SwissCham INDONESIA

Shaping the Future of Indonesia's Sustainable Agriculture Through Collaborations and Technology Innovations

WEDNESDAY
24 MAY 2023

10.00 - 11.30 WIB

ZOOM

ENGLISH

Dr. Ir. Musdhalifah Machmud, M.T.
Deputy for Food & Agribusiness Coordination of Coordinating Ministry for Economic Affairs

Philipp Orga
Head of Swiss Economic Cooperation & Development of the Embassy of Switzerland in Indonesia

Syahrudi
Head of Sustainable Agriculture of Nestlé Indonesia

Kazim Hasnain
President Director of Syngenta

Manfred Borer
CEO of Koltiva

MODERATOR
Mirna Mutiara
Business Sustainability Manager of Syngenta

Dr. Ir. Musdhalifah Machmud, M.T.

Deputy for Food & Agribusiness at Coordination of Coordinating Ministry for Economic Affairs of the Republic of Indonesia

Musdhalifah Machmud is the Deputy Minister for Food and Agriculture at the Coordinating Ministry for Economic Affairs, Republic of Indonesia. Her coordination and strategic policy areas include rice, red meat, corn, soya bean, palm oil, cocoa, tea, rubber, sugarcane, biofuels, horticulture products, fertilizer, seeds, and more.

While serving as a government officer, Musdhalifah co-initiated the Indonesian Estate-Crop Fund for Palm Oil, a public-private partnership arrangement to support and promote sustainable palm oil, and small farmers' empowerment. She is also a member of the board for that Fund, and sits on the Supervisory Board in Perum BULOG.

Musdhalifah served with the Ministry of Forestry in 1988-2003. She has extensive experiences with wetland ecosystems conservation, biodiversity conservation, budget program preparation and forestry planning, policy making and implementation. Musdhalifah is frequently invited to speak on food, plantation, biofuels and agriculture issues.

Musdhalifah holds a Doctor of Business Management degree at the Bogor Agricultural Institute (IPB), master degree from Institut Teknologi Bandung (ITB), Indonesia, a postgraduate qualification from ITC Enschede in The Netherlands for evaluation and monitoring of environmental change, and a bachelor degree in Forest Management from IPB University in Bogor, Indonesia. Musdhalifah received the Republic of Indonesia's highest medal of honour, the "Satya Lencana Karya Satya", for her work, dedication and achievements in government.

Philipp Orga

Head of Swiss Economic Cooperation of the Swiss State Secretariat for Economic Affairs (SECO) of the Embassy of Switzerland in Indonesia

Philipp Orga is the Head of Economic Cooperation and Development at the Swiss Embassy in Indonesia Prior to his current assignment, Mr. Orga served as Program Manager at the Multilateral Cooperation Division at the Swiss State Secretariat for Economic Affairs (SECO) in Bern, Switzerland.

Before joining the Swiss Government, Mr. Orga worked as a consultant at the Inter-American Develoomment Bank IDB, as well as at the United Nations Development Program UNDP.

He holds Master of Arts in International Affairs from the American University in Washington DO and a Bachelor of Arts in International Relations from the University of Geneva and SciencesPo in Paris.

Syahrudi

Head of Corporate Sustainable Agriculture of Nestlé Indonesia

Syahrudi's journey in the field of agriculture began in 1998 when he joined Nestlé Coffee Development Programs as a Coffee Agronomist. Syahrudi journey in the field of agriculture with Nestlé began in 1998, when he joined as Coffee Agronomist in Coffee Development Programs. Armed with a passion for sustainable farming and a deep understanding of coffee cultivation, Syahrudi immersed himself in the world of coffee production, working closely with local farmers to improve their farming practices and increase coffee yields.

- After gaining valuable experience in the coffee farming area, in 2006 Syahrudi's was promoted as an expatriate to Nestlé Sri Lanka to the position of Dairy Area Manager. Continued with the expatriation to Nestlé India to lead the development of a new dairy area in Nestlé India. With his knowledge of dairy management and his ability to establish strong relationships with farmers. In 2008, Syahrudi's career took him back to Nestlé Indonesia, where he assumed the position of Dairy Development Manager. Recognizing Syahrudi's exceptional skills and leadership, Nestlé promoted him to the position of Head of Milk Procurement and Dairy Development in 2013.

- In 2020, Syahrudi's dedication to sustainable agriculture and his proven track record of success led to his appointment as the Head of Corporate Sustainable Agriculture, overseeing dairy, coffee, and grain sourcing. In this executive position, he played a key role in implementing and driving Nestlé's corporate sustainability agenda, working closely with farmers, suppliers, and stakeholders to promote sustainable farming practices, reduce environmental impact, and improve the livelihoods of farmers worldwide.

Throughout his career, Syahrudi has been a driving force in the agricultural industry, leveraging his expertise and passion to make a positive impact on the coffee and dairy sectors. His commitment to sustainable farming and his ability to forge strong partnerships have not only contributed to Nestlé's growth and success but also to the overall advancement of the agricultural community.

Kazim Hasnain

President Director, Syngenta Indonesia

Kazim is the President Director of Syngenta Indonesia from 1 January 2022, based in Jakarta. His passion is to drive digital transformation and sustainable agriculture for small holder farmers.

Prior to this, he was the Managing Director of Syngenta Pakistan where he was responsible for bringing the best of agriculture solutions to farmers.

His experiences include leadership roles across sales, marketing, business development and finance.

A chartered accountant by profession, he completed his MBA from INSEAD.

Manfred Borer

Co-Founder, Chief Executive Officer Koltiva

Industry leader, Manfred Borer Co-founded PT Koltiva Indonesia in 2013 and successfully established Koltiva AG in Switzerland together with the founders. Under his direction, he spearheads the company's growth in supporting some of the largest multinational companies in 47 countries by digitizing and verifying global supply chains to be more traceable, reliable, and sustainable. From Seed to Table. He brings forward the human-centered technology with its professional services 'Boots on the Ground' and empowerment method that helps more than 862,000 smallholder producers and business users to improve their livelihoods in rural areas.

Prior to founding Koltiva, Manfred spent more than 12 years+ in his extensive career journey from software developer, project manager, until leading as Indonesia Country Director in Swisscontact (Swiss Foundation for Technical Cooperation).

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COORDINATING MINISTRY FOR ECONOMIC AFFAIRS
REPUBLIC OF INDONESIA

WORKSHOP SWISSCHAM INDONESIA

"Shaping the Future of Indonesia's Sustainable Agriculture Through Collaborations and Technology Innovations"

Dr. MUSDHALIFAH MACHMUD
DEPUTY MINISTER FOR FOOD AND AGRIBUSINESS

JAKARTA, 24th MAY 2023

Introduction

Indonesia is a country with vast agricultural potential, but it faces numerous challenges in realizing this potential. Collaboration and technology innovations are key to shaping the future of Indonesia's agriculture. This presentation will explore how collaboration and technology innovations can help overcome the challenges facing Indonesian agriculture and pave the way for a more sustainable and prosperous future.

The Role of the Agricultural Sector in Economic Development

Role of Agriculture in Development

- Food supplier
- Raw material supplier
- National source of income
- Provide job opportunities
- Source of surplus for investment
- Country's foreign exchange earner (export)

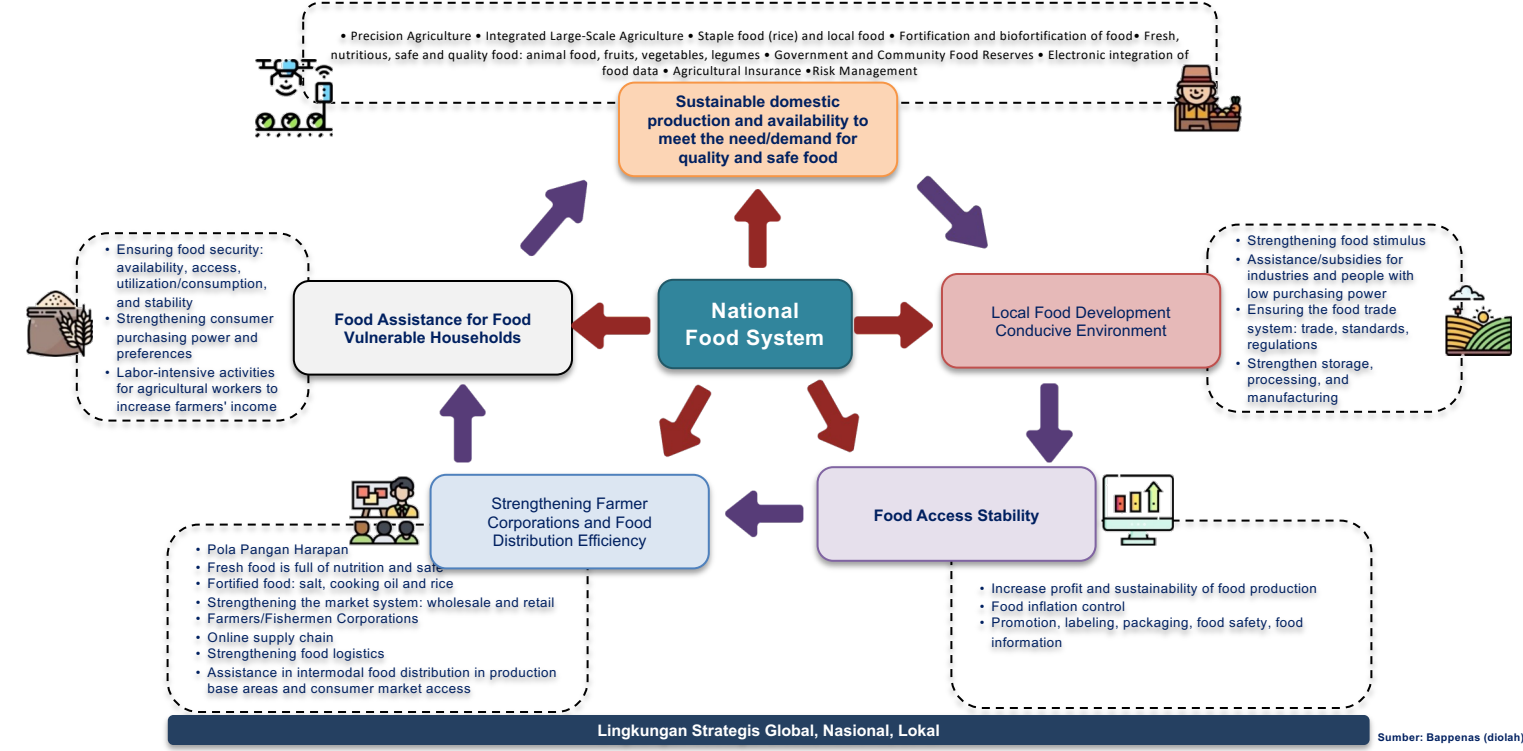
Agricultural Sector Contribution

- Environmental preservation function
- Production establishment, GDP
- Labor absorption
- Expand Exports
- Price stability
- Basis produk agroindustri

Challenges Facing Indonesian Agriculture

Indonesian agriculture faces several challenges, including low productivity, limited access to markets, and climate change. Low productivity is a major challenge, as many farmers lack access to modern farming techniques and technologies. Limited access to markets also hinders growth, as farmers struggle to sell their products at fair prices. Climate change exacerbates these challenges, as extreme weather events become more frequent and unpredictable.

National Sustainable Food System



Sumber: Bappenas (diolah)

INCREASING THE COMPETITIVENESS OF AGRICULTURAL COMMODITIES: COLLABORATIVE AND STRENGTHENING OF UPSTREAM

Sustainable agricultural development by increasing business scale through the integration of production areas and integration of upstream and downstream as well as the involvement of technology and the support of capital owner partnerships (technology, access to distribution, etc.) within the corporate sphere.

- Mapping the land and product potential of each region
- Upstream downstream stakeholder mapping and institutional consolidation
- Easy access to financing (KUR, PKBL, etc.) and Plantation Insurance
- Setting production schedules and product diversification
- Application of GAP (use of superior seeds, organic fertilizers)
- Application of smartfarming and assistance
- Establishment of cooperatives and partnerships with offtakers
- Development of digital based logistics

FARMER CORPORATE DEVELOPMENT

Objectives: ↑ Economics of scale · ↑ Farmers Income · ↑ Productivity

Implementation of Corporate Farming

- From small land into land consolidation (efficient economies of scale)
- From cultivation business to integration business upstream–downstream (value chain)
- From monoculture farming to mixed farming farming

Institutional Consolidation

- Regulation at Central level
- Management management (central and local)
- Institutional strengthening of farmers, fishermen (corporate values/culture, entrepreneurs)
- Assistance and partnerships

Technology Innovation Adoption

- Novelty of production inputs
- Novelty of cultivation practice (GAP)
- New post-harvest technology (RMU)
- Novelty packaging (packaging)

Sinergy

- shared vision
- Implementation of integrated activities between actors and supporters

Easy Access to Financing

- Farming (production inputs, agricultural machinery)
- Post harvest (dryer, RMU) and warehouse
- Processing of derivative products
- Agricultural insurance

Off Taker Involvement

- Guarantee of production as well as an avalist
- Assistance to farmers, fishermen (business model, on farm and off farm)

Digitalization/ Implementation IT

- Land mapping and business actors
- On farm and off farm activities
- Integrated agricultural information system on farmers, fishermen

Logistics Support

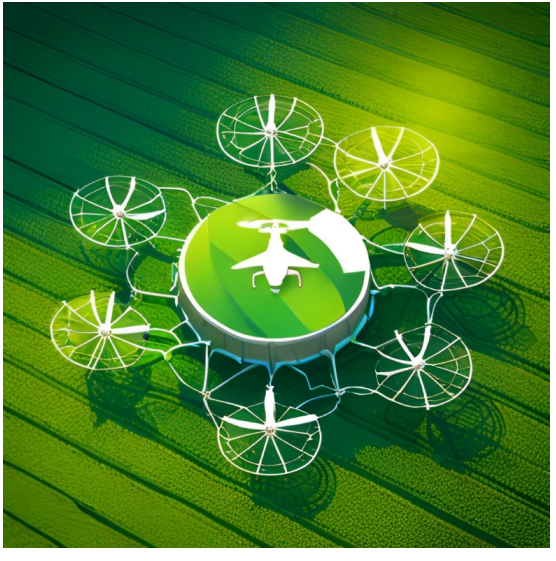
- Efficient logistics system
- Online and offline marketing

Not only talking about agriculture but this is the transformation of the agricultural economy which involves the development of industry and services (financing, logistics, marketing, etc.) → Agribusiness as a whole and sustainably

Technology Innovations in Agriculture

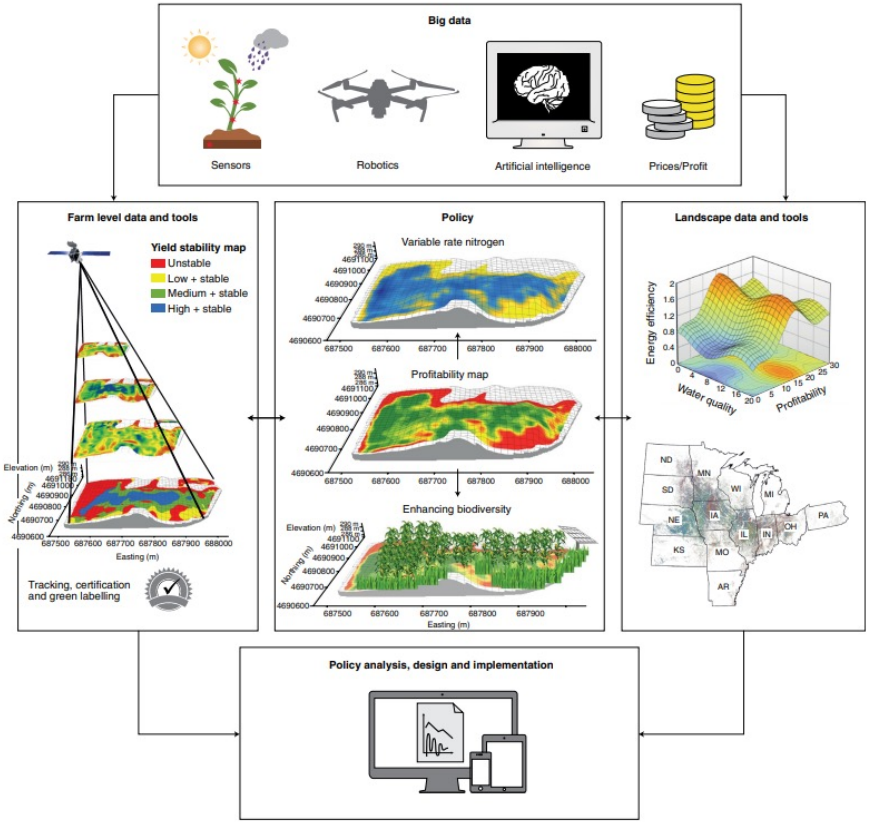
Technology innovations can also play a crucial role in shaping the future of Indonesian agriculture. Precision agriculture, for example, uses data analytics and sensors to optimize crop yields and reduce waste.

Other innovations include mobile apps that provide farmers with real-time weather updates and market information, as well as drones that can monitor crop health and spray pesticides more efficiently.

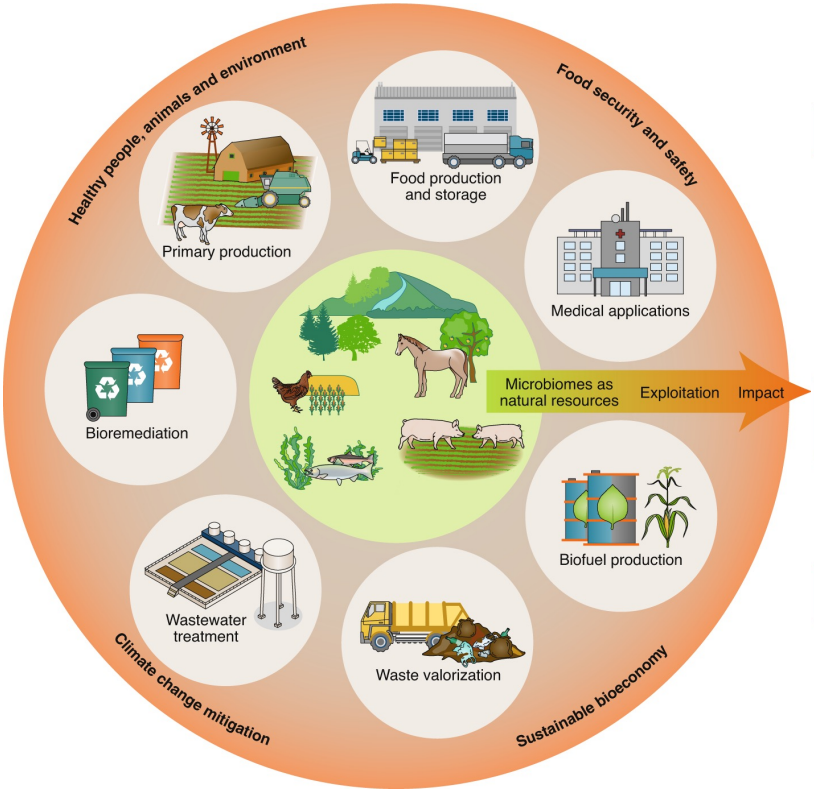


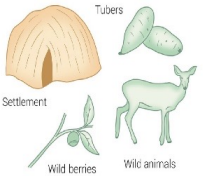
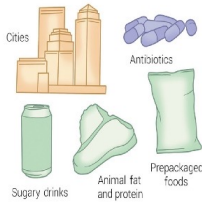
Digital Agriculture in Agriculture Systems

DA can be used to design and implement sustainable agricultural systems at farm and landscape scales.



Microbiome innovations for a sustainable future



Subsistence strategy	Hunter-gatherer	Agriculturalist	Industrialized
Lifestyle/Dietary characteristics			
Enriched taxa	*Prevotella* *Succinivibrio* *Treponema* *Eubacterium* Proteobacteria Spirochaetes Clostridiaceae	*Prevotella* *Succinivibrio* *Treponema* *Eubacterium* *Ruminococcus* Firmicutes Clostridiaceae	*Bacteroides* *Bifidobacterium* *Blautia* *Ruminococcus* Firmicutes
Functional features	• Complex carbohydrate metabolism • Propionate SCFA production • Aromatic amino acid biosynthesis • Vitamin and co-factor synthesis	• Complex carbohydrate metabolism • Propionate SCFA production • Xenobiotic metabolism	• Simple sugar metabolism • Lipid and fat metabolism • Xenobiotic metabolism • Branched chain amino acid metabolism
Relative alpha diversity	High	High	Low

Trends in Microbiology

PENTAHELIX COLLABORATION IN PLANTATION COMMODITY DEVELOPMENT

THE ROLE OF STAKEHOLDERS

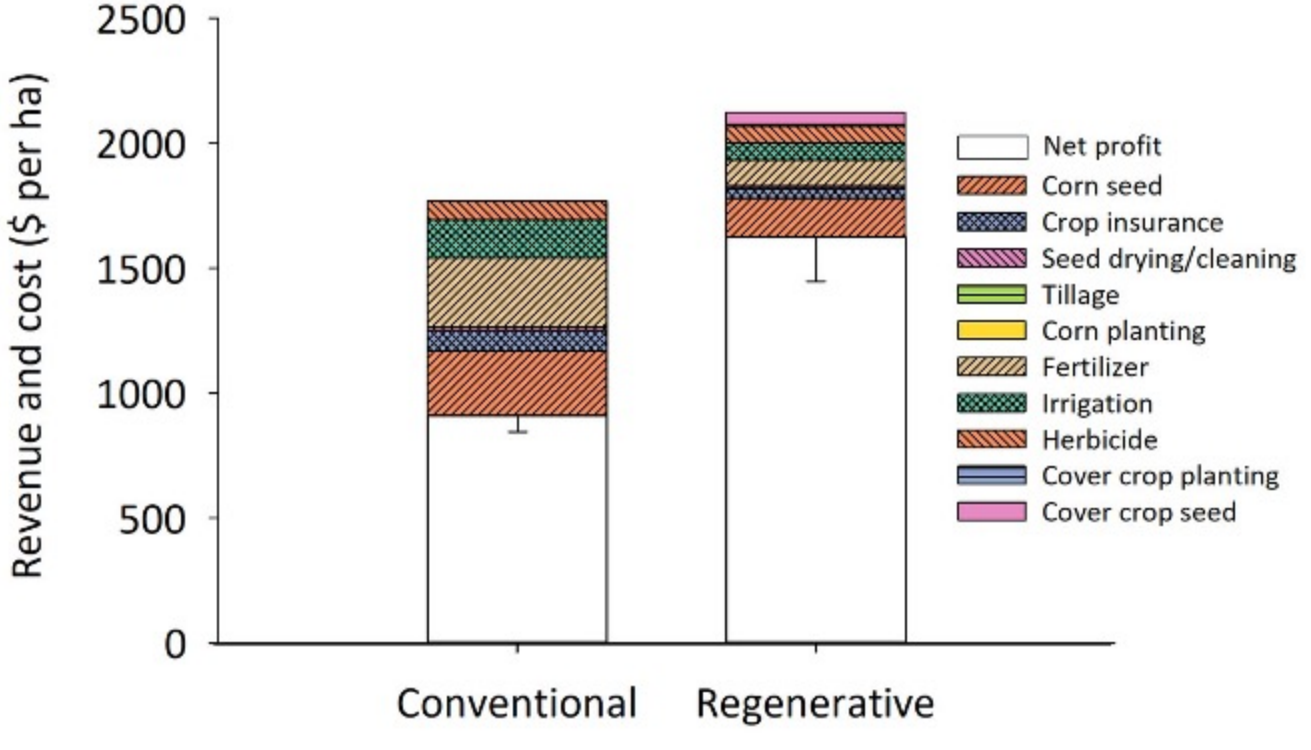
- **Government**, as regulator, controller, and coordinator.
- **Communities**, as accelerators and liaison between stakeholders and smallholders.
- **Industry**, as an enabler or party who runs the plantation industry business.
- **Academics/Researchers**, as drafters and help increase the capacity of knowledge and skills.
- **Media**, as an extender that is able to expand information and knowledge of the public through various types of publications.

Success Stories in Indonesian Agriculture

There are already several success stories in Indonesian agriculture that demonstrate the power of collaboration and technology. For example, the SRI (System of Rice Intensification) method has helped smallholder farmers increase their rice yields by up to 50%.

Another success story is the use of mobile apps to connect farmers with buyers, enabling them to sell their products at higher prices and reducing food waste. These success stories show that with the right collaborations and technology innovations, Indonesian agriculture can thrive.

Regenerative Agriculture: Nearly Two Times The Profit



Collaboration in Agriculture

Collaboration between different stakeholders in the agriculture sector can help overcome these challenges. Farmers, government agencies, NGOs, and private companies can work together to share knowledge, resources, and expertise.

For example, farmer cooperatives can pool resources to purchase modern farming equipment and share best practices. Government agencies can provide training and support to farmers, while private companies can offer market access and financing options.

IMPLEMENTATION OF PENTAHELIX SYNERGY IN THE PLANTATION SECTOR

2006

Cocoa Sustainability Partnership (CSP)

2011

Indonesian Sustainable Palm Oil (ISPO)

2015

Sustainable Coffee Platform Of Indonesia (SCOPI)

Soft Launching

2021

Sustainable Natural Rubber Platform Of Indonesia (SNARPI)

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.

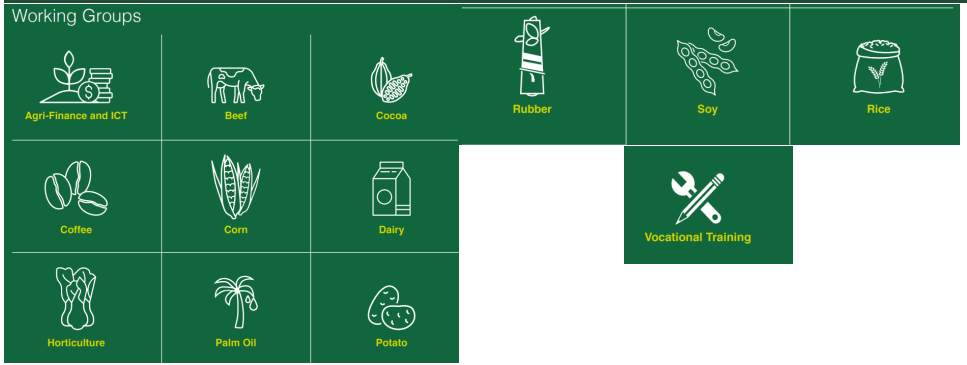
Officially established on 20 April 2012, PISAgro is a public-private partnership that was created in response to challenges and opportunities facing the agriculture sector in Indonesia.

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.

PISAgro

Working Groups



Palm Oil

Impact (2021)

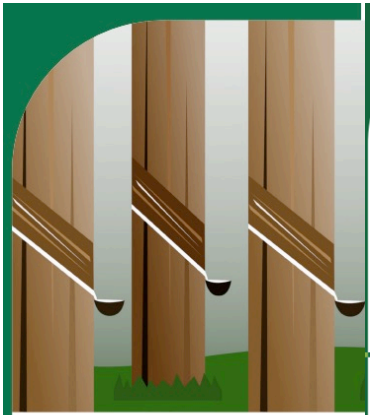
154,256 farmers participating in Working Group member value chain projects

Partner programs spanning 308,512 hectares on average

43% increase in baseline yield

204% increase in baseline income

Rubber



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

Coffee

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

Cocoa

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

The Important Role of Palm Oil Industry on the Economy

As a labor-intensive industry, the Palm Oil Sector contribute significantly to the Economy. This sector drive economic growth, increases export and trade balance, reducing inflation and substituting fossil fuel with renewable energy to strengthen national energy security

Production

52
million ton
National CPO Production
92
million ton
World Palm Oil Production
*2022

Export Value

USD 29,66 bill*
or
10,2 % from
Total Export
Indonesia
One of the largest export commodity, exceeds oil and gas export value
*2022

Employment

5,5
million
Direct Labor
17
million
Direct and Indirect Labor

Land Ownership

Large...

41 %
of land
owned by smallholder farmers

Energy Security

10,45
Million KL
Through Biodiesel Program 2022
Saving Indonesia's Foreign Exchange Rp 122,65 Trillion

Industry Profile and Stability

Industry Labor Intensive
And
Increases in Indonesia's palm oil workforce 10 % every year will directly improve people's welfare

We care about sustainability more than others

Indonesian Government has implemented all necessary measures to ensure sustainability management of its palm oil sector, because we care our palm oil sustainability more than others, because it's our life. And the efforts still continue.

2007

Joint Conservation Agreement

Indonesia, Brunei and Malaysia to conserve Borneo Island

2011

Implementation of Indonesia Sustainable Palm Oil (ISPO)
Minister Regulation No.19/2011

Moratorium and improvement of management of Primary Forest and Peatland
Presidential Instruction 10/2011

2014

Policy on Primary Forest land settlement

2015

Management of Forest Fire Prevention
Presidential Instruction 11/2015

Moratorium and improvement of management of Primary Forest and Peatland
Presidential Instruction 8/2015

Establishment of CPO Fund
Presidential regulation 1/2015

ISPO Certification
Minister Regulation No 11/2015

2016

FLEGT License
Indonesia is among the first country to implement Voluntary Partnership Agreement with EU

Establishment of Peatland Restoration Agency
Presidential Regulation 1/2016

One map policy implementation
Presidential Regulation 9/2016

2017

Launch of smallholders Replanting Program

By President Joko Widodo. National target 2.4 Million Ha in 20 Provinces

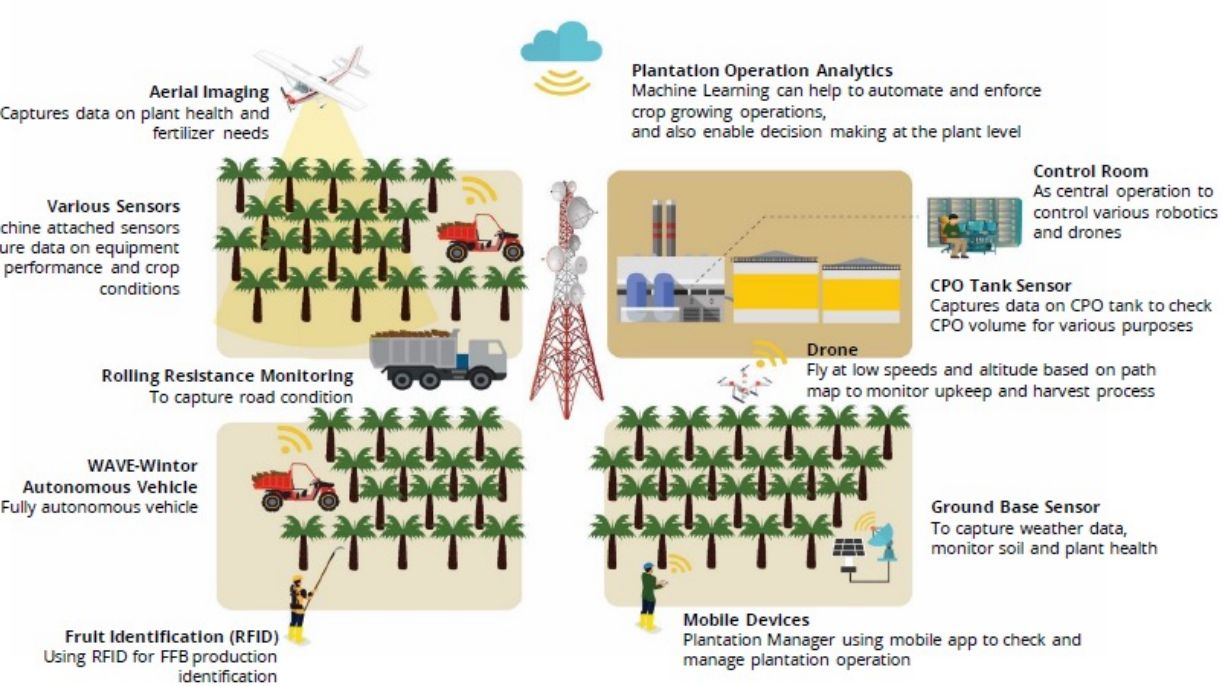
2018

Moratorium for Primary Forest & Peatland
Presidential Instruction No. 8/2018

2020

Strengthening ISPO
(The New ISPO)
Presidential Regulation 44/2020

Challenge: World Class Plantation Operation Toward Industry 4.0



Source: BPDPKS

Conclusion

In conclusion, collaboration and technology innovations are essential for shaping the future of Indonesian agriculture. By working together and embracing new technologies, we can overcome the challenges facing Indonesian agriculture and pave the way for a more sustainable and prosperous future.

Let us all work towards a brighter future for Indonesian agriculture!

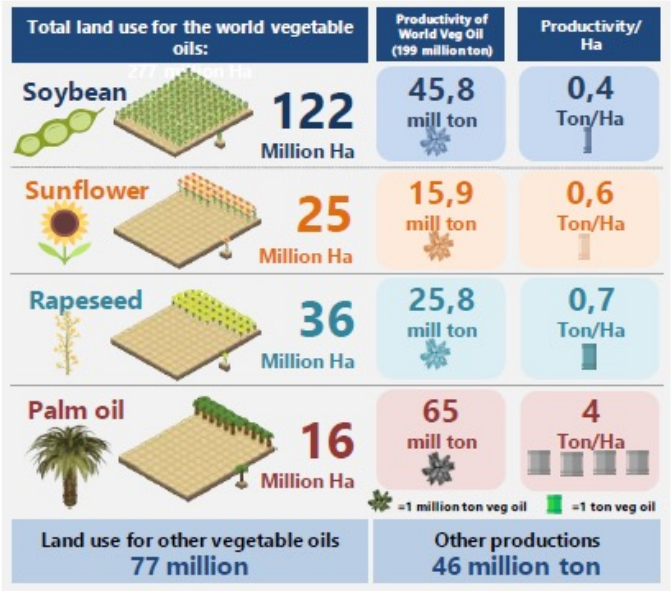
#UntukEkonomiIndonesia

TERIMA KASIH

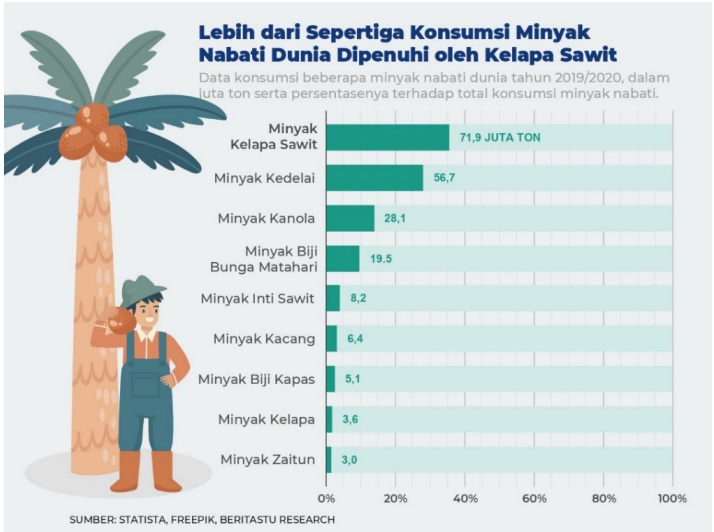
COORDINATING MINISTRY FOR ECONOMIC AFFAIRS
Gedung Ali Wardhana
Jl. Lapangan Banteng Timur No. 2-4 Jakarta

"Ekonomi Unggul, Indonesia Maju"

Palm Oil is The Most Sustainable Vegetable Oil



- **Every year the demand and supply of global vegetable oil grows on average at the level of 8,5 million MT and 8,2 million MT, respectively**
- **As the most productive commodity, palm oil contributes an average of 42% of the world's total supply of vegetable oil**



Palm oil is the world's oil commodity with the best land productivity compared to other vegetable oils. So that Palm Oil becomes the most sustainable choice in meeting the growing world's vegetable oil needs.

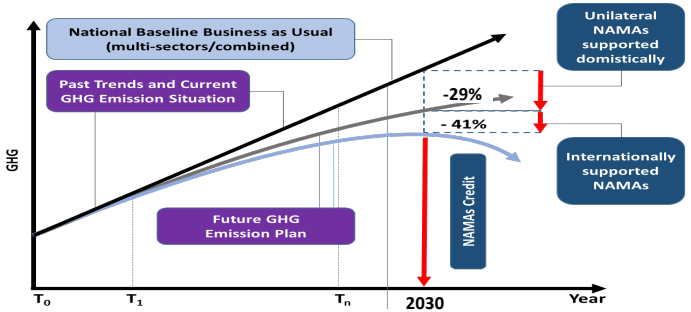
The Indonesian Government's Commitment on Greenhouse Gas Emission Reduction

First Nationally Determined Contribution (NDC) Republic of Indonesia

Through the First NDC (2016) and updated NDC (2021), the Indonesian government has strengthened the commitment to reduce GHG emission with the unconditional target **29%** and the conditional target **41%** by 2030.

President Regulation Nr.61 of 2011 regarding the National Action Plan for Greenhouse Gas Emission Reduction

Sectors	Reduction Target (Giga ton CO2e)	
	Unconditional	Conditional
Agriculture	0.008	0.011
- Development of plantation on non-forest/abandoned/degraded/Other use (APL) area.	*Palm Oil : 74.53 (Million ton CO2e)* *Rubber : 2.38 (Million ton CO2e)* *Cacao : 5.42 (Million ton CO2e)*	
Forestry and Peat Land	0.672	1.039
Energy & Transportation	0.038	0.056
Industrial Processes and Product Use	0.001	0.005
Waste Management	0.048	0.078
Total	**0.767**	**1.189**



Note: Nationally Appropriate Mitigation Actions (NAMAs)
Source: BAPPENAS

- Palm oil industry can supports reduction emission target to the sectors of agriculture, energy, industry, and waste management in setting up mitigation activities.
- National emission reduction targets can be achieved through changes in liquid and solid waste processing technology in the palm oil industry.

High-Level Commitment for Existing Biodiesel Mandatory Program to Support Climate Action

oadmap of Biodiesel Mandatory Program Implementation

Sectors	April 2015	January 2016	January 2020	January 2025
SME, Fishery, Agriculture, Public Transportation (PSO)	15%	20%	30%	30%
Transportation - Non PSO	15%	20%	30%	30%
Industry and Commercial Business	15%	20%	30%	30%
Power Generator	25%	30%	30%	30%

"President Joko Widodo has called for the immediate implementation of a plan to widen the use of biodiesel in all sectors, include Non-PSO Transportation."

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FARMERS CONNECT:

a Journey Towards Sustainable Agriculture

- We are the *Good food, Good life* company
- Ensure the **food safety** and **quality** for the consumer
- Ensure our business operational contributed to **protect the earth**
- Across our **value chain**
- For **future generation**

Our Sustainability Journey to ensure carbon footprint reduction

becoming **Net Zero Emission by 2050**, where we act across our value chain

UPSTREAM

SUPPLIERS TO NESTLÉ

NESTLÉ OPERATIONS

DOWNSTREAM

CUSTOMERS, CONSUMERS AND END OF LIFE

Agriculture

20% **regenerative agriculture** implementation by 2025

Raw material suppliers

Manufacturing

20% **renewable energy** by 2025

Packaging

⅓ **virgin plastic reduction** and 95% packaging **design for recycling by** 2025

Logistics

Retail and business channels

Consumers

End of life

Collect & process post-consumer plastic waste **as much as we produce** within the year

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Retail and business channels

Consumers

End of life

Collect & process post-consumer plastic waste **as much as we produce** within the year

Globally, we have collaborated with 500,000 farmers around the world

to advance **regenerative farming practices** at the heart of our food system

While in **Indonesia**, we have partnered and collaborated with dairy, coffee, and grain farmers

26,000 dairy farmers

10,000 coffee farmers

1,200 grain farmers

Implement *sustainable agriculture* to improve **food safety**, **quality**, and **productivity**

Our **roadmap** towards Sustainable Agriculture

through *Regenerative Agriculture* approach

A **farming system** that aims to **conserve** and **restore** farmland and its **ecosystem**, delivers **benefit** to farmers, environment, and society

Food Safety & Quality

Productivity

Living Income

Biodiversity & Animal Welfare

Low GHG Farming Practices

Interventions

Optimizing input • Maximizing output • Practicable & affordable for farmers • Recordable


regeneration
We believe in **collaborative action** to accelerate the efforts
We all have **roles & contribution** to **protect** the earth for **future generation**
Because we are part of the **Generation Regeneration!**
Nestlé

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Innovations for Sustainability: Transforming Agriculture for the Next Generation

Classification: PUBLIC

#1
in Crop Protection

#3
in Seed

#1
in fertilizer and leading farmer solutions provider in China

Syngenta Group is a leading sustainable agricultural innovation and technology company harnessing the diversity of our teams and expertise in more than 100 countries to deliver the broadest range of products and services for the benefit of farmers society and our planet

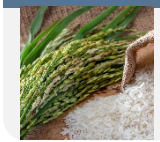
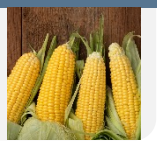
Syngenta Crop Protection	Syngenta Seeds	ADAMA	Syngenta Group China

Indonesia's Agriculture Challenges

Yield Gap

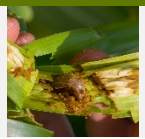
Rice
ID: 5 tons/ ha
CH: 6.5 tons/ ha

Corn
Intensification – increase productivity from 5.4 to 7T/ Ha

Pests & Diseases

- **40%** global crop production is lost to **pests**
- Plant **diseases** cost global economy over **$220 billion**/ year [FAO]




Biodiversity

Food production of pollinator-dependent crops has increased globally by **300 %** for the past **50 years**, with an estimated economic value of **€153 billion**/ year to the global ecosystem

Climate Change

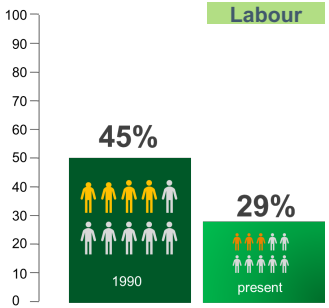
Agriculture produces **12-14% of the world's annual greenhouse gas (GHG) emissions**.

Access & Supply Chain

Indonesia

- **9 in 10** are impoverished smallholders
- Lack of education, financing & basic infrastructure
- **20-50%** higher costs of producing staple crops, compared to neighbor countries

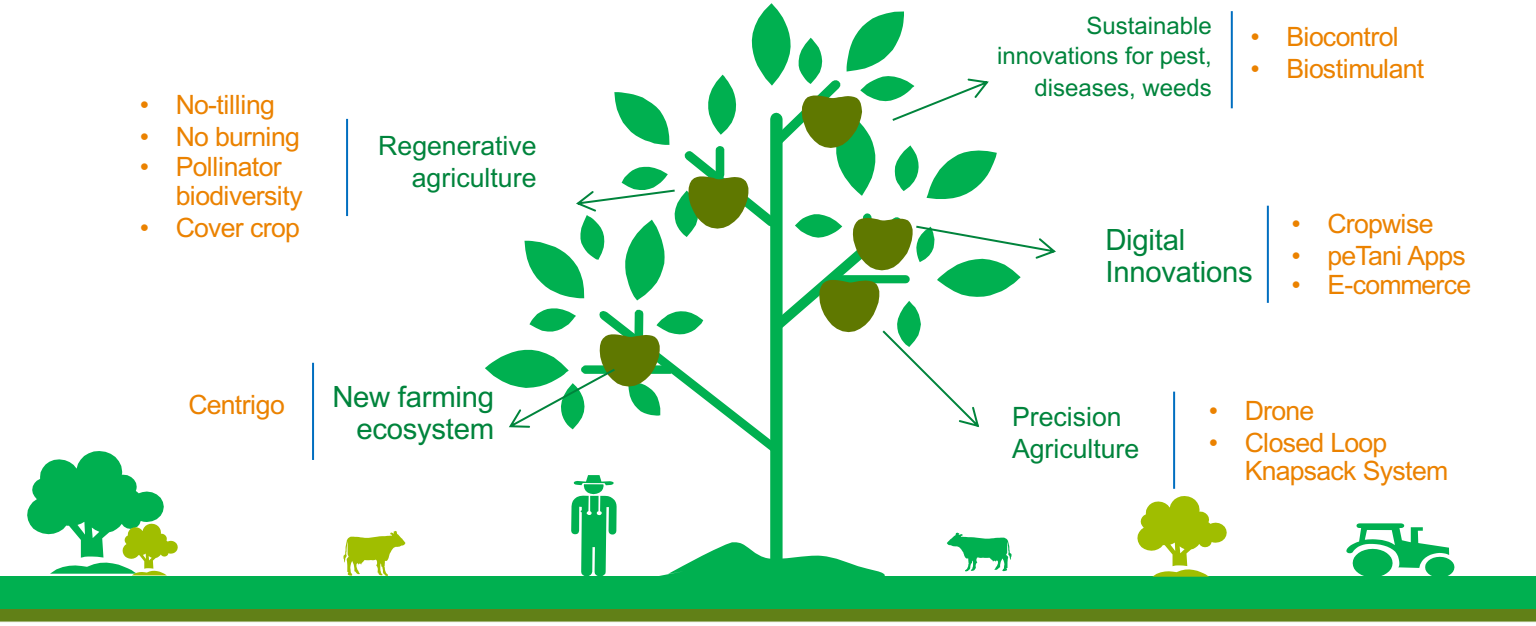

Labour



Agriculture takes up **1/3rd** of Indonesia's land & labor force

Syngenta drives sustainable farm productivity

Shaping Indonesia's future agriculture



Closed Loop Knapsack System (CLKS)

Effective

Right dosage
Right for crop, right for the environment

Safe

Sprayer stays clean
only contains water

Easy

”Click” and spray
attach bottle to the device, farmers ready to spray

peTani Apps :
Digital personal mobile guidance for Corn Growers

Weather forecast

Loyalty Program

Agronomy solution

Nearby Retailers - Buy

Planting schedule

Nearby Grain Trader - Sell

Hybrid recommendation

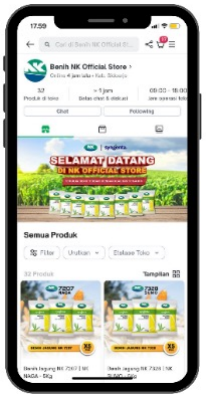
ROI Calculation

E-Commerce – Syngenta NK Official Store :
New experience for growers in buying corn seeds

tokopedia

Shopee

Lazada



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Regenerative Agriculture

Where innovation meets tradition

No-tilling, no burning practices

Cover crop practices

Biodiversity enhancement

syngenta

The FIRST BATCH of Centrigo™ Broccoli delivery in Lembang

May 2023

150%

Higher Harvest (12 MT)
compared to Traditional Farmer Practice (8 MT)

143%

Higher output price (10K)
compared to wet market price (7K)

81 %

Grade A
Where the traditional practice provided only 60% Grade A

> *Centrigo™ helped me get a better priced with higher yield. I am happy that Centrigo™ helped me get a fair price. Thanks to Centrigo™. I'm willing to continue this relationship!*

CENTRIGO™ Farming Ecosystem

syngenta®

Bringing plant potential to life

SwissCham INDONESIA

Shaping the Future of Indonesia's Sustainable Agriculture Through Collaborations and Technology Innovations

WEDNESDAY
24 MAY 2023

10.00 - 11.30 WIB

ZOOM

ENGLISH

Dr. Ir. Musdhalifah Machmud, M.T.
Deputy for Food & Agribusiness Coordination of Coordinating Ministry for Economic Affairs

Philipp Orga
Head of Swiss Economic Cooperation & Development of the Embassy of Switzerland in Indonesia

Syahrudi
Head of Sustainable Agriculture of Nestlé Indonesia

Kazim Hasnain
President Director of Syngenta

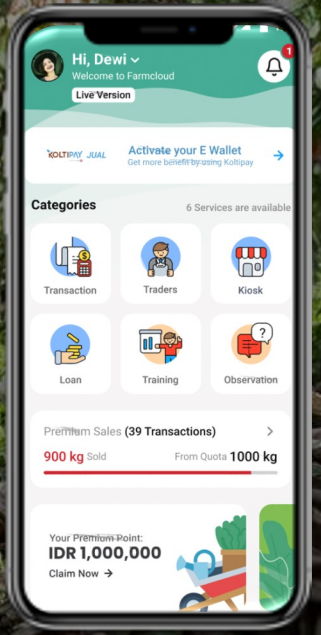
Manfred Borer
CEO of Koltiva

MODERATOR
Mirna Mutiara
Business Sustainability Manager of Syngenta

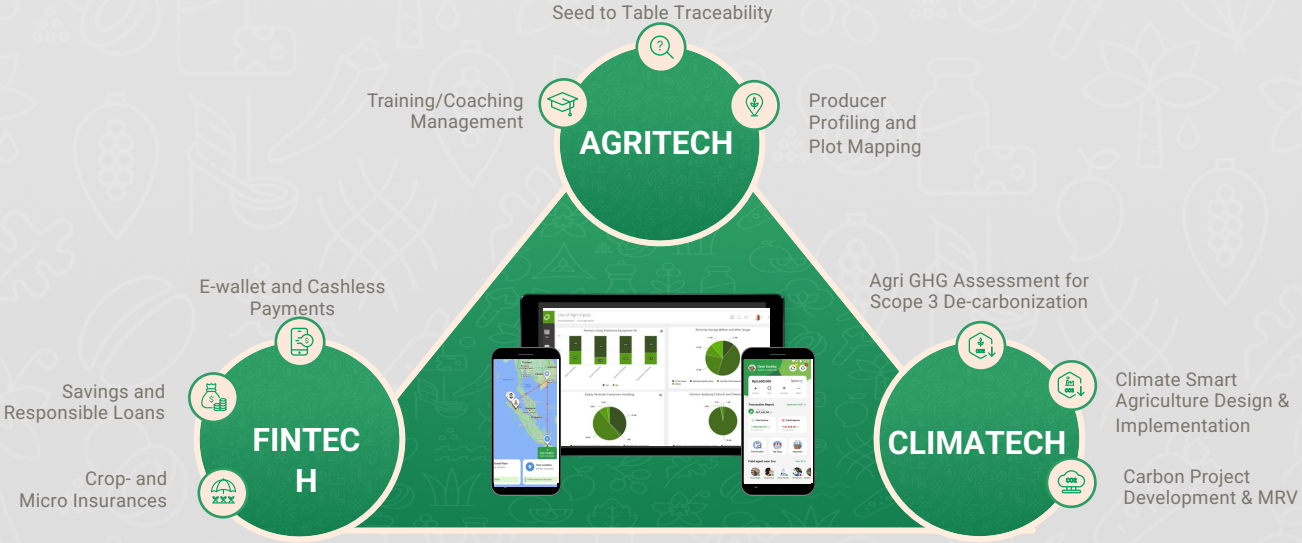
KOLTIVA

Enabling Global Supply Chains to be Inclusive, Climate-Smart, and Traceable

BEYOND TRACEABILITY



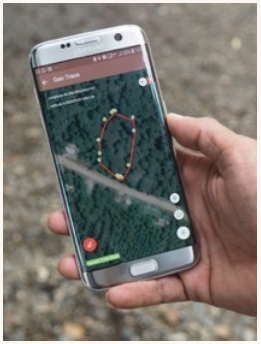
Leading Agritech Start-Up enabling inclusive, climate-smart, and traceable global Supply Chains



End-to-End TECH and SERVICE Solutions for all Supply Chain Actors

KOLTIVA

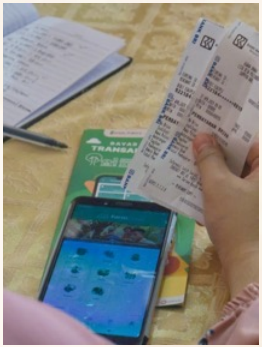
KOLTITRACE



TECH SOLUTIONS FROM SEED TO TABLE

Web, mobile, GIS, and IOT solutions empowering producers and businesses in global supply chains.

KOLTIPAY



RESPONSIBLE DIGITAL FINANCE AND PAYMENTS

Integrated fintech platform for cashless payments, loans, savings, micro-insurance, and bill payments.

KOLTISKILLS

PROFESSIONAL SERVICES BEYOND TRACEABILITY

'Boots on the Ground' for extension services, farming support, and carbon monitoring.

KOLTITRADE

AGRI-INPUTS-, CROP-, AND CARBON TRADING

Distribution of agri-inputs, single origin crop processing and trading, and carbon credits trading.

Closed Loop Ecosystem: Our Indonesian Landscape

KOLTIVA

2
registered agri-inputs manufacturer on **KoltiTrace MIS**

338
registered distributors, nurseries, and kiosks on **FarmRetail**

486,310
registered producer households and **22,880** active on **FarmCloud**

1,965
registered buying stations and traders on **FarmGate**

1,886
registered downstream business users on **KoltiTrace MIS**

8
registered sellers of single origin products on **KoltiTrace SHOP**

10 registered cooperatives (KSP) on **KoltiPay** Web Platform

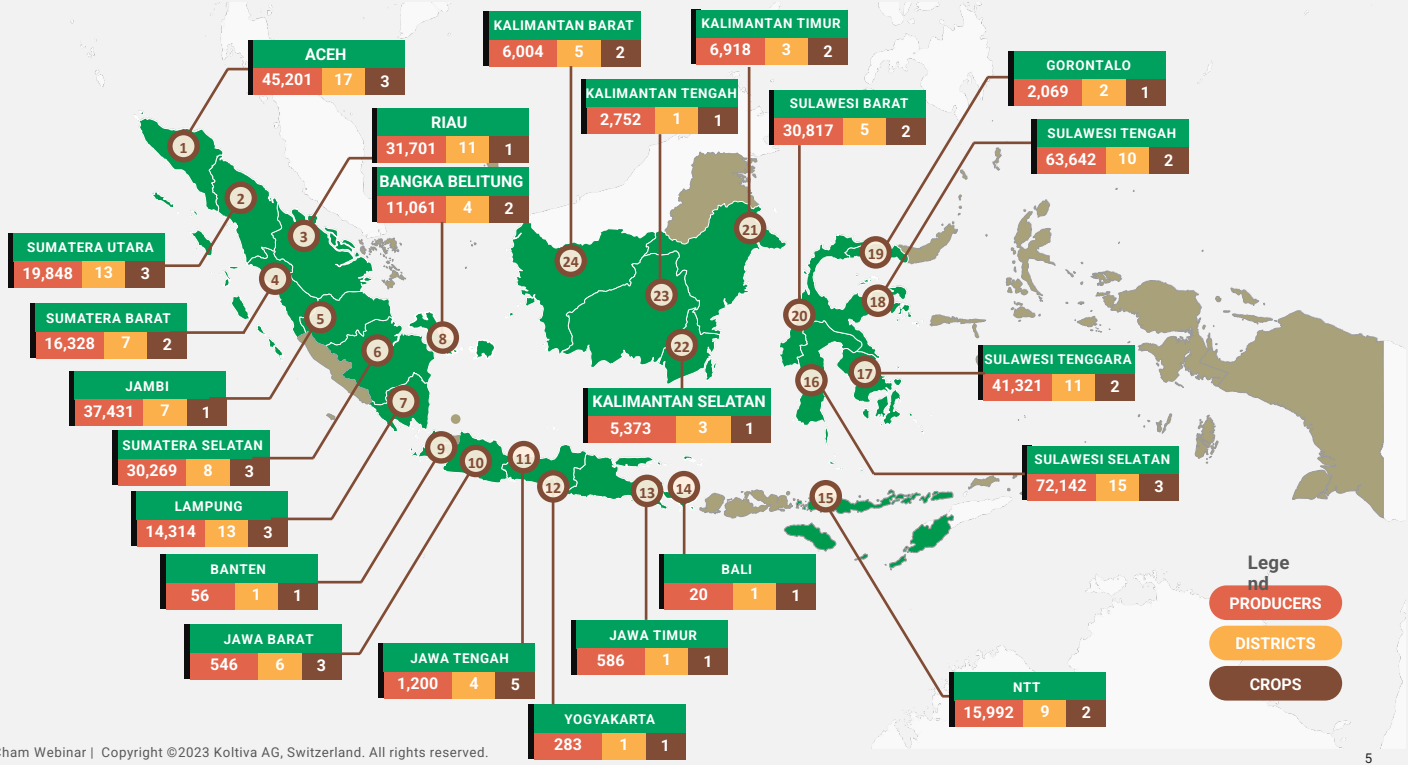
FINANCIAL INSTITUTIONS

AGRONOMIST, FIELD AGENTS

1,499 registered field agents on **FarmXtension**

- Mobile app Solutions
- WEB app Solutions
- IoT Solutions

486,310 Producers Registered in 24 Provinces and 158 Districts



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BEYOND TRACEABILITY

koltiva.com info@koltiva.com Linkedin YouTube

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