



## Public-Private Collaboration for Human Capital Development Agenda in Agriculture

Scaling up PISAgro's Model  
through Agricultural Development Polytechnic

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***“We will put priority on human capital development...  
Human capital development will be the key for the future of Indonesia...  
We will continue to increase the quality of education...  
Vocational training and vocational school are certainly important.”***

## **President Joko Widodo**

“Indonesian Vision 2020-2024”

14 July 2019 - Sentul City

## **Letter from the Executive Director**



**Zul Martini Indrawati**

### **Dear PISAgro Members & Partners,**

On several occasions, President Joko “Jokowi” Widodo stressed that his second term will focus on human capital development, following huge infrastructure development during his first term as President.

We are happy to report that PISAgro has been actively collaborating with the Indonesian Government - particularly the Ministry of Agriculture - to support the human capital development agenda. In November 2018, PISAgro and the Ministry of Agriculture made its commitment official by signing Memorandums of Understanding (MoUs) with the Agency for Capacity Building and Development of Agricultural Human Resources (Badan Penyuluhan dan Pengembangan Sumber Daya Manusia Pertanian / BPPSDMP) and Center for Agricultural Education (Pusat Pendidikan Pertanian / Pusdiktan). These agencies are units under the Ministry of Agriculture mandated with developing human resources in agriculture sector.

Under the MoUs, PISAgro expressed its Founders and Members commitment to synergize our collaboration efforts to strengthen government’s Agricultural Development Polytechnics (Politeknik Pembangunan Pertanian / Polbangtan), with the wider goal of fostering Indonesian human resources development in the agriculture sector. In the implementation, our collaborations have expanded to a wider scope with some members collaborate with high schools and independent extension workers.

This edition will provide you with some highlights of our work in supporting the government’s human development agenda. If you have any thoughts on this, or would like to partner with us on any of the workstreams highlighted in this issue, please don’t hesitate to reach out to us at [contact@pisagro.org](mailto:contact@pisagro.org)

# Center for Agricultural Education: Generating Agent of Change in the Agricultural Sector through Agrimilenials and Agripreneurs



**Dr. Idha Widi Santi, SP, MP (Ibu Santi)**

the Head of Center for Agricultural Education (Pusat Pendidikan Pertanian / Pusediktan)

The Ministry of Agriculture is among the first ministry to take action on the 2020-2024 vision by transforming and expanding nine Academies (STTP/SKMPP) under the Ministry into 10 Agricultural Development Polytechnics (Politeknik Pembangunan Pertanian / Polbangtan). The rationale of this is to provide a curriculum and learning set up which intensifies vocational training, with 70% practice and 30% classroom.

Fostering farmers education falls into the tasks of the Center for Agricultural Education (Pusat Pendidikan Pertanian / Pusediktan), headed by Dr. Idha Widi Arsanti, SP, MP – better known as Ibu Santi. Her agency is also in charge of championing vocational high school (Sekolah Menengah Kejuruan - Pertanian Pembangunan / SMK PP), as well as fostering an agriculture entrepreneurial training program ('Penumbuhan Wirausahawan Muda Pertanian' - PWMP) for high-school and tertiary school graduates.

A productive and efficient workforce is the key to improving farmers livelihood. Through Polbangtan, SMK PP and PWMP implemented under her agency, Ibu Santi is sought to generate 'agrimillennials' and 'agripreneurs', who are well prepared and trained in good farming practices, as well as educated in the economic and

*Daily learning activities at Polbangtan Bogor*



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business side of agriculture sector. Agrimillennials and agripreneurs are the agent of change to transform the future of agriculture sector through quality workforce, who would fuel the production of agricultural goods and services, as well as strengthening agricultural supply base.

To maximize results Ibu Santi urges collaboration with the private sector through linking and matching, making sure that the talents produced by education institutions under her supervision would match the demand from private sector. There are several ways to implement such collaboration, including adoption of some best

practices in the private sector into curriculum in our education institution, internship programs and using shared facilities.

In an interview with PISAgro, Ibu Santi stated that “It takes willingness by both education institution and private sector to align their mindset for the collaboration to work. Education institutions need to see industrial requirement for workforce as demands, while the private sector needs to work together with education institution and translate their best practices into curriculum and learning material.”

She is certain that collaborations with Indonesia Chamber of Commerce (KADIN) and PISAgro to facilitate discussion and communication between private sectors and education institution could speed up the process. Some of PISAgro’s private sector members have already opened themselves up for collaboration with our Polbangtan and SMKPP by running internship programs for students and developing Teaching Factory (TEFA) models. If you would like to partner with us, please don’t hesitate to reach out to the PISAgro Secretariat at [contact@pisagro.org](mailto:contact@pisagro.org).

*Daily learning activities at Polbangtan Bogor*



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# Beef: Working with Education Institutions to Deliver Vocational Training



*Students from Polbangtan Bogor during field work in KIBIF Factory from June to August 2019.*



Steady rise on the demand of processed beef in Indonesia would require companies to make sure that they could continue to employ a competent, productive and competitive workforce. To help make this happen, PT Estetika Tata Tiara (KIBIF), from PISAgro's Beef Working Group, is running several strategic programs on human capital development.

KIBIF is pursuing a collaborative approach with Ministry of Agriculture and education institutions to ensure alignment with government programs and greater impact from limited resources. "Since 2016, KIBIF have been running internship programs with Institut Pertanian Bogor (IPB), Universitas Gadjah Mada (UGM),

Universitas Sebelas Maret (UNS), SMK Yadika Jakarta (Subang), Universitas Brawijaya (Unibraw), among others. Furthermore, we also collaborate with Center for Agricultural Training (Pusat Pelatihan Pertanian / Puslatan) by providing capacity building program for agriculture human resources ('widya swara')." said Grace Adoe – KIBIF's Marketing Director.

In its most recent development, KIBIF signed a memorandum of understanding (MoU) on vocational program in collaboration with Polbangtan Bogor and Polbangtan Manokwari. This program is a demonstration of KIBIF's contribution in supporting the government program to strengthen the workforces' capacity in a way that matches the needs of

the private sector. Another MoU is on its way to be signed with SMK-PPN Sembawa to deliver internship and training program.

KIBIF plans to continue expanding such cooperation programs to other vocational high schools, universities and Centers for Agricultural Training (Pusat Pelatihan Pertanian / Puslatan) through internships, study tours, and teaching factory (TEFA) programs dedicated for students, trainers and lecturers.



# Coffee: Scaling up PISAgro's Coffee Development Model through Agricultural Development Polytechnics

PISAgro's Coffee Working Group development model, led by Nestlé in collaboration with GIZ, is replicated at government's Agricultural Development Polytechnic (Politeknik Pembangunan Pertanian / Polbangtan) to prepare students with knowledge and skills to become agripreneurs. This includes the replication of Nestlé's intercropping model to provide additional income throughout the year for coffee farmers.

The program utilizes 5000 m<sup>2</sup> of land at Polbangtan Bogor to create a demo farm for coffee intercropping. Students can practice farming techniques and skills that they have learned on the demo farm where 600 coffee trees

have been planted, as well as 143 pepper trees and white lead trees, 910 chili trees, and 48 avocado trees on the periphery of coffee plants area.

The coffee intercropping model has already been implemented in 50 villages in Tanggamus, Lampung. The concept of intercropping and farmer business schools aims to help coffee farmers become more resilient when faced with fluctuations in global coffee prices while improving cash flow for these coffee farmers.

By having model farms at the Polbangtan campus, it is expected that students can demonstrate good farming practices, while better

understanding the economics of intercropping model. This is in line with the Polbangtan dual education model, where 70% of the activities are practical and 30% are classroom-based.

"We hope that replicating this intercropping model through Polbangtan across Indonesia will create significant impact on Indonesian coffee farming as Polbangtan graduates use their knowledge and skills to lead the transformation of coffee farmers across the nation," said Wisman Djaja, Sustainable Agriculture Development Director of Nestlé Indonesia.

*Wisman Djaja with staffs from Polbangtan while planting intercropping plants at Polbangtan Bogor*



# Cacao: New STEM-Based Curriculum Brings Youth's Interest Back into Cocoa Business

A STEM-based curriculum on cocoa was produced under Green Prosperity – Sustainable Cocoa Production Program (GP-SCPP) partnership led by Swisscontact. In collaboration with PISAgro's Cocoa Working Group, the Next-Generation Curriculum was shared by SCPP to the Agriculture Polytechnic representative of the Ministry of Agriculture in December 2018. The curriculum will complement learning material for both teacher and student of the State Vocational High School (Sekolah Menengah Kejuruan / SMK) and Agriculture Development Polytechnic (Politeknik Pembangunan Pertanian).

The Next-Generation Curriculum was designed as a local content subject using STEM (Science, Technology, Engineering and Math) method, and consists of learning modules for student and teaching guideline for teacher. The design and pilot project were facilitated by Mars who has been working with vocational schools in Luwu District, South Sulawesi province since early 2010.

The modules cover 13 topics about cocoa such as the history, taxonomy, plantation management, business model and financial management. STEM approach is chosen due to their emphasize on scientific thinking and decision making based on observation, investigation, critical thinking and open mindedness with focus on daily issues and challenges that confronts farmers.

"In Indonesia, cocoa commodity is mostly contributed by smallholder farmers and nowadays, young generation are less interested in cocoa farming. We hope that this curriculum could help sustaining new generations of cocoa farmers." said Christina Rini, SCPP Program Director.

The pilot project was conducted with the objectives of integrating rural community-based knowledge into the formal curriculum, supporting the teacher in applying student centred approach, and supporting the school administrators understanding

on the importance of school for improving the community livelihood. It had reached out to 200 teachers of vocational high school to participate in methodology training to deliver the STEM curriculum, and to improve school administrators' capacity to create enabling environment for integrating it into the existing school curriculum.

Learning from the Pilot, to introduce new approach of teaching and pedagogy required strong commitment and flexibility from the school administrator and teacher for further curriculum integration. The teacher admitted that the STEM approach has created an attractive and effective learning processes and gained more interest from the student as they are the centre of process. Furthermore, the students acknowledged that the STEM approach has opened the perspective of job creation in rural area/ farming than looking for job in the city.

*: Next-Generation learning activities in vocational schools in Luwu.*





# Dairy: Scaling up PISAgro's Dairy Farming Model through Replication at Agricultural Development Polytechnic Campus

PISAgro's Dairy Working Group has been promoting good farming practice through model farm and training for students to become extension workers. Through the Working Group, Nestlé, Indolakto, the Ministry of Agriculture and Agricultural Development Polytechnic (Politeknik Pembangunan Pertanian/ Polbangtan) Malang jointly review a class curriculum to align with Polbangtan's dual model education of 30% in class and 70% practice.

"By learning both good farming practice and the economics of dairy farming, we hope that we have prepared the students to run profitable and sustainable farms. Such investment on young generation of farmers is crucial because thousands of Polbangtan graduate are the ones to spearhead the transformation of Indonesian smallholders dairy farming." said Wisman Djaja, Sustainable Agriculture Development Director of Nestlé Indonesia.

The model farm adopted by Polbangtan Malang is used to demonstrate business model for small farmers with 8 cows and medium farmers with 50 cows. The business model, which has been implemented in several cooperatives and villages in East Java that works with Nestlé, is replicated and taught at Polbangtan. Moreover, an on-campus model farm is developed at Polbangtan Malang to



*Closing event of Indolakto Vocation Partnership Program*

allow the students to practice the skills and techniques such as maintaining animal health, welfare, feeding and shed hygiene. The students are also taught with the economics of dairy farming including cost of input, output optimization, and so on, to provide them with skills and knowledge to sustain a profitable business.

At the same time, Indolakto works with Polbangtan Malang to deliver training for 30 students of Agricultural Extension on Animal Husbandry and Wellbeing Program (Program

Studi Penyuluhan Peternakan dan Kesejahteraan Hewan / PPKH) about producing quality raw milk with good SNI standard. The students are trained to become extension workers to be deployed in 7 cooperatives / suppliers assisted by PT Indolakto for one month. Upon completion of the program, the graduates will provide training and direct assistance for farmers and staffs of the cooperatives to improve their knowledge and skills to produce quality fresh milk.

# Louis Dreyfus Company (LDC): Training Farmers and Investing in the Next Generation



**Rubens Marques**

LDC Indonesia's President Director

Louis Dreyfus Company (LDC) opened its first Indonesia office in 1999 and has since developed a strong business portfolio, focusing on palm, coffee, grains and cotton. Today it employs over 300 people at its offices and assets in Indonesia. With a commitment to responsible food production, LDC has continuously strived to support the sustainable development of Indonesia's agricultural sector through its business and sustainability initiatives.

Within coffee, LDC's trading and agronomy activities provide smallholder farmers with market access, logistical solutions and

training in sustainable farming. Over the past three years, close to 10,000 coffee farmers in Sumatera have benefited from GAP (Good Agriculture Practices) and agroforestry training, resulting in 100,000 trees being planted, with new initiatives extending to farmers in Aceh.

In 2018, with the support of Louis Dreyfus Foundation, LDC Indonesia brought its Sekolah Masa Depan ("School of the Future") program to Balikpapan and Jakarta, supporting two public elementary schools with building renovations, teachers' training, parents' focus groups and student engagement sessions conducted by LDC volunteers. The project reached out to more than 400 students, some 40 teachers and over 200 parents. From the LDC volunteers, students learnt about food, agriculture and environmental protection, while teachers and parents gained new skills and knowledge on how to inculcate positive values to the students in school and at home.

This year will see LDC pilot a new coffee vocational training program

for some 90 high school students in Batu Brak district in West Lampung who are expected to take over their families' coffee farms. Through this initiative, LDC aims to provide this next generation of coffee farmers with industry insights, sustainable farming training and financial management skills. Through LDC's involvement in PISAgro's Coffee Working Group, LDC will also explore the potential of collaborating with Nestlè in having the latter share its best practices and host students' visits to its coffee nurseries.

"We decided to get involved with farmers' training as well as education and vocational programmes, because we believe that agriculture merchants like LDC have a responsibility to prepare the next generation for the challenges ahead when it comes to food security and sustainability. These efforts are fully aligned with LDC's vision to help provide sustenance for a growing global population, towards a safe and sustainable future," said LDC Indonesia's President Director Rubens Marques.

*Agronomy training for coffee farmers in West Lampung*





## Mercy Corps: POWER 2 Kick-Off



© Ezra Millstein for Mercy Corps.  
May 2018, Terara, Indonesia.

***Ida and her farmer group as one of the beneficiaries, who received training on effective farming practices to produce greater yields in the face of an increasingly challenging climate, as well as administration and financial reporting.***



© Antony Satria for Mercy Corps, July 2019,  
Langkat, Indonesia.

***Bapak John Pieter Siburian (leader of Sabar Do Farmer Group) poses in front of a fellow community member's rice paddy. By participating in POWER 2 Program, Pak Siburian hopes to establish a farmer group cooperative where members have access to savings and loans, as well as easier access to buy input products for their land.***

In February 2019, Mercy Corps and John Deere launched POWER (Promoting Organizations that Work to Empower Rice Farmers) program phase 2. The aim here is to reach more smallholder farmers by strengthening farmer organizations, improving agricultural practices, and increasing access and adoption of technology to make farming more productive and attractive to younger generations of farmers.

POWER 2 will implement a mixed farming strategy for rice, corn, and horticulture crops across the proposed target areas in 11 districts, including: Subang (West Java), Banyuwangi (East Java), North Lombok, East Lombok and Central Lombok (West Nusa Tenggara), Gowa and Sidrap (South Sulawesi), Langkat and Humbang Hasundutan (North Sumatera), and North Lampung and Central Lampung (Lampung).

Mercy Corps Indonesia and John Deere have been collaborating on POWER program since phase 1 in 2015. Post-implementation of the first POWER programme, participating farmers have increased yields by 28% and incomes 16% on average across the program locations: Subang, Banyuwangi and West Nusa Tenggara/Lombok (East, Central and West Lombok). The program also incorporates John Deere employee volunteers from around the world who support program objectives through training and mentoring on an annual basis.

Similarly, POWER 2 will also seek to demonstrate a variety of best practices and produce critical lessons that will support scaling and strengthening farmer organizations as a key channel for farmer services and market access; expanding smallholder household incomes by leveraging crop diversification; and better addressing challenges through strategic partnerships.

POWER 2 will also expand the partnership between John Deere and Mercy Corps to include John Deere's business partner PT Wahana Inti Selaras (PT. WIS), especially to cover areas related to education and mechanization campaigns that benefit farmers and farmer groups/farmer group unions. POWER 2 will collaborate with other private sector actors including agriculture input companies, regional development banks, microfinance institutions, insurance companies, a fintech company, and an agriculture technology company. The collaboration will take an integrative value chain approach, convening market actors with common vision to build an inclusive development model to benefit all stakeholders involved including smallholder farmers

# Pupuk Kalimantan Timur: Launching of Pupuk Pelangi Cacao



Effectivity test of specific fertilizer for cacao in Soil Research Center (Balai Penelitian Tanah / Balitan)

Pupuk Kalimantan Timur recently concluded rounds of workshops involving smallholder farmers, government, non-profit organization, research institution and private sectors to inform the upcoming production of cacao fertilizer, “Pupuk Pelangi Kakao”. This initiative is taken as one of the measures to address significant decline in cacao productivity in Indonesia with yield between 600 – 800 kg/year/hectare, while the soil has the potential of around 2 – 2.5 ton/year/hectare.

The fertilizer contains nitrogen, phosphorus pentoxide, potassium oxide and magnesium oxide, as well as several micro-nutrients, and is specifically formulated to revitalize soil fertility for cacao plants in Sulawesi (“NPK Specific Fertilizer for Cocoa”). This fertilizer is also

specifically formulated to suit specific soil condition in Sulawesi and specific needs over nutrition for cacao plants. The formula chosen is based on recommendation from Centre for Coffee and Cacao Research (Pusat Penelitian Kopi dan Kakao / Puslitkoka), thus it has passed quality and effectivity test from Soil Research Center (Balai Penelitian Tanah / Balitan) - Bogor, and according to demo plot test in Sulawesi, it has the potential to increase productivity of 160-180% per year.

The fertilizer is scheduled to be distributed in October 2019 as pilot project in four districts in South Sulawesi including Pinrang, South Luwu, Luwu and East Luwu, and two districts in Central Sulawesi including Poso and Parigi Moutong. This program is supported by the Ministry

of Agriculture and Coordinating Ministry for Economic Affairs, thus become the pioneer of government program on specific fertilizer for specific commodity, since fertilizer programs usually use generic NPK fertilizer. “Hopefully this program will initiate a good start to help boosting cocoa production in Indonesia and prevent increased on importation of cacao bean.” says Muhammad Burmansyah, Partnership Manager of PT Pupuk Kaltim.



# Partnership with PRISMA to Benefit Businesses and Other Agriculture Market Players



*Vegetable farm in Malang managed by smallholder farmers working with PRISMA's partner - Credit Union Sawiran in PRISMA Phase 1.*

Australia-Indonesia Partnership for Promoting Rural Incomes through Support for Markets in Agriculture (PRISMA) will continue its work to catalyse behaviour change in the market system in Phase 2, which is scheduled for implementation throughout 2019 to 2023. PRISMA Phase 2 aims to achieve a minimum 30% increase in incomes for an additional 700,000 smallholder farming households in the target provinces by the end of the program. At the end of Phase 1 (December 2018), the program had exceeded its target and achieved a 252% increase in the net incomes of 345,001 smallholder farming households. In total, PRISMA's target is to achieve a sustainable 30% increase in the net incomes of a total of one million smallholder farming households by 2023.

To achieve the increased target of the new phase, PRISMA will expand its partnerships and working areas. PRISMA Phase 2 will continue to operate in five provinces in Indonesia - East Java, East Nusa Tenggara (NTT), West Nusa Tenggara (NTB), West Papua and Papua, while also expand to Central Java. PRISMA will continue to focus on agriculture, horticulture, livestock and aquaculture sectors, which have strong growth potential and are the main source of incomes for a significant number of Indonesia's smallholder farming households. It will also continue to encourage private sector partners to target smallholder farming households in their business growth strategy.

PRISMA will also continue using Market Systems Development (MSD) with some key changes in terms

of deepening interventions in the market system, engaging in policy, and improving the application and partnership principles to achieve higher level systemic change. Furthermore, the program will equip key decision makers and policy influencers with better data and evidence to influence changes in the enabling environment at both national and local levels.

Partnership with PRISMA is open for agricultural market players. Interested parties can fill in the online form available in the 'Partnership Inquiry' page on PRISMA's website at [www.aip-prisma.or.id](http://www.aip-prisma.or.id).

# Sinar Mas Agribusiness and Food: Pushing for Traceable Palm Oil through KSATRIA Sawit



KSATRIA Sawit workshop involving 30 suppliers of CPO (Crude Palm Oil) and PK (Palm Kernel) and 18 suppliers of Fresh Fruit Bunch (FFB) in Medan on 20 Juni 2019.

Sinar Mas Agribusiness and Food recently concluded several 'Ksatria Sawit' workshops pushing for traceable responsible palm oil production. In Indonesian language, 'ksatria' means knight or noble, as well as abbreviated from palm oil traceability to initiate transformation of independent farmers and palm oil agents.

The workshops are implemented to educate suppliers on traceability as a crucial first step in relationship building with the third-party suppliers. The workshop covers topic such as the objective of traceability, how to implement traceability within their operation and how to use the information collected to improve their productivity to suit expectations from local and international market.

Since Sinar Mas Agribusiness and Food's parent company, Golden

Agri-Resources (GAR) introduced GAR Social and Environmental Policy (GSEP) in 2015, increased traceability and transparency of the company's operation and supply chain have been the core components of the company's sustainable business development strategy. Sinar Mas Agribusiness and Food has achieved 100 percent traceability to palm oil mills since 2015, and 100 percent traceability down to plantations for its own mills in 2017, while continue to aim for full Traceability to Plantation (TTP) in 2020. In its most recent development, it has achieved 62 per cent suppliers to have fully traceable FFB to plantation level and continue to push for this year's (2019) target to achieve 85 per cent fully traceable sources.

"Throughout the last four years, we try to realize traceable and sustainable supply chain, starting with traceability

to palm mills, and currently we expand our traceability initiatives down to plantation in order to be able to map out the origin of our Fresh Fruit Bunch (FFB)," says Daniel Prakarsa, Head of Responsible Sourcing of Sinar Mas Agribusiness and Food.

Sinar Mas Agribusiness and Food will also continue sharing their experiences and best practices with suppliers to realise responsible, strong and sustainable industry. KSATRIA Sawit workshops were delivered by working together with Koltiva, a tech company partner helping the supply chain mapping. Sinar Mas Agribusiness and Food calls for collaboration efforts from all stakeholders in order to accelerate and maximize transformation of the supply chain.

For more information, visit [www.smart-tbk.com](http://www.smart-tbk.com).







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