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Higher Education for Sustainable Agriculture (HESA) and Food Security in the Philippines: An Academic-Government Dialogue

University Hotel, University of the Philippines Diliman Quezon City, Philippines

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Opening Remarks

The event opened with the National Anthem, led by Dr. Teodoro Mendoza from the University of the Philippines-Los Banos (UPLB) College of Agriculture. He introduced Prof. Rex Demafelis, the Vice Chancellor for Research and Extension in UPLB. Prof. Demafelis read a brief message from UPLB Chancellor Fernando Sison. In the opening remarks, he emphasized that food security is an issue which concerns everyone regardless of class and race, since the need for sustenance is a basic need. The Philippines experiences issues regarding food security and environmental stability. Food security can also be considered as the most persistent and compelling challenge in the Philippines according to Dr. Mendoza. The event aims to address some of these issues through a dialogue among the stakeholders in the university, as well as in the government. Another idea that was focused on is the need for collaboration between policymakers and academics.

Introductions of the participants

After the opening remarks, the participants introduced themselves and their affiliations. They come from different areas in the Philippines. On the side of the government, there were representatives from the different branches of the Philippine Rice Research Institute (PRRI), as well as the United Nations Food and Agriculture Office (UN FAO). There were no representative from the Commission on Higher Education (CHED) and Nuclear Institute of Agriculture (NIA). Aside from government representatives, there were also academics from different universities in the country, such as Silliman University, Southeast Asian Regional Center for Graduate Study and Research Agriculture, Visayas State University, Benguet State University, Central Mindanao State University, Mindanao State University and the University of the Philippines, among others. There was also from Jiangsu University in China who came in attendance.

Before proceeding with the program, Dr. Teodoro Mendoza stressed the need for cultureaccepted and farmer-accepted approaches that can sustain agriculture. He pointed out that a crucial factor in achieving food sovereignty is the quality of the soil. He said that the main output of the dialogue would be a policy brief, which can serve as a platform for implementing changes.

In response to these comments, Dr. Cely Binoya, the Executive Director, Asia-Pacific Association of Educators in Agriculture and Environment (APEAEN) said that her group has been promoting sustainable agriculture practices. In a recent event in Bicol, they focused on the farming families themselves. She reiterated the idea that the government, the private sector and academe can work together to promote sustainable agriculture.

The main part of the morning's program was the panel discussion on the perspectives and policies of government agencies, as well as the UN, moderated by Dr. Cely Binoya. Before



proceeding with the discussions, Dr. Wayne Nelles gave a brief overview of the event as part of a larger project involving other Southeast Asian countries like Thailand and Laos.

He also introduced a forthcoming publication about food security in the context of a "green economy" within the ASEAN. He stressed that the objective of the event is to look for the ASEAN context for sustainable agriculture and food security.

Panel discussion: Government and UN representatives

A. PRRI, Batac representative – Ms. Fidela P. Bongat

The first speaker was Ms. Fidela Bongat, the representative of PRRI Ilocos Region. She said that among the most pressing problems in agriculture is that farmers do not know how to make use of the landholding that they have. The farmers have an average of 3-5 hectares of land. However, a disadvantage is the scarce rainfall in the region. This is the reason why Ilocano farmers sometimes choose to plant other crops instead of limiting themselves to rice. Aside from this, farmers also do not have the bargaining power in determining the price for their products. Despite these difficulties, she noted that Ilocano farmers are very hardworking and resilient.

Recently, they have started the use of organic materials that can improve the condition of the soil in the region, given that productivity depends on the health of the soil. In the past, the use of chemicals in the soil has affected the groundwater. Studies also show that diversification of farming can deplete the groundwater.

Ms. Bongat said that the government is doing a lot but that the problem is scarce resources. On the logistical side, another obstacle are the fragmented policies among different government agencies such that there is a lack of collaboration on specific issues.

PRRI is currently helping the academe and secondary schools to entice their students to go into agriculture. They have been holding many campaigns to help out the teachers to bring back the love and passion for agriculture among students. There are also trainings in rice production in technical-vocational schools so that they can teach their own families. The PRRI has made use of of ICT for these campaigns. There is also an ongoing campaign called "RICEponsable ako", with the goal of helping consumers to contribute to sustainable agriculture by being very conscious in their rice consumption so as not to waste any.

Ms. Bongat recognized the need for government agencies to collaborate with the different universities.

Discussion (1)

The following ideas were raised by members of the audience during the discussion:



- Despite efforts in capacity-building among farmers, the farmers in the Philippines remain to be very poor. Perhaps there is a need to come up with a new paradigm aside from that of capacity-building.
- There is a need to clarify the meaning of food security as involving three factors: (a) the availability of food, (b) its affordability, and (c) its safety. Food security must also be understood as access to food in a sustainable manner.
- Diversity in the programs of different government agencies may also be an advantage, since this means that much is being done; however, there is a need for more coordination within government itself.
- One example of a government policy in agriculture which has proven to be workable is the "From Arms to Farms" program in Lanao, wherein former members of the Moro Islamic Liberation Front have decided to dedicate themselves to farming.
- Much emphasis is given to rice, neglecting other key areas of agricultural development. An example of this is the upland areas. There is no coherent government policy on how to address upland areas, yet it is the most prone to climate change. There are about thirty million of the population living in this fragile resource.
- Dr. Teodoro Mendoza responded to the previous statement, saying that in reality, the budget allocated for rice research is only 0.2% of the budget, whereas the UNESCO recommendation is 1%. This is because generally, the investment in research in the Philippines is not very high.

B. PRRI Negros representative, Mr. Edgar Libertario

The representative of PRRI Negros said that the most pressing agricultural and environmental problem in the Visayas is related to population. One of the most populated areas in the PH is the Visayas. The main problem for whole area is that rice production is not as high as in Luzon, specifically Region 6. Eastern Visayas has the 2nd largest agricultural area, yet it is not producing as much rice. This is primarily because of the problem of irrigation. There are no forest or water sheds to supply irrigation. Forests are heavily exploited. Aside from this, the weather is also another difficulty. The Visayas area has all the climate types. This shows that much needs to be done in the area of research. A third problem he pointed out is the failure to maximize the full potential of using fertilizer.

In the area of higher education, he pointed out the need for Agriculture students to know the issues and problems in their environment and in agriculture. They also have to be equipped with enough skills to manage resources.

Discussion (2)

The following points were tackled during the second discussion:

• Dr. Teodoro Mendoza pointed out that changes in the speed of wind can have an effect on agriculture, since if the wind blows more than 5km/hour, the conditions for photosynthesis are no longer optimal.



• A brief repartee between Dr. Rex Demafelis and the PRRI Negros representative followed, focused on the difference between agricultural techniques in Iloilo and Negros. Mr. Edgar said that Iloilo has more advanced skills in rice, while Negros is more

advanced in sugar. Water supply is a crucial factor, since the water supply is not fully utilized in Negros.

The second discussion was briefer since it was decided that the other comments can be entertained after all the presenters have given their input.

C. PRRI Agusan representative, Mr. Abner Montecalvo

The speaker emphasized that agricultural problems stem primarily from how we treat our natural endowments—such as forests—which are our economic foundation. He emphasized the need to plant trees. Among the problems he spoke about the following:

- Policy problems, such as mining laws. He said that most of our mining companies collaborate with the politicians.
- Land ownership
- Failure in community organizing. We cannot empower the farmers if they are not organized.
- There is also a low level of collaboration among food security stakeholders, although now they are improving. However, there is still a need to develop a good mechanism to sustain the collaboration.

As a response to these problems, his office has begun a project, "Palayamanan", which incorporates a system of rice intensification. They also incorporated the planting not only of rice, but also other crops in order to help in the increase of income. Aside from this, they have developed and used technologies to optimize production. There is also a climate change center, and there are plans to modernize the program without the use of fossil fuel. Instead, they are looking into other sources of fuel, such as nipa.

Mr. Abner reminded the audience that PRRI is only a part of a bigger system, which is the Department of Agriculture, which is why their goals need to be in line with the national goals. He commented that it is not reasonable to pressure the people to be 100% sufficient in rice when our farmers are not even competitive yet. He argued that white corn is a good substitute for rice, since it is cheaper. He also voiced out an observation that currently, there is a polarization between the very rich farmers and the poor rural farmworkers.

Comments

There were a few short comments before proceeding to the last speaker. Dr. Teodoro Mendoza agreed with Mr. Abner's comments regarding white corn. He said that according to studies, a mixture of 70% rice and 30% corn is optimal for the health.



Prof. Santiago Utzurrum commented that Filipinos consuming a lot rice, as manifested in the proliferation of restaurants with "unlimited" rice. A possible factor is that people do not have money to buy more viand, which is more expensive, so they opt to just buy more rice. However,

Dr. Utzurrum said that actually, 20% of our population are corn eaters, especially in Cebu and Mindanao. They prefer corn to rice. The problem with this is the lack of access to corn seeds.

Dr. Utzurrum also commented that in agricultural training, it is possible that the participants in the training (mostly male farmers) are the wrong clientele. He said that in rural areas, the finances are held by the wives. In the agricultural sector, 70% of the workload is done by women. The men only prepare the land but the rest of the work is done by the women. He said that there must be a program that would alleviate the work of the women because they work both in the farm and the house.

D. United Nations Food and Agriculture Office (UN FAO) representative, Dr. Robert C. Sandoval, Jr.

The final speaker was Dr. Robert Sandoval Jr. of UN FAO. He pointed out that among the pressing problems in the agricultural industry are disaster risks due to natural or man-made hazards. As regards the latter, this is due to unsound and unsustainable environmental practices. Other issues he mentioned climate change, as well as long-term political conflicts (e.g. Mindanao). The latter can worsen the effect of hazards, and these may even trigger unsustainable practices (when people have no other choice but to resort to these). In response to these issues, FAO is supporting the programs of the Department of Agriculture. Among the examples are the Save and Grow (which promotes resource efficiency), as well as the Climate-Smart Agriculture Framework, which is an ongoing rice initiative for the whole Asia Pacific. In terms of food security, they have the Zero Hunger Challenge. They are also contributing in the area of governing risk and crises. Currently, they are drafting a national disaster risk strategy for agriculture.

Dr. Sandoval agreed that research/academic institutions can contribute by engaging participatory action research. Results from this research can be introduced as a new subject/course in a university. If universities work closely with local government units and regional offices, they can provide the core technical expertise needed in the area of agriculture. He acknowledged that PRRI plays a big role in assisting R&D.

Discussion (3)

In the discussion, the following points were tackled:

• Precision Farming – Assoc. Prof. Joy M. Jamago from Central Mindanao State University asked about the efforts of FAO in training farmers in precision farming, e.g. knowing the weather season. Mr. Salvador responded that the main challenge is to get the necessary information to plan and adjust farming activities. They are working closely with PAGASA (Philippine Atmospheric, Geophysical and Astronomical Services



Administration) in developing a 9-day challenge forecast for farm application. Currently, there are pilot municipalities where these forecasts can be produced.

Dr. Teodoro Mendoza commented that in Israel, agriculture is 99% precision farming. In the US, farming is 70-80% precision farming because they plant during the summer months using irrigation. They have good database management on the soil. In the Philippines, until now, we still use the term "agriculture" instead of "agritechnology" because agriculture in the Philippines is very much culture-based.

As regards the idea of precision farming, Mr. Utzurrum said that this is good; however, we can only be precise in some factors, since we cannot control a lot of things. The experts are just working on statistical probabilities.

• An academic from Mindanao State University commented that Muslims in Mindanao are still misunderstood. The agenda set by Manila-based policy-makers often do not match the local agenda, which is why the people are at a disadvantage. He suggested that participatory action research is one mechanism they want to use in the countryside

In response to this comment, the representative from PRRI Ilocos region said that they have been giving support to MSU and ARMM. They are accommodating 27 people from Mindanao in Ilocos Norte for them to be exposed to farming practices of Ilocanos. The Department of Agriculture is also planning to come up with the Philippine Rice Information System. They have satellites monitoring the climate in many areas of the Philippines.

- Agricultural Insurance Since it was acknowledged that natural disasters are among the problems in Philippine agriculture, the issue of agricultural insurance was raised. Dr. Teodoro Mendoza said that the Philippines does not have agricultural insurance but what we have is credit insurance (i.e. only the input component—fertilizer, pesticide, seeds—will be insured. The labor component is not insured). Dr. Cely Binoya said that the Department of Budget and Management (DBM) has an insurance policy for the farmers. However, Mr. Utzurrum said that they had a bad experience with this in Batarza, Southern Palawan. The government promised the farmers that there is a government fund to account for insurance under the DBM. When there was a drought, this destroyed all the crops and the farmers had no money. They are waiting for the insurance in order to pay their creditors. Mr. Utzurrum questioned why DBM is insuring without collaborating with appropriate agency. He said that one of the factors is that the Department of Agriculture has been devolved. Technicians are with LGUs now, so the national programs are brought down to the local level. This constitutes extra workload for local technicians without corresponding additional compensation.
- Mr. Celcius Juachon from Jiangsu University gave a comment from the perspective of social science and education. He said that there is a need for internalization in the field of agriculture, in terms of a cooperation in theories and perspectives. He also said that much



can be learned from the experience of other countries. He cited Jiangsu province in China as an example. According to him, in Jiangsu there is a policy for restaurants wherein there is a penalty for food wastage.

- Problem of governance Many in the audience agreed that part of the problem in the agricultural sectors is the problem of governance. Aside from this, Assoc. Prof. Joy M. Jamago, quoting from Gandhi ("Be the change that you wish to see in the world"), argued for the need to breed students who have the right attitude and passion for agriculture.
- Change of mentality on Agriculture Agriculture in the Philippines has always been associated with dirt, hard work, and poverty. Therefore, Dr. Lita Colting commented that there should be a change in attitude and behavior on agriculture, and look for ways to "make agriculture sexy enough."
- Encouraging the younger generation to go into agriculture Dr. Nova Ramos commented on the need to encourage the youth to go into agriculture. However, certain advertisements (e.g. from TESDA) appear to portray agriculture in an unattractive light. However, Mr. Utzurrum, who has worked in TESDA, said that there is no real bias against agriculture, despite the said advertisement.

Closing Remarks

The morning's discussion ended with some remarks from Dr. Ricardo Jose, a Professor at the History department of the University of the Philippines Diliman and the current Director of the Third World Studies Center. He lamented the fact that many key issues in agriculture are not incorporated in educational curriculums. Although his own PhD dissertation was about the food crisis in the Philippines during the Japanese Occupation, in general, there are very few people who focus their research in agricultural history. He also observed that nobody is doing a history of policies on agriculture in the Philippines, therefore, there is a disjoint. He ended by emphasizing the need for such discussions as this to also be done in the academic setting.