



Toyota's Optical Sensors Might Help Farmers Raise Crop Yields Through Quick Soil Analysis

By Chunichi Shimbun

Toyota Motor Corp. has started testing a service that analyzes farm soil with optical sensors, allowing farmers to strategically distribute fertilizer to increase crop yields.

The experiment in Suzuka, Mie Prefecture, uses the automaker's so-called Toyota Production System, which was developed to maximize production efficiency based on data analysis.

By clarifying soil composition and offering suggestions on fertilizer amount and other important factors needed to make the best soil for growing crops, Toyota hopes to make it easier for farmers to pass their expertise down to younger generations.

"We hope that digitizing the experiences and intuition of artisan-like farmers, and offering cultivation guidance based on that data, will lead to solving the problem" with farmers lacking successors, said Takeshi Kanamori, head of Toyota's agriculture support division.

In the experiment, a tractor tows an optical sensor inserted into the ground. The sensor measures the amount of light the soil absorbs, which differs according to soil composition, every 50 cm.

The data is then combined with GPS data to create a map showing the distribution of 30 soil components related to crop growth, including nitrogen, phosphorus and potassium.

Through the analysis, Toyota can offer diagnoses and soil improvement plans that can tell clients which crops are best suited for their land and which fertilizers they should use to raise yields. Farmers who want their soil diagnosed usually have to gather



A tractor tows an optical sensor that can measure the amount of light the soil around it absorbs. | Courtesy Of Toyota Motor Corp. / Via Chunichi Shimbun

samples from several locations in their fields during the offseason and send them out for analysis. In some cases, it can take a couple of months to get the results, which can be too late to make adjustments.

By using the new technology developed jointly by Toyota and Tokyo University of Agriculture and Technology, the time required can be shortened to a week or two.

In addition, the technology makes it possible for all of one's farmland to be measured thoroughly, allowing farmers to calculate exactly how much fertilizer is needed. This means the technology can help reduce costs and reduce the impact on the environment.

In the experiment, which will be conducted through December 2019, Toyota is providing the new service to a rice farmer in Suzuka and collecting data with Tokai Trading Co., a supplier of agricultural materials in Yokkaichi. They are planning to conduct the experiment in other regions as well.

Toyota started developing ways to support farmers in 2011 to contribute to local development. Based on the TPS, it developed a system to manage farm tasks via smartphone, and more than 80 agricultural production corporations now use it. Toyota believes its new soil service will help farmers further improve their efficiency.

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Japan Times, April 7, 2019

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Future of Food Under ‘Severe Threat’ Amid Rapid Decline in Species Diversity, U.N. Warns

Thomson Reuters Foundation



Although about 6,000 plant species can be used for food, only nine make up most of the world’s total crop production. | Reuters

The future of food supplies is under “severe threat” because of the number of animal and plant species that are quickly disappearing, a United Nations report said on February 22, 2019 as the world grapples with how to feed a growing population.

People are depending on fewer species for food, said the U.N.’s Food and Agriculture Organization (FAO), leaving production systems susceptible to shocks caused by pests or disease, droughts and other extreme weather events due to climate change.

Although about 6,000 plant species can be used for food, less than 200 varieties are widely eaten, and only nine make up most of the world’s total crop production, the FAO said in the first report of its kind to assess biodiversity in food systems.

“The loss of biodiversity for food and agriculture is seriously undermining our ability to feed and nourish an ever-growing global population,” FAO chief Jose Graziano da Silva said in a statement.

“We need to use biodiversity in a sustainable way, so that we can better respond to rising climate change challenges and produce food in a way that doesn’t harm our environment,” he said.

By analyzing data from 91 countries, the FAO said there was “mounting evidence” the world’s biodiversity was under “severe threat” due to pollution, badly managed water and land use, poor policies, overharvesting and climate change.

Climate change will become a steadily bigger threat to biodiversity by 2050, adding to damage from pollution and forest clearance to make way for crops, according to more than 550 experts cited in reports approved by 129 governments in March 2018.

From insects to sea grass, crustaceans and fungi, nearly a quarter of nearly 4,000 wild food species are in decline, with the hardest hit regions being Latin America, Asia and Africa, the report said.

Global food production must become more diverse and include species that are not widely eaten but could be better equipped to withstand hostile climates and disease, it said.

“Compounded by our reliance on fewer and fewer species

to feed ourselves, the increasing loss of biodiversity for food and agriculture puts food security and nutrition at risk,” Graziano da Silva added.

Diversification could also help fight malnutrition globally by bringing little-known but highly nutritious foods into the mainstream, like fonio, a small grain that is well-suited to hot climates with unpredictable weather patterns.

The U.N. has said countries must double the productivity and incomes of small-scale food producers by 2030 to eliminate hunger and ensure all people have access to food.

One person out of every nine already does not have enough food and the world population is expected to reach 9.8 billion by 2050.

Japan Times, February 22, 2019

Korea’s Agriculture Ministry Nurtures Food Startups

By Nam Hyun-woo



Members of Bap Blossom, a team participating in the Ministry of Agriculture, Food and Rural Affairs’ (MAFRA) food startup incubating project, pose in front of their store in Wanju County, North Jeolla Province, on March 18, 2019. Courtesy of the MAFRA

In the wake of Koreans’ growing interest in culinary culture and the harsh domestic job market, a growing number of young people are turning their eyes to the food business with dreams of becoming the next Gordon Ramsay or domestic food franchise mogul Baek Jong-won.

Even if those young people have decent cooking skills and a brilliant business idea, not many have come close to following in the celebrity food entrepreneurs’ footsteps, due largely to setbacks in rent payment, kitchen facilities, advertising and other practical problems.

For those young food entrepreneur wannabes, the Ministry of Agriculture, Food and Rural Affairs and the Korea Agro-Fisheries & Food Trade Corp. (aT) has been running an incubator program, providing financial support and aid for rent,

kitchen facilities and even education on how to run a food business.

In its third year, the Culinary Startups Incubator Project provides opportunities and support for culinary startups, comprised of those aged under 40, to test their business by opening a real store for up to three months.

Since 2017, 342 participants in 54 startup teams have joined the project and 38 people of them have started their own businesses, according to the ministry. The ministry will receive applications throughout 2019.

For selected food startup teams, the ministry and the aT provide up to 60 million won (\$52,700) a year for rent, restaurant decoration costs, kitchen facilities, advertisement fees and other non-cooking aids. Teams shoulder costs for labor, ingredients and other utility fees only.

Twelve teams participated in the program in Seocho-gu, Seoul, in 2017, but the ministry has increased the number of restaurants and food courts available for the businesses to five.

For this year's program, selected teams will open their diners at five places across the country — three in Seoul's Seocho-gu, Eunpyeong-gu and Seodaemun-gu; one in Cheonan, South Chungcheong Province; and one in Wanju County, North Jeolla Province. The one in Eunpyeong-gu is a food court which can house multiple teams at the same time.

Culinary business consulting firms, a university and big name food firms, including Ottogi, will run the places and provide consultations and other services for participating teams, with support from local governments, the ministry and the aT.

One of the recent teams participating in the program is “Bap (rice) Blossom,” which will showcase bibimbap, cold pasta, pork cutlets and rice with various toppings in Wanju for the next three months.

Opened on March 18, 2019 as the second team using



Officials from the Ministry of Agriculture, Food and Rural Affairs (MAFRA) and Cheonan city government cut the tape in front of the store of Yeokjeon Pasta, a team participating in the ministry's food startup incubator project, in Cheonan, South Chungcheong Province, on March 21, 2019. Courtesy of MAFRA

the Wanju space in 2019, the team will serve local ingredients, such as beef and vegetables combined with members' unique interpretation of each dish. Also, the team uses porcelain bowls made by Wanju-based artists to promote the local art community.

“The project is serving as a launch pad for nurturing young food entrepreneurs and promoting the cooperation between local farms, artists and food businesses,” Wanju County Governor Park Seong-il said. “The county will continue its support to create jobs in various fields including food businesses.”

Three days before Bap Blossom, another participating team of the program, “Yeokjeon Pasta” began operations in Cheonan. The team will serve pasta and pilaf as its main menu items.

“The ministry will save no effort in supporting young people to successfully start their businesses in the highly competitive food industry,” a ministry official said.

Korea Times, April 8, 2019

ADB Signs Second Loan with PRAN for Inclusive Agribusiness in Bangladesh



PRAN-RFL Group Director (Finance) Ms. Uzma Chowdhury (left) and Deputy Director General of ADB's Private Sector Operations Department Mr. Christopher Thieme (right) during the signing.

The Asian Development Bank (ADB) on March 19, 2019 signed a \$14.2 million loan to support the expansion plans of Sylvan Agriculture Limited (SAL), a PRAN-RFL Group (PRAN) company, to enhance inclusiveness in the agribusiness sector by lifting the incomes and skills of farmers—particularly women. PRAN is one of the largest food and agribusiness companies in

Bangladesh.

ADB's assistance will finance new food processing facilities to produce potato chips, potato flakes, and pasta. Under a gender action plan, women will comprise at least half of the 450 people directly employed in the new facilities. Gender wage gaps will be reduced, women's facilities introduced, and greater technological assistance provided to women farmers.

“Agriculture plays a key role in Bangladesh's economy and development, providing nearly half of all employment in the country and supporting over 70% of the total population,” said ADB Investment Specialist for Private Sector Operations Ms. Tushna Dora. “ADB's second loan to SAL will further improve the agribusiness sector in Bangladesh through increased private sector investment. It will enhance the livelihoods of thousands of local farmers, with a focus on empowering women to gain new skills that can be used to earn better incomes.”

Potatoes for the new processing facilities, located in Habiganj industrial park in the northeastern part of Bangladesh, will be sourced from around 2,000 contract farmers, integrating

them in a sustainable agricultural value chain. The project is expected to increase contract farmers' income by at least 50% as they introduce new potato varieties, expand the area they cultivate, and benefit from the assurance that their production will be bought by SAL.

The project is ADB's first repeat assistance to a private sector borrower in agribusiness. In 2012, ADB approved a \$25.1 million loan to SAL for the construction of processing facilities,

including for liquid glucose and starch made from cassava sourced from contract farmers.

PRAN produces more than 200 food products under 10 different categories including juices, mineral water, carbonated beverages, bakery products, snacks, biscuits, confectionary, and dairy products. It is one of Bangladesh's largest private employers, with around 95,000 staff. In addition, the group has engaged with more than 100,000 contract farmers across

various crops.

ADB is committed to achieving a prosperous, inclusive, resilient, and sustainable Asia and the Pacific, while sustaining its efforts to eradicate extreme poverty. In 2018, it made commitments of new loans and grants amounting to \$21.6 billion. Established in 1966, it is owned by 68 members—49 from the region.

*Asian Development Bank (ADB),
March 19, 2019*

In Cavite, Farmers Practice 'Climate-Smart' Agriculture

By Jhesset O. Enano



CROP YIELD Farmer Julian Aguilar shows the coffee beans he has harvested on his farm in Cavite province. With changing climate, he is planting other crops to ensure yield for his livelihood and food on the family table. —JHESSET O. ENANO

Under the sweltering sun, Julian Aguilar inspects his crop, which, like him, have been reeling from the intense heat. The 65-year-old farmhand cultivates coffee, also the perennial product of other farmers in this province.

Like his father and grandfather who tilled the land before him, Aguilar produces mainly the sought-after arabica beans and the less-common excelsa beans.

The laborious journey from tree to cup, however, requires the perfect mix of conditions, Aguilar said, including just the right amount of sunlight and water.

Livelihood in peril

But with recent prolonged dry spells and stronger rains, relying on coffee production alone — which is harvested once a year—may put his livelihood in peril.

“Last year (2018), we had really strong rains and our coffee production was really affected,” he said.

Under ideal conditions, his 3-hectare plantation can yield up to 3 tons of dried coffee beans. Last year, he said the harvest was meager.

To adapt to the changing climate, Aguilar began to diversify, adding crops that can be resilient under different weather conditions.

Crop diversification

Now, his land also produces bananas, pechay, pineapples, cucumbers, dragon fruits and “sili” (pepper).

While not entirely a new concept, crop diversification is one component of climate-smart agriculture (CSA).

It is an approach that not only ensures a country's food security, but also supports farmers whose lives are intricately linked with the soil and the climate.

From rice to coffee

Agriculture that is “climate-smart” or “climate-resilient” has three main concerns, namely food security, climate change adaptation and climate change mitigation, said Rene Vidallo, country program manager of the International Institute of Rural Reconstruction (IIRR).

This approach incorporates practices already being done in the local level. Traditional knowledge of farmers and communities is combined with research and technologies needed to adapt to a changing climate and to reduce greenhouse gas emissions from agriculture.

After all, longtime farmers like Aguilar know the land and the crops best.

A farmer since he was a teenager, Aguilar said his family's land used to be rice plantations, until they decided to shift to coffee amid growing demand for it.

But even as early as the '90s, he said the family began to notice changes in weather patterns.

Typhoons and droughts lingered more often, affecting the harvest that the family would sell as well as put on the table.

“Now, because we have diversified our crops, we won't go zero in our production,” he said.

Planting various crops based on seasonal calendars can also maximize soil productivity, which translates to better farm yield and income for the farmers.

Vidallo said there was no one-size-fits-all approach to making climate-smart farms.

'Disaster days' crops

For instance, for areas that are heavily hit by typhoons, disaster-resilient, or “disaster days” crops, such as bananas, roots

and tubers, may be planted.

Pineapple is considered “resistant” to drought.

Management of small livestock production can also be made climate-smart, with a successful case in Guinayangan town in Quezon province.

Over the years, several barangays have been turned into “climate-smart villages” through initiatives led by IIRR and the local government.

These villages serve as real-time laboratories, where farmers test farming practices and systems that would best adapt to their climate.

Farmers have transformed grasslands into productive rice fields. Coconut farms, meanwhile, have rich vegetation growing underneath tall trees.

Under IIRR’s initiative, Guinayangan women led in managing and breeding native pigs.

Instead of consuming commercial feeds that are costly and energy-intensive to produce, the hogs eat plants and plant products often found in backyards, such as sweet potato tops and “kakawate” (madre de cacao) leaves.

Gloria Macaraig, president of the Guinayangan Native

Pig Association, or GuiNaPig, said the small-scale production had allowed women to participate in agricultural activities and even organize themselves in learning groups and cooperatives.

She said the practice had also provided them with additional income, meeting the growing demand for native and organic pigs.

As an agricultural country that is also most vulnerable to climate change, the Philippines and its farmers would benefit greatly from CSA approaches, Vidallo said.

Challenge

“The challenge is that farmers are often limited by their traditional practices,” he said. “But all this talk about climate change and the rising demand for food presents a big opportunity for them. They just have to have access to proper information.”

Ironically, while farmers produce the country’s food supply, they remain to be among the poorest and, thus, more at-risk from climate change.

“There are so many research outputs but these are not given to the farmers,” Vidallo said. “But if we support them and we invest in agriculture, everyone will surely benefit from it.”

Inquirer, April 16, 2019

Food Firms Globally Whip Up Wacky Ways to Battle Bad Diets

By Annie Banerji, Thin Lei Win



Indian health worker Chhaya Sunil Jadhav banned snack food at home after her daughter, 11, fell sick from eating cheap, salty chips after school every day.

“She howled in pain and clutched her stomach. So we rushed her to the hospital,” said the mother-of-three. An ultrasound scan revealed “a giant ball of glue” in the girl’s gut, which doctors blamed on too much junk food.

Now, U.S. food giant Mars Inc and Mumbai-based charitable foundation Tata Trusts are marketing an alternative in western India: bite-sized squares made from yellow peas, which they say are packed with iron, protein, vitamins and micro-nutrients.

“If it is nutritious, I will buy this,” said Jadhav, trying a pack of GoMo Dal Crunchies, which costs 10 rupees (\$0.15), at a product demo in her village of Masur in Maharashtra state.

Around the globe, worries about human health, animal welfare and the environment are driving food firms to find wacky ways to keep people’s weight down and diseases at bay.

For poor diet has overtaken smoking as the world’s biggest killer, according to the latest Global Burden of Disease

study, causing 20 percent of deaths globally in 2017.

Launched in November 2018, the pea-based snack is the first joint product from Mars and Tata Trusts - which owns two-thirds of India’s salt-to-software conglomerate Tata Sons - after they agreed in 2016 to boost nutrition and food safety in Asia’s third-largest economy.

The aim, said Tata Trusts advisor Mansharan Seth, is to offer an “affordable, accessible, nutritious” snack in rural India, where poverty and a lack of education mean many children suffer from health problems due to their diet.

“We are (often) talking to someone who is probably hearing the words ‘protein’, ‘minerals’, ‘vitamins’ for the first time,” she said at the new \$75-million factory making the product. “This is not an overnight solution.”

CORPORATE BABY STEPS

Recent data shows the problem is not only about getting enough food, but the right, healthy kind like whole grains, nuts, seeds, fresh fruits and vegetables.

The Global Burden of Disease study, led by the U.S.-based Institute for Health Metrics and Evaluation, found people were eating food high in sugar and salt that contributed to heart disease, cancer and diabetes.

Globally, diabetes affects 422 million people, killing about 1.6 million in 2016, according to the World Health Organization.

Rita Teatua, head of the Food Safety and Standards Authority of India, said Indians accounted for the second-largest group of diabetics globally.

Nutritionists and activists have long accused big food



and beverage companies of courting poor consumers with drinks and snacks high in salt, sugar and fat, while doing too little to stem rising obesity and diet-related illnesses.

Shweta Khandelwal, a nutritionist at the Public Health Foundation of India, said some firms tried to confuse consumers with misleading product descriptions and nutrition labels and too few were “really trying to make a difference”.

But not all is doom and gloom, said Teatonia.

More than 20 corporations - including Mars, U.S. cereal maker Kellogg Company and food and beverage firm Nestle - have pledged to reformulate recipes by 2022 as part of the “Eat Right India” campaign.

Kellogg said it had cut more than 1,000 tonnes of sugar - the weight of 10 blue whales - and 200 tonnes of salt from its foods in Asia-Pacific, and had stopped using artificial colors, preservatives and flavors in its products globally.

Nestle said it had reduced sugar in its products by 34 percent since 2000 and hoped to chop 5 percent more by 2020.

To help tackle the problem, Asia-based companies like Alchemy Foodtech and Nutrition Innovation are trying to lower the glycemic index (GI) of food, a measure of how quickly it can raise blood sugar levels.

In response to family problems, Singaporean couple Alan Phua and Verleen Goh have spent three years designing a plant-based product, 5ibrePlus, to add to common foods to reduce their GI.

Both of Phua’s grandmothers died of diabetes complications, while five of his mother’s siblings are type-2 diabetic, he said at the Alchemy Food Tech office in a leafy Singapore suburb.

“I wanted a kind of technology or solution that can be practical (and) fits everyday life, so that I can see my loved ones being protected,” he explained.

Adding 5ibrePlus to jasmine rice can lower its GI to that of brown rice without changing the taste or texture, Phua said.

Alchemy’s founders are working with bread and noodle producers and rice distributors to make the product available later this year.

Nutrition Innovation, another Singapore-based firm, recently raised \$5 million from investors for its technology that can be used by mills to produce low-GI sugar on an industrial scale.

‘YUCKY TO YUMMY’

Meanwhile, alternative meat companies are eyeing health and environmentally-conscious consumers in Asia.

Life3 Biotech’s plant-based protein, Veego, is slated to start production this year (2019), said company founder Ricky

Lin.

“From yucky to yummy - it took about three years,” laughed Lin. Veego, he said, has a similar texture and protein level to chicken but without its usual fats and cholesterol.

Singapore-based startup Shiok Meats hopes to supply products derived from seafood cells grown in a lab to high-end restaurants by the end of 2020, and sell them in supermarkets in three to five years, said co-founder Ka Yi Ling.

“In Asia, we eat a lot of seafood, especially shrimp,” she said. “There is a lot of environmental impact ... and most importantly, with the population growth in Asia, it’s hard to sustain that demand.”

Non-meat eaters, for their part, can take advantage of the one-year-old app “abillionveg”, which reviews vegetarian and vegan dishes in photos snapped and uploaded by its users and notifies restaurants in a bid for motivate them to offer more.

Founder and lifelong vegetarian Vikas Garg remembered having to settle for a lacklustre salad at the numerous steak-houses he visited as an investment banker.

“You don’t want your vegetarian or vegan meal to be a compromise or sacrifice,” he said. “We’re also trying to convince businesses that their plant-based dish should be the best thing on the menu.”

Reporting by Annie Banerji in India and Thin Lei Win in Singapore; editing by Megan Rowling and Belinda Goldsmith.; The Thomson Reuters Foundation is the charitable arm of Thomson Reuters that covers humanitarian issues, conflicts, land and property rights, modern slavery and human trafficking, gender equality, climate change and resilience.

Thomson Reuters Foundation, April 30, 2019

Eating More Rice Could Help Fight Obesity, Study Led by Japan Researcher Suggests

Bloomberg



Eating rice may help prevent obesity, research suggests.

Experts found that people following a Japanese or Asian-style diet based on rice were less likely to be obese than those living in countries where rice consumption was low.

Researchers said low-carbohydrate diets — which limit rice — are a popular weight-loss strategy in developed countries but the effect of rice on obesity has been unclear.

They looked at rice consumption in terms of grams per day per person and calorie intake in 136 countries. They also



looked at data on body mass index.

In the U.K., people were found to consume just 19 grams of rice a day, below dozens of other countries including Canada, Spain and the U.S.

The researchers calculated that even a modest increase in rice consumption of 50 grams per day per person could reduce the worldwide prevalence of obesity by 1 percent (from 650 million adults to 643.5 million).

Professor Tomoko Imai of Doshisha Women’s College of Liberal Arts in Kyoto, who led the research, said: “The observed associations suggest that the obesity rate is low in countries that eat rice as a staple food. Therefore, a Japanese food or an Asian-food-style diet based on rice may help prevent obesity. Given the rising levels of obesity worldwide, eating more rice should be recommended to protect against obesity even in Western countries.”

Imai said rice was low fat, adding: “It’s possible that the fiber, nutrients and plant compounds found in whole grains may increase feelings of fullness and prevent overeating.”

The authors concluded: “The prevalence of obesity was significantly lower in the countries with higher rice supply even after controlling for lifestyle and socioeconomic indicators.”

Tam Fry, chairman of the U.K.’s National Obesity Forum, said: “We have known for centuries that Far Eastern populations tend to be slimmer than in the West because rice is a staple food, but few obesity specialists may have appreciated why.

“This novel research is the first to hypothesize that we could nail obesity by eating a modest amount more.”

The study was presented at the European Congress on Obesity in Glasgow.

Japan Times, May 2, 2019

To Cut Food Waste, Taiwan to Make School Lunches More Appetizing

By Taiwan News, Staff Writer



(Photo by Executive Yuan Council of Agriculture)

Ministry of Education hosts school chef competition, with the aim of making vegetables more appealing and to reduce waste

To cut down food waste, the Ministry of Education is teaming up with the Full Foods Foundation to host a school chef cooking competition and “make school lunches more delicious.”

The “Full Foods Super School Chef Competition” challenges school chefs to make unpopular vegetables more appealing to school children. The unpopular vegetables include

bitter melon, eggplant, Chinese yam, kale, green pepper, garlic, celery, onion, carrot, and peas.

According to Liberty Times, Taipei city schools produce two to three metric tons (2,000-3,000 kg) of food waste per day, on average. Taoyuan City and Tainan City both report nearly 50,000 kg of food waste each month. In Kaohsiung, 5 percent of school lunches become waste every month.

To curb waste, the competition aims to make school lunches more appetizing, in addition to being more nutritious and balanced.

Apart from decreasing food waste, the Ministry of Education also monitors the handling of food waste under different city regulations. In Yunlin, Chiayi, Taitung, Hualian, and Kinmen, authorities prohibit animal farms and piggeries from collecting food waste as feed.

The ministry called on schools to calculate food consumption more accurately, educate students on how to maintain a dietary balance and cherish food. Also, the ministry wants schools to create a recycling mechanism to reduce food loss.

Tainan City Government’s Education Bureau held a school lunch chef competition on June 1 this year (2019).

Taiwan News, May 4, 2019

DM Launches Smart Food Safety Services

By Jamil Khan, Senior Reporter



The Dubai Municipality holds press conference.

Dubai Municipality's vision to develop a happier and sustainable city has taken a step forward with the introduction of the latest smart services under the Foodwatch platform, aimed at enhancing food safety and customer experience. Khalid Mohammed Sharif Al Awadhi, CEO of Dubai Municipality for Health, Safety and Environment Sector, launched two smart services under the Foodwatch banner, namely "Foodwatch Smart Permits" and "Foodwatch Confidence," during a forum which marks a new beginning in the history of food safety management systems and associated services at the regional and international levels.

The Foodwatch platform, which is an innovative revolution, strives to take new leaps towards advancing food safety culture with the help of fully digitalized and algorithm-driven authentication gateway that allows regulatory authorities,

food establishments, service providers and consumers to use many features aimed at promoting public health and making effective use of the available resources.

"Foodwatch is a unique platform that is driven by the use of big data to raise human performance in food safety and harmonize the food safety system in Dubai, and these data will be a model for setting up Block Chain for food safety at the local, regional and international levels," said Al Awadhi.

Dubai Municipality has launched an intensive training program on 17th April 2019 for health supervisors working in food establishments registered with the Municipality. The first phase of this training program aims at holding 60 interactive sessions to train 1,600 food establishments and more than 2,500 health supervisors before the end of May 2019. To date, more than 500 supervisors have been trained and during these training sessions the challenges of managing records related to the day-to-day operations of food safety management were discussed. More than 90% of these records are in paper and the Municipality, through the Foodwatch platform, aims at eliminating the use of paper records, which will contribute to the Emirate's vision of establishing a paperless government by the end of 2021.

Another innovative service launched on the Foodwatch platform is the Foodwatch Self-Inspection application also known as Foodwatch Confidence. It is a digital inspection tool that helps food establishments to manage daily food safety checks for their different operations.

Gulf Today, May 6, 2019

It is Time to Think About the Quality of Food

By Jose Graziano da Silva



When facts change, so should strategies. Agricultural development, for example, faces radically different challenges today than it did only 70 years ago. Back then, when the Food and Agriculture Organization (FAO) was founded, there was a lack of food in the world, and efforts focused on dramatically ramping up production to prevent mass starvation in many countries.

Today, we produce more than enough food to feed a larger global

population -- and yet hunger has not been eradicated. It turned out that availability is not enough and that accessibility must be assured. That has been the focus of many social protection policies and programs set up for vulnerable rural people in recent years, part of an effort that must be completed.

Now we face new and complex nutrition problems. More than two billion people are overweight. A third of these (more than 670 million) are obese, a condition strongly associated with higher risks of chronic diseases such as diabetes, hypertension, heart disease and even some forms of cancer.

Projections estimate that the number of obese people in the world will very soon overtake the number of people suffering from hunger, which accounted for 821 million in 2017. This has already

happened in Latin America and the Caribbean.

While hunger persists in some areas, notably those most affected by conflicts and climate change, obesity knows no borders. Eight of the 20 countries with the fastest rising rates of adult obesity are in Africa, and of the 38 million overweight children under five, almost half are in Asia. No country has yet found a path to reducing the problem, which carries an exorbitant cost, estimated at \$2 trillion a year in healthcare and lost productivity.

Micronutrient deficiencies are also common, and anemia -- caused by inadequate dietary iron and linked with pregnancy complications, impaired cognitive development and often death -- is also on the rise.

Evidently, despite the long-term progress in reducing hunger, our current



food systems are not providing people with healthy food and the nutrients required for a healthy life.

One of the main factors behind the global pandemic of obesity and malnutrition is the large-scale consumption of ultra-processed foods with high saturated fat content, refined sugars, salt and chemical additives.

This kind of food goes through multiple processes (extrusion, molding, milling, etc.) and is highly manipulated. Examples are soft drinks, chips, candy, ice-cream, sweetened breakfast cereals, packaged soups, chicken nuggets, hotdogs and fries. Such food is cheaper, easier to access and prepare, traits that are especially relevant for poorer households in urban areas and increasingly in rural communities too.

Indeed, it is also increasingly odd that food safety rules and standards are conceived to prevent only short-term illnesses rather than long-term diseases. The Food and Agriculture Organization's position is that food safety cannot be only about preventing people from getting food poisoning or sick from food-borne illnesses. It must also be about preventing people from suffering from malnutrition. So for a food to be considered safe for consumption, it must also be healthy.

In this sense, the international community should advance the establishment of rules and regulations that aptly encourage the consumption of healthy and nutritious foods. Slowly, a consensus is growing that healthy diets warrant regulatory protection. Last December, the UN General Assembly adopted a resolution on Global Health and Foreign Policy, indicating the progress of food systems as a global health issue.

So it is time for new strategies. Countries need to increase the production and consumption of healthy and diversified foods. Agriculture is a fundamental part of this effort. But there needs to be a mental shift in the way we currently view agricultural production.

Instead of focusing exclusively on cash crops, farmers need also to be encouraged to use their land to cultivate a variety of nutrient-rich crops, including fruits and vegetables. This can be done, for example, by introducing policies and legislation to ensure institutional procurement from local family farmers. Home grown school feeding programs are a good example. They offer local family farmers a guaranteed market and encourage the production of healthy food for children, with the co-benefits of boosting local economies and school attendance in poor areas.

It is also important to consider that about 80 percent of all food produced globally is now consumed in urban areas. Urban people need better access to fresh and nutritious food. This can be done by promoting local trade, rural-urban linkages, short food

supply chains and also urban and peri-urban agriculture. In fact, urban consumers are a very effective entry point in promoting the value chain development of nutrient-rich food crops.

As the Ministers of Agriculture of the G20 countries get together in Niigata to discuss investment priorities for sustainable agricultural development, they should bear in mind that the food challenges facing humanity nowadays are not only availability and accessibility. It is more and more about the quality of food.

Kyodo News, May 14, 2019

About the Author

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Director General of the Food and Agriculture Organization



Jose Graziano da Silva has worked on food security, rural development and agriculture issues for over 30 years and is known as the architect of Brazil's Zero Hunger program. Graziano da Silva holds a Ph.D in economic sciences from the State University of Campinas in Brazil.

New Zealand Unveils Plan to Go Carbon Neutral by 2050

AFP-JIJI



New Zealand Climate Change Minister James Shaw and Prime Minister Jacinda Ardern talk to reporters on May 8, 2019 in Wellington. The government has introduced an ambitious climate change bill which aims to make the nation carbon neutral by 2050 while giving some leeway to farmers. | Associated Press (AP)

New Zealand introduced legislation on May 8, 2019 to make the South Pacific nation carbon neutral by 2050, although greenhouse gas emissions from the economically vital agricultural sector will not have to meet the commitment.

Prime Minister Jacinda Ardern said the bill would help New Zealand contribute to a goal of limiting average global warming to 1.5 degrees Celsius (2.7 degrees Fahrenheit) over pre-Industrial Revolution levels.

"The government is today delivering landmark action on climate change — the biggest challenge facing the international community and New Zealand," she said.

The center-left leader said avoiding the issue would be "gross negligence" and burden future generations.

But the legislation does not explicitly outline how the economy will become carbon neutral by 2050, sparking criticism from environmental campaigners.

Instead, it establishes an independent Climate Change Commission, which is charged with helping New Zealand reach the goal by setting five-yearly “emissions budgets.”

The agriculture sector, one of the country’s top export earners, has been granted major concessions in the bill, which is set to pass Parliament by the end of 2019.

Biological methane from livestock, the source of about one-third of New Zealand’s greenhouse gases, has been exempted from the ambitious goal set for carbon dioxide.

The legislation mandates a 10 percent reduction in biological methane by 2024.

“Agriculture is incredibly important to New Zealand, but it also needs to be part of the solution,” Climate Change Minister James Shaw said.

“That is why we have listened to the science and also

heard the industry and created a specific target for biogenic methane.”

But the Farmers Federation said even that target meant the government had “given up on pastoral farming.”

“Let’s be clear, the only way to achieve reductions of that level, is to cut production — there are no magic technologies out there waiting for us to implement,” Vice President Andrew Hoggard said.

“At this point in time we have no idea how to achieve reductions of this level, without culling significant stock numbers.”

While the government described its legislation as “binding,” Greenpeace New Zealand said it did not include any way to enforce the targets, rendering it “toothless.”

“What we’ve got here is a reasonably ambitious piece of legislation that’s then had the teeth ripped out of it,” Executive Director Russel Norman said.

“There’s bark, but there’s no bite,” he said.

Japan Times, May 8, 2019

Experts Recommend Long-Term Strategies for Organic Farming

Organic experts have recommended the Nepal government to bring long-term strategy and policies to create favourable environment for organic farming in the country.

Concluding a two-daylong International Organic Experts’ Meet 2019 here on May 15, 2019, experts presented their suggestions and recommendations to Minister for Agriculture and Livestock Development Chakrapani Khanal.

Presenting the challenges and opportunities of organic farming in Nepal, the experts requested the Ministry of Agriculture and Livestock Development to bring long-term policies and implement it without any compromise. Similarly, the experts have also recommended developing and expanding new technologies as an alternative for chemical fertilisers and pesticides.

As per the experts, technical aspects of organic farming should be included in the academic curriculum so that everybody will be aware of agriculture and farming. Giving an example of Karnali province, the experts suggested identifying and expanding more organic areas in the country.

Meanwhile, they said that a separate organisational structure should be set up in all federal, provincial and local governments so that organic farming could be promoted equally in all areas.

Meanwhile, the task force formed by the ministry for the promotion of organic farming has claimed that they have



conducted few meetings and discussions with all three levels of government regarding organic farming. “We have conducted discussions with federal, local and provincial governments and also collected some suggestion for our project,” said Ganga Acharya, a member of the task force.

Responding to the suggestions of experts, Minister Khanal said that the government is committed to make the country’s agricultural sector an organic sector.

“We are committed for the development of organic farming. And the suggestions provided by the distinguish experts will be discussed and implemented effectively,” he added. He further said that now the agricultural sector will move ahead along with science and technology.

“We have to analyse the current situation of our farmers and their production level to implement any new programme. So, before bringing any new policy, the real situation has to be analysed,” he said, requesting concern authorities to first address farmers’ demand.

Organic experts from India, Bhutan, Cuba and Spain along with other 150 national and international participants representing farmers group, organic farming activists, agriculture and cooperative groups and other concern authorities had participated in the event. Aiming to promote organic farming in Nepal, the ministry had organised this conference.

The Himalayan Times, May 16, 2019

Taiwan's ATRI Signs MOU with Malaysia's Ji Sheng Agrotech



Dr. Jen-Pin Chen, President of Agricultural Technology Research Institute (left) poses with Mr. Chih-Shun Su, General Manager of Ji Sheng Agrotech (center) and Mr. Chih-Chung Su, representative of Ji Shen Agrotech (right), after the MOU signing.

The Agricultural Technology Research Institute (ATRI) of Taiwan signed a Memorandum of Understanding (MOU) with Ji Sheng Agrotech SDN BHD of Malaysia on May 23, 2019. The signing ceremony was successfully held at ATRI's Xiangtan headquarter. Both parties acknowledged that "Malaysia will be the hub for promoting Taiwan agricultural technology to the countries covered by The New Southbound Policy of Taiwan." According to ATRI, Ji Sheng Agrotech will act as the agent on behalf of ATRI, to introduce Taiwanese businesses operating in Malaysia which are interested in agricultural investment, to access ATRI's technology licensing and implement in Malaysia.

The agreement was inked between ATRI President Dr. Jen-Pin Chen and Ji Sheng Agrotech President Mr. Chun-Sheng Su. President Su also serves as President of Taipei Investors' Association in Malaysia. In Johor State nearby Singapore border, President Su has established the Ji Sheng Farm, with agricultural

technology and facilities as well as technology talents recruited from Taiwan. Fruits of high economic values such as beef tomatoes and muskmelons are successfully produced there.

In recent years, Malaysian consumers have been paying more attention to issues of agricultural products traceability. With ATRI's solid R&D capabilities combined with joint efforts and support of Taiwan businesses in Malaysia, it is believed that the collaboration will not only contribute to the development and promotion of Malaysian agriculture, but also create a mutually beneficial win-win situation to local farmers, Taiwan businesses and R&D sectors gearing toward the new southbound blue-ocean market.

About ATRI



To strengthen the commercialization and industrialization of agricultural research results, the Council of Agriculture (COA) completed the preparatory works and established Agricultural Technology Research Institute (ATRI) on January 1, 2014.

Under the ATRI there are three Departments and two centers. These are the Department of Animal Technology Laboratories, Department of Plant Technology Laboratories, Department of Aquatic Technology Laboratories, Agricultural Policy Research Center, and Industrial Development Center in charge of related affairs.

For more information, please visit ATRI website at <https://www.atri.org.tw/establishment>. For promotional video, please visit <https://youtu.be/vVVuxmRYZ-c>.

About CACCI

The Confederation of Asia-Pacific Chambers of Commerce and Industry (CACCI) is a regional grouping of apex national chambers of commerce and industry, business associations and business enterprises in Asia and the Western Pacific.

It is a non-governmental organization (NGO) serving as a forum for promoting the vital role of businessmen in the region, increasing regional business interaction, and enhancing regional economic growth. Since its establishment in 1966, CACCI has

grown into a network of national chambers of commerce with a total now of 29 Primary Members from 27 countries in the region. It cuts across national boundaries to link businessmen and promote economic growth throughout the Asia-Pacific region.

As an NGO, CACCI is granted consultative status, Roster category, under the United Nations. It is a member of the Conference on NGOs (CoNGO), an association of NGOs with UN consultative status.

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