



PISAgro

NEWS

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Dear Readers,

Smallholder farmers play an increasingly important role in the agricultural value chain. Buyers will increasingly rely on smallholders to secure their supply of agricultural commodities and to help satisfy their stakeholders' sustainability preferences. These smallholders also depend on the natural resources that are in need of sustainable management to prevent deforestation and degradation of ecosystems.

But smallholder production is often characterized by low yields, low quality, poor linkages, and less access to finance. On Headline, we discuss about the importance on Innovative Financing (IF) to help smallholders tackle these issues.

On this edition, our Feature will highlight crop micro-insurance to reduce the risk of impacts of climate change : the experience of corn farmers in Dompu and Bima Districts.

The Agri-Finance section will feature Rick Vand der Kamp's point of view on access to finance for smallholders farmers. Some interesting ideas to discuss, and a lot of our new initiatives are covered in the Newsflash section.

Also, found out what Kavita Prakash-Mani shares her reflection about the World Economic Forum Annual Meeting in Davos in January 2016.

Meanwhile, we would like to welcome DOW AgroSciences, KIBIF, UTZ Certified, Vasham, and Yara as new members of our partnership.

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Innovative Financing in Agriculture for a Better Yield

FAO estimates that the world population will grow from 7 billion in 2012 to 9.1 billion in 2050, which is a 30 percent increase. Food demand will grow faster as a result of accelerated urbanization and higher-earning populations. To meet this demand, food production will have to increase by about 70 percent. FAO also estimates that 90 percent of the necessary production increases will have to come from increases in yield and intensive crop, while the remaining 10 percent is from the expansion of arable land.



Photo: Unilever



Photo: Bayer Rice Working Group

Innovative financing can increase yield

Countries around the world are facing heavy challenges to ensuring that food production keeps up with the population increase and the changing climate conditions. To keep up with the pace, yields need to improve drastically, yet plantation areas have little room to expand. Therefore, significant investment from the private sector will be needed.

The use of private sector funding as a catalyst for agricultural development investment is starting to receive a special attention, especially in terms of the innovative financing concept. The concept itself is rooted in the UN system, with an emphasis on the sourcing of funds, including from the private sector. It was first mentioned in 2002 during the UN International Conference on Financing for Development in Monterrey, Mexico.

The Conference then established the Monterrey Consensus, where participants acknowledged the importance of innovative sources of finance that does not burden developing countries. Up until now, discussions are focused on the macro-level sourcing of unconventional development funds, in addition to the traditional official development assistance (ODA).

Globally, there is a wealth of experience within the innovative agricultural finance that can inspire investors in many countries. This knowledge ranges from Australia's experience with agricultural project bonds to China's linking of agricultural finance and hedging; from Brazil's rural bonds issued by farmers giving rise to a whole range of secondary capital market instruments to repo contracts traded on Colombia's commodity exchange.

Under the Partnership for Indonesia's Sustainable Agriculture (PISAgro), projects using the public-private partnerships (PPPs) approach are running in different parts of the archipelago, aiming to improve farmer's productivity, income, and reduce CO2. For example in East Java, Cargill, Monsanto, and BRI have partnered to help 100 corn farmers in Mojokerto to improve their access to credit loans, corn seeds, and trainings since 2014. The project improved farmers knowledge on good agricultural practices. It succeeded in assisting farmers to produce more than 900 tons of corn from 50 hectares of land. In West Nusa Tenggara, Syngenta collaborates with, Bank Andara, Mercy Corps Indonesia, ACA Insurance, and BPR Pesisir Akbar (local bank) to establish a micro financing program in Dompu for retailers and 640 corn farmers in 55 farmer groups

In the early 1990s the concept of PPPs emerged with a view to co-finance and implement large-scale public projects in infrastructure, water supply, and energy that governments found difficult to finance. Private sector involvement was, and still is, considered important to increase efficiency and innovation in the provision of services that in many countries used to be the exclusive domain of state-owned companies. These include water supply, health and education services, and so on. In the agricultural sector, PPPs can be for financing agricultural infrastructures such as irrigation schemes, storage facilities, or providing services that will benefit smallholders.

However, such investments need to be encouraged through supportive policy and regulatory, legal and institutional frameworks. This is important because of two main reasons.

First, any investment solution will need financial services from the commercial banks. Yet most commercial banks show little interest in financing smallholders for concern over their return of investment, as transaction costs are high compared to the size of loans. Therefore, the government plays an important role in providing supportive policy and regulations to make these smallholders more bankable, such as through a guarantee provision for loan.

Second, innovative financing can improve support for all components of the value chain that do not necessarily generate a financial return. An integration of products into a commodity exchange system is required, as the exchange provides reliable reference prices for an. This is the pivotal work that needs to be done by specialists, either government agencies or NGOs.

Integrating innovative financing transactions with risk management transactions permit arbitrage and a flexible marketing strategy. Good policy and regulations ensure that production flows and runs effectively from upstream to downstream. This way, innovative financing will be beneficial for not just one, but other related commodities, which will bring new players and new innovations to ensure agricultural sustainability.

Last but not the least, the existence of monitoring agencies are also required. They must be able to monitor whether innovative financing issuers are using the funds they received for the intended purposes, and that products are not diverted surreptitiously to buyers unknown to the investors.

In the previous issue, we looked at farmers' "access to finance" and some of the assumptions often made – we saw that farmers don't necessarily lack access to finance on the whole, but that they don't use bank loans a lot. For this issue, I wanted to look at the role of informal lending. Assumptions are often made about transactions in the informal market, and come down to something like

The non-transparent nature of informal lending – interest rates may not be stated, penalties are not clear, repayment may be in-kind, and so on – can lead to the conclusion that informal lenders are usurious, and they prey on the weak and desperate to maintain a cycle of dependence. This leads people to conclude that farmers will instantly switch to more formal types of lending when available, or even that policy objectives should focus on eliminating the informal finance sector.

Farmer surveys — at least in Indonesia — usually list multiple sources of informal farmer credit; family, friends, village heads, full-time money lenders, crop collectors, and agro-input shops are all mentioned. In most situations where there is no monopoly, any one lender who consistently abuses his or her power will be in business for, well..., one or two loan cycles at most. This does not discount the many examples of where moneylenders have taken advantage of their position, but it does mean that the informal lending sector as a whole (I would not dare to make a size estimate, but definitely larger than the entire formal agri-finance sector) needs a certain balance between risk and reward to function.

Unfortunately, information about informal lending interest rates is difficult to obtain; rates are not

always explicit and can vary a lot by source.

The scarce evidence available does point to higher rates; farmers in West Bengal, India, for example saw moneylender rates averaging at 26% in 2014, substantially above commercial and group lending rates. Other sources confirm that informal lending generally is more flexible, but comes at a premium over formal credit.

It appears that where more flexibility is required (no collateral, fast money, more personal contact, individual loan terms, possibility to roll over, and so on), the cost of lending goes up. Perhaps informal lending is somewhat like credit card debt for the modern, urban consumer – we all know card companies charge very high interest rates, but appreciate the flexibility, and do lean on it occasionally when we're in need, without (always) blaming the industry for our woes.

Besides interest rates, we can also look at farmer preferences — if bank lending is so much cheaper, surely farmers must prefer it. In 2012, an IFC survey put farmer preference between banks and middlemen pretty much equal, even after 1-2 cycles of bank lending (banks scored 3.3 out of 5; middlemen 3.2). Farmers liked banks because they expand their (social) network, and provide a more transparent product. They like middlemen because loans are more flexible, can be turned over, and come to their house. Recent surveys in Indonesia (Swisscontact) suggest that farmers who borrow from local traders actually receive a better price for their cocoa than those that do not. It is not clear what exactly is at play here, but it seems to contradict the idea that farmers live at the mercy of middlemen who abuse their power position for their own enrichment.



Rick van der Kamp
IFC Operations Officer

"Sure, farmers can get a loan if they are desperate, but this puts them at the hands of greedy moneylenders and into a debt-cycle they can never get out of..!"

The informal sector itself is far from uniform, and rates, terms and conditions vary substantially. Informal interest rates tend to be higher (at

least with professional moneylenders), but lending is more flexible (more personalized and faster). Overall, farmers seem to appreciate the informal offering and accept the difference in terms, recognizing the limitations of using informal financing for longer term investments. All this paints quite a different picture from 'usurious moneylenders preying on the weak and desperate' that we find with some frequency in agri-finance discussions.

PISAgro Agri-finance Column (Mar-16)

Welcoming Bambang Harymurti as PISAgro Advisor

The PISAgro secretariat is proud to acknowledge Bambang Harymurti as part of PISAgro's board of advisors as of February 2016. The advisors serve a critical role in providing sound advice, opinions, and suggestions for the Partnership in advancing its programs and reaching its goal and vision. Affectionately known as BHM, Bambang Harymurti is a journalist and was editor-in-chief of Tempo magazine in 1999 and its newspaper version in 2001. Currently he is a senior editor for Tempo.

PISAgro has foreseen the importance of media as a close ally and collaborator. It's critical that this public-private partnership forge a strong and mutual relationship with members of the media to disseminate information to the public about our work. PISAgro needs to continue to showcase its successes, share its models, and disseminate lesson learned to the boarder public, in particular with the aim to educate decision makers, members of the media, as well as inspire other companies, business associations to create tangible and sustainable change in Indonesia's agriculture sector.

In an interview with Pak Bambang Harymurti early February this year, the Secretariat was able to tap into some of his thoughts and ideas about PISAgro and Indonesia's agriculture in general.

Bambang Harymurti has commended our work in the field, particularly engaging cooperatives within our projects. He knows very well that cooperatives are not the easiest organizations to work with, but he thinks this is a great opportunity to strengthen them into valuable, professional assests that can be equal partners to PISAgros's member companies.

He also touched about how through education and work force diversification, and how value chain players both at midstream and downstream can play a bigger role in helping farmers and their family to prosper more in the future.

On behalf of PISAgro Board, we welcome Bambang Harymurti on board.



Photo: PISAgro secretariat

PISAgro Board breakfast meeting (1/2/2016) with Tempo magazine and TNI. From left-right: Harry Hanawi of Sinar Mas, Aster KASAD Mayjen Kustanto Widiatmoko, Co-Chairman Franky O. Widjaja, Bambang Harymurti, PISAgro Secretary General Franky Welirang, and Wisman Djaja of Nestlé Indonesia.

features



Photo contribution from various working groups: coffee, rice, horticulture, and corn

features

A World where Sustainable Farming is the Norm

This might sound cliché and very ambitious but UTZ believes if farmers implement good agricultural practices and manage their farms profitably with respect for people and planet; industry invests in and rewards sustainable production, and consumers can enjoy and trust the products they buy then sustainability practices will be the biggest contribution for a better future.

As a certification label and program for more than 10 years UTZ does not limit the activities to promote the importance of certification as the only answer to sustainability. Started in Guatemala by working in the coffee sector, now UTZ has been working in various commodities such as cocoa, tea, and hazelnut and is growing for other opportunities and initiatives. With innovation and high commitments UTZ certified commodities have been produced in 37 countries around the world including Indonesia as one of the biggest coffee and cocoa production countries in Asia.

Since 2007, UTZ has been working in the coffee, cocoa and tea sectors across Indonesia. Besides promoting certification to the farmers and related supply chain actors on UTZ standards, UTZ Indonesia is recently implementing other projects such as the 'Expanding Livelihoods Opportunities for Poor Households Initiative' (ELOPHI) funded by Ford Foundation, partnering with ECOM and HIVOS on a coffee project in Lampung funded by IDH, Sector Partnership project on lobbying and advocacy funded by the Dutch Government, supporting PT OLAM Indonesia to develop a yield estimation methodology and a First Mile project with MARS in Sulawesi where traceability system in the cocoa farm level is identified.

No matter how big the projects are or how difficult the implementations are, UTZ Indonesia focuses its intervention to help farmers, workers and their families to fulfill their ambitions and contributes to safeguard the world's resources, now and in the future.

Muhammad Tang is one of the 50,000 farmers whose land has been UTZ certified. Many of the farmers have experienced increasing production; by maximizing and practicing the UTZ certification standards properly, regarding farm management and environmental management.

By joining PISAgro as one of the national platform where UTZ can share and learn from other expertises, UTZ will improve capacities and leverage supports to help Muhammad and many other farmers in Indonesia to see greater impact where coffee, cocoa and tea farmers grow better crops, gain better income, respect the environment and live a better life.

Muhammad Tang (43 years old) is one of the cocoa farmers from "Mammula Menre" farmers group of Malaha village, Samaturu Sub-district, supported by PT. Olam Indonesia. There were many compelling reasons that made him decide to participate in the UTZ certification program implemented by PT. Olam Indonesia.

"Since I participated in the UTZ certification program, I am now able to manage my farm much better especially on how to reuse organic wastes from the farm, arrange pruning and maintain shade vegetation, I also feel more responsible in using pesticide while understanding the negative effect of it if used without control, as it contains active substances dangerous to health and the environment"



Photo by UTZ Indonesia

features

A Budding New Business

Improving mango farmers' income with early flowering technology

Mangoes are Indonesia's largest fruit crop. However, despite a high domestic demand for mangoes, the popular Indonesian variety of Arumanis attracts a very low market price. The reason for this low price is a seasonal oversupply during the peak season from October to November. Smallholder mango farmers get caught in a vicious cycle where the low price for the crop makes them reluctant to invest in improvements for their trees thus leaving them stuck in a low-return, low-investment model.

PRISMA, a bilateral program supported by the Australian Department of Foreign Affairs and Trade (DFAT) and Bappenas, noted this problem. PRISMA determined that one way to assist smallholder mango farmers in West Nusa Tenggara (NTB) and East Java would be to increase mango production in the off-season, allowing farmers to benefit from better prices when demand was high.

PRISMA partnered with PT Syngenta Indonesia, a leading agrochemical company (Syngenta), to introduce early flowering technology to smallholder farmers. The technology uses a combination of chemicals to encourage early flowering – Cultar, which contains paclobutrazol to stimulate the early flowering, and a fungicide called Amistartop, to control flower drop. Syngenta was interested in the project because they saw the prospects for increasing their sales of these two products.

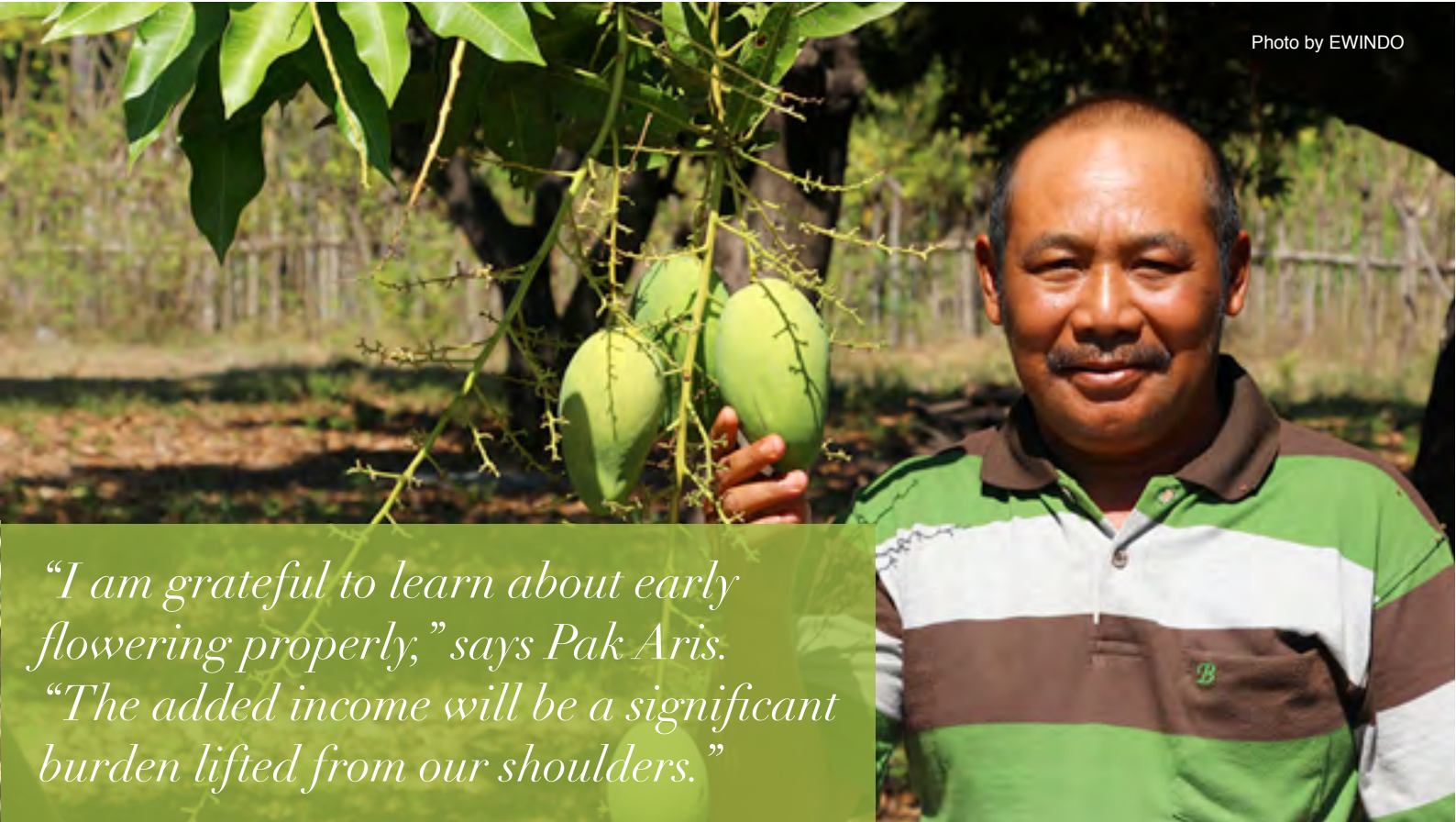
Syngenta now trains local collectors in the correct use of the chemicals so that they can provide this knowledge and inputs to smallholder farmers who would otherwise not be able to afford or correctly use the technology.

Pak Muksin, a collector in Sukadana Village in Lombok, NTB, was invited by Syngenta to join the Based on PRISMA's mango value chain assessment, the partnership decided that the most cost-effective and efficient way of raising awareness of the benefits of this innovation was by working with mango collectors. The collectors have significant outreach to many farmers and also stand to benefit from the introduction of the early flowering technology. Syngenta identified the collectors as the prime agents of change for this technology.

program as one of their agents in 2014. "I used to be a little bit wary of using paclobutrazol, because I had tried it before but always failed. They were able to get the trees to flower but then the flowers would rot.

I now know from the Syngenta agronomist, Pak Yazid Bustomi, that the farmers were applying it incorrectly," explains Pak Muksin.

"Syngenta chose me as an agent because I was keen to learn the proper application technique and because I was prepared to invest in the chemicals," he continues.



"I am grateful to learn about early flowering properly," says Pak Aris. "The added income will be a significant burden lifted from our shoulders."

Pak Muksin now provides a range of services to farmers in NTB including training in pruning, fertiliser use, and spraying for early flowering. Pak Muksin also sells the products to the farmers in small, more affordable quantities.

Pak Aris is one such farmer who has received services from Pak Muksin. "I own 50 mango trees on a 0.8 hectare block, which I usually rent out. I only get Rp. 6,000 per tree. I choose to rent out my trees because I get almost nothing for my crop otherwise. But with this new technology I will cultivate the trees myself," says Pak Aris.

The local farmers have now been convinced of the new technology as a result of a demonstration plot, which has been established by Pak Muksin with assistance from Syngenta.

"I applied the early flowering technology and pruned and fertilised my trees according to the way Pak Yazid and the other agronomists trained me. It is now only September and I've had to use bamboo sticks to prop the trees up as they're so full of fruit!" says Pak Muksin, beaming. "This is what convinced the farmers in my area to give it a try.

"I was able to sell unripe mangoes for Rp. 4,000 per kilogram in the local market for rujak (an Indonesian speciality fruit salad using unripe fruits) in August. And the ripe fruit I have sold for up to Rp. 6,000 per kilogram. The peak season price is usually 1,500-2,500 rupiah per kilogram. That's a big increase in price."

Pak Aris, the smallholder farmer who used to rent out his trees for almost nothing, is a few weeks away from harvesting his own crop. "Last year I received Rp. 300,000 from renting out my trees. This year, based on Pak Muksin's experience, I should get approximately 6 million rupiah for my harvest. My wife almost can't believe it!" says Pak Aris, laughing. "At first she was sceptical because I had to pay for the chemicals myself. This is a significant outlay for us at Rp. 20,000 per tree. I also have to provide labour for pruning and pay for fertiliser," he explains. "However, I can get the chemicals from Pak Muksin on credit with no interest and then he takes it out of my harvest price when he collects the mangos. This works well for both of us."

PRISMA has calculated that even if 50% of the production is shifted to the off-season months, they can more than double their net income. The program aims to benefit more than 17,400 farmers and 2,400 collectors in NTB and East Java by 2018.

A Change with Smiles of Indonesia's Farmers

A lady farmer from Tobelo – North Halmahera who has been learning farming since 5 years back used to cultivate sweet corn, tomato and kangkoong. Anita got her sweet corn yield increased more than 20% but the fertilizers and pesticides reduced 50%, while the tomato was increased more than 100%, and the production cost particularly the fertilizers was reduced double. One small grasp of Phonska was usually placed per hill to her tomato crops, and now it is in better order. The minimum access to knowledge and technology and the limited access to water were become the constraints for Anita and her friends previously.

The unique point of the local farmers from Tobelo is that most of them are women. Anita and the ladies farmers used to walk to the farm early morning to monitor their crops and coming back again afternoon. Digging and making embankment are not strange for them, nevertheless the local constraints were not yet solved, so farmers kept met the same results. They kept struggling to get better result. Yet, everything is changing now, and the farming spirit is “skyrocketing”.

While, Kamso (54 years old), a farmer from Bekri Sub-district – Central Lampung and Markisedik (42 years old) from Matmanas, TTU District – NTT gave feedbacks also related to their farms. The uses of fertilizers and pesticides are getting decreased significantly and starting to use pesticides alteration in spraying their crops without discretionary pesticides mixing. Besides, as much as better in spraying pesticides were also become their habit. Everything starts to change now. This change is not only come to them but also to some other farmers all around Indonesia as the impact of Knowledge Transfer Workpackage (KT) – vegImpact Program.

KT-vegImpact is a collaborative program among East West Seed Indonesia (Panah Merah), Applied Plant Research – Wageningen University and Indonesia Vegetable Research Institute (Ivegri – Balitsa) as well with the duration from 2014 until end of 2016. This national program aims to increase farmers' yield through the implementation of better GAP.

KT – vegImpact has two basic schemes e.g. Training of Trainers (ToT) and Training of Farmers (ToF). ToT was a training for all sales and marketing team of East West Seed Indonesia (Ewindo), which had been carried out during 2014 in 4 batches e.g. in Purwakarta, Lampung, Malang and Makassar and altogether attended by 137 personnel. Seeds and IPM; fertilizers and fertilization; pesticides and the spraying technique; and occupational health were the materials giving during three half days training theoretically and practically that the trainers were from APR – WUR and Ivegri.

“I couldn’t believe the quantity and quality of my harvests have increased significantly while the production costs have otherwise decreased.” Anita Wote (42 years).

Photo by KT-Vegimpact

After getting ToT, every product promoter (PP – the field staff of Ewindo) has to transfer this knowledge to at least 100 farmers in 3 meetings, and this is called as ToF. Beside in the class room, PP and farmers will do practice together on the field to do pest and disease monitoring, Nitrogen and pH measurement, spraying calibration and spraying technique as well. During the discussion session, PP and the participants will figure out the solution met on the field, yet the topics on farmers' problems are also welcome to discuss. While, to maintain the ToF quality, the refresher ToT and the monitoring of ToF implementation are carried out regularly by Herman de Putter (APR – WUR), Dr. Witono Adiyoga (Ivegri) and Dani Adi Prasetya (YBTS – Ewindo).

Altogether, there will be more than 10,000 farmers all around Indonesia getting the benefit of KT – vegImpact. The same “smiles” with Anita, Kamso and Markisedik hopely come to many more other Indonesian farmers.



When Chili Gives Hope - Fahrudin

Most people in Suniabar Village, Banjaran, Majalengka District, West Java doesn't want to work at a company or government, including moving to big cities. They choose to be chili farmer as a profession which gives them hope.

The success of chili farmers in Suniabar Village benefits heavily from Fahrudin contribution. As head of Kelompok Tani Karya Nyata (a farmers group), Fahrudin succeeded in developing its members to work hard and reap the rewards together. He didn't hesitate to engage farmer in keep learning, following new technology, and attending various training in agriculture.

Fahrudin was one from tens of chili farmers in Suniabar village. In 2011, the 56 years old friendly man was awarded as the best farmers in province and district level because of his diligence in developing chili plant. Now, Fahrudin becomes the role model farmer in his region.

Fahrudin success as chili farmer began when he participated in EWINDO's training and development program in 2001. From that program, he was introduced in using hybrid chili seed, LADO F1. With LADO F1 seed, Fahrudin's chili yield in harvest significantly improved compared to using other seed.

With hard work and motivation to keep learning, also using quality chili seed, Fahrudin could produce 3 tons of fresh chili in one harvest. The chili he planted could harvest 24 times in three months. Compared to using non-hybrid seed which could only yield less than one ton of chili in one harvest.

Fahrudin wouldn't be worried if the price of chilli fluctuates or fell because he with farmers joined in Kelompok Tani Karya Nyata bought grinding machine and packing machine to produce grounded chili powder. One pack of 400 g chili powder comes from one kilogram of fresh chili which processed from drying, grinding to powder to packing.

"If the price of chili fell, we could sell them as grounded chili powder in plastic bag. It could last longer and the price would not go down," he said.

The partnership between EWINDO with Fahrudin and farmers still continues until today. There are a lot to gain from the partnership. Besides having supply of hybrid chili seed, EWINDO still commits to give training, counselling, and often involving farmers in exhibition.

When Jokowi Visits

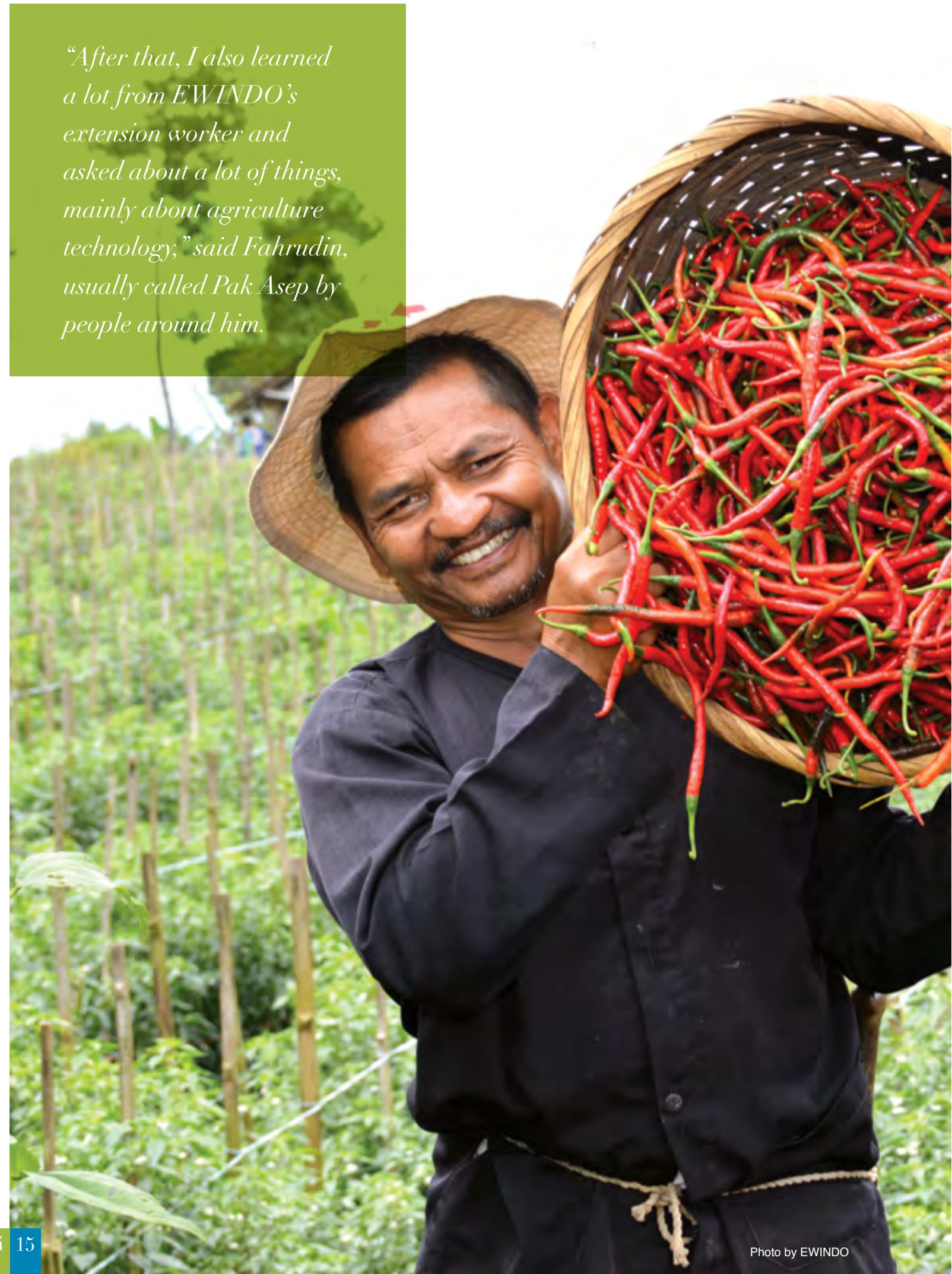
There was an interesting view during breaks in Jakarta Food Security Summit (JFSS) 2015. Fahrudin which was invited by EWINDO to attend JFSS-3, had a chance to speak with President Joko Widodo. For a few moments, Fahrudin was busy answering the President's questions.

Fahrudin told about his experiences as a chili farmer. To Jokowi, he told about his partnership with EWINDO, in which he and other chili farmers in his region could obtain abundant profit. Before, with non-hybrid seed, he could only harvest 3-4 tons per hectare, after using LADO F1 hybrid chili seed, he and other chili farmers could harvest 9 tons per hectare.

"To Pak Jokowi, I, as representative of farmers implore the government to not import chili when we have a great harvest. Because if that happens, it will kill chili price to farmers. Moreover, the first great harvest will be in March simultaneously everywhere, like in West Java, Central Java, East Java, and Lampung. With that great harvest everywhere, there would be an overabundance of supply and the price will drop," told Fahrudin.

Fahrudin's hope, of course, becomes every chili farmer's hope in this country. The government is expected to truly supports the farmers, including government's policy in pricing so that they can reap their hard work's benefit and live decently and prosperous

"After that, I also learned a lot from EWINDO's extension worker and asked about a lot of things, mainly about agriculture technology," said Fahrudin, usually called Pak Asep by people around him.



Cocoa Farming and Greenhouse Gas Emission

Greenhouse Gas emissions from agriculture count for more than 15% of total global emissions, with Indonesia being among the top ten countries releasing the highest number of agriculture emissions in the world. Although smallholder cocoa farms don't produce as much GHG as other crops, there is still room for improvement.

When the farmers are taught to apply the fertilizers correctly, increase the organic material in the soil and at the same time plant the suggested shade trees, the total carbon footprint from the cocoa production decreases significantly.

SCPP is the first project in Indonesia that monitors the GHG emissions on each of its registered farms. To measure this, two different methodologies have already been tested. The first methodology is simple and includes only fertilizer and pesticide use data, whereas the second one is more complex and uses climate and soil data also. This ensures that the values calculated from SCPP farms are more comparable to other carbon footprint studies.

When using the first methodology (the second one is still under revision), SCPP estimated that the emissions released are 0.97 tCO₂e/MT of cocoa produced. When comparing the baseline and post- line data, the amount of emissions saved is 5,795 tCO₂e per year by the end of 2015, which equals to 3,555 round trips, economy class, Zurich – Jakarta. SCPP shares the methodologies and calculations, among its partners and networking platforms such as PISAgro and hopes to establish a common method to measure GHG emissions in the cocoa sector.



When comparing the baseline and post-line data, the amount of emissions saved is 5,795 tCO₂e per year by the end of 2015, which equals to 3,555 round trips, economy class, Zurich – Jakarta.

Well managed cocoa farms contribute to the reduction of the global CO₂ emission



Growth Opportunity for Beef Cattle Industry

In 2013, Indonesia ranks fifth on beef consumption among ASEAN countries with 2.38 kg per person. As with other countries like Malaysia, Singapore, or the Philippines, beef consumption level is almost three folds at 7 kg per person. Another survey shows how the Indonesian beef consumption has risen and fall during a 14-year span, from 1.95 kg per person in 2006 to a peak of 3.41 kg per person in 2012. Yet, according to the Ministry of Trade, despite the consumption level, the price of beef in Indonesia has steadily increased over the last five years.

Some of the reason is because the beef industry in Indonesia is not competitive. Cattle breeding, for instance, is predominantly held by smallholder farmers who raise less than five heads in their backyard. Many of them raise cattle for savings and not for business. Meanwhile, the domestic slaughter house is sensitive to government policy changes for raw material imports, as it is highly depending on ready-to-slaughter imported cattle as well as the local fattening industry of imported cattle. Moreover, these farmers are facing fundamental challenges to expand their cattle businesses, such as limited access to capital, lack of collateral, and an over-cautious financial sector in channeling loans due to the inherited risks.

Despite the pitfalls in the domestic beef and cattle industry, Indonesia actually has the potential to become a global cattle producer for several reasons. First, it has sufficient land and water for grazing cattle, with good weather condition without prolonged dry or wet season. Second, it has large domestic market potential and abundant labors. And third, the country is one of the few countries that is free from the Foot Mouth Disease.

Beef is considered one of five food commodities defined as a strategic product by the Indonesian Government. To that end, the Government has actively sought at achieving food security and self-sufficiency through advancing domestic production and improving the infrastructure to support other agribusiness sector. Some of the Government's agenda includes establishing a nursery in Sumba, integrating cattle with plantations, improving import regulations, and controlling inflation.

However, it is also critical that the industry has a supportive financial sector and regulatory environment. Such as innovative financial schemes to help tackle specific issues within the industry and which has a potential for country-wide scaling up. To sum it up, the domestic beef cattle industry has great growth potential and Indonesia has the opportunity to develop its own industry.



Beef cattle has great growth potential in Indonesia

Crop Micro-Insurance to Reduce the Risk of Impacts of Climate Change

The Experience of Corn Farmers in Dompu and Bima Districts

At the end of 2014, the Agri-Fin Mobile Project of Mercy Corps Indonesia, in partnership with Syngenta Indonesia, Bank Andara and BPR Pesisir Akbar (a rural bank), facilitated provision of bundled information and financial services (loan, digital payment and financial literacy) to 198 farmers (385ha) in Dompu and Bima Districts. Bank Andara provided loans totalling Rp 3.1 billion (US\$ 238,462), which were disbursed to the corn farmers through BPR Pesisir Akbar under an executing scheme. Though challenges were faced in the form of a 20% drop in the price of dry corn kernels compared with the previous year and disaster in the form of Cyclone, the corn farmers still benefited through an average production increase of around 24% and an increase in income by around 10%.

The successes achieved in 2014 (the pilot phase) encouraged the parties to expand the reach of the project, and in late 2015 the provision of bundled services managed to reach 640 corn farmers (1,200HA). In line with the increased number of farmers, Bank Andara provided total loans of Rp 9.6 billion (US\$ 738,462). Anticipating further cyclones and drought due to El Niño, in this phase Asuransi Central Asia (ACA) also took part as a project partner by providing Crop Microinsurance (Asuransi Jagung). The farmers will receive a claim payment if at least 75% of their corn crops that are withered or cannot be harvested.

According to Pak Ansari (corn farmer and head of the farmer group in Kilo Subdistrict), in December 2015, no rain fell for three weeks. "This was the first time this had happened in the past five years. The existence of the corn insurance provided added value for my group members who are join in the PISAgro corn farmer community and experienced crop failure this year due to the drought." Pak Nurdin (corn farmer and corn trader in Sanggar Subdistrict) described the rapid response from ACA, Syngenta, and BPR Pesisir Akbar to the claims filed by the PISAgro corn farmer community whose crops failed, and ACA promptly provided compensation equal to the value of the farmers' loans from BPR Pesisir Akbar.

This corn insurance is the first crop micro-insurance product for corn farmers in Indonesia. It is hoped that the existence of this product will help reduce the assessment by banking institutions that extending loans to the agriculture sector (especially for food crops) is a high risk. At the same time, an appropriate communication strategy to the farmers is needed in order to prevent the occurrence of moral hazard.



Photo by Mercy Corps



Photo by Mercy Corps

A farmer happily receives his insurance claim

Nestle-TCASH-BTPN Wow!

Integrated Financial Service to Support Innovative Financing

Telecommunication services have grown rapidly over the last decade. In Indonesia, mobile phone penetration reached 130% of the total population. However, the use of banking services is still relatively low, with unbanked segment (those without bank account) reached 69% of the total population in 2015. Thus, the Indonesian Government launched the Non-Cash National Movement (GNNT), a program aims to provide access to financial services, such as micro-loans as well as the micro, small and medium enterprises (SMEs).

The biggest Indonesian telecommunications provider, Telkomsel, has covered 95% of Indonesian population. Its nation-wide network attracts a national pension bank, PT Bank Tabungan Pensiunan Nasional Tbk (BTPN), to collaborate to support the Government's GNNT program. Their new integrated financial service connects TCASH (Telkomsel's mobile financial service) with BTPN's saving accounts, the BTPN Wow!.

The joint service, called "TCASH-BTPN Wow!", allows mobile phone users to access BTPN financial services through Telkomsel's network. It was nationally launched on 18 April 2016 during a community educational event in Ciampea Village, Bogor - West Java. This collaboration is expected to help broaden the access to financial services through mobile phones, particularly in the unbanked segment. In the near future, the service will be developed to reach various communities of farmers and other middle income communities, including to 3,000 Islamic boarding schools in Indonesia.

Before it was launched, TCASH-BTPN Wow! was first tested in five cities (Lampung, Bandung, Tasikmalaya, Cirebon, and Bogor). One of the purposes of this trial is to support Nestle's financing program in providing access to banking services and loans for 20,000 coffee farmers who supply raw materials for Nescafe coffee products. The innovative financing program is expected to provide assistance to farmers in managing their income in a better way, as well as to disburse loans for those who run an intensive farming.

Nestle is the leader of PISAgro's Coffee Working Group, a program initiated to raise awareness among Indonesian coffee farmers on the need of systematic replanting. The replanting program is done by distributing plant materials to farmers, establishing nurseries, and conducting trainings for farmers. By 2020, Nestle sets the target of distributing 3.8 million plant materials to farmers, followed by farmer trainings to increase productivity and create well-adapted plants that are resilient to climate changes, as well as helping 20,000 coffee farmers to get validated as 4C (Common Code for Coffee Community) farmers who adopt sustainable agricultural practices. In 2015, 18,000 of Nestle's coffee farmers already validated as 4C farmers, having productivity of 60% above the national average.



Photo: Nestle Indonesia

Launching of NESTLE TCASH BTPN WOW



Photo: Nestle Indonesia

Visitors try TCASH Machine

Kirana Megatara Promotes Good Agriculture Practices through Competition Events

One of the long-standing sustainability issues for natural rubber in Indonesia is the suboptimal quality of rubber produced by smallholder communities. This is mainly due to lack of proper knowledge for good tree maintenance combined with improper post harvest handling. The latter is exemplified by the widespread practice of “padding” unnecessary extra weight with various contaminants or water expecting greater revenue than selling pure coagulated rubber.

A recent innovative project by PT Kirana Megatara under its hallmark Smallholder Partnership Program, is to address the above issues by holding a competition event in the local rubber community.

Participants of such event are not confined only to Kirana's established smallholder group partners, but also any willing smallholders residing in the greater district. The purpose is to impart knowledge of good agriculture practices (GAP) onto the minds of the participants yet in an subconscious entertaining way.

This approach has been found to be successful judging by the large turnouts from families of rubber smallholders and by the enthusiastic overtly support from local governments.

The competition is mainly consists of three parts. First is a quiz show on various aspects of GAP ranging from the agronomy, the type of input materials, and other do's and don'ts in rubber cultivation and maintenance. This is run much like any ordinary quiz show seen on tv programs adapted to an outdoor setting.

The second part is a tapping competition. While participants compete on the basis of efficiency yet the overall score takes into account proper techniques that least damage the tree. Here the underlying message is obvious: the right technique would preserve the tree the longest while still getting obtaining the optimal amount of latex.

The final part is arguably the most important aspect for any smallholder: guessing the quality of rubber blocks from real samples of Kirana's purchase lot. Participants are asked to guess the portion of dry rubber in each sample – widely known as the DRC for dry-rubber content. This is the real valuation done by any rubber processor. A trained purchase officer can make the valuation by visual means and sometimes later confirmed by laboratory process. Such process is not normally encountered by a smallholder since an intermediary trader would trade in terms of total weight and not in DRC terms.

Kirana has conducted such events a few times a year rotating from one rubber producing region to another. With the kind of positive response from the communities and local governments thus far, the project has now become an integral part of the overall corporate sustainability program.



Photo: Kirana Megatara

Rubber farmers enthusiastically participate in quiz show

Innovative Financing for Palm Oil Plantation Revitalization in Sinar Mas Riau

Palm Revitalization for Smallholders Is No Longer Just a Story

The emergence of innovative financing gives hope to the independent smallholders to increase their productivity and improve their wealth. Prior to that, for these smallholders, revitalization for their palm plantation was just a mere dream, as excerpted from InfoSawit magazine.

A collaboration was made between Berkas Ridho Kopsa (Palm Cooperative) with Bank BRI Agro and PT Buana Wiralestari Mas (a subsidiary of PT SMART Tbk), in order to finance a palm oil plantation revitalization belonged to hundreds of independent smallholders from the Kijang Makmur Village, Riau. It was the first milestone for innovative financing scheme, which previously initiated by the Indonesian Chamber of Commerce through the PISAgro (Partnership on Indonesia's Sustainable Agriculture) program.

At that time, BRI Agro agreed to give a loan up to Rp48 billion in innovative financing scheme for the plantation revitalization program (Revitbun), where the plantation will be managed under one roof with a target area of about 500 hectares. This is done to ensure that the management of palm plantations owned by the independent smallholders will be aligned with the principles of GAP (Good Agricultural Practices) to gain optimum results.

In this scheme, farmers with TBM (Immature Plant) for a period of approximately 48 months will get a compensation fee as much as Rp500 thousand/ha/month to meet the needs of their everyday life. They are also allowed to work in the company as employees, so that they can improve their income and knowledge of good agricultural practices.

The success stories of palm revitalization in Kijang Makmur Village inspire other areas in Riau to do something similar, such as in Bandar Padang and Bukit Meranti villages. The farmers there intend to take an innovative financing scheme for their palm plantation revitalization, in a collaboration with Bank BRI Agro to receive a loan amounted to Rp24,7 billion, as well as to get a funding from BPDP-KS (Fund Management Agency for Palm Plantation) as much as Rp10 billion, or about Rp25 million/ha/unit.

According to Burhanuddin, the KKPA Plasma Estate Manager of Indragiri Hulu Region from PT SMART Tbk, his company supports this scheme by delivering trainings for the independent smallholders. They also run a regular monitoring towards the farmers' plantation to observe their development in plantation management. In this scheme, the transparency between companies and farmers are well advanced. Furthermore, an independent consultant also deployed to the field once every quarter to monitor the revitalization process in order to meet the target.

The implementation of innovative financing is supported by the Kampar District Government. Kampar Regent Jefry Noer hopes that the scheme will drive a revitalization process for palm plantations owned by independent smallholders in Kampar. Palm plantation areas in Kampar reaches 600 thousand hectares and spread over 21 districts, of which about 200-300 thousand hectares are managed by the independent smallholders. Through innovative financing scheme, he hopes to see higher productivity for palm plantations belonged to these smallholders. Jefry also said that the management of these plantations must be done aligned with the GAP principles. “To protect the environment, the plantation management must be in accordance with the ISPO,” said Jefry.



Photo by Sinar Mas

Palm revitalization through financing gives new hope for farmers

Jusuf Kalla Visits Nestlé Coffee Factory in Panjang

Lampung is home to 16% of Indonesia's robusta production. It has also become the base of most international trading houses, because 50% of Indonesian coffee exports are shipped from Lampung.

The Nescafé Plan has been recognized as an effective Public Private Partnership model for sustainable agriculture development, a Nestle led PISAgro's working group in partnership with Indonesian Coffee & Cocoa Research Institute, Rain Forest Alliance, IDH, Rabo Bank Foundation, Bank BTPN and Telkomsel.

The office of the Vice President of Indonesia invited a number of Governors from the top 5 provinces on coffee production to formulate Government policies to support coffee farming and production in Indonesia. The meeting took place on 13 February 2016 in Lampung. Chaired by Vice President of the Republic of Indonesia, Jusuf Kalla, accompanied by Minister of Agriculture, Amran Sulaiman and Minister of Industry, Saleh Husin and the CEO of a state-owned bank BRI, Asmawi Syam.

The meeting resulted in the government's pledge to provide sufficient funding for sustainable coffee development program. This fund will be allocated for old trees rejuvenation program, farm intensification as well as land certification. BRI, a state-owned bank, also announced their support in providing low-interest loan (KUR) to farmers so that they will be able to manage their farms better.

Visit to Panjang factory

Subsequent to this meeting, Vice President and The Ministers also visit Nestle Coffee Factory in Panjang. Through this visit all the honorable guests were provided the information about Nescafé Plan as well as Nestle Creating Shared Value programs. Jusuf Kalla also took the opportunity to have a dialogue with the farmers and to witness the examples of good agricultural practices in a demo plot near the location



Photo: Nestle Indonesia



Photo: Nestle Indonesia

Jusuf kalla visits factory in Panjang

welcoming new members

PISAgro is delighted to formally welcome these companies and organizations into the partnership. As part of the team, we look forward to working with you in any of our twelve working groups.



Dow AgroSciences

The Company is driving innovations that extract value from the intersection of chemical, physical and biological sciences to help address many of the world's most challenging problems such as the need for clean water, clean energy generation and conservation, and increasing agricultural productivity. Dow's integrated, market-driven, industry-leading portfolio of specialty chemical, advanced materials, agrosiences and plastics businesses delivers a broad range of technology-based products and solutions.

Working Group:

Dow is interested in joining the Rice Working Group.



UTZ

UTZ is a label and program for the sustainable production of agricultural products worldwide like coffee, cocoa and tea. Their aim is to create a world where sustainable farming is the norm, where farmers implement good agricultural practices and manage their farms profitably with respect for people and the planet, and where industry invests in sustainable production and consumers can enjoy and trust the products they buy. Through their certification system they provide training and support to farmers in good agricultural practices and farm management.

Working Group:

UTZ is an established member of the Cocoa and Coffee Working Group.



KIBIF

KIBIF is the pioneer of beef production in Indonesia, equipped with modern feedlot, abattoir, meat processing plant, and cold-chain distribution with international standards. Combining knowledge from Australian meat producers and Indonesian Halal experts, KIBIF produces beef and processed meat products that are Halal, Hygienic, and High Quality.

Working Group:

KIBIF is the leader of the newly established Beef Working Group.



VASHAM

Vasham is a social enterprise that leverages a closed loop business model to provide Indonesian smallholder farmers with the financing, expertise, and income security they need to achieve significantly better standards of living.

Working Group:

Vasham is a new member of the Corn Working Group



YARA

Yara converts energy, natural minerals and nitrogen from the air into essential products for farmers and industrial customers. The main application is fertilizers, while industrial uses and environmental solutions are also important. Yara global activities range from phosphate mining and ammonia production. Yara offers mineral fertilizers to markets in Indonesia.

Working Group:

Yara has been an established member of the Coffee Working group.

Reflections from Davos

Kavita Prakash-Mani,
Executive Director, Grow Asia

With a focus on the Fourth Industrial Revolution, the discussions at the World Economic Forum Annual Meeting in Davos in January 2016 revolved around the rise of robotics and impact on employment, the use of artificial intelligence to solve problems, the mining of big data to understand and predict trends, the interconnectivity of the world and the power of social media. All in the context of the slow-down in China, the increasing migration due to conflict, the potential exit of the UK from the European Union as well as the increasing geopolitics including in the Middle East and the South China Sea.

In this juxtaposition of current problems and future solutions, there was also a sense of achievement in having launched the Sustainable Development Goals (SDGs) which will guide the global progress towards a more socially just and environmentally sustainable future and the commitments to addressing climate change as agreed at the Congress of Parties (COP 21) in Paris towards the end of 2015. Together, these goals and commitments define how collaboration and dialogue can lay the ground work for sustainable development.

In this broader context, the discussions around food security and agriculture development also reflected the hope for a better future based on current commitment to action and

collaboration. The SDGs set out 17 goals for 2030 including no poverty, no hunger, responsible consumption, and protection of the planet – all of which are intrinsically linked to agriculture development which can ensure sufficient and affordable food for all, increased incomes and rural development for half the world population that depends on agriculture for livelihood, and sustainable use of environmental resources such as water. The SDGs also recognize that the goals are achievable only when all players collaborate – and this is written into the 17th goal as 'Partnerships for the Goals'.

The World Economic Forum's New Vision for Agriculture (NVA) initiative and its partnerships platforms including Grow Asia and PISAgro are built on the same premise – that multi-stakeholder collaboration between governments, businesses, civil society, farmers, international organizations and others are

required to develop solutions that are holistic and address systemic issues in agriculture development. At the Annual Meeting, NVA hosted a number of events and discussions to bring together leaders from these different stakeholder groups to share experience and impact to date and develop a shared vision and roadmap for action going forward. Participants included Presidents and Ministers from partner countries, CEOs from global food companies, heads of international organizations like World Food Program and International Fund for Agriculture Development, farmer leaders and heads of NGOs, donor organizations including USA and the Netherlands. Thomas T. Lembong, Minister of Trade of Indonesia, also joined the session and actively engaged in the discussion, specifically highlighting the potential of mobile phones in changing lives of farmers and the need for financial inclusion.



Photo: World Economic Forum



Photo: World Economic Forum

The highlights of these discussions included:

- Focusing on smallholders is critical to address food security and rural development. Efforts should continue to help these farmers achieve higher productivity and earn more income, while ensuring efforts are made to protect the environment especially resources like water, land and forests.
- Capacity building and empowerment of farmers and farmer organizations will enable farmers to be an equal player in the market and negotiate for their own future.
- Harnessing technology will enable greater scale and reach, especially mobile technology that has the ability to reach all farmers and link value chains and players.
- Addressing gaps in financing both at the value chain level as well as at

the farmer level will unlock greater investment and greater returns. Raising incomes of farmers will go a long way to bring them into the formal financial markets and also reduce the risk of borrowing and bad debts for farmers and banks.

- Collaborative approaches, such as the World Food Program's Patient Procurement Program, can consolidate demand for crops and result in greater investment in production and more secure markets for farmers.

- Cluster strategies can similarly consolidate investment into specific agricultural geographies and provide all essential services to farmers at a local level, in turn attracting more partners to operate in the area.

Recognizing the need and value of partnerships at country and sector level, NVA launched a Country Partnership Guide that provides five

principles and an 8-step framework on how country partnerships can be set up to effectively achieve the goals of agriculture development and food security. In addition, the Harvard Kennedy School launched a report on how system leadership is needed to deliver the integrated development results that are necessary to meet the SDGs. The report based its analysis on the NVA model and experience and learnings from Grow Asia, Grow Africa and the many country partnerships including PISAgro.

The common thread in all discussions was the need for strong visionary leadership, the need for collaboration, and the need for urgent action to address the global goals and tackle climate change. The opportunities and risks are well understood. Many of the solutions are available or should be possible through the fourth industrial revolution. What we need now is the willingness and the commitment of all actors.





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