

# Partnership for Indonesia's Sustainable Agriculture

The Partnership for Indonesia's Sustainable Agriculture (PISAgro) was first announced by Indonesia's 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 to address the nation's agricultural challenges sustainably while improving the livelihoods of 2 million smallholder farmers by 2023.

PISAgro now has more than 85 partners – consisting of national and multinational companies, non-governmental organizations (NGOs), donors, and other institutions – spread across 13 Working Groups.

#### **Key Strategic Focuses**

#### for the Year Ahead

- Continuing to engage the government to align priorities and develop synergies with the national agenda.
- Scaling existing projects through wider participation from global and local partner organizations.
- Strengthening and broadening the partnership platform to deliver greater value to members and partners.
- Engaging with newly formed and fast-growing startups to establish a connection with the rapidly evolving agricultural technology ecosystem and its players.

# Message from the Executive Director

On 20 April 2012, PISAgro was established as a result of a joint effort between seven private companies in Indonesia to address concerns expressed by the Indonesian Vice Minister of Agriculture and Vice Minister of Trade at the World Economic Forum on East Asia 2011, held in Jakarta.

This public-private partnership aims to help the Indonesian government address national food security by sust ainably increasing agricultural production while improving the livelihoods of smallholder farmers.

PISAgro has since grown rapidly over the years and is currently partnering with various domestic and international companies, NGOs, as well as international development organizations. Each partner plays a pivotal role in our development, with players from the private sector taking the lead to care for each of our commodity-based Working Groups.

Furthermore, our Working Groups and partners have identified issues pertaining to crop-specific matters and developed suitable action plans or strategies to overcome these. This joint effort has led PISAgro to reach over 1 million farmers in Indonesia in 2020 – and we expect to surpass this in 2021. This achievement is proof of a harmonious and fruitful partnership between the members of PISAgro.

Since its inception, PISAgro has taken an active role in collaborating with the Indonesian government. In recent years, we have been particularly active in supporting President Joko Widodo's agenda of improving the nation's human capital. To this end, PISAgro has signed memorandums of understandings (MoUs) with a number of state agencies, such as the Agency for Capacity Building and Development of Agricultural Human Resources (Badan Penyuluhan dan Pengembangan Sumber Daya Manusia Pertanian, or BPPSDMP) and the Center of Vocational Education in Agriculture. Alongside our founders and members, PISAgro is committed to strengthening the public Agricultural Development Polytechnics (Politeknik Pembangunan Pertanian, or Polbangtan) across Indonesia and our agriculture sector at large.

As our organization is growing, we are also expanding our membership categories. This year PISAgro is introducing a new membership type under the "New Venture" category, which is available for newly formed and fast-growing companies or businesses that aim to address needs or a gap in the agriculture sector.

In order to reach more farmers and foster a mutual partnership between them and other shareholders, PISAgro will continue to seek more engagement with farmers by implementing an integrated approach towards sustainable agricultural development.



Insan Syafaat Executive Director PISAgro

# Indonesia Statistics<sup>1</sup>

Population Millions 270	Percentage of population below the poverty line 20.88	Percentage of population in agricultural employment 29.76
Agricultural contribution to national GDP 15.46%	Land mass  190 million hectares	Total agricultural land
Population living in rural areas 43.6%	Mobile penetration rate 67%	Female population employed in agriculture

# 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
- · McKinsey & Company Indonesia
- IDH
- · Triputra Agro Persada
- · Caraill Indonesia
- Australian Department of Foreign Affairs and Trade (DFAT)
- · Gunung Sewu
- Wilmar International

#### **Advisors**

- · Coordinating Ministry of Economic Affairs
- Ministry of Agriculture
- Ministry of Trade
- Tempo Inti Media, Tbk
- Jakarta Post
- Indonesian Chamber of Commerce and Industry (KADIN)
- Grow Asia

#### **Secretariat**

- · Executive Director
- Strategic Engagement Manager
- Communications and Social Media Manager
- · Office Manager
- Government Engagement Consultant



Throughout the years, PISAgro has supported the government of Indonesia in achieving national food security through innovations and programs that are focused on boosting productivity and improving the well-being of smallholder farmers.

While most other sectors have suffered a serious decline due to the COVID-19 pandemic, Indonesia's agriculture has shown resilience and still managed to record positive growth. With effective partnerships and a closed loop model that incorporates all stakeholders, PISAgro will continue its efforts based on the four pillars of food security – availability, access, utilization, and stability.

#### Franky Widjaja

Chairman & CEO, Sinar Mas Agribusiness and Food Co-Chair of PISAgro









Agri-Finance and ICT

# Agri-Finance and ICT

According to the Financial Services Authority (Otoritas Jasa Keuangan), Indonesia is home to 95 million adults without bank accounts. The reasons for this include lack of access to finance, inability to fulfill administrative requirements (such as having a national identification number), relatively high account maintenance service fees, and low financial literacy rates.

The government and financial service sectors have been trying to address these challenges by jointly creating new solutions to help rural farming communities gain access to finance to buy better agricultural inputs, improve productivity, and expand their farms.





#### **Activities**

- Advising relevant ministerial offices on adjustments to the subsidized farmer lending program, especially around making these loans 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

# Beef

According to the Ministry of Trade, the consumption of beef and beef products has steadily increased. However, as many traditional smallholders own on average only 2-3 cattle and have limited resources to provide optimal care, trends point to a plateau in local beef production.



#### **Activities**

- · Monthly counseling for farmers.
- Joint projects with vocational schools and agricultural development polytechnics, such as a field training program taking place in KIBIF's feedlot in Subang, West Java.

#### **Impact (2021)**

36,201 farmers reached

11,726 farmers adopting new technologies and practices





# Cocoa

Cocoa is Indonesia's primary export commodity, but this status is under threat as the productivity of cocoa plants in Indonesia has decreased by 50% in the past five years. This decline is following aging trees and declining soil fertility due to 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 exchange.
- Improving access to savings, loans, other financial services, as well as financial literacy training.
- Increasing awareness of environmental issues in the cocoa sector by educating and training farmers in environmentally friendly practices.
- Building training programs to improve community 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.

### Impact (2021)

292,956 farmers trained in Good Agricultural Practices (GAP), post-harvest handling, and sustainability certification

Premiums worth USD 950,000 were distributed to farmers, buying stations, and certification holders in Aceh and Sulawesi

43% increase in productivity

66% increase in income from baseline

33% decrease in greenhouse gas emissions



# Coffee

Indonesia is the fourth-largest coffee producer and exporter in the world, and demand for coffee has been fueled by the growing coffee culture and rise of the middle class.

By leveraging this opportunity, coffee has the potential to lift smallholder livelihoods. However, Indonesia suffers from low productivity, yielding around 500 kilograms per hectare – far below the soil potential and the 2.7 tons per hectare produced in Viet Nam, the second-largest coffee producer in the world. This is largely because smallholder growers may lack access to the resources needed for replanting, quality agricultural input, and knowledge around GAP.



#### **Activities**

- Launched a teaching program on income diversification through intercropping with pepper, avocado, and chili.
- Piloted mobile banking and cashless transactions.
- Developed a replanting program to increase crop productivity and adaptability to climate change.
- Organized training for farmers so their products are in accordance with the Common Code for the Coffee Community (4C) Code of Conduct

   a set of baseline requirements regarding sustainable practices and principles for the production of green coffee beans.
- Shortened and increased transparency in supply chains procedure by cooperating with local farmer entrepreneurs (Kelompok Usaha Bersama, or KUB) who play an important role as aggregators, trainers, quality controllers, and financial administrators, facilitating exports to new markets.

### Impact (2021)

22,891 farmers participating in value chain projects of Working Group members

Partner programs spanning 45.782 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 strengthen its production base to meet this demand.



#### **Activities**

- Increasing access to quality seed in underdeveloped areas to boost productivity.
- Increasing access to off-taking services with embedded services (e.g. financing, irrigation, GAP knowledge).
- Maximizing government programs accelerating adoption of agriculture technology.

#### **Impact (2021)**

469,858 farmers participating in the value chain projects of Working Group members

10% increase in baseline yield

45% increase in baseline income









# Dairy

Indonesia imports 78% of milk consumed domestically<sup>2</sup>. Raw milk is mostly imported in the form of skim milk powder, whole milk powder, anhydrous milk fat, and buttermilk powder from New Zealand, Australia, the United States and the European Union.

Indonesia's smallholder dairy farmers struggle to compete, as they typically only have 2-3 cattle per farmer, low productivity rates (7-12 liters/cow/day), and produce low-quality products due to poor feeding and maintenance. 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 GAP such as designing cow sheds and feeding.
- Establishing model farms to demonstrate sustainable and profitable dairy farming for smallholders.
- Promoting and facilitating fodder farming (especially maize), the use of nurseries, distribution of better plant materials, and development of various legumes.
- Rolling out financing models for farmers to scale from the current 2-3 cattle per farmer, to 8 productive cattle.
- Collaborating with cooperatives to establish and manage rearing farms.

#### **Impact (2021)**

26,000+ farmers participating in the value chain projects of Working Group members; 50% of these farmers are women

20 model farms established

10,000 ad-libitum water systems installed in barns

Equipped 8,000 farmhouses with biogas systems to date



# Horticulture

The Indonesian archipelago has the potential to cultivate various tropical fruits and spices to sufficiently meet the increasing domestic and international demand. Unfortunately, the growth of the horticulture sector is challenged by price volatility and poor 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. Furthermore, farmers still lack awareness of horticulture farming. On top of the aforementioned issues, the farmers also do not possess enough knowledge in farming technology, which can disrupt supply to markets in certain seasons.



#### **Activities**

#### **Gunung Sewu Group:**

- · Growing papaya, guava and banana.
- · Optimizing farmers' production techniques.
- Providing high-quality seeds and supervise cultivation.
- · Giving off-take guarantees.

#### Syngenta Indonesia:

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

### Impact (2021)

8,000 farmers participating in programs run by Working Group members





# Palm Oil

Indonesia is the world's largest palm oil exporter, exporting 34 million tons of crude palm oil in 2020. The industry also employs 20 million people and relies heavily on smallholder farmers. In fact, smallholders contribute 45% of palm oil production in Indonesia. While this is a source of income for smallholders, the industry faces issues around low productivity rates on smallholder-owned plantations, traceability, and aging trees – many of which are already above 25 years old.



### Activities Impact (2021)

- · Organizing farmers into cooperatives.
- · Conducting GAP training.
- Developing an innovative replanting financing scheme for smallholder palm oil farmers.
   Farmers' living expenses are part of the financing package (Sinar Mas).
- Helping farmers become certified under the Roundtable on Sustainable Palm Oil (RSPO) and Indonesian Sustainable Palm Oil (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, KPI reporting, as well as establishing traceability support services (Koltiva).

154,256 farmers participating in Working Group member value chain projects

Partner programs spanning 308,512 hectares on average

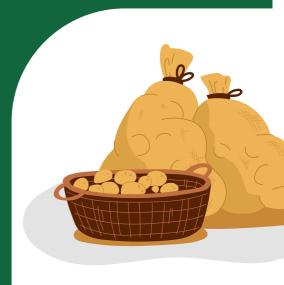
43% increase in baseline yield

204% increase in baseline income



# Potato

Growing potatoes in Indonesia is challenging and requires more working capital compared to other horticultural crops. Additionally, it also requires land at a suitable elevation given Indonesia's climate, and can be impacted by the availability of high-quality seeds, and farmers' ability to cultivate potatoes. Given that yield productivity is still low compared to other potato-producing countries, domestic potato prices are higher and less competitive compared to imported potatoes.



#### **Activities**

- Enhancing farmers' capacity, building on GAP through monitoring and mechanization.
- Producing high-quality industrial potato seeds.
- · Facilitating access to capital and markets.
- · Supporting cultivation in Sumatra.

#### Impact (2021)

6,869 farmers participating in Working Group value chain projects

71% increase in baseline income





# Rubber

Indonesia is the world's secondlargest producer of natural rubber, producing about 25% of the world's natural rubber supply. However, Indonesia's rubber plantations – 85% of which are managed by smallholders – are still not as productive as they could be due to poor plantation management practices, use of lowquality inputs, and limited resources for replanting<sup>3</sup>. This has been exacerbated by the current spread of Pestalotiopsis – a fungal disease that causes defoliation and decreased milk production – across Southeast Asia.



#### **Activities**

- Collaborating with government vocational training facilities to deliver capacity-building through TEFA.
- Training of trainers, and field assistance programs to improve farmer productivity.
- Organized tapping competitions and GAP Quizzes

### Impact (2021)

15,144 farmers participating in value chain projects

59,312 hectares of land covered

30% increase in yield from the baseline with the adoption of new practices

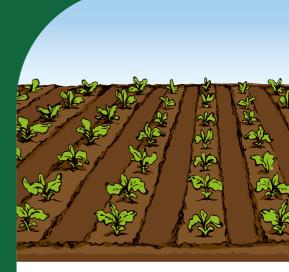


Sov

# Soy

Soy is a key commodity in Indonesia, especially in the production of 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.

There has been a significant decline in the planting area, as many farmers cannot compete against cheap imported soy. A further complication is that soy is not endemic to Indonesia, which means it requires significant resources to cultivate. Increasing the productivity and quality of local soy is crucial to ensure a continuous supply of low-cost protein.



#### **Activities**

- Delivering quality agricultural inputs, such as subsidized fertilizer and certified seeds.
- Conducting coaching sessions, mainly focusing on GAP.
- Providing cooperative development programs in financial management, organization, and social entrepreneurship.

#### **Impact (2021)**

9,535 farmers participating in Working Group member value chain projects

Working across 19,070 hectares of land

52% increase in yield from baseline

51% increase in income from baseline







# Rice

Rice is Indonesia's main staple crop, similar to most countries across Southeast Asia. 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 an important target for the Indonesian government.

Some 90% of Indonesia's rice is produced by smallholder farmers, who own on average a land area of less than 0.8 hectares.

#### **Activities**

Providing comprehensive GAP support for smallholder farmers in 8 districts to ensure that at least 20,000 smallholder farmers increase their incomes and productivity by 20% against baseline measures.

**Impact (2021)** 

100,380 farmers reached





# **Vocational Training**

In Indonesia, there is a significant disconnect between vocational training institutions and the private sector – both in terms of curricula and industry networks. This has led to a low hiring rate of vocational education graduates by agribusinesses, exacerbating the already sharp movement of younger generations away from agriculture. If this trend continues, it will place future food supply at risk, and make it even more challenging to achieve Indonesia's food sovereignty targets.

As such, strengthening vocational training in agriculture at the national level, and aligning curriculum with market needs is key to building a cadre of highly professional farmers, agronomists, and agripreneurs.



**Impact (2021)** 

50,783 teachers, students, and representatives from micro, small and medium enterprises participated in Working Group activities





# **Vocational Training**

#### **Activities**

# Indonesia Polytechnic School for Agriculture (Polbangtan):

- Strengthening the partnership between PISAgro and Polbangtan for agriculture vocational education to create highly skilled and job-ready graduates.
- Improving the credibility of certification process for lecturers and alumni.
- Formulating a comprehensive national curriculum, including materials needed to teach skills to develop sustainable farming.
- Facilitating collaboration between PISAgro's members and Polbangtan's academic staff in hosting public lectures.

#### KIRIF.

- Facilitating collaboration between the private sector and government vocational education institutions, to complement activities and align curriculums to market demands.
- Providing a 1- to 2-month apprenticeship program for both teachers and students.

# Bayer Indonesia in Merauke, Papua Province:

- Providing a 3-month modern farming practice training to Vocational High School (SMKs) students in rice farming in Wapeko.
- Providing land, facilities, boarding rooms, and accommodation to students.
- Teaching GAP modules on rice farming, agriculture mechanization, and financial literacy.

# Triputra Agro Persada in South Kalimantan Province:

- Providing a 2-year apprentice program to university students majoring in agriculture with a mentorship program.
- Providing students with accommodation and opportunities to practice their knowledge.
- Supporting high-performing students with employment at Triputra Agro Persada.

#### **Swisscontact and Mars:**

 Developed a national curriculum on cocoa for vocational training high schools, which has been submitted to the Ministry of Agriculture.



#### **Showcase Project**

# Maintaining Cattle Industry Standards Through Safer Working Procedures

During Indonesia's 75th anniversary celebration in 2020, President Joko "Jokowi" Widodo expressed his hope for the nation's human resource to grow in order to catch up with economic growth in other countries. Jokowi also stated that Indonesia should improve its human resources, as this could help boost Indonesia's growth and development. At the same occasion, he also emphasized the importance of vocational education to develop Indonesia's human resources.



PT Estika Tata Tiara Tbk (KIBIF) is one of the cattle companies pioneering integrated beef production in Indonesia, committed to providing halal, healthy, and delicious products with standardized processes. As things stand in the industry, most new hires take up to 3 months of training to fully acclimatise to the industry production standards. This is considered inefficient in terms of time and money spent, and impacts the entire production system.



KIBIF has taken interest in the PISAgro program to facilitate link-and-match between vocational institutions and industries. Collaboration with vocational institutions is expected, to meet the demand for readvto-work graduates who are used to industry standards. KIBIF is now in partnership with Indonesia Agriculture Polytechnic (Polbangtan) in Bogor and Manokwari, as well as State Vocational High School (SMK) PPN Sembawa and SMK Juara Peternakan in Subang. The vocational partnership program includes collaboration in drafting and aligning learning curriculum, a field practice program, a field industrial practice program, student and lecturer internship, field visitation, study tours, field trips, and an online class program with KIBIF field officers as the instructors.

However, there are some challenges to such collaboration between vocational institutions and companies. In particular, KIBIF encountered difficulty matching schedules with the partnering schools, especially for online and practical classes with actual practitioners.

#### **Showcase Project**

### Maintaining Cattle Industry Standards Through Safer Working Procedures

"We started the vocational training program in 2016. We began to focus on gathering partnerships with various vocational institutions from 2018. These partners include Polbangtan and vocational high schools under the Ministry of Agriculture and Ministry of Education. There are still challenges and shortcomings in this vocational program we are working on. Therefore, KIBIF is open for any inputs and critiques on our programs," said Vivi Wijayanti from KIBIF's Partnerships and Vocational Training division.





Another program that is currently being prepared is applying a teaching factory (through TEFA) to the schools and campuses. It aims to build industrial-standardized beef cattle cowsheds and apply the system to schools for educational purposes. Students are expected to understand industrial standards and receive a curriculum aligned with industrial actual needs.

The link-and-match program was designed to produce competent graduates with the ability to compete in a global-scale market, who are ready-to-work. On top of that, this program also prepares future young and talented entrepreneurs to forge ahead in the beef cattle fattening industry.



# Proudly Supported by

































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# **Partners**

### Working Group Member List

#### Agri-Finance and ICT

- · Bank Rakyat Indonesia (BRI)
- · Bank Andara
- · Bank Negara Indonesia (BNI)
- DFAT (Australia-Indonesia Partnership for Promoting Rural Incomes through Support for Markets in Agriculture, or AIP-PRISMA)
- IDH
- · International Finance Corporation (IFC)
- Koltiva
- · Mercy Corps Indonesia
- · Rabobank Indonesia
- Swiss Re
- Swisscontact

#### Beef

- KIBIF
- AIP-PRISMA
- · BNI Syariah
- Politeknik Pembangunan Pertanian (Polbangtan)

#### Cocoa

- Swisscontact
- · Nestlé Indonesia
- · Carqill Indonesia
- Indonesian Coffee and Cocoa Research Institute (ICCRI)
- Koltiva
- MCA-Indonesia

- · SECO Switzerland
- UTZ
- · Yara Indonesia
- · 11 provincial governments
- · 57 district governments

#### Coffee

- · Nestlé Indonesia
- · IDH
- Bank BTPN
- Indonesian Coffee and Cocoa Research Institute (ICCRI)
- · Louis Dreyfus Company (LDC) Indonesia
- Rabobank Foundation
- · Rainforest Alliance
- Telkomsel
- · Yara Indonesia

#### Corn

- · AIP-PRISMA
- 8villages
- ACA Insurance
- · Cargill Indonesia
- · Coordinating Ministry of Economic Affairs
- Directorate General of Food Crops, Ministry of Agriculture
- HARA
- · Mercy Corps Indonesia
- Mvcotech
- OK Bank
- · PT Seger Agro Nusantara
- · Syngenta Indonesia

#### Dairy

- Nestlé Indonesia
- AIP-PRISMA
- Bank BTPN
- Brawijaya University
- Commonwealth Scientific and Industrial Research Organisation (CSIRO)
- Medion
- · Milk cooperatives
- PT Global Dairi Alami

#### Horticulture

- AIP-PRISMA
- Assessment Institute for Agricultural Technology of West Nusa Tenggara and East Java
- Directorate General of Horticulture, Ministry of Agriculture
- · East-West Seed Indonesia
- PT Great Giant Pineapple
- PT Suryonusa Agromakmur
- Provincial governments of West Nusa Tenggara and East Java
- · University of Mataram

#### Palm Oil

- · Sinar Mas
- BRI Agro
- · IDH
- · Indofood Agri
- Koltiva
- · LDC Indonesia
- Mvcotech
- · Rabobank Indonesia
- Triputra Agro Persada
- Yara Indonesia

#### Potato

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

#### Rubber

Kirana Megatara

#### Soy

- · Unilever Indonesia
- Association of Indonesian Tempeh and Tofu Producers (Gakoptindo)
- BNI
- Directorate General of Legumes and Tuber Crops, Ministry of Agriculture
- Indofood
- Indonesian Bureau of Logistics (BULOG)
- Nestlé Indonesia
- · Syngenta Indonesia

#### Rice

- · Mercy Corps Indonesia
- · Bayer Indonesia

#### Vocational Training

- · Bayer Indonesia
- Five Vocational High School (SMKs) in Merauke Regency, Papua
- IFC
- Institut Pertanian Stiper (INSTIPER) Yogyakarta
- Kubota
- · Medco Group
- · Ministry of Education
- Politeknik LPP Yoqyakarta
- Regional government of Merauke Regency
- Sekolah Tinggi Ilmu Pertanian Agrobisnis Perkebunan (STIPAP) Medan
- Triputra Agro Persada



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