

Partnership for Indonesia's Sustainable Agriculture

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WORLD
ECONOMIC
FORUM



Indonesia



Partnership for Indonesia's Sustainable Agriculture

The Partnership for Indonesia's Sustainable Agriculture (PISAgro) was first announced by the Vice Minister of Agriculture and Vice Minister of Trade during the World Economic Forum on East Asia in Jakarta, in June 2011.

Officially established on 20 April 2012, PISAgro is a public-private partnership that was created in response to challenges and opportunities facing the agriculture sector in Indonesia. Through its activities, the partnership seeks to provide an innovative, multi-stakeholder model for addressing the nation's agricultural challenges in a sustainable manner while improving the livelihoods of smallholder farmers.

PISAgro now has more than 70 partners – consisting of national and multinational companies, NGOs, donors and other institutions – working across 13 Working Groups.

Key strategic focuses for the year ahead

Focus Area 1

Continuing to engage the government to align priorities and develop synergies with the national agenda.

Focus Area 2

Scaling existing projects through broader participation from global and local partner organizations.

Focus Area 3

Strengthening the partnership platform to deliver greater value to members and partners.

Indonesia statistics

Population: 268 million	Percentage of population below the poverty line: 10.6%	Percentage of population in agricultural employment: 33%
Agricultural contribution to national GDP: 14%	Land mass: 1.9 million km²	Agricultural land: 32%
Rural population: 45%	Mobile penetration: 67%	Females employed in agriculture: 29%



PISAgro Governance and Structure

Founders Committee

- Sinar Mas
- Nestlé Indonesia
- Indofood
- Unilever Indonesia
- Bayer Indonesia
- Syngenta Indonesia
- McKinsey & Company Indonesia

Board

- Sinar Mas
- Nestlé Indonesia
- Indofood
- Unilever Indonesia
- Bayer Indonesia
- Syngenta Indonesia
- McKinsey & Company Indonesia
- IDH
- Triputra Agro Persada
- Cargill Indonesia

Advisors

- Ministry of Agriculture
- Ministry of Trade
- Ministry of Finance
- Tempo Inti Media, Tbk
- The Jakarta Post
- Grow Asia

Secretariat

- Executive Director
- Communications Manager
- Office Manager

“ Sustainability can only be achieved when there is a balance between economic opportunity, environmental protection and social welfare. PISAgro’s Working Groups are designing and implementing “closed loop” systems that integrate these important elements for stakeholders to deliver results, best practices, and scale up value chain initiatives together. ”

Franky Widjaja
Chairman & CEO,
Sinar Mas Agribusiness and Food

“ PISAgro’s progress proves that the multi-stakeholder model is a productive way to tackle the major challenges facing Indonesia’s smallholder farmers and the agricultural industry at large. Together with other private-public partners, PISAgro has a unique role in achieving national efforts for food security and transforming agriculture from subsistence to entrepreneurship. ”

Dharnesh Gordhon
President Director,
Nestlé Indonesia

Working Groups



**Agri-Finance
and ICT**



Beef



Cocoa



Coffee



Corn



Dairy



Horticulture



Palm Oil



Potato



Rice



Rubber



Soy



**Vocational
Training**



Agri-Finance & ICT

According to the World Bank's Global Findex Database, in 2017, Indonesia was home to 95 million unbanked adults. The reasons for this include lack of access to finance, inability to fulfil administrative requirements, relatively high account maintenance service fees and low financial literacy rates. The government and financial service sectors have been trying to address this by jointly creating new solutions that will help rural farming communities gain access to the finance they need to buy better agricultural inputs, improve productivity and expand their farms.

Activities

- Advising relevant ministerial offices on adjusting the subsidized farmer lending program to be available for more crops.
- Exploring opportunities for collaboration between the private sector and banks to provide end-to-end financial support solutions for smallholders. Examples in the network include BRI's Kartu Tani.





Beef

The consumption of beef and beef products have been on a steady rise over the last few years, while local beef production seems to have plateaued. Domestic cattle production is dominated by traditional smallholders who own on average 2 – 3 cattle – farmers who also have limited resources to provide the most effective care for cattle.

Activities

- Providing smallholders with infrastructure support, high quality animal feed to optimize weight gain and access to financing.
- Running capacity building programs in collaboration with vocational schools, internship opportunities and training at KIBIF's facilities.



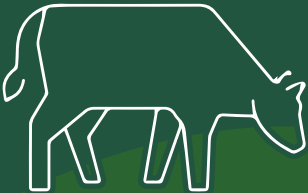
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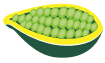


30 farmers
participating.



21 farmers
adopting new
technology.





Cocoa

Cocoa is Indonesia’s primary export commodity. Productivity of cocoa plants in Indonesia have declined by 50% in the past five years. Smallholder cocoa plants are suffering as a result of declining soil fertility due to the misapplication of urea fertilizer.

Activities

- Collaborating with the Ministry of Agriculture to develop high-quality seeds.
- Delivering professional farmer packages, which include agri-inputs, planting material, and knowledge.
- Improving access to savings, loans, other financial services, as well as financial literacy trainings.
- Increasing awareness of environmental issues in the cocoa sector by educating and training farmers in environmentally friendly practices.
- Building training programs to improve the communities’ access to nutrition and other basic services.
- Promoting the inclusivity of marginalized groups like women and youths.
- Scaling CocoaTrace, a cloud-based software developed by Koltiva to enable the industry to improve traceability across the cocoa value chain.



153,406
farmers
participating.



Trained
1,411
government
extension officers.



69,936
households have been
trained on financial literacy.



43% increase
in productivity.



66% increase in income
from baseline.



33% decrease in
GHG emissions.



Coffee

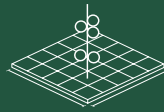
Indonesia is the fourth largest coffee producer and exporter in the world. As demand continues to rise – contributed by a growing coffee culture and the rise of the middle class – it is evident that coffee growing has the potential to lift smallholder livelihoods. However, Indonesia suffers from low productivity, yielding around 500 kg per hectare – far below the soil potential and the 2.7 tons per hectare of Vietnam. This is largely because smallholder growers struggle to secure access to the resources needed for replanting, quality agricultural input and knowledge around good agricultural practice.

Activities

- Launched a teaching program on income diversification through intercropping with pepper, avocado and chili.
- Developing a replanting program to increase productivity and adaptability to climate change.
- Organizing trainings for farmers to qualify for Common Codes for Coffee Community (4C).
- Create shorter and transparent supply chain aggregators (KUB) to export markets.
- Piloted mobile banking and cashless transaction.



19,227
farmers participating.



Program spanning
31,148
hectares.



43%
increase in
baseline yield.

204%
increase in
baseline income.



Mobile bank accounts opened for
17,000 farmers.





Corn

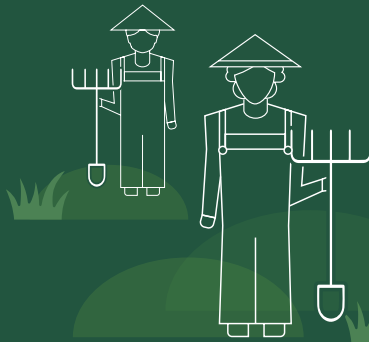
The Indonesian government has been largely focused on increasing domestic corn production to curb dependency on imports. Corn is mostly used as feed for the livestock industry, with smaller amounts used to produce simple processed foods. The annual demand for corn as livestock feed is estimated at 7 – 8.5 million tons and is likely to rise in response to the increased consumption of meat. To achieve self-sufficiency in corn, Indonesia needs to address strengthening its production base to meet this demand.

Activities

- Delivering subsidized fertilizer for corn in West Nusa Tenggara, as well as bundled services of technology, micro loans and financial literacy trainings in West Nusa Tenggara.
- Leverage access of hybrid corn in Madura, East Java to increase productivity.



Impact



9,020



trainers participating,
of which **644 are women.**



10% increase in
baseline yield.



45% increase in
baseline income.



Dairy

Indonesia imports 79% (roughly 3.5 million tons) of the milk consumed domestically. Raw milk is mostly imported in the form of skim milk powder (SMP), whole milk powder (WMP), anhydrous milk fat (AMF), and butter milk powder (BMP) from New Zealand, Australia, the United States and the European Union. Indonesia’s smallholder dairy farmers struggle to compete, as they typically have 2–3 cattle per farmer, low productivity rates (7–12 liter/cow/day) and inferior product due to poor feeding and maintenance. On the other hand, the Indonesian government is determined to boost local production to cover 60% of the domestic market by 2025.

Activities

- Delivering capacity building to public agricultural vocational schools in Malang and Bogor – through the Teaching Factory for Agricultural Education (TEFA) program – covering good agricultural practices such as designing cow sheds and feeding.
- Establishing model farms to demonstrate sustainable and profitable smallholder dairy farming.
- Promoting and facilitating fodder farming (especially maize), the use of nurseries, the distribution of better plant materials and the development of various legumes.
- Rolling out financing models for farmers to scale from 3–4 cows currently to 8 productive cows.
- Collaborating with cooperatives to establish and manage rearing farms.



14,000+
farmers participating,
of which approximately
50% are women.



20
model farms established.



10,000
water-ad-libitum systems
installed in barns.



8,000
farmhouses with
biogas systems.



Horticulture

The Indonesian archipelago holds the potential to cultivate various tropical fruits and spices – enough so to meet the increasing demand from both domestic and international markets. Unfortunately, the growth of the horticulture sector is challenged by price volatility and issues around quality control. Farmers face unstable prices and demand, logistical challenges – exacerbated by the short shelf-life of horticulture crops – and stiff competition against premium imported fruits and spices.

Activities

Gunung Sewu Group Initiative:

- Grow papaya, guava and banana.
- Optimize farmers' production techniques.
- Provide high quality seeds and supervising cultivation.
- Give off-take guarantees.

Syngenta Indonesia Initiative:

- Facilitate the availability of early flowering technology which helps provide mango farmers with longer harvest, higher fruit quality, and better prices in the off-season.

Impact



1,964 farmers
participating in the
various programs.



Palm Oil

Indonesia is the world’s largest palm oil exporter, exporting 34.6 million tons in 2018 alone. The industry also provides employment to 20 million people and relies heavily on smallholder farmers. In fact, 45% of palm oil production in Indonesia is contributed by smallholders. While it acts as a source of income for smallholders, the industry is faced with issues around low productivity rates on smallholder’s plantations, traceability, and aging trees, many of which are already above 25 years old.

Activities

- Organizing farmers into cooperatives.
- Conducting Good Agricultural Practices (GAP) training.
- Developing an innovative replanting financing scheme for smallholder palm oil farmers, including farmers’ living expenses as part of the financing package (Sinar Mas).
- Helping farmers become certified under the RSPO and ISPO certification guidelines (Indoagri and IDH).
- Supporting farmers in getting short term loans for high quality fertilizer and herbicides (Triputra Agro Persada and Sinar Mas).
- Supporting improvements in traceability by developing web and mobile applications for online-offline data collection, data evaluation and KPI reporting, as well as establishing traceability support services (Koltiva).



19,227
farmers
participating.



43%
increase in baseline yield.

Mobile bank
account opened for

17,000 farmers.



204%
increase in
baseline income.

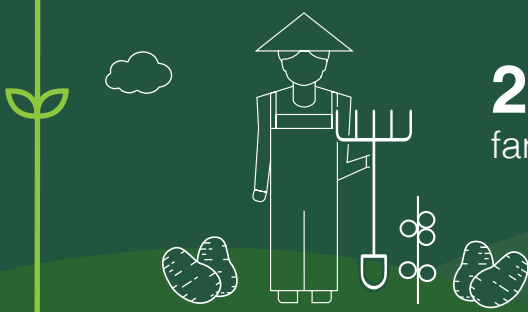
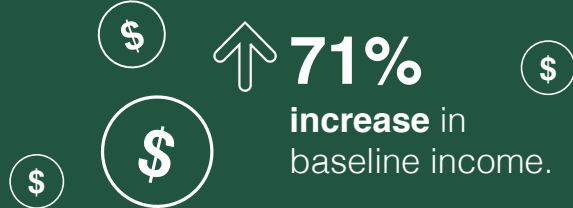


Potato

Potatoes are considered, relative to income, an expensive vegetable commodity in Indonesia. While there is a market for fresh potatoes, a larger proportion is processed at an industrial scale for potato chips. While it is a profitable crop for the smallholders who grow them, growing potatoes in Indonesia is challenging. The archipelago’s climate and soil conditions are not ideal for the crop, which require processors and farmers to acquire high-quality imported seed from Australia and Scotland. This is why partnerships between growers, input suppliers and offtakers is crucial to ensure the sustainable supply of potatoes in Indonesia.

Activities

- Enhancing farmers’ capacity, building on Good Agricultural Practices (GAP) through monitoring and mechanization.
- Producing high-quality industrial potato seeds.
- Facilitating access to capital and markets.
- Developing cultivation in Sumatra.



21,310
farmers participating.



Rice

Much like most of Southeast Asia, rice is Indonesia's main staple crop. Fluctuation in the price of rice has a significant impact on inflation rates and is a crucial determinant of the nation's welfare and economy. It is unsurprising then that rice sovereignty is a crucial target for the Indonesian government. 90% of Indonesia's rice production is produced by smallholder farmers, who own on average a land area of less than 0.8 hectares.

Activities

- Providing comprehensive Good Agricultural Practices (GAP) support for smallholder farmers in eight districts to ensure that at least 20,000 smallholder farmers increase productivity and increase their incomes by 20% against baseline measures.





Rubber

Indonesia is the world’s second largest producers of natural rubber. In 2018, production was at 3.2 million tons, and this figure is expected to grow as demand, especially for tires, continues to rise. However, Indonesia’s rubber plantations – 85% of which are managed by smallholders – are still not as productive as they can be due to poor plantation management practices, use of low-quality inputs and limited resources for replanting.

Activities

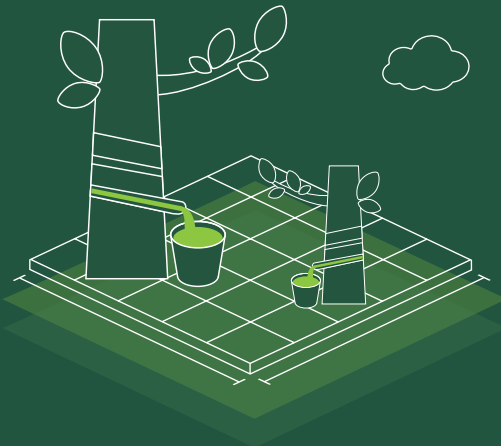
- Collaborating with government vocational training facilities to deliver capacity building through the Teaching Factory for Agricultural Education (TEFA).
- Running training of trainer and field assistance programs to improve farmer productivity.
- Organized tapping competitions and Good Agricultural Practices (GAP) quizzes.



44,735
hectares of
land covered.



28,240
farmers
participating.



30%
increase in yield
from baseline.





Soy

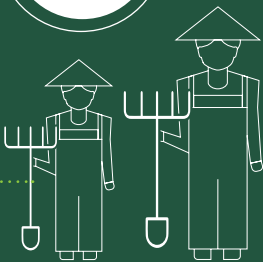
Soy is a crucial commodity in Indonesia, especially to produce traditional soy products like tempeh and tofu, which are an affordable source of protein. Indonesia has been importing soy for years, with domestic production only covering 30% of market demand. In a vicious cycle, Indonesia has been seeing a significant decline in planting area, as many farmers cannot compete against the price of cheap imported soy. A further complication is that soy is not endemic to Indonesia, requiring significant resources to cultivate. As such, increasing the productivity and quality of local soy is crucial to ensure a continuous supply of low-cost protein.

Activities

- Delivering quality agricultural inputs (subsidized fertilizer and certified seeds).
- Conducting coaching sessions, mainly focusing on Good Agricultural Practices (GAP).
- Providing cooperative development program in financial management, organization and social entrepreneurship.



Impact



9,415
farmers
participating.

Working across
2,847 hectares
of land.



52% increase in yield
from baseline.



51%
increase in
income from
baseline.



Vocational Training

Indonesia's rapid urbanization has led to younger generations shifting away from agriculture as their main source of livelihood. Various studies estimate that around 80% of Indonesia's 140 million farmers are now above the age of 45 years old. If this trend continues, it will place future food supply and the prospect of achieving Indonesia's food sovereignty targets at great risk. As such, strengthening vocational training in agriculture is key to build a cadre of highly professionalized farmers.

Activities

KIBIF:

- Launching collaboration between the private sector and government vocational education institutions, to complement activities and align curriculums to market demands.

Bayer Indonesia in Merauke, Papua Province:

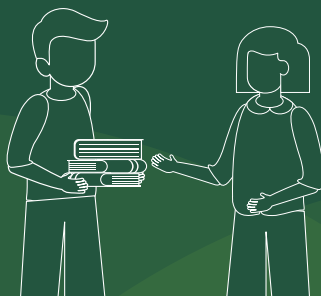
- Provide a three-month modern farming practice training to Vocational High School (SMKs) students in rice farming in Wapeko.
- Provide land, facilities, boarding rooms and accommodation to students.
- Teach Good Agricultural Practices (GAP) modules on rice farming, agriculture mechanization, and financial literacy: farming as business.

Triputra Agro Persada (TAP) in South Kalimantan Province:

- Provide a two-year apprentice program to university students majoring in agriculture with a mentorship program.
- Provide students with accommodation and opportunities to practice their knowledge.
- Support students with good results with an offer to work for PT Triputra Agro Persada.

Impact

152
students
participating.



Partners

Agri-Finance and ICT

- International Finance Corporation (IFC)
- IDH
- Mercy Corps Indonesia
- Swisscontact
- DFAT (AIP-PRISMA)
- Bank Rakyat Indonesia (BRI)
- Bank Andara
- Bank Negara Indonesia (BNI)
- Swiss-Re
- Koltiva

Beef

- KIBIF

Cocoa

- Swisscontact
- Nestlé Indonesia
- Cargill Indonesia
- UTZ
- Koltiva
- Yara Indonesia
- Indonesian Coffee and Cocoa Research Institute (ICCRI)
- SECO-Switzerland
- MCA-Indonesia
- 11 Provincial Governments
- 57 District Governments

Coffee

- Nestlé Indonesia
- IDH
- Yara Indonesia
- ICCRI
- BANK BTPN
- Telkomsel
- Rainforest Alliance

Corn

- DFAT (AIP-PRISMA)
- Syngenta Indonesia
- Cargill Indonesia
- Mercy Corps Indonesia
- OK Bank
- Directorate General of Food Crops, Ministry of Agriculture
- ACA Insurance
- Coordinating Ministry of Economic Affairs
- 8villages

Dairy

- Nestlé Indonesia
- Brawijaya University
- CSIRO
- Milk Cooperatives
- Bank BTPN

Horticulture

- Syngenta Indonesia
- DFAT (AIP-PRISMA)
- East West Seed Indonesia
- PT Suryonusa Agromakmur
- University of Mataram
- Directorate General of Horticulture-Ministry of Agriculture
- Assessment Institute of Agriculture Technology of West Nusa Tenggara & East Java
- Provincial Government of West Nusa Tenggara & East Java

Partners

Palm Oil

- Sinar Mas
- IDH
- LDC Indonesia
- Triputra Agro Persada
- Koltiva
- Yara Indonesia
- Indofood Agri
- Tiga Pilar Sejahtera Food
- BRI Agro
- Directorate General of Plantation, Ministry of Agriculture
- PT Perkebunan Nusantara III
- Indonesian Palm Oil Association (GAPKI)
- SPKS (Palm Oil Smallholders Union)

Potato

- Indofood
- Yara Indonesia
- Directorate General of Horticulture, Ministry of Agriculture
- Sarana Tani

Rice

- Mercy Corps
- Bayer

Rubber

- Kirana Megatara
- Pirelli
- Michelin
- Sregrip GIZ
- GoodYear
- Conservation International
- SNV
- Bogor Institute of Agriculture
- Bank BTPN

Soy

- Unilever Indonesia
- Nestlé Indonesia
- Indofood
- Syngenta Indonesia
- Indonesian Bureau Logistics (BULOG)
- Bank Negara Indonesia (BNI)
- University of Gajah Mada
- Directorate General of Legumes and Tuber Crops, Ministry of Agriculture
- GAKOPTINDO

Vocational & Training

- Bayer Indonesia
- Medco
- Kubota
- International Finance Corporation (IFC)
- Five Vocational High School (SMKs) in Merauke Regency, Papua
- Regional government of Merauke Regency
- Ministry of Education
- PT Triputra Agro Persada
- Instiper, DI Yogyakarta
- STIPAP Medan
- LPP Yogyakarta



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