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Second Plenary Session: Large Scale Food Production Imperatives for the Philippines

Title: Agriculture Development – Backbone of the Country -

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1. Overview of JICA

- The Japan International Cooperation Agency (JICA) is an independent governmental agency of Japan responsible for Japan's official development assistance (ODA). JICA has been providing a wide range of cooperation to developing countries. For example, in addition to concessional loan, technical cooperation, and grant aid, we provide investment and financing to private companies (PSIF), and dispatch of Japanese volunteers. JICA has been vigorously operating such various types of cooperation in the Philippines for over 5 decades, making it one of the largest donors.

2. Agriculture sector in PH

- I would like to explain the current situation surrounding agriculture in the Philippines especially from the aspects of employment and food security.

(1) Employment

- Looking at the percentage of employees in each major sector in the Philippines, the agriculture sector accounts for 24.4% as of December 2023, meaning that one in four employees in the entire Philippines is engaged in agriculture. Agriculture, thus, plays an important role in terms of employment.
- On the other hand, looking at the share to GDP by each major industry, the agriculture sector remains at 8.9%, which is lower than the percentage of employees.
- Also, it is noteworthy that the poverty rate in the Philippines as a whole is 18.1%, but that in the agriculture sector it is as high as 30.0%. From these data, it can be seen that there is a strong need for further modernization and development in the agriculture sector and for increasing farmers' income.
- As I mentioned earlier, agriculture sector accounts for 24.4% of employment in the entire Philippines as of 2023, but 13 years ago in 2010 it was 33.2%, and this portion is decreasing year by year. The main reason for this is most probably that agriculture is not very profitable and is not attractive enough to attract employment, especially among young people.
- The Philippines' demographic dividend is expected to be one of the longest in the world, and this can be said to be a strength that shows the future potential of the Philippines. However, in other words, it is crucial that creating sufficient job opportunities in the future will be a major challenge for the Philippines as a whole. A

future in which jobs are not secured for the young working class means social unrest and economic stagnation.

- In this regard, it should be strongly reminded that 3 of the 8 socio-economic agenda of the current Marcos administration highlight “jobs”. Overseas Filipino Workers (OFW) and Business Process Outsourcing (BPO) are often mentioned as growth sectors in the Philippines. However, there are concerns that their employment absorption capacity will not necessarily be large, especially considering future advances in Artificial intelligence (AI).
- Consequently, also taking into account the significance of food security, agriculture is, after all, the backbone of the country. In the future, it will be important to increase farmers' income by producing highly profitable crops, responding to the health consciousness of the Filipino people, developing post-harvest and agro-industry, and improving production and transportation efficiency among others. We believe that efforts to attract more employments in the agriculture sector are essential for the sustainable development of the Philippines.
- In addition, it should be truly an opportunity for the private sector, including Japanese companies who are attending this conference and looking for investment and business opportunities in the Philippines.

(2) Food security

- As you know, rice is the most important crop when discussing food security in the Philippines.
- Regarding the rice yield per hectare in ASEAN countries, the Philippines exceeds 4.1t/ha, which is lower than that of Vietnam and Indonesia, but higher than the ASEAN average of 3.88t/ha. I am glad that JICA's cooperation has been able to make a certain contribution in this regard, as it is the result of many years of our joint efforts to develop irrigation facilities and strengthen capacity of various stakeholders, such as NIA and irrigators' associations.
- The rice self-sufficiency rate once reached 100% in the late 1970s, but according to 2021 data, it is now only 81%. The main reason for the decline in the self-sufficiency rate is that, although rice production is increasing, rice demand is increasing faster than rice production.
- In addition, the Philippines enacted the Rice Tariffication Law in February 2019, shifting from the previous policy of restricting the quantity of rice imports to liberalizing imports through tariffs. This has led to an influx of cheaper rice from countries such as Vietnam into the Philippines, which is probably one of the reasons for the decline in rice self-sufficiency. This rice import liberalization policy is thought to have a certain positive effect on the stable supply of rice in the Philippines. However, in recent years, the international price of rice has increased due to the embargo imposed by other countries such as India, which is the largest exporter of rice, and the impact of climate change, which should be carefully considered, and so on. Subsequently, it led to the

high price of rice in the Philippine domestic market. Taking into consideration the risks of international logistics that have been brought to light by the COVID19 pandemic, it can be said that achieving a certain level of self-sufficiency in basic necessities, not just rice, has become a more serious issue than ever. Concerns over whether important goods such as rice, which are the basis of daily life, will be stably supplied at an affordable price in the future could become a factor in social unrest and political instability.

- From the perspective of food security, in order to ensure a stable supply of important goods such as rice in the Philippines, it is very important (a) to ensure a certain level of production within the Philippines rather than relying excessively on imports, and (b) to improve the post-harvest process from drying, storage, husking, milling, and distribution to consumers at an affordable price.

3. Challenges

- For example, in the case of rice production, various efforts may be needed, such as the development of irrigation facilities, the consolidation or more effective usage of farmlands, the appropriate supply of seeds, fertilizers, pesticides, and agricultural machinery, and the strengthening of agricultural management through organization of agricultural cooperatives, etc., in terms of production improvement.
- I mentioned earlier that the Philippine rice production per hectare is higher than the ASEAN average. Taking this into account, I would like to highlight the importance of streamlining each post-harvest process, such as paddy drying, storage, husking, rice milling, and distribution.
- In the Philippines, it is estimated that approximately 15% of the harvested paddy is lost during post-harvest process, while the loss rate in Vietnam is only 8%. This indicates that rice postharvest losses in the Philippines should be improved or reduced.
- Harvested paddy usually contains 25% to 30% moisture, so if the paddy is not dried immediately after harvesting, its quality will rapidly deteriorate, and it may become unfit for consumption. Furthermore, even after paddy has been dried, if it is stored improperly, its quality may deteriorate, too. In addition, the timing of husking is also important because transporting paddy as it is leads to higher cost due to the large capacity. Furthermore, the quality of rice tends to deteriorate after it is milled, so the timing of rice milling is important as well.
- In this way, minimizing cost and maximizing earnings in the supply chain by streamlining each post-harvest process, as well as stabilizing the price and ensuring the quality of rice, are key to a stable local supply of rice at an affordable price.
- Rationalization of distribution also leads to lower costs, so it is important to take appropriate measures in this field as well.
- According to a press release from the Presidential Communications Office (PCO) in June last year, President Marcos instructed the Department of Agriculture to consider

establishing storage facilities for rice and corn. Specifically, the concept is to establish 30 mother stations all over the country, with each mother station having 10 daughter stations within a 30-km radius.

- This concept aims to streamline each post-harvest process for rice and corn and to ensure the stable supply of rice and corn.
- As you all know, the Philippines is an archipelagic country like Japan, and distribution costs tend to be high. There are no huge rivers like the Mekong River, there are few large plains, and unlike the United States, Europe, and Australia, the normal farmland area size is small. I think Japan and the Philippines share a lot of similarities as such. Our staple food is commonly rice, too.
- For this reason, we believe that the knowledge that Japan has cultivated over the years can be utilized in the Philippines not only for rice but also for other crops such as vegetables, from production to distribution, processing, and sales. For example, the product, technologies, and know-how possessed by Japanese companies can be utilized for post-harvest improvements and we believe that the importance and expectations for this are great.

4. Efforts & achievements

- Since the 1970s, JICA's cooperation in agriculture has mainly focused on the development of infrastructure such as irrigation facilities and farm-to-market roads.
- In addition, we have endeavored to share with the Philippines the agricultural technology and experience that Japan has cultivated through various programs, such as training for Philippine agricultural extension workers and the dispatch of agricultural experts from Japan.
- JICA has also provided various cooperation to Philippine Rice Research Institute (PhilRice), which conducts research and development to improve rice productivity, such as capacity development programs and facility improvement.
- Furthermore, we have been working to improve financial accessibility for agriculture, such as providing two-step loans to agricultural cooperatives and enterprises through the Land Bank of the Philippines. In addition, through the "The Project for Establishment of Credit Risk Data Base" which has been implemented with the BSP (Bangko Sentral ng Pilipinas) since 2020, JICA facilitates access to finance for agricultural cooperatives and agricultural-related businesses that do not have land or other collateral and promote various initiatives to increase agricultural income.
- Recently, JICA also has been providing direct support to Japanese private companies, including SMEs with their excellent technologies that can contribute to solving challenges in developing countries, such as the Philippines. This so-called PPP promotion program aims to support their overseas business expansion in these countries, too. We are conducting collaborative projects in various sectors including agriculture in the Philippines. These will also lead to the development of post-harvest

and agro-industry, which will lead to the above-mentioned value addition, and farmers' income increase. Through these efforts, it is expected that employment in the agriculture sector will become more attractive and job opportunities will be created.

- Here, I would like to introduce some examples among JICA's PPP promotion projects.
- One is Black Garlic project by Takara Co., Ltd. Takara is a company in Aomori Prefecture that is famous for the production of garlic, and is a company that produces and sells black garlic. Takara has high-yield and high-quality garlic cultivation technology and black garlic processing technology. Black garlic is made through a combination of heat, moisture and time. It has antioxidant efficacy, and is widely welcomed as a health food in Japan. We are collaborating with Mariano Marcos State University (MMSU) to introduce Takara's unique garlic cultivation technology and black garlic processing technology to the Ilocos Norte province, which is known as the Garlic Capital of the Philippines.
- The second one is Mulberry Leaf Tea project by Kuwanosato Co., Ltd. Kuwanosato is a company that grows mulberry leaves and produces mulberry leaf tea in Yamanashi Prefecture. Kuwanosato has advanced cultivation technology and mulberry leaf tea manufacturing technology. Mulberry leaf tea has efficacy such as preventing lifestyle diseases, and is also widely welcomed as a health food in Japan. We have been collaborating with Pampanga State Agricultural University (PSAU) in Pampanga province in order to introduce the mulberry leaf cultivation technology and mulberry leaf tea production technology of Kuwanosato.
- There are many other examples, but what the two projects introduced here have in common is that they are initiatives spearheading the inevitable trend of Filipinos becoming more health conscious and improving their eating habits. This will contribute to the Sustainable Development Goals (SDGs) No.3, "Ensure healthy lives and promote well-being," and at the same time, increase the farmers' income by promoting value addition of agricultural products. This will naturally lead to job creation, economic development and social stability. We would like to reiterate that these projects are expected to contribute to the development of post-harvest agro-industry and help address development issues in the Philippines. JICA will continue to focus on these types of private sector collaboration projects, along with traditional ODA projects on a government-to-government basis. If anyone present today has any ideas or technologies in this context, I would like to hear from you and explore the possibilities to collaborate for way forward.

5. Market-Driven Veg. Value Chain Project

- In these years, the Philippines has an obvious increase in the purchasing power of the middle class due to economic growth, and the transition to modern distribution systems such as supermarkets is thriving. Therefore, planned production and shipping, standards for quality, agricultural finance accessibility, development of

market access roads and cold chain facilities, and participation of private companies need to develop, and agricultural promotion is not possible by effectively capturing changes in demand. Based on this background, in addition to promote the said PPP promotion projects, 2 years ago, we started the technical cooperation project in tandem with Department of Agriculture, called the "Project for Market-Driven Enhancement of Vegetable Value Chain in the Philippines". This technical cooperation project is targeted to finish in 2028. Let me briefly introduce this food value chain improvement project here.

- This project is conducting various demonstration pilot projects to address issues in vegetable production, processing, distribution, and sales.
- The demonstration sites were selected as (a) Benguet province, major producer of highland vegetables, (b) Quezon province, a major producer of mid- and lowland vegetables, and (c) Metro Manila, the biggest consumer site.
- Currently, we are introducing technology to optimize shipping timing through the use of high-quality seedlings and greenhouse cultivation, and the introduction of pre-cooling devices that can rapidly lower the temperature of vegetables to maintain their freshness. We are introducing refrigerators with humidifiers, which are devices to keep vegetables fresh for longer time and plastic containers (crates), which allow vegetables to be transported without being crushed by their own weight during transportation.
- In addition, this project plans to explore direct transactions, including e-commerce, between modern distribution companies and farmer groups, and we hope that such efforts of using ICT or digital technology will maximize the benefits for both farmer groups and modern distribution companies.
- The current production demonstration sites are Benguet and Quezon provinces, as explained, but we would like to develop inclusive value chain models that can be disseminated to other areas in the Philippines. In that case, we would like to ask private companies both in Japan and the Philippines to take an interest in investing on pre-cooling systems, refrigerators with humidifiers, crates, etc.

6. Message

- In discussion of food security and increase of farmers' income and jobs in the Philippines, there might be a tendency to focus too much on agricultural production side. However, in order to ensure better food supply at an affordable price to consumers, there is an acute need to streamline, improve and modernize every stage or node of the value chain from agricultural production, logistics to marketing to consumers.
- Like "Project for Market-Driven Enhancement of Vegetable Value Chain in the Philippines" that I just introduced, JICA is also trying to demonstrate and spread the modernized food value chain.
- The introduction of unique and advanced processing technology is also imperative

- and promising from the perspective of inevitable healthy lifestyle and variety of diet.
- I think such an approach in these areas applies not only to horticultural crops but also to other agriculture products, such as rice.
 - With this in mind, the role of various private companies, including agricultural producers, cold storage equipment manufacturers, transport companies, and retailers will become more and more important, and I see gigantic business opportunities for them in this promising sector and this promising country.
 - In addition, I am confident that various private companies will be able to, and be required to play a more active role even in supplying agricultural inputs necessary for agricultural production, such as seeds, fertilizers, pesticides, and agricultural machinery.
 - In order for the sustainable development of agriculture, which is the key industry in terms of the employment absorption capacity, and the backbone of the economy in the Philippines, to increase farmers' income, to create jobs, and to improve productivity, we believe that it is extremely essential to collaborate not only with farmers, the Philippine government agencies, such as Department of Agriculture (DA), Department of Trade and Industry (DTI), and Department of Science and Technology (DOST), and donors such as the Asian Development Bank (ADB), but also with private companies.
 - I would also like to emphasize once again that you have great business opportunities in this critical and promising sector.
 - JICA would like to strengthen further collaboration with everyone, so we truly welcome your opinions, suggestions, business ideas, and so on.
 - I close my presentation with the slogan of Department of Agriculture, that is "*Masaganang Agrikultura, Maunlad na Ekonomiya*". The meaning is "Prosperous Agriculture, Progressive Economy".
 - Thank you very much for your kind attention.
Maraming Salamat Po at Mabuhay!