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Succeeding with Seoul



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September 29, 2024 | 12:00am

The Philippines and South Korea (Phl-SK) Free Trade Agreement (FTA) was ratified by the Senate of the Philippines last Monday (Sept. 23, 2024), leaving only the Korean Nation Assembly's ratification thereof as the final major hurdle to its entry into force. It is a culmination of 75 years of amity between our two nations, and of the increasing interconnectedness of our pursuit of mutual prosperity through crucial areas of cooperation including trade, technology, defense and agriculture.

As a member of the Philippines Korean Economic Council, I consider it a welcome development and an exciting challenge for our public and private sector stakeholders to maximize the incredible potential of this strengthened powerhouse partnership.

South Korea, the fourth largest economy in Asia recognized as a technological innovation leader and 14th in the world, was the Philippines' fifth largest trading partner in 2023 with total trade value estimated at \$12 billion or P671.58 billion. Exports to South Korea were around \$3.53 billion or P197.58 billion, and imports at \$8.49 billion or P475.21 billion. As of June 2023, 246 Korean firms registered with the Philippine Economic Zone Authority with combined investments valued at P92.19 and showcasing top companies like Samsung.

The Phl-SK FTA is built on previous gains; it is our third FTA involving South Korea, with the first being the Association of Southeast Asian Nations (ASEAN)-SK FTA and the other as the Regional Comprehensive Economic Partnership (RCEP).

On the Philippine side of the free trade equation, the 2024 Phl-SK FTA has South Korea abolishing tariffs on approximately 94.8 percent of Philippine products and grants up to 98 percent preferential access to the South Korean market, according to

figures of the Department of Trade and Industry (DTI). It is a noticeable increase from the RCEP's 96.4 percent and the ASEAN-SK FTA's 88 percent, which had left out the banana market. Bananas find relevance in this discussion since it is our second highest traded agricultural product from 2013 to 2022 comprising a significant 19 percent of agricultural trade revenues and estimated \$11.8 billion or P660.43 billion. South Korea was the Philippines' third largest market of origin for fresh bananas, with exports in 2023 approximated at \$164.54 million or P9.2 billion.

A July 2024 report published by the United Nations' Food and Agriculture Organization identifies the Philippines as the main exporter of bananas in Asia. The Phl-SK FTA creates a better environment for the Philippine banana industry to regain our previous status as the undisputed banana supplier in South Korea. Ten years ago, in 2014, the Philippines supplied a whopping 95.6 percent of the value of bananas in the South Korean market. It is currently down to 65 percent to 70 percent, as we steadily lose market share to other countries at much lower tariff rates guaranteed by FTAs. Countries eating up South Korean banana market share include Vietnam whose six percent tariff is set to decrease to zero by 2025, and the nations of Peru, Ecuador and Columbia, all already at zero tariffs. The Phl-SK FTA will reduce the existing tariff on bananas from 30 percent to zero in five years. It bears emphasis that the Phl-SK FTA arrived at the Senate for its ratification with endorsement of 13 government agencies, including the Department of Foreign Affairs, the Department of Finance, the DTI, National Economic and Development Authority and the Department of Agriculture, and many private sector and public interest groups. It nevertheless has its share of critics claiming that saving the sagging banana industry's share of the Philippines in South Korea is not enough motive to rush the treaty and to give up too much in favor of South Korea, particularly the impressive and immediate benefits accorded to the Korean automotive industry. Senate deliberations indicate that while Phl-SK FTA generates leeway on the demand side of the banana market, the Philippine government must decisively address supply side restrictions such as the notorious Panama disease severely afflicting acres of Philippine banana plantations.

With discussions of the Philippine government's plans for our next FTA, such as one with the US, it is earnestly urged that future FTAs strengthen its provisions on institutional, economic and technical knowledge exchange. The Philippines must use such opportunities to build the technical capacities of our people, bolster industrialization and innovation and enhance manufacturing here at home in the Philippines. Done right, we learn from our first world partners, level up our country so we could design, manufacture, market, trade and invent higher value goods and services, and trade it alongside our agricultural trade products like our world-class bananas.

The Phl-SK FTA comes at a critical time for the global economy and our own. Neighboring China just passed a slew of stimulus interventions in an aggressive attempt to repair its once untiring economic machine. Allianz's 2024 Global Wealth

Report, released only a few days ago and places the Philippines as the 46th out of 60 national economies studied, suggests that our country is a “growth champion,” for a respectable rise in wealth in 2023, but remains one of the poorer countries in our region. We need to take every opportunity we can to come together with our allies abroad.

The Phl-SK FTA sets an extra warm welcome for the anticipated visit of South Korean President Yoon Suk Yeol to the Philippines in October 2024. We hope our diplomatic and trade gains and demonstrations of goodwill will lead to more avenues for the Philippines to grow with South Korea. However, it is still up to public and private sector partnerships and projects to turn these new favorable conditions into tangible outcomes that benefit all Filipinos.

<https://www.philstar.com/opinion/2024/09/29/2388651/succeeding-seoul>

BUSINESS WORLD:

P5-billion fund to address gaps in food supply deemed ‘too small’

September 29, 2024 | 7:03 pm



BUREAU OF CUSTOMS

THE P5-billion fund designed to plug gaps in the food supply could be inadequate for addressing shortages of key commodities and may be left begging for money with rice cornering the funding, analysts said.

Fermin D. Adriano, a former Agriculture undersecretary, said in a Viber message that the Department of Agriculture’s (DA) allocation is dwarfed by the funding for other commodities.

Mr. Adriano noted that the government’s allocation is much larger for the National Food Authority (NFA), the agency whose task is to maintain a reserve of rice in cases of national emergencies.

Funding will also be an issue, judging from the expected allocation of rice tariffs.

Last week, Congress released a bicameral conference committee report for proposed amendments to the Rice Tariffication Law of 2019 or RA No. 11203. The amendments include about P15 billion in funding for rice procurement and P5 billion for a food security buffer fund for emergencies.

“Based on the amendments the P5 billion will come from excess tariff collections, so (there will be) no sure funding,” Federation of Free Farmers National Director Raul Q. Montemayor said via Viber.

Last week, Agriculture Secretary Francisco P. Tiu Laurel, Jr. said that the DA is looking at various funding sources to operationalize the purchase and distribution of prime or basic commodities during shortages or price spikes.

Mr. Montemayor said that the DA would need to deal with storage and distribution costs of its stockpile.

“A lot of things still have to be sorted out,” he added.

Republic Act (RA) 7581, or the Price Act, authorizes a buffer fund and other measures to stabilize prices of basic commodities in calamity areas.

The Price Act empowers such a fund to procure, purchase, import, or stockpile any basic or prime commodity.

In a Department Circular, the DA said stockpiled commodities will be distributed for sale at a “reasonable price” to areas hit by shortages or where there is a need to influence changes in the prevailing prices in the area.

The volume of the commodities for stockpiling should not exceed 10 days of the average national food requirement, it said. — **Adrian H. Halili**

<https://www.bworldonline.com/economy/2024/09/29/624598/p5-billion-fund-to-address-gaps-in-food-supply-deemed-too-small/>

New law to protect livelihood of Filipino tobacco farmers

By Manila Standard Business

September 29, 2024, 6:48 pm

Filipino tobacco farmers, advocacy groups, business and political leaders welcomed the signing of the Anti-Agricultural Economic Sabotage Act, which aims to safeguard local livelihoods from illicit trade and protect the agriculture sector.

“We are deeply grateful to President Ferdinand ‘Bongbong’ Marcos Jr. and his administration for their unwavering support in enacting this law. With its implementation, we are hopeful that tobacco farming will receive adequate protection against the entry of illegal products,” said Saturnino Distor, president of the Philippine Tobacco Growers Association (PTGA), after the signing of Republic Act No. 12022.

President Marcos signed the law on Sept. 26, 2024, to combat agricultural smuggling, profiteering and hoarding. It aims to make food more affordable, accessible and provide better income to local farmers.

The law classifies smuggling, hoarding, profiteering, cartel formation and financing of these crimes involving agricultural and fishery products as acts of economic sabotage. Violators could face life imprisonment and fines up to five times the value of the goods involved.

President Marcos said the passage of the law would set in motion transformative outcomes. “It is a proactive measure to prevent smuggled agricultural products from entering the country, ensuring that duties and taxes are paid while imposing higher penalties on violators. This law shapes a stronger, more resilient agricultural sector that defends both our farmers and consumers,” he said.

The PTGA, which represents 50,000 tobacco farmers, described the law as a critical step to protect the industry from smuggled tobacco. Distor noted that illegal cigarettes harm farmers, especially with the rising prices of legal cigarettes due to tax increases. “We hope the government’s action against smugglers will improve the state of Philippine tobacco and bring relief to our farmers and their families,” he said.

Advocacy group EKIS sa Smuggling’s lead convenor Anton Israel expressed gratitude for the approval of the law. “We’ve seen the damaging impact of smuggling, particularly the proliferation of fake and illegal nicotine products. This new law strengthens the fight against illicit cigarette and e-cigarette trade,” he said.

Chris Nelson, executive director of the British Chamber of Commerce in the Philippines, also welcomed the legislation, saying the chamber expects to see significant growth in the agricultural sector for both local producers and legitimate importers.

Under the law, tobacco crops and cigarettes valued at P3 million or more fall under the classification of economic sabotage, making it a non-bailable offense. President Marcos said the law targets not only the masterminds but also their accomplices, including financiers, brokers, employees and even transporters.

The law is designed to level the playing field for local farmers by combating agricultural smuggling, which is partly responsible for rising food prices. It also amends RA 10845, the original Anti-Agricultural Smuggling Act of 2016.

Senate President Francis Escudero said the measure sends a strong message that the government will hold accountable those involved in smuggling, hoarding, profiteering, and other uncompetitive practices in the agriculture sector. He noted that by cracking down on these crimes, the public would be better protected from substandard goods.

“Farmers, fisherfolk, and legitimate traders have long suffered from the operations of smugglers and other market manipulators,” Escudero said.

Senator Cynthia Villar, chairperson of the Senate Committee on Agriculture, Food and Agrarian Reform, who sponsored the bill, described the law as a form of self-preservation against economic saboteurs. “This will protect the State from tax evaders and ensure the well-being of our agricultural producers, consumers, and the entire economy,” Villar said.

House Speaker Ferdinand Martin Romualdez echoed these sentiments, calling the law a turning point in the fight to protect Filipino farmers and fisherfolk. “With the Anti-Agricultural Economic Sabotage Act in place, we are sending a clear message: there will be no tolerance for those who manipulate the market and jeopardize our food supply,” he said.

https://manilastandard.net/business/314503845/new-law-to-protect-livelihood-of-filipino-tobacco-farmers.html?fbclid=IwY2xjawFm1WxleHRuA2F1bQIxMAABHfe-GL5IYMhCJV5W3Ew4Ebe5UqZUBo-ikIZQ8vw98XUcIG8A-T3T-XpofA_aem_CwXpM5gLMx-CFgnBclcxSg

Silted irrigation canals add to farmers' woes in Pangasinan

September 29, 2024

Second of two parts

URDANETA CITY — Despite the promise of year-round irrigation water from the San Roque Dam and the P4.5-billion reregulating pond downstream of the Agno River in San Manuel town, Pangasinan, farmers still complain that many of them do not get water when they need it.

John Molano, head of National Irrigation Administration's (NIA) Pangasinan Irrigation Management Office based in this city, said that there is a problem in the distribution of irrigation water.

The reregulating pond is part of the P11.25-billion Agno River Integrated Irrigation Project, the irrigation component of the San Roque Multipurpose Project.

It was financed by a loan from the China Export-Import Bank and built by China CAMC Engineering Co. Ltd., an affiliate of the China National Machinery Industry Corp.

The pond includes a 350-meter-long and 18-meter-high overflow dam, a 1-million-square-meter reservoir, two catchment sluices and two water intakes with a flow of 80 cubic meters per second.

Molano said the pond feeds water to five of the seven national irrigation systems in the province. These are the Sinocalan River Irrigation System, Agno River Irrigation System, Lower Agno River Irrigation System, Ambayoan River Irrigation System and Dipalo River Irrigation System.

These systems provide the irrigation needs of 45 percent of the province's total irrigable land. The rest of the area gets irrigation water from communal irrigation systems.

Year-round irrigation

While the year-round irrigation of farms is still being done, Molano said that distribution of irrigation water remains a problem.

"Well, it's still happening, especially in tail-end areas, where farmers quarrel over irrigation water. What we did was to rotate the supply of irrigation water," he added.

There are also farmers who plant rice even if their farms were excluded from the cropping season's programmed areas.

"Actually, every cropping season, there is a program area that is based on the capacity of the dam to supply irrigation water for the season," said Molano.

"But there are farmers who are stubborn and take the risk of planting rice. That's the problem," he added.

Oftociano Manalo, national president of the Pambansang Mannelon, Maguuma, Magbabaol at Magsasaka ng Pilipinas, an umbrella organization of rural organizations under the Agricultural Training Institute, said farmers also deal with problems of silted and unlined irrigation canals which deprive many farmers of the needed irrigation water.

In 2018, Filipino farmers were relieved of the burden of paying the P2,500 per hectare irrigation fee when Congress approved Republic Act 10969, also known as the Free Irrigation Service Act. When that law took effect, the farmers stopped paying the fee but were supposed to take on the responsibility of repairing and maintaining irrigation Canals.

That is supposed to be NIA's job, he said.

"I have opposed this before because farmers do not have the equipment to desilt an irrigation canal," Manalo said.

He said it was the NIA that maintained the canals before because they had backhoes and other heavy equipment.

"How can farmers remove the silt from a 3.5-kilometer-long canal by just using shovels, in time for a planting season?" Manalo asked.

He also said that unlined canals easily erode, impeding the flow of water to the farms.

"This is why they need to have concrete linings soon," Manalo said.

Climate change

Molano said that because of climate change, NIA had adopted some mitigation measures, such as distributing solar-powered irrigation pumps.

"We had made some adjustments. We made sure that our cropping calendars are anchored on the weather. So, our cropping calendar is adjustable. It could be advanced, or it could be late," said Molano.

Having an adjustable calendar is something that farmers need to get used to.

Juanito Español, president of the Pangasinan Federation of Irrigators Association, which is composed of 261 irrigators associations in 28 towns and two cities of the province, said he had to make sure every farmer follows the cropping calendar to maximize the use of the irrigation water.

"This is the time when I appeal to all of them to heed whatever they agreed upon in their irrigators associations," said Español.

In the past, misunderstandings over irrigation water had led to violent confrontations.

For instance, one farmer in Rosales town was shot by another in 2018 over a dispute on irrigation water.

Gov. Ramon Guico III said that the government's infrastructure projects should now include those for water impounding.

"The situation now is, if it's not raining, it doesn't rain for a long time. And when it rains, there is too much rain," Guico said.

"So, I think that we should integrate in our infrastructure projects facilities for water impounding. Maybe we should create more and bigger water impounding areas."

Impounding systems

Tom Valdez, San Roque Power Corp. (SRPC) vice president for corporate social responsibility, said the government should build more impounding systems to harvest and conserve water.

"Because of climate change, in 30 to 40 years, the available potable water will go deeper. If we don't do something, it's our lives that are at stake here," Valdez said.

"We have to start restoring our forests and building more impounding structures even if these are small, to recharge the aquifers," he added.

Valdez said SRPC is now conducting a climate resilience study to see how climate change is going to affect the dam and to look at solutions to mitigate its effects.

He said the last time the dam opened its spillway gates to release excess water was five years ago.

He said part of that is the climate resilience study for San Roque Dam is the establishment of a Forest is a Vital Resource for Life Ecological Learning Center.

"This ecological learning center will educate the youth, concerned citizens, on the value of forest, the environment, biodiversity, climate change and everything about the environment," Valdez said.

"We have to think of managing our water resources because the time will come that our problem will be a lack of water. All of us will be affected, not only the farmers," he added.

This story was produced through a grant from Internews' Earth Journalism network through the Asian Center for Journalism at the Ateneo de Manila University.

<https://www.manilatimes.net/2024/09/29/regions/silted-irrigation-canals-add-to-farmers-woes-in-pangasinan/1975716>

Goat industry benefits from embryo transfer

September 29, 2024

ECHAGUE, Isabela — Through embryo transfer technology, the country can harness the economic and nutritional benefits of a robust goat industry.

This was the message of Science and Technology Secretary Renato Solidum Jr. when he spoke before the media and stakeholders at the Isabela State University (ISU) on September 26 here.

Solidum said the goat industry is a good business opportunity for local entrepreneurs because it requires little maintenance and low investment costs.

"Through embryo transfer, our local goat industry has the opportunity to improve the health and productive performance of local animals," he said.

Solidum and ISU officials led the launching of the goat embryo transfer and artificial insemination facilities wherein the new herd of baby goats, born through embryo transfer (ET) technology, or produced from the semen of a pure Boer buck and the egg cells of three dams with bloodlines of 50 percent Boer, 25 percent Anglo Nubian and 25 percent native goats were presented.

Through the guidance of Miguel Mervin Pajate, the Department of Science and Technology Balik Scientist, the ISU Project Team was guided in setting up a laboratory for laparoscopic embryo transfer. The surrogates' successful pregnancies were monitored by a team.

Embryo transfer is a procedure in which embryos are collected from a superior female donor and transferred to a recipient or surrogate

dam for the remainder of the pregnancy. Its main advantage is the increase in the number of offspring, generated from each female.

Earlier, the group handling the ISU project had completed three tests. The first was made in February 2023, and the kid was recorded in June 2023; the second was made in October 2023, and the offsprings were born in February 2024; and the last one was in November 2023, and the offsprings were born in March 2024. At least 100 percent of the transferred embryos from the donor survived, and the kids had matured.

Embryo transfer using fresh embryos is also being tried now, but they are not yet skilled in preserving the extracted embryos.

This will be the focus of the proposed secondary engagement of the Balik Scientist with the training of other veterinarians in the region in the on-farm application of ET. Since ET is not something that ordinary farmers can do, it is said that veterinarians should be trained in laparoscopy and surgery, Cagayan Valley Small Ruminants Center Director Jonathan Nayga said.

"Trials are also ongoing to measure the actual success rate over time as well as determine the cost or financial viability of the technology. After that, targeted capacity building of more veterinarians in the region will be done to spread the technology," he added.

With this initiative, it is hoped that embryo transfer technology for goats can be used to help propagate good genetic materials faster and produce more offspring, especially in small-hold farms, he said.

Ricmar Aquino, ISU president, said they are also aiming to produce artificial insemination for other animals in the future.

Since 2009, the center has started developing artificial insemination (AI) protocols for small ruminants. With AI, the superiority of the male breeder is maximized, allowing for faster upgrading of stocks.

In 2017, with the completion of the laboratory and other support facilities, the university proposed to explore the possibility of the application of embryo transfer technology. In just 18 days, a kid was born from ISU-Cagayan Valley Small Ruminants Research Center's Embryo Transfer Technology, which was almost identical to an ordinary farm goat.

<https://www.manilatimes.net/2024/09/29/regions/goat-industry-benefits-from-embryo-transfer/1975717>

India eases restrictions on exports of key rice varieties

Bloomberg News
September 29, 2024

India loosened restrictions on some rice exports, a move that may ease global prices and signal a shift in domestic agricultural policies following recent national elections.

The government lifted a ban on non-basmati white rice shipments, and set a minimum export price of \$490 per ton, according to a notification from the Directorate General of Foreign Trade. On Friday, authorities cut a tax on overseas sales of parboiled rice to 10 percent from 20 percent.

The world's top exporter started curbs in 2022 in an effort to ensure domestic food security and tame inflation. That caused the Asian benchmark price to climb to the highest since 2008 and forced major consumers to seek supplies from other countries. The staple is vital to diets of billions of people across the planet.

While the move was largely successful in stabilizing local prices, United States Department of Agriculture data showed India is now saddled with record stockpiles. The latest policy moves could help ease that glut and cut import costs for countries such as Indonesia and Senegal.

Rice exports fell almost 25 percent from a year earlier to 5.26 million tons in the first four months of the fiscal year that started on April 1, according to government data.

Bloomberg News reported in July that India was planning to relax curbs on some varieties to avoid a glut in the country before the new crop arrives in October.

Indian farmers have started harvesting monsoon-sown rice crops following good rainfall. Plantings have been higher than a year earlier.

The government also set an export duty of 10 percent on the unmilled variety, according to the notification published on Friday. Overseas shipments of white rice will not attract any levy, it said.

Crop futures

Soybean futures headed for the biggest weekly gain in more than a year amid a broader grains rally driven by economic stimulus in top importer China and adverse weather in major growing regions.

The rally comes as China, the world's biggest buyer of soy, unveiled a broad package of monetary stimulus measures. Meanwhile, tropical storm Helene, which slammed into Florida as a hurricane, will bring strong winds to parts of the Corn Belt, potentially delaying fieldwork.

“Helene’s high winds continue to be a problem as well, with high-wind warnings out for much of the eastern Midwest into tonight, where we could see 70 mph gusts into central Indiana,” StoneX chief commodities economist Arlan Suderman said in a note.

Soymeal futures soared as much as 5.8 percent on Friday, the most since June last year. Short covering and concerns over infrastructure damage for Gulf and other seaboard facilities “created a speculator frenzy” in soymeal trading on Friday, said Terry Reilly, senior agricultural strategist at Marex Group Plc.

Row crop futures are rebounding after slow demand from China and the prospect of bumper harvests in the US sent prices to four-year lows in August. Now, with China’s economy receiving stimulus and the US harvest potentially disrupted, cheap commodities are seeing more purchasing interest, said Evan Basse, grains analyst for Nesvick Trading Group in Nashville.

“Commodities are viewed as cheap relative to equities, which has spurred renewed interest in the commodity markets,” said Basse. “We’ve also seen the dollar decline in recent weeks, which could support demand.”

Soybean futures for November delivery gained as much as 2.7 percent on Friday, sending prices toward a weekly gain of more than 5 percent for the week—the most since June 2023. Corn futures for December delivery rose as much as 1.6 percent, bringing the week’s rally to almost 4 percent.

Traders are keeping an eye on weather problems throughout the world. Arid conditions are set to persist in northern and central Brazil, lifting corn futures. Wheat is up about 2 percent this week, with winter grains planting in Russia at an 11-year low due to bad weather, according to consultant SovEcon. In Australia, wheat production is being threatened by dry conditions in the country's west and severe frosts in the southern regions.

<https://businessmirror.com.ph/2024/09/29/india-eases-restrictions-on-exports-of-key-rice-varieties/>

Farming meets the future: Tech innovations to attract youth to agriculture

Bless Aubrey Ogerio
September 29, 2024



SOLAR-POWERED tower gardens help sustain vegetable farming during rainy season

What if the key to revitalizing agriculture lies not in the fields, but in cutting-edge technology?

Many people, especially the youth, shy away from traditional, labor-intensive farming methods, gravitating instead toward more automated, tech-driven approaches.

If agriculture fails to resonate with their interests, it risks being overlooked as a viable career option.

To address this concern, experts gathered at a media forum, dubbed “Matatag-Ulan: Smart Agri Solutions during La Niña and Rainy Season,” on September 24, led by the Department of Science and Technology’s Philippine Council for Agriculture, Aquatic and Natural Resources Research and Development (DOST-PCAARRD) to discuss agricultural innovations designed to combat climate change while appealing to the tech-savvy younger generation.

“It is currently highlighted that only a few are interested in farming. But that has been an existing problem. It needed to be analyzed and addressed,” DOST-PCAARRD Executive Director Reynaldo Eborá said in Filipino.

“The youth now do not want purely hard work. So we have to look for technology to make work easier,” he noted.

The digital agriculture landscape in the country primarily features advisory apps and online retail networks, with many other aspects still in the early stages of development, according to the Philippine Institute for Development Studies.

Although digital agriculture has not yet become the go-to choice for farmers, there is a growing interest in integrating advanced technologies, such as drones and sensors, into agricultural practices.

A study published in the Philippine Journal of Science in 2020 revealed that the average age of Filipino farmers in the three major rice-growing provinces is 53 years, indicating a predominantly middle-aged demographic in the agricultural sector.

With an urgent need to shift perceptions of farming, experts believe that incorporating advanced technologies into agricultural practices can attract a new generation of farmers.

Garden for all seasons

Just as the entertainment industry boasts of timeless icons, agriculture has its own “Garden for All Seasons,” or a solar-powered Tower Garden system designed to thrive in extreme weather conditions.

Introduced by Marvin Cinense, project leader from Central Luzon State University (CLSU), this innovative system allows crops to grow vertically with minimal resources, ensuring year-round productivity while protecting against soil-borne diseases and waterlogging, even in challenging conditions.

“It is called ‘Garden for All Seasons’ because it can be used during El Niño at La Niña,” Cinense said partly in Filipino.

The system has already been implemented in various barangays and school gardens throughout Central Luzon.

For instance, at Liacong Elementary School in Muñoz, Nueva Ecija, the Tower Garden was established in rocky, gravelly areas where traditional farming was unfeasible.

At Sta. Cruz Elementary School in Magalang, Pampanga, the prototype helped prevent crop loss due to waterlogging during the rainy season.

“Our advocacy is to teach the students, our youth... about agriculture, to introduce new technology so they would be interested [in agriculture],” he said.

According to Cinense, a setup featuring 50 towers and solar panels costs approximately P230,000.

However, individual towers can be priced between P1,000 and P4,000 to enhance affordability, with solar panels constituting the most significant cost.

Solar drying tech

If singer Lorde’s album “Solar Power” captured the essence of summer energy, the Hybrid Solar Powered Dehydrator Machine is bringing that concept to life—literally.

Developed through the DOST-PCAARRD Grants-in-Aid program, Renerio Mucas from Iloilo Science and Technology University introduced a machine that harnesses solar power, supplemented by commercial electricity, to provide an energy-efficient solution for drying crops.

Initially designed for herbal teas, it is now being tested on ginger, turmeric, and even lamayo (partially dried fish), with the potential to cut production time while ensuring quality, all while keeping energy costs down.

The project will also assess the economic viability of this technology, with potential benefits, including income generation from sales of fabricated dryers and processed dried products.

Mucas noted that the use of the dehydrator could create job opportunities within local communities, either through production or supplying raw materials for drying.

Satellite and mobile tech

Prof. Moises Dorado from the University of the Philippines Los Baños presented two key tools developed under Project Sarai: the Community-Level Sarai-Enhanced Agricultural Monitoring System (CL-SEAMS), and the Smarter Pest Identification Technology (SpidTECH) app.

These innovations aim to help farmers monitor crop health and predict pest outbreaks in near real-time, providing a critical advantage in addressing environmental challenges.

“It is very important that our information about the crops are on near real-time so we could give immediate interventions,” he said.

SARAI’s systems utilize satellite remote sensing data to track crop growth, estimate yields, and assess damage caused by pests or natural disasters.

These technologies make use of the thousands of satellites orbiting Earth, with Dorado pointing out that “nine out of 10 satellites are Earth observing.”

“It is not only visual, what is good is that it also has numerical data which we can use to process the information,” he said after discussing the system’s ability to generate detailed crop health reports through color-coded images that indicate specific conditions.

The SpidTECH app represents another game-changing tool for farmers.

Available on Android, it allows users to quickly identify pests by uploading a photo. It features a pest and disease library and provides Global Positioning System (GPS)-based crop advisories.

With coverage for 10 crops, including rice, corn, and cacao, Dorado emphasized its practical applications in the field.

“Besides image capture, the app collects [GPS] data, timestamps, and user information to track pest outbreaks in specific areas,” he said.

“It is good to use if there are weather stations nearby... but if they are far, it serves as a good supplement to existing weather data,” he added partly in Filipino.

Weather forecast

Pagasa pointed out the importance of accurate, real-time weather forecasts in helping farmers adapt to increasingly unpredictable climate conditions.

Weather Specialist Joanne Moe Adelino discussed how the El Niño Southern Oscillation alert system is a key tool for farmers to anticipate and mitigate risks from events like El Niño and La Niña.

“Our goal is to provide farmers with the tools they need to make informed decisions, ensuring they can plan their planting and harvesting cycles based on reliable weather data,” she said.

Looking ahead, Pagasa forecasted a 71 percent chance that La Niña conditions will persist into the first quarter of 2025.

“From October 2024 to March 2025, we can expect above-normal rainfall across many regions, particularly in Luzon, with an increased likelihood of tropical cyclones,” she said.

Revolutionizing agriculture; less imports

To successfully shift mindsets, structural changes within the education system and support from both government and private sectors are crucial, according to Eborá.

“We should show that agriculture is productive,” he said. “If we show that agricultural crops are thrown away, how can we encourage them [the youth to engage in agriculture]?”

Demonstrating the economic viability of farming is essential for attracting new entrants, Eborá said, “We should change the situation of our being importer,” referring to the need for the Philippines to become less reliant on agricultural imports.

In the second quarter of 2024, the Philippines’ total agricultural trade reached \$6.80 billion, marking a 14.3 percent annual increase.

Agricultural exports amounted to \$1.86 billion (27.4 percent of total trade), while imports totaled a bigger \$4.94 billion (72.6 percent).

Image credits: [DOST-PCAARRD PHOTO](#)

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