the Global SDSN organized as the civil society counterpart following the United Nations General Assembly that finalized the 17 SDG goals from 2016, around the initiative of Dr Jeffrey Sachs of Columbia University.

Today in the Philippines, the SDSN national secretariat is provided by the Ateneo Institute of Sustainability (AIS) of which the WG on SDG 2 (Zero Hunger) is recognized. Currently, the WG has members from the Ateneo de Manila University (ADMU), Ateneo de Cagayan/Xavier University (AdeC/XU), Ateneo de Davao University (AdDU), Xavier Science Foundation (XSF), and ASOG. The secretariat of the WG on SDG2 is provided by the ADMU Office of Social Development, Environment and Community Engagement (SDECE) under the Assistant Vice President for Social Development.

The impetus for the series of webinars and this Anthology was occasioned when the SDSN WG on SD2 (Zero Hunger) organized in April 2021, the first-ever Philippine Independent Dialogue in the run-up to the United Nations Food Systems Summit (UNFSS) scheduled for September 2021. This national autonomous dialogue was foundational as it related to all the five action tracks being proposed for the UN Food Systems Summit and this Philippine Independent Dialogue report would be considered, inter alia, together with the other Inputs at the Preparatory Conference for the UNFSS in Rome and hosted at the premises of the Food and Agriculture Organization (FAO) of the United Nations in July 2021.

This Philippine Independent Dialogue for the UNFSS also had live inputs from Dr Max Finberg, Deputy Secretary-General of the UNFSS, who gave an introductory overview and framework for the UNFSS and Dr Oliver Oliveros from the UNFSS secretariat in Nairobi also spoke at the closing remarks. There were five distinguished speakers who followed the Welcome Remarks of Fr Roberto Yap, SJ and Fr Mars Tan, SJ, President of ADMU and XU respectively. The five major presenters included Dr Cielito Habito, ADMU Economics Department; Dr Roehlano Briones, PIDS Senior Fellow; Dr Assumpta Cuyegkeng, Director of AIS; Dr Larry Dimal, Chancellor of UP Mindanao, and Fr Pedro Walpole, SJ of the Ecojesuit Network Bukidnon Mission. The Open Forum was moderated by the VP for Social Development of XU/AdC Roel R Ravanera. Edgardo T Valenzuela, Convenor of the WG of SDG2 provided a perspective on the next steps during the closing session. Finally, Dr Randy Tuano of ASOG, gave the Closing

Remarks and thanked all speakers and participants for the successful event and outlined the future events to continue the dialogue.

To ensure grassroots and community inputs on the issues discussed at the webinar, a training program was organized for those who might be able to organize community fora and about a month's interval to actually submit the field reports on these community dialogues.

It may also be noted that at least two other autonomous dialogues were organized locally by a CSO and an academic organization and the Philippine (government) meeting was held on July 13-14, 2021 convened by DA Secretary William D Dar. Following the first webinar in April 2021 and the training in May 2021, the WG decided to organize on a continuing basis, 5-6 webinars each year on different aspects of the issues related to SDG2 as a way of promoting understanding on the problems and issues as well as generate continued interest in the SDGs and provide examples and perspectives of what can possibly be done towards a more sustainable future. It should be mentioned that the WG started as an informal working group of advocates interested in food security and nutrition and included other intellectuals, academics and senior practitioners who would attend on an adhoc basis. The WG initially organized other webinars in on food security in 2020, mostly targeting overseas Filipinos (OFs) and overseas Filipino Workers (OFWs) in Asia, the Middle East and Europe which included the following speakers: Fr Ben Nebres, SJ of ADMU; Mark Lawrence Cruz of Gawad Kalinga; Charlie Avila, Chairman of the Philippine Association of Small Coconut Farmers Organizations and Executive Director of the Confederation of National Coconut Farmers' Associations of the Philippines; Anselmo (Boy) Mercado, ex-Dean of the XU College of Agriculture, Randy Tuaño of ADMU, Roel R. Ravaners, VP of SD of XU, and others. These earlier webinars in 2020 up to early 2021 are not included in this present Anthology.

The webinar summaries have been clustered into the following:
Numbers 1 to 6 all relate to the inputs put together for submission to the Food Systems Summit. The following three webinars, Nos. 7-9 involved views from several political personalities which covered issues on ancestral domain for indigenous peoples, anti-poverty and rural livelihoods and rural incomes, as well as on the right to food and general human rights, which is a precondition for integral human development. Webinars 10-12 was an attempt to capture a range of partnerships in sustainable development in agri and food systems. A quick mapping of selected institutions of SDSN Philippines members showcased the variety of initiatives, followed by a webinar that focused on very specific projects. The third was a webinar which provided examples of CSO/NGO initiatives at differing levels, including one from a global perspective.

In 2023, the WG decided to organize webinars as an aid to the development of policy, whether at national or local level. The next seven webinars were designed to select an aspect of food security and or food systems development with an eye at promoting discussions to advocate

possible issues of interest for public policy and development. These webinars covered a wide range of issues cutting across various SDGs beyond SDG 2.

In 2024, the plan was to organize five webinars of which the first two have been completed in the first half of this year and are included in this anthology. The remaining three planned for the second half of 2024 will be inserted at the end of the year as part of the issuance of the 2nd edition of this Anthology.

List of Webinar Titles 2021-2024

Pathways to Sustainable Food & Nutrition, Consumption, and Livelihood Food Systems Summit #1	1
Orientation on Community Dialogues Food Systems Summit #2.....	8
Perspectives on Urban Farming and Community Gardens Food Systems Summit #3.....	14
Youth Voices, Food Systems, and the Future Food Systems Summit #4.....	21
Revitalizing Food Systems: Cooperatives Experiences Food Systems Summit #5	25
Feeding Minds, Fighting Hunger, Healing the Planet Food Systems Summit #6	30
Indigenous Peoples, Environment, and Food Systems Development with Teddy Baguilat FS & Future #1	34
Employment, Livelihoods, and Food Systems with Atty. Sonny Matula FS & Future #2.....	38
Human Rights and the Right to Food with Atty. Chel Diokno FS & Future #3	42
Food Education and Empowered Development Different Actors #1	45
The Academe Different Actors in Sustainable Food Systems #2.....	48
Partnerships Different Actors in Sustainable Food Systems #3	54
Securing Food: Availability, Sustainability, and Access Food Systems Policy #1	58
Food Security, Social Safety Nets, and Social Protection Food Systems Policy #2	62
SDG2 Book Launch of "Packaged Food, Packaged Life"	66
Sustainable Water for Food Security, Health and Nutrition Food Systems Policy #3	68
Land and Food Systems Food Systems Policy #4	72
Food Lost and Food Waste: What can be done? Food Systems Policy #5	77
Nourish the Nation: Advocacy on Nutrition	81
Safe Bites: Navigating the World of Food Safety	84

Pathways to Sustainable Food & Nutrition, Consumption, and Livelihood | Food Systems Summit #1

April 16, 2021

The Covid-19 pandemic had reached crisis proportions, impacting millions of Filipinos in terms of their access to jobs, food, and livelihood. The challenges facing food security and nutrition in the Philippines emphasize the need for sustainable food systems, community involvement, and long-term solutions to address issues like malnutrition, and economic decline. Even before the pandemic, the Philippine government's Food and Nutrition Research Institute (FNRI) estimated that about 30% of Filipino children are stunted and wasted, which will impact future generations. Thus, the Philippine inputs into the United Nations Food System Summit 2021 aimed to stimulate critical thinking and brainstorming with various stakeholders in a common effort to find solutions to food sustainability.

This event was organized by Ateneo de Manila University, and Xavier University, Ateneo de Cagayan, in collaboration with the Philippine chapter of the Sustainable Development Solutions Network. The seminar was facilitated by Dr. Philip Arnold Tuaño, and the opening remarks were delivered by Fr Roberto Yap, SJ, PhD, and Fr Mars Tan, SJ, PhD. The hope is that local dialogues will inspire community involvement and the discovery of local solutions to long-term food sustainability issues.

Dr Martin Frick, Deputy to the Special Envoy for the UN Food Systems Summit, gave an introductory message emphasizing the connection between the social and environmental crises in food systems. He highlighted the issue of food insecurity, as nearly three billion people do not have access to a healthy diet simply because they cannot afford it, leading to children who have lost opportunities for their entire lives by being wasted and stunted from a very young age. At the same time, food systems contribute to over one-third of climate emissions, and one-third of all food produced goes to waste.

The Food System Summit aimed to address these issues and go beyond food systems themselves, to build communities of practice from the bottom up while creating framework conditions from the top down. The summit's main objectives could be categorized into five action tracks: (1) ensuring access to safe and nutritious food, (2) shifting to sustainable consumption patterns, (3) boosting nature-positive production, (4) building equitable livelihoods, and (5) increasing resilience to shocks and stasis. Fifteen action areas were also identified, inspired by independent dialogues, to address various aspects of food systems. The summit was a two-way street, with the UN listening and learning from experts on the ground. The Food Systems Summit

recognized that almost 8 billion people are stakeholders, and everyone is affected by and is an actor in food systems.

An Overview on Agriculture and Food Systems and the Way Forward

Dr Cielito Habito, Professor of Economics and Senior Research Fellow at the Ateneo Center for Economic Research and Development (ACERD), gave an overview of Philippine agriculture and food systems, as well as possible outlooks for the future. He described the agriculture sector as greatly challenged but which proved to be resilient, as the sector grew despite the major economic contraction brought forth by the lockdown. While other major sectors such as industry and services experienced decline, agriculture, fishery, and forestry actually exhibited positive growth. However, natural calamities, such as the Taal volcano eruption and the series of typhoons, caused negative growth in the first and fourth quarters of 2020.

Agriculture used to be a major driver of economic growth in the early 2000s but slowed down in recent years. Domestic food production remained the primary source of food for Filipinos. The self-sufficiency ratios for key food crops ranged from 60 to 156%, but productivity was relatively low compared to neighboring countries. Furthermore, the Philippines lacked diversification in its agricultural production, particularly in cereals and horticultural products. As a result, hunger and poverty levels have increased, and the already high rates of stunting and malnutrition in young children have elevated even further.

Dr Habito iterated that the country can move forward on two important “wheels”: the digital economy, and the agribusiness food systems, which could provide for a more inclusive recovery and growth of the economy. Agriculture is significant due to its geographical prevalence across the country, strong labor-intensive nature, and interlinkages with other industries. On the other hand, the digital economy and allied industries can help foster accelerated agribusiness growth via the use of digital tools to improve finance-to-field-to-fork value chains.

Finally, Dr Habito presented design parameters for transforming the food system as in Rasco (2021). Shorter food miles from localized supply chains can reduce carbon emissions and food waste, and boost the local economy. There must also be a greater farmer share of consumer peso, which is community level value-adding, and allows for product diversification and direct selling. Facilities must also be climate and disaster-proofed, with improved logistics and diversified staples. It is also important to minimize the input intensiveness by using farm waste and by-products, good seeds, and multipurpose machines. This way, consumer health and nutrition are well sustained with minimal environmental impact.

A Perspective on Food Security and Nutrition in the Philippines

The next speaker was Dr Roehlano Briones, Senior Research Fellow at the Philippine Institute of Development Studies (PIDS). He discussed the complex relationship between food security and nutrition, highlighting the challenges in measuring food security and the importance of addressing both food security and nutrition for sustainable food systems. Food security, a relatively new concept introduced since the World Food Summit of 1996, is defined as the state where all people at all times, have physical, social, and economic access to sufficient, safe, and nutritious food that meets their dietary needs. Food insecurity, on the other hand, is a state of vulnerability to disruptions in food access, which can result in food deprivation and hunger.

Using the analogy of typhoons, Dr Briones explained that certain regions are more vulnerable to food insecurity than others. For instance, the Eastern Seaboard is more typhoon-insecure compared to regions like Zamboanga Peninsula. The speaker then discussed the challenges in measuring food security and instead focused on measuring realized outcomes, such as indicators of hunger or nutritional intake, to assess the relationship between food security and nutrition. A current example of food insecurity was the severe disruption in the pork supply due to the African swine fever pandemic, causing import crises and pork shortages.

However, it is important to realize that food security does not automatically lead to proper nutrition, as seen in the example of the Philippines, where a significant portion of the population is both food secure and malnourished. The issue of double burden malnutrition still persists, where the prevalence of obesity is equal or greater than that of undernourishment. While indicators of malnutrition, such as stunting, have been decreasing, the rate is not fast enough to meet the commitment to the Sustainable Development Goal (SDG) 2.

There is also a significant link between agriculture and food security at the household level. Contrary to the assumption that agriculture engagement leads to food security, data reveals that households involved in agriculture are less food secure than those not engaged. The key factor influencing food security is income, with the highest income households being overwhelmingly food-secure and the poorest quintile having a very small proportion of food-secure households. In 2020, during the Covid-19 pandemic, food insecurity increased significantly, with 62% of households being food insecure compared to 40% before the pandemic. Access problems, such as lack of money to buy food, loss of jobs, limited public transportation, and closed food stores, were major contributors to food insecurity.

In essence, the pandemic and resulting income loss have led to increased food insecurity and higher rates of stunting among children in poorer households. Markets play a critical role in food security, and the disruption of local supply chains has led to increased reliance on imported

food and higher prices, contributing to inflation. While improving food security is necessary, it is not sufficient to end malnutrition. Therefore, if the goal is to end malnutrition, it is important to address the multifactor conditions that lead to the long-term nutritional status of the most vulnerable members of these households.

Rethinking Sustainable Consumption and Lifestyles

In the next section of the webinar, Dr Maria Assunta Cuyegkeng, Leadership Council Chair of SDSN Philippines and Director of the Ateneo Institute of Sustainability, discussed the issue of food waste and its connection to sustainable food consumption and poverty. According to the Oslo Symposium (1994), sustainable consumption and production (SCP) is about “the use of services and related products, which respond to basic needs and bring a better quality of life while minimizing the use of natural resources and toxic materials as well as the emissions of waste and pollutants over the life cycle of the service or product so as not to jeopardize the needs of further generations.”

Food waste contributes to unnecessary use of natural resources and methane emissions, which can worsen global warming. However, the relationship between food waste and poverty is often overlooked. People in poverty resort to scavenging food from dump sites and fast-food restaurants— a phenomenon more commonly known in the Philippines as “*pagpag*,” which is a significant problem. Sustainable food consumption is a complex issue, referred to as a “wicked problem,” as it requires multiple perspectives and disciplines to solve. As a response, Dr Cyegkeng introduced the concept of systems thinking. Systems thinking is an approach that can help understand the interconnectedness of different parts of the food system and the emergence of new insights. Systems thinking involves seeing the whole and the interconnectedness of parts, synthesizing information, and understanding feedback loops.

In the context of food consumption, feedback loops can help understand how different components of the food system influence each other. For instance, the amount of table food available is often measured by the purchasing power of the population, which is influenced by the national economic performance. At the macro level, this dictates the amount of food produced, imported, and distributed, a process that inevitably produces food waste, emissions from food transport, and methane pollution from decomposition. Such a phenomenon, especially at a larger scale, can lead to extreme weather conditions that will limit the production levels of agri and aquaculture, and ultimately, reduce the amount of table food available. There are various actors involved in this feedback loop, some of them fall under socio-cultural paradigms, others have to do with the state of economy and governance, while some are within the state of the ecosystem. But much more important are the factors that fall within the realm of human activities, those that are affected by changes in lifestyle and personal choices.

Personal lifestyle choices, such as reducing food waste and consuming sustainable produce, can make a difference. However, social and cultural practices, convenience, and poverty can hinder these efforts. Thus, there is a need for enablers, such as institutional interventions, to support sustainable food consumption. Dr Cuyegkeng provided examples of community initiatives such as community fridges, where excess food is donated and made accessible to the poor, and community gardens. In Europe, excess food from groceries and restaurants is given to community fridges, while in the United States, students are encouraged to farm and garden for local access to healthy food.

To conclude, systems thinking can have a significant impact in terms of food security if: (1) the right loops exist in the system, (2) the intervention affects the right loop, and (3) there are enablers in the system that all could contribute to.

Innovating Value Chains and Equitable Livelihoods

In the following panel, Dr Larry Digal, Chancellor and Professor of Agriculture Economics at the University of the Philippines, Mindanao, discussed the challenges and opportunities faced by small-scale producers in innovating value chains and achieving equitable livelihoods. The context of the discussion revolved around the dynamic and fast-changing agricultural systems, which present both opportunities and challenges for small-scale producers such as farmers, fishers, women, indigenous people, and micro, small, and medium enterprises. These producers often struggle to adapt to the restructuring of value chains due to limited assets and access to resources. The goal is to make these chains not only inclusive but also equitable, eliminating poverty through better incomes and value distribution while reducing risks for small-scale producers and preserving the environment.

In the Philippines, only 20% of the 12 million farmers are regularly linked to value chains. The remaining 80% are not linked or irregularly linked due to subsistence farming and a lack of production surplus. The situation is particularly dire in Mindanao, where only one out of ten farmers is linked to value chains. According to the World Bank Mindanao Jobs Report, this 80% can be broken down into three categories: poor, near poor, and food poor. The report reveals that one in five farmers is food-poor, with the highest percentage in Mindanao (27%), compared to only 12% in Luzon and 23% in Visayas.

To address this issue, various entry points have been identified, including collective action, business models, policies, institutions, support systems, and research and development. A number of projects were introduced to improve income and participation of poor small-scale producers in agricultural value-chains and farming systems. Results revealed that these projects were able to improve the income of 80% of farmers by 10% to 30%. However, the impact varies across chains,

and gender, with a higher income for males compared to females, reinforcing the need for a gender-sensitive approach to value chain development.

The top five reasons for these improvements were: (1) good and appropriate training, (2) effective facilitation of project staff, (3) better technology, (4) higher price of products, and (5) better infrastructure and equipment.

Overall, these findings support the beneficial effects of linking small producers to dynamic markets. Sustaining these benefits is contingent on having a receptive business sector, organized and empowered farmers, a facilitating public sector that provides an enabling environment to developing value chains, and government partnerships.

Building Resilience to Vulnerabilities, Shocks and Stresses

The next speaker was Fr Pedro Walpole SJ, PhD, Research Director at the Environmental Science for Social Change, who discussed the principles of agroecology and its importance in enhancing food ecosystem resilience from the grassroots level. Agroecology is not only a scientific research approach but also a socio-political movement that empowers communities, especially indigenous people, to sustain their water sources and challenge corporate interests. Radical partnerships are essential to address the food-water-energy nexus, and business schools can play a role in connecting with global frameworks to promote sustainable food systems. Finally, there is the need for a more holistic process that addresses the conflicts of interest and expansionist nature of corporate agriculture, and the importance of human rights in the global management of food systems.

To conclude, Fr Walpole quoted *Laudato Si'* 82: “When nature is viewed solely as a source of profit and gain, this has serious consequences for society. This vision of ‘might is right’ has endangered immense inequality, injustice, and acts of violence against the majority of humanity, since resources end up in the hands of the first comer or the most powerful: the winner takes all.”

In the closing section of the webinar, Mr Oliver Oliveros, the Food Systems Champion Engagement Lead of the United Nations, reflected on the discussions held during the Food Systems Summit. There exists a paradox of food losses in industrialized and developing countries, with over 40% of food losses occurring at post-harvest and processing levels in developing countries. The need to address dietary balance, nutrient value, food quantity, and quality is emphasized, as the double burden of malnutrition increases. The long-term challenges of ensuring access to education for young people and addressing the economic crisis, climate change, and food waste are also.

Finally, Prof Edgardo Valenzuela, Core Faculty at the Ateneo School of Government (AOG), outlined the next steps to address some of the food security challenges. He emphasized the importance of continuing dialogues and reflection at community levels, involving various groups such as community associations, consumer groups, and the academe. The goal is to create a comprehensive societal approach to achieve the Sustainable Development Goals (SDGs). Overall, the conversation underscored the interconnectedness of food systems, nutrition, and livelihoods, and the need for collective action to create sustainable solutions.

Orientation on Community Dialogues | Food Systems Summit #2

May 5, 2021

Food availability remains one of the most pressing issues in the Philippines, where one in two children under five years old are underweight or stunted. Community dialogues were organized nationwide to address this, and the UN Food Systems Summit in September 2021 aimed to generate significant action and measurable progress towards Goal 2: Zero Hunger. The dialogues provided a platform for public discussion and reforming food systems to ensure food availability and accessibility for all. Participants are encouraged to organize dialogues and share their experiences through the Food Systems Community Dialogues template.

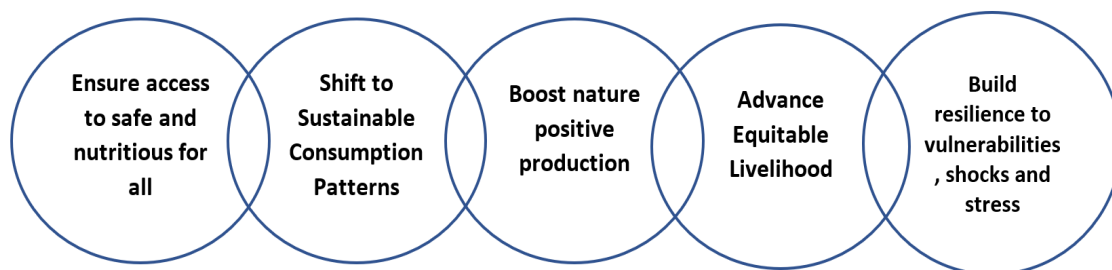
Mr Roel Ravanera, from Xavier University - Ateneo De Cagayan, delivered the introductory remarks. He acknowledged the large turnout at the previous dialogue on food security and nutrition in the Philippines, where many important questions went unanswered due to time constraints. Thus, a number of community dialogues were proposed to address these questions, and the outputs are to be documented and submitted as inputs to the United Nations Food Systems Summit in New York in September 2021. Additionally, there are suggestions to submit reports to the Philippine government and regional conferences in Asia for sharing ideas. The goal, however, is not just to provide inputs but to engage in concrete follow-up actions at the local level to address hunger and malnutrition.

To formally start the workshop, Dr Philip Arnold Tuaño of SDSN Philippines discussed the Why, What, and How of the discussion-forum on how to organize a community dialogue. The United Nations has held summits on food and agriculture in the past, and there is renewed interest in organizing food systems to support the Sustainable Development Goals (SDGs). It aimed to generate significant action and measurable progress towards the 2030 Agenda for Sustainable Development, and develop principles to guide governments and other stakeholders looking to leverage their food systems to support the SDGs. There is also a need to create a system of follow-up and review to ensure that the Summit's outcomes continue to drive new actions and progress.

Dr Tuaño also talked about the conceptual framework for Food Security, wherein he defined food security in such a way that “all people, at all times, have physical, social, and economic access to sufficient, safe and nutritious food that meets their food preferences and dietary needs for an active and healthy life” (International Food Policy Research Institute). With this definition, the issue of food security is not exclusive to agriculture alone, but in actuality cuts across various disciplines such as economics, medicine and political science. Dr. Tuano also discussed how these independent dialogues are being conducted all around the world despite constraints brought about by the pandemic, and how materials will also be made available to anyone interested in organizing their own dialogues.

After the introduction provided by the first two speakers, the group went into two breakout sessions as a simulation to the actual community dialogues. Participants were given an option to choose between two action tracks out of the five that were recommended - either track 2 on sustainable consumptions, or track 5 on the environment (see Figure 1).

Figure 1. United Nations Action Track



Break-Out Sessions

Break-Out Room 1: Environment

The discussion in Break-Out Room 1 was facilitated by Ms Gail de la Rita, Assistant to the Vice President for RSO of Xavier University. It was opened with a recap of the UN Action Track No. 5 or Building resilience to vulnerabilities, shocks, and stresses” and was framed in the Environment lens. Ms de la Rita went through each of the attendees and asked what their interest was in attending the Community Dialogues. One point that was raised during the introduction was the hope that these Community Dialogues help people gain new mindsets or perspectives on how people can contribute to the issue of food sustainability. As these break-out sessions serve as simulations for future dialogues, the session now aims to stimulate curiosity and the willingness to initiate community dialogues within groups.

To start, Ms De la Rita rehashed that the purpose of the break-out session was to stimulate a discussion on possible solutions for building resilience within food systems when faced with environmental vulnerabilities, shocks, and stresses. Given the context of the Covid-19 pandemic, she stresses out the importance of ensuring that food systems are regenerative in terms of their ability to function and deliver food in the face of present and future shocks, while sustaining a healthy environment when producing food. As a guide, the discussion proper consisted of a demonstration of using the list of questions provided in the Organizer’s Guide for Community Dialogues.

1. What are the immediate problems and needs of the community?

The Essence of Food Sustainability. How does one assess their own contribution to food sustainability? It is important to assess consumption using a life cycle assessment (LCA) starting from pre-production until disposal. It is more important to be aware about what we do with what we consume rather than which material (such as paper or plastic) has less impact on the environment.

Environmental Health, and Food & Safety. Unregulated agrochemical use is problematic in the sense that it can affect other basic necessities of households such as water. Run-off may end up in groundwater affecting potability of water. Another problem is the health and safety of farmers. Some are not equipped with proper attire when applying agrochemicals and the effect is a potential build-up or bioaccumulation through time. More toxicological studies are advised in light of these issues.

Nutrition and Health in the Field of Functional Medicine. When talking about nutrition, the issue is finding the root cause of chronic illnesses. Often, it is caused by what people eat. In terms of food intake, the perception of people focuses more on the amount of food but not its quality. Zooming in, quality does not just entail macronutrient intake, but micronutrient intake as well, which is less observed. Both are important to measure as well as the food source, due to the presence of agrochemicals and the body's natural detoxification processes.

Environmental Education and Food. Another problem is a lack in environmental education pertaining to the health of the people who rely on the environment for food and other basic needs such as how the fisheries depend on the health of coral reefs. In relation to this, there is the problem of the rise in illegal fishing since the pandemic. Environmental education can help with this problem in terms of changing one's behavior or perspective on how to acquire food.

Food Mobility and Food Waste. There is a delay in the production of certain food and getting that to markets across the country resulting in food waste. This is possibly due to 3rd parties in between food production and food distribution.

Break-Out Room 2: Sustainable Consumption

The second breakout session was facilitated by Dr Anselmo Mercado, Chairman of Board of Trustees for First Community Cooperative (FICCO) Community Outreach Foundation (FCOF). Participants from this breakout session mainly came from the academic sector (Ateneo de Manila

University, Foundation University Dumaguete, De La Salle University - Jesse Robredo Institute of Governance, Ateneo School of Medicine and Public Health); however, these participants are based in different regions across the country, ranging from Metro Manila, to Dinagat Islands, Dumaguete, and Cagayan de Oro.

After a quick round of introductions from the group, Dr Mercado then proceeded to talk about sustainable consumptions, and emphasized the need to look at pathways, allowing the participants to remain hopeful about solutions despite the many challenges in dealing with the issue of food security. Given the complexity of the subject matter, he also narrowed down the subject matter of sustainable consumption- from production to consumption.

1. What are the “pathways” to be able to deal with the challenges, economically, socially, politically, at the local & national levels?

Systemic Pathways. The cooperatives are one pathway to sustainable consumption. For instance the cooperatives in Mindanao, are one of the pathways to address farmers’ problems and to reach out to consumers. Rice farmers are putting their produce into cooperatives, who help process and market the products. Cooperatives in various cities are taking sacks of rice from that processing plant, and distributing them to consumers. Farmers are helped by putting their production into their processing plant, and they get better prices because of the marketing and distribution system. In Dinagat Islands, they have a weekly market where farmers go to the streets, and they directly sell their goods. The provincial government has also provided logistics support for this initiative. Through this system, the farmers collectively earn Php 100,000 per week. Being a long-established community-wide practice, it’s something that can also be looked into culturally.

Local Pathways. In Taiwan, they have some small plots where they could plant food and vegetables. It’s a small thing, but if scaled up, it can reduce hunger and malnutrition. Sa dami ng nawalan ng trabaho, a few vegetables can help. Local markets and sari-sari stores are really a pathway, especially given that it reinforces the sense of community. At the moment, the sari-sari stores are the source of a lot of junk food, which is a problem - but there’s also potential in making these sari-sari stores the source of nutritious food for local communities. Urban food systems are also important, as urban settings are quite condensed.

Role of Government. As much as community pantries are an admirable effort, it would also be more ideal if these initiatives are state-led.

Community Pantries. Community pantries are inspiring, and show that Filipinos are very generous and kind people. They try to help out in whatever way they can. Despite this, from a cooperative point of view, there's no sustainability. Although the resources are there, will they last? How long will it last?

The pandemic allowed for entrepreneurs to coordinate with farmers and cooperatives directly, including the delivery systems that boomed economically during the pandemic. Despite this, the presence of middlemen can also be a potential constraint in the system.

2. What do you think may be the challenges along the way?

Local Policies. It's important to look at local policies, because although there is support for privatized markets and the like, sometimes the 'informal sellers' (or those who intend to sell their products without necessary permits) are not protected or are made to leave. There needs to be a conversation with local policymakers about how to be able to support these pathways better.

Support for Cooperatives. There are a number of cooperatives, but only a few agricultural cooperatives. The challenge is continuing the support for them by implementing these ideal systems within their own local communities.

Logistical Concerns. One of the challenges is also the pandemic, wherein logistics are a problem. Even if people are motivated to help others towards sustainable consumption, the constraint of the lockdown poses certain logistical challenges which deter this initial goal.

Interest in Nutritious Food. Another challenge is getting people to become interested in eating healthier foods. In sari-sari stores, for example, junk food is more readily available. Perhaps one aspect that can be explored is the avenue for the sari-sari stores to provide more nutritious food instead.

Interconnectedness of Pathways. There are a number of pathways available in terms of sustainable consumption, but these different pathways are not interconnected or don't link well with each other. With this in mind, the academe can play a big role in helping link these various pathways.

Plenary Session

After the breakout sessions, both groups got back to the plenary, facilitated by the Director of the Office For Social Concern and Involvement (OSCI) of Ateneo de Manila, M. Ophalle Alonza-Pornela. Mr Edgardo T. Valenzuela and Mr Roel Ravanera started the discussion by sharing their thoughts on the Community Dialogues as a whole. They reiterated that it is not enough to stay on the level of issues, but people must look for ways to address them as well. Despite being long-term, small contributions help achieve goals like the targets set by the SDGs in the future. It might be easy to start with one's peers or immediate small groups.

Summary points from each breakout session were then discussed by a representative from each room. Ms Gail de la Rita, the moderator for Break-out Session 1, emphasized that in tackling the problems mentioned, context is needed when having dialogues on them. Aside from this, there is a need to prioritize the issues with greater impact to the population. Agriculture in the Philippines, for instance, still poses one of the biggest challenges in the country in terms of equitable livelihoods and food production sustainability across disciplines.

The discussions for both breakout rooms were fruitful; however, time constraints were really a challenge, with the first group only being able to tackle one question out of 10, and the second group only being able to tackle 3 out of 10. The participants were then asked to provide feedback on the session itself and how it can be improved further.

One point of feedback given was to utilize technology for online community dialogues, through the incorporation of other platforms such as Jamboard or Miroboard in order to visualize the ideas shared, facilitating the discussion further. Another point of feedback given was to reach out to other participants outside of the academe in order to stimulate more diverse conversations. Promoting through social media platforms would also be beneficial in promoting these events. Ms Alzona-Pornella and Ms Michelle de Guzman of SDECE closed the discussion by thanking the participants for their active engagement all throughout the session.

Perspectives on Urban Farming and Community Gardens | Food Systems Summit #3

June 25, 2021

Given that the issue of community pantries has dominated the social milieu in the different urban population centers in the country, focus has been now given to the issue of malnutrition and hunger among marginalized communities in the country during the COVID-19 pandemic. According to the Social Weather Stations in their November 2020 survey, around a fifth of the population has experienced hunger; at the same time, the pandemic has not eased the situation of malnutrition, especially among the younger population. The 2018 Food and Nutrition Research Institute of the Department of Science and Technology has shown that around a third of children under five years old experience stunting.

Urban farming or community gardens could provide a solution to the lack of the availability of food in urban areas. Universities can play a critical role in ensuring food sustainability and availability as they provide venues for faculty and students to be engaged in advancing skills and knowledge in sustainable agriculture and developing local food systems through courses and laboratories that incubate the growing of produce. But there are also lessons that universities can learn from practitioners of urban farming and community gardens which they can adapt and also contribute to better nutritional status of their stakeholders and the surrounding communities.

With this, following the first two events related to the UN Food Systems Summit, Ateneo de Manila University, Xavier University, and the Sustainable Development Solutions Network - Philippines once again convened to organize an event, this time focusing on Perspectives Of Urban Farming and Community Gardens, held last June 25, 2021 from 10AM to 12NN.

The objectives of the event were as follows: (1) to discuss models of community/ urban farming in urban centers in the country; and (2) to derive lessons for universities and other institutions in the provision of food and strengthening food availability among marginalized communities. The summit featured presentations from various academic institutions, civic society groups, and government agencies, emphasizing the importance of collaboration and harmonized strategies. Speakers shared their experiences and innovations in urban farming and community gardens, highlighting the resilience of communities and the need for government support. Participants also discussed the challenges and opportunities of urban farming, such as limited resources and the need for technological and financial support. Overall, the summit emphasized the potential of urban farming and community gardens as solutions to food insecurity and malnutrition among marginalized communities.

There were at least 180 participants throughout the duration of the event, with participants coming from the academe (Ateneo de Manila University, Xavier University, Adamson University, Pamantasan ng Lungsod ng Muntinlupa, etc.), government (Department of Education, DOST-FNRI) and civic society organizations (Rise Against Hunger PH, Bokashi) among other institutions.

The event was moderated by Ms Abigail Favis, Program Manager for Campus Sustainability at the Ateneo Institute of Sustainability (AIS). She started off the event with an opening prayer led by Ms Ophalle Alzona-Pornela, the Director of the Office For Social Concern and Involvement at ADMU, followed by opening remarks given by Dr Philip Tuaño, the Program Manager for the Sustainable Development Goals at the AIS. In his opening remarks, he welcomed the attendees and gave context to the event as a continuation of the community dialogues following the Food Systems Summit Independent Dialogue held last April 16. He gave emphasis on the role of the academic community, especially in the light of community pantries that were being established in response to the hunger and malnutrition during the pandemic. “We hope that the discussion today further deepens the understanding of the important role that the academic sector can play in addressing the malnutrition problem in the country, not only through research studies and instruction, but actual outreach programs using the natural and human resources that universities have” (Tuaño, 2021).

Urban Farming: Beyond Community Pantries

The first intervention was made by Fr Daniel Pilario PhD, Professor and Dean at St. Vincent School of Theology. He started his talk with a video presentation on the urban farming initiative at Payatas, Quezon City as a response to challenges such as hunger and its crisis interventions that are short-term, as well as the fear from social issues such as the militarization of the pandemic and extrajudicial killings.

Currently, there are 15 urban farming gardens that have been set up in Payatas. The reason for the success of the urban farm initiative was due to factors such as the sense of community (Basic Ecclesial Communities, continuing community building, Church at the grassroots), solidarity brought about by women empowerment, networks that were available to support, and a sense of Faith (God, people, nature) that contributed to a sense of resilience among the community members. In fact, prayer sessions among the community still continue while they are working on the urban farm. However, like in any other project, the urban farming initiative was also faced with a number of challenges as well, such as: (1) The problem of location (Payatas as a garbage dump site; issues with soil fertility; precariousness of non-owners), (2) the question of sustainability (present food needs, small land area, market), (3) the need for technological and financial resources

(know-how in organic farming, seeds, tools and implements, garden infrastructure), and (4) the dangers of cooptation.

As such, the community continues to find creative solutions to these challenges presented, such as business opportunities from what they are able to harvest, as well as reusing and recycling materials for the maintenance of the urban farm.

Urban Gardening Flourishing Post-Pandemic: It's Time For Cities To Encourage New Growth

The second speaker was Ms Cherrie Atilano, President and Founding Farmer of AGREA Philippines. Ms Atilano started her talk with some context on how she started the initiative at a young age, citing her personal observations about the potential for farmers to provide food for their families through urban gardens. She proceeded to talk about AGREA as an agribusiness, with the idea of 'ecology of dignity' at the center. Despite the pandemic, as well as the typhoons in the Philippines last 2020, AGREA continued to support around 30.000 farmers to bring their produce to the city.

Among their other initiatives, urban farming continues to be one of their main initiatives, one of which is done through garden classrooms in public elementary schools. The guiding principles for these garden classrooms are as follows:

- [The produce should be] food for the table, [the source of] income [should come] from savings of buying food from the market, [the initiative should contribute to a] greener environment
- Organic and regenerative agriculture
- Use of open-pollinated seeds so that seeds can be replanted
- Focus on local Filipino vegetables (e.g. vegetables for sinigang and pinakbet)
- Recycling, repurposing and reusing of materials
- Utilize empty lands and empty spaces
- Edible gardening
- Whole family participation
- Gender-sensitive
- Child-friendly and educational
- Inclusive and collaborative in nature
- Inspires collective action

Aside from classroom gardens, community gardens are also encouraged by AGREA within their partner communities. During the pandemic, the organization initially worked to donate

produce to different organizations, however, they eventually shifted their focus to an initiative called Plant, Plant, Plant to encourage urban gardening by providing grow kits to communities. For this program, coconut farmers were asked to produce organic soil and grow seedlings, and these kits would be delivered to more than 1000 mothers in urban communities.

Sustainability of Agriculture Projects

The third topic was delivered by Mr Floro Dalapag, a Professor of the College of Agriculture at Xavier University. Among Mr Dalapag's expertise are Organic Agriculture, High Value Crops, and the Value Chain. He started his talk by focusing on the technical aspects of urban agriculture as well as his personal experiences and advocacies on the topic from his days as a student to his current profession and engagements. He went on to present the various benefits of urban farming particularly in making cities green and decreasing food miles by bringing farming into the heart of urban centers.

Mr Dalapag has a rich personal and professional experience in Urban and Organic Agriculture. Among the challenges of organizing agricultural engagements, it is the sustainability mechanisms involved in these projects that remain to be the biggest challenge for practitioners and advocates. He shared his experience in handling community-based urban agriculture projects and the challenges in sustaining them:

Experience on Community Garden in Relocation Sites: The Xavier Ecoville Experience

The project was an emergency response initiative after super Typhoon Sendong hit Cagayan de Oro City in 2011. Xavier Ecoville served as a relocation and rehabilitation site for typhoon survivors where vacant lots in the community were utilized for community gardens. The project did not focus on gardening alone but included waste management and utilization of urea from urine as an organic fertilizer for the gardens. The initiative was presented as a livelihood option rather than a "grow your own food" perspective and as experienced, community gardens require a lot of communal work hence sustainability is heavily dependent on community members. Although many of these gardens have not been sustained, there are individual households practicing mini urban gardening in their backyards.

Experience on Allotment Garden: The Peri-Urban Vegetable Project (PUVeP) Experience

The project was initiated by Xavier University and established a good model for LGU Partnership. It is a small-scale initiative which is dependent on vacant lot utilization, and it had to be agreed among operators whether it was an alternative source of livelihood or an alternative food source. As an alternative source of livelihood, prices of produce are volatile and in turn was not as

competitive compared to commercial agricultural produce. After the funding, most of the supported areas no longer exist while there are 7 allotment gardens being maintained by the LGUs in different locations in the city and province. Pre-pandemic, the Philippine Agriculture Office of Misamis Oriental implemented weekend markets where produce of the allotment gardens were displayed/sold but because of pandemic restrictions, the markets were discontinued. To market the produce, the LGU partnered with FICCO, a local cooperative, to purchase the produce of the allotment gardens. Moreover, there is relative success in parallel ornamental growing of plants in PUVeP communities where housewives/women were trained to practice ornamental growing. To market their plants, they were linked to landscapers through the Department of Agriculture where beneficiaries were financed to participate in garden shows locally and nationally. Through the program, small women growers were able to sell and maintain propagation of ornamental plants.

School-based Urban Gardens: The Boys Town and Balulang Elementary School Experiences

The student organization, PAA Jrs, partnered with Balulang Elementary School to initiate a school based urban gardening. The initiative won the Lockton Legacy Award in 2019 where focus was on waste utilization through black soldier fly and self-regulating hydroponics by recycling plastic bottles. Black soldier flies can be used to recycle food and market waste which may be used as organic fertilizer. The lingering question however was whether the practice taught to children in school is duplicated/replicated at home.

From his experiences, Mr Dalapag went on to share some learning points on sustaining Urban Agriculture Projects. He shared that through home-based gardening we can promote “grow your own food” as well as “grow functional foods” such as medicine. Eventually, there is no need to purchase food supplements by encouraging households to make their own alternative/natural medicines. He added that school based initiatives can address the concern on ageing farmers by introducing agriculture as a science and profession for the next generation. These initiatives can also serve as an environmental advocacy by introducing bioconversion and organic waste utilization. While the practice of community gardening can advocate for edible gardening and landscaping.

Mr Dalapag emphasized the need to engage with local governments to ensure long term support. He stressed that Urban Agriculture should be multi-sectoral and program-based while nutrition should be included in its direction. Further, youth involvement is also important to continue molding next generations of agriculture trailblazers.

Urban Agriculture & Community Gardens: Addressing The Challenges

The fourth discussant was Dr Teodoro Mendoza, a retired professor at the College of Agriculture and Food Science in UP Los Baños. Dr Mendoza is a multi-awarded scientist and educator who specializes in Crop Physiology and Ecology. He has a 30-year experience in working with civil society organizations. Dr Mendoza started his discussion by sharing his professional background on urban agriculture stating that he was encouraged to become an agriculturist because of the influence and inspiration of his parents. Most of his career was devoted to the study and advocacy of organic agriculture, particularly its energy footprints.

Dr Mendoza went on discussing the implications of urbanization in the Philippines which covers 11% of the country's total land area. He shared that this is a significant development which will affect food source and land use. He stressed the importance of the passage of the country's land use act which is long overdue in the Senate and Congress for 30 years. Because of rapid urbanization there is a need to redesign houses to accommodate rooftop gardens and amendment of the building code to accommodate planting crops in building spaces. Further he emphasized that land conversion has caused the conversion of irrigated rice lands to non-agricultural areas which in turn affected the supply of rice. Dr Mendoza encouraged the transformation of community gardens to gardens in every household as there is a need to localize food sources to provide for the country's growing urban population as well as avoid seasonal price surges. The growing population and the pandemic in the country has led to logistical challenges in terms of transportation and other logistical requirements to reach the households. There are also several processes involved that increase the prices of goods such as packaging, storage, and warehousing.

In addressing the production challenges in urban centers, Dr Mendoza recommended the redesigning of toilets to utilize human waste for organic fertilizer, composts, and biodegradable waste, engaging in hydroponics and vertical gardens, planting less water consuming plants, and practicing biodegradable waste composting and waste segregation.

In addressing knowledge and capability building, Dr Mendoza suggested a shift from a food eating culture to a food growing culture which in turn requires dedication, commitment, and passion for urban food production. He added that the role of parents is critical in forming the hearts and minds of their children by investing in knowledge development and appreciation among the youth so that they can further the studies and interest in discovering innovations on urban food production. He stressed further that there is a need to arrest the country's growing population as the carrying capacity of agricultural lands is 30M only, while the country's population has already reached the 100M mark with a growth rate of 1.7% or 2M children per year.

Dr. Mendoza ended his discussion by proposing solutions to food proofing the future. He shared that organic farming is a more appropriate option for urban food production. This implies that we need to be innovative, transformative, creative, resourceful, and passionate in order to form smart cities. Finally, we need to work together, the rich should help in financing, the knowledgeable should help in knowledge and skills development and the leaders need to help address bottlenecks through laws and ordinances.

The program was then concluded by Mr Roel R. Ravanera, the Vice President of Social Development Xavier University - Ateneo de Cagayan. Below was his closing message:

“This has been an impressive and noteworthy conversation that hopefully created ripples and or waves of transformation in our dysfunctional global food system. Hopefully in the next conversations, we can allot more time in our discussions especially for those who would like to try this in their own backyard or in their own communities.

Through urban agriculture and community gardening, we will shorten the food distance and focus our attention more in ensuring health and nutrition in caring for the environment and in providing livelihood to producers. We have heard from our speakers the importance of healthy food as a major consideration, not just price, taste, or convenience. Dr Ted emphasized the need to change our farming system with more diverse and integrated processes towards taking care of our environment and producing food for all given the high incidence of poverty among the urban communities. Especially in this time of pandemic, these engagements can also provide livelihood to our producers. I also appreciated the questions and suggestions by the participants in the chat box such as the food forest in the park or the role of community education and that providing more support like farm to market roads can go a long way in terms of moving forward with this initiative. I find these initiatives as very positive developments and they are really encouraging but what is really inspiring and can move us to tears are the smiles on the faces of farmers - full of hope; likewise advocates can be full of joy in being able to serve others.”

Youth Voices, Food Systems, and the Future | Food Systems Summit #4

September 01, 2021

Food systems is a complex issue that is connected with other social concerns such as climate change and social inequity, but more importantly, it is intergenerational. Left unaddressed, young people will face even bigger challenges related to food security and nutrition in the following years. Which is why youth engagement and social awareness is crucial. In this summit, youth leaders share their creative ideas for transforming communities into sustainable gardens and mini forests, with a focus on involving the community in the process and empowering them to take ownership of the spaces. The speakers encourage listeners to take action, no matter how small, and believe in the solutions to create change in the food systems.

Mr Roel Ravenera, the XU Vice President for Social Development , delivered the opening message. The ensuing dialogue was moderated by Ms Gail De La Rita, where youth leaders Ms Xyla Mercedita Gualberto and Ms Suzie Agustin shared their experiences promoting food systems and involving more young people in the process.

Food and Future

Ms Xyla Mercedita “Tat” Gualberto is an environmentalist and currently the Programs Associate for Mindanao for Action for Economic Reforms (AER). Tat is also involved in various NGOs, where she has worked on resource conservation with indigenous peoples and smallholder farmers for over seven years. As a millennial, Tat shared her experiences and perspectives on the challenges facing young people, particularly in the context of food systems and environmental issues.

The Deloitte Global 2021 Millennial and Gen Z Survey revealed that about 41% of millennials from over 45 countries including the Philippines are stressed all the time, and most of this is due to uncertainties: about how and when the pandemic will end, about the alarming rate of climate change, and the shrinking amount of resources available for themselves and their families. Tat highlighted the growing inequality and vulnerability to climate disasters, using her personal experience of typhoon Sendong as an example. In 2011, typhoon Sendong caused 2 billion worth of property damage and affected over 700,000 individuals. 1,200 lives were lost in just a matter of hours, and those living below the poverty line took the brunt of the damage.

She explained how the deforestation of Mt. Kalatungan Range in Bukidnon contributed to the massive damage done by typhoon Sendong. Mt. Kalatungan is a key biodiversity hotspot and a major water source for Cagayan De Oro and North Cotabato. It is also the main ancestral domain of the Talaandig and Manobo tribes. In collaboration with Xavier Science Foundation, Tat was

engaged in projects on environment, land tenure, and food security— all of which are tightly linked to one another.

One such project was the Payment for Ecosystem Services (PES), which incentivized farmers to provide ecosystem services in exchange for monetary compensation. The project aimed to promote sustainable water supply, clean air, flood mitigation, and biodiversity conservation.

Another initiative, known as Enhancement of Community Capacity for Sustainable Ecological Protection and Economic Development (ECoSEED), was focused on empowering indigenous women to initiate forest-friendly social enterprises and engaging youth in discussions about reforestation and land governance.

Finally, Enhancing Tenurial Security of Smallholder Farmers in Northern Mindanao, was a program that trained farmers, women, and the youth on how to use digital tools that can create social tenure instruments, addressing issues of overlapping land claims and land-related family feuds. Having been equipped with this skill set, farmers grew more confident in their relationships with their ancestral lands and using it productively.

The speaker emphasized the interconnectedness of forests, farms, food and the Filipino people— four F's that need to be uplifted simultaneously. Without forests, there would be no water, and without water, farms will be unable to grow food that will sustain the Filipino people, leaving them perpetually stuck in the cycle of poverty. These challenges are a race against time, especially since the average age of a Filipino farmer is 57 to 59 years old. Without trained second-liners, the country is bound to lose its main food-producers within the next decade. Which is why it is of utmost importance to engage more young people in agriculture and create platforms for collaborative landscape governance to secure ecosystem services for future generations.

Through her experience and platform, Tat encouraged awareness, conservation through conversations and education, and future-proofing diet and consumption patterns as ways to create positive ripples in agriculture. She also emphasized the importance of engaging local farmers, exploring innovation, and using data-driven approaches to address food system challenges. While the Millennials and Gen Z's may be a stressed generation, the survey revealed that they have long since pushed for social change, and are determined to hold themselves and others accountable on society's most pressing issues. Ultimately, this belief in their individual power to drive social change may very well be a key leverage to have at a time such as now, when the world is at a pivotal moment.

Food and Youth: A Coming-of-Agency

The next speaker was Ms Suzie Agustin, the Head of Strategy for Pocket Garden and Venture and Fellowship Manager at Ashoka Philippines. Suzie discussed her work in food systems and her involvement with two organizations, Ashoka and Pocket Garden.

As a member of Ashoka Innovators For The Public, Suzie initially mapped out ecosystems and interviewed leading social innovators in the food sector. Her deep conversations with these individuals led her to focus on sustainability and community activation through Ashoka and, eventually, the creation of Pocket Garden. Ashoka is an organization that identifies and supports social innovators with systems-changing solutions for the world's most pressing social issues. Pocket Garden, on the other hand, is a collective of designers, gardeners, farmers, and architects that aims to create shared green spaces in urban areas for healthier and better lives for Filipinos. The group co-creates and co-designs green open spaces through innovative design, collaborative research, and green space-making. Their goal is to convert unused urban pockets into greener public spaces and potentially open avenues for food production.

Coming from these personal experiences, Suzie shared three main perspectives as a youth leader and urban environmentalist. Firstly, the youth want a just food future—one that is equitable, prosperous, and regenerative. In 2015, the National Youth Survey revealed that 85% of youth respondents believed agriculture was a viable means of livelihood but felt disconnected from it due to a lack of understanding of the food supply chain. Additionally, the Young Indigenous Peoples from the Pamulaan College see and believe that their indigenous knowledge of food is not only culturally valuable, but also environmentally and economically sustainable. These narratives evoke the importance of food literacy as well—that individuals must recognize and appreciate the abundance and nutritional benefits of indigenous food sources. This way, agriculture can be a valuable source of income that is attractive to the youth moving forward. A sustainable food future is not a zero-sum game, instead there is a way where everyone can contribute and benefit.

Another example given was the Pocket Garden Project in Pasig, which focuses on creating a community-based urban food security solution by having a deep understanding of climate-smart crops and a disaster-resilient closed water loop system. Suzie encouraged moving beyond large, technologically-advanced solutions and instead focusing on local, community-based initiatives. Contrary to popular belief, smart agriculture does not mean automated agriculture, and there is an opportunity to bridge the gap between youth's desire to address environmental issues and their food procurement choices.

The second perspective iterated that food can be connective and catalytic for youth changemaking. While the youth can be fragmented and isolated before the pandemic, in general

they are a generation that values purpose over profit and diversity over efficiency. With the radical shared experience of dealing with climate change and a global health crisis, more and more are coming together and hope to collaborate. The youth are willing to be useful to others more than previous generations and are constantly looking for ways to make themselves useful to the world, and in a 2016 Rappler Survey, young people ranked the environment as their top advocacy.

The last perspective that Suzie discussed was that the youth see and want new and improved roles and approaches. The youth express a deep dissatisfaction with the current systems architecture, meaning that there is a lot of room for improvement and a lot to be done. In fact, Filipino youth from both private and public schools share the view that inequality will not be addressed by maintaining the status quo, and they believe that the current system recreates and reinforces inequality (The World is Unfair: Young People and Inequality, 2020). The youth see that agriculture is being given low importance in the Philippines, but recognizes its inherent value and wants to work in the food system. Thus, there is the need to create platforms, programs, and incentives for young people to cultivate their ideas for a better and just food system, and to enrich urban youth's experiences and exposure to agriculture.

Following the plenary, Ms Francine Mamba, an AB Philosophy alumna from the ADMU and advocate for sustainable development, expressed her inspiration from Suzie and Tat's stories and encouraged everyone to look beyond problems and believe in the solutions to create change in the food systems. She emphasized the importance of taking action, no matter how small, and how individual efforts can have a ripple effect on the community and environment.

The food challenge goes beyond individual plate waste and involves wasted resources such as water, soil, and energy. Agriculture, which has transformed the way of life and the planet, needs a new approach that blends commercial agriculture, organic farming, local food, and environmental conservation. The youth were encouraged to find their place in this grand challenge and lead the way towards food literacy and sustainable food systems for the survival of current and future generations.

Revitalizing Food Systems:

Cooperatives Experiences | Food Systems Summit #5

October 13, 2021

This webinar commemorated the 40th anniversary of World Food Day, established on October 16, 1981, and the United Nations Food Systems Summit that was the impetus for this webinar series. The panel provided valuable insight on the importance of cooperatives in revitalizing food systems, particularly in the Philippines, as well as the role of cooperatives in improving access to markets for small producers, economies of scale, food safety, and environmental sustainability. The event is organized by various universities and research organizations, including AddU, ADMU, XU/AdC, in partnership with the Sustainable Development Solutions Network.

Mr Edgardo Valenzuela, a development expert with over 40 years of experience on food systems, and Professor at the ASOG, delivered the introductory remarks. He highlighted the significance of viewing the issue using a value chain approach; examining the linkages between the processes involved in production, post-production, logistics/distribution, marketing, and consumption. All of which are important areas that can help farmers obtain better access to markets, and thereby satisfy the growing consumer market demand for healthy and nutritious food. By working together with cooperatives, it would also be possible to achieve what is known as economies of scale— increased productivity relative to input, and lowered production costs down the line. Finally, all of these can be done through a framework of environmentally sustainable and climate-friendly production. Thus, there is a significant beneficial avenue for cooperatives to become the leading suppliers of safe, nutritious, and quality food, and strategic networking and stakeholder involvement is critical in achieving this vision.

“Cooperative Tree:” Its Roots, Growth, & Fruits (The FICCO Story)

The first presenter, Dr Anselmo Mercado, was introduced. He is a rural social development practitioner and cooperative promoter with over 44 years of experience at the Agriculture College of Xavier University. He is a member of the First Community Cooperative (FICCO), where he also served as chairperson.

Dr Mercado opened his talk by sharing his personal experience with poverty and its interconnected causes. Situated within the Philippine Rural Reconstruction Movement (PRRM) (Flavier, 1970), the vicious cycle of poverty results from interlocking problems of low productivity, illiteracy, civic inertia (non-participation, voicelessness in decision-making), and poor health. All of which “cannot be solved if dealt with separately, as all aspects affect each other.” Poverty, therefore, is not the root problem but rather a symptom of an unjust social

structure, maldistribution of wealth, and the widening gap between the rich and the poor. Hence, there needs to be a shift from an economic development model to a human development model. One that aims for equity, social justice, and people's participation; and emphasizes the importance of liberating people from every condition that prevents them from becoming as fully developed as possible morally, intellectually, socially, politically, and economically.

The story of the First Community Cooperative (FICCO) is one such example of this grassroots approach to development. Cooperativism is a positive model that goes beyond the traditional problem-oriented approach. The Cooperative tree has three dimensions: the union of people with principles of equality, democratic control, and neutrality; the business enterprise where profits are distributed back to members; and self-help and mutual help, also known as Brotherhood economics.

The roots of this Union of people are self-help, trust, and confidence in the organization. By taking care of the roots, one can get the fruits of quality services, products, productivity, economic benefits, and member empowerment. The Cooperative movement in Mindanao, Philippines, was started with a small school credit union and has since grown into the First Community Cooperative (FICCO), with branches all over Mindanao, Visayas, and a few in Luzon, celebrating its diamond jubilee in 2014.

Established in the 1970s, FICCO has expanded significantly, with over 621 members as of 2020, many of whom are young entrepreneurs and farmers. The cooperative's total assets amounted to 15.7 billion pesos, with no subsidies, grants, or external loans. FICCO's net income for the year 2020 was 83 million pesos, with 76% or 58 million returned to members as dividends and refunds. The cooperative also runs a foundation that provides scholarships, calamity assistance, and educational training.

FICCO started engaging with farmers in the 1990s, offering savings and production loans, and in 2012, began purchasing palay (unmilled rice) from farmer members. However, challenges arose due to unfavorable rates and inconsistent quality from commercial rice mills, leading to unhappy farmers and consumers. To address these issues, FICCO constructed a 113 million peso rice processing center with solar and mechanical dryers in 2012.

FICCO has invested in warehouse equipment and facilities to handle farm products, including vegetables, fruits, and even duck eggs. They are also partnering with the Tala-andig Lumad Miarayon-Lapok-Lirongan-Tinaytayan Tribal Association (MILALITTRA) to help improve farming systems and production. Other agricultural projects in the pipeline include a plant culture laboratory and seedlings production facilities. FICCO is also seriously considering investing 300 million pesos in a coconut and coco products processing plant with a provincial

government. Additionally, FICCO has already invested 341 million pesos in water services and runs a school-based feeding program through a cooperative. With over 1,350 cooperatives in Mindanao and a total asset value of 47 billion pesos, FICCO is a significant social and economic force in the Philippines.

Revitalizing Food Systems: The NATCCO Experience

The next speaker was Ms. Sylvia Okinlay-Paraguya, Chief Executive Officer of the National Confederation of Cooperatives (NATCCO). NATCCO is a federation of 850 cooperatives with a consolidated asset of 270 million pesos and 6.4 million individual members. Ms. Okinlay-Paraguya has been working in the cooperative movement since 1980 and has held various leadership roles, including CEO of another cooperative from 2000 to 2009, where she steered the participation of the Federation of cooperatives in digital financial services.

NATCCO's mission is to build socio-economic capabilities of cooperatives and uplift the quality of life of people. Its products and services consist of three clusters: financial services (deposits, loans, remittances and payments), support services (education, training, and consultancy), and monitoring (inspection, stabilization fund system).

She highlighted a new trend in which large cooperatives, including 18 billionaire cooperatives, are now shifting their focus towards agriculture. Two examples of such cooperatives are MSU IIT National Multi-purpose Co-op, planning a 50 million rice processing facility, and Panabo Multi-purpose Co-op, focusing on business development services and agri initiatives. During the lockdown, NATCCO also had partnerships with PBSP and Ateneo de Manila to mobilize food from Benguet, Tarlac, and Pangasinan to communities in NCR.

The cooperatives have played various roles in the food system, from production to processing, distribution, and consumption. They provided credit for agricultural inputs, operated marketing and processing facilities, and even operated their own wet markets. The Federation's role continued to strengthen capacity building on savings and credit operations, with a focus on digitalization and strategic planning. Ms Okinlay-Paraguya also shared examples of partnerships between cooperatives and government agencies for selling products to members and the community.

COOPS4food: The Role of Cooperatives in Creating Sustainable Regional and Local Food Systems: The AgriCOOP Experience

The next speaker was Mr Crescente Paez, Chairperson of AgriCOOP PH. He also served as partylist representative for the Coop NATCCO partylist organization, and the Executive

Director of the Visayas Cooperative Development Center. AgriCOOP PH was founded in August 2017, and now comprised of 525, 000 individual members, 31 cooperatives, and 216 million dollars in terms of assets. The primary reasons for organizing AgriCOOP include limited involvement of farmers in value chains and the lack of market power. Micro and small farmers' cooperatives are also fragmented, and its management is often not professionalized, leading to unequal bargaining power in the food system. These limitations hinder the sustainable development of food systems and food security. To address these issues, the role of cooperative federations is to provide opportunities for adding and capturing value for farmers.

AgriCOOP undertook a three-fold strategy to achieve these goals. First is the matching of products and markets, because farmers have a tendency to produce without yet considering what the market requires. Thus, there is a need to supply differentiated products that have incremental value in the market. There also has to be quality (organically produced, with ensured safety of both product and farmer), sustainability (in terms of the continuity of the process and supply), and the locality (the distance between the product and the market).

Another strategy involves redefining the supply chains by introducing alternative models of "farm to fork" chains. Through this strategy, local cooperatives supply food to distribution centers and retail stores, increasing inventory from member farmers' produce.

The third and final strategy is the creation of commodity clusters, where cooperatives consolidate produce and act as facilitators for smaller cooperatives that may not be financially prepared. One example is the Agusan Rice Cooperative Hub, which was made possible through the collaboration of 19 cooperatives (5,051 farmers) and was able to supply 323,507 bags of rice. Mr Paez shared his experience with implementing these strategies, including conducting feasibility studies and appointing lead cooperatives as consolidators. Overall, these efforts aim to create more efficient and sustainable food systems.

Revitalizing Food Systems

The last speaker was Dr Ernesto Ordoñez, Convenor of Alyansa Agrikultura, former Undersecretary of Trade and Industry, and Agriculture. He is also a columnist for the Philippine Daily Inquirer where he writes a column on Agriwatch.

He recalled his student days when he observed the struggles of farmers and the disparity between their situation and that of urban dwellers. Dr Ordoñez emphasized the importance of understanding the challenges faced by farmers before offering solutions. The negative perception of farmers as lazy and uncreative contributes to the decline of the country's agriculture sector.

Another critical challenge that the sector faces is the current system where the government only registers cooperatives without providing any assistance, leading to many cooperatives crashing.

Dr Ordoñez, who has a background in industry outside of agriculture, emphasized the importance of understanding what's happening in the agricultural sector and the role cooperatives should play in agriculture planning. He highlighted the following challenges that hinders farmers from progressing economically:

1. *Monocrop culture condemns farmers to poverty.* A coconut farmer, for example, only makes around Php25,000 per hectare by only planting coconut trees, when he could be making Php100,000 to PHP300,000 by planting cacao, and Php400,000 by planting bananas as well. This diversification of produce could make a significant difference. It is also questionable how the budget allocation for high value crops (1 billion pesos) is significantly lower than other crops such as rice (40 billion pesos). Another example is livestock, which comprises 30% of the country's Gross Value Added, only gets 3% of the budget. There needs to be a revolution in thinking to address the current food system issues and voters are encouraged to support candidates who will bring about change.
2. *Budget must be doubled today.* To illustrate this point, Dr Ordoñez points out that the Philippines has the lowest agriculture budget share of 2.0% compared to countries such as Thailand (3.5%) and Vietnam (5.5%). As a result, the country has the highest occurrence of rural poverty (32%) compared to its regional neighbors (Vietnam with 17% and Indonesia with 15%).
3. *Participation.* The speaker criticizes how the democratic process is not followed. The government undertakes roadmaps with inadequate private sector involvement, and regional leadership is unilaterally determined. Thus, the voices of cooperatives that have the farmers' best interests are underrepresented.

Finally, the speaker called for the spread of cooperative models and the involvement of the public in agriculture governance. It is also crucial to have better funding and resources for cooperatives to succeed and for the government to promote their growth.

Feeding Minds, Fighting Hunger, Healing the Planet | Food Systems Summit #6

December 3, 2021

Fr Jose Ramon “Jett” Villarin, SJ, former ADMU President, started his introductory message with a throwback photo of his days as a novice at the Sacred Heart Novitiate where part of their daily activities was tending their garden plots. He related this experience to his first point on recovering our ‘connection to the earth’ especially that as we grow older we tend to get detached from the source of life especially among the youth in the midst of rapid urbanization.

Fr Jett went on to share his reflection on food systems and hunger citing the creation story of the Book of Genesis where God created Man to “cultivate and care’ for his creation. While we are called to work and till, we are also invited to preserve and keep God’s creation which will require discernment of boundaries. ‘Creation is not finished’, this was the focal point of Fr Jett’s message where he made emphasis on the role of man in sustaining creation to develop society as well as its role of developing society to sustain creation. Reflecting on sustainable development, he shared that it is not just about preserving creation so that the next generations can survive because sustainable development also requires modernization in order to take care of creation.

As his final point, Fr Jett highlighted the threats of weather changes and climate whiplash which has affected many societies and will continue to threaten the quality of life on earth. In the face of a changing climate, mitigation and adaptation are important to secure the food chain and this can be done by understanding the climate sensitivity of these nodes and connections. Fr Jett closed his message by emphasizing that we are all granted freedom to either transform gardens into wastelands or wastelands into gardens, we are all co-creators not just consumers and we are meant to be givers, offerers and transformers of society and creation.

Gardening in the Ignatian Tradition

The first speaker was Fr Jee Vui Fung, SJ, an esteemed faculty member from the Loyola School of Theology, who shared his personal journey of connecting with the Earth through gardening. He explained how this experience has transformed his perspective on life and the interconnectedness of all things. The “14 Rules for the Discernment of Spirits” (nos. 313-327) seek to uncover which spirits are at work in the interior promptings of the heart towards a particular choice.

Affectivity is therefore the site of discernment wherein spirits are at work in such interior promptings of the heart. The Jesuit Garden known as COVEG 20 became this site of discernment for Fr Jee. During such turbulent times such as the pandemic, the speaker reflected on the joy and

feeling of communion he experienced while tending to his garden and how it had deepened his understanding of the spiritual and existential aspects of the natural world.

The speaker wrote: “March 2, 2021, as I made my way to the Jesuit Residence, I entertained the thought of joining Albert Alejo SJ and Tej Kayan Kujur SJ in gardening, as my heart is shrouded in feelings of ‘better for me to be in touch with the earth as to lend credence to what I am teaching in *Theology of Ecology* at the Loyola School of Theology,’ and desires to be truly in touch with the Earth.” In the following months, the speaker reflected on the art of *puso-logy* amidst feelings of “rejoicing in their joy of being alive” and “missing being in their midst.”

The speaker then introduced French farmer and agricultural innovator Fr Henri de Laulanie, SJ, who developed the System of Rice Intensification (SRI) as an agro-ecological and climate-smart methodology for rice production. SRI has shown significant increases in rice production with water savings and seed reductions. The practice has been adopted by schools in India, creating a new generation of rice growers. In 2011 and 2014, farmers in India reported record-breaking rice production using SRI, surpassing existing world records.

At the affective level, it is an existential experience of the “spirits of delightful joyfulness of interbeing— communion, interconnectivity, and relationality.” As renowned agroecologist, Dr Miguel Alteiri, et al. stated, “the transformation and democratization of the world’s food system is the best way to adapt to climate change while simultaneously eradicating hunger and poverty as the root causes of inequality and environmental degradation are confronted head-on.”

Food Innovation and Utilization

The next speaker was Ms Josie L. Igloria, Chairperson of the Food Technology Department at Xavier University-Ateneo De Cagayan. Established in 1987 under the leadership of then Dean of the XU College of Agriculture Fr Antonio J. Ledesma SJ, the Food Technology Center aims to serve as a training and research center for utilization, preservation, and processing of indigenous crops and livestock products. It is a pilot food plant to address the twin problems of malnutrition and high post harvest losses through academic and outreach programs.

Ms Igloria discussed the various engagements and collaborations of their organization with different local governments, foundations, private institutions, and food industries. They have a dehydration facility within their Food Technology Center, which has helped enhance food product development and innovation. The organization is also committed to producing complementary foods for malnourished children through a government program. They use underutilized or oversupplied raw materials to create new food products, such as dehydrated tomato, cabbage, and malunggay, which can be used as baselines for bakeries, pastries, and other food items. The

organization is also engaged in extension programs, connecting with various regions and private institutions to share their activities. They consume and process commodities from their own backyards, such as chayote and tomato, for puree preparation.

Duyog, The Gift of Food Initiative

The third speaker was Mr Mark Paul Samante, the Chair of Community Engagement and Advocacy Council at Ateneo de Davao University. He discussed the Duyog program, which is a feeding program that aims to address food security and nutrition needs, particularly among children. The program stems from the basic needs hierarchy and the Sustainable Development Goal (SDG) of zero hunger.

Inspired by Deuteronomy 15:11, *“therefore I command you to be openhanded toward your brothers and toward the poor and needy in your land,”* the program reached out to both those in need and those who can help. Objectives include identifying malnourished children, providing nutrition services, and advocating for nutrition in the community. The program faced challenges during implementation due to the pandemic, but was able to provide food for children for three days a week. The community center and community partners collaborated to prepare food, while the program also focused on community advocacy to ensure sustainability.

The community is also involved in sourcing vegetables from partner farmer communities, and the food is prepared by community members. The program has received support from benefactors and the Jesuit community, as well as collaborations with other NGOs such as the Humanitarian Organization for Peace Engagement (HOPE) Kababaihan Group. The program aims to introduce healthy food to the community, and after three months, the community has become accustomed to it.

While the organization is currently in the first phase of the program, which focuses on feeding children, they plan to eventually make it more sustainable for the community through education and community food gardening. Additionally, the speaker shared his experience with developing value-added products from vegetables as a way to utilize commodities and provide healthier options for children. Mr Samante reflected on the experience and hoped that one day, this advocacy is carried out and sustained by the future generations. To conclude, the speaker quoted Ali Ibn Abi Talib, who was among the first Muslims, a cousin and son-in-law of the Islamic Prophet Muhammad, *“the nourishment of the body is food, while the nourishment of the soul is feeding others.”*

The closing remarks were delivered by Mr Edgardo Valenzuela, from the ASOG. He discussed the initiatives of the working group leading up to the United Nations Food Systems

Summit. It began with an independent dialogue in the Philippines in April, which was the first of its kind. Following this, they organized a training workshop in May to encourage community dialogues and find local solutions. In June, they held a webinar on urban farming and community gardens. In September, they focused on young voices and their role in the future. In October, they explored cooperatives and their experiences in production, marketing, and consumption. The final workshop of the year focused on leading minds and fighting hunger while healing the planet, emphasizing the importance of sustainable development for future generations. Throughout these events, positive and hopeful stories were shared, contributing to the renewal of communities and the search for solutions and pathways for sustainable development.

Indigenous Peoples, Environment, and Food Systems Development with Teddy Baguilat | FS & Future #1

February 16, 2022

This webinar series began as an independent dialogue for the U.N Food Systems Summit in 2021 and has since then shed light on various topics such as urban and community gardens, cooperatives, and food systems. For 2022, the goal is to engage with electoral candidates to understand their views and communicate concerns for the future of food systems, agriculture, and the environment. The upcoming senatorial elections are crucial in shaping public policy in the country for the next six years and will significantly impact the Philippines' progress towards achieving the 17 Sustainable Development Goals (SDGs). It is a moral imperative to elect leaders with clear-eyed priorities for the country's social and economic development, as 2.5 million Filipinos still experience involuntary hunger, and the rate of undernutrition among children under five is 28.8%.

Prof Edgardo Valenzuela gave the introductory remarks. He is a professor with ASoG and has worked extensively on food, agriculture, and nutrition issues for the UN Food and Agriculture Organization. As it stands, there is an alarming prevalence of malnutrition and food insecurity in the Philippines, with approximately one in three children being stunted and the country ranking in the global top 10 for stunted children. The World Bank has identified certain regions, including MIMAROPA, Bicol, Western Visayas, and SOCCSKSARGEN, where the percentage of stunted children exceeds 40%. The FAO estimates that the prevalence of undernutrition is around 14.7%.

Prof Valenzuela also mentioned the negative impact of external food imports on the economy and the Philippines' inability to meet the SDG goals and World Health Assembly nutrition targets. The discussion then shifts to the importance of addressing climate change and decarbonizing societies and environments, particularly in food and land use, to mitigate the negative physical and economic ramifications. Ultimately, there is a need to include indigenous peoples' perspectives in the dialogue and make their champions accountable at the legislative level.

The first speaker was Datu Johnny “Bagusayana” Guina, Chairman of the Council of Elders at Mt. Kalatungan in the province of Bukidnon. Datu Johnny proposed four main action points that policymakers should undertake conducive to the welfare of indigenous people. First and most critical is the ownership of their ancestral domains. Monetary concerns remain to be the most difficult hurdle for indigenous tribes to acquire ownership of their ancestral lands, even as they have been advocating for this for more than 20 years.

Second is the role of the ICCA in safeguarding these indigenous peoples rights. Unfortunately, national dialogues regarding this issue had to be halted due to the pandemic. Third

is the sufficient monetary compensation for Bantay Gubat personnel that have been protecting and maintaining the community's forestlands. Currently, Bantay Gubat personnel only receive around Php 300 a month, which is nowhere near enough to sustain their daily needs. Fourth is the livelihood of the 21 barangays governed by the council of elders.

The next speaker was Dr Andres Ignacio, Director of Planning and Geomatics Institute of Environmental Science and Social Change. He discussed the struggles of indigenous farmers in the Philippines, specifically in Bukidnon, and how corporate agriculture is taking over decision-making.

Farmers have been living through a health emergency due to being fed toxic and nutritionally empty food for the past 30 years. Local food diversity is shifting to become raw material for the global market, leaving farmers unable to make an economic advance. It is also worth noting that agriculture and fisheries contribute about a third of the country's GDP, but the sector only receives a two percent share of the national government budget. The sustainability of production is threatened by land conversion, degradation of natural resources, and climate change, leading to widespread poverty and a development disparity between rural and urban areas. Furthermore, the average age of farmers in Bukidnon is around 47, and the lack of promising returns is causing many young people to migrate to the cities.

For a sustainable agricultural sector in the country, it is critical to: (1) empower both the local government and farming communities in implementing sustainable agricultural policies, (2) forge real partnerships that give space to honest conversations on emerging national and global trends, (3) push for transparency with corporations and national policies involved, accountability and open communication among stakeholders, (4) uphold cultural and ancestral rights, and learn from the cultural knowledge of indigenous peoples, (5) increase investment in transformative education in the margins, and (6) promote the creation of communities of practice in sustainable agriculture.

The third discussant was Mr Andre Robert Daba, a sociology student and student council president at Xavier University-Ateneo De Cagayan. He emphasized the importance of supporting locally grown food and farmers. Andre is also an advocate of reintroducing farming to the youth and students, as well as addressing the knowledge gap among young people regarding farming and food systems. He called for urgent action from government officials and policy makers to prioritize food security and support farmers, especially in the context of Northern Mindanao and the Philippines as a whole.

The webinar's main speaker was Cong Teodoro "Teddy" Brawner Baguilat. He is known for his advocacy for rights of indigenous peoples in the Philippines. During his term as governor

of the Ifugao Province, he successfully removed it from the list of the 10 poorest provinces in the country and preserved the Ifugao Rice Terraces, taking this UNESCO world heritage site off the list of endangered world heritage sites. As a lawmaker, he proposed laws to protect indigenous peoples and their ancestral lands, manage forest resources, and oppose destructive industries.

After his time in Congress, he continued to pursue the recognition of indigenous conservation and became the president of the Global Consortium for Indigenous Community Conserved Areas and Territories (ICCA). Cong. Baguilat is also an international human rights advocate and started a social enterprise during the pandemic to help bring the produce of small farmers and indigenous peoples to a wider market.

Cong Baguilat called for awareness about the food crisis in the Philippines. In hindsight, the persistent food crisis is rather strange for a country that is surrounded by rich aquatic resources and an ideal tropical weather for farming. Unfortunately, the government's response to the rising food prices has been to import food produce, machinery, and farming inputs instead of uplifting the country's locally sourced capital.

As an example, Cong Baguilat talked about the Ifugao Rice Terraces as an ecosystem that needs preservation. At some point in the past 20 years, the rice terraces have suffered severe erosion. Furthermore, the younger generations are leaving the area for better opportunities in the cities, despite its cultural significance and importance as an agricultural land and food source. The Rice Terraces, a UNESCO World Heritage Site, consist of three major components: the rice terraces themselves, the community, and the surrounding watersheds, which are all interconnected and valuable to each other.

The water for rice terraces comes from the surrounding watershed, which is primarily made up of forests. Indigenous farmers have designed intricate irrigation systems to ensure a consistent water supply. Hence, it is of utmost importance to protect the surrounding watershed and forests to sustain the ecosystem. However, deforestation, commercial logging, and extractive industries on natural forests that have intensified over the years brought dire consequences for food sources, such as fishing industries and coral reefs. Thus, Cong. Baguilat has advocated for sustainable forest management and the protection of primary and secondary natural forests, as well as coastal areas, to maintain a healthy environment for viable food systems.

The speaker also discussed the importance of recognizing ancestral domains. Ancestral domains are predominantly collectively owned by indigenous peoples, who recognize the forest's role in providing food, water, and biodiversity. However, indigenous communities have been marginalized and pushed away from their original settlements. The challenge lies in balancing the need to conserve these areas as designated "protected areas" by the DENR while allowing

indigenous communities to exercise their traditional governance, which has proven effective in conserving forests, watersheds, and biodiversity in the Philippines.

Cong Baguilat also addressed the significance of Indigenous Community Conserved Areas (ICCAs) and the role of indigenous peoples in protecting the biodiversity of areas within their ancestral lands. There are three characteristics of ICCAs: a strong bond between the land and the people, effective governance systems known as Indigenous Political Structures (IPS) that they have been using in terms of environmentally conserving the area, and a focus on sustainable use for food and lumber, as well as conservation.

With these three characteristics, ICCAs have the potential to protect these areas from extractive industries, especially since it is concerning that most mining applications (65%) are within ancestral lands. To recognize the significance of IPs and their existing traditional governance over their ancestral lands, the government must work towards the integration of indigenous knowledge into the formal educational system.

As a concluding note, Cong Baguilat extended an invitation for key stakeholders and policymakers to think the way IPs think: acknowledging that everything is connected, and seeing the importance in their way of life that consistently upholds sustainable food production and environmental protection.

Employment, Livelihoods, and Food Systems with Atty. Sonny Matula

| FS & Future #2

March 09, 2022

The pandemic presented an opportunity to rethink and reimagine policies, systems, and programs concerning agriculture, food security, and the environment to address hunger and malnutrition for the immediate and long term. Thus, a whole of society approach involving policy makers, agricultural producers, youth, civil society groups, and consumers is encouraged to ensure that sufficient, healthy, and nutritious foods are available while caring for the environment.

With these in mind, this webinar focused on stable employment, sustainable and healthy food for all, and upholding workers' rights and the rights of marginalized sectors while strengthening businesses and ensuring the growth of the country. Dr Philip Arnold Tuaño, Professor of Economics at the ADMU and coordinator of the Sustainable Development Solutions Network Philippines facilitated the discussion.

The introductory remarks were delivered by Dr Cristina Liamzon, faculty member of the Department of Economics, and the ASOG. Part of the awareness-raising is to converse with the candidates for the upcoming elections to understand their views and to communicate public concerns, especially since the May elections will be critical in deciding the trajectory of public policy regarding food, agriculture, and the environment for the next six years.

The first discussant was Dr Lynnette Matea Camello, Director of Cebu Technological University (CTU). D. Camello shared the initiatives of her institution in the areas of employment, livelihoods, and food systems. As a chartered State University with over 45,000 students and 23 campuses, CTU has a mandate for faculty to engage with communities and transfer knowledge and technology. The university's extension work is defined as a means to reach out to communities and transfer knowledge and technology systematically.

There are four paradigms that define the delivery of their community work: increasing food productivity, increasing income by increasing the production of high-value goods, learning and adoption of sustainable resource management practices, and training partners to get organized into producer and self-help groups.

These initiatives are implemented in various campuses. For instance, their San Francisco Campus was the venue for a program that allowed the community to farm tilapia from their very own backyards. They also had an environmental cleanup in their Barili Campus, and several livelihood projects in the Argao Campus. The university also hosted Food Innovation Laboratories for value-adding to existing raw food products.

One of their oldest initiatives is the handloom weaving project in the Argao Campus, which served as a model for sustainable community-based extension activities. This process, locally known as “hablon,” involved hand-weaving fabric using traditional methods that have existed since the pre-hispanic era. But due to the weakening demand and the decreasing number of “habloneras,” hablon was almost considered a sunset industry, until a research study by graduate students of CTU in 2013 led to the creation of a community extension project called Hablon sa Cebu in 2014.

CTU's interventions included raising awareness and marketing the products at trade fairs, and in 2016, they received a grant from the Department of Trade and Industry for 20 handloom machines. These machines were innovated to make weaving more ergonomic and expanded the fabric's width from 36 inches to 60 inches. The hablon industry saw a resurgence, and weavers were able to create secondary products like bags, clothes, footwear, accessories, and home furnishings. They also received help from famous designers to ensure stricter quality control and widen their product reach. Furthermore, CTU passed a resolution requiring graduates to wear hablon fabric at graduation to provide continuous sustainable demand for the weavers. Ultimately, the goal is to institutionalize the industry for long-term sustainability.

The second discussant was Ms Graciella Marie Leandicho, Vice President for Consultancy, Development Society, at the Ateneo De Manila University. She recalled the story of her mother, who runs a food business as her primary means of providing for her family, and asserted that the informal food sector is an essential source of income for those unable to penetrate the formal sector and for those seeking extra income to compensate for low wages.

The informal food sector plays a significant role in both employment and food consumption especially for low-income households, as unsold items can be converted into meals, and vendors can earn income while balancing household work. However, there are concerns about food safety and nutritional value in the informal food sector. To address these issues, policies and programs should be implemented to improve and protect the sector, including banning vendor harassment, providing capacity-building workshops, and access to credit and social protection measures. The informal food sector, consisting of street vendors, karinderya workers, and other vendors, is crucial in addressing employment and food security for millions of urban poor.

The third discussant was Mrs Arlene Goloso, Union President from the Grade School Unit of the AdDU, who iterated that employment is the main source of income for most people in the Philippines. Unfortunately, the closure of businesses due to the pandemic has resulted in significant job losses. According to the Department of Trade and Industry, over 26 to 38% of businesses closed down in 2020, affecting millions of people. To add to the existing welfare concerns of the country's workers, there is also the issue of the minimum wage, which varies

across the country and is often not enough to ensure the purchase of quality food for the working class and their families. Even with the minimum wage, only 68% of the salary goes towards buying food, leaving workers struggling to afford adequate nutrition. Under these circumstances, it is important to revisit the reasons for the regional minimum wage differences and implement policies to provide better employment opportunities.

The main speaker for this webinar was Atty Jose Sonny G. Matula, the President of the Federation of Free Workers (FFW) Labor Group and a former commissioner for the labor sector at the Social Security System. He was an independent senatorial aspirant and was also one of the conveners of the Alliance of Labor Leaders for Leni to support the former Vice President's presidential bid.

Atty Matula recounted the issues that arose upon visiting the provincial areas during the campaign period. The most pressing of which came from the farming communities who are largely in debt due to inadequate agrarian reform programs and the lack of subsidies that support small-scale farmers. Furthermore, there is a significant wage gap between the agricultural and non-agricultural sectors, with the lowest minimum wage in the agricultural sector being only 219 pesos compared to 325 pesos in the non-agricultural sector in BARMM. To address these concerns, it is important to hold collective bargaining negotiations or industry wage negotiations with the tripartite bodies responsible for setting the national minimum wage.

Currently, farmers are working at a net loss of about 6,000 pesos per hectare, and each farmer only has about 2 hectares of farmland each. In two years, Atty Matula estimates that farmers suffer a loss of 24,000 pesos, which is insufficiently covered by the mere 5,000 peso subsidy the government has provided out of the Rice Tariffication Act. These harsh conditions would definitely discourage farmers from continuing their livelihood and would subsequently lead to a decrease in the nation's local food production.

Thus, one of the key policies to address this is to increase the budgetary allocation towards the agricultural sector, and prioritize the enactment of the Agrarian Reform. The merging of the Department of Agriculture and the Department of Agrarian Reform is also conducive to this goal. This would allow for more efficient, and modern solutions to farming and subsidize the livelihood of the food-production sector. The National Land Use Law must also be implemented to prevent the conversion of farmlands into industrial spaces.

On the issue of the informal food sector, Atty Matula hoped to address this by expanding the social security coverage to include the informal sector. The government must subsidize the remittances or contributions that will come from workers in the informal sector to help them jumpstart a form of social and financial insurance. It is also important to note that the Social

Security System (SSS) law requires the national government to allocate a certain amount of funding towards the SSS, but aside from the initial 500,000 peso initial contribution from the government during 1957, there has been no monetary allocation given to the SSS henceforth.

Finally, Atty Matula emphasized the critical role of workers' organizations in upholding the rights of the country's laborers. Currently, the government is harshly alienated from the needs of the working class, leading to gross indifference towards issues such as violation of labor rights, extrajudicial killings, and wrongful red tagging of labor leaders. The people behind this must be thoroughly investigated and held accountable.

Atty Matula presented these policy points in detail and asserted that the government must have strong policies in place to support labor organizations and provide them an even platform to rightfully represent their sector in the process of nation building.

Human Rights and the Right to Food with Atty. Chel Diokno

| FS & Future #3

April 20, 2022

In 1948, the United Nations agreed on the Human Rights Charter, with the Philippines as one of its signatories. Through this covenant, the right to food was acknowledged as a fundamental human right, allowing individuals to feed themselves in dignity. The guidelines also emphasized principles such as equality, non-discrimination, participation, accountability, and the interdependence of all human rights. Thus, the incoming administration is encouraged to integrate food security with other development concerns by creating a peaceful, stable, and enabling environment, establishing legal and institutional arrangements for food safety and consumer protection, and providing safety nets for the weakest segments of society.

Mr Roel R. Ravanera, Vice President for SD of XU - Ateneo De Cagayan, delivered the welcoming remarks. During the pandemic, there was a focus on food availability with households producing their own food. However, accessibility is another concern for those without the means to do so. Farmers also face challenges in sustaining their livelihoods when they cannot sell their products. The food value chain, including trading, transport, and delivery, is an essential consideration to ensure food reaches consumers. Under these circumstances, this webinar series aims to disseminate, discuss, and institutionalize the right to adequate food in the context of local food security towards realizing a hunger-free Philippines.

The first discussant was Fr Antonio Javellana Ledesma, S.J., D.D., Archbishop-Emeritus of Cagayan De Oro. He raised awareness towards the situation of an indigenous community in the municipality of Quezon in the province of Bukidnon, whose ancestral domain claim area has been cultivated by the Kianteg Development Corporation (KDC) for over four years.

The community, led by Datu Rolando Anglao and his companions, have been peacefully trying to reclaim their land, which is more than a thousand hectares in size. However, they have been prevented from entering their ancestral domain due to the corporation's continued cultivation. The situation came to a head on Tuesday when members of the community were met with gunfire from the corporation's security guards when they attempted to enter their land. Five people were wounded in the incident, including a former presidential candidate, Ka Leody De Guzman.

The issue has now become nationwide, and the critical action point is how to fully implement the Indigenous Peoples Rights Act to help indigenous communities reclaim their ancestral domains and provide food for themselves and the wider community. The overarching problem now is not just reclaiming the land but also helping these communities in their development efforts via cooperatives and tie-ups with inclusive businesses.

The second discussant was Ms Samantha Cayona, the Student Council President of Ateneo De Davao University. She provided insights on the impact of climate change on food production in the Philippines, an agricultural country that is vulnerable to the effects of climate change despite contributing only 0.3% to the world's greenhouse gas emissions.

In April 2022, over 1,000 scientists all over the world protested to bring awareness about climate change, and the hashtag #LettheEarthBreathe became a trending topic online. Experts and advocates have warned that humanity only has three years left to change their ways and prevent the irreversible effects of climate change. Research showed that for every degree Celsius increase in global temperature, global mean rice yields will decline by 3.2 to 3.7 percent, which is a significant blow to the Philippines. The country is also vulnerable to climate-related hazards, and the agricultural sector is the most affected. Typhoons, for instance, have devastated farmers and industries, causing billions in losses and making importation unsustainable.

Warm oceans lead to fewer fishes due to their migration to cooler areas, making it difficult for fishermen. Additionally, coral bleaching, which is a significant issue in the Philippines, affects both corals and the fish population as coral reefs provide essential areas for fish to breathe and take shelter. Given the severity of the changing climate's impact on the country's agricultural and aquatic industries, it is crucial for the Philippines to invest in sustainable food security.

The third discussant was Prof Amparita Sta. Maria, Director of the Urduja Women's Desk at the Ateneo Human Rights Center. She framed the issue of food security as the legal obligation to uphold the right to food under international law, specifically the Universal Declaration of Human Rights and the International Covenant on Economic, Social, and Cultural Rights (ICESCR) adopted in 1966.

The right to adequate food is considered indivisibly linked to the inherent dignity of the human person and is inseparable from social justice. The ICESCR allows for progressive realization of this right, meaning countries should make continuous efforts to fulfill this right. The right to food is also linked to the right to health, which includes access to safe water and food, as well as participation of the population in decision-making processes related to food and health.

Furthermore, accessibility is defined as individuals' ability to acquire appropriate food for a nutritious diet without compromising other basic needs. This includes economic accessibility, physical accessibility, and availability. The right to food also recognizes the obligation of states to fulfill this right for vulnerable groups and individuals, including infants, young children, elderly, physically disabled, terminally ill, and those with persistent medical problems. Given these conditions, there is a need for an integrated approach to address the linkages between food, health, and all human rights.

The Convention on the Rights of the Child also emphasizes the child's right to the highest standard of health, including adequate nutrition. However, childhood stunting has become a serious problem in the Philippines and other countries, and can prevent children from reaching their physical and cognitive potential. The causes of undernutrition include poor infant and young child feeding practices, ill health, inadequate access to diverse nutritious food, inadequate access to health services, and poverty.

Unfortunately, Atty Diokno was unable to connect to the webinar due to internet connectivity issues in Negros Oriental. The organizers promised to share his input through a video recording and made the proceedings of the webinar accessible to all registered participants.

Food Education and Empowered Development | Different Actors #1

July 05, 2022

This webinar shed light on the various initiatives aimed at addressing hunger and malnutrition in the Philippines, particularly in public schools. The speakers shared stories of children coming to school without food, leading to the implementation of feeding programs. The Food Packs program, which provides nutritious food for children during their critical first 1000 days of life, was highlighted. The program also involved partnerships with farmers and organizations to rescue food from waste and keep costs low. The importance of parental participation was emphasized, with success stories shared from various barangays where parents have been taught to grow vegetables in their backyards. The speakers also discussed the interconnectedness of food security and sustainability, criticizing traditional segmented approaches and highlighting the impact on various actors and the environment.

Initiatives of the Ateneo Center for Educational Development (ACED)

The first speaker was the director of the Ateneo Center for Educational Development (ACED), Dr Carmela C. Oracion. She is deeply involved in improving public schools in the Philippines, particularly those facing challenging circumstances, with a focus on providing good education as a means to break the cycle of poverty. The Ateneo Center for Educational Development was established in 1997 to close the poverty gap and improve quality of life through public basic education. The center aims to move up the performance of public schools through needs-based, community-owned, and outcomes-based initiatives, engaging various units and levels of the university, schools, and local government.

Initially, ACED facilitated traditional interventions such as teacher training and providing workbooks. However, they encountered various challenges in public schools, such as frequent absences due to health issues and poor eyesight, and serious problems of hunger and malnutrition among children. These issues led the center to initiate targeted interventions such as feeding programs and dental missions.

Two stories of children encountered during their work with public schools served as motivation for their involvement in the fight against hunger. One story is about a grade two boy in Paranaque City who fainted in class due to hunger, highlighting the reality of food insecurity in public schools that was not previously part of their radar.

This discovery led them to start small-scale feeding programs, which eventually grew into large-scale initiatives in response to malnutrition and hunger among public school children. Despite these efforts, hunger and malnutrition continued to persist in the country, with an annual

average of 13.1% of families going hungry in 2021, equating to around more than 3 million families. Thus, it is important to acknowledge that these issues have not been fully solved, and according to a survey by the Social Weather Station, the hunger rate in Metro Manila is even higher at 18.6%.

The following years saw the expansion of the organization's food programs in various cities, starting with the Jollibee Foundation's Busog Lusog program in 2006, which initially fed 40 children in participating schools. Due to high demand from principals seeking assistance for their malnourished students, the Blueplate for Better Learning Feeding Program was piloted in 2010, and was later replicated in various cities. In 2020, the Food Packs program was initiated as a response to COVID-19, providing food to 5,000 school children and their families every week.

The shift to food packs was motivated by data from pre-pandemic feeding programs, revealing that less than 50% of children in Metro Manila had fruit, vegetables, meat, and milk products in their diet. The Food Packs program offers advantages such as longer-lasting meals for families, simpler operations, and reduced risk of virus spread. Unlike traditional feeding programs, farmers are able to sell their produce directly to the program, helping them in turn. The food packs last families four to five days and are an educational intervention, not just a charitable response to hunger and malnutrition. Currently, the program is able to provide for about 5000 school children and their families including 250 beneficiaries in the “maternal, infant, and young child” category.

Duyog: The Gift of Food Initiative

The second speaker was Mr Mark Paul Samante, Chairperson of the University Community Engagement and Advocacy Committee (UCEAC), Ateneo de Davao University. He discussed the importance of parental participation in their initiative known as the Duyog Program, which involves teaching parents to grow vegetables in their own backyards as part of the sustainability component. They also shared success stories of how this approach has been implemented in various barangays and expanded to reach more communities. This was made possible through the collaboration with city nutrition councils to facilitate partnerships.

Once in the barangay, they conduct parent orientations to explain the program and its phases before implementing the feeding component. The beneficiaries of the feeding program include parents, barangay nutritionists, and volunteers. Currently, the organization has moved on to the second phase, which is encouraging the parents to engage in urban gardening to ensure the sustainability of the program. To achieve this, certificates are issued to families who are able to grow their own vegetable gardens in their backyards.

Thus far, the Duyog Program has been able to provide healthy ingredients for the children's snacks and meals, while the barangay organizes volunteers to prepare the food and distribute it to families. This community project has been successful in making the program more manageable and has involved everyone from the university to the families. The speaker expressed his gratitude for the support from the city nutrition council and private individuals, and looked forward to more partnerships to sustain the program.

The third speaker was Mr Roel Ravanera, Executive Director of the Xavier Science Foundation at Xavier University-Ateneo de Cagayan. He called attention to the traditional segmented approach to food security, which overlooked the impact on various actors and the environment. For instance, while the use of pesticide can increase the yield of crops, it also has severe negative repercussions on biodiversity and long-term health. He also discussed the consequences of convenience-driven food consumption on producers, processors, and the economy. Despite the call for food sovereignty, many Filipinos continue to rely on global food corporations, contributing to health, environmental, and economic issues. The situation is so severe that the Philippines is on the brink of a food and hunger crisis, with one in three children under five suffering from stunting and wasting.

Beyond just feeding the hungry and malnourished, there is a need for food to be available, accessible, affordable, and secure at all times, and for it to be adequate, healthy, nutritious, and culturally acceptable. The speaker advocated for food education and the recognition and empowerment of critical roles played by farmers, fisher-folk, indigenous communities, food processors, and retailers. With this in mind, an initiative known as the Renewed Province Plan of the Jesuit was implemented in Bukidnon to ensure food security through a partnership between the church, academia, and civil society organizations. The program not only focuses on feeding undernourished kids but also educates parents on preparing cheap, nutritious meals and budgeting. The initiative is different from other feeding programs as it aims for children to gain weight effectively through scientific approaches like regular feeding and medical examinations.

The Academe | Different Actors in Sustainable Food Systems #2

September 28, 2022

This installment of the webinar series provided insights on the complexities of food security and the need to address various aspects of individuals and communities' well-being beyond poverty alleviation. The speakers highlighted the importance of considering standards, capacities, and vulnerabilities to effectively improve socioeconomic conditions. In particular, the interconnectedness of various actors is given importance, such as education and the role of the academe as a catalyst that can lead to better food security. Given the tight linkages between factors, the best practices may not always be intended to address food security directly, but can have positive impacts on food security through addressing other priority issues, such as climate change resiliency.

The webinar was facilitated by Dr Fernando Aldaba, Professor from the Department of Economics at the Ateneo De Manila University. In collaboration with ADMU, XU/AdC, AdDU, and SDSN Philippines, this working group aimed to raise awareness on how the discussion on food systems is a multisectoral and interdisciplinary issue with various stakeholders working together to further Sustainable Development Goal #2: Zero Hunger. This webinar, in particular, sought to explore the role of researchers from HEIs in uncovering insights on topics related to food security, food technology and innovations, and community health and nutrition.

The Farm-to-Table Concept in Tourism Industry: Synergy of Agriculture, Gastronomy, and Tourism, in Promoting Sustainable Food System

The first speaker was Dr Harold Bueno, Dean of the Higher Education Department at the Far Eastern University - Cavite and a strong advocate for sustainable local community-based projects in the tourism and hospitality industry. Dr Bueno discussed the application of the farm-to-table concept in the tourism industry.

Farm-to-table is a movement aimed at promoting environmentally friendly agriculture, preserving culinary heritage, and helping local, small-scale farmers and consumers obtain direct procurement. The movement encompasses environmental, economic, and social development programs that aim to shorten the food supply chain however possible. The intention behind the short food supply chain in farm-to-table is to minimize, not completely remove, the middleman, thereby reducing transportation and product processing costs, and reducing carbon footprint as well. This way, the farm-to-table movement works towards a more sustainable food system that is inclusive of the betterment of all actors involved.

The concept is already prevalent in various tourism segments, such as agritourism and community-based tourism, and is being adopted by hotels and restaurants to build relationships with local farmers and use locally available ingredients. The role of tourism is to educate tourists and the general public about sustainable farming principles and philosophies. There should be synergy between these three industries, with cooperation and building relationships being the most important aspects to make sure it is sustainable— agriculture focusing on organic and natural, small-scale, community-based production, gastronomy preserving culinary heritage and providing fresh and healthy food, and tourism promoting the concept and educating consumers.

Dr Bueno shared findings from a research survey of 178 institutions in the Philippines regarding their support for small-scale farmers. Most respondents stated that they provide no (78.09% or 139) institutional support to local small farmers, producers, or fisherfolks, and only 21.91% stated yes.

Of the 39 institutions that do support small-scale farmers, the trend and corporate social responsibility are the primary motivators. However, challenges include establishing effective communication and partnerships between farmers, producers, and institutions, ensuring product quality, and negotiating demand and supply. The way forward, according to the data, is for all parties to engage in open dialogue, create action plans, and evaluate supply chain systems to build sustainable food systems, or as the speaker refers to it, a "microfood system." This system emphasizes direct partnerships between consumers and producers and requires constant communication and relationship-building.

XUCA Initiatives Toward Strengthening the Sustainability of Smallholder, High Value Vegetable Supply Chains

The next speaker was Dr Maria Rosario Mosqueda, Dean of Xavier University - Ateneo De Cagayan, College of Agriculture, where she shared about her organization and its focus on the local vegetable industry in Northern Mindanao.

The College of Agriculture, established in 1953, is recognized by CHED as a center of excellence for agriculture education and research. The organization's research and social development agenda is centered around the four pillars of food security: food availability, accessibility, utilization, and stability. One focus area is vegetables, particularly highland vegetables, as Northern Mindanao accounts for 17% of the national vegetable production volume. Many rural families in the region rely on vegetable farming for their livelihood, with over 70% of families in one assessed barangay engaged in vegetable farming. Vegetable farming is a family affair, with farmers also working as laborers on other vegetable farms as a secondary source of income.

The average age of vegetable farmers is 37 years old, much lower than the reported average age of farmers nationwide, and vegetables have the potential to alleviate poverty and improve food security. Furthermore, the net profit to cost ratios of high-value vegetables are higher than those of staple and industrial crops, and vegetable production generates a high number of jobs. However, smallholder farmers face challenges in vegetable production, including high production costs, inadequate support services, post-harvest losses, and unpredictable price fluctuations.

D. Mosqueda shared three initiatives to address these issues: vegetable dehydration to reduce post-harvest losses, partnerships with food companies to produce vegetable powders for use in food products, and the development of food products supplemented with dehydrated vegetables for feeding programs and disaster relief operations.

They trained and formed 32 vegetable farmers into community-based food technicians, who were equipped to assist municipal agricultural technicians in vegetable extension work. The team developed educational apps for LGU technicians and farmers, and the technicians were able to assist in training and providing services during the pandemic. The team also found that they could design and produce commercial-grade dehydrated vegetable products using locally available resources, but institutional support for R&D and partnerships with stakeholders are critical to improve quality, efficiency, and reduce costs. Lastly, it is important to consider that the farmer's field as a rich resource for developing context-based learning materials for elementary and high school students in farming communities.

Understanding Community Level Food Security from Social Science Perspectives and the Promise of Multidisciplinary Research

The third speaker was Mr Julien Carandang, from the Department of Political Science and Development Studies at De La Salle University. He emphasized the importance of understanding the strengths and limitations of both Natural Sciences and Social Sciences in studying food security. Specifically, an open-minded yet critical perspective is essential to gaining a comprehensive understanding of the issue, which goes beyond environmental sustainability and nutrition to include food safety, food preference, and wellness.

Food security is defined as the availability and access to food, but this definition and experience of food security can vary greatly among people and situations. In other words, food security is not a one-size-fits-all concept, and the activities involved in it include producing, processing, packaging, distributing, retailing, and consuming food. For instance, it is important to consider household budgets and social welfare when examining food security. The role of social science in food security is to identify possible points of intervention and improve the food supply by focusing on food and nutrition systems and social standards.

The traditional approach of focusing solely on food supply does not address market forces, cultural preferences, and religious obligations. Food is not only a necessity but also a commodity and a political tool. Therefore, access to food is influenced by social and economic determinants such as employment, income, education, housing, and social inclusion. Household financial resources, storage, and food safety are crucial factors in ensuring food viability. Communities can adapt to climate activities by planning, storing, saving, and migrating, but they also need education, employment, and decision-making capacities.

While these points of intervention can be identified through the appropriate research, actually implementing them is another matter. There are various factors that contribute to the disconnect between academic research and community practices in sustainable food systems, such as personal preferences influenced by availability and cost, food preservation techniques, and geopolitical considerations. This disconnect, however, also presents opportunities for collaboration and finding common ground to address food security issues. Mr. Carandang concluded by emphasizing the role of academia in raising awareness on these issues and ultimately influencing government policies.

PANOKOS Livelihood Extension Project

The next speaker was Prof Nicolas Antigua, Associate Professor from Cebu Technological University and a proponent of various projects, such as the PANOKOS Livelihood Extension Project. The PANOKOS Livelihood Extension Project has provided livelihood opportunities for the members of the NAGMATA Fishermen's Association in Barangay Talisay, Daanbantayan, Cebu, using fishing gears for catching bigfin reef squids.

The project provides assistance with engine provision and overhauling, seminars on values and environmental concerns, and training on the use and maintenance of fishing gear. The project is anchored to the action principles of sustainability, and interventions have been crafted and proposals made for funding.

The beneficiaries are also encouraged to practice environmentally friendly fishing methods and engage in clean-up and mangrove planting activities. The project is aligned with SDGs such as Zero Hunger, Climate Action, and Life Below Water. Finally, the LGU's existing policies are encouraged to be reinforced for the project's sustainability.

Partnerships Towards Strengthening School Nutrition Programs

The next speaker was Dr Eden Delight Miro, an Associate Professor and Chair of the Department of Mathematics at ADMU. Dr Miro shared her work on strengthening school nutrition

programs through partnerships and the use of scientific research. She has collaborated with researchers from various disciplines to explore how the rigor of scientific research can be applied to improve social welfare programs and combat hunger and malnutrition in the Philippines.

D. Miro presented the findings from a study on school feeding programs in the Philippines, specifically focusing on the implementation of the ACED Blueplate Centralized Kitchen Model in Valenzuela City, Mercedes in Camarines Norte, and Compostela Valley, each serving over 5,000 students across multiple schools and daycare centers. The study also looked at smaller kitchens in other parts of the country.

According to The State of School Feeding Worldwide (2013), school feeding programs are present in almost 75% of the 125 countries surveyed, but the coverage and quality are lowest in low-income countries, where there is greater need to alleviate hunger and poverty. Hence, the research team decided that the study's objective was not to determine whether to implement school feeding programs but rather how to improve their effectiveness and efficiency.

The research team employed various methodologies, including household surveys and focused group discussions with parents, teachers, school heads, community leaders, and local government officials. They conducted three rounds of surveys in Valenzuela City and had over 300 respondents. The household surveys included questions about social demographics and a 24-hour food recall component.

The study revealed that rural and urban poverty presents unique challenges to food security in different contexts, making it essential to strengthen the capacity of local governments (LGUs) in implementing multi-sectoral interventions. The Ateneo Center for Educational Development and Gawad Kalinga have been successful in this regard through their collaboration with LGUs and implementation of the ACED Blueplate centralized kitchen model.

The researchers also employed game theory to explore the different partnerships in school feeding program implementations, identifying three main stakeholders: the state (central or national government), local NGOs (LGUs), and third-party organizations. Each stakeholder has distinct interests and potential contributions to the program, with the state providing resources and access to beneficiaries, LGUs engaging the community and providing local funds, and third-party organizations offering expertise and additional resources.

Overall, this webinar served as a platform to discuss the crucial roles that different societal actors play in upholding sustainable food systems. Academics can provide economic support to bridge gaps among food security actors, establish mechanisms for policy coordination, and enhance public-private collaboration. It can also help build local knowledge and resilience to

vulnerabilities, focusing on sustainable use of natural resources and community-based disaster resilient food systems. Partnerships with students are encouraged to facilitate knowledge sharing and local system building. The speakers emphasized the need for inclusive and adaptive processes involving diverse stakeholders, including farmers, consumers, governments, and civil society organizations.

Partnerships | Different Actors in Sustainable Food Systems #3

November 09, 2022

This webinar was the 9th installment of a series organized by the working group on food security and nutrition, made possible through the collaboration of Ateneo de Manila University, Xavier University - Ateneo de Cagayan, Ateneo de Davao University, and the Sustainable Development Solutions Network (SDSN). The webinar brought together three civil society organizations that work at different levels to share their experiences and perspectives on feeding children, assisting poor beneficiaries, and collaborating with other actors to pursue common goals.

According to the Food and Agriculture Organization (FAO), there were 821 million hungry people globally in 2021, a figure comparable to 1995 when the World Food Summit was held. In the Philippines, 5.3 million people were severely food insecure, and 48 million more suffered from moderate food insecurity. Additionally, there were an estimated 5.7 million undernourished Filipinos, meaning they were unable to meet their daily minimum dietary energy requirements over a period of one year. Under these circumstances, the speakers discussed the critical role of maintaining partnerships in facilitating sustainable food systems, with the backdrop of the ongoing food security crisis caused by the Covid-19 pandemic, climate change, and conflicts around the world.

Overview of global partnerships on the future of food

The first speaker was Dir Oliver Oliveros, the interim Executive Director of the Global Alliance for the Future of Food. He discussed the role of the philanthropic sector in addressing the crisis in food systems. The food systems are responsible for up to 30% of gas emissions due to food waste and are a significant contributor to climate change, deforestation, and biodiversity losses. The Covid-19 pandemic, conflicts, and climate emergency have further exacerbated the crisis, pushing over 130 million people towards chronic hunger and bringing the total number of malnourished people in the world to 800 million.

In recent years, various actors, including foundations, are stepping up to contribute to addressing this crisis. Foundations have existed for centuries, and have played a significant role in agricultural research through institutions. They come in various categories, such as community, corporate, operating, and independent foundations, each with its own focus and ways of operating. Foundations can take risks and contribute to exploratory research, build capacity for marginalized groups, and act as brokers connecting smaller foundations and communities to larger ones. However, their privileged position and increasing scrutiny on the legitimacy of philanthropy in addressing community causes are subjects of debate.

The Global Alliance for the Future of Food, a strategic alliance of around 30 foundations, is working on these various issues, including addressing the compounding health crisis, unsustainable agriculture, and the escalating climate change, aiming to capture both negative and positive externalities in food systems. The transformation of food systems requires new solutions at a systems level and deep collaboration among stakeholders. Thus, the Alliance advocates for inclusive governance, increased research for public goods, better accounting of food system impacts, public sector investment, unlocking investment opportunities, and promoting agroecology and regenerative approaches. They also emphasize the importance of nutritious, sustainable whole food diets adapted to local ecosystems and social cultural contexts, and call for more attention and investment in crops like sorghum, which are important in local contexts but often neglected in global research. The Food Systems transformation involves different solutions from various actors, and the Alliance aims to forge new insights and strengthen evidence for global systems change.

In essence, Dir Oliveros discussed the importance of considering various perspectives and stakeholders in addressing complex food system issues. He emphasizes the need to learn from indigenous and local communities, facilitate dialogue among stakeholders, and identify common areas for transformative action.

ARK solves hunger in five (5) weeks

The next speaker was Ms Tina Hipolito, Business Development Manager for the Advancement for Rural Kids (ARK). She has a background in public management and business administration, and has experience coordinating international partnerships. ARK was founded in 2009 to provide vegetable-based lunches to rural children, allowing them to stay in school instead of dropping out due to hunger.

However, the Covid-19 pandemic disrupted their operations, leading to the creation of ARK Feedback, a community-wide vegetable exchange program, that enabled families to grow vegetables in their backyards and exchange them weekly in a central market, ensuring food security and promoting self-sufficiency. Through this exchange initiative, Feedback was able to alleviate hunger in the community in nearly 5 weeks, even enabling another income stream as families were able to sell their produce to neighboring villages.

The program, which is operated entirely by the community, has transformed over 76,000 lives by providing access to nutritious food and creating opportunities for entrepreneurship. The Feedback program has 35 community partners across six provinces, with 95% of participants living on less than PHP183 a day. The program's impact is achieved through a co-investment partnership model, where communities invest 50% in their food security and self-sustaining future,

and champions co-invest 50% in the projects. Co-investment means that both parties are equal partners, and communities must want the program for themselves before it can be implemented. The Feedback program aims to bring this hunger solution to the rest of the world, with the belief that it is a sustainable and effective way to address food insecurity.

The process of implementing feedback and solutions is extensive and requires the buy-in of various stakeholders at both the municipal and community levels. Communities are encouraged to take the lead in solving problems and investing in their own projects, which fosters a sense of ownership and commitment.

M. Hipolito shared an example of a community in La Libertad, Negros Oriental, which faced significant challenges in planting and needed to address issues related to water access, soil quality, and pest management before they could begin. Despite these challenges, the community persisted and was able to secure the support of external partners, known as "Champions," who co-invested in their project. The result was a successful vegetable exchange program that saw the exchange of 335,000 kilos of vegetables and fruits worth 9.3 million pesos.

Eventually, communities involved in the program produce more than what is captured during exchanges and have eliminated hunger and malnutrition through diverse farming and food sharing. Families earned additional income by selling excess produce, and communities became more resilient and insulated from high food prices. The partnerships also inspire other communities to shift from a dependent mentality to becoming investors in their own food production and happiness.

Partnerships Towards Strengthening School Nutrition Programs

The third speaker was Engr Reyman Zamora, Program Director of AGAK Center, a cooperative that acts as a link between farmers and global opportunities. It is composed of different tribes from the Davao province and are based on 12 sites. Unfortunately, the fact is that Indigenous People (IPs) remain among the poorest and most disadvantaged people in the country wherever they live. They have been subjected to historical discrimination and marginalization from political processes and economic benefit. Because of this, the AGAK Cooperative aims to address the vulnerability of indigenous communities and promote self-reliant and sustainable livelihoods. Their target is to create resilient communities in geographically isolated areas, with a focus on infrastructure development and capacity building.

Among the organization's initiatives is a transformational center for farmers that includes a solar-powered container office with a computer, whiteboard, and wireless connectivity. The center also provides electricity, water, and a water pump. The goal is to link farmers directly to the

market without the need for middlemen or consolidators. The center is part of an ecosystem that includes an IP community, industry, web and mobile app, and online payment system. Engr. Zamora emphasized the importance of maintaining the infrastructure and building partnerships with various organizations and government agencies to help the communities according to their needs.

Furthermore, national agencies can support community requests, and provide the means for financing and marketing for smallholder farmers. He also highlighted the importance of government support in helping marginalized people in terms of infrastructure development, focusing on electricity connectivity, productivity, mobility, and maintainability.

Engr Zamora discussed his experiences in implementing sustainable food systems in the Philippines. He first collaborated with the Electric Cooperative to provide electricity to enable direct sales of produce to consumers. He learned from China's poverty reduction programs and applied this approach to the specific needs of the area.

For production, he partnered with Hijo Foods Inc., and for mobility, he utilized a shared truck. The smallholder farmers were involved in the delivery process, and the price of produce decreased as quantities increased. However, capacity building alone was not a solution, and collaboration was essential for collective change, mountain-to-market collection, and distributed renewable energy.

Securing Food: Availability, Sustainability, and Access

| Food Systems Policy #1

March 01, 2023

What Ails Philippine Agriculture: Directions for Future Reforms

This installment of the webinar series explored the role of policy and governance in addressing issues related to agriculture production and food security. The first speaker was Dr Fermin D. Adriano, Former Undersecretary for Policy at the Department of Agriculture, and also a columnist at the Manila Times. He explained that high food prices have become a topic of concern for many opinion writers, and the root problem can be attributed to the underperformance of the agricultural, fisheries, and forestry sector (AFF).

Among the three major sectors of the economy (i.e. AFF, Industrial Production, and Services), AFF has experienced the lowest growth rate (2.5%), contributing only 0.3% to the country's GDP from 2001 to 2021. Despite employing 24% of the labor force, the sector's output is low due to major labor productivity issues. Furthermore, the Philippines lags behind other ASEAN countries in terms of productivity and yield, leading to higher production costs for commodities like chicken and swine. As a consequence, the agricultural sector is afflicted with low wages, high poverty incidence, and soaring domestic food prices due to shortages.

The agriculture sector offers the lowest wages among the three major sectors of the economy, resulting in poverty in rural areas where two out of three poor Filipinos reside. The lack of development in the agriculture sector has also led to high domestic food prices, with food and non-alcoholic beverages contributing to over 40% of the country's annual inflation rate.

According to a study by the World Food Program (2018), a nutritious food diet remains unaffordable for impoverished households even as they spend around 60% of their income on food. As a result, Filipino households tend to under consume meat, vegetables, dairy, and eggs, leading to significantly higher stunting and malnutrition rates among the poor.

In turn, malnutrition imposes large human, economic, and social costs. It manifests in the form of poor learning capacity of students, lower productivity that can lead to loss of income for adults, and higher health costs that leave a household in perpetual poverty.

Dr Adriano pointed out five main causes of the problem:

Self-sufficiency and commodity-based policy. In pursuit of self-sufficiency, the government is more focused on increasing primary production of cereals through input subsidies. This has

detracted attention from more important goals such as higher AFF growth, greater competitiveness, poverty reduction, and sustainability. There is also inadequate emphasis given to other segments of the value chain as demonstrated by the relatively low forward linkages improvement. In other words, it hinders quality development and processing of new products for a certain commodity.

Permanent protectionist policy. There is little incentive for agri producers to grow and the sector to innovate as foreign competition was held at bay through high tariff protection and non tariff barriers. Dr Adriano asserted that protectionist policies must be time bound to encourage local producers to improve.

Rice-centric budget. On average, 50% (11 billion PHP) of the Department of Agriculture's budget goes to the rice sector from 2017 to 2022. In 2023, the budget share of the rice banner program will significantly increase to 70% (30 billion PHP), further neglecting non-rice agriculture commodities when the major contributors to agricultural gross income are actually non-rice commodities such as livestock, poultry, and corn.

Limited economies of scale. Because of the contracted implementation of the agrarian reform, farmlands have been severely fragmented. In fact, the average farm size is only around one hectare, hindering farmers from experiencing economies of scale, especially since studies have shown that larger farm sizes lead to higher productivity.

Department of Agriculture institutional problems. The agency has been biased towards more regulation than development, and suffers from low absorptive capacity (i.e. the allocated budget is not being spent efficiently or disbursed in its entirety).

With these pressing issues, there is the need for urgent action to stabilize food supply and reduce prices. Dr Adriano recommended easing tariff rates and seeking bilateral agreements with neighboring countries for rice and commodities. In the mid-term, there has to be an institutional reform within the Department of Agriculture to focus more on developmental efforts. Major amendments must also be made to the Comprehensive Agrarian Reform Law to increase the size of maximum land ownership in order for it to be economically viable. Finally, agricultural commodities must be gradually opened to foreign competition in order to promote innovation among local producers.

Perspectives on Food Security in the Philippines

The second speaker was Dr Cielito Habito, former Director-General of the National Economic and Development Authority (NEDA) and a Senior Fellow of the Ateneo Center for

Economic Research and Development. He discussed the differences between food security and food self-sufficiency using the examples of the Philippines and Singapore.

The Philippines, which is food self-sufficient but not food secure, has high food prices, regulated imports, and low incomes, resulting in weak access to adequate food for the poor, with one out of three children suffering from severe malnutrition. In contrast, Singapore, which is not food self-sufficient but food secure, has low food prices, unrestricted trade, high average incomes, and widespread food availability and access.

In essence, self-sufficiency is not a sufficient condition for food security and countries can be food secure without being fully self-sufficient or vice versa. However, there are two contrasting ways to achieve self-sufficiency: (1) the supportive or nurturing mode, which provides meaningful support to producers to raise productivity and achieve cost competitiveness, and (2) the protective approach, which blocks imports through quantitative restrictions, high tariffs, and government control, pushing up prices and reducing demand but also leading to food insecurity.

The Philippines' pursuit of self-sufficiency through the protective approach led to rising inefficiency and decreasing competitiveness, with rice prices moving away from border prices and widening the disparity between domestic and international prices. The solution, according to Dr Habito, is a calibrated use of tariff policy and active pursuit of preferential trading arrangements to ensure fair competition in domestic markets. Another approach is the "provincialization" of development in which the provincial government downloads funds to municipalities for agriculture through matching grants, while also allocating a portion of the budget for capacity building.

Three market and government failures in search of policy reform

The third speaker was Mr. Patrocinio Jude Esguerra III, Policy Consultant from the Office of Senator Risa Hontiveros, and Former Undersecretary of the National Anti-Poverty Commission. He discussed the need for adequate crop insurance coverage for small farmers to help them recover from crop damage and take risks to continue cultivating their plantations.

According to a 2016 research by the Philippine Institute for Development Studies (PIDS), the penetration rates of agricultural insurance on palay, corn, high-value crops (HVC), and livestock were, on average, 27 percent, 12.2 percent, 3 percent, and 3.7 percent, respectively. Furthermore, the private sector is absent in terms of providing crop insurance. This matter is urgent especially since the World Bank (2022) estimated that approximately 15 billion PHP is needed to fully subsidize the insurance of all Philippine Crop Insurance Corporation (PCIC) farmers (5.5 million) and fisherfolks (1.4 million). Therefore, reforms are needed in order to achieve a more

targeted allocation of budget for insurance and to get the private sector on board to insure the bigger producers and those engaged in high value crops production.

Mr. Esguerra also discussed the issue of cold storage, explaining that the Philippines has very low cold storage capacity per urban resident compared to countries like India, South Korea, and Vietnam. Cold storage facilities enable farmers to sell or store perishable commodities, thereby encouraging production diversification and reducing post-harvest losses. Interestingly, he likened this issue to a chicken-and-egg problem where there are not enough crops around because there is no cold storage facility to ensure that they last long, but there is also not enough cold storage facility because there are not enough crops around that need them.

In this case, public-private partnerships (PPP) may be a more effective solution. The implementation of a warehouse receipt system as a microfinance arrangement can also be explored to encourage entrepreneurs to expand their cold storage facilities.

Finally, the speaker expounded on the challenges of forming and maintaining cartels in securing food supplies. Cartels aim to restrict the supply to increase prices, and the government has instruments such as sanitary and phytosanitary clearances and certificates of necessity to import, which are used to control the importation of supplies and decide who can import and how much. The sugar industry, for example, experienced a case where the government has legally or illegally chosen a few importers to corner the sugar supply. These mechanisms allow bureaucrats to exclude others from importing and drive up prices. Mr Esguerra called for the end of government coordination in cartel-like activities and harmful market intervention.

Food Security, Social Safety Nets, and Social Protection

| Food Systems Policy #2

May 03, 2023

With headline inflation reaching a 14-year high of 8.7 percent in January 2023, the impact on malnutrition and hunger has become increasingly urgent, especially since food and fuel items make up over 60 percent of poor households' expenditures. This webinar aimed to raise awareness on the current state of food security issues and possible interventions, and to explore the role of social safety nets and social protection programs in addressing hunger, and promoting sustainable food systems.

The speakers discussed various programs and policies implemented by the government, private sector, and NGOs to address hunger and malnutrition, including microfinance, community pantries, and food production subsidies.

Overview of Food Security and Social Protection Issues in the Philippines

The first speaker was Dr. Fernando Aldaba, Professor from the Department of Economics and former Dean of the School of Social Sciences, Ateneo De Manila University. He provided an overview of government led social protection programs, including interagency task forces, conditional cash transfers, and public-private partnerships. In assessment of these programs, Dr Aldaba pointed out shortcomings such as outdated registries and inadequacy of benefits, and forwarded that better program complementation and a strong leadership are needed to sustain a coherent response against food insecurity.

According to data gathered by the Social Weather Stations, hunger incidence stood at 11.8% of Filipino families (December 2022); and the persistent food crisis will only worsen malnutrition. Additionally, The results of a cell phone survey conducted by the World Food Program also found that one in ten households is food insecure, and agricultural households spend the highest share of their income on food at around 66 percent. Consequently, borrowing food is a common coping strategy used by households, especially in the poorest regions, due to their limited income to purchase food items. Overall, the high inflation rate disproportionately affects poor households more than other income brackets.

The Philippines, which ranks 69 out of 121 countries in the Global Hunger Index, has seen a decrease in hunger indicators over the past 22 years, but improvements have been gradual. The most significant impact is on young children, particularly those under two years old, as malnutrition during this stage can have permanent effects on brain development. For instance, the

high prevalence of anemia among infants and pregnant women can be attributed to the challenge of accessing meat and dairy due to their high prices.

The government is addressing the issue by dedicating Chapter 3.1 of the Philippine Development Plan (PDP) to food security and proper nutrition, with the main outcomes being a sufficient and stable supply of food commodities. Measures of success for this development goal include promoting investments in transport and logistics, digital platforms, and food labeling, as well as addressing malnutrition and improving governance through the National Nutrition Council. There were also various programs initiated during the Duterte and Marcos administrations, such as the Enhanced Partnership Against Hunger and Poverty and the Philippine Multi-Sectoral Program on Nutrition, which aim to optimize economic resources, reduce wasting and anemia prevalence, and promote maternal and child nutrition, adolescent nutrition, food fortification, and behavior change communication.

Given the complexity of this issue, Dr Aldaba asserted that there is an urgent need for stronger coordination and collaboration among stakeholders. Additionally, the importance of community involvement, evidence-based programming, gender sensitivity, and investing in nutrition-sensitive social protection programs was discussed as strategies for improving nutrition programs and addressing undernutrition and malnutrition among children.

Food Security, Social Safety Nets, and Social Protection

The next speaker Ms Ellaine P. Soliman, Project Development Officer of the Philippine Multisectoral Nutrition Project (PMNP) at the Department of Social Welfare and Development.

Stunting, a condition where children do not grow at a healthy rate, can lead to negative long-term effects on health, education, and earnings. The Philippines has high rates of stunting, with 30% of Filipino children under five suffering from it. To address this issue, the PMNP aims to increase the utilization of a package of nutrition-specific and nutrition-sensitive interventions.

Nutrition-specific interventions directly target the immediate process of undernutrition, such as providing nutrient supplements and treating acute malnutrition. Nutrition-sensitive interventions, on the other hand, address the underlying determinants of undernutrition, like poverty, poor access to healthcare, and inadequate water and sanitation infrastructure.

The PMNP has three main components: (1) strengthening the delivery of nutrition and primary health services, (2) community-based nutrition service delivery, and multi-sectoral nutrition convergence, and (3) institutional strengthening, monitoring, and evaluation. The program is being implemented in over 5,900 barangays in the Philippines.

In spite of these, the program faced challenges in promoting food security, particularly in developing countries or regions affected by natural disasters or conflicts. These include insufficient income and resources, inadequate infrastructure, climate change, conflict, and food waste. To address these challenges, partnerships between stakeholders and communities are encouraged for the implementation and sustainability of nutrition programs. Community involvement and ownership through a community-driven development approach can also ensure that programs address specific community needs and are culturally appropriate.

Evidence-based programming, based on scientific research, increases the effectiveness of nutrition interventions. Gender sensitivity is also essential, recognizing the impact of gender dynamics on nutrition outcomes and promoting multi-sector collaboration to address gender inequality. Finally, investing in nutrition-sensitive social protection programs, which address the underlying causes of undernutrition and malnutrition, was also highlighted as an effective approach.

LGU Best Practices on Food Security and Malnutrition

The third speaker was Ms Georgina Ann Hernandez Yang, Executive Director of the Galing Pook Foundation, a non-profit organization that promotes innovation and excellence in local governance. She presented three local government initiatives that exemplify successful practices in terms of promoting sustainable food security. These programs were recognized at the Galing Pook Awards and serve as models for replication and scaling up.

GrowQC: Quezon City's Food Secure Urban Ecosystem (2021)

This program enabled the success of urban farms and gardens, community model farms, and community feeding programs in the highly urbanized city. By expanding the city's greenlands, households became more food resilient and were no longer reliant on food items imported from other parts of the country. The initiative was led by Mayor Joy Belmonte and the QC Sustainable Development Affairs Unit. The city has a specific office focused on SDGs and integrates various sectors, farmers organizations, and agribusiness owners.

This project started before the pandemic, and scaled up due to the need for local food sourcing especially for families whose livelihoods were affected by the lockdowns. The city identified unutilized lands and accessed them through agreements and MOAs to develop food processing zones. Tax incentives were also given to those who would provide their vacant lots for urban farming, and seedlings were provided by the local government to jumpstart the initiative. The program helped successfully cultivate a total of 324 urban farms and gardens as of 2023,

almost double the starting number of 166 urban farms since its inception, and has produced 1.77 million meals through the farm-to-community feeding programs.

Basta Piddigueño, Agrihenyo: Piddig, Ilocos Norte's Inclusive Agribusiness Supply Chain towards Wealth Creation (2022)

This initiative is a public-private partnership between the local government, a multi-purpose cooperative “Piddig Cares 24/7,” and the Department of Public Works and Highways (DPWH), which resulted in small water impounding dams for sustainable water supply and flood control. This program exemplified the importance of social safety nets and social protection, such as health programs, to help farmers overcome disasters and illnesses that could hinder their food production and sustainability.

From Black to Green - Fish Ponds, Ecotourism and Full Employment: Barangay Cayabu, Tanay Rizal's Food Security Program (2022)

"From Black to Green," is a program that transformed a community's primary source of livelihood from charcoal production to farming and fisheries, creating an ecotourism site. The local government is also working on replication manuals based on these best practices to scale up and implement effective, locally-led programs addressing SDG 2 (Zero Hunger).

To wrap up the key takeaways from the three exemplary government initiatives, Ms. Yang emphasized the importance of social behavioral change in influencing food choices and consumption patterns. Additionally, she highlighted the need for properly trained personnel, interoperable information systems, and disaster-proof initiatives to ensure access to healthcare, nutrition programs, assets, inclusive supply chains, and nutritious food sources.

After the three talks, two discussants shared their responses to the webinar speakers. First, Mr Elvin Ivan Uy, Executive Director of Philippine Business for Social Progress, broadened the view of the issue, reminding the audience that almost one-fifth of the Filipino population live in poverty. While he admitted that such contexts make development work seem disheartening, he affirmed that the work matters, and must be continued and intensified. Second, Ms Veronica Obat, a Program Implementer from CSWDO Davao City, added that the challenge is not to rely on providing food to those who need it, but to train communities how to sustainably secure their own food.

SDG2 | Book Launch of "Packaged Food, Packaged Life"

July 18, 2023

On 18 July 2023, the Sustainable Development Solutions Network Philippines (SDSN-PH) SDG2 Zero Hunger Project partnered with the Ateneo University Press for the book launch of “Packaged Food, Packaged Life” by Dr Heriberto Ruiz Tafoya, an affiliate with the Center for Southeast Asian Studies of Kyoto University. Hosted at the Ateneo Institute of Sustainability (AIS), the SDG2 Zero Hunger Project is composed of SDSN PH members namely the Ateneo de Manila University, Xavier University - Ateneo de Cagayan, and Ateneo de Davao University.

The launch started with the opening remarks of Ms Karina A. Bolasco, the former director of the Ateneo University Press where she described the book to “[offer] a comparative perspective and showing the cultural linkages of Mexican and Filipino societies which clearly impacted his analytical framework, methodological choices and reflexive positioning.” Ms. Bolasco also shared her experience with meeting the author in Kyoto University and how she was eagerly interested in his sensitive study in the Metro Manila slums and his background which to her “offers a comparative perspective and showing the cultural linkages of Mexican and Filipino societies which clearly impacted his analytical framework, methodological choices and reflexive positioning” that was embodied in his book. She also added the significance of the concepts and the usefulness of his study stated in the book which may contribute to multiple research disciplines particularly.

Dr Philip Arnold Tuaño, Dean of the Ateneo School of Government (ASOG) and member of the SDSN PH’s SDG 2 Zero Hunger Project welcomed both the onsite and online audiences. Dr Tuaño emphasized that the book does not only provide insights and details about packaged food consumption but it also urges policymakers and corporate institutions to take action.

After the series of introductions, Dr Tafoya provided a summary of his book which discusses the consumption of packaged food in developing countries and puts the focus on Metro Manila slums. His presentation started with elaborating on the “Voice of People” or his bottom-up approach.

Dr Tafoya discussed their research on the living conditions in urban informal settlements in Manila, where the average living space was around 10 meters. Families often lived in multi-level houses, with one or two or even three families sharing a single house. Cooking was primarily done using gas, but charcoal was also used. However, most residents worked long hours, often in labor-intensive jobs. Under these conditions came the loss of traditional cooking practices and the rise of packaged foods in people's lives.

The transition from cooking at home to buying and reselling packaged foods has affected thousands in Metro Manila. In their experience, the author garnered stories of those that started selling soft drinks instead of fruits due to the profit margins, leading to health issues and eventual dependence on the packaged drinks. Some of them had a diet that consisted of packaged foods like three-in-one coffee and junk food, leading to kidney problems that were unattended to.

The starting point for addressing this issue is to reconnect with the body and understand its spirituality, not just its physical components. The speaker references ancient beliefs and traditions, such as the Japanese concept of Hara, and the importance of sourness and freshness in food. The authors Alberto Alegria and Doris Fernandez are mentioned as having explored similar ideas in their books, published in 1991, which advocated for a more grounded political philosophy based on food and traditional practices. The ultimate goal is to move beyond the superficiality of an overly sweet, standardized world and develop a more nuanced and sustainable political philosophy.

Dr Tafoya also emphasized the need for policies that support local food production and the use of industrialized ingredients. He mentioned the importance of recovering cooking practices and links to local agriculture, while acknowledging the necessity of food packaging for emergencies.

Overall, Dr Tafoya's book clarifies the origins and consequences of the corporate food regime, which has led to a significant shift in eating habits. It provides a grassroots perspective, revealing the reality of corporate packaged food consumption in slum households. The goal is to examine who controls what we eat and highlight the varying food freedoms based on class and social stature. Corporations have redefined their business models to accommodate the needs of low-income families, but the author emphasized that corporate packaged food should not be the only option for society. Ideally, natural foods produced through sustainable processes should predominate over industrialized and exploitative food systems.

Sustainable Water for Food Security, Health and Nutrition

| Food Systems Policy #3

September 19, 2023

Agriculture is the largest user of water in the Philippines, accounting for around 70% of total water withdrawals. As the population grows and income rises, the demand for food is expected to increase, putting additional pressure on water resources. Hence, this discussion aimed to provide deeper insight into the need for sustainable water management in agriculture to ensure enough water for food production while also protecting water resources for other uses. This webinar is inspired by Sustainable Development Goal (SDG) 2: Zero hunger, and SDG 6: Access to safe water, sanitation and hygiene, in commemoration of the Global World Food Day theme of "Water is Life, Water is Food."

The rural-urban equity nexus of Metro Manila's water system

The first speaker was Dr Philamer C. Torio, Senior Research Fellow at the Ateneo Policy Center of the Ateneo School of Government. Water is a valuable resource with many uses, including sanitation, irrigation, hydropower, and more. However, managing this resource comes with numerous challenges such as affordability, cost recovery, financing, governance, privatization, and equity. In recent years, literature suggests that the focus on efficiency in markets has failed to address social justice and fairness issues in terms of water management.

Equity is defined as the quality of being fair and reasonable. It closely involves (1) fairness in allocating water or providing water service, also known as distributive justice, and (2) the regulatory and participatory processes that ensure fair treatment for everyone, referred to as procedural justice.

The lack of examination of equity concerns can lead to significant conflicts: disempowerment of consumers, and even denial of basic human rights to water. However, government acknowledgement of equity is often ambiguous, influenced by historical, cultural, and contextual factors, and unable to effectively address these concerns. Consequently, the resulting scarcity is not always due to the physical absence of water but can be generated through bias and discrimination.

The Metro Manila water system gets 97% of its water from Angat Dam, and supplies about 4 million cubic meters per day to over 16.4 million people. The history of centralized water provision in Metro Manila began in 1878 and has seen various policies, from decentralization in 1971 to the current arrangement with local government water utilities.

In 1997, the government introduced privatization as a means to improve the provision of water supply and sanitation services, which were lagging compared to other Asian cities. The service levels were poor, with only 67% coverage, high non-revenue water, and water availability of only 17 hours per day.

The privatization of water services led to significant improvements. Population served increased by 125%, service connections increased by 190%, and water supply increased by 48%. The reduction in non-revenue water provided an additional source of water supply, and water service coverage and availability also improved. Nowadays, the city's water supply is handled by two private concessionaires, Metro Pacific Water and Maynilad Water Services. They serve over 16 million people and have invested approximately 7.4 billion dollars in rehabilitation and privatization.

However, equity issues arose concerning the allocation of water in Angat Dam, where water is used for both Metro Manila's consumption and the surrounding regions' irrigation. Dr. Torio intended to explore these equity issues further to determine if they should be considered in evaluating the success of water privatization projects.

Apart from Metro Manila's domestic water supply, the Angat Dam also provides irrigation water for 28,000 hectares of farmlands in Bulacan and Pampanga. The allocation of water is determined by operating rule curves, with anything above the upper curve going to both Metro Manila and irrigation, anything in between supplying both urban and rural water, and anything below the lower curve solely for Metro Manila. However, during periods of El Nino or long droughts, irrigation water shortages have occurred, resulting in significant crop losses for farmers. For instance, in 1998, the value of lost crops due to water being prioritized for Metro Manila was approximately a billion pesos. Under the current water protocol, farmers are not compensated for these losses.

Cases such as this are an example of how farmers and poor households are negatively impacted by the water inequity between urban and rural areas. Reallocated irrigation water may flow to wealthier urban households, and leave farmers without adequate water for irrigation. Hence, Dr Torio emphasized that equity is crucial, as poor service levels can result in water being lost or stolen. He called for broader equity research and compensation for farmers during water scarcity. Lastly, he concluded that both efficiency and equity must be considered in water allocation and provision policies.

Sustainable Aquaculture Development and the Blue Economy

The next speaker was Mr Pedro Bueno, former Director-General of the Network of Aquaculture Centres in Asia Pacific (NACA). He discussed the importance of the blue economy and its connection to sustainable water use. The blue economy or the ocean economy refers to economic activities based on maritime resources and comprises industries such as fisheries, eco-tourism, and offshore renewable energy. It is estimated to be worth 24 trillion US dollars and provides employment for billions of people. Thus, this sector is teeming with potential to drive economic growth and create employment opportunities, particularly in coastal regions and developing countries. It can also contribute to poverty reduction and improved livelihoods by fostering economic activities that use and protect marine resources.

The blue economy also plays a vital role in nutrition as it provides a significant source of protein for billions of people around the world. In fact, the Philippines is a major producer of cultural species like milkfish, tilapia, and shellfish, with high per capita consumption and significant export revenues. Tilapia, in particular, is a fast-growing aquatic food culture and a significant contributor to the Filipino diet. Seaweed farming is also a significant industry, with 400,000 individuals engaged in it and an export value of up to \$250 million US dollars.

The sustainable development of the ocean economy entails the sustainable use and conservation of marine resources for economic growth, improved livelihoods, and more employment while preserving the health of the ocean.

Mr Bueno provided examples of systems and approaches that contribute to sustainable agriculture, such as Integrated Multi-Trophic Aquaculture (IMTA). IMTA integrates various species, like fish, seaweed, and bivalves, into one landscape to create a synergistic system. This approach not only contributes to food production and waste reduction but also achieves environmental sustainability, economic stability through diversification, and social acceptability due to its restorative nature. The goal of IMTA is to achieve sustainability through waste mitigation, economic stability, and socially responsible practices, leading to better market access and prices for the products.

Other approaches include polyculture, integrated crop-livestock farming, circulating agriculture (aquaponics), and marine protected areas. Polyculture involves growing multiple species in one confined area, such as fish and crops in the same pond. Integrated farming systems, like in Vietnam, follow the same concept. Circulating agriculture and aquaponics are gaining popularity, with aquaponics allowing for the production of vegetables and fish in the same system.

Mr. Bueno also mentioned the importance of marine protected areas, which restrict fishing to restorative practices and have been declared by municipal governments in the Philippines and other countries. Lastly, he discussed social enterprises, such as cooperatives and associations, which have social objectives and generate profits to fund social causes, creating self-sustaining businesses in areas like developing fish fry, making farm-made feeds, and reducing waste in farming.

Empowered Communities Taking Responsibility to Improve Their Quality of Life

The third speaker was Mr Kevin Lee, Executive Director of A Single Drop for Safe Water Inc. He pointed out that despite water being essential for life, people often do not value it enough, leading to excessive use and wastage. For instance, buying bottled water, when in hindsight the whole industrial process of producing one and half liters of water actually requires five liters of water. Overall, there is a need to shift the focus from infrastructure-centered approaches to water, sanitation, and hygiene (WASH) to a people-centered approach.

The traditional approach to WASH development has failed to address the root causes of the issue, with around 50-60% of water systems not functioning properly and those that do lack the capacity to expand or cope with catastrophic failure. The Philippines is an example of a country where government systems have improved WASH implementation over the past 17 years, and this change has been achieved by recognizing that WASH is about creating demand and changing behavior. The country's history shows the importance of governance, which involves the relationship between the community and the government, and the need for effective supply systems that are appropriate to the conditions and capacities of the communities.

Governance, demand, and supply, are interconnected. Demand for water can drive governance, and governments can generate demand through policies and community engagement. For example, the Department of Health has implemented a phased approach to improving sanitation coverage at the community level, focusing on behavior change and supply-side solutions.

At the barangay level, WASH Task Forces are responsible for service delivery, while municipalities act as planners, resource mobilizers, and capacity builders. Provincial areas focus on networking and resource funneling. This system allows for the needs and concerns of communities to be addressed and for resources to be allocated effectively

Mr. Lee encouraged prioritizing WASH as a household, community, and government priority, investing in WASH, and changing social norms to ensure equitable access and quality. Access to safe water is recognized as a human right, with the government and water service

providers as duty-bearers and the community as rights holders. Both are responsible for ensuring equitable access to limited resources.

Land and Food Systems | Food Systems Policy #4

October 17, 2023

This webinar aims to provide deeper insight on the complex relationship between food systems, climate change, social equity, and intergenerational food insecurity. More importantly, those most affected are the poor and marginalized, as the high cost of healthy diets and income inequality make healthy food out of reach for around 3 billion people. Speakers from Africa, South Asia, and the Philippines shared their experiences and insights on securing land access, strengthening tenure security, and promoting sustainable farming practices to ensure food security for local communities.

Moderated by Xavier Science Foundation Executive Director, Mr Roel Ravanera, the event featured speakers from the civil society sector on transdisciplinary issues relating to land issues and food systems in the Global South.

Land and Food Systems in the Asian Context: Trends and Issues

Mr. Don Marquez, Asian NGO Coalition (ANGOC) Executive Director formally introduced the webinar. It was followed by Mr. Antonio Quizon, ANGOC Board Member, who introduced the topic through a comprehensive presentation about the current trends and issues of land and food systems in Asia. Mr. Quizon emphasized that as a region that composes 12% of the global population, policymakers and governments must prioritize land reforms and protect the rights of small farmers and landholders as one of the measures to boost agricultural production and address all other social issues together.

Despite the fact that Asia is home to a large portion of the world's population and agricultural land, rural poverty remains a significant issue. In the Philippines, for example, agrarian reform programs have been ongoing for decades but have not resulted in significant poverty reduction for many farmers. One major reason for this is the absence of support services, leading to low productivity among farmers.

Furthermore, the redistribution of land has been uneven across Asian countries, with some, like Japan, South Korea, Taiwan, China, and Vietnam, achieving more extensive redistribution than the Philippines. Thus, it is important to address these issues to ensure food security and reduce rural poverty in Asia.

The second trend discussed is the changing food tastes and diets as populations grow and urbanize. Consumers are moving away from traditional staples towards commercially grown meats, dairy, and processed foods, which require more land, resources, and energy. By 2030, more

than 55% of the Asian population will be urban, while agricultural households become consumers themselves. For instance, wheat consumption in the Philippines has doubled in ten years due to the growth of fast food chains.

Mr. Quizon also discussed the importance of land use in global food production, with 77% of agricultural land used for livestock and only 23% for growing crops. However, the 23% of agricultural land used for crops contributes 82% of global calorie supply and 63% of protein supply. Consumer choices impact resources, including land, water, and greenhouse gas emissions.

Climate change is also a growing concern, with 3.3 to 3.6 billion people living in vulnerable contexts, particularly in Asia and the Pacific. Agriculture is the sector that is most affected by climate change, as it causes extreme weather events that damage crops, raise prices, and lead to job displacement for farmers. Unfortunately, only 1.9% of global climate funding supports agriculture in these vulnerable regions.

Another trend worth noting is the heightening competition for land and water resources in Asia due to the expansion of the biofuel industry, particularly palm oil plantations. Indonesia is the largest producer of palm oil, with over 14 million hectares planted in 2023, almost half the size of the Philippines. This competition for land directly impacts food production, as agricultural lands are being converted for biofuel production. Additionally, urbanization and the supermarketization of Asia's food market are leaving small farmers and producers in a weaker bargaining position.

To address these issues, Mr. Quizon suggested focusing on land reforms and protecting the land rights and tenure of small holders, creating protected areas for agriculture, and building agriculture and food strategies based on smallholder and family farming.

The Context of Kenya's Pastoral Communities

The next speaker was Mr. Arach David James of NAMATI, based in Kenya. Mr. James presented the context of Kenya's pastoral communities by sharing links between land tenure, land use, and food security. He explained that for many rural Africans, land is their primary asset for food production, livelihood, and identity. However, increasing pressure on land resources due to various crises, including food, energy, finance, and climate, has made customary land, which holds 90% of land in sub saharan Africa, undocumented and insecure.

Customary land is typically held by clans or families based on group rights and social status, with complex systems of multiple rights. Women's involvement in land control is minimal, and there is a need to explore their role in food security. Across the continent, there have been positive reforms, with several African countries adopting legislation to protect community or

collective land rights. These laws aim to recognize local communities' rights to their lands and involve them in resource governance and development. However, the implementation of formal recognition of community land tenure while ensuring food security and local community participation in food systems remains an open question.

Indigenous people's connection to their land and traditional ways of life is fundamental to their culture, social organization, and language. However, most lands being acquired or leased for large-scale investments are not titled private lands but rather community lands owned by these indigenous people. These are the rangelands of Kenya, which are inhabited by approximately 10 million people who raise about 70% of the country's livestock. Despite livestock accounting for 95% of their family income and providing employment for nearly all their population, pastoral communities remain poor and food insecure due to lack of land tenure security and climate change.

The intergovernmental panel on climate change projects that in 10 years, if nothing is done urgently, there will be increased food insecurity, negative health impacts, and conflicts over diminishing natural resources. The speaker also mentions that traders take advantage of local communities during droughts by buying their livestock at low prices and selling them at exorbitant rates. The lack of land tenure security and cultural practices hinder the integration of these communities into the food systems, making their livestock rearing more of a subsistence venture.

Structural inequalities based on cultural norms and patriarchal traditions have excluded women and youths from decision-making processes, leading to decreased productivity and food security. In 2016, the Kenyan government passed a progressive law to secure customary and collective land rights, allowing communities to self-identify, manage, and govern their lands. The expected outcomes of this law's implementation include increased food production, reduced land disputes, and improved local governance. However, less than 50 communities have been able to register their lands since 2016, raising questions about political will towards decentralizing land governance to local communities. Mr James advocated for legal empowerment as a strategy to strengthen local governance and increase food security and productivity.

Participating in Food Value Chain from Production to Consumption

The next speaker was Ms. Mino Ramarosan of the Huairou Commission. She highlighted that the grassroots women's involvement in agriculture supports the building of resilient food systems.

Through focus group discussions conducted by the organization in Kenya, Uganda, Madagascar, and Zambia, common issues emerged. These include limited access to productive

assets like land, water, and technology; lack of access to extension services and farm inputs; difficulty accessing markets; and the ongoing lack of support.

The women also expressed the need for investment in infrastructure, such as roads and storage units, and for a fair return in the value chain. They emphasized that food systems should be seen as a complex circular system that includes social and rights components, and should be regenerative and local. To transform food systems, it's important to address power imbalances and inequality, and to involve the private sector and governments in supporting grassroots communities, particularly women, in food production.

By providing women with decision-making power, access to financial resources, infrastructure, and extension services, they can become agents in the food system and increase yields while reducing waste. Ms. Ramaroson also emphasized the need to advocate for small-scale agriculture and support ongoing local initiatives, such as those in Kaka counties in Kenya and Shea butter production in Ghana. Capacity building and training for women are also crucial for their involvement in decision-making processes and access to financial incentives like low-interest loans.

Sustainable Farm Practices and Safe Environment

The next speaker was Ms. Shanjida Khan Ripa of the Association for Land Reform and Development in Bangladesh. Sustainable agriculture is a way of raising food production that is healthy for people and animals, doesn't harm the environment, and provides fair wages to all contributors, including laborers.

The sustainable agriculture system integrates productivity, environmental sustainability, economic profitability, and social and economic equity. In Bangladesh, agriculture is a significant contributor to the economy, accounting for 2.3% of the GDP and 45.3% of the labor force. However, with a large population and limited land, smallholder farmers face challenges in ensuring food security and sustainable farming practices. The use of irrigation water, pesticides, and high-yield production methods has led to the degradation of land and water resources, declining yields, and vulnerability to natural disasters. Bangladesh's high population density and unequal land distribution further exacerbate these issues.

After Bangladesh's independence in 1977, agricultural practices underwent significant changes due to the Green Revolution, which introduced new technologies and increased chemical use. While these changes brought positive effects, such as increased crop productivity and reduced risks in farming, they also had negative consequences, including soil erosion, groundwater contamination, and the disintegration of economic and social conditions in rural communities.

More importantly, land grabbing and industrialization of agriculture are significant contributing factors to food insecurity in Bangladesh, as the government's efforts to set up economic zones have led to the allotment of large amounts of public land for industrialization. Small holder farmers, who make up the majority in rural areas and predominantly practice family farming, face land-related problems caused by both government policies and natural disasters.

To add to these issues, women are often neglected in getting agricultural services and access to financial resources and technologies, despite making up a significant portion of the rural population and being increasingly engaged in agriculture. For instance, there is a policy allowing joint ownership for landless individuals. However, this policy contains a controversial provision that denies land allotment to single or divorced women without an able-bodied son.

The agricultural system in Bangladesh is controlled by corporations, which use environmentally harmful practices such as groundwater extraction and the use of seeds, pesticides, and fertilizers. These unsustainable farming practices and the corporate control of seeds threaten food security, with Bangladesh ranking 84th out of 121 countries in the Global Hunger Index in 2022. Forty-four million children under five and 12% of women aged 12 to 49 are underweight in Bangladesh.

To conclude, Ms. Ripa called for a comprehensive and integrated approach to sustainable land management, including investment in agricultural infrastructure, climate-resilient agriculture, water management for irrigation, agricultural subsidies, and ensuring women's right to land ownership.

The webinar also included brief sharings from two reactors. Ms. Sheris Angel Casurao, a political science student from the Ateneo de Manila University who shared her reflections about highlighting the often-underrated discussion on gender issues together with land issues and M. Merima Smajic, a graduate student from the Ajou University Graduate School of International Studies in South Korea who shared her insights from the presentation and highlighted the key role of civil society organizations in land tenure policies and cooperating with communities and governments to see how these social issues are interconnected with our food systems.

Food Lost and Food Waste: What can be done? | Food Systems Policy #5

November 14, 2023

The world faces the alarming issue of food waste and loss, which amounts to approximately one-third of the food produced globally. It stems from problems such as overproduction, distribution inefficiencies, consumer behavior, and food waste in restaurants and retailers. The importance of reducing food waste is apparent not only for environmental reasons but also for economic ones, as it costs farmers, businesses, and consumers billions of dollars each year.

Organized by the Ateneo Institute of Sustainability (AIS), Ateneo de Manila University (AdMU), Xavier University - Ateneo de Cagayan, Xavier Science Foundation, Ateneo de Davao University, and the Sustainable Development Solutions Network (SDSN PH), this installment of the webinar series aims to raise awareness about the interconnectedness of food waste and loss, food security, climate change, and environmental degradation.

Food Waste in Supermarkets: Transforming Corporate Food Retail Systems

The first speaker was Ms. Kaylee Hartigan-Go, a third year student from the University of Toronto, who shared her research on food waste in the context of supermarkets and urban areas. She also added how transforming corporate food systems would address issues of food loss and waste management.

The United Nations estimated that more than two billion people are experiencing food insecurity, and almost one billion people from that total are facing food insecurity to a severe degree. In spite of this, the world produces enough food to feed about 10 billion people. More alarmingly, the Food and Agriculture Organization (FAO) reported that about 30 to 40% of the food produced every year goes to waste.

Supermarkets, with their vast capital and influence, shape all stages of the food supply chain by encouraging overproduction and overconsumption. They operate on a business model that requires consistently full shelves, leading to the importation of large volumes of products and the lengthening of supply chains, increasing the risk of waste.

Supermarkets are also known to use aggressive marketing strategies to encourage consumers to buy more than they need, and their practices have shaped people's aesthetic standards and expectations for produce and food items. This vicious cycle results in the discarding of perfectly edible but less than perfect-looking food, encouraging overproduction to make up for the quantities discarded. While changing individual behavior to minimize food waste is important, Ms

Hartigan-Go emphasized that there are broad structural issues at play, and addressing excessive food waste requires more than just changing consumer behavior.

The focus on profit rather than health and wellness is also a significant problem. Hence, there is a need for a whole-of-society approach to address food waste, involving different sectors working together to create structural and cultural changes. For instance, restrictions on food waste and advertising tactics, supporting local food producers, and strengthening urban gardening and farming practices are proposed as possible ways to reduce food waste. Furthermore, government policies, legislation, and regulations must be reevaluated to limit corporate retailers' power and restrict overproduction in industrial agriculture.

Quezon City Food Security Task Force

The second speaker was Mr. Ian Agatep of the Quezon City Food Security Task Force. Mr. Agatep shared the achievements and lessons from Quezon City's food security programs which utilized approaches that focused on enhancing urban agriculture and food production and improving the food systems through engagement of multiple stakeholders in the city.

Established in 2020 through Executive Order 32, the task force focuses on enhancing urban food production and improving food systems. As of July 2023, this initiative was able to assist approximately 18,800 urban farmers and 754 urban gardens and farms have been cultivated, primarily through the Joy of Urban Farming Project. The interdepartmental and multi-sectoral task force enables the city to address various aspects of food security and move around the city effectively.

Eventually, the task force's objectives have extended beyond urban agriculture, focusing on the United Nations Sustainable Development Goals related to hunger, economic growth, health, sustainable cities, and communities. The city advocates for partnerships with various stakeholders and an evidence-based approach to development. Mr. Agatep also mentioned the importance of collaboration with other urban areas to ensure sustainable consumption in Metro Manila. The city has translated its framework into an eight-point action plan, with a new focus on food surplus and waste management from 2023 to 2027.

Currently, Quezon City is a member of the C40 cities, a global commitment to reduce carbon emissions, and is a signatory of the Good Food Declaration. The city has also joined the Milan Urban Food Policy Pact (MUFPP) to ensure sustainable, safe, climate-friendly, inclusive, and healthy food systems. Through these engagements, they have linked with the Consultative Group in International Agricultural Research (CGIAR) for the Resilience Cities program, focusing on nutrient-dense local vegetable production and vendor business pools.

The task force implemented a food rescue program in partnership with Scholars of Sustenance (SOS). It involves rescuing good quality food surplus from various donors and distributing it to communities within a 50-kilometer radius. M. Agatep emphasized the importance of food rescue organizations as a solution to food surplus, especially due to overproduction and overconsumption. He also discussed the city's engagement with the United Nations Development Program (UNDP) and the Market Development Administrative Department to repurpose biodegradable kitchen waste and garden waste into compost for urban gardens and farms.

Mr. Agatep called for the academic community to conduct research that builds on inclusive agrifood systems and sustainable consumption, and to develop policy lobbying mechanisms that can influence city-led programs for food systems development.

Saving the Planet One Meal at a Time

The final speaker, Mr. Mac Florendo of Food Rescue Philippines, offered valuable insights into his organization's endeavors within the civil society sector, particularly highlighting their impactful initiatives centered on food rescue and recycling. Food Rescue Philippines is an organization that focuses on redistributing surplus and near-expiry food to prevent it from being thrown away. Their goal is to create a more productive, progressive, and happier Philippines by reducing food waste and helping those in need.

Mr. Florendo is also a part of Scholars of Sustenance (SOS), an environmental organization that advocates against food loss and waste and fights against food insecurity. Over the past seven years, they have served 30 million meals to vulnerable communities in seven cities, including Bangkok, Bali, Manila, and Jakarta. Their vision is to ensure food equity, providing access to good food regardless of race, status, background, sexual orientation, color, age, and religion. Scholars of Sustenance rescues surplus food from various partners in the food industry, including hotels, restaurants, supermarkets, and manufacturing companies, following a three-step food safety protocol to ensure the quality and safety of the food.

Through their technology and data system, they measure the meals served and provide training to partners, all while collecting and delivering rescued food to those in need. The organization also cooks the rescued food into nutritious meals with the help of volunteers and corporate partners. They have served 30 million meals and aim to reach 50 million by 2025.

By participating in such initiatives, Mr. Florendo exemplifies the crucial involvement of both youth and community stakeholders in the global effort to achieve food security, showcasing the power of collective action in combating food waste. Additionally, he cited the importance of

behavior change interventions as another key aspect in effectively addressing the nation's food waste challenges.

After the three presentations, three panelists representing diverse sectors offered their insights and reflections on the topics discussed by the webinar speakers. First, Mr. Jeorgie Tenolete of Kabalikat-Civicom elaborated on the issue of food waste, particularly as it impacts urban poor communities. Second, Ms Mitzi G. Salcedo of Ateneo de Davao's Ecoteneo expanded on the theme of food rescue programs, emphasizing the crucial role that institutions and organizations play in sustaining such initiatives. She underscored the importance of supporting communities towards self-sufficiency and bolstering their capabilities in waste reduction and recycling efforts. Lastly, Engr Mark Sabines of Xavier University - Ateneo de Cagayan, highlighted the intricate nature of food systems and the context of the Mindanao region. He also stressed the significance of active participation in policy dialogues and support programs aimed at empowering food producers and farmers.

Nourish the Nation: Advocacy on Nutrition

March 12, 2024

This installment of the webinar series aimed to explore the topics of nutrition advocacy and encourage concrete action from individuals to create a healthier, more equitable food system, particularly for the most vulnerable sectors.

Educating the Youth on Nutrition

The first speaker was Ms. Maria Cecilia Pastores from the Food and Agriculture Organization (FAO) Philippines. Currently, she serves as the national food security and nutrition specialist, responsible for developing concept notes and technical reports related to FAO's food security and nutrition portfolio.

The FAO, a specialized agency of the United Nations, has collaborated with the Philippines since its foundation in 1945, and focuses on agriculture, fisheries, forestry, food security, nutrition, and rural development. The FAO's strategic framework for 2022 to 2031 aims to support better production, better nutrition, better environment, and better life.

Ms. Pastores defined nutrition as the science of food, the nutrients and substances therein, their interactions, and balance in relation to health and diseases. It also studies the process by which the organism digests and utilizes food substance. Nutrition is how food affects the health of the body. Nutrition education, on the other hand, provides people with correct information on the nutritional value of foods, food quality, and safety, helping them make the best choices for an adequate diet. The primary goal of nutrition education is to reinforce specific nutrition-related practices and behaviors to improve health.

Throughout the years, the FAO has implemented various initiatives to support and promote nutrition education. One such program is the "Pabasa para sa Nutrisyon," a participative gathering of mothers who have kids under five years old to discuss and adopt proper nutrition practices and healthy lifestyles. Another successful program is "Radyo mo sa Nutrition," which educates the general public on nutrition and coping strategies to address poverty and hunger by way of a radio broadcast that aired until 2022.

Through these projects, the United Nations recognizes the importance of the youth in achieving the SDGs, but they need to be capable of translating these goals into action. Agriculture is one such sector where the youth can play a vital role in ensuring SGD2: Zero Hunger is achieved. However, there are challenges in the agriculture sector, including a potential shortage of farmers due to declining employment and an aging population. In 2018, for instance, the number of

employed Filipinos in the agriculture sector reached a 22-year low. To add to these persistent problems in food production, malnutrition is a significant issue in the Philippines, with about 30% of children under five being affected by stunting.

Overall, the FAO aims to achieve four outcomes: (1) strengthening the capacity of agriculture stakeholders to design training modules for sustainable agriculture, (2) educating the youth sector on the concepts related to food systems, agricultural technologies, nutrition, and entrepreneurship, (3) integrating youth in agriculture programs and local plans, and (4) conducting a research study on the possible roles of the youth in the aquaculture value chain.

MINGO Nutrition Program

The second speaker was Ms. Milagros Kilayko, President of the Negrense Volunteers for Change. She recounted the story of a nine-year-old boy who was still in kindergarten because only then did their parents earn enough money to afford breakfast before sending the child to school. This detrimental delay in education of the youth was what inspired the organization to focus on providing proper food and nutrition for children below the age of three. In collaboration with the Department of Science and Technology (DOST), they undertook the production of complimentary food using rice, mung bean and *malunggay* (Mingo).

They conducted field trials and implemented a home-based feeding program using *Mingo*, a nutrition-based complementary food served in individual sachets. In 2011, they introduced the first version of their nutrition program, which enrolled over 53,000 underweight or severely underweight children with an 83% success rate.

In 2022, they introduced the second and third versions of their program, inspired by a successful initiative from Peru. This new version offered mothers a cash incentive of 250 pesos for attending each quarterly assembly. These assemblies include comprehensive health assessments, children's medical checkups, and dental exams. All the files pertaining to each participant's assessment are filed in folders and continually observed throughout the whole year that the program is implemented. It also offers food vouchers and community pantries that contain produce from local farmers to help with their income and livelihoods. Finally, the barangay nutrition scholars who assisted with monitoring the children also received 100 pesos for every child that met the height and weight targets.

The third version of the program was specifically designed for stunted children. It includes the provision of Mingo meals for siblings of enrolled children who are under the age of 12, as well as milk and vitamins which are critical nutrients that can help a child out of malnutrition.

Additionally, they help families engage in sustainable food production through collaborating with the Department of Agriculture to create gardens and produce various types of food.

Another key component of this version is the creation of peer groups. Peer groups help encourage and support each mother in promoting better nutrition for their children, with rewards given to the groups whose children reached weight and height targets, engaged in food production, and ensure proper immunization and cleanliness. Overall, the success of the program is attributed to the collaborative efforts of the organization, the local government, and community volunteers.

SIKHAY (Sigla, Kalusugan, Bahay)

The third speaker was Mr. Diogenes (Dodge) Osabel, a Trustee of SIKHAY (Sigla, Kalusugan, Buhay), who shared his personal journey of discovering the importance of nutrition and the impact of malnutrition for the health of the nation's youth. According to UNICEF, malnutrition accounts for nearly half of all deaths in children under five years old. This is especially alarming since 20% to 50% of hospitalized patients are known to be malnourished. Thus, it is important to be conscious of food intake and to avoid food that are high in sugar, salt, and fat; as well as processed food laden with chemicals.

Mr. Osabel discussed the issue of Filipinos consuming less vegetables due to their high prices and children's aversion to them. There are possible interventions to address this, such as encouraging vegetable consumption at the family level, and making food more accessible in local communities through the involvement of local government officials in food production programs.

Ms. Rome Kanapi, also a SIKHAY Trustee, discussed how their organization aims to disperse knowledge of the nutritional values of locally sourced vegetables and herbs, as well as finding new ways to use them to ensure no Filipino goes hungry. SIKHAY focuses on education through publication and demonstrations, specifically creating calendars and cookbooks featuring local herbs, fruits, and leafy greens. From 2014 to 2024, they have published five calendars and one cookbook called "Leafy Delights." The calendars highlighted various herbs, their health benefits, and how to grow and use them culinarily. In 2018, they shifted their focus to fruits, showcasing local options like bayabas, guava, mangoes, and watermelon, and providing innovative recipes, such as using watermelon as a cake alternative.

They also conducted cooking demonstrations in different areas, providing healthy and affordable recipes using naturally grown herbs. The women in the communities were introduced to new flavors and aromas through these demonstrations, and they were given small pots of herbs to take home. The cooking demonstrations were also participative, allowing the moms to join and better familiarize themselves with the cooking process.

Safe Bites: Navigating the World of Food Safety

June 18, 2024

Approximately 600 million people get sick from more than 200 illnesses that can be transmitted by food each year, leading to more than 42,000 preventable deaths around the world. This is why consumer education is crucial in maintaining food safety standards and reducing the risk associated with foodborne diseases. The objective of this webinar is to educate students, academics, and organizations about the importance of food safety and possible concrete interventions to it.

The Food and Agriculture Organization (FAO) of the United Nations

The first speaker was Dr. Lionel Dabbadie, Food and Agriculture Organization (FAO) Representative in the Philippines, who talked about the FAO's programs to help countries improve food safety regulations through legislative information databases and coherent regulatory approaches. Created in 1945, the FAO leads international efforts to defeat hunger, achieve food security for all, and make sure that people have regular access to enough high-quality food to lead active, healthy lives.

The organization's strategy is summarized under the "Four Betters:" better nutrition, better production, better environment, and better lives, aiming to implement the 2030 Agenda and the Sustainable Development Goals (SDGs). These categories reflect and build on the interconnected economic, social, and environmental dimensions of agrifood systems, ultimately working towards the following strategic outcomes:

STRATEGIC OUTCOME 1: Intergovernmental and intersectoral coordination of food safety governance is reinforced at all levels. The Codex Alimentarius Commission is the joint body with the World Health Organization (WHO) which lays out all the international references for food safety standards. It is based on sound science provided by independent international risk assessment bodies or ad-hoc consultations. While being recommendations for voluntary application, the Codex standards serve in many cases as a basis for national legislation.

STRATEGIC OUTCOME 2: Sound scientific advice and evidence are provided as the foundation for food safety decision-making. Under this strategic outcome, the FAO aims to continuously improve, tailor, and update the science-, evidence- and risk-based approaches, as well as the methodologies and skills to provide authoritative scientific advice to the Codex, FAO Members and other UN agencies.

STRATEGIC OUTCOME 3: National food control systems are further strengthened and are continuously improved. To achieve this, the FAO assists stakeholders to embrace relevant technological developments, including digital technologies, in food control and food safety management.

STRATEGIC OUTCOME 4: Public and private stakeholder collaboration is promoted to ensure food safety management and controls throughout agrifood systems. The FAO also supports governments and food chain actors starting from primary production and including associated industries, academia, consumers and other stakeholders, in adopting gender responsive and inclusive programs of preventative food safety control and management.

In line with this strategic framework, FAO has produced an easy-to-understand, freely available online tool to guide testing of different commodities for mycotoxins. It should be of use to national authorities and food producers.

The FAO is committed to the responsible use of antimicrobials to keep them working. This means improving food production practices, hygiene and sanitation to limit the contamination of foods during both production and processing. It also involves strict monitoring of the prevalence of antimicrobial-resistant pathogens and unsafe residues. With scientific advice from FAO and WHO, Codex recently updated and developed texts which provide Members with a One Health approach to minimize and contain foodborne antimicrobial resistant bacteria and undertake monitoring and surveillance of these organisms in the food chain.

Together with WHO, FAO has developed guidelines for managing and mitigating the risk of ciguatera fish poisoning. FAO also supports fishers, fish farmers, fish handlers and processors to stop such toxins entering the supply chain. The 189 Codex Members have agreed to a code of practice which directs and incentivizes preventative measures.

Furthermore, the FAO believes that the effect of climate change on food safety should be much better understood. The Organization produced a publication on the topic in 2020. Increasing temperatures can promote the survival and proliferation of foodborne pathogens like salmonella and vibrio, while there is evidence that the prevalence of mycotoxins and marine toxins from algal blooms may be increased by climate change. Put simply, these are beginning to occur outside their “traditional” environments. Climate change can also increase contamination of staple foods such as rice, presenting further danger to populations already at risk from malnutrition

Food safety is a matter of collaboration, partnership and knowledge sharing. The FAO works in close collaboration with other UN agencies, national and international organizations and research centers, as well as food business operators and other stakeholders.

Food Safety and Toxicology in the Philippines: A Regulatory Challenge

The next speaker was Dr. Kenneth Hartigan-Go, Faculty and Senior Research Fellow at the Ateneo Policy Center of the Ateneo School of Government (ASOG). He argued that food insecurity can lead to decreased food quality and therefore, increased safety risks. For instance, the melamine contamination in milk was a global concern that emphasized the importance of early intelligence sharing among nations to prevent the further spread of contaminated food. During crises such as these, it is critical for the government to undertake sophisticated approaches and collaborate closely with the media to monitor retail trade behaviors.

The Philippines' Food Safety Act was enacted in 2013 in an effort to protect consumers from harmful food. It involves the traceability principle from farm to fork; allowing the government to oversee the production, processing and transport, storage and retailing, preparation, and consumption of food items to ensure that there are no biological, physical, or chemical hazards in place. For Southeast Asia, there is the ASEAN Rapid Alert System for Food and Feed in place to bring up an early warning to other member countries as soon as hazardous food items are detected. This would allow countries to immediately put a stop to importation and sale of possible contaminated food.

These policies serve to mitigate issues that arise when it comes to food safety. Dr Hartigan-Go mentioned several such cases; one that involves the sale of artificially colored saffron and a local jelly delicacy known as *gulaman*, which contained harmful industrial dyes. Because these products are largely available in public markets, it is difficult to enforce regulations and monitor local production. The second issue revolves around biologic poisoning from contaminated shellfish and the importance of monitoring coastal waters for red tide. Another incident involved the death of 27 children in Bohol in 2005, after consuming cassava cake. Initially believed to be caused by cyanide, further investigation revealed that the cake contained pesticide residue from a container previously used for storing the chemicals.

Food can be unsafe due to natural toxins, bacterial or fungal contamination, and intentional adulteration with chemicals or pharmaceuticals. The regulatory gap lies in the illegal marketing of registered food supplements as cure-alls, amplified by social media. Laboratory capability is also a concern, and there is a need for accrediting third-party private laboratories to better examine food samples in the market. To address these issues, Dr. Hartigan-Go suggested stronger government monitoring, consumer awareness, and tighter regulatory provisions.

Food Safety: Poisons in Your Food

The third speaker was Dr. Romeo Quijano, Chairperson of the Pesticide Action Network (PAN) in Asia Pacific. The right to life and the right to health are basic human rights guaranteed by international and national laws. Thus, governments are obligated to ensure that people under their jurisdiction enjoy the right to life and the right to health. However, both of these principles cannot be enjoyed without food security, and food security cannot be attained without food safety.

Food contaminated with pesticides and other toxic pollutants negate the very objective of food security, that is, to achieve good health and maintain life. While food security serves as the foundation of good health, food safety provides the umbrella for the maintenance of health. In this case, poison in food is defined as any chemical or substance capable of producing a harmful response in a living organism. If consumed in dangerous doses, it can cause a myriad of health complications such as cancer, blood diseases, organ disorders, and immune system dysfunction.

Poisons also have different classifications: (1) agrochemicals (insecticides, herbicides, fungicides, growth regulators, etc.), (2) other environmental contaminants (radionuclides, heavy metals, etc.) and (3) food additives (nitrates, sulfates, phosphates, artificial colors, synthetic sweeteners, etc.). D. Quijano also discussed genetically modified organisms (GMOs) as a food contaminant, presenting potential dangers to both the environment and people since their introduction in the late 1990s.

Dr. Quijano expressed concern about the lack of systematic monitoring of pesticide residues in food by government agencies, and the increase in allowable concentrations for importation due to World Trade Organization (WTO) agreements. Recent studies on vegetable contamination by pesticides in the Philippines also showed significant contamination in various vegetable samples.

Another important toxin in food that arose in recent years is microplastic. Microplastics can affect various systems in the human body, including the digestive, respiratory, endocrine, reproductive, and immune systems. It can act as carriers of other environmental toxins, increasing the risk of chronic pulmonary disease and various endocrine disorders, including metabolic, developmental, reproductive and immune disorders. In an animal exposure study by Chen et al. in 2023, the authors concluded that exposure to polystyrene (PS) nanoplastics “caused a significant acceleration of epithelial ovarian cancer tumor growth in mice and a dose- dependent decrease in the relative viability of epithelial ovarian cancer cells by altering the tumor growth microenvironment.”

At the root of these complex problems of food safety lies the power of corporations to influence government policies and regulatory agencies, the misuse of science, and the lack of

community participation in decision-making. Dr. Quijano pointed out that many scientific journals and institutions are funded by corporations with potential conflicts of interest, making it difficult to discern true findings. It is important to acknowledge that it is power relations, not the free market, that determine the toxic chemicals agenda and primarily serve the privileged class.

At an individual level, it is critical to identify the toxic elements mainly causing or contributing to ill health. If need be, consult a medical facility on the first appearance of serious signs and symptoms suspected to be mainly due to some toxic elements. On a grander scale, institutions must put a stop to intrusive and exploitative globalization policies that destroy local communities, and instead develop an alternative trading system that focuses on people to people exchanges.

Overall, Dr. Quijano called for addressing the lack of integrity within agencies that influence food safety, promoting sustainable agricultural practices, and advocating for stronger regulatory measures and education to improve food safety and enhance overall health and quality of life for vulnerable populations.

APPENDIX A.

List of Webinars and Youtube Links

- Ateneo Institute of Sustainability. 2021a. “Pathways to Sustainable Food & Nutrition, Consumption, and Livelihood | Food Systems Summit #1.” https://www.youtube.com/watch?v=ZUnj6_NXkH8.
- . 2021b. “Orientation on Community Dialogues | Food Systems Summit #2.” https://www.youtube.com/watch?v=uYnlyWD_QIs.
- . 2021c. “Perspectives on Urban Farming and Community Gardens | Food Systems Summit #3.” <https://www.youtube.com/watch?v=oRI519lv1CI>.
- . 2021d. “Youth Voices, Food Systems, and the Future | Food Systems Summit #4.” <https://www.youtube.com/watch?v=y9o0AnvuUbM>.
- . 2021e. “Revitalizing Food Systems: Cooperatives Experiences | Food Systems Summit #5.” <https://www.youtube.com/watch?v=D-Dp3ctiEDA>.
- . 2021f. “Feeding Minds, Fighting Hunger, Healing the Planet | Food Systems Summit #6.” https://www.youtube.com/watch?v=BmP6_8yHJRA.
- . 2022a. “Indigenous Peoples, Environment, and Food Systems Development With Teddy Baguilat | FS & Future #1.” <https://www.youtube.com/watch?v=JTcTovDf-rk>.
- . 2022b. “Employment, Livelihoods, and Food Systems With Atty. Sonny Matula | FS & Future #2.” <https://www.youtube.com/watch?v=096BSMcb81o>.
- . 2022c. “Human Rights and the Right to Food With Atty. Chel Diokno | FS & Future #3.” <https://www.youtube.com/watch?v=NQxG2nFRT9I>.
- . 2022d. “Food Education and Empowered Development | Different Actors #1.” <https://www.youtube.com/watch?v=nMEtwCYO07U>.
- . 2022e. “The Academe | Different Actors in Sustainable Food Systems #2.” <https://www.youtube.com/watch?v=5GIKtbYyehE>.
- . 2022f. “Partnerships | Different Actors in Sustainable Food Systems #3.” https://www.youtube.com/watch?v=eB_Ay-mqrbo.
- . 2023a. “Securing Food: Availability, Sustainability, and Access | Food Systems Policy #1.” <https://www.youtube.com/watch?v=tCwtdVfUl-k>.

- . 2023b. “Food Security, Social Safety Nets, and Social Protection | Food Systems Policy #2.” <https://www.youtube.com/watch?v=bZPM5LRiKSE>.
- . 2023c. “SDG2 | Book Launch of ‘Packaged Food, Packaged Life.’” https://www.youtube.com/watch?v=_ddHjnZ808A.
- . 2023d. “Sustainable Water for Food Security, Health and Nutrition | Food Systems Policy #3.” https://www.youtube.com/watch?v=pX9_elsHp_c.
- . 2023e. “Land and Food Systems | Food Systems Policy #4.” <https://www.youtube.com/watch?v=IDVgyNhVSn0>.
- . 2023f. ““Food Lost and Food Waste: What Can Be Done?” | Food Systems Policy #5.” <https://www.youtube.com/watch?v=xrLThUazM4w>.
- . 2024a. ““Nourish the Nation: Advocacies on Nutrition.”” <https://www.youtube.com/live/iu-wS-UC8AE>
- . 2024b. “Safe Bites: Navigating the World of Food Safety.”” <https://www.youtube.com/live/pKNwM6p1WIc?si=8WN01ElkAmsEVjlg>

APPENDIX B.

List of Speakers, Reactors, and Presentations

Pathways to Sustainable Food & Nutrition, Consumption, and Livelihood | Food Systems Summit #1

- Speakers:
 - Introductory Message by Dr Martin Frick
 - An Overview on Agriculture and Food Systems and the Way Forward by Dr Cielito Habito
 - A Perspective on Food Security and Nutrition in the Philippines by Dr Roehlano Briones
 - Rethinking Sustainable Consumption and Lifestyles by Dr Maria Assunta Cuyegkeng
 - Innovating Value Chains and Equitable Livelihoods by Dr Larry Digal
 - Building Resilience to Vulnerabilities, Shocks and Stresses by Fr Pedro Walpole SJ, Ph.D.
- Reactors:
 - Oliver Oliveros

Orientation on Community Dialogues | Food Systems Summit #2

- Speakers:
 - Introductory Message by Mr Roel Ravanera
 - Why, What, and How of the discussion-forum by Dr Philip Arnold Tuaño

Perspectives on Urban Farming and Community Gardens | Food Systems Summit #3

- Speakers:
 - Urban Farming: Beyond Community Pantries by Fr Daniel Pilario PhD
 - Urban Gardening Flourishing Post-Pandemic: It's Time For Cities To Encourage New Growth by Ms Cherrie Atilano
 - Sustainability of Agriculture Projects by Mr Floro Dalapag
 - Urban Agriculture & Community Gardens: Addressing The Challenges by Dr Teodoro Mendoza

Youth Voices, Food Systems, and the Future | Food Systems Summit #4

- Speakers:
 - Food and Future by Ms Xyla Mercedita “Tat” Gualberto
 - Food and Youth: A Coming-of-Agency by Ms Suzie Agustin
- Reactors:
 - Francine Mamba

Revitalizing Food Systems: Cooperatives Experiences | Food Systems Summit #5

- Speakers:
 - “Cooperative Tree:” Its Roots, Growth, & Fruits (The FICCO Story) by Dr Anselmo Mercado
 - Revitalizing Food Systems: The NATCCO Experience by Ms Sylvia Okinlay-Paraguya
 - COOPS4food: The Role of Cooperatives in Creating Sustainable Regional and Local Food Systems: The AgriCOOP Experience by Mr Crescente Paez
 - Revitalizing Food Systems by Dr Ernesto Ordoñez

Feeding Minds, Fighting Hunger, Healing the Planet | Food Systems Summit #6

- Speakers:
 - Gardening in the Ignatian Tradition by Fr Jee Vui Fung, SJ
 - Food Innovation and Utilization by Ms Josie L. Igloria
 - Duyog, The Gift of Food Initiative by Mr Mark Paul Samante

Indigenous Peoples, Environment, and Food Systems Development with Teddy Baguilat

- Speakers:
 - Datu Johnny “Bagusayana” Guina
 - Dr Andres Ignacio
 - Mr Andre Robert Daba
 - Cong Teodoro “Teddy” Brawner Baguilat

Employment, Livelihoods, and Food Systems with Atty. Sonny Matula

- Speakers:
 - Dr Lynnette Matea Camello
 - Ms Graciella Marie Leandicho
 - Mrs Arlene Goloso
 - Atty Jose Sonny G. Matula

Human Rights and the Right to Food with Atty. Chel Diokno

- Speakers:
 - Archbishop Antonio Javellana Ledesma, S.J., D.D.
 - Ms Samantha Cayona
 - Prof Amparita Sta. Maria

Food Education and Empowered Development | Different Actors #1

- Speakers:
 - Initiatives of the Ateneo Center for Educational Development (ACED) by Dr Carmela C. Oracion
 - Duyog: The Gift of Food Initiative by Mr Mark Paul Samante,
 - Food Education and Empowered Development (FEED) by Mr Roel Ravanera
- Reactors:
 - Ms Beatrice Villamor
 - Ms Leila Milana

The Academe | Different Actors in Sustainable Food Systems #2

- Speakers:
 - The Farm-to-table concept in the tourism industry by Dr Harold Bueno
 - XUCA initiatives toward strengthening the sustainability of smallholder, high value vegetable supply chains by Dr Maria Rosario Mosqueda
 - Understanding community level food security from social science perspectives and the promise of multidisciplinary research by Mr Julien Carandang
 - Partnerships Towards Strengthening School Nutrition Programs by Dr Eden Delight Miro
- Reactors:
 - Dr Jaime Montesur
 - Ms Rizalie Dianne Estipona

Partnerships | Different Actors in Sustainable Food Systems #3

- Speakers:
 - Overview of global partnerships on the future of food by Dir Oliver Oliveros
 - ARK solves hunger in five (5) weeks by Ms Tina Hipolito
 - Partnerships Towards Strengthening School Nutrition Programs by Engr Reyman Zamora
- Reactors:
 - Ms Ivory Jane Doble
 - Mr Eduard Lacadwe

Securing Food: Availability, Sustainability, and Access | Food Systems Policy #1

- Speakers:
 - What Ails Philippine Agriculture: Directions for Future Reforms by Dr Fermin D. Adriano
 - Perspectives on Food Security in the Philippines by Dr Cielito Habito

- Three market and government failures in search of policy reform by Mr Patrocinio Jude Esguerra III
- Reactors:
 - Ms Kristal Noriz T. Ras
 - Ka Rene Cerillo

Food Security, Social Safety Nets, and Social Protection | Food Systems Policy #2

- Speakers:
 - Overview of Food Security and Social Protection Issues in the Philippines by Dr Fernando Aldaba
 - Food Security, Social Safety Nets, and Social Protection by Ms Ellaine P. Soliman
 - LGU Best Practices on Food Security and Malnutrition by Ms Georgina Ann Hernandez Yang
- Reactors:
 - Ms Veronica F. Obat
 - Mr Elvin Ivan Uy

SDG2 | Book Launch of "Packaged Food, Packaged Life"

- Speakers:
 - “Packaged Food, Packaged Life” by Dr Heriberto Ruiz Tafoya

Sustainable Water for Food Security, Health and Nutrition | Food Systems Policy #3

- Speakers:
 - The rural-urban equity nexus of Metro Manila’s water system by Dr Philamer C. Torio
 - Sustainable Aquaculture Development and the Blue Economy by Mr Pedro Bueno
 - Empowered communities taking responsibility to improve their quality of life by Mr Kevin Lee
- Reactors:
 - Mr Dave Gepalago
 - Ms Mitzi Salcedo

Land and Food Systems | Food Systems Policy #4

- Speakers:
 - Land and Food Systems in the Asian Context: Trends and Issues by Mr. Don Marquez and Mr Antonio Quizon
 - The context of Kenya’s pastoral communities by Mr Arach David James

- Participating in Food Value Chain from Production to Consumption by Ms Mino Ramarosan
- Sustainable Farm Practices and Safe Environment by Ms Shanjida Khan Ripa
- Reactors:
 - Ms Sheris Casurao
 - Ms Merima Smajic

“Food Lost and Food Waste: What Can Be Done?” | Food Systems Policy #5

- Speakers:
 - Food Waste in Supermarkets: Transforming Corporate Food Retail Systems by Ms Kaylee Hartigan-Go
 - Quezon City Food Security Task Force by Mr Ian Agatep
 - Saving the Planet One Meal at a Time by Mr Mac Florendo
- Reactors:
 - Ms Jeorgie Tenolete
 - Ms Mitzi Salcedo
 - Engr Mark Alexis Sabines

Nourish the Nation: Advocacy on Nutrition

- Speakers:
 - Educating the Youth on Nutrition by Ms Maria Cecilia
 - Mingo Nutrition Program by Ms Milagros Kilayko
 - SIKHAY (Sigla, Kalusugan, Bahay) by Mr Dodgie Osabel and Ms Rome Kanapi
- Reactors:
 - Ms Nessa Buna, RN
 - Ms Annielov Paboroquez
 - Ms Mabi David

Safe Bites: Navigating the World of Food Safety

- Speakers:
 - The Food and Agriculture Organization (FAO) of the United Nations by Dr Lionel Dabbadie
 - Food Safety and Toxicology in the Philippines: A Regulatory Challenge by Dr Kenneth Hartigan-Go
 - Food Safety: Poisons in Your Food by Dr Romeo Quijano
- Reactors:
 - Ms Leen Juliet S. Lapatis
 - Ms Lindple Grace A. Cabiladas
 - Ms Kyla Elisa Sacmar

- Ms Bernadette Sabalza
- Ms Filomena Cinco

APPENDIX C.

Working Group SDG2 Members

ADMU

- Ms Ophalle Pornela-Alzona
- Dr Justin J. Badion
- Mr Joseph Capuno
- Dr Emmanuel Delocado
- Dr Cristina Liamzon
- Dr Philip Arnold Tuano
- Dr Edgardo T Valenzuela, hc (Convenor)
- Ms Jessica Louise Pan-Villarama

ADDU

- Mr Mark Paul Samante
- Ms Grace Salvie Demol

AdC/XU

- Ms Seigred Jade Paigalan
- Mr Roel Ravanera
- Ms Gail dela Rita