

PRISMA

Progress Report and Implementation Plan

July - December 2020



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List of abbreviations

AIP-Rural	Australian-Indonesia Partnership for Rural Economic Development	KPI	Key performance indicator
AUD	Australian dollar	MIS	Management information system
Bappenas	Badan Perencanaan Pembangunan Nasional, or National Development Planning Agency	MoA	Kementerian Pertanian, or Ministry of Agriculture
Bappeda	Badan Perencanaan Pembangunan Daerah, or Development Planning Agency at Sub-National Level	MMAF	Kementerian Kelautan dan Perikanan, or Ministry of Marine Affairs and Fisheries
CJ	Central Java province	MSD	Market systems development
CV	Commanditaire Venootschap, or limited partnership	MSME	Micro, small and medium enterprise
DFAT	Department of Foreign Affairs and Trade (of the Government of Australia)	MT	Metric tonne
EJ	East Java province	NAIC	Net attributable income change
EOPO	End of program outcomes	NTB	Nusa Tenggara Barat (West Nusa Tenggara province)
FAW	Fall Armyworm	NTT	Nusa Tenggara Timur (East Nusa Tenggara province)
GAP	Good agricultural practices	PPP	Purchasing power parity
GESI	Gender equality and social inclusion	PMT	Project management tool
GCP	Good crop protection practices	PRISMA	Promoting Rural Income through Support for Markets in Agriculture
GHP	Good handling practices or good husbandry practices	PRIP	Progress report and implementation plan
GOA	Government of Australia	PT	Perseroan Terbatas (limited liability company)
GOI	Government of Indonesia	QMT	Quality management tool
GPP	Good processing practices	RML	Results measurement and learning
GRP	Good rearing practices	SAFIRA	Strengthening Access to Finance in Rural Agriculture
HH	Household	SCP	Systemic change progress
IDR	Indonesian rupiah	SROI	Social return on investment
ISD	Interventon Steering Document	TIRTA	Tertiary Irrigation Technical Assistance
ISP	Intermediate service provider	USD	United States dollar
ITF	Intelligence Task Force	WEE	Women's Economic Empowerment

Indicator definitions

Existing intervention	Intervention that is currently running and was started on previous semester
ICN	An Intervention Concept Note is an initial document outlining the main features and context of a planned intervention
IP	An Intervention Plan is a detailed document containing all information and data relevant for the understanding of a planned intervention and for the decision to start and intervention
ISP	Intermediary Service Providers are small or medium size enterprises in the up- or down-stream value chain of a partner enterprise of PRISMA (i.e. either buying from farmers and selling to partners or buying from partners and selling to farmers); ISPs can also have important functions, e.g. as information providers or lenders
KPI 1	Number of smallholder farming households with increased net income attributable to PRISMA's interventions
KPI 1a (new)	Number of smallholder farming households under USD2.50 PPP poverty line with increased net income
KPI 1a (old)	Number of smallholder farming households under USD2.00 PPP poverty line with increased net income
KPI 1b (new)	Number of smallholder farming households under USD5.50 PPP poverty line with increased net income
KPI 1b (old)	Number of smallholder farming households under USD2.50 PPP poverty line with increased net income
KPI 2	Net attributable additional income for benefited farming households in IDR
KPI 2a	Net attributable additional income for benefited farming households under USD1.90 PPP poverty line (extreme poverty) in IDR
KPI 2b	Net attributable additional income for benefited farming households under USD2.50 PPP poverty line in IDR Number of intermediary service providers (ISPs) providing additional/improved access to innovation to farmers
KPI 3	Number of Intermediary Service Providers (ISP) providing additional/improved access to innovation to farmers
KPI 4	Women's economic empowerment (WEE) effectiveness within PRISMA innovations
KPI 5	Value of additional turnover of ISPs in IDR
KPI 6	Number of intervention partners (private and public sector)
KPI 7	Value of additional turnover of private sector partners in IDR
KPI 8	Value of attributable additional and/or more inclusive investment by public and private sector in IDR
KPI 8a	Value of attributable additional and/or more inclusive investment by public and private partners in IDR
KPI 9	Number of crowding-in businesses/institutions induced by PRISMA
KPI 10	Number of responding businesses/institutions induced by PRISMA
KPI 11	Number of policy engagements

Indicator definitions

NAIC	Net Attributable Income Change is an additional income generated from a specific technology or input promoted by PRISMA during one production cycle. For livestock the measurement period is six months
New intervention	Intervention that is started in last semester
Outreach	Number of smallholder farming households with increased incomes
Partnership outreach	Outreach that comes directly from PRISMA's partner in the targeted area
Pipeline	Projection value from Upcoming Intervention which is still in idea/ICN/IP stage
Projection	Projection value from Existing and New Intervention
QMT	Quality Management Tool is a tool to assess intervention quality over time, from ICN to IP and implementation. The QMT is used at least once a year during and ongoing intervention
SCP	Systemic Change Progress, a dashboard to measure the change in PRISMA's systemic change
Total outreach	Partnership + Wider Market Outreach
Wider market outreach	Outreach that comes from PRISMA's partner in the other areas; other market actors in the targeted area; and other market actors in other areas that are attributable to PRISMA's interventions

Purpose of this report

Objective

This report is intended to provide readers with insight into the progress made by the Australia-Indonesia Partnership for Rural Incomes through Support for Markets in Agriculture (PRISMA) between 1 July and 31 December 2020. It articulates PRISMA's initial response to the COVID-19 pandemic, the effect of the pandemic on current interventions and their performance, as well as the program's strategy for recovery.

Audience

This report has been written for employees of the Australian Department of Foreign Affairs and Trade (DFAT) at Post and in Canberra, as well as for PRISMA staff, partners and stakeholders.

Reporting Period

This report covers the PRISMA's performance between 1 July and 31 December 2020, referred to in this document as "semester two" or "S2." However, as the COVID-19 pandemic began in March 2020 and its effects continue, there are references to the pandemic which extends beyond semester two.



Executive summary

The emergence and spread of COVID-19 represent an unprecedented challenge for everyone. The pandemic has had a profound impact on all aspects of life: from how and where we work, live and interact, to the way we do business. Global trade has been severely obstructed, and it is estimated that between 88 and 114 million people will have become newly poor in 2020. For the first time in twenty years, global poverty will increase¹.

These changes have brought tremendous uncertainty. It is impossible to predict when that uncertainty will end, and the effects are likely to last for years. Vaccines are rolling out, but it will be some time before coverage is broad enough for families, businesses and economies to get back on their feet.

In Indonesia, COVID-19 cases continue to rise, while testing remains below World Health Organization standards. Continued travel restrictions and social distancing measures aimed at slowing transmission have impacted farmers and partners. Some have shown remarkable innovation and resilience in coping with the new environment; others have struggled to survive. The situation has continued to pose challenges for implementation and assessment and has impacted the program's momentum.

Against this backdrop, PRISMA progressed well this semester. At 424,830 households, outreach was slightly higher than expected, reflecting encouraging headway in the maize, pig, ICT, innovative finance and mung bean sectors. Cumulative income increased to IDR2.30 trillion (approximately AUD230 million), representing an increase of IDR 4,819,764 (AUD482) per household. The mung bean and pig sectors, propelled by the success of a new policy agenda and interventions targeting African Swine Fever respectively, have regained momentum; maize and soil treatment continue to show encouraging impact.

Transformative work using technology to connect farmers and households with markets has not only made the difference between success or failure but has also accelerated the modernisation of digital marketing strategies and infrastructure. Demonstrating remarkable resilience and adaptability, women sales agents and front liners have driven sales, safety and connectivity, underlining how critical it is that they play a central role in Indonesia's recovery.

That said, the slowdown in trade, movement and interaction caused by almost twelve months of COVID-19 has undoubtedly affected PRISMA's ability to foster crowding-in. Measuring the wider uptake of innovations introduced earlier has been challenging, so some results may not fully reflect the real degree of impact. While the program is currently on track, the second wave of COVID-19 will inevitably have an effect on delivery. PRISMA will continue to explore ways of capturing results remotely and will monitor market responses to COVID-19 to ensure it is responsive to demand. The program will remain in close consultation with DFAT during this process and will provide a more comprehensive picture of performance following the mid-term review in mid-2021.

The current environment represents a natural point of reflection for the PRISMA team. Having built a solid base for the second phase and having helped partners through the initial shock of COVID-19, there is an opportunity for the program to take stock and examine how it can best stimulate lasting change over the next three years. A recent internal review by senior management demonstrated that some adjustments to strategy have the potential to positively affect the program's delivery. As 2021 unfolds, the team is confident that with careful review and meaningful direction, it will be able to contribute towards long-term, sustainable change in Indonesia.

¹ <https://blogs.worldbank.org/opendata/updated-estimates-impact-covid-19-global-poverty-looking-back-2020-and-outlook-2021>

PRISMA achievements highlight

Total smallholder farming HHs with increased incomes

up to December 2020

424,830



July-December 2020

Realisation

13,972 HHs

Projection

11,262 HHs

24%

In July-December 2020, PRISMA is **42.5%** towards the target of 1 million HHs by 2023



Total **additional incomes** for smallholder farming HHs up to December 2020

IDR2.3 trillion

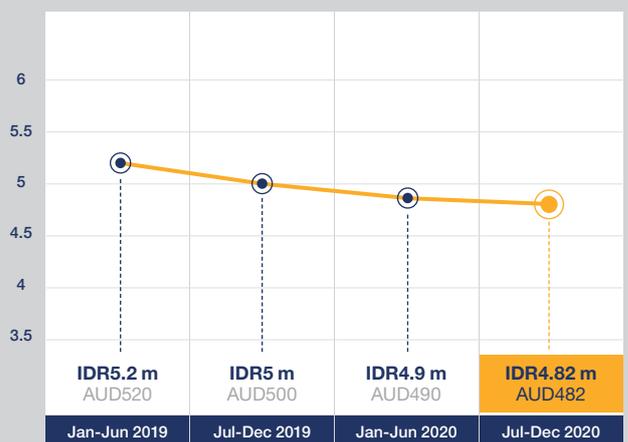
AUD230 million (229%)



Additional income per smallholder farming HH in July-December 2020

IDR4.82 million

AUD482

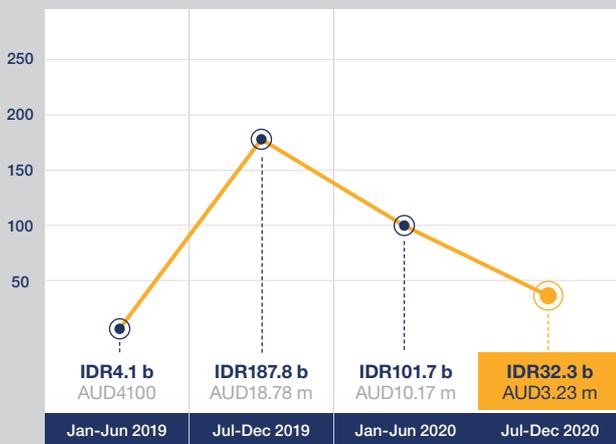




Total value of **additional turnover** for SME up to December 2020

IDR906.5 billion

AUD90.65 million for **11,408 SMEs**

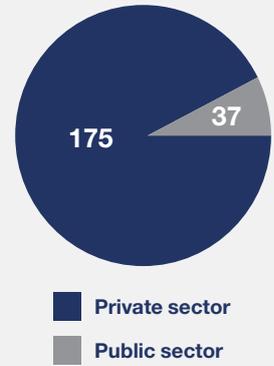


Total **number of partners** up to December 2020

212

Number of new partners in July-December 2020

11



Numbers **crowding-in** business/institutions in July-December 2020

3

Numbers **responding-in** business/institutions in July-December 2020

45



Investment per HH in July-December 2020

AUD156.5

↑ 1% from AUD155 per HH last semester

The number is however, significantly decreased from the first two semesters of PRISMA :

AUD635.11
in Y14S1 (**73.36%**)

AUD1,300.70
in Y14S2 (**87.97%**)



The SROI per HH in July-December 2020

3.46

↓ 0.11% from 3.57 last semester

The number is however, increased from the first two semesters of PRISMA :

0.15
in Y14S1 (**23x higher**)

0.07
in Y14S2 (**49x higher**)

Context



1.1

**COVID-19 and
PRISMA's relevance**

1.2

**Economy, policy and
environment**

1.1

COVID-19 and PRISMA's relevance

COVID-19's tenacity has exceeded expectations. After the initial, hard shock it brought almost one year ago, governments and citizens alike consoled themselves with the hope that the end of 2020 would also mean the end of COVID-19. It is now evident that those hopes were gravely optimistic: COVID-19 and its impact will persist - likely for years to come - and responding is no longer enough. It is imperative to move towards laying the foundations for a long-term, gradual recovery.

PRISMA's efforts in semester two have focused on response to partner's immediate concerns resulting from COVID-19. This has involved creating off-taker interventions and using a range of digital solutions to aggregate crops and farmers, allowing them to obtain reasonable prices for their goods. In turn, this has helped to reconstruct supply chains, maintain incomes and ensure food security.

PRISMA partners have shown extraordinary resilience, but economic hardship has nevertheless resulted in prices plummeting in a number of sectors. The decline was particularly acute in the maize sector, with a 3.6 per cent fall every month since April 2020. Around 65 per cent of livestock farmers have also experienced declining (pig and cattle) prices. There are encouraging signs that this trend may be slowing down, but the impact on farmers and households will be grave, and long-term.

As the second wave of infections climb in Indonesia, large-scale social restrictions (Pembatasan Sosial Berskala Besar, PSBB) have been re-introduced in some locations. Because so much of PRISMA's work to date involves face to face, onsite interaction, social restrictions and biosecurity measures have significantly impacted the program's ability to implement its current sector strategies.

As such, the program is exploring new models for market facilitation and next semester will move from 'response' to 'recovery' of critical market functions and re-establishing access to markets. In light of this, the team will be reviewing its End of Program Outcomes (EOPO) next semester and during the mid-term review. Revision may be required in the face of persistent COVID-19 induced market pressure.

PRISMA's ability to support economic recovery, address inclusion and build partnerships align it well with DFAT and Bappenas objectives. The Intelligence Task Force (ITF) established during the first half of 2020 continues to provide the data partners and stakeholders need to navigate the pandemic's effects and make informed decisions. Having quickly pivoted its activities to address food security and maintain supply chains – directly supporting the Partnerships for Recovery: Australia's COVID-19 Development Response – PRISMA remains well-placed to help reduce economic hardship and ensure that women and vulnerable groups play a critical role in Indonesia's recovery.

Throughout 2020, PRISMA has further built on its strong working relationship with Bappenas. The Directorate of Food and Agriculture at Bappenas and the PRISMA Management Team communicate regularly in bi-weekly meetings and plans for more extensive collaboration are in place.

1.2

Economy, policy and environment

Indonesian economy contracted 2.1 per cent in 2020, the first annual contraction since the 1998 Asian Financial Crisis. Low investment and weak domestic demand were the main drivers for the poor performance. There is sign that the economy is slowly improving because the contraction is shrinking (-5.3 per cent in Q2, -3.5 per cent in Q3 and -2.2 per cent in Q4). The agriculture sector has proven to be resilient: its growth has been slower than in previous years but remained solid at 2.6 per cent YoY in Q4. Partners are less willing to spend, however, which will likely continue well into 2021. Indonesia's COVID-19 cases continue to rise and show no signs of slowing. At the end of December 2020, the number of new cases had passed 8,000 per day at its peak. The national testing rate is still below World Health Organizations (WHO) guidelines, while the number of positive cases remains far above them. The government continues to pursue a balance between public health and economic needs; until vaccine coverage increases significantly, recovery will be slow.

President Joko Widodo established the Committee for the COVID-19 Response and National Economic Recovery (PC-PEN) on 20 July 2020, but budget absorption has been limited. As of 11 December, the Government of Indonesia (GoI) only spent 63.3 per cent of its COVID-19 response budget - approximately IDR444 trillion of the allocated IDR695 trillion (AUD41 billion of AUD63 billion). The funds have been distributed to social protection programs, MSMEs, ministries, agencies and local government programs, and as incentives for new businesses. Fiscal and social assistance measures have helped to keep the overall economy afloat, but they are still far from sufficient. It is very likely that demand for commodities will decrease in 2021, which will impact farmer and agribusiness appetite for innovation or investment.

The Omnibus law on job creation was ratified into law on 2 November 2020. The law streamlines several provisions in various industries into one law that aims to boost investments and create more jobs. Compared to the previous laws, the Omnibus law is more market friendly and encourages food diversity. However, it may also increase commodity imports, potentially reducing the demand for domestic commodities and subsequently, smallholder farmers' income. PRISMA is monitoring the situation and is encouraging partners to make full use of the opportunities to bring the best farm inputs to market and improve farmer competitiveness.

Looking ahead, a wetter climate is expected to exacerbate the impact of pests and disease, as they typically thrive in the rainy season. The La Niña phenomena is currently at its strongest and is forecasted to continue to March 2021. Potential transition into an El Niño-Southern Oscillation neutral condition is expected to start in spring 2021. Across the Indonesian Archipelago, the intensity of rain is expected to increase by up to 40 per cent, providing an abundance of water for agriculture and virtually eliminating any risk of drought. However, the Indonesian National Bureau of Meteorology (BMKG) has issued warnings about the risk of a hydrometeorological disaster, as most areas in Java, Nusa Tenggara, West Papua and South Papua will remain in peak monsoon until February 2021. Immediate monsoon-related threats such as floods may therefore become more apparent and subsequently impact farmers' yield.

Portfolio, management, and monitoring



2.1
**PRISMA's
performance –
Semester 2, 2020**

2.2
**Portfolio
Development
Progress**

2.3
**Portfolio
analysis**

2.4
**Challenges and
highlights**

2.5
**Portfolio
management
response**

2.1

PRISMA's performance - Semester 2, 2020

Foreword

Due to the ongoing impact of COVID-19, PRISMA is in the process of adjusting its projections. It is anticipated that some changes to projections may ensue; the projections listed in this section are accurate to 30 November 2020.

Outreach

During the reporting period, 13,972 households (HHs) benefitted (7,898 HHs < \$2.5 PPP and 10,704 HHs <\$5.5 PPP), which brought the total to 424,830 HHs against a target of 12,938 HHs for the semester. This is just above the expected figure of 423,796 HHs, reflecting particular progress in the maize, pig, ICT, innovative finance and mung bean sectors. See below for contribution by sector.

More interventions were expected to contribute during the semester, but impact assessments were delayed due to COVID-19 protocols and the risks associated with going to the field. This included an impact assessment of the maize intervention in Madura, which expected around 70,000 HHs to benefit. As such, the outreach figures exclude 15 impact assessments which were planned but postponed and therefore do not present a full picture of progress.

As of 30 November 2020, all completed and ongoing interventions are projected to reach 946,346 households by the end of the program. The projection from interventions in the pipeline looks promising but requires further revision to adjust for expected COVID-19 impact.

Partnership outreach and wider market outreach

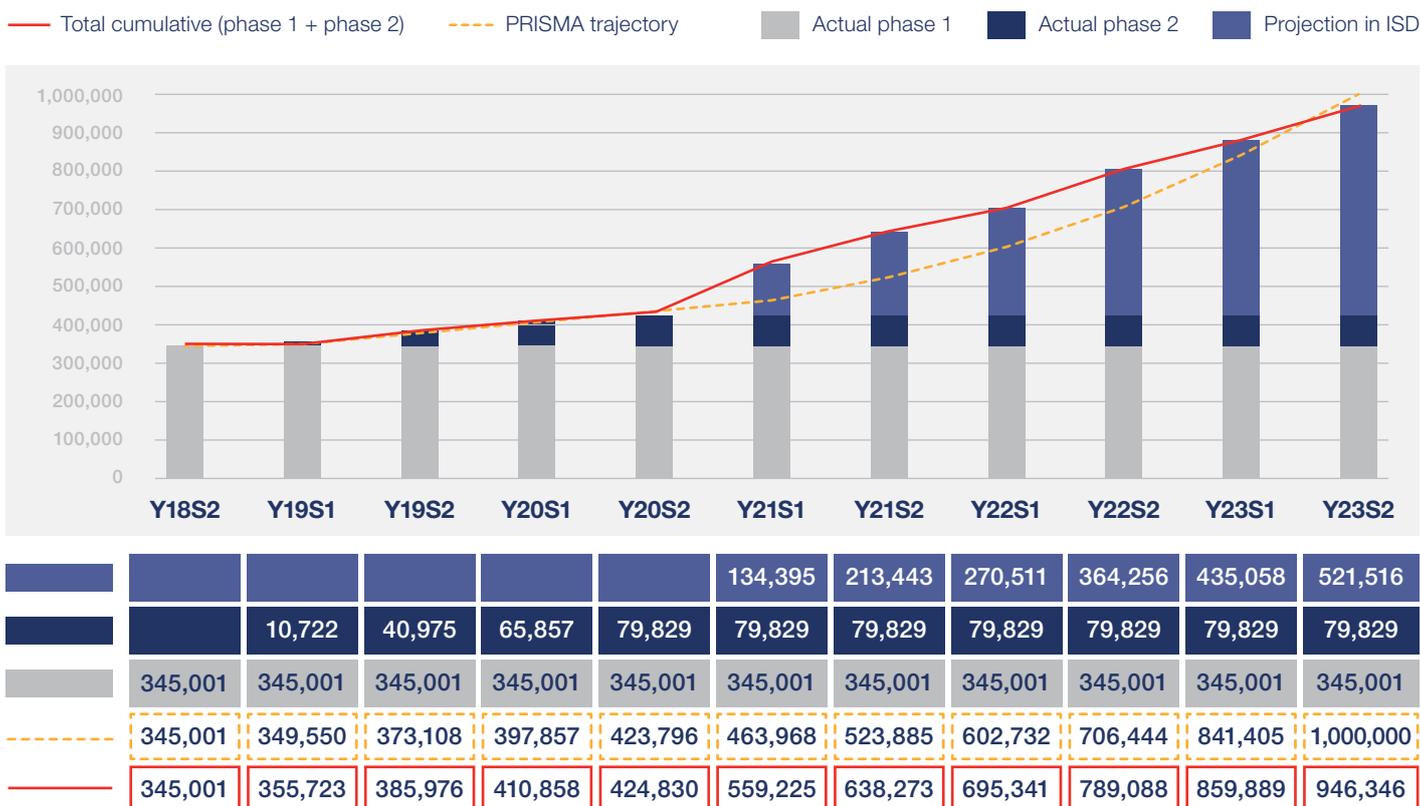
This semester, total outreach comprised 16 per cent Wider Market households (WM), bringing the cumulative figure for WM to 36 per cent of total outreach. The internal EOPO projection for WM outreach is 34 per cent. Unfortunately, travel restrictions mean WM farmers cannot currently be tracked accurately, so partnership outreach is currently higher than projection before COVID. It is also expected that the rate of expansion, crowding-in, and responding will be much slower as a result of the pandemic.

Partnership outreach and wider market outreach

In partnership outreach, PRISMA includes the beneficiaries who use PRISMA's partner products or innovations for the targeted commodities in the areas where PRISMA works and the benefits, if they originate from PRISMA's direct contribution to partners' activities in the field. Any outreach that does not fit into this definition is termed wider market outreach.

The wider market outreach usually comes from our partners and non-partners who replicate the similar innovations in other geographic locations without the program's support. PRISMA tracks the wider market outreach as this is an important indicator for measuring progress towards achieving systemic change.

Figure 1: PRISMA outreach trajectory and interventions



The following subsectors were the main contributors to outreach:

Maize NTT
3,455 HHs

The beneficiaries profited from the use of good quality seeds provided through the collaboration between local nurseries and Dinas Pertanian. In addition, a government program entitled Tanam Jagung Panen Sapi (TPJS) helped these farmers sell their produce.

Innovative Finance EJ, NTB and NTT
3,274 HHs

1,848 HHs were maize farmers in NTB and NTT who received financing from our partner BISI international. In addition, 1,426 HHs were farmers who benefitted from CROWDE's loan scheme in EJ and Lampung.

Mung Bean CJ
1,469 HHs

The outreach came from the use of certified mung bean seeds from EWINDO. The team's next assessments aim to measure the certified seeds' impact at the national level.

Pigs NTT
3,326 HHs

Despite the turmoil caused by African Swine Fever and COVID-19 outbreaks, the pig sector continues to grow. In S2 it reaches 3,326 additional HHs, or 267 per cent of the projection of 1,246. To further strengthen the sector, PRISMA is currently partnering with breeders in NTT to improve and secure sources of quality seedstock which would further boost the productivity of pig farmers in NTT.

ICT EJ
2,349 HHs

The outreach came from farmers who benefitted from utilising loans with better and easier application processes due to HARA's land tagging survey services. The service not only helped farmers who typically missed out from access to lending, but also allowed them to have a better standing during the credit scoring process via the land tagging data. Furthermore, as a response to the COVID-19 crisis, PRISMA developed a new business case related to off-taking activities to address supply chain disruption.

Figure 2: PRISMA partnership outreach and wider market outreach



Total cumulative figure excludes projections from the pipeline interventions.

Net attributable income change

In this semester, the cumulative average Net Attributable Income Change (NAIC) per farming household is 229 per cent, slightly lower than the number reported last semester (232 per cent). It is expected that this number will keep dropping due to the change in PRISMA's outreach calculation method.

Pig is still the top performing sector for NAIC percentage at 412 per cent after adding IDR5,635,975,304 (AUD563,597) NAIC from 3,326 HHs, excluding the top two sector (fish at 1,310 per cent and Anggur Merah at 414 per cent) which were both unique cases for PRISMA².

Innovative finance, ICT and maize have shown positive NAIC progress and contributed the most to the program's performance this semester.

PRISMA new outreach calculation method

PRISMA maintains a rigorous measurement process. We compare User and Non-user at population (distribution) level, which means that as long as the average income of the User population is higher than the average income of Non-user population, all users will have positive income increase. Therefore, The new calculation method claims a 100 per cent user to beneficiary ratio when the average net income change of the user population is greater than the control group. The old method only claims the percentage of users whose net income change is greater than the average of the control group. This new calculation method enables PRISMA to claim a bigger population of beneficiaries at the cost of reduced average NAIC.

Subsector contributing to positive NAIC	NAIC per HH ³
ICT – EJ	IDR 4,178,903 or AUD 418
Innovative finance - EJ	IDR 4,144,771 or AUD 414
Innovative finance - NTB	IDR 3,008,743 or AUD 300
Maize – NTT	IDR 650,987 or AUD 651

The cumulative NAIC this semester is IDR2.30 trillion or approximately AUD230 million. This equates to an income increase of IDR 4,819,764 (AUD4,820) per HH for 424,830 HHs in Indonesia.

² PRISMA's Fish intervention gained only limited outreach and the investment represented poor value for money by PRISMA's standards. Anggur Merah or ANGGaran Untuk Rakyat MEnuju SejahterA(H) was an intervention initiated by the Government of Indonesia with heavy government subsidy.

³ For estimation purposes, this report uses currency of 1AUD = IDR10,000

Other key performance indicators (KPIs)

- KPI 3** Number of Intermediary Service Providers (ISPs) providing additional or improved access to innovation to farmers.
-
- KPI 5** Value of additional turnover of Intermediary Service Providers (ISPs) in IDR.
A growing number of PRISMA interventions in the innovative finance (163 new ISP), ICT (128 new ISP), and mechanisation (100 new ISP) sectors innovate at the ISP level, making the changes in ISPs crucial to the business model. These three sectors contributed 54 per cent to the total new ISPs achieved in S2. In total, 720 new ISPs benefitted, generating IDR32 billion (AUD32 million) in additional turnover. In total, there are 11,408 ISPs with increased turnover of IDR 906 billion (AUD90.6 million).
-
- KPI 4** WEE effectiveness within PRISMA innovations.
PRISMA's WEE effectiveness currently stands at 1.66, indicating PRISMA's interventions involve more women in their activities, compared with women's involvement in agricultural production itself. This has provided more opportunities for women in agriculture. See Section 3.2 for further information on PRISMA's gender strategy.
-
- KPI 6** Number of intervention partners (private sector and public sector).
The number of active partners increased from 34 to 45 (32 of which did not work with PRISMA in the first phase), working in 76 interventions. In total, PRISMA has worked with 175 private sector partners (17 state-owned enterprises), and 37 government institutions.
-
- KPI 8** Value of attributable additional and/or more inclusive investment by public and private sector in IDR.
- KPI 8a** Value of attributable additional and/or more inclusive investment by public and private partners in IDR.
Cumulative partner investment increased slowly. Additional partner investment during the reporting period was IDR3.5 billion (AUD350,000), while the total additional investment in the sector was IDR10.1 billion (AUD 1,010,000). This increased the cumulative investment from private sectors, SMEs, and farmers to IDR 1.1 trillion (AUD 110 million).
-
- KPI 9** Number of crowding-in businesses/institutions induced by PRISMA.
PRISMA has found evidence of three businesses crowding-in in the maize, soil treatment, and crop protection sectors. Two are private companies and one is state-owned.
-
- KPI 10** Number of responding businesses/institution induced by PRISMA.
45 business entities responded across the maize, soil treatment, irrigation, mechanisation, pig, mung bean, ICT and innovative finance sectors. The largest contributors to the responding indicator are soil treatment (29 responding actors), innovative finance (six responding actors) and ICT (three responding actors).
-
- KPI 11** Number of Policy Engagements.
PRISMA has engaged with Bappenas in nine policy areas: policy analysis and recommendations on mechanisation, Papua and West Papua vegetable and seaweed, a national seed system (including maize), the sustainability strategy, digital credit scoring in ICT and finance, an online platform - Berbagi Informasi Pangan dan Pertanian, 10 strategic commodity price movements, UMKM report for Director of Development of SME and Cooperatives Bappenas, and inputs for the coffee sectors in Papua and West Papua. PRISMA also engaged with the President's Special Staffs related to millennials roles in agriculture and supported the implementation of the five-year maize NTT roadmap of the provincial government, which acts as a reference document for policy and budget at provincial and district levels. PRISMA supported the feasibility study for local feed mills with the NTT Provincial Government (Bappelitbangda) and worked with the Central Java Provincial Government to suggest the possibility of an interest rate subsidy through Kartu Tani. This idea has been taken forward into Central Java Provincial Government Working Plan for 2021. Finally, PRISMA supported the Situbondo District Government to establish specific regulation of Kader Pertanian (HARA agent for data collection).

Table 1: PRISMA key performance indicators

KPI Indicator		Actual July-December 2020	Actual up to December 2020
KPI 1	Number of outreach (all farming HHs)	13,972	424,830
KPI 1a (new)	Number of outreach (< \$2.50 PPP)	7,898	36,198
KPI 1a (old)	Number of outreach (< \$2.00 PPP)	-	129,089
KPI 1b (new)	Number of outreach (< \$5.50 PPP)	10,704	53,222
KPI 1b (old)	Number of outreach (< \$2.50 PPP)	-	224,335
KPI 2	Net attributable income impact for all farm HHs in IDR	31,588,602,149	2,303,334,253,233
KPI 2a	Net attributable income impact for farm HHs < \$2.50 PPP in IDR	17,970,274,683	859,324,294,854
KPI 2b	Net attributable income impact for farm HHs < \$5.50 PPP in IDR	24,422,504,083	1,447,551,095,515
KPI 3	Number of Intermediary Service Providers (ISP)	720	11,408
KPI 4	WEE effectiveness	0.92	1.66
KPI 5	Value of additional turnover of ISPs in IDR	32,267,151,670	906,525,308,657
KPI 6	Number of intervention partners (private sector and public sector)	11	212
KPI 7	Value of additional turnover of private sector partners in IDR	25,996,529,029	113,743,418,906
KPI 8	Value of attributable additional and/or more inclusive investment by public and private sector in IDR	10,091,465,211	1,155,241,507,704
KPI 8a	Value of attributable additional and/or more inclusive investment by public and private partners in IDR	3,484,712,125	142,298,283,137
KPI 9	Number of crowding-in businesses/institutions	3	9
KPI 10	Number of responding businesses/institutions	45	50
KPI 11	Number of policy engagements	18	29

Value for money

Investment per HH remained stable during the second semester at AUD156.5 per household. Social return on investment and investment leveraged, 3.46 and 1.74 respectively, also remained constant against total intervention costs. The total intervention cost includes salary (implementation and monitoring staff), travel costs and direct intervention costs.

Investment leveraged by partners (partner investment versus PRISMA direct intervention cost) experienced a slight downward trend and currently stands at 0.21 (see Annex 8). However, the ratio of cost sharing (partner investment against PRISMA's direct costs) shows a stable 50:50 (leverage value of 1.00) over the last two and half years. We expect significant changes once we are able to continue with impact assessments in the field and confirm more outreach, NAIC and investment.

2.2

Portfolio development progress



In the second semester of 2020, PRISMA signed 12 new contracts against an internal target of 25, 11 of which involved new partners. The new interventions are spread across all of PRISMA's working provinces: six in East Java (adding up to a total of 27), five in Central Java (total 20), eight in NTT (total 20), one in NTB (total six), one in Papua (total two) and the first intervention in West Papua on vegetable seed promotion. The ICT and pig sectors contributed the most to the overall portfolio development: ICT added seven new interventions and pigs added three in the last semester. In addition, the beef, maize, mechanisation and vegetable sectors added two new interventions each.

PRISMA added 28 new Intervention Plans (IPs) and five new Intervention Concept Notes (ICNs) in the second semester of 2020. While the number of IPs exceeded the target (27), one ICN is still to be completed.

Overall, the new interventions developed this semester aim to reach 54,805 households (HHs) by the end of 2023 (22,246 HHs < \$2.50 PPP and 32,881 HHs < \$5.50 PPP), adding up to 575,655 HHs (232,252 HHs < \$2.50 PPP and 354,517 HHs < \$5.50 PPP) if combined with existing interventions, i.e., without the actual outreach of Phase 1. The total projection of wider market outreach - 502,812 HHs by the end of 2023 - is still behind the EOPO target of 537,428 HHs. The major contributors for wider market outreach are maize (66,722 HHs), pig (53,532 HHs), crop protection (30,285 HHs), and irrigation (26,164 HHs).

How COVID-19 challenges PRISMA

The emergence and spread of COVID-19 has represented an unprecedented challenge for everyone

The PRISMA team responded quickly, but the slowdown in trade, interaction and movement has inevitably had an impact.

In 2020,



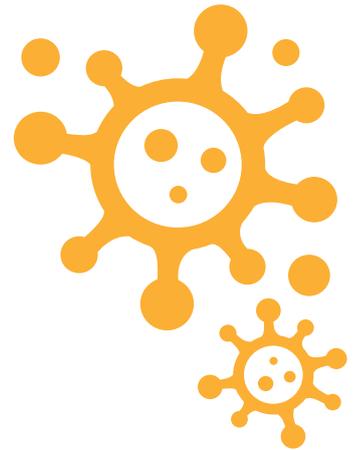
18

impact assessments were postponed



54%

of studies were cancelled



In turn, this has delayed portfolio development by an average of

7.35 Months

compared to normal conditions

On average,



17%

of potential partners rejected partnership offers



30%

decided to delay the partnership



53%

are still undecided

This is due to



Widespread uncertainty



Lack of trust over online negotiations



A risk averse attitude



83% OF PRISMA'S SECTOR TEAMS

- Expect changes in the planned activities with current partner
- See that field activities are now very limited
- Believe that some activities can be adapted or postponed, but expansion to new area will be difficult

Reducing the impact of COVID-19 will involve:



Shifting strategic focus from response to economic recovery



Utilising the momentum from e-commerce, online media and digital payment or remittance successes to support farmers



Re-thinking PRISMA's business model



Finding alternative ways of monitoring and measuring impact



2.3

Portfolio analysis

The management team strategic review (MTSR), largely validated the composition of the current portfolio but revealed risks and gaps that need to be addressed. While this occurred at the time of writing, and outside of the reporting period, it is important to note that the MTSR identified that some sectors i.e., maize, irrigation, dairy and poultry were relying heavily on only one partner. Although the partnership shows outstanding performance, the 'one partner show' poses risks which could hamper the achievement of intended changes at the market level. The systemic change story for some mature sectors such as maize is still not clear. The MTSR concluded that reviewing each subsector's systemic change pathways is now vital and will allow the team to devise strategies and address gaps in achieving the intended systemic changes.

The current portfolio comprises a total of 76 interventions, which have reached 79,829 HHs (36,198 < \$2.50 PPP and 53,222 < \$5.50 PPP) in Phase 2.

The mung bean and pig sectors regained momentum and emerged as sectors with high outreach numbers with estimated results of above 100,000 HHs each. This is due to several new intervention ideas: the mung bean sector strategy now includes a policy agenda with the provincial government, while pigs have added new interventions to minimize the impact of African Swine Fever (ASF). Maize and soil treatment are still expected to be the largest contributors to the EOPOs. Following the Quality Management Tool (QMT) process, PRISMA has closed the peanut sector. The value of pursuing poultry is questionable and hence, the rationale for keeping the sector will be revisited. A comprehensive framework for reviewing the questionable sectors is currently being developed.

The systemic change potential in the seaweed sector appears high as it is one of the main crops for COVID-19 recovery in coastal areas. The seaweed sector strategy focuses on policy changes in the Ministry of Marine Affairs and Fisheries (MMAF) and their research centres across the country. It aims to set up new frameworks and benchmarks for other aquaculture commodities in the ministry. One of the outcomes to date is the

reactivation of an aquaculture research centre in Papua and soon in NTT. With the scale-up plan, PRISMA expects several other ministries to realign their seaweed programs to the intervention and hence trigger wider systemic changes within the project lifetime. Currently, the team is defining tools and mechanisms to monitor and measure policy impacts in seaweed sector.

Innovative finance turned out to be challenging. Due to COVID-19, the financial sector became incredibly risk adverse to new lending. Following the first few months and an initial concern about liquidity, the Government later launched its stimulus plan, which included significant cash transfers to those in need. As part of the short-term focus on COVID-19 response, the finance team planned to focus on a) information sharing, b) prioritising state-owned banks as new partners and c) seeking to boost liquidity by connecting partners with sources of impact investment. While the information sharing was strong from the ITF, and the team managed to connect Impact Connect with Crowde to provide a guarantee for loans to 1,000 SMEs, the efforts to connect with state-owned banks fell short as they were largely consumed by the stimulus disbursement and were not able to entertain new partnerships at that time. Additionally, existing partners and private financial institutions were also risk adverse to new lending and were only disbursing new loans to existing borrowers who had an excellent repayment history. The team are starting to see positive signs of recovery in the sector and this is hoped to continue in the year ahead.

PRISMA's progress towards achieving systemic change shows a positive trend towards resilience and sustainability; scale and inclusivity need further attention. The program continued to use the Systemic Change Progress (SCP) tool both at the sector and program level. Program-level results show that 35 per cent of subsectors still fall in the early adopter category, meaning that the adopters of innovations are still less than 16 per cent of the total population. There is also a need to induce crowding-in at the subsector level since only five to six service providers are promoting innovations. A higher level of response from the complementary service providers is yet to be observed. These results have helped PRISMA to guide the subsector strategies towards achieving higher level systemic changes.

The subsector review and QMT analysis showed that at least 22 per cent of interventions are ready to be ‘pushed’ further to bring about systemic change within their respective sectors. The interventions in the ‘push’ category showed a high correlation to partners’ readiness to absorb shocks, improve ownership of innovations and farmers’ return on investment. Around 61 per cent of these interventions also generated wider market outreach. These results will help sector teams reallocate resources, revise subsector strategies, and focus more on institutional change in the coming semester.

Online marketing has offered respite to partners’ direct communication problems with farmers. Restrictions on large scale farmer gatherings led many companies to try to engage their customers online. However, there is a lack of understanding about farmer behaviour and attitudes towards online communications. PRISMA has received several requests from current and potential partners to support them reaching farmers online. The team is now advising Syngenta, BISI international, Corteva Agriscience and UPL with revamping their online presence and reaching farmers with products and services. Almost all sector strategies now include online marketing as a solution to partners’ communication constraints.

ICT as a sector has also witnessed significant growth despite the COVID-19 conditions. Similar to the increase in online marketing, other forms of technology are also seeing an increase with limited mobility across the country. The ICT team this semester has developed an approach to ‘the digitalisation of agriculture’ which was endorsed by the SRP. This approach was highlighted in a recent webinar and is picking up steam as a significant topic with the Government of Indonesia, with particular interest in PRISMA from both Bappenas and Bappeda in East and Central Java. The team has developed four new interventions to provide access to market for existing farmers and are in development with two additional interventions supporting digitalisation of the value chain.

Off-taking interventions remain highly relevant as the pandemic draws on. PRISMA established five new interventions working in this area during S2. In ICT, partners such as PanenID, Viamo and

TukangSayur seek to bridge the gap between supply and demand which occurred due to mobility and activity restrictions. HARA is now expanding into off-taking services with a more data-driven approach. PRISMA also signed an agreement with PT Seger to expand its off-taking services in Central Java and NTT. PRISMA is supporting Seger to collaborate with public and private market players and develop a supply strategy to enter new areas.



Table 2: PRISMA New Approaches

SECTOR AND LOCATION	PARTNER	NEW APPROACHES
Maize - East Java, Central Java, NTB, NTT	Corteva Agriscience	
Maize - NTT	Dinas Peternakan NTT; BPPT NTT	
Maize - East Java	PT Syngenta Indonesia	
Maize - NTT, Central Java	PT Seger Pangan Sejahtera NEW	
Seaweed - National	Ministry of Marine and Fishery	
Beef - Central Java, East Java	KJUB Puspetasari	
Beef - Central Java, East Java	CV Ferment Hipro Feed	
Beef - Central Java	Sumber Rejeki Feed	
Soil Treatment - East Java, NTB, NTT	PT Pupuk Kalimantan Timur	
Soil Treatment - Central Java, East Java	CV Saprotan Utama	
Dairy - Central Java	PT Nufeed International Indonesia	
Irrigation - East Java	PT Syngenta Indonesia	
Irrigation - East Java	District Government of Pamekasan and Sumenep NEW	
Mechanisation - East Java	PT Rutan	
Mechanisation - NTB	PT Terra Agro Digital	
Mechanisation - Central Java, East Java	PT Galaxy Partani Mas NEW	
Pig - NTT	PT Sreeya Sewu Indonesia, Tbk	
Pig - NTT	PT Panca Patriot Prima	
Pig - NTT	PT Sinar Indochem	
Pig - NTT	CV Sinar Terang Madani	
Pig - NTT	PT Sinta Prima Feedmill	
Pig - NTT	CV Aroma Duta Boga	
Pig - NTT	CV Tiba Mori Go NEW	

Legend

- Built in research within the interventions
 - Intervene in interconnected market systems
 - Policy (corporate) level intervention
 - Business planning
 - Retailer/ agent training
 - Multi-stakeholder partnerships/collaboration
 - Multi-stakeholder partnerships/ collaboration
 - Downstream
 - Multi-sector
 - Product diversification
 - COVID-19 response/pivot
 - Digital marketing and content development
 - Technical capacity building
-
- NEW** New intervention/partnership started in Y20S2
 - New approach introduced in Y20S2

Table 2: PRISMA New Approaches

SECTOR AND LOCATION	PARTNER	NEW APPROACHES
 Pig - NTT	PT Kame Adonara Farm NEW	   
 Pig - NTT	Dr. Ir. WM Maesang Nalley, MS NEW	  
 Poultry - NTT	PT Sumber Unggas Indonesia (SUI)	   
 Mung bean - Central Java, East Java	PT East West Indonesia (EWINDO)	     
 Mung bean - Central Java	CV Semi	 
 Peanut - Central Java, East Java	PT GarudaFood Putra Putri Jaya, Tbk	   
 ICT - East Java	PT Rekan Usaha Mikro Anda (Gojek Group)	     
 ICT - East Java	PT Agri Tekno Karya (HARA)	     
 ICT - NTT	PT Ditant Brinanta Jaya; PT BISI International, Tbk; Kopdit Swasti Sari	  
 ICT - East Java	PT Mahakarya Tukang Sayur Indonesia NEW	      
 ICT - East Java	PT Panen Indonesia Sejahtera NEW	     
 ICT - East Java, Central Java, NTB, NTT	PT Viamo Services Indonesia NEW	   
 Innovative Finance - Central Java	PT Crowde Membangun Bangsa	  
 Innovative Finance - NTB, NTT	PT BISI International, Tbk	
 Innovative Finance - East Java, Central Java	PT Tanijoy Agriteknologi Nusantara	    
 Crop Protection - Central Java, East Java	PT Bina Guna Kimia (FMC)	     
 Crop Protection - Central Java, East Java, NTB	PT Agricon Indonesia	    
 Crop Protection - Central Java, East Java	PT UPL Indonesia	     
 Rice - Central Java, East Java, NTB, NTT	PT Agrosid Manunggal Sentosa/PT Primasid Andalan Utama	   
 Rice - Central Java, East Java	Corteva Agriscience NEW	  

Legend

-  Built in research within the interventions
 -  Intervene in interconnected market systems
 -  Policy (corporate) level intervention
 -  Business planning
 -  Retailer/agent training
 -  Multi-stakeholder partnerships/collaboration
 -  Multi-stakeholder partnerships/ collaboration
 -  Downstream
 -  Multi-sector
 -  Product diversification
 -  COVID-19 response/pivot
 -  Digital marketing and content development
 -  Technical capacity building
-
- NEW** New intervention/partnership started in Y20S2
 -  New approach introduced in Y20S2

Progress against previous semester action points

Most of the action points from the previous reporting period were completed. Ten subsectors were reviewed, and the results were discussed during the management team strategic review (MTSR) meeting in January 2021. The systemic change potential and progress for seaweed were discussed and follow-up actions noted. The management team discussed off-taking constraints and the scope for integrating off-taking interventions under several sectors, including maize and beef. The new strategic direction for finance – expanding to rural financing – is under exploration to broaden the scope for cross-cutting interventions.

The action items for portfolio development for the next semester are outlined below:

Action points for the coming semester (January-June 2021):

- 1 Review and revise the bi-annual subsector review (SSR) process.
- 2 Carry out subsector review between mentors and HOPs.
- 3 Assess the rationale and systemic change potential of the poultry sector.
- 4 Review the innovative finance strategy and explore the feasibility of expanding the strategy into rural finance.

2.4

Challenges and highlights



Challenges

- Exploring new partnership opportunities without being able to meet potential partners in person has become a key challenge for portfolio development. Private companies are gradually resuming their on-field activities and targeting the major agricultural season. PRISMA partners have started to return to the field and organise small scale farmer gatherings. Agricon, for example, has resumed almost 75 per cent of its pre-COVID activities in the field. Similarly, state-owned companies have resumed nearly 90 per cent of their normal activities.
- By contrast, PRISMA is still following work from home (WFH) and teams are unable to travel. While this has significantly reduced the program's value addition to existing partnerships, exploring new partnerships has also proved to be more difficult than initially expected: it is challenging to convince a new company to sign an agreement without meeting them in person. Understandably, many potential partners will not discuss financial matters over digital platforms. Local nurseries are often unfamiliar with video conferencing or similar remote communication technology and poor internet connections in some areas have further exacerbated and complicated the partner acquisition process.
- Adoption of online marketing is slow among local companies, nurseries and family enterprises. Partner companies in the crop protection, mechanisation and mung bean sectors have shown good progress in adopting online marketing. They also have harnessed significant sales benefits and improved brand awareness using digital platforms. PRISMA's partners have recorded more than one million views of their social media content and generated more than IDR7 billion in sales using online marketing. Unfortunately, partners in other sectors are still struggling to adopt online marketing. These companies have low ICT and content generation capacity, which is necessary to influence farmer behaviour. Some companies are also expecting the pandemic to end soon and want to go back to their original practice.
- Developing a gender-inclusive digital marketing strategy has been difficult to achieve. Digital marketing strategies which target both men and women farmers have proved to be sub-optimal for women because they do not use the internet as actively as their male counterparts. Fewer women farmers own smartphones and often do not have the same degree of internet access as men. Acting as the household financial managers, women are also less interested in using the internet due to its perceived high cost and they do not consider the internet a top priority for household expenses.⁴
- The year has halted the Arisan Mapan model of empowering women. Following initial success with the model⁵, PT RUMA decided to stop distributing agriculture products via the Arisan Mapan network due to a merger which changed the strategic direction of the company and their arisan model. Instead, the company shifted the network's focus to distributing small-ticket items for daily household needs, such as fast-moving consumer goods. This led to the closing of the partnership between PRISMA and PT RUMA on the 30 September, though both have agreed to continue exploring partnership opportunities once and if the Arisan Mapan service is re-launched, expected in 2021.

⁴ PRISMA's ITF Survey, October 2020

⁵ PRISMA and PT RUMA partnership through Arisan Mapan aimed to promote agri inputs and services through arisan (a rotating savings group).

- Using phone surveys for impact assessments has provided valuable insights into what can be feasibly confirmed remotely. Due to the travel ban, the PRISMA team is only using phone surveys to capture market insights and assess impacts. To validate attribution to a change, interviews involve extensive questioning and can take a long time. Reaching farmers and keeping them on the phone for long periods of time has posed a significant challenge, while adhering to the program's consent policy for data collection over the phone extended the time period needed for interviews. Many respondents left the call in the middle of the interview; others were intimidated and confused by it and did not agree to continue the interview. The RML team will be using these lessons to revisit the design of the phone survey going forward.
- The absence of regular field monitoring and analysis has hampered PRISMA's ability to provide consulting support to partners. The need for market insights, data on consumer behaviour and analytical support has become acute. Not being able to travel has meant that the team cannot provide the necessary advisory support, and partners have consequently been hesitant to move forward with new ideas without it.
- Staff retention and recruiting new staff remotely requires changes to the on-boarding process. More than ten business consultants have indicated their intent to leave PRISMA by the next semester. While some of them will leave to continue further education, many are looking for long-term opportunities in their hometowns. In the coming months, PRISMA will need to recruit new staff and integrate them into the program. Prior to remote working PRISMA used assessment days to recruit staff, using a range of recruitment tools, such as presentations, role play and interactive activities. The induction training is also group-based. Therefore, recruiting the right talent and onboarding them remotely represents a significant change in process.

Progress against previous semester action points

Most of the action points from the previous reporting period were completed, though some became redundant as COVID restrictions persisted (see Annex 2). An impact assessment for online marketing was completed. A revised assessment and monitoring framework focussing on remote methodologies was conducted and shared with other DFAT programs. The campaign to contain African Swine Fever in NTT will continue for another semester. Training of enumerators in collecting data on women has been outsourced to sub-contractors as part of the revised framework, but PRISMA still provides strong direction on enumerator training. Finance is finalising a new strategy based on rural financing resulting from analysis of recovery needs as a result of ongoing COVID-19. The new cohorts have gone through multiple sessions of refresher training on ten different topics.

The action items for portfolio development for the next semester are outlined below:

Action points for the coming semester (January-June 2021):

- 1 Review and revise the bi-annual subsector review (SSR) process.
- 2 Carry out subsector review between mentors and HOPs.
- 3 Assess the rationale and systemic change potential of the poultry sector.
- 4 Review the innovative finance strategy and explore the feasibility of expanding the strategy into rural finance.

Case Box 01

Indonesian Minister of Agriculture applauds multi-stakeholder partnership to ensure food security



PRISMA's partner Pupuk Kalimantan Timur (PKT), one of Indonesia's major fertiliser producers, has signed a Memorandum of Understanding (MoU) with key agricultural stakeholders from both the public and private sectors to promote collaboration and productivity in agriculture in West Nusa Tenggara (NTB).

The MoU for this multi-stakeholder partnership branded as Agro-Solution was signed by Commercial Director of PKT Gatoet Gembiro Noegroho (former), Director General of Food Crops of the Ministry of Agriculture Suwandi and Head of the NTB Agriculture and Plantation Service Husnul Fauzi. Private sector partners in the collaboration include BISI (seed producer), Bayer Crop (crop protection products producer), Jasindo (crop insurance service provider), Bank BNI and Datu Nusra Agribisnis (maize off-taker).

Designed to improve food security through agricultural productivity and collaboration, the MoU ceremony was attended by Indonesian Minister of Agriculture Syahrul Yasin Limpo and Governor of NTB H. Zulkieflimansyah in Central Lombok on 23 August 2020. Applauding the partnership, Syahrul commented that he hoped similar collaborative efforts would be replicated in other provinces, to support the Indonesian Government's dual objectives of improving farmers' welfare and increasing food security in Indonesia.

PRISMA advised PKT on the concept and formation of sustainable partnerships aimed at improving agricultural productivity through collaboration. With PRISMA support, PKT played the lead role in bringing both private and public sector interests to the table. Through this collaboration, different parties plan to work together to provide farmers with PKT's core products and other critical services.



Highlights

- **PRISMA staff have demonstrated impressive flexibility and resilience despite being isolated from stakeholders, partners and each other.** COVID-19 has continued longer than anyone initially imagined, but staff have been innovative in their approach to establishing new connections, managing interventions, partnerships and evaluation remotely. It has been a steep learning curve, but a valuable one: the team's experience with HARA for example brought issues with understanding consent to light, as well as the nature of interviews themselves.
- **PRISMA launched four new off-taking interventions to support the purchase of commodities at the farm gate despite supply-chain interruptions.** Technology was used to relieve significant constraints caused by wet market closures and disrupted logistical routes. A partnership with Viamo now provides market linkages between farmers, traders, and collectors using feature phones; productivity, finance and health-related information is also shared with rural populations by this avenue.
- **PRISMA supported the building of an additional business unit within HARA to off-take from farmers in their networks, many of whom had previously received financing to reduce their burden of debt.** The team also developed a new partnership with PanenID, a technology-based off-taking platform, and supported its geographical expansion with the help of the provincial government in Central Java. The team also used technology to provide support in difficult times so that farmers can receive a fair price, repay their loans and connect to a broader market.
- **Pupuk Indonesia adopted a new business model introduced by PRISMA's soil treatment⁶ partner.** The multi-stakeholder partnership introduced by PRISMA's partner, Pupuk Kaltim (PKT) will be implemented by Pupuk Indonesia for its five subsidiary companies - Pupuk Kujang, Pupuk Kaltim, Pupuk Iskandar Muda, Pupuk Sriwidjaya and Petrokrimia Gresik.

⁶ This sector is also referred to as fertiliser.

The multi-stakeholder partnership business model branded 'Agro Solution' was introduced and implemented by PKT in 2020 (see Case Box 1). This is a significant business model in that it brings one company together with other non-competing companies to work together to reach farmers with a 'package' of information and products. In addition to PRISMA's working areas, PKT has expanded its Agro Solution initiatives to provinces in West Sulawesi, Southeast Sulawesi, Gorontalo, South Kalimantan and Lampung. PKT's holding company, Pupuk Indonesia has now set a plan of covering 25,000 ha of land for rice, maize and other key crops under the Agro Solution model for 2021 and assigned the five major subsidiary companies to meet this target.

- PRISMA signed a partnership with EWINDO to promote high quality vegetable seed in Papua and West Papua. The partnership negotiation with EWINDO started in late 2019 and continued as COVID-19 started to affect Indonesia. Despite COVID-19 movement restriction regulations that might affect the effectiveness of distribution and marketing activities, EWINDO decided to continue increasing its investment in Papua and West Papua by signing a partnership with PRISMA in August 2020. This confidence is due to some risk-sharing that PRISMA offered and a strong business plan that PRISMA and EWINDO developed, which is based on an innovative ethnographic cluster marketing approach and change agent model.
- Online marketing generated interest from wider market actors. PRISMA's partners have shown increased buy-in to online initiatives. While FMC and Agricon pioneered online marketing strategies, at least four other companies adopted similar approaches to reach farmers during the pandemic. PRISMA organised an international webinar to disseminate online marketing initiatives and their benefits. The webinar has generated a considerable response from private companies and development programs.
- The ITF surveys played a role in the Jakarta Food Security Summit-5, a bi-annual event run by the National Chamber of Commerce, opened by President Jokowi on 18 November 2020. Mr. Arief Patrick Rahmat, President Commissioner of PT Sumber Energi Pangan, quoted PRISMA's survey and analysis in his speech on food sector development in Indonesia.

2.5

Portfolio management response

This section focuses on practical responses in portfolio management. Broader, more strategic responses to the challenges posed by the current crisis and policy responses by relevant governments are provided in Chapter 1 above.

The change in senior management with the planned departure of the CEO (refer to Section 6.1) and the ongoing pandemic provides an opportune moment to revisit PRISMA's strategic direction. This will inform the program's overall management response, including monitoring, reporting and communications.

During the portfolio review process, the team will revisit subsector strategies along with all available tools to ensure they are aligned with the broader PRISMA strategy. The aim is to map and revisit the monitoring tools that are used to ensure their relevance in terms of assessing progress towards systemic change, as well as systemic potential.

GESI remains an integral part of PRISMA's portfolio development process. PRISMA will continue to invest resources in assessing the impact of our interventions on women, as well as ensuring new intervention designs are inclusive. There is a need to revisit the existing GESI strategy and milestones for 2023 and further refine the program's strategy in light of COVID-19.

PRISMA's Intelligence Task Force (ITF) will continue to conduct surveys and collect relevant data to inform strategy development.

PRISMA will continue developing relationships and partnerships remotely, leveraging existing contacts and partnerships, and utilising all forms of available technology. Travel restrictions are expected to continue well into 2021 so the program is encouraging remote negotiating as much as possible. Where partners are able, they meet in the Surabaya office where health protocols can be carefully managed.

In total, PRISMA plans to sign 35 new formal agreements with private and public partners in the upcoming two semesters. The pace of signing new contracts assumes continued restrictions on travel but may experience some volatility based on the readiness of partners to sign contracts and the pace of the country's vaccination program. The detailed portfolio development plan can be found in Annex 6.

PRISMA will utilise its network of private partners, strategically positioned kiosks and lead farmers to reinforce regular monitoring and learning for quality implementation. Since private companies are gradually resuming their on-field operations, this can be leveraged to gather data and information.

Going forward, PRISMA will focus more on inducing market players, which currently are not working with PRISMA, to copy successful business models introduced by PRISMA's partners and thereby, foster wider market outreach.

Cross-cutting issues



3.1

**Policy
engagement**

3.2

**Gender equality and
social inclusion**

3.3

Nutrition

3.4

Environment

3.1

Policy engagement



PRISMA has negotiated two new policy engagement plans with local government. The irrigation team is working with the district and provincial government in East Java to bring sustainable clean water and irrigation solutions to the region. Additionally, the mung bean team is exploring collaboration with the Central Java government to increase mung bean production through better quality seed, including through the 2021 subsidy program. Unfortunately, the implementation of ongoing policy engagements (such as with seaweed) has slowed down due to resource reallocation issues.

PRISMA is increasingly being recognised as a credible source of agricultural insight by different government institutions. The first MP⁷ noted that PRISMA is an innovative development model able to assist the government achieve its goals. The second MP was interested to know PRISMA's progress and its plan for 2021. PRISMA worked with Bappenas to respond to both MPs accordingly. Last semester's meeting with the Special Staff of the President was followed up on 19 October 2020 with a further invitation for PRISMA to discuss youth in agriculture. PRISMA shared its experience of working with the private sector for inclusive growth and plans to better understand opportunities for youth in agriculture. PRISMA will continue to explore opportunities to share its learnings from youth in agriculture with relevant stakeholders.

Agriculture seed systems formed a key discussion topic for PRISMA and Bappenas during 2020. Seed quality is the most important determinant of farm productivity and therefore improving the seed market system is a main priority for both entities. PRISMA has been working to improve seed quality for a number of years and therefore was able to contribute towards the study on seed systems which Bappenas conducted. PRISMA also supported Bappenas to host a webinar to discuss maize seed quality with relevant public and private stakeholders. Follow up discussions with both Bappenas and the Ministry of Agriculture are ongoing; the result these discussions will feed into the draft regulation that Bappenas will propose to the President.

⁷ Members of parliament (DPR RI) Commission XI. First, in meeting (Raker-Rapat Kerja) of Bappenas and DPR RI Commission XI, on 30 June 2020. Second, in the meeting Member of House (DPR RI) Commission XI with the Minister of Finance, Governor of the Indonesian Bank (BI), Chairman of the board of commissioners of the financial services authority (OJK), the minister of PPN/head of the National Development Planning Agency (BAPPENAS), and the head of BPS, on September 2, 2020.

The Food and Agriculture Market Information (Berbagi Informasi Pangan dan Pertanian) Facebook group established in collaboration with Bappenas to connect agriculture stakeholders was promoted to participants at the maize seed webinar and other online events this semester. However, member engagement in follow-up discussions in the group is still low. PRISMA will determine a forward plan to improve participation and engagement to increase effectiveness of the platform.

Preliminary discussions were held with Bappenas regarding the PRISMA sustainability strategy and how the policy strategy aligns with this. Bappenas expressed an interest in sustaining program functions within the Ministry. Discussions are underway to form a joint Sustainability Discussion Group to explore the potential pathways and to closer align Bappenas and PRISMA priorities starting from 2021.

Systematic monitoring of all policy engagements is in progress. With the completion of the policy measurement framework, PRISMA now has a solid foundation to monitor its various policy activities. Socialisation to all sector teams is in the pipeline and we hope to see all sectors proficient in using the policy measurement framework by the end of 2021.

Progress against previous semester action points

All action items were completed with continued close collaboration with Bappenas and the successful development of a monitoring system for policy engagement. While Political Economy Analysis (PEA) capacity development was not started last semester, PRISMA has secured a political economy training institution to conduct virtual PEA training.

The main action points for next semester are included below:

Action points for the coming semester (January-June 2021):

- 1 Political Economy Analysis (PEA) training for all PRISMA staff.
- 2 Revisit the Policy Engagement Strategy to ensure alignment with program strategy to 2023.

3.2

Gender equality and social inclusion



Challenges for women and other neglected market segments continue to be impacted by COVID-19. PRISMA will focus on capturing these changes, especially as they relate to women in agriculture, to inform the program's GESI strategies. In 2021, the team will re-visit its milestones for 2023 to ensure that the current environment is factored in and visions are updated under each neglected market segment.

PRISMA continues to advance the implementation of gender inclusive business models. Across a range of sectors and teams, PRISMA is raising awareness of women as critical market actors and showing businesses the economic value of inclusion. In this semester, women agents' initiatives in reaching farmers showed sustainability despite COVID-19 movement restrictions. Business partners continued to independently invest in inclusive marketing activities (see selected example in Case Box 2). PKT, a soil treatment partner continued to invest in promotional activities for women farmers, kiosk owners and public extension services, ensuring women can access PKT's information services and trainings.

Case Box 02 Women Front Liners (WFLs) help limit spread of COVID-19



PRISMA supported the improvement of Corteva Agriscience's women salesforce program, Women Front Liners (WFLs). WFLs not only implemented assigned marketing activities, but also initiated their own improvements to them. They followed protocol more thoroughly than their male counterparts, and independently developed and distributed materials to provide farmers with COVID-19 information.

PRISMA enjoyed modest progress towards capturing and assessing WEE impact. Despite COVID-19 travel restrictions, PRISMA remotely conducted impact assessments in five interventions in the ICT, innovative finance, peanut, mechanisation and maize sectors and tested the updated WEE measurement approach. Initial results from maize, ICT and innovative finance show positive shifts across the WEE dimensions and data is currently under evaluation to capture the full impact. PRISMA also captured the WEE impact in an assessment for an irrigation program under AIP-Rural (see Case Box 3). PRISMA will conduct a qualitative impact assessment for pigs in the next semester, as well as ensuring WEE is captured in impact assessments postponed to next semester. This is important to better capture the impact of COVID-19 on women beneficiaries, identify emerging risks and constraints to better inform the design of subsequent interventions.

Case Box 03 Discovering hidden roles for women in irrigation businesses



Tertiary Irrigation Technical Assistance (TIRTA) promoted an irrigation business model to potential irrigation service providers (ISP) through technical and management consultancy on irrigation. An assessment was conducted to capture whether these ISPs continued or expanded their businesses and if there was any WEE impact.

Surprisingly, women were found to be actively involved in these new business functions and reported several benefits. Nine out of ten women were able to acquire more assets, savings, secure funds for children's education and increase business capital. Despite the additional workload, 70 per cent of women perceived they gained more communication and business management skills and felt more engaged within their communities.

PRISMA will further assess opportunities of how women ISPs can reach more women farmers. The findings will be shared to the private sector partners to design more inclusive promotion and training models.

PRISMA has advanced its Women Sales Agent strategy based on the results of the Direct Sales Agent Research. Two key publications presented insights and recommendations from women sales agents' challenges and opportunities, and a rapid COVID-19 assessment, are being utilised by sector teams to refine their sales agent models. Findings of the study were presented in the 2020 Seep Annual Conference and shared on Marketlinks - a USAID platform which highlights good practices on market-based solutions for development - amongst other networks. PRISMA will continue to share learnings with potential new business partners to develop more business models including women.



PRISMA enhanced its support to indigenous communities in Papua and West Papua through a new partnership with EWINDO. PRISMA supports EWINDO in developing marketing strategies that use PRISMA's ethnographic cluster approach towards incorporating specific cultural and agricultural behaviour in the region. Through analysis of the roles of women in the region, PRISMA found that women in indigenous communities' act as food providers in the household - from choosing and planting crops, to harvesting and selling in the markets. PRISMA and EWINDO have developed inclusive marketing strategies to accommodate this, including engaging indigenous women community influencers and ensuring capacity building activities are accessible by women in terms of location, time, and other factors.

PRISMA completed a rapid assessment of youth farmer challenges and opportunities during COVID-19. The assessment shows at least 70 per cent of young farmers recorded challenges in selling harvested products. Obtaining inputs was also seen as challenging. Although only 10 per cent have turned to online platforms to sell harvested products, young farmers are utilising online platforms to communicate with other agriculture market actors, with only 30 per cent still relying solely on face-to-face interaction. This rapid assessment precedes an in-depth assessment that will identify youth market actors' influence in agriculture market systems and explore the potential business case for specifically engage youth in PRISMA partnerships.

To bring products closer to farmers during COVID-19 travel restrictions, Women Front Liners (WFLs) also recruited village canvassers, many of whom are women, as door-to-door household goods sellers in the villages. Furthermore, WFLs started to conduct more marketing activities to ensure effective reach during COVID-19. Only limited numbers of participants can attend marketing activities due to COVID-19 restrictions, so instead of conducting only one activity for farmers in the three villages as assigned by Corteva, the WFLs in Wonogiri district in Central Java spread out and conducted an event in each of the three villages. That way, the total number of farmers that participate in marketing activities would be comparable to their pre-COVID-19 targets. WFLs proved that the new approach of wearing masks and taking precautions both limited the spread of COVID-19 and provided a more focused activity, as they interacted with smaller groups of farmers.

Over the next year, PRISMA will increase uptake and sustainability of the women's sales agent models, update the data inventory on WEE measurements and deepen learnings on GESI by completing the Youth Behavioural Study. Efforts to mainstream gender and capture WEE impact across the portfolio will be continued through deeper engagement and capacity-building support to the PRISMA team. PRISMA will further assess youth's role in agriculture and other market segments to identify feasibility for the program.

Progress Against Previous Semester Action Points

All action points from the previous semester on gender mainstreaming, WEE impact methodology and capacity building have been completed and integrated into the ongoing capacity building plan. The qualitative gender study and guidance on inclusive marketing is ongoing. Guidance on Universal Design principles has been postponed to next semester and will be reviewed as part of the overall GESI strategy moving forward.

The main action points for next semester are included below:

Action points for the coming semester (January-June 2021):

- 1 Conduct a qualitative study to assess women's impact in pig interventions in NTT.
- 2 Conduct a follow-up assessment on COVID-19 challenges on women sales agent models.
- 3 Improve PRISMA's understanding of the role of youth in agriculture to identify feasible commercial cases.

Woman sales agent study

PRISMA works to improve inclusion and empowerment for women in agriculture

In 2019, PRISMA's **Women Sales Agent Study** assessed the impact of sales agent models in:

9 Businesses

1 Government Agency

on _____



Company Strategies



Women's Empowerment



Farmers' Preferences

THE FINDINGS

THE AGENTS



Sell agricultural products



Provide farmers with training in good agricultural practices (GAP)



WOMEN SALES AGENTS ARE VERY SUCCESSFUL



91% of farmers applied GAP and/or used products they recommended



60% of women farmers prefer their sales agents to be women – both for promotions and GAP

MEN FARMERS ALSO VALUE WOMEN SALES AGENTS

for their _____



Agricultural Knowledge



Communication Skills

THEY RECEIVE



Income



Opportunity for self and professional development



Networking



Sense of self-fulfilment

THEY JUGGLE MULTIPLE ROLES



Analyst



Advisor



Product Promoter



Distributor

In 2020, PRISMA conducted a follow-up survey to assess the impact of COVID-19 on women sales agents, the results show:



76%

of women agents had transitioned easily to working from home, aided by social media use and regular training



However,



52%

of women sales agents experienced a decline in sales



27%

of women sales agents worked longer hours



39%

of women reported a 60% increase in caregiving responsibilities



PRISMA
recommendations for
agriculture market
players:



Provide guidance on how to conduct 'safe' offline transactions



Conduct online sales training



Ensure that the full-range of company support is communicated to all women sales agents

3.3

Nutrition

Based on learnings from the previous semester, in this semester PRISMA planned to further test the integration of nutrition messaging as a marketing component for existing interventions in NTT (i.e., rice, maize, poultry and pigs) and/or exploring other collaborations. Progress was hindered by several factors, related to delayed field assessment/study, changes in commodity sector demand both due to COVID-19 and/or animal disease outbreaks, low market actor incentives, and limited effective methods of delivery for the nutrition message within the current situation.

The incentives for agri input companies to include nutrition messaging needs to be further developed, as they see farmers mainly as producers - not as consumers. In terms of message delivery, mass campaigns are not yet feasible, while the alternative method of using social media is not suitable for the NTT context as access to the internet is limited. In the next semester, PRISMA will continue to explore incentives for different market actors and stakeholders to find opportunities to integrate nutrition components in existing interventions.

Progress against previous semester action points

All action points from the previous semester are ongoing, except discussion with NTT Government on nutrition learnings: potential plans are on hold pending the feasibility of sector nutrition strategies in NTT. The action point for next semester is to test nutrition messaging as part of the Effective Communications Study in collaboration with the Marketing Communications team.

Action points for the coming semester (January-June 2021):

- 1 Test nutrition messaging as part of the Marketing Communication (Marcomm) study.

3.4

Environment

During this reporting period, PRISMA completed the first batch of Environment Desk Assessments (EDAs) for 26 interventions to provide technical advice and backstopping on potential environmental risks, and opportunities in delivering positive impact. These desk-based assessments review sector strategies, Intervention Plans and other relevant intervention documents before providing recommendations on risk mitigation and management of potential environmental impact, both positive and negative. The synthesis of the Environment Desk Assessment (EDAs) is as follows:

- **Potentially negative risk:** In terms of exposure toward environmental risk that might hinder the intervention's performance, out of all the 26 interventions reviewed, 16 interventions are considered to contain potentially moderate risk and one intervention is considered high-risk.
- **Potentially positive impact:** 22 out of the 26 interventions are considered to deliver potentially positive impact by applying a Climate-Smart Agriculture (CSA) practice. Out of the 22 interventions, 13 interventions embed more than one CSA practice and entail multiple potentially positive impacts.

The above potential adverse risks and positive impact are being used by implementation teams to adjust their strategies. Technical support will be arranged for interventions requiring a risk mitigation approach to ensure that the identified potential risks can be appropriately addressed, and potentially positive impacts enhanced.

PRISMA continues to explore opportunities to leverage environmental causes through its interventions. The irrigation team has engaged one environment consultant for supporting its interventions in Pamekasan and Sumenep districts in East Java. The interventions focus on the promotion of precision water detection technology to support the district government with sustainable water access for both domestic and agriculture use. PRISMA is also supporting the district government on a water conservation strategy, which will be part of local government regulation and program.

In the next semester, PRISMA will continue with Environment Desk Assessments for another 20 interventions. These assessments will provide a comprehensive picture of the positive and negative environmental impact of the interventions. PRISMA will also continue to follow market dynamics towards work around environmental issues as they come along during the course of intervention implementation and COVID-19 enacted opportunities and challenges.

Progress against previous semester action points

Environmental desk assessments were completed on 26 intervention (against a target of 20). Based on the assessments, PRISMA has been preparing a synthesis report to summarise potential environmental impacts toward the program's sectors. The main action points for next semester are included below:

Action points for the coming semester (January-June 2021):

- 1 Discuss findings of Environment Desk Assessments (first batch) with partners and adjust accordingly.
- 2 Commence Environment Desk Assessments for 20 new interventions (second batch).

Quality and risk



4.1

**Results
measurement**

4.2

**Management Information
System (MIS)**

4.3

Communications

4.4

Risk management

4.1

Results measurement

PRISMA's performance trajectory was designed before COVID-19 hit. Although PRISMA has outperformed against its projection trajectory for the first three semesters of the second phase, the effects of COVID-19 have started to impact outreach. As a result, the program's surplus of cumulative outreach has been brought down from 13,001 HHs (3.27 per cent) in semester one, 2020 to only 1,034 HHs (0.24 per cent) in semester two. In the coming semester, PRISMA needs an additional of 39,138 outreach to meet its trajectory. Preliminary estimations, assuming the travel ban is still in place for the whole semester, indicate that PRISMA may only acquire 15,967 outreach in the period. Some major contributing sectors - such as beef, mung bean and especially maize – are still awaiting outreach confirmation because the team can't travel. This does not mean outreach numbers are not there, but merely PRISMA has been unable to verify these through remote impact assessments yet.

PRISMA is exploring alternative impact assessment methodologies but COVID-19 has also decelerated the negotiation process with potential partners, postponed interventions activities, and reduced the rate of crowding-in and response from the private sector. These may create a domino effect, delaying plans in subsequent years as well. As such, PRISMA needs to reassess its trajectory and EOPOs as it reviews the program strategy for the next three years.

Over the last six months, PRISMA has successfully conducted a series of remote impact assessments via telephone to accommodate COVID-19 travel restrictions and social distancing. Three phone surveys were completed for ICT, maize and peanut interventions. The phone survey results were satisfactory considering that this method is new to PRISMA. There were several areas that could be further improved to achieve better results and these learnings will be used on upcoming phone surveys. PRISMA partners have also taken a more active role in assessing intervention impact through partner surveys in one innovative finance intervention (with CROWDE) and one mechanisation intervention (with Rutan).

There were some difficulties in conducting partner surveys, such as the time needed and inefficiency due to the involvement of partner which added more time-consuming processes. However, the results were satisfactory and a lot of learnings were captured to improve future surveys.

PRISMA shifted the Systemic Change Progress (SCP) tool to focus more on measuring the market change's actual progress (see Case Box 4). This involved using qualitative and quantitative information from PRISMA's sectors to help the sector teams understand their current market situation.

This semester, PRISMA has also been working to finalise and test a measurement strategy to assess progress towards farm household food security. A set of nutrition-related questions have been developed and are ready to be integrated into a standardised questionnaire for impact assessments. As we are still adjusting to the phone survey impact assessment, only a portion of the questions related to food production have been tested so far. PRISMA will analyse the existing data and will continue to test the full set of questions in the next semester. The integration with Portfolio Management Tool (PMT) will be explained in the MIS section.

PRISMA continues to review its activities for intervention quality and especially the impact of COVID-19 pandemic. During the reporting period, PRISMA reviewed 23 interventions in 18 sub-sectors, replacing field visits with thorough discussions between sector mentors and implementation teams.

PRISMA conducted the second batch of QGIS training for 13 participants. Geographic Information System (GIS) is a framework to analyse geo-spatial and other data, whereas QGIS is a GIS-related platform that PRISMA plans to use. After assessing the first batch's success and how GIS could assist the program in analysing strategic partnership opportunities, the second batch of training was conducted.

PRISMA has updated its consent form with a data protection component that follows Australian and Indonesian law, as well as Palladium's data privacy policy. The new consent form provides a legitimate basis for PRISMA to use, store, protect, and share data in a lawful manner. Moving forward, every data collection process will use the new consent form.

Case Box 04

Systemic Change Progress (SCP) tool shows PRISMA is on track for pro-poor market growth



The new SCP shows balanced results for inclusive and scale aspects, which accounted for around 50 per cent. This means PRISMA is on the right track for pro-poor market growth. In terms of scale, PRISMA has reached 10 to 30 per cent of early adopters and early majority farmers. Meanwhile, the sustainability and resilience aspects have reached about 65 per cent of the population. The sustainability aspect depicts that on average, five to six private sectors joined the market and provide the same products and services as a specific sub-sector. Last, the SCP also showed that the market system's resilience is strengthened. The Government of Indonesia developed a recovery plan and budget to anticipate market shocks and support the private sectors. After analysing the results, the new SCP was found to be excellent in delivering learning and diagnosis to the sector team regarding the market condition in their respective sub-sectors.

However, it is challenging for the external audience to understand the results of the SCP exercise. The readers must know the comprehensive list of indicators and detailed scoring methodology. In addition, the SCP is a quantitative tool and does not capture qualitative changes. For this, the program will focus on capturing the qualitative behavior changes of the market actors and develop a simplified narrative for reporting the progress towards systemic change.

Progress against previous semester action points

All action points for the previous reporting period were completed and become the groundwork for RML's action points for this semester: The main action points for next semester are as follows:

Action points for the coming semester (January-June 2021):

- 1 Find alternative ways to do impact assessment such as implement lean IA, join partners activity on the ground, work with ISP to collect some beneficiaries' data.
- 2 Implement data protection protocol in MIS.
- 3 Integrate the new SCP approach into the SCP tool.
- 4 Promote the use of the new consent form to protect PRISMA and partners

4.2

Management Information System (MIS)

PRISMA finalised the integration of the Systemic Change Progress (SCP) tool into the Portfolio Management Tool (PMT) and Power BI dashboard to better measure and analyse progress towards systemic change. By leveraging PMT and Power BI, staff can now see the SCP tool online on any device with a browser and in real-time.

This semester, the MIS team focused on enhancing internal applications by expanding and developing modules in the MIS System - i.e., PMT, Power BI and the corporate management system tool (SHIELD). In the PMT, PRISMA expanded its gender indicators for better reporting and analysis of gender and developed a Back to Office Report (BTOR) module so that staff can use the notes and findings from the reports for future reference. In SHIELD, the MIS team collaborated with the Operations team to improve the program's management by adding purchase order, task order and work order modules. PRISMA also upgraded the staff turnover dashboard in Power BI to offer better data visualisation and comprehension.

Progress against previous semester action points

All the action points from the previous semester have been completed, including integration of the SCP tool into the PMT and Power BI dashboard. The main action points for next semester will be improvement of some existing tools and the development of new modules as follows:

Action points for the coming semester (January-June 2021):

- 1 Improve the SCP tool in PMT and Power BI with a new algorithm.
- 2 Develop intervention tracker in PMT.
- 3 Add the knowledge management module to PMT.
- 4 Add more modules in SHIELD to manage risks.
- 5 Develop index in Power BI

4.3

Communications

The Communications Team's focus this semester was on analysing the potential for more strategic communications activities to contribute to program objectives. This involved an internal review of current communications products and materials, as well as the efficiency and effectiveness of communications workflows. Designed to identify bottlenecks, friction points and opportunities for improvement, the review revealed several critical areas for attention. These ranged from the degree and quality of direction being provided to the team and opportunities for product improvement based on audience adjustments to addressing team structure and capacity building. Many key points have already been addressed, while others form part of a gradual transition process⁸ that the team is working through.

In addition, the communications team continued to support the program's response to COVID-19. The pandemic shifted parts of PRISMA's target messaging and audiences, and the team worked hard to provide technical communications assistance to implementation teams and boost online marketing strategies.

The Marketing Communications Intervention answered to the need from numerous private sector partners to improve digital marketing strategies and avoid drops in sales. This semester, PRISMA facilitated collaboration opportunities between the Marketing Communications partners (RAD Research and Teman Dekat Agency) with eight interventions and intervention partners from the crop protection, ICT, pigs, soil treatment and maize sectors. The Marketing Communications team is now working to improve the works and aims to provide supports to even more sectors and private sector partners.

The Communications and Government Relations Unit re-focussed its efforts on effective storytelling, regarding how the program is contributing to the Government of Indonesia's COVID-19 response in the agriculture sector, both at the national and provincial/district level. The Unit helped to do this by establishing its presence as the government's confidant by providing support and advice through information sharing platforms: Bappenas Facebook Group, Sector-themed Focus Group Discussions and Webinars and the development of Provincial Situation Report (PSR).

Given the high degree of change the communications team is experiencing, PRISMA expects tangible results to be visible in second half of 2021. Changes in senior management and the coming departure of the Head of Communications mean that the communications team is currently balancing WFH protocols and an intensive transition process all at once. This poses some risks for the program (see Risk Management, below), which are being actively managed by the Communications Consultant and the acting CEO. It also means that while the team completes the transition plan and implements recommendations from the review, some changes may only be visible externally in the second half of 2021. PRISMA will ensure that DFAT is kept abreast of progress, plans and achievements and that communications channels remain open.





Progress against previous semester action points

With support from the Communications Consultant, most action points from the previous semester will be continued into the next semester. These include strengthening the implementation of the communications strategy, upgrading knowledge sharing amongst agricultural stakeholders and improving design and branding of PRISMA materials. The plan for Stakeholder Engagement Perception Survey (SEP) was postponed as PRISMA focused on the analysis and review process due to COVID-19.

The main action points for next semester are as follows:

Action points for the coming semester (January-June 2021):

- 1 Review and adjust the communications strategy.
- 2 Complete transition plan steps and deliverables.
- 3 Review and refresh PRISMA's design and visual communications tools and materials.
- 4 Review capacity building needs and develop individual and team plans.

4.4

Risk Management



The risk management strategy is underpinned by a transparent process, awareness amongst PRISMA staff, led by the HOPs and Heads of Unit, together with a robust system designed to ensure regular and open communication between key stakeholders.

Progress Against Previous Semester Action Points

From last semester actions items, risk workshops with the management team were undertaken and HOPs worked with implementation staff to better understand the new risk profile to the program due to COVID-19. The Return-to-Work Protocols were updated and renamed as the PRISMA COVID-safe Plan. This now includes a section outlining the new robust risk assessment process for the approval of travel of sub-contractors undertaking services on behalf of PRISMA.

The main action points for next semester are included below:

Action points for the coming semester (January-June 2021):

- 1 Quarterly risk workshops with the MT will continue.
- 2 Monthly budget reviews with the finance and portfolio teams.
- 3 Transition plan for PRISMA Senior Management (refer also to Section 6.1).

Stakeholder relationship management



5.1

**Government of Indonesia's
subnational agencies**

5.2

**Development partners and
civil society organisations**

5.1

Government of Indonesia's subnational agencies

PRISMA has continued to provide agricultural advice to local governments during the pandemic. The Provincial Managers continue to provide support of information for the Provincial and District Governments. The Provincial Situation Report (PSR) distributed by the Provincial Managers has been functioning as communicating means between the program and the regional governments and is well-regarded by government counterparts.

PRISMA has also completed the Annual Work Plan, an essential first template for the program, which will be used by Bappenas and the provincial host governments to view PRISMA's upcoming activities. Official endorsement for the Annual Work Plan is scheduled during the Program Coordination Committee meeting early next semester.

In NTT, PRISMA successfully facilitated the development of Animal Feed Industry Feasibility Study. The study findings uncovered significant collaboration interest from different feed industry actors and investors towards working with the government in the province. It has also strengthened stakeholder confidence in supporting the development of the feed industry in NTT. Governor Viktor Laiskodat was in the study handover ceremony on 28 November 2020. The ceremony's follow-up is the finalising of the Feasibility Study based on final inputs from DFAT, the Governor's special team, and PRISMA.

Progress against previous semester action points

PRISMA has submitted the draft of Annual Working Plan to the provincial host governments and Bappenas; the official endorsement is expected during the Program Coordination Committee (PCC) meeting next semester. It will continue to supply information to support the Government of Indonesia both at the national and subnational level and work to achieve optimum implementation in the respective provinces.

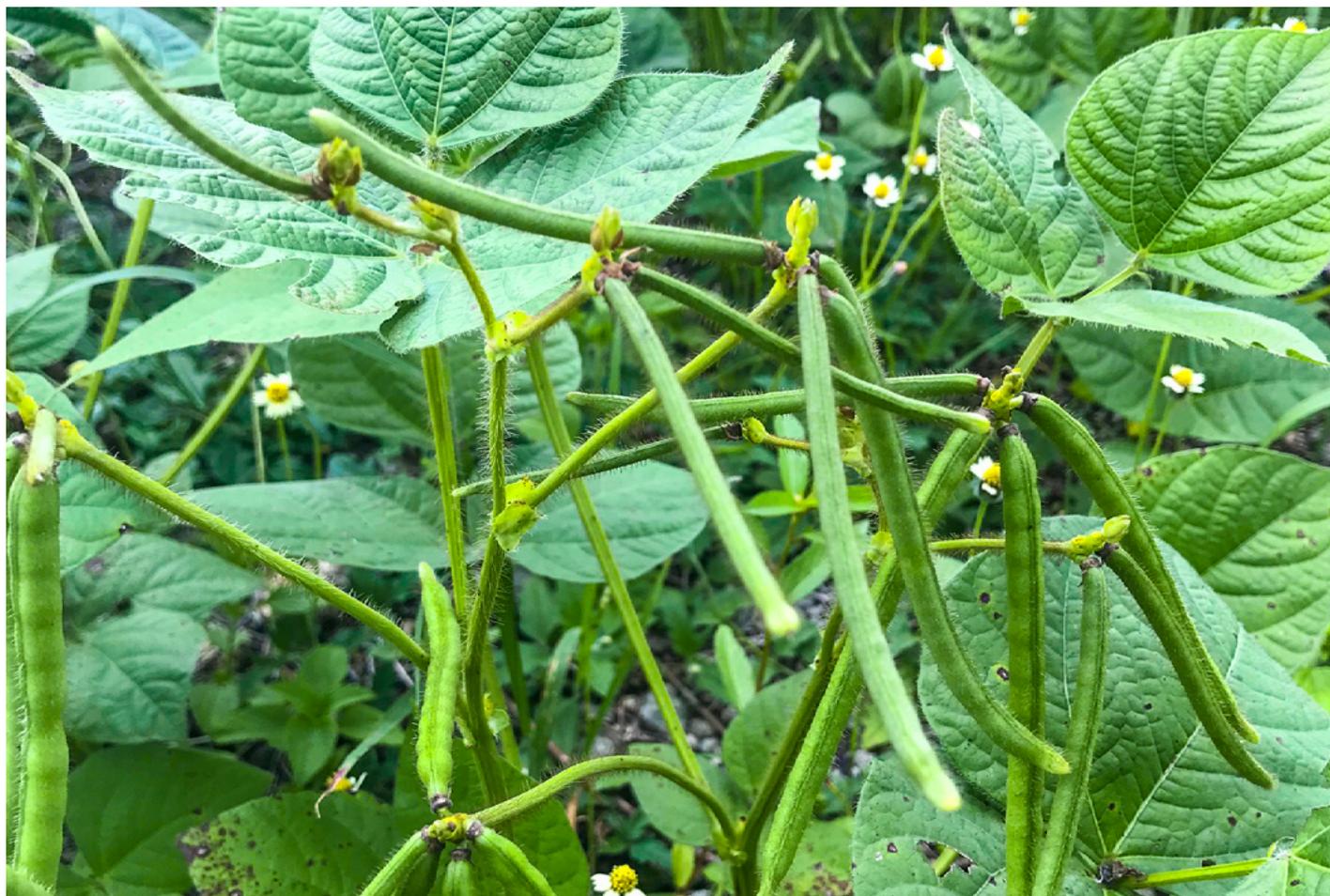
The main action points for next semester are included below:

Action points for the coming semester (January-June 2021):

- 1 Official endorsement of the Annual Work Plan by Bappenas and DFAT during Program Coordination Committee meeting.
- 2 Continue to provide support for sectors in achieving optimum implementation in the respective provinces. This includes internal training on How to Work with Local Government.
- 3 Continue to supply information to support the Government of Indonesia both at the national and subnational level. This includes the submission of end-year and semester report to host provincial governments.

5.2

Development partners and civil society organisations



Engagement with external entities is one of PRISMA's key strategies for spreading of better practices to develop more competitive markets and inclusive growth. This semester, PRISMA actively pursued and participated in knowledge-sharing events at both the national and international level. Likewise, more business entities, development programs and other organisations such as Integrated Participatory Development and Management of Irrigation Program (IPDMIP) and Bank of Indonesia have approached and asked for support from PRISMA.

PRISMA provided agricultural market insights into and policy recommendations at the 5th Jakarta Food Security Summit (JFSS) 2020 hosted by the Indonesian Chambers of Commerce and Industry (KADIN). During the event preparation, PRISMA actively engaged with KADIN and PISAgro board members and provided views and insights about constraints and solutions related to agriculture productivity. PRISMA inputs on the importance of supporting farmers to access quality seeds, mechanisation, and irrigation were discussed by Arif Patrick Rachmat a Director of Triputra Group, the holding company of PT Seger, at a session in JFSS.

PRISMA is actively engaged with Katadata, a leading media and news research organisation appointed by KADIN as the JFSS event organiser. Throughout the 5th JFSS 2020, PRISMA supported Katadata with agriculture commodity data, study results, and policy recommendations. PRISMA's COVID-19 rapid survey results were featured in the JFSS booklet, a resource reference for policy makers and JFSS participants. Katadata also quoted part of the study results in an article published in their online platform. In the long-term, PRISMA and Katadata have agreed to explore opportunities for collaboration which potentially include co-authorship of publications, data analysis and management, and advocacy on agriculture policy.

PRISMA participated in an inter-agency discussion to address the African Swine Fever (ASF) crisis in NTT. In September, PRISMA joined a discussion with DFAT (Jakarta and Canberra), CSIRO, ACIAR, and DFAT's funded programs (including Market Development Facility (MDF) Timor-Leste, Pacific Horticultural and Agricultural Market Access (PHAMA) Papua New Guinea, Australia Indonesia Health Security Program (AIHSP)). The meeting became a platform for programs and agencies to share learnings on responding to the ASF outbreak in the region. Several follow-up actions include frequent coordination and knowledge sharing sessions on pig sector interventions and ASF Awareness Campaign (for example between PRISMA and MDF Timor-Leste) and involvement in ACIAR-funded study on the Socio-economic and Livelihoods Impacts (SELIA) of African Swine Fever in the Asia-Pacific region.

PRISMA presented learnings from crop protection partners' adopting of online marketing in its first international webinar on "Reaching Farmers Online – Future of Agriculture Marketing." The webinar generated an encouraging response from private companies and development programs alike. BISI International, Corteva Agriscience, and UPL Indonesia have expressed their interest in adopting a similar approach. MDF Sri Lanka requested a follow-up meeting to learn more about PRISMA's lessons.

Over time, PRISMA's experience, knowledge and networks have attracted other organisations to learn and engage. For example, the Capital 4 Development Asia Fund (C4D) impact investment program asked PRISMA to share information on the opportunities in SMEs development through financing; Bank of Indonesia met PRISMA to get more insights on successful business models in rural agriculture development; and the IPDMIP funded by Asian Development Bank and International Fund for Agricultural Development had an initial discussion on collaboration with PRISMA for example on irrigation. In October, PRISMA delivered a lecture on the cattle and feed market in Indonesia in the Economic Livestock Visiting Program of Faculty of Animal Science, the University of Brawijaya.

The Chief Operations Officer (COO) participated in a 16-week clinic held by Beam Exchange and DCED on effective procurement for MSD program. The COO was one of four guest speakers for an international webinar hosted in the UK by Beam Exchange and attended by donors and MSD practitioners and on the same topic. The clinic resulted in a series of papers on best practice being published, which included case studies from PRISMA.

Progress against previous semester action points

Action points on PRISMA involvement in PISAgro's Working Group and discussion with Katadata for potential collaboration are ongoing. Although COVID-19 has slowed down IDH and CBI programs in seaweed, PRISMA is maintaining contact with the two programs.

The main action points for next semester are as follows:

Action points for the coming semester (January-June 2021):

- 1 Set up follow up meetings with Katadata to discuss further collaboration.
- 2 Provide insights and share experiences in knowledge sharing and coordination meetings with relevant institutions and programs on ASF.

Operation and finance



6.1

Human resource management

6.2

Operations

6.1

Human resource management

Locally engaged staff

Despite WFH conditions, PRISMA staff are coping well and productivity remains high. During this period two staff surveys were undertaken: the first was a COVID-19 sentiment survey related to staff readiness to return to work and a mental health check-in and a second survey on staff retention and succession planning.

The first staff survey found that many staff were struggling with motivation as a result of missing both the office environment and field work, and also competing demands at home.⁹ The Management Team undertook a number of actions to improve the motivation of staff including:



On-line team-building activities



Fun activities for teams including:

- On-line team picnics
- Team quizzes and karaoke sessions
- Team video making



Team on-line skills sharing

The HR team, under the guidance of the COO, created a COVID-19 resource page under MS Teams, which includes information, links, resources, videos, articles and tools to help managers and staff better manage work from home. A PRISMA Mental Health and Wellbeing Information Guide was circulated and socialised to all staff. Palladium ensured that the Employee Assistance Program included counselling services in Bahasa Indonesia and increased the number of sessions available to staff under the program.

The second survey on staff retention and succession planning indicated that 17 employees had plans to undertake further studies prior to the end of the phase, either at the end of Semester 1 2021 or Semester 2 2021, with a further 12 staff planning to apply for scholarships in the near future. The main reasons staff gave for seeking higher education opportunities were of 1) their relatively young age; and 2) the improved chance to access scholarship opportunities under the umbrella of a bilateral development program. Plans are now underway for a cohort recruitment next semester.

Two employees resigned during this semester to take up scholarships for further study. Another staff member, Michelle Wangsawijaya, passed away following a long illness. This brings the total number of locally engaged staff to 137.

⁹ Interestingly, more male staff were struggling with the competing demands at home (73% for men compared to 39% for women), but this is attributed to the fact that 70% of men on PRISMA are married compared to 35% of women staff who are married.

Long-term advisors

During the reporting period, one expatriate, COO Nina FitzSimons, was successfully granted redeployment taking the total number of LTAs in Surabaya to four. The repatriated LTAs have submitted their redeployment requests and DFAT is waiting for the green light to have these requests processed in the new year.

The visa renewal process for in-country advisors has been completed (Portfolio Advisor – Ag and Strategy; Portfolio Advisor – GESI and the COO). The accreditation for repatriated staff who are still out of the country (three Portfolio Advisors) is complete and the documentation is ready for submission once redeployment has been approved by DFAT.

The CQO departed the program in December and Palladium is reviewing options for a replacement, with his duties being delegated to the COO and Program Technical Directors. The CEO also resigned in late December with a three-month handover period. The COO will take up the Acting-CEO role in the interim and work with Palladium on the change management process.

Change management process

As a result of the departure of the CQO and the CEO there is an opportunity for the program to step back and review the progress of the program from a strategic perspective and also the program culture to determine what, if any, course corrections are required. This change management process will need to be carefully managed to ensure limited disruption but a high level of staff buy-in. The Acting CEO will work with Palladium to develop a Senior Management Transition Plan to manage the process. This will include the management of inherent risks, such as:

- Potential loss of staff or unnecessary stress due to lack of surety regarding their contract renewal.
- Management vacuum leading to increased staff demotivation.
- Communication with key stakeholders.
- Overburdening existing senior managers with additional duties while replacements are recruited.
- On-boarding of new staff in current COVID-19 conditions.

These risks will be assessed, and mitigation measures outlined in the Transition Plan.

Progress against previous semester action points

All action points for the previous reporting period were completed, including the surveys already outlined above. The previous semester action point regarding collaborating with other programs to find potential solutions for the visa for repatriated staff was solved with a change to Indonesian Immigration COVID policies. The main action points for next semester are included below:

Action points for the coming semester (January-June 2021):

- 1 Coordinate with CB Manager on developing on-line on-boarding training for new recruits.
- 2 Review of the Omnibus law regulations and determine implications for contracting and guidelines.
- 3 WHF follow-up staff survey.
- 4 Senior Management Transition Plan

6.2

Operations

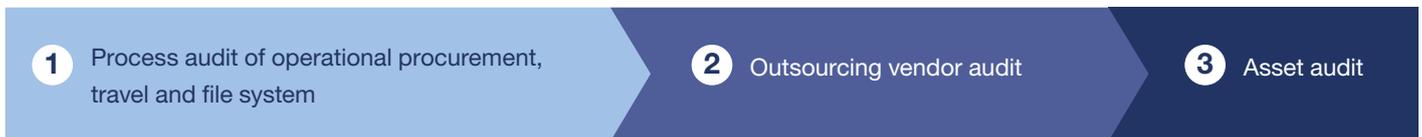


Work from home

During this reporting period operations continued under WFH conditions. In August, the Surabaya and Provincial offices opened under stage one restricted opening (not more than 15 per cent occupancy). The Central Java Provincial Office has had to quarantine several times due to positive COVID-19 cases in Bappeda. Moving to stage two opening (30-75 per cent occupancy) is unlikely to occur during the first quarter of 2021 but will be regularly assessed against the COVID-19 curve and based on a thorough risk assessment in accordance with Palladium Return to Work COVID-19 policies and the PRISMA COVID-19 Safe Plan.

Workflow processes

During the semester three operational audits were undertaken including:



Audit findings were used to improve the effectiveness and efficiency of the processes. Some of the processes have been migrated to the MIS system and these will be trialed during the first quarter for 2021.

During the reporting period Palladium undertook its quarterly risk audit, which looks at procurement and financial systems and there was no elevation is risk for the program.

Contracting and procurement

As a follow-on from the previous semester, the COO and Palladium Project Manager have been reviewing all program contract templates used by PRISMA. Many of the templates used were developed in Phase 1 and are not compliant with Palladium standard templates, which have been reviewed by the Palladium Contracts and Compliance (C&C) unit. As part of the work the COO undertook with BEAM exchange on improving procurement for MSD programs, the COO worked with the Palladium Project Manager and C&C to develop a Collaboration Agreement that would better serve the needs of the program, be more in line with the partnership approach used in MSD programs, and removed the need for multiple contract types for implementation. As a result of this change, the Contracts and Procurement team novated seven agreements Partnership and MOU agreements during this period, with a further 17 to be completed next reporting period.

The COO coordinated with the CB Manager to ensure that the contractual changes are reflected in the revised implementation guidelines (Building Partnerships for Impact) and the associated procurement partnership guidelines.

All other contract types used on the program were also reviewed, with a move to standardise all contracts using Palladium templates to ensure compliance with GOI regulations. As a result of this process, the Contracts and Operations team novated a further 105 vendor contracts and 23 sub-contract agreements.

Progress against previous semester action points

All the action points from the previous semester have been completed, which included training of staff in health protocols, internal audits and working on MIS modules. A number of remedial actions resulting from the self-audit are still ongoing. Two modules for the operations MIS are still being completed and these tasks have been rolled over to the next reporting period as outlined below.

Action points for the coming semester (January-June 2021):

- 1 Update Office COVID-safe plan based on most current health information from GOA and GOI.
- 2 Staff survey on effectiveness of messaging health protocols.
- 3 Follow-up on self-assessment audit findings for travel (need to complete files).
- 4 Continue to work with MIS on SHIELD to finalize travel tracker module and asset bar code module.
- 5 Complete contract novation for collaboration agreements.
- 6 Initiate a waste management policy for the office.

Annex 1

Summary of next semester action points

Action Points Portfolio Analysis

Review and revise the bi-annual subsector review (SSR) process

Carry out sub-sector review between mentors and HOPs

Assess the rationale and systemic change potential of the poultry sector

Review the innovative finance strategy and explore the feasibility of expanding the strategy into rural finance.

Action Points Challenges

Adoption of online marketing: identify, collect and summarise success stories and organise regular sharing events; identify specific constraints behind slow adoption and support nurseries, family enterprises and local companies to undertake risks

Gender-inclusive online strategy: continue testing the online-offline combination and peer-to-peer sharing with multiple partners; develop guidelines and strategies to incorporate inclusivity into the business models

Mapan model: explore partnership options periodically; map out opportunities emerging from COVID-19

Impact assessment: revise the consent form to reflect farmers' concerns regarding the consent clause; develop strategies to minimise the number of questions and time for interviews; train enumerators to improve the quality of data collection; explore utilisation of partner led data collection

ITF: modify ITF survey questions to collect relevant information; explore data collection through partners; triangulate secondary information from various sources to advise partners

Action Points Policy Engagements

Political Economy Analysis (PEA) training for all PRISMA staff

Revisit the Policy Engagement Strategy to ensure alignment with program strategy to 2023

Action Points GESI

Conduct a qualitative study to assess women's impact in pig interventions in NTT

Conduct a follow-up assessment on COVID-19 challenges on women sales agent models

Improve PRISMA's understanding of the role of youth in agriculture to identify feasible commercial cases

Action Points Nutrition

Test nutrition messaging as part of the Marketing Communication (Marcomm) study

Action Points Environment

Discuss findings of Environment Desk Assessments (first batch) with partners and adjust accordingly

Commence Environment Desk Assessments for 20 new interventions (second batch)

Action Points Results Measurement

Find alternative ways to do impact assessment such as implement lean IA, join partners activity on the ground, work with ISP to collect some beneficiaries' data

Implement data protection protocol in MIS

Integrate the new SCP approach into the SCP tool

Promote the use of the new consent form to protect PRISMA and partners

Action Points MIS

Improve the SCP tool in PMT and Power BI with a new algorithm

Develop intervention tracker in PMT

Add the knowledge management module to PMT

Add more modules in SHIELD to manage risks

Develop index in Power BI

Action Points Communications

Review and adjust the communications strategy

Complete transition plan steps and deliverables

Review and refresh PRISMA's design and visual communications tools and materials

Review capacity building needs and develop individual and team plans

Action Points Risk Management

Quarterly risk workshops with the MT will continue

Monthly budget reviews with the finance and portfolio teams

Transition plan for PRISMA Senior Management (refer also to Section 6.1)

Action points Government of Indonesia's Subnational Agencies

Official endorsement of the Annual Work Plan by Bappenas and DFAT during Program Coordination Committee meeting

Continue to provide support for sectors in achieving optimum implementation in the respective provinces. This includes internal training on How to Work with Local Government

Continue to supply information to support the Government of Indonesia both at the national and subnational level. This includes the submission of end-year and semester report to host provincial governments

Action Points Development Partners and Civil Society Organisations

Set up follow up meetings with Katadata to discuss further collaboration

Provide insights and share experiences in knowledge sharing and coordination meetings with relevant institutions and programs on ASF

Action Points Human Resources Management

Coordinate with CB Manager on developing on-line on-boarding training for new recruits

Review of the Omnibus law regulations and determine implications for contracting and guidelines

WHF follow-up staff survey

Senior Management Transition Plan

Action Points Operations

Update Office COVID-safe plan based on most current health information from GOA and GOI

Staff survey on effectiveness of messaging health protocols

Follow-up on self-assessment audit findings for travel (need to complete files)

Continue to work with MIS on SHIELD to finalize travel tracker module and asset bar code module

Complete contract novation for collaboration agreements

Initiate a waste management policy for the office

Annex 2

Progress of last semester action point

Action Points Challenges Y20S1	Progress Action Points Challenges in Y20S2
Monitoring and assessment framework: Conduct an impact assessment for online marketing activities; validate assumptions and propose a robust assessment and monitoring framework	Completed A phone survey to assess the impact of FMC's online marketing strategy has been conducted. Based on the assessment, a framework for measuring the impact from online marketing was developed. No further assessment was carried out due to COVID-19 protocols
Data collection on women: Identify and train local enumerators and consultants to collect data on women	Completed Monitoring and supervision ongoing
Containment of ASF: PRISMA will continue ASF containment efforts in NTT in partnership with both public and private sector players	Ongoing
Supervision of field level activities: Expand the enumerator led data collection and validation approach to intervention areas	Ongoing through ITF
Mapan model: revisit the Mapan strategy to enter the rural agriculture market	Completed With a (potentially temporary) halt to the partnership at the end of the initial contract. We will revisit this again in the coming 1-2 years
Finance: develop strategy to support our partners (Fis) continue lending during recovery stage; focus on state owned banks in the short term	Completed
New recruits: Increased supervision of newly recruited cohort by the managers; continue online refresher trainings	Ongoing Online refresher training covered 10 different topics and multiple session in S2 2020
Action Points Portfolio Analysis Y20S1	Progress Action Points Portfolio Analysis in Y20S2
Continue portfolio management approach for risk diversification	Completed MTSR in January confirmed the current portfolio; Poultry to be reviewed
Assess and quantify the systemic change potential of Seaweed	Ongoing The intervention team continuously monitors progress of impacts from the intervention and potential systemic change in several directorates within MMAF, and subsequent research centres across the country
Subsector review Y20S2 followed by bi-annual MTSR workshop in Jan 2020	Completed

Action Points Challenges Y20S1	Progress Action Points Challenges in Y20S2
Continue exploring opportunities in other sectors to address off-taking constraints	Completed At least 3 interventions established this period in ICT to address off-taker constraints
Allocate more resources for the “Push” sectors in terms of staff, management time and budget if needed. For example, we will allocate additional staff for the Policy and Maize teams.	Ongoing Two members of PF5 are allocating around 30 per cent of time to support Maize tea
Continue collaboration as needed to maximise value for money from our resources.	Ongoing This is an important agenda for MTSR
Make finance one of the cross-cutting themes for all sectors to economic recovery and growth.	Finance has developed an overview of all interventions with finance components across portfolios, allocating a PIC for support to each

Action Points Policy Engagements Y20S1	Progress Action Points Policy Engagements in Y20S2
Continue close collaboration with Bappenas	Ongoing Bi-weekly meetings are getting more further apart due to tighter schedule from Bappenas
Step up the monitoring and learning of the policy engagements	Ongoing Policy Measurement Framework is in place and the team is regularly monitoring progress
Build up internal political economy analysis	Postponed to Y21S1 The process took longer than expected and we had to adjust the timing with the speaker’s schedule

Action Points GESI Y20S1	Progress Action Points GESI in Y20S2
Update our WEE Impact Methodology and embed into all internal impact assessments	Completed WEE Impact Methodology updated and socialised with the team
Pilot a qualitative study to strengthen our understanding of broader impact, benefits and risks to women in Pigs interventions in NTT (contingent on travel and identification of local enumerators)	Ongoing Research plan, questionnaire, report outline developed. Risk assessment has been approved and research firm is being contracted

Continue mainstreaming GESI across the portfolio through deeper engagement with sector teams and development of sector level inclusivity briefs	Ongoing GESI focal for each sector conduct regular discussions. Sector goals identified and will be converted to plans following the MTSR
Capacity-building support to the sector and results measurement (RM) teams	Ongoing Updated WEE Impact Methodology training completed for all implementation team
Share PRISMA's learnings on women sales agent models with our partners, agriculture businesses, other development programs, DFAT and GOI	Completed PRISMA women sales agent models' findings have been shared with relevant sector teams, business partners, several development programs and platforms (Marketlinks, BEAM Exchange) and DFAT
Provide guidance to sector teams on improving the inclusion of women and other groups in digital marketing strategies with partners	Ongoing PRISMA has disaggregated data on gender from the ITF surveys to understand internet and phone usage
Improve PRISMA's understanding of indigenous farmers in Papua and West Papua to design more inclusive interventions	Ongoing PRISMA has developed a gender strategy for EWINDO in Papua and West Papua
Improve PRISMA's understanding of the role of youth in agriculture to support market actors to identify feasible commercial cases to involve them	Ongoing PRISMA has completed a rapid remote assessment of youth in Agriculture and COVID-19
Provide guidance on Universal Design principles to ensure product design and services can reach all market segments	Postponed
Action Points Nutrition Y20S1	Progress Action Points Nutrition in Y20S2
Explore and test on how to integrate nutritional components into existing interventions	Re-strategised Implementation of initial ideas have been hindered due to COVID-19
Share our nutrition study learnings to NTT government and discuss potential collaboration areas	Postponed Further discussion with NTT government was postponed, as PRISMA still needs to find private sector partner in NTT willing to include nutrition component in their product messaging
Finalise and test a measurement strategy to assess progress towards food security	Ongoing A set of nutrition-related questions have been completed and ready to be integrated into standardised questionnaire for impact assessments
Action Points Environment Y20S1	Progress Action Points Environment in Y20S2
Work with the environment experts to conduct environmental desk assessment on 20 interventions	Completed for 26 interventions
Initial step to screen environmental impact assessment could be explored based on expert's recommendation	Findings will be discussed with sector team and a synthesis report was prepared to get the cross-sector impact

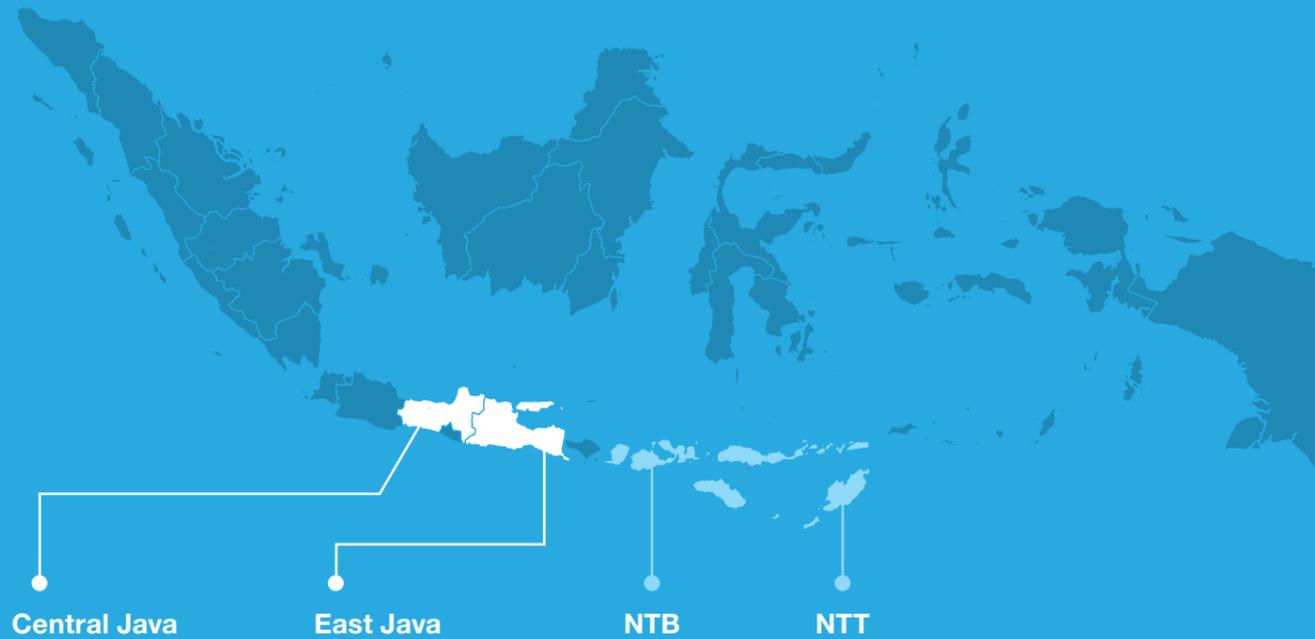
Action Points Results Measurement Y20S1	Progress Action Points Results Measurement in Y20S2
Develop sound survey methodology for remote quality assurance and conduct impact assessments from September 2020	Completed
Update the SCP tool to reflect the baseline systemic change stages of the sub-sectors by December 2020	Completed PRISMA has trialled the tool to 32 sub-sector and will continue to use the SCP
Add a set of nutrition-related questions to the standardised questionnaire for impact assessments	Completed
Finalise the consent form after consultation with Palladium's legal team by September 2020	Completed
Action Points MIS Y20S1	Progress Action Points MIS in Y20S2
Integrate the SCP tool into the PMT and PowerBI dashboard	Completed
Action Points Communications Y20S1	Progress Action Points Communications in Y20S2
Strengthen the implementation of the communication strategy	Ongoing PRISMA continues to analyse the communication strategy and strengthen the implementation
Upgrade knowledge-sharing amongst agricultural stakeholders	Ongoing
Improve design and branding of PRISMA materials	Ongoing PRISMA will continue to work with the Communications Consultant, to improve the program's branding, key messages, products and channels
Conduct the Stakeholder Engagement Perception Survey (SEPS)	Postponed
Action Points Risk Management Y20S1	Progress Action Points Risk Management in Y20S2
Monthly updates of portfolio risks will be discussed in the Management Team (MT) meetings on first Monday of the month	Completed and ongoing
Quarterly risk workshops with the MT will continue	Completed and ongoing
Internal capacity building with implementation staff on configuring risk statements	Completed
Monthly budget reviews with the finance and portfolio teams	Ongoing
Regular updating of the Return to Office Health Protocols to manage potential for infection	Completed

Action Points Government of Indonesia's Subnational Agencies Y20S1	Progress Action Points Government of Indonesia's Subnational Agencies in Y20S2
Develop an Annual Working Plan for six provinces and revisit the plan annually	Completed
Provide support for sectors in achieving optimum implementation in the respective provinces	Ongoing
Supply information to support the Government of Indonesia both at the national and subnational level	Ongoing PRISMA continued to provide information to GOI by participating in the sub-national governments meeting for activity plans 2021
Action Points Development Partners and Civil Society Organisations Y20S1	Progress Action Points Development Partners and Civil Society Organisations in Y20S2
Continue to follow up leads and explore further collaboration with PisAgro and its network	Ongoing While leading the PisAgro's Corn Working Group, PRISMA is now also in discussion with Katadata for potential collaboration in publication materials and event related to agriculture topics
Continue to collaborate with IDH and CBI	Postponed due to COVID-19
Action Points Human Resources Y20S1	Progress Action Points Human Resources in Y20S2
Workload analysis for operational and finance staff	Completed
WFH survey for cohort 7 staff	Completed
Finalise revised Performance Management Guidelines	Completed, but some changes expected
Work with DFAT and other DFAT funded programs in Indonesia to determine possible visa actions for three expatriates unable to obtain appropriate visas to re-deploy	Completed

Action Points Operations Y20S1	Progress Action Points Operations in Y20S2
Update Office Re-opening Protocols based on most current health information from GOA and GOI	Completed
Refresher training for staff on health protocols	Completed
Follow-up on audit findings and consequent improvements in processes	Completed
Asset audit	Completed
Continue to work with MIS on SHIELD stock take and finalise operational and procurement modules	Completed
Gradual change of existing contract templates to Palladium standard templates	Completed with some Partnership Agreements to be novated this semester

Beef Sector Summary

PRISMA Performance up to December 2020



LEGEND	
	Active working province
	Past working province

QUICK FACTS



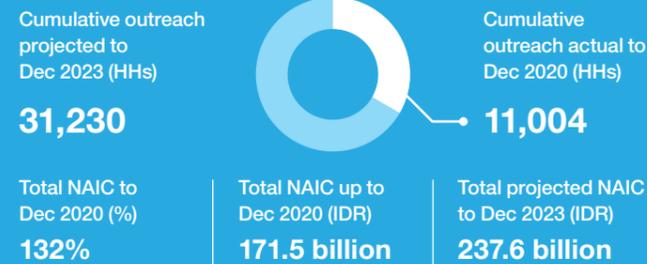
Facts Source: Peternakan Dalam Angka 2020, Statistik Peternakan dan Kesehatan Hewan 2020

East Java

Quick Facts



PRISMA Performance

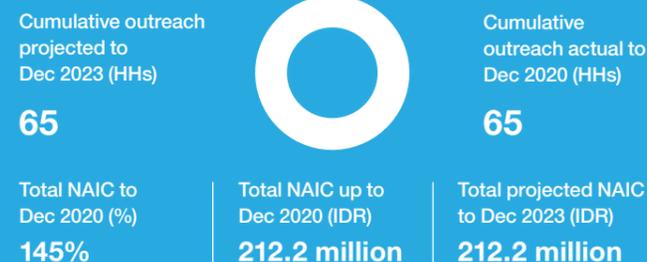


NTT (Phase 1)

Quick Facts



PRISMA Performance

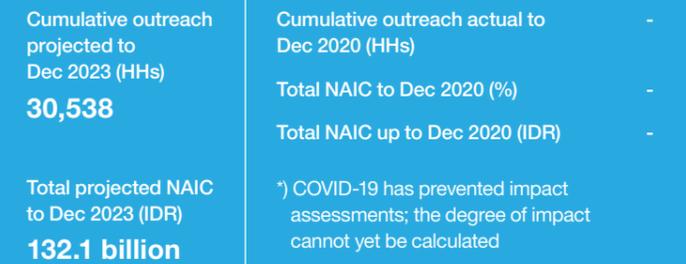


Central Java

Quick Facts



PRISMA Performance*

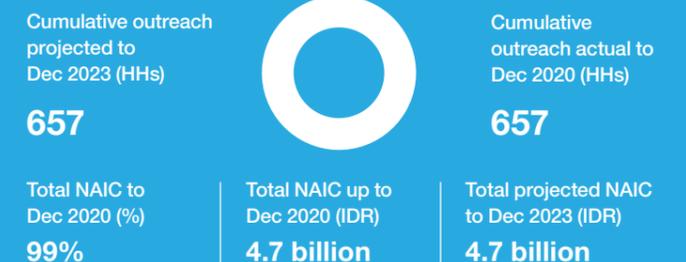


NTB (Phase 1)

Quick Facts



PRISMA Performance



Beef East Java and Central Java

East Java and Central Java's beef sectors are characterised by a similar context and outlook, and they face common challenges (see Challenges and constraints, below). PRISMA's interventions in both provinces are intentionally similar and are designed to address them. East Java (EJ) is Indonesia's largest cattle-producing province. In 2019, it accounted for 27.8 per cent of the total national cattle population and 20.2 per cent of beef production. The sector's growth in EJ is driven by local consumption of beef and inter-regional live cattle and beef exports.

Central Java (CJ) is home to the nation's second largest cattle population (10.3 per cent of Indonesia's total) and is its third largest beef producer, contributing to over 13 per cent of total national beef production in 2019. Rising nationwide demand for beef combined with the government's target of national self-sufficiency by 2026 drive the growth of the sector in this province.

However, beef production and productivity are suboptimal in both provinces. Most farmers raise cattle mainly as a means of saving money and they are usually reluctant to make the investment necessary to improve the quality of their beef.

Importantly, COVID-19 has caused demand for beef to drop significantly, in turn forcing prices down by five per cent. In this context, farmers are therefore even more reluctant to invest in quality inputs such as concentrated feed.



Challenges and constraints

The key constraints farmers in EJ and CJ face include:

Cows owned by breeding farmers currently experience long intervals between calving (on average 12-18 months) due to the low conception rate of artificial insemination (AI). The underlying causes are poor female breeder cattle nutrition, low availability of nutritious feed information and problems detecting oestrous periods, which hinders AI success rates.

Smallholder farmers' capacity to invest in improving cattle rearing performance is limited. On average, farmers own one to four cows per household. Cattle are sold at irregular intervals, resulting in a low selling price. The underlying cause is the perception among many farmers of cattle as savings vehicles instead of income generators.

Farmers who focus on fattening cattle face the problem of low weight gain. The average daily gain is <0.4 kg, while the average fattening period lasts 12 months. This is due to lack of access to good quality feed, limited knowledge about good rearing practice and the sub-optimal nutritional condition of the cows and calves for efficient fattening business.

Poor animal health management practices by the farmers; only 15.2 per cent of cattle farmers in CJ give their cattle medicine regularly. The situation is similar in EJ. Most of the pharmaceutical companies are yet to prioritise large livestock business due to their limited knowledge of the market potential.

A decrease in beef demand due to the COVID-19 economic disruption has led to a two per cent drop in the live cattle price, from an average of AUD4.79 per kg between July and December 2019, to AUD4.68 per kg in the same period in 2020. In turn, this has resulted in a decrease in cattle feed sales of 5 per cent during the semester. However, feed sales were trending slightly higher towards the end of the year as live cattle prices began to recover.



Intervention areas

To address these challenges and constraints, PRISMA works with partners to:

Promote cattle-specific concentrate feed and better feeding practices to cattle breeding and fattening farmers in EJ and CJ.

Promote cattle-specific pharmaceutical products and better cattle health management practices to cattle farmers in EJ and CJ.

Subsector vision for systemic change⁹

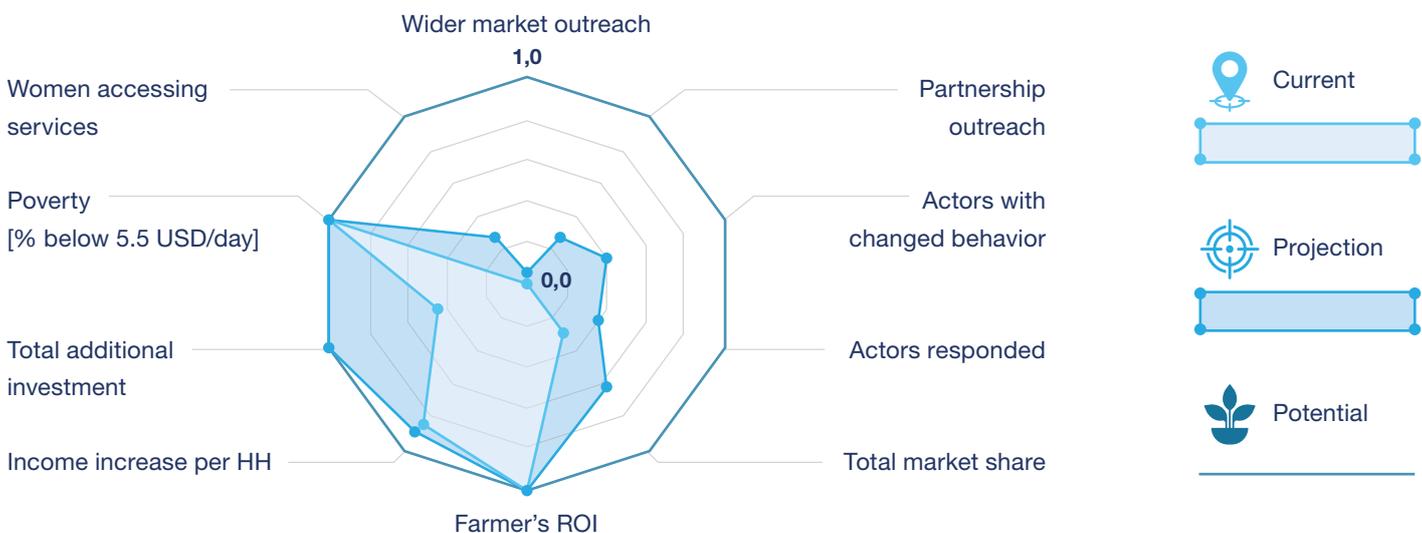
By 2023, the beef sector in EJ is expected to benefit 31,590 and in CJ 38,217 smallholder farming households by producing more and better-quality cattle and beef due to the adoption of good cattle management practices.

Feed companies will provide more concentrate feed options together with up-to-date knowledge of good feeding practices to farmers in CJ and EJ.

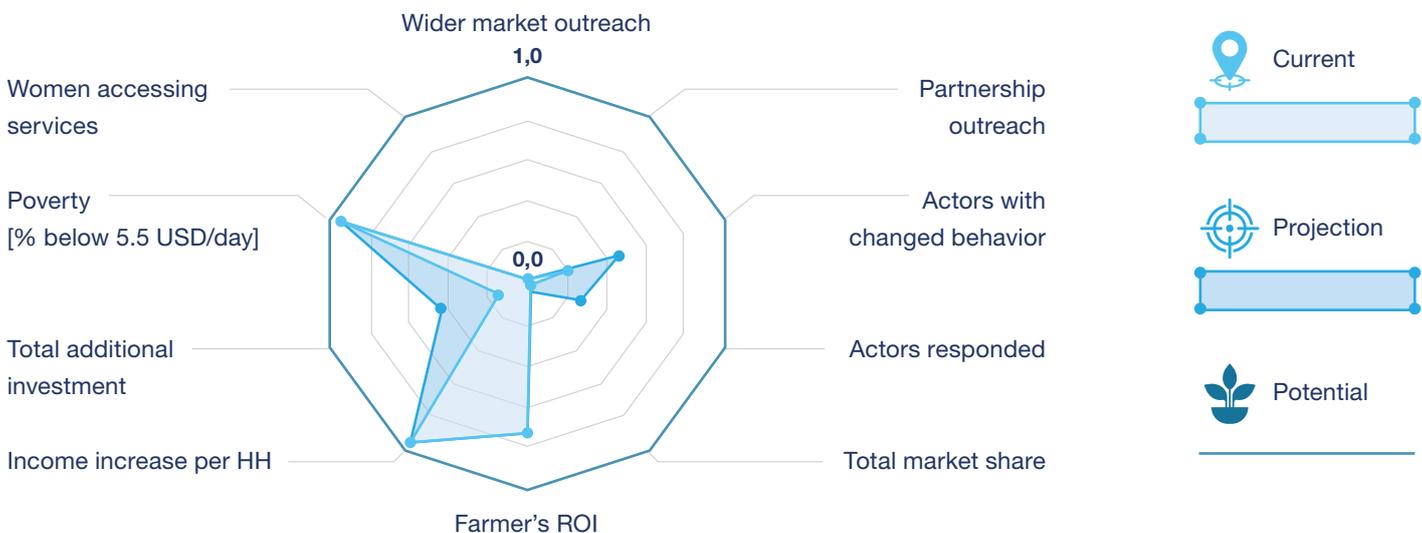
Animal pharmaceutical companies will begin to regard the beef livestock market as an attractive source of business, stimulating more investment in promoting their products and equipping farmers with better animal health management knowledge.

At the off-farm level, meat distributors will adopt grading practices for local beef to cater to a higher value market.

Beef Central Java system boundary and vision



Beef East Java system boundary and vision



⁹ The diagram demonstrates 10 quantitative indicators essential for achieving PRISMA's vision in a specific subsector. The full market potential in orange shows what is achievable if there are no resource constraints and time limitations. The target in blue demonstrates what PRISMA aims to achieve with the given resources and within the program's lifetime. The current situation in green depicts PRISMA's progress towards the target. Refer to this footnote to read the diagram in all subsector profiles.



Progress toward subsector vision for systemic change in East Java and Central Java

Adopt

- KJUB Puspetasari expanded further, investing IDR525 billion in procuring new machines for its Klaten factory, expanding its warehouse at the Magetan factory and providing discount vouchers for farmers.
 - Continuing from the previous feed trial study with UGM, KJUB Puspetasari sent four samples of concentrate feed (bulls, calves 1, calves 2 and heifers) to the Center of Quality Testing and Certification of Animal Feed for laboratory testing. This certification is required to obtain a Feed Registration Number (Nomor Pendaftaran Pakan or NPP) from Gol, necessary for commercialisation. The concentrate feed for bulls has passed the assessment and has been certified with NPP by Gol, while the other three samples failed. KJUB Puspetasari has resubmitted the three samples for further lab testing.
 - KJUB Puspetasari started to promote new concentrate feeds to cattle farmers and cattle farmer groups in six districts (two in CJ and four in EJ) in July 2020. Some of these promotion activities were made in response to requests from district governments.
 - KJUB Puspetasari has continued to implement both offline and online marketing strategies as recommended by PRISMA. This included visits to agents and cattle farmers (applying COVID-19 protocols), online cattle contests, company profile development, website development, search engine optimisation (SEO), official Facebook page development, Facebook ads, Google ads, and one-day promotion activities. This resulted in an annual sales improvement of 10 per cent, higher than the seven per cent target.
 - CV Fermen Hipro Feed invested in new machines to increase its production capacity valued at IDR175 million and plans to expand its warehouse to accommodate increasing production volume.
 - CV Fermen Hipro Feed completed an agent assessment with research firms to find potential new agents and as part of a COVID-19 response supported by PRISMA.
 - CV Fermen Hipro Feed conducted a national virtual webinar as part of its COVID-19 response strategy in digital marketing. They invited a professor and expert in
 - nutrition and feed technology from the Faculty of Animal Science of UGM as the main speaker.
 - UD Munir Jaya invested in warehouse expansion to increase its raw material stock, while also focusing on operational management and organisational structure as part of good business practice advised by PRISMA. As a result, December sales increased by 19 per cent to 823 tonnes - the highest sales point in the company's history.
 - UD Munir Jaya invested in capacity strengthening for its operational and marketing staff, distributors and agents in business operations, marketing and distribution in Tuban. It was also part of the COVID-19 response supported by PRISMA. As the price of live cattle remained unstable, UD Munir Jaya supported its marketing staff, distributors and agents to conduct online promotions and maintain good relationships with farmers via social media. Sales increased, allowing the company to recover from initial COVID-19 impact.
 - UD Munir Jaya distributed discount vouchers during farmer gatherings to promote concentrate feed and educate farmers on good rearing practices. This helped to drive business opportunities in the cattle market, especially during COVID-19.
-
- ### Adapt
- KJUB Puspetasari expanded its distribution network by adding 69 new agents (42 in EJ and 27 in CJ) including seven female agents.
 - As a COVID-19 response and with PRISMA support, KJUB Puspetasari promoted its products using new promotional tools including jingles, local radio advertisements and promotional videos to widen the reach of its product information. It has also recruited one new IT employee to manage its digital marketing activities.
 - As a COVID-19 response, KJUB Puspetasari has also distributed 41,000 discount vouchers to farmers to attract repeat purchases.
 - As part of its COVID-19 response strategy, CV Fermen

Hipro launched a new and more affordable product in August 2020. This was in line with the findings from a market study conducted by PRISMA in 2019 which showed farmer preference for high quality and affordable feed. PRISMA supported by developing marketing strategies for the new product, which quickly delivered impressive results, comprising 440 percent of Y20S2 sales.

- To expand its distribution network, CV Fermen Hipro hired two new marketing employees in CJ and another two in DI Yogyakarta. As a result, their distribution network expanded by 21 new agents in CJ where six agents are female, and 33 new agents in DI Yogyakarta, also including six female agents. The company also hired a dedicated female employee for digital marketing as part of COVID-19 response.
- UD Munir Jaya expanded its distribution network with 18 new agents in EJ, six new agents in CJ, one new agent in East Kalimantan, and one new agent in West Java.

Expand

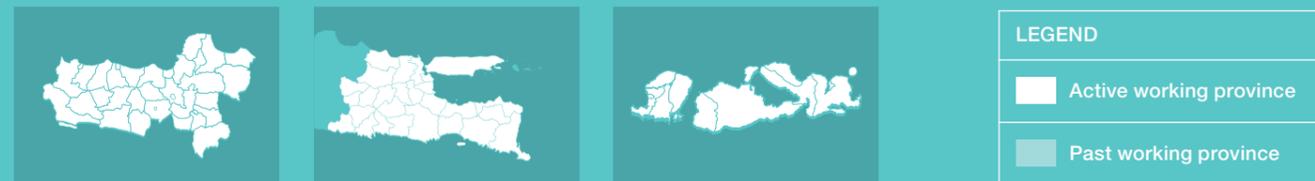
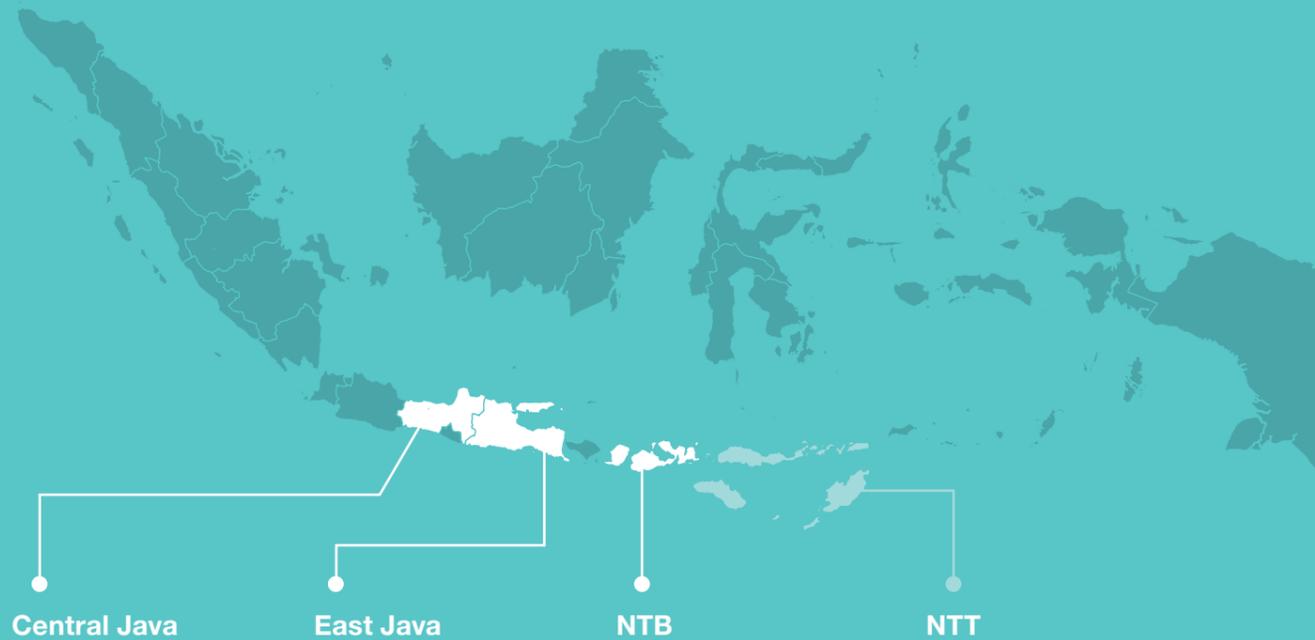
- Two big feed mills - PT Sreeya Sewu Indonesia and PT Sinta Prima - have started investing in developing cattle feed as a new business portfolio. Both have finished action research and trials to finalise their beef feed products with a consultancy support from PRISMA. PT Sreeya Sewu Indonesia has now obtained the feed registration number and start selling the new product in parallel with training its marketing and sales staffs. PRISMA is currently in contracting process for partnership agreement with the company. Discussion on IP development with Sinta Prima will be made in the first semester of 2021.
- UD Munir Jaya developed a promotional strategy, product and network expansion based on Nutrifeed cattle feed business model.
- UD Munir Jaya signed a partnership agreement with PRISMA partner in September 2020. The partnership will focus on the development of marketing strategy, organisational development, and business operation management improvement.

Respond

- The Aceh Provincial Livestock Department was able to improve the quality of Technical Guidelines to verify farmers who become recipients of 1,000 cattle from Gol after conducting a visit to PRISMA interventions with KJUB Puspetasari in Klaten, Central Java in December 2019. The Gol procured 1,365 tonnes of concentrate feed from KJUB Puspetasari to support its 1,000-cattle village program in 2020 in five pilot provinces, allocating 960 tonnes of concentrate feed to South Sulawesi and Lampung and 405 tonnes to NTB, NTT and EJ.
- Five meetings in EJ and seven meetings in CJ were conducted, organized by the livestock agency and KJUB Puspetasari, which was also involved as main speaker and facilitator in the meetings.
- CJ Provincial Livestock Agency involved KJUB Puspetasari in the socialisation meeting on SNI and NPP (Feed Registration Number) process.
- UGM ordered 4.9 tonnes of concentrate feed for its cattle program with cattle farmer groups
- DI Yogyakarta Provincial Livestock Agency showed interest in CV Fermen Hipro Feed new product development study of High-Quality Feed Supplement (HQFS) for lactating cows with UGM and supported by collaborating with inseminators to gather breeding farmers who will be observed in the study.

Crop Protection Sector Summary

PRISMA Performance up to December 2020



QUICK FACTS



Facts Sources: SOUT 2017, Grandview 2019

East Java

Quick Facts



PRISMA Performance



NTT

Quick Facts



PRISMA Performance

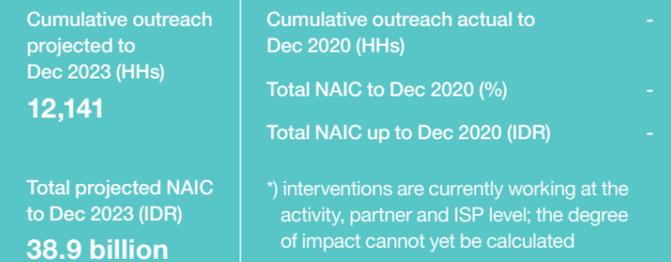


Central Java

Quick Facts



PRISMA Performance*

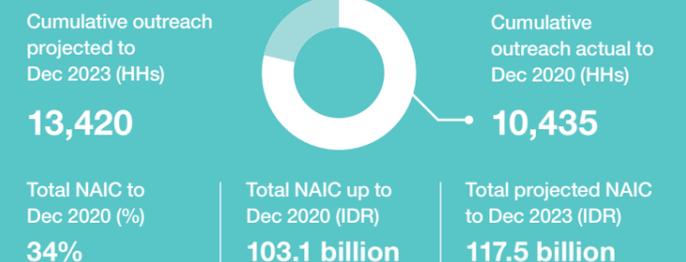


NTB

Quick Facts



PRISMA Performance



Crop Protection, Rice and Maize in East Java and Central Java

Crop protection refers to the chemical, physical, mechanical, genetic and biological methods (including natural enemies and shelter plants) designed to prevent the damage, disturbance and death of plants. At PRISMA, the crop protection sector focuses on reducing eventual losses in plant cultivation caused by pest and disease attacks, leading to better yield.

Most farmers lack knowledge of the many types of crop protection methods. As a result, they naturally gravitate towards chemical pesticides because they are widely available, more efficient than some other methods and the results are visible.

In Indonesia, six multinational pesticide companies dominate more than 60 per cent of the market, while 300 smaller companies share the remaining portion. The major players are Syngenta, Bayer, BASF, Nufarm, Corteva, and FMC. Market saturation in East Java (EJ) and Central Java (CJ) has led to intense competition, with many companies implementing massive promotional campaigns focused only on purchase bonuses. Not many companies provide consultation and extension services to farmers, leaving them with inadequate access to knowledge and information, which has been even harder during the COVID-19 pandemic.

The impact of COVID-19 on the crop protection sector has been limited so far. This is because PRISMA's crop protection strategy focuses on the rice and maize markets. Only a few pesticide companies focusing on vegetables have experienced the industry slowdown. Due to the contraction in the feed industry, which absorbs more than 90 per cent of maize production, PRISMA also expected demand for maize herbicides to decline. However, rice farmers have neither changed their semi-subsistence farming habits nor reduced their consumption of crop protection products. Discussion with industry players revealed that the crop protection market contract by three to four per cent overall, with generic-local companies facing the bulk of the impact and multinational companies being largely unaffected.

Smallholder farmers across EJ and CJ have practiced crop protection widely; even so, 30 per cent continue to experience significant harvest losses of more than 25 per cent. The challenges they face include inadequate knowledge of pests and disease management, inability to identify pests' accurately and inappropriate dosing of chemicals. Farmers also suffer from a lack of timely and reliable information, exacerbating the threat of migratory pests and diseases.

An ideal control method is to apply the Integrated Pests and Diseases Management (IPDM) approach, which balances the use of all methods and suggests chemical control only as a last resort. However, farmers across Indonesia have been relying heavily on chemical control: they tend to be sceptical of the efficacy of alternative methods, which are undermined by limited access to tangible experience within their vicinity. Therefore, despite the GOI preference for IPDM, it is difficult to persuade farmers of the benefits of this ideal practice.



Challenges and constraints

The main constraints of farmers in the crop protection sector include:

Lack of availability of natural solutions, mainly due to the widespread use of harmful broad-spectrum chemical pesticides. Because farmers struggle to accurately identify pests and diseases, they prefer to use broad-spectrum pesticides which kill lots of different pests at once. Only a few market actors educate farmers about the negative implications of misusing these pesticides as these actors stand to gain even from this behaviour. Moreover, the commercial availability of natural pest' enemies (e.g., *telenomus remus* for FAW, tomlcats for leafhoppers, civets for rats) is scarce.

Inappropriate use of chemical pesticides due to the lack of timely and reliable crop protection knowledge. In addition to the above, farmers remain unaware of the right dosage, application techniques and good crop protection practices (GCP). The GCP education from public extension services tends to be insufficient due to limited internal capacity over large areas. At the same time, very few companies promote GCP and safer pesticides.

Limited access to alternative crop protection methods (e.g. biopesticide, water treatment, soil treatment). Farmers perceive them to be less cost-effective, slower acting, and less visible than chemicals in combating pests and disease, regardless of the potentially harmful long-term implications. This perception is further hampering the commercialisation of alternative methods. In addition, the incentive for public extension services to educated farmers on these methods is limited, and only a small number of private companies produce and promote them. Complicated administrative procedures for product registration and license renewal further hamper the commercial viability.

Limited access to GCP knowledge due to the COVID-19 outbreak. Due to domestic quarantine measures, private companies have cancelled or delayed large-scale field activities. Similarly, restrictions have also prevented government extension staff from conducting farmer meetings. Farmers' own close networks, such as peer farmers and kiosks, are becoming the preferred channel for finding GCP knowledge during the pandemic. Finally, farmers with limited access to smartphones and the internet cannot participate in online programs organised by the private sector.



Intervention areas

To address these challenges and constraints, PRISMA works with partners to:

Improve the marketing strategy of crop protection producers and embed alternative methods in education and training activities.

Increase safer and appropriate use of pesticides, including the promotion of (1) safer pesticides, and (2) GCP knowledge.

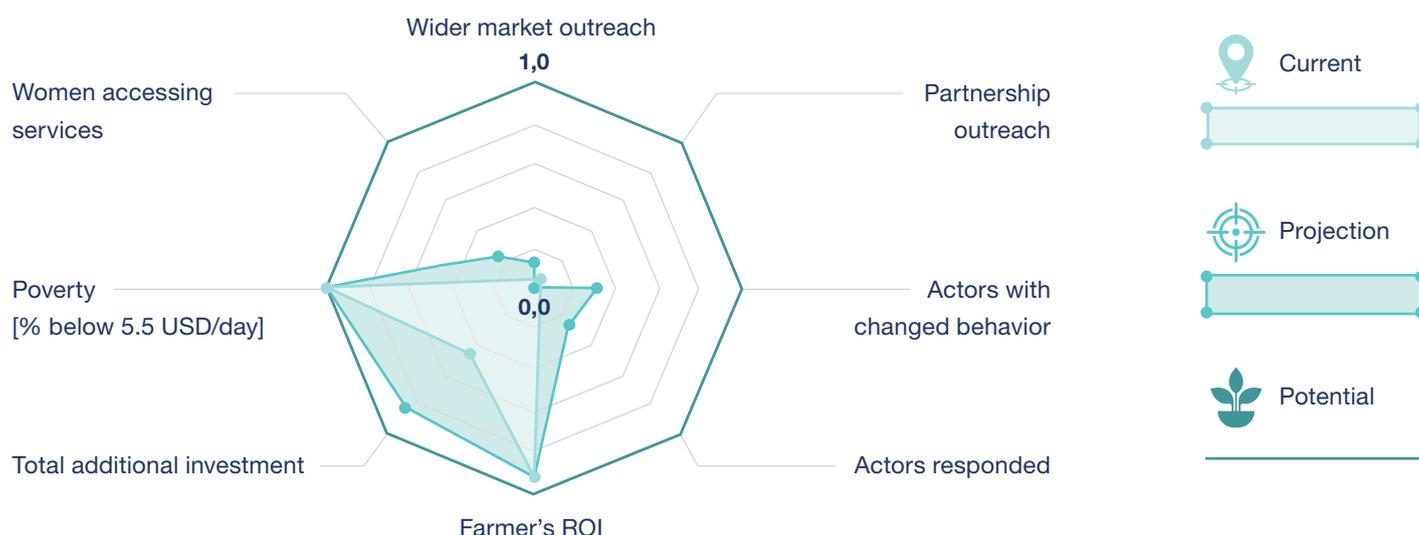
Increase the use of alternative crop protection methods such as biopesticides, water, and soil treatment, biological control, physical control, and refugia plants.



Subsector vision for systemic change

PRISMA aims to increase the production and productivity of maize and rice farmers in EJ and CJ by adopting safer, high efficacy and cost-effective crop protection methods and practices promoted by private market actors. By 2023, at least 200,225 rice and maize farmers in EJ and CJ will have increased their incomes by at least 30 per cent.

Crop protection rice - maize Central Java - East Java system boundary and vision





Progress towards subsector vision

Adopt

- In response to government-imposed social restrictions, FMC and Agricon have both invested in adopting an online marketing strategy and a capacity building strategy advised by PRISMA. FMC, for instance, has assigned more human resources towards improving its marketing strategies and executing a new promotional campaign. To date, they have reached more than 400,000 views of Facebook videos.
- Agricon has conducted capacity development and adjusted field staff KPIs to enhance its marketing strategy.
- FMC and Agricon have expressed satisfaction and interest over the learning and evaluation of intervention activities. FMC acknowledged the benefit of collaborating with PRISMA by publishing a story in its worldwide FMC internal newsletter. The company then conducted a new online marketing campaign based on the evaluation of pilot activities. Meanwhile, Agricon and PRISMA conducted customer satisfaction surveys to evaluate online marketing and capacity building activities.
- FMC and Agricon have both experienced short-term benefits and endorse the long-term viability of the shift towards online marketing. Agricon received IDR5.8 billion in sales from 14 Zoominars and experienced positive feedback from stakeholders regarding how to build their brand. Meanwhile, FMC acknowledges the long-term benefit of improved online marketing strategies and has committed to continue developing the pilot. The achievement of online marketing in 2020 has helped both FMC and Agricon to navigate challenges during COVID-19 and to strengthen relationships with PRISMA.
- UPL started a Facebook page in April 2020 and has made visible improvements after a consultancy session conducted by the PRISMA. Immediately after the improved content strategy and Facebook ads were implemented, engagement increased by 1100 per cent.
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Adapt

- FMC and Agricon have both invested independently in continuing with the strategy advised by PRISMA. To reach more farmers, FMC is improving its existing localised online campaign and rolling-out the new one at the national level and has allocated an additional budget for the new campaign.
- Agricon is improving the piloted online marketing campaign to better fit its capabilities. The planned refresher training is being adapted to a series of online training sessions to cope with social restrictions. Agricon has also sent some of its staff to data science training by MarkPlus, a renowned national training provider. In addition, Agricon is also requesting PRISMA to deliver a training on research in agriculture.
- FMC recognises the value of continuing the online marketing events and plans to roll out a new webinar series in 2021.
- Due to high sales conversion in the last semester, Agricon has internalised the Zoominar initiative with a standard operating procedure as a regular activity alongside other offline activities.
- As a result of the success in capacity development/ staffs training activity over 2020, Agricon has created a talent pool program to further develop their promising staffs. This program will also serve as Agricon's succession strategy.
- To further improve the engagement, UPL has now fully allocated one person to manage the page and has equipped her with a dedicated smartphone.

Expand

- The online marketing model proposed by PRISMA to its partners has inspired other partners to adopt a similar approach. Agricon followed FMC's initiative in shifting to the online marketing strategy, while FMC and Syngenta followed Agricon's online seminar model and plan to conduct similar events in the future.
- The international webinar successfully disseminated online marketing initiatives to inspire crowding in and copying from other companies. MDF Sri Lanka has also taken an interest in the initiative, with separate communication sessions done over a conference call and emails. Furthermore, Corteva has also taken an interest to improve their internal means by saying that the number PRISMA presented during the webinar is better than what Corteva has tried internally.

Respond

- EJ and CJ local government and other stakeholders have responded well to these initiatives and are actively engaged in the intervention activities. EJ and CJ local government officials attended online farmers' events by FMC and Agricon.
- iGrow (a P2P lending agriculture company) and Petani Millennial (an agriculture entrepreneur and influencer) have responded to Agricon's Zoominars and have engaged in a partnership. With this partnership, both iGrow and Petani Millennial will expand their business to Agricon's customers, while Agricon will also benefit from supplying inputs to the farmers.

Dairy Sector Summary

PRISMA Performance up to December 2020

Indicator		Cumulative outreach actual to Dec 2020 (HHs)*	Total NAIC to Dec 2020 (%)*		Value for Money (VFM)*		Investment leverage		Investment per HH		Social return
		Cumulative outreach projected to Dec 2023 (HHs)	Total NAIC up to Dec 2020 (IDR)*	Total projected NAIC to Dec 2023 (IDR)							
		-	-	-	-	-	-	-	-	-	-
		8,368	-	102.6 billion							



East Java

Quick Facts		
Total provincial population 287,482	Milk production (tonnes) 523,104	Total farm households in the sector 64,504

PRISMA Performance*		
Cumulative outreach actual to Dec 2020 (HHs)	Cumulative outreach projected to Dec 2023 (HHs)	
-	-	
Total NAIC up to Dec 2020 (IDR)	Total NAIC to Dec 2020 (%)	Total projected NAIC to Dec 2023 (IDR)
-	-	-

Central Java

Quick Facts		
Total provincial population 139,111	Milk production (tonnes) 100,799	Total farm households in the sector 30,922

PRISMA Performance*		
Cumulative outreach actual to Dec 2020 (HHs)	Cumulative outreach projected to Dec 2023 (HHs)	
-	8,368	
Total NAIC up to Dec 2020 (IDR)	Total NAIC to Dec 2020 (%)	Total projected NAIC to Dec 2023 (IDR)
-	-	102.6 billion

QUICK FACTS

Total national population 561,061	Milk production 996,440 tonnes	Milk productivity 11 L/day	Demand 4.13 million tonnes

Facts Source: Statistik Pertanian 2019, Dairy Outlook, 2019

*) COVID-19 has delayed intervention activities; the degree of impact cannot yet be calculated

Dairy East Java and Central Java

The dairy sectors in both East Java (EJ) and Central Java (CJ) are characterised by a similar context and outlook. They face common challenges (see Challenges and constraints, below). As such, PRISMA's interventions are similar in both provinces.

EJ province is the largest milk producer in Indonesia, accounting for around 50 per cent (287,482 head) of the country's dairy cattle and in 2019 produced 498,915 MTs¹⁰ - approximately 50 per cent of national milk production. However, growth in EJ milk production is slower than the increase in its dairy cattle population: the CAGR for milk production was 4.6 per cent between 2013 and 2017, but the number of cows grew by 5.3 per cent during the same period. Dairy cattle productivity in EJ is around 11.2 litres of milk per cow per day, higher than CJ's 9.4 litres/day¹¹ but lower than West Java's 13.5 litres/day. Dairy farming is centralised in selected districts - Malang, Pasuruan, Probolinggo, Kediri and Tulungagung. These are mainly located on high land and account for 85 per cent of the total cattle population of the province.

COVID-19 has had a limited impact on the dairy sector in EJ because more than 90 per cent of fresh milk supply goes to dairy cooperatives. The cooperatives then supply the milk processing industries which, due to limited domestic supply, still rely heavily on imports (79 per cent). On the input side (feed and pharmaceutical products), the provincial government has launched regulations to support feed distribution amidst social restrictions.

CJ is home to the second largest population of dairy cattle in Indonesia with 139,111 head of dairy cattle, contributing 100,799 MTs of milk per year. This is primarily due to three factors: (1) low productivity of cows, (2) fewer lactating cows compared to other classes of cattle, and (3) low quality of milk. In CJ, the ratio between male/young cows and the lactating cow population is comparatively larger than in other areas (57 per cent male, young and unproductive cows vs 43 per cent lactating cows). Dairy cattle productivity in CJ is around 9.4 litres per day, significantly lower than that of West Java (13.5 litres/day) and EJ (11.2 litres/day). Most dairy farming households are located in Boyolali, Semarang, Salatiga, Klaten, Magelang, Banyumas and Banjarnegara.

Unlike in EJ, nearly 50 per cent of fresh milk supply in CJ goes to individual milk collectors and the other half to dairy cooperatives. Some milk collectors supply fresh milk to restaurants and other food vendors. There was a short impact of COVID-19 on off-taking fresh milk supply; demand has started to recover due to the relaxing of social restrictions.



Challenges and constraints

Both on-farm and off-farm factors contribute to the low productivity of dairy milk in EJ and CJ.

On-farm factors contributing to low productivity include:

Low milk production due to traditional feeding practices. Most dairy farmers rear their cattle following traditional methods, using makeshift feed. In EJ, concentrate feed is more widespread but is of insufficient quality and quantity, while in CJ, only 50 per cent of farmers use concentrate feed, the rest use agriculture by-products. In both provinces, forage feed is also of poor quality and in limited supply particularly in the dry season, resulting in less nutrients for the cows and lower milk production.

Long calving intervals. Low nutrient intake also affects cattle fertility, often shown as silent heat, so that dairy farmers miss the optimum mating period. In turn, this lengthens calving intervals and reduces milk production.

Genetic breeding and inbreeding of cattle over several generations result in low cow immunity and not reaching maximum milk production levels. Disease is more prevalent among these populations and also adversely affects milk production and productivity.

Inefficient economic scale. Average cow ownership is just three cattle head per household, often insufficient to act as the main source of income for dairy farmers. This deters them from investing in improved on-farm practices that will yield significant income.

Poor health and breeding management. Farmers in CJ rely heavily on government veterinarians to treat cattle health problems and to carry out artificial insemination (AI); in EJ farmers rely on veterinarian cooperatives. However, very few farmers practice preventive measures to tackle cattle health issues. There is no system to monitor the growing stages of dairy cows in order to conduct AI and other services at the appropriate time.

Off-farm factors contributing to low income (the last two points are challenges and constraints specific for farmers in Central Java):

Poor post-harvest handling of milk results in substandard quality. Milk is highly susceptible to bacteria and temperature. However, because dairy farmers, cooperatives and private milk collectors do not follow standardised post-harvest handling practices, milk often does not meet the requirements of the milk processing companies. In CJ, 42 per cent of farmers sell milk to private milk collectors, who accept milk of different quality, thus making it difficult to set a consistent and standard milk quality. This is also reflected in the milk price at the farmer level (IDR4,600 per litre), which is lower than in EJ.

Low capacity of dairy cooperatives. Many of the dairy cooperatives in CJ are not functional, and they fail to deliver good cattle rearing information, AI and veterinary services to the farmers. This is also attributed to the absence of any large milk processing factory in CJ.

Low capacity of individual milk collectors. In CJ, milk collectors play almost equal roles with dairy cooperatives in absorbing milk supply from dairy farmers. They collect milk from farmer houses, offering competitive prices, but provide very limited embedded services to build skill and knowledge capacity of farmers.

Lower demand for milk from the individual milk collectors during COVID-19. In CJ, almost 50 per cent of the farmers sell milk to the dairy cooperatives and individual milk collectors. However, during COVID-19, many of the traditional food cafes have closed, leading to lower milk sales by the individual collectors. As a result, the collectors are procuring less milk from the farmers.



Intervention areas

To address these challenges and constraints, PRISMA works with partners to:

Promote good quality feed, especially concentrate feed and feed supplement.

Promote good animal health management practices.

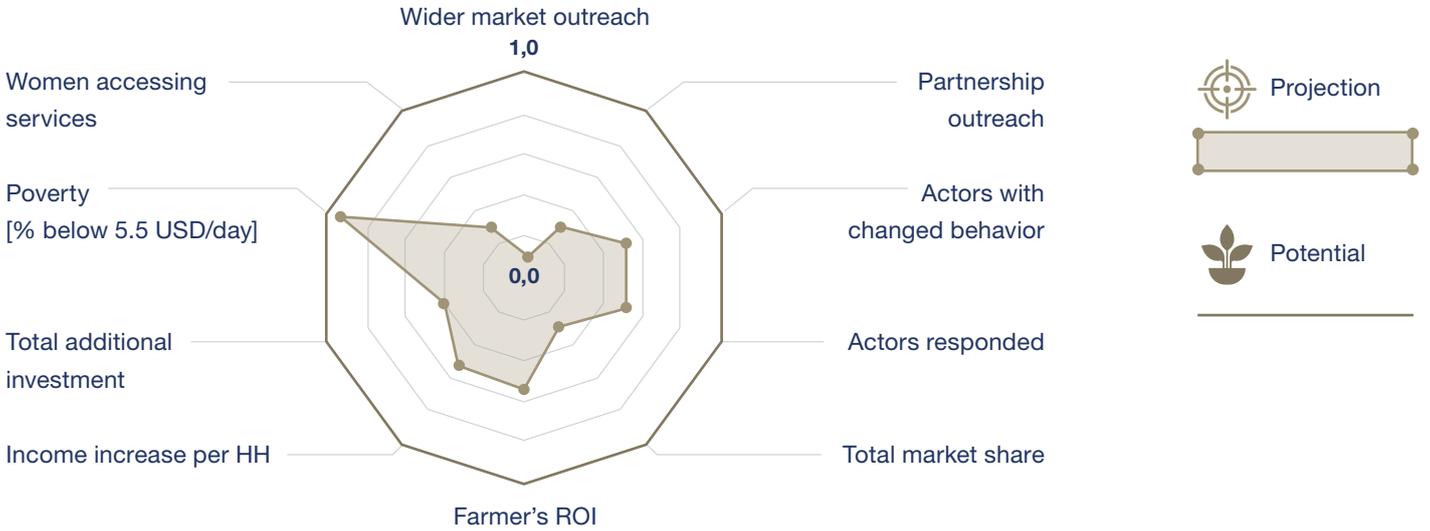


Subsector vision for systemic change

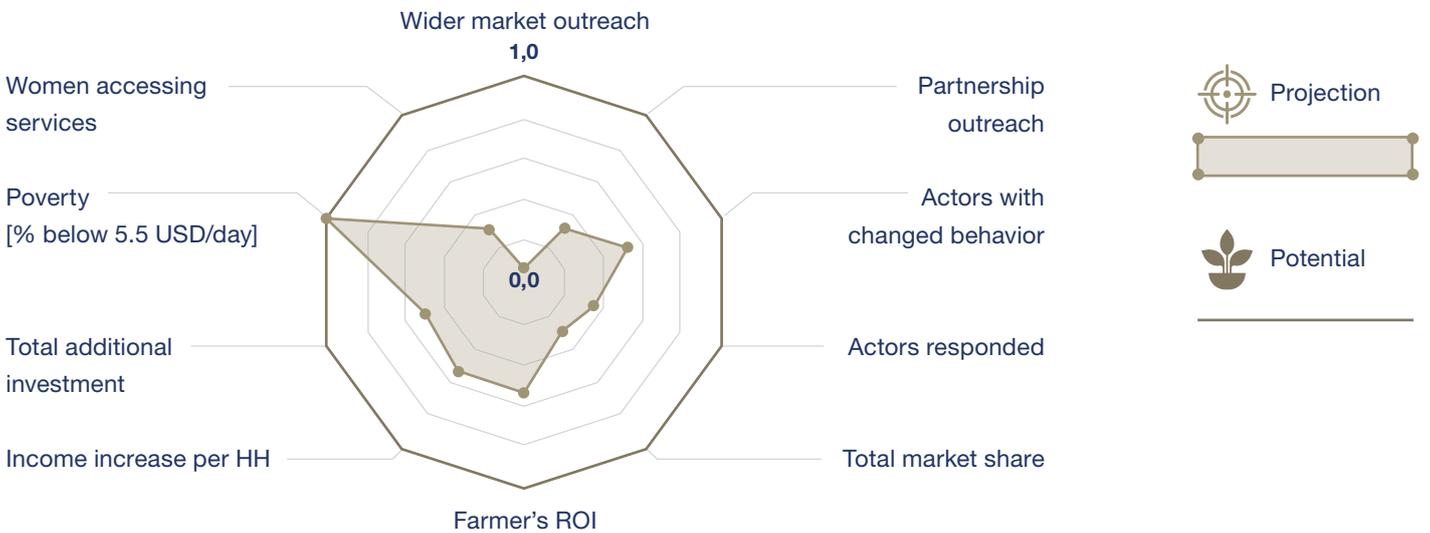
PRISMA aims to achieve systemic change in the dairy sector in EJ and CJ by strengthening relationships between market actors and other stakeholders such as the Government, research institutions, and other service providers. Initially, PRISMA plans to focus on addressing the on-farm constraints of feed quality and animal health management. Input companies, feed and animal medicine will provide increased options for good quality inputs. Off-takers (milk processing companies) will collaborate with these input companies to promote good dairy cattle management practices and leverage dairy cooperatives and individual milk collectors to disseminate information on good post-harvest practices.

By 2023, it is expected that the dairy sector will benefit 12,200 farmers in EJ and 9,170 farmers in CJ, and produce more and better quality milk due to the higher adoption of good farming practices of balanced feed management, proper health management and improved collaboration between cooperatives, input providers and milk processing companies.

Dairy East Java system boundary and vision



Dairy Central Java system boundary and vision





Progress towards subsector vision

Progress towards subsector vision East Java

This semester, the dairy sector team has focused on intervention preparation. The first involved designing an intervention plan based on activity collaboration between Nestle (off-taker) and Medion (animal pharmaceutical company). The second involves working with Trouw Nutrition to improve nutrition for cows, while the third involves working with Kalbe to improve nutrition with supplement feed.

Adopt

- Medion is interested in expanding its market into the dairy sector (previously, it was focused only on pig and beef). It followed PRISMA's suggestion to engage with Cooperative and Nestle to raise awareness of animal health, especially Mastitis disease. A trial showed that mastitis affects 60 per cent of dairy cows and can decrease milk production by up to 40 per cent. Treatment with Mastigrin (a Medion product) may reduce SCC (Somatic Cell Count), bacterial content (TPC) and leaves no antibiotic residue. SCC and antibiotic residue are two milk quality indicators: the maximum allowance for SCC is 400,000 ml, while no antibiotic residue is allowed because it can lead to antibiotic resistance.
- Trouw Nutrition and Kalbe are interested in expanding their dairy business portfolio with a focus on supplement feed, as many cooperatives have their own feed, but it is not standardised.
- Women play a critical role in cow feeding (1.6 women vs 2.2 men¹²), so acknowledging women's roles and contexts is critical to consider women when promoting good rearing practice.

Adapt, Respond and Expand

- Progress will be observed throughout the next semester and on an ongoing basis.

Progress towards subsector vision Central Java

Adopt

- To respond to COVID-19, PRISMA and PT Nufeed International Indonesia have codesigned and developed

awareness posters explaining how to maintain appropriate COVID-19 protocols for dairy farmers. The posters provide information on good milking practice while maintaining social distancing and bio security, as well as protocols for milk collection centres.

- To cover limitations on direct meetings, PT Nufeed International Indonesia is producing an educational video for dairy farmers about good feeding practice, good milking practice, good pen management, good animal health management and good reproductive breeding management. Vendor selection and shooting have been completed. Once finalized, the video will be shared with dairy cooperatives, individual milk collectors, gov extension officers, kiosk and other stakeholders.

Respond

- After Nufeed developed feed for calves, the company also produced a product in smaller packages. The objective of this initiative is to adjust for the needs and convenience of women farmers.
- Through collaboration with PRISMA, Nufeed developed dairy feed based on market segmentation and cow needs, an approach also used in the beef sector. Currently, Nufeed is collaborating with several cattle collectors as Nufeed distributors and is adjust the formulation (including the price) to make it affordable for beef farmers.

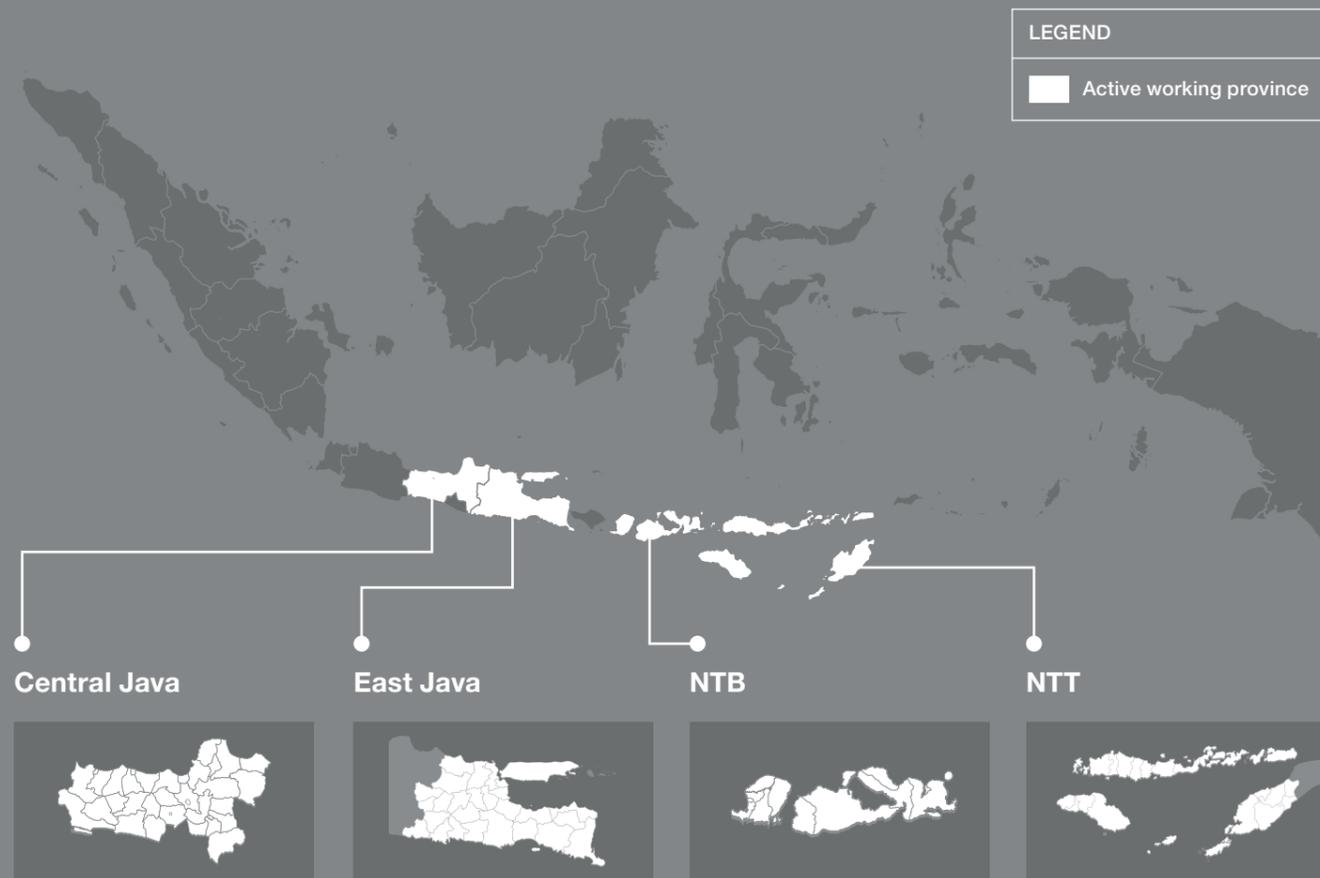
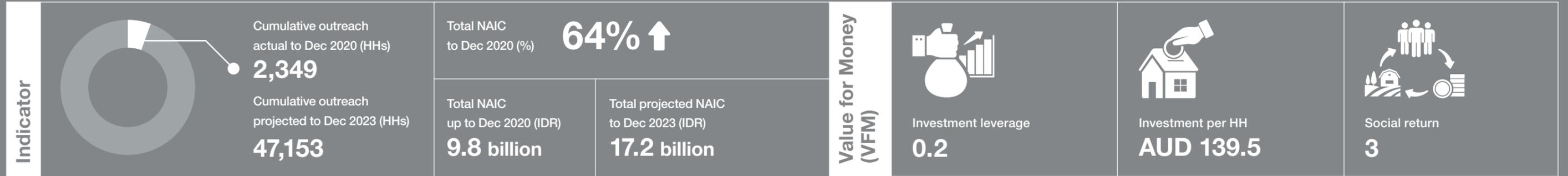
Adapt and Expand

- Six district government offices are lending support to Nufeed to disseminate information on COVID-19 protocols and good feeding practice among dairy farmers, using field level staff who regularly visit dairy farms.
- A discussion on increasing access to finance for dairy stakeholders was held, involving Nufeed and in partnership with Bank Mandiri.
- Irrigation service provider (PT Supra) is considering dairy farmers as potential customers. It is approaching Boyolali district and planning an assessment for water source identification at several points. After the assessment, PT Supra will develop a proposal between irrigation service providers and clients.

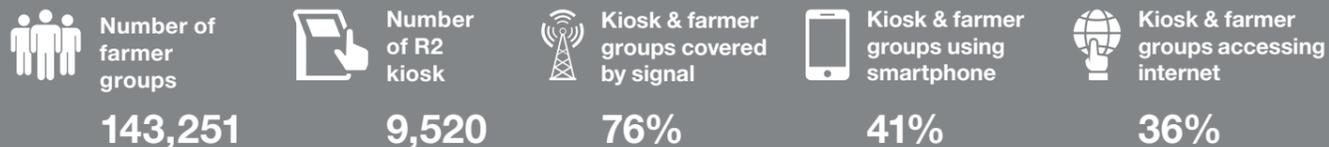
¹² Score from the level of effort (LoE) of PRISMA's WEE analysis

Information and Communication Technology Sector Summary

PRISMA Performance up to December 2020

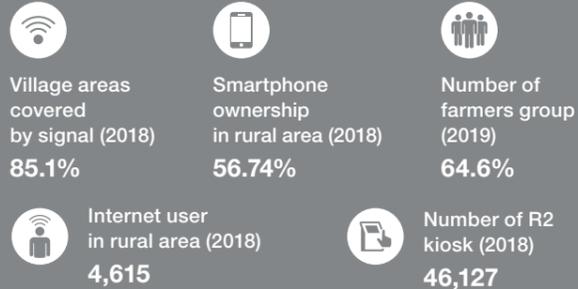


QUICK FACTS

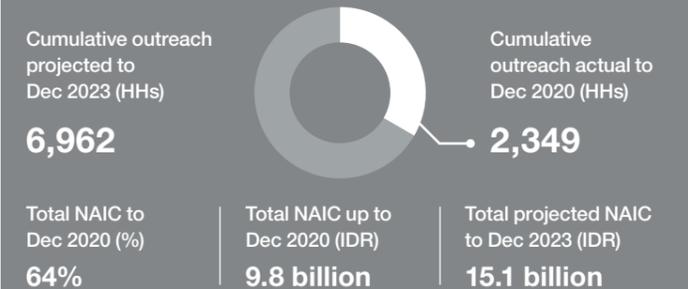


East Java

Quick Facts

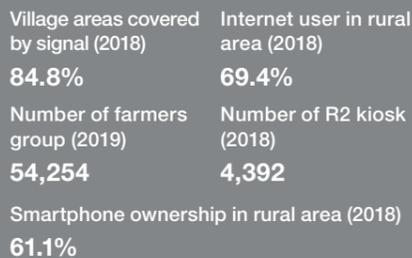


PRISMA Performance

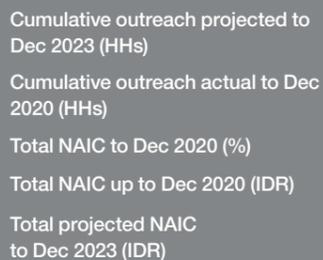


Central Java

Quick Facts

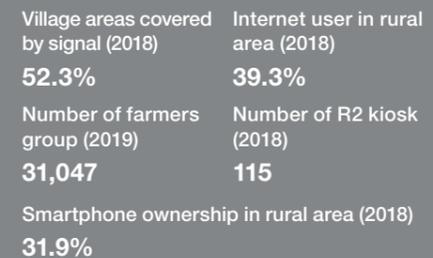


PRISMA Performance*

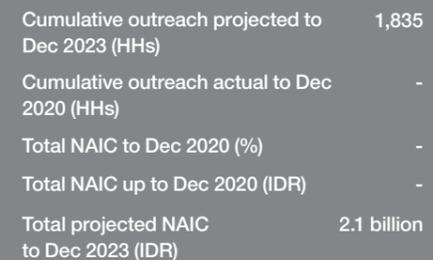


NTT

Quick Facts

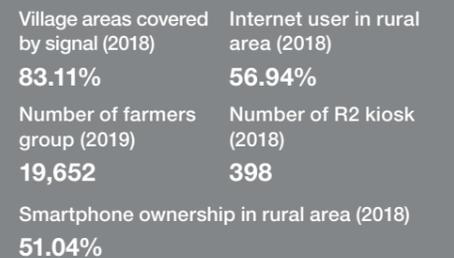


PRISMA Performance*

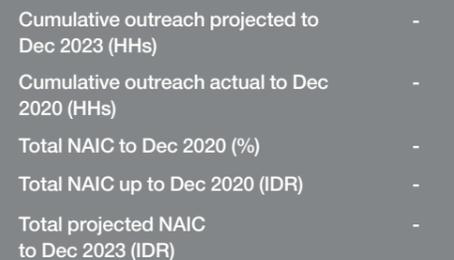


NTB

Quick Facts



PRISMA Performance*



*) interventions are currently working at the activity, partner and ISP level; the degree of impact cannot yet be calculated

Information and Communication Technology (ICT)

In PRISMA's second phase, the ICT sector refers to technology that supports access to information and services within agricultural value chains. Given the challenges that remain in terms of farmer adoption to smartphones, the sector focusses on the use of technologies within intermediary service providers (ISPs), including but not limited to input distributors, kiosks, traders, farmers groups and off-takers. These intermediaries are essential to aggregating farmers at the local level and ensuring that information flows freely. Based on PRISMA's kiosk study in 2018, 68 per cent of kiosk owners own mobile phones. With ISPs' use of technology, kiosk owners can more easily access GAP and GHP information and ultimately help farmers improve their input use and increase productivity. As aggregators, kiosks can also use technology to collect and share data about farmer behaviour, their needs in a certain area and/or weather patterns, as well to further improve the distribution of appropriate inputs to their location.

Currently, COVID-19 physical distancing measures have created challenges for farmers to sell their produce and opened new opportunities for agri-tech companies. As customers could not visit traditional markets, many ordered from e-commerce sites and online applications. Given the logistical constraints and disruption to typical supply chains, PRISMA saw the opportunity to create some interventions addressing the off-taking side, thereby ensuring these e-commerce companies were obtaining their commodities at a fair price and with a reasonable degree of trading between the farm and table.



Challenges and constraints

Gradual uptake in technology adoption. Due to their geographical remoteness, most rural areas of Indonesia have limited connectivity with only basic telecom infrastructure available. Combined with the prevalent farmer behaviour of 'seeing-then-believing,' technology adoption is slow.

Reliable market-based data (both historical and current) and aggregation is limited. This is due to the high cost of collecting primary data, as farmers live in remote places, far away from one another. Ineffective and inefficient data collection processes and an absence of cost-sharing between stakeholders also contribute to this high cost.

Poor understanding of the agriculture sector at the ICT provider level. Most agriculture start-ups have minimal business experience and little to no agriculture knowledge. At the same time, most ICT actors are currently focusing on urban areas, as they perceive there to be a higher barrier to entry to rural areas.

Due to COVID-19, many agricultural activities have been disrupted. First, supply chains have been interrupted, the demand for fresh produce has declined as Horeca (hotel, restaurant, café) businesses have been forced to close and logistical services are impaired. Lockdown measures and reduced demand have hindered traders from travelling and purchasing farmers' produce. This disruption also occurs in the agri-input supply chain, such as with machinery that is mostly sourced from China. Second, information flows have also been disrupted. As direct contact is still the most common method of communicating and gaining information, information flow among traders and farmers has slowed down significantly. Even though smartphone adoption is still low, and infrastructure is in need for improvement, there are nevertheless encouraging opportunities posed by this situation.



Intervention areas

To address these challenges and constraints, the ICT sector works in several areas (including but not limited to the following):

Commercialisation of information-based business models through technology

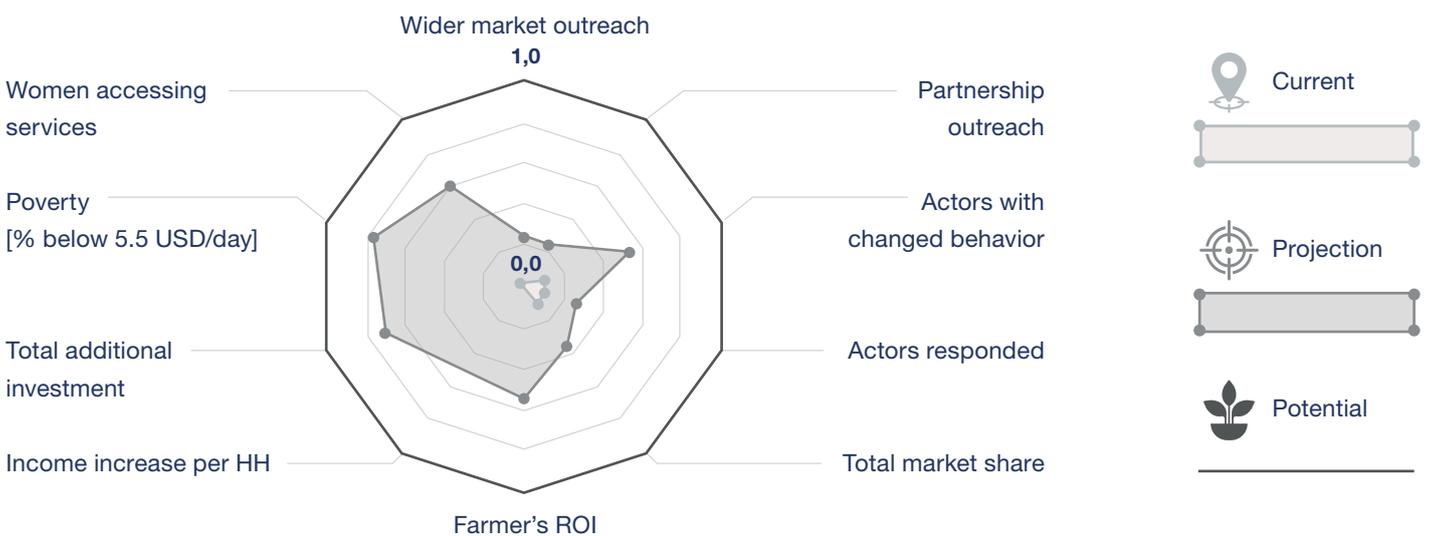
Digitalisation of Intermediary Service Providers (including farmer groups, traders, off-takers, and agri-kiosks) to improve the flow of goods and services

Provide support to PRISMA sector teams to increase the adoption of technology by market actors with the aim of improving information flow and accelerating business processes.

Subsector vision for systemic change

In Phase 2, PRISMA aims to achieve greater impact in agriculture through ICT utilisation by improving the access and availability of information to the agricultural sector. This will be done through technology development for agri-input companies, as well as by providing agriculturally relevant support to technology companies. The program will also work to build up the depth, breadth and supply of supporting functions tailored to agricultural ICT, including consulting, marketing and agent networks.

ICT sector system boundary and vision



By 2023, at least 57,621 farmers households in CJ, EJ, NTB, NTT will increase their incomes by 30 per cent due to the adoption of technology that leads to increased scale, as well as more efficient and inclusive market systems. Currently, based on the latest impact assessment done by the ICT team, 2,349 households have benefitted from an ICT intervention working towards providing loans to smallholder farmers.



Progress towards subsector vision

Adopt

- In Phase 1, HARA took up the business model developed together with PRISMA and established a pilot project for the Village Agriculture Cadre as dedicated resources to the villages to support geotagging and data collection in thirteen villages in EJ, NTB and NTT. In Phase 2, HARA has agreed to implement a new business model which utilises kiosks as part of credit disbursement improvements. HARA has recruited both male and female cadres during the intervention.
- Ditant, Swasti Sari, and BISI conducted the pilot project of a multi-stakeholder partnership based on the business model developed with PRISMA in Southwest Sumba. The intervention faced challenges as the off-taker was not able to off-take and sell to end buyers in Java island due to travel restrictions. The partnership eventually ended in December 2020 as all three partners focused on different locations. There is evidence, however, that they will look for a similar engagement model in other locations. PT Berlian, Ditant's sister company, is exploring similar multi-stakeholder business model in Sumba Tengah.
- After several months of successful implementation that achieved projected sales, in mid-2020 COVID-19 forced PT RUMA to stop distributing big-ticket items including agriculture products using the Arisan Mapan network through arisan scheme that is mostly led and attended by women. The company instead shifted the network's focus to distributing small-ticket items, such as fast-moving consumer goods, for daily household needs. PRISMA and PT RUMA agreed to not continue the partnership that ended in October 2020 but will continue exploring partnership opportunities once the Arisan Mapan service is relaunched.
- Three new interventions were initiated during the reporting period. A new partnership with ICT off-takers Panen.ID and Tukang Sayur.co was signed, and a new off-taking business model developed with HARA to tackle supply chain disruption during the pandemic. These interventions also work with government of EJ and CJ to locate potential farmers and ease the transport of goods during lockdown periods.
- PRISMA and Viamo have launched a low-level technology solution aimed at connecting farmers to traders through call service. Farmers and traders can access the platform by calling into a short code i.e. 321, which can be accessed using both a feature phone as well as a smartphone. The

partnership is a COVID-19 rapid response intervention aimed at tackling value chain and off-taking disruptions. During the piloting phase, 321 market linkages were made between farmers and sellers. This intervention will also look to bring on additional private sector actors in the PRISMA network to ensure sustainability. The promotional activities aim to target women through SMS blasts.

Adapt

- HARA adapted its approach, expanding beyond the financing business case, as it expanded its business into new regions and evolved its incentive scheme for data collection. The company also launched an off-taking business unit in collaboration with PRISMA as it sees the growing demand in online trading for groceries and agri-product during pandemic.

Expand

- HARA began to collaborate with other financial institutions (BTPNS and Danamas) independently of PRISMA's support. HARA also piloted a collaboration with an off-taker (PT Seger) in Tuban and explored a potential collaboration with an input supplier.

Respond

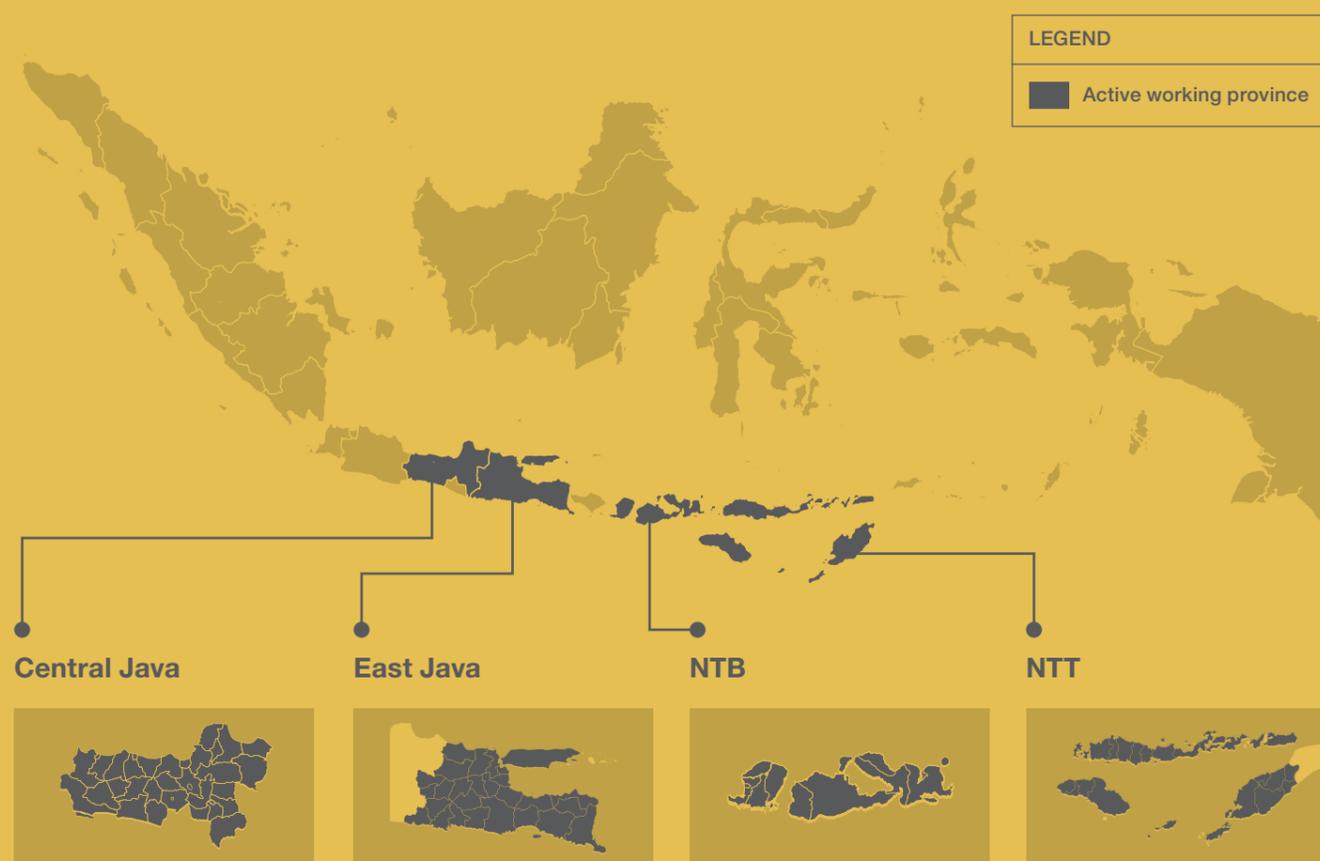
- Local government in some areas (e.g. Situbondo, Trenggalek) has expressed interest in using the HARA service to use reliable agriculture data to develop rural and agriculture economy, such as to connect regional farmers to FI for capital loan. However, HARA still considers this a low priority due to the issue of sustainability. In Situbondo, the Government has released appointment letters that contain specific regulations in data collection for HARA Village Agriculture Cadre, while in Trenggalek agriculture data digitalisation has been piloted in one sub-district collaborated with local agriculture department.



Innovative Finance Sector Summary

PRISMA Performance up to December 2020

Indicator		Cumulative outreach actual to Dec 2020 (HHs) 13,054	Total NAIC to Dec 2020 (%) 77% ↑		Value for Money (VFM)		Investment leverage 0.4		Investment per HH AUD 198.8		Social return 2.3
		Cumulative outreach projected to Dec 2023 (HHs) 41,720	Total NAIC up to Dec 2020 (IDR) 60.2 billion	Total projected NAIC to Dec 2023 (IDR) 156.8 billion							



QUICK FACTS

Total farming HH population 27.7 million	IDR Farming HH have borrow: 60% of total farming HH population	Farming HH don't borrow: 40% of total farming HH population	Potential farming HH want to borrow but don't borrow: 32% of total farming HH population
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Facts Source: Antar Sensus 2019, Statistika Perbankan Indonesia (SPI) OJK 2019, and World Bank Study 2017

East Java

Quick Facts



Total farming HH population
5 million



Agricultural financing formal supply by banks (in billion IDR)
23,585

PRISMA Performance

Cumulative outreach projected to Dec 2023 (HHs)
13,063



Cumulative outreach actual to Dec 2020 (HHs)
6,383

Total NAIC to Dec 2020 (%)
120%

Total NAIC up to Dec 2020 (IDR)
43.8 billion

Total projected NAIC to Dec 2023 (IDR)
75.4 billion

NTT

Quick Facts



Total farming HH population
818,853



Agricultural financing formal supply by banks (in billion IDR)
977

PRISMA Performance

Cumulative outreach projected to Dec 2023 (HHs)
3,556



Cumulative outreach actual to Dec 2020 (HHs)
2,271

Total NAIC to Dec 2020 (%)
10%

Total NAIC up to Dec 2020 (IDR)
711.7 million

Total projected NAIC to Dec 2023 (IDR)
1.2 billion

Central Java

Quick Facts

Total farming HH population
4.5 million

Agricultural financing formal supply by banks (in billion IDR)
12,463

PRISMA Performance*

Cumulative outreach actual to Dec 2020 (HHs)

Total NAIC to Dec 2020 (%)

Cumulative outreach projected to Dec 2023 (HHs)

Total NAIC up to Dec 2020 (IDR)

13,353

Total projected NAIC to Dec 2023 (IDR)
57.6 billion

*) interventions are currently working at the activity, partner and ISP level; the degree of impact cannot yet be calculated

COVID-19 has prevented impact assessments; the degree of impact cannot yet be calculated

NTB

Quick Facts



Total farming HH population
666,375



Agricultural financing formal supply by banks (in billion IDR)
2,165

PRISMA Performance

Cumulative outreach projected to Dec 2023 (HHs)
11,749



Cumulative outreach actual to Dec 2020 (HHs)
4,400

Total NAIC to Dec 2020 (%)
58%

Total NAIC up to Dec 2020 (IDR)
15.7 billion

Total projected NAIC to Dec 2023 (IDR)
22.7 billion

Innovative Finance¹³

A 2017 World Bank study estimated that only around 62 per cent of the global adult population has formal access to finance. In Indonesia, this figure is even lower at 49 per cent. The country's agriculture sector contributes only seven per cent to the bank credit portfolio, only around 30.1 per cent of which goes to MSME borrowers¹⁴. Some of the reasons for such low access to finance for the agriculture sector include associating agriculture with micro-finance and the scepticism around servicing the higher risk segment of the market; the difficulties and costs associated with accessing historic credit data of potential borrowers; and lack of suitable financial products and services.

In addition, as COVID-19 hit the industry, the Government of Indonesia launched a Countercyclical Policy of COVID-19 Impact. This regulation suggested that financial institutions (FIs) can and should seek to restructure loans during the pandemic period. Restructuring and rescheduling loans at scale would typically have the knock-on effect of reduced liquidity, which would lower financial institutions' capacity and willingness to expand their financing portfolio. As of 6 November 2020, the credit restructuring realisation has reached IDR936 trillion in loans to 7.5 million borrowers in total; 39.6 per cent of the value is from MSME borrowers¹⁵. This has directly affected how FIs conduct their business operations and perceive the risks of targeting new markets.



Challenges and constraints

The major challenges and constraints faced by the agricultural finance sector are:

On the supply side, potential market actors do not see the commercial value of reaching out to farmers in rural areas due to high transaction costs and complicated logistics. They also perceive there to be a higher risk within the agricultural sector. Financial products are regulated centrally in Indonesia and based around low-risk, high-reward principles, creating little room for adjustment to the products themselves to meet the needs of more risky customer segments.

Impacted by the COVID-19 pandemic, financial institutions - especially state-owned financial institutions - are now focussing more on implementing the national economy recovery strategies mandated to them by the government. This includes additional upper limits for People's Business Credit (KUR), as well as the government's additional investment in financial institutions themselves, which should convert into more lending. Consequently, to achieve these targets in limited time and with considerably higher market risk, financial institutions prefer to focus the new loans on disbursement to their existing customers rather than on acquiring new ones.

On the demand side, many market actors in the agricultural sector have concluded that existing products are not right for them. Administrative procedures are intensive and often require documentation that they do not have, while waiting times for processing are longer than they can afford. They have little interaction with financial institutions and as a result do not know how to access the products or services that are on offer. In addition, market uncertainty and reduced sales at the ISP level make potential borrowers hesitant as they are not sure they will be able to repay the loan in the future.



Intervention areas

To address these challenges and constraints, in Phase 2 PRISMA work with partners in several areas (including not limited to the following), to:

Bridging formal and informal gaps in financing. This includes using tools such as value chain finance (VCF) and trader credit, credit scoring, finance for kiosks and domestic remittances to bring existing financial products to agriculture and to reduce the cash flow burden on market actors who are already supplementing farmers.

Facilitate partners to see the value in strengthening agent networks. More efficient, fair, technologically equipped, legitimate agent networks (including kiosks) and appropriate forms of finance will be able to reach more farmers in more remote areas.

¹³ Also referred to as Finance

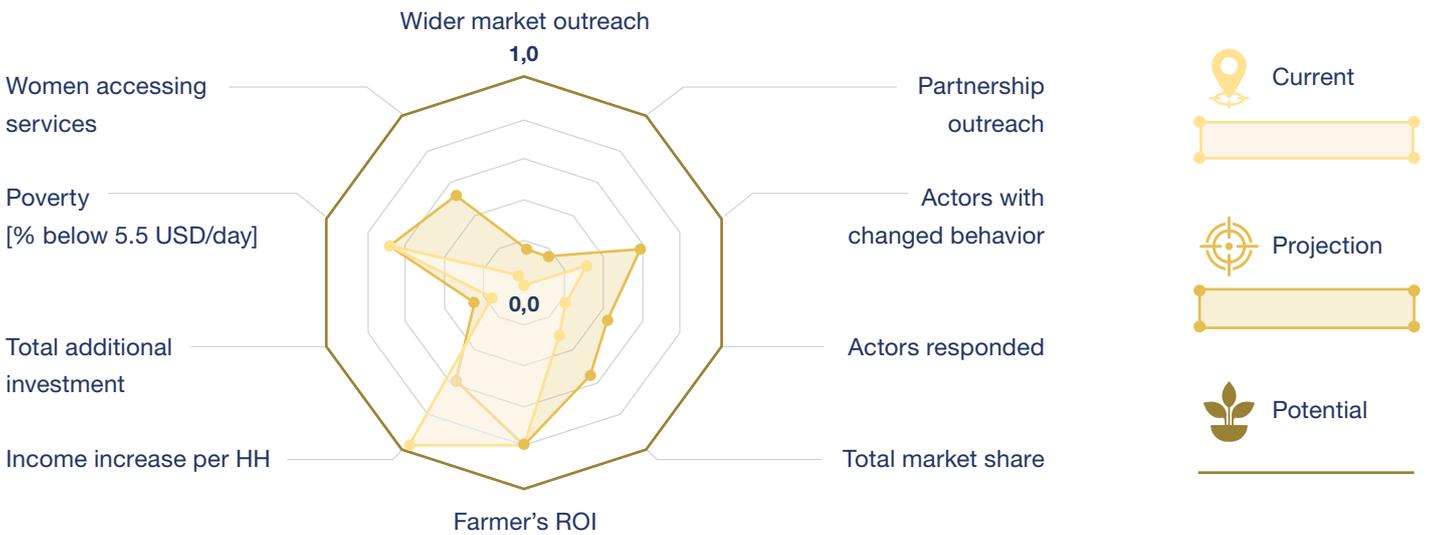
¹⁴ Otoritas Jasa Keuangan: Statistika Perbankan Indonesia, September 2020 (processed internally).

Subsector vision for systemic change

In Phase 2, PRISMA aims for more commercial interest by financial institutions in disbursement of agricultural financial products (affordable, appropriate, and specific products) to ISP level market actors, including kiosks, agents, and traders. With the disbursement, PRISMA expects that the finance and/or the benefit can be passed to farmers by incorporating elements of ICT, VCF, cash transfer technologies, formalising the informal, etc.

As a response to COVID-19, PRISMA will prioritise partnerships with state-owned financial institutions, channelling impact investment and information sharing to leverage the stimulus and support the economic recovery. The goal is to benefit 50,000 smallholder farming households by improving their access to a broad range of affordable and appropriate financial services for agricultural market actors.

Innovative finance system boundary and vision





Progress towards subsector vision

Adopt

- PT Crowde Membangun Bangsa (CROWDE) conducted three kiosk socialisations between October to December 2019. These involved more than 50 agriculture input kiosks in two locations in CJ (Cilacap, Sragen) and one location in EJ (Banyuwangi) as part of PRISMA's kiosk acquisition strategy for extending the agent model.
- CROWDE provided a trader financing product for its borrowers in CJ and West Java.
- CROWDE has partnered with agri-input companies to finance a bundling scheme and expand to more areas in CJ and EJ.
- Tanijoy recruited one new field manager as replacement senior field manager. The latter will assume the role of acquiring more agents to facilitate business expansion.
- Tanijoy shared information on loan acquisition through online farmers for farmers to mitigate the impact of COVID-19.
- Tanijoy is implementing an ongoing process to improve its credit rating. Its aim is to increase its compatibility with the agriculture sector and improve its loan acquisition.
- PT Bisi International Tbk (BISI) has conducted agent socialisation activities in different locations from September 2019 to September 2020. Based on evaluation of the pilot, rather than conducting a few big socialisation events, BISI has chosen to conduct smaller events more frequently. This is due to more scattered target locations and strong competition with existing free market distribution channels.
- Total 2019 sales were 40 tonnes, generated by 40 new YARO agents (nine of whom are women). These new agents helped BISI to increase their YARO sales in NTB area by 60 per cent (against its 2018 sales). Temporary data for 2020 sales is at least 80 tonnes.
- In 2019, BISI conducted joint promotional activities with BNI and Pegadaian in Sumbawa (NTB) and CU Swastisari in Sumba Barat Daya (NTT) and started discussions regarding potential collaboration on a future input financing scheme. During 2020, discussions progressed into a joint partnership on input financing. This enabled BISI NTB to more than double its YARO sales.

- The BISI area manager in CJ copied the learnings from the improved YARO process in the NTB pilot by connecting BISI's distribution channel (distributor/retailers) to financial institutions. Meanwhile, at the Head Quarter level BISI showed interest in following-up previous discussions from 2019 on PRISMA's potential support with improving their digital marketing strategy.
- As part of intervention strategy, BISI has agreed to collaborate with some financial institutions to share networks and risks to grow their markets.

Adapt

- CROWDE hired new dedicated employee for kiosk acquisition as part of its plan to extend its agent model.
- CROWDE invested in the Kiosk App to help kiosks to manage their inventory, keep digital transaction records and improve their credit profile.
- CROWDE developed a new product which allowed borrowers to pay their loans using their harvest commodities. The pilot focused on maize commodity.
- CROWDE invested in the Agent Management App to get more reliable monitoring data and work more efficient.
- CROWDE recruited more local field staff for loan acquisition and monitoring to reduce the impact of local lockdowns and large-scale social restrictions due to COVID-19.
- A BISI agronomist informally supported a female BNI agent in West Sumbawa to increase her revenue as part of loan disbursement to farmers. Although any formal partnership between BISI and BNI has not yet developed, this is a positive sign of potential future collaboration between the two.
- Acknowledging potential difficulties for farmers in getting capital due to COVID-19, in June 2020 BISI agreed to collaborate with BNI Bima to promote agri-input financing. They have collaborated by disbursing financing to agents and farmers in that area.

- BISI provided masks to their farmers to minimise impact of COVID-19 transmission during their field activities with farmers.
 - Tanijoy required all field managers to acquire agents to facilitate business expansion.
-

Expand

- Some financial technology companies such as Amaritha and AwanTunai showed interest in copying the partner business model for agriculture financing.
-

Respond

- Bank Mandiri, BJB, BPR Supra and a multi-finance corporation (BCA Finance) have partnered with CROWDE to implement loan channelling. Insurance company Jasindo has partnered with CROWDE to provide agriculture insurance for the borrowers. Jasindo also prepared to collaborate with Tanijoy to provide insurance for crop failure.
- Good Return, an Australian impact investing institution, has signed an agreement with CROWDE to provide loan guarantee schemes for women SME borrowers.
- Some financial institutions (i.e. BNI Bima, BNI Sumbawa, CU Swasti Sari, Jasindo, BRI Central Java) worked with BISI or their distribution channels to provide input financing for ISPs (agents) and farmers.
- Bank BRI Syariah and BNI has started partnership with Tanijoy for loan channelling.

Irrigation Sector Summary

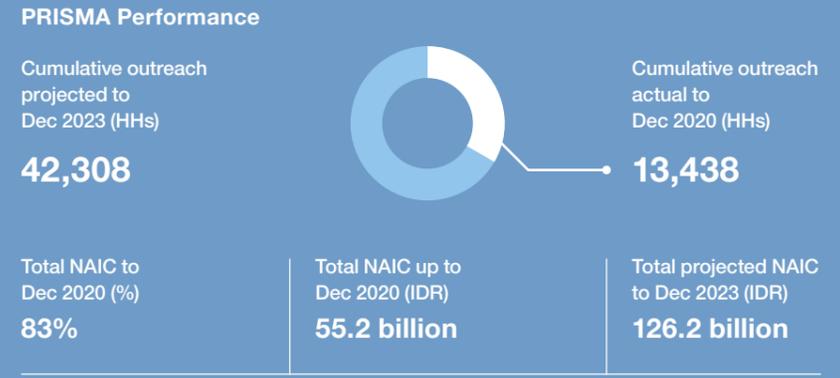
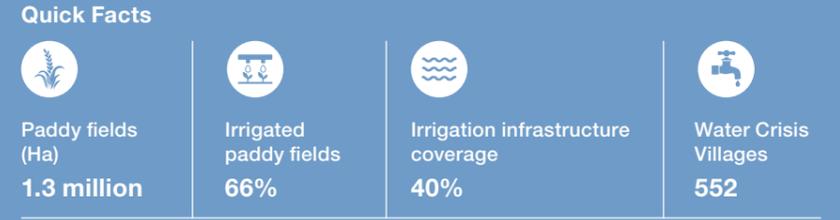
PRISMA Performance up to December 2020



East Java



East Java



Facts Source: Statistic Pertanian 2019, BPS 2018

Irrigation

Irrigation is key to increasing agriculture productivity around the world. However, 85 per cent of Indonesia's total agricultural land does not have access to water for irrigation during the dry season. For smallholder farming households with very limited resources and reserves, insufficient irrigation can lead to total crop failure. Accessible water supply can have up to three times more impact on farming productivity than other agricultural inputs, such as seed variety and fertiliser, as it (1) increases production and profitability per hectare per crop, (2) increases cropping intensity, and (3) reduces the risk of crop failure.



Challenges and constraints

Private sector irrigation service providers are a new concept in the market, with limited best practices and commercial models. The major players in rural irrigation are individual farmers, the Water User Association and the Government of Indonesia. Private irrigation service providers have to acquire an informal "permit to operate" from local villages due to unclear "rules of the game" for private sector investment in irrigation

There are very few technical irrigation service providers serving the rural irrigation market. This is due to their lack of awareness of market potential, inadequate capacity to provide solutions adapted to village needs and limited network.

The pandemic is having significant impact on the sector. Demand for seed has gone down, which has led to lower appetites for investment in support services such as irrigation. Financial institutions are also hesitant to provide funding for irrigation projects. There are also less irrigation projects from the government. As a result, the technical service providers are struggling and forced to reconsider their expansion plans.

Assessing the market system is difficult without field activities. In the second semester of 2020, PRISMA assessed irrigation potential in NTB, NTT and Central Java, but progress was slow due to travel restrictions and communication challenges (intermittent mobile connection in remote areas).



Intervention areas

PRISMA's irrigation sector focuses on working with pioneers who are interested in investing in the irrigation development in a rural setting to:

Promote new and improved irrigation service providers for seed production, seed farmers and the related associations.	Support technical irrigation service providers to expand their services in rural areas.	Improve public sector performance in solving water crisis through innovation and private sector involvement.
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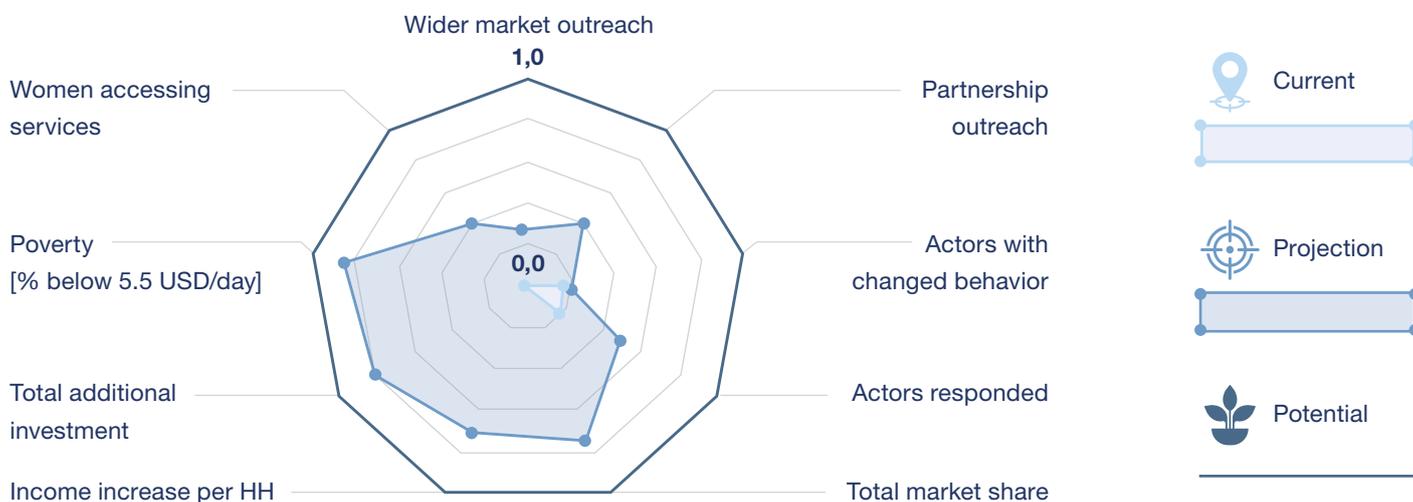


Subsector vision for systemic change

In the second phase of program implementation, PRISMA will focus on stimulating and increasing private sector participation and investment across different stages of the irrigation value chain to promote more efficient water use in agriculture, boosting farmers' production and productivity. Technical irrigation service providers will provide sound design and advice to irrigation providers and

government, who in turn will invest in and provide a more efficient irrigation service, able to serve increasing numbers of smallholder farming households. Seed producers will promote the availability of irrigation services to their seed growers.

Irrigation East Java system boundary and vision



By 2023, at least 85,075 farmers in EJ will have increased their incomes due to better access to water to increase their productivity.

Progress towards subsector vision

Adopt

- Two of Syngenta's Grower Leaders in Malang have become ISPs and are managing deep-well irrigation services for maize seed farmers. Due to high rainfall intensity during the second dry season of 2020, the services are not yet being fully utilised by the farmers.
- The District Government of Pamekasan and Sumenep adopted PRISMA's advice to use an improved water detection technology from a technical irrigation service provider. They successfully detected water in 122 locations in Pamekasan and 30 locations in Sumenep. As a result, 58 wells have been built and are operational.
- Pamekasan local government adopted PRISMA's recommendations on environmental protection to reduce the impact of groundwater extraction.

Adapt

- Two former TIRTA's ISPs expanded their business in 2020, resulting in additional 100 beneficiaries.

- Mesindo has four additional customers in Blora and Bojonegoro. However, as most of their clients rely on "Dana Desa" as the source of funding, Mesindo was unable to reach more costumers in 2020 and has decided not to focus on irrigation.
- Along with the impact assessment to former TIRTA's ISPs, PRISMA also conducted a GESI survey and assessed WEE impact at the ISP level. The results showed that TIRTA interventions have had a positive impact on women.

Expand

- PowerAgro (solar power pump and distributor of drip irrigation system) provided knowledge sharing on modern and well-designed irrigation using the drip system to maize seed nurseries in Kupang, NTT.

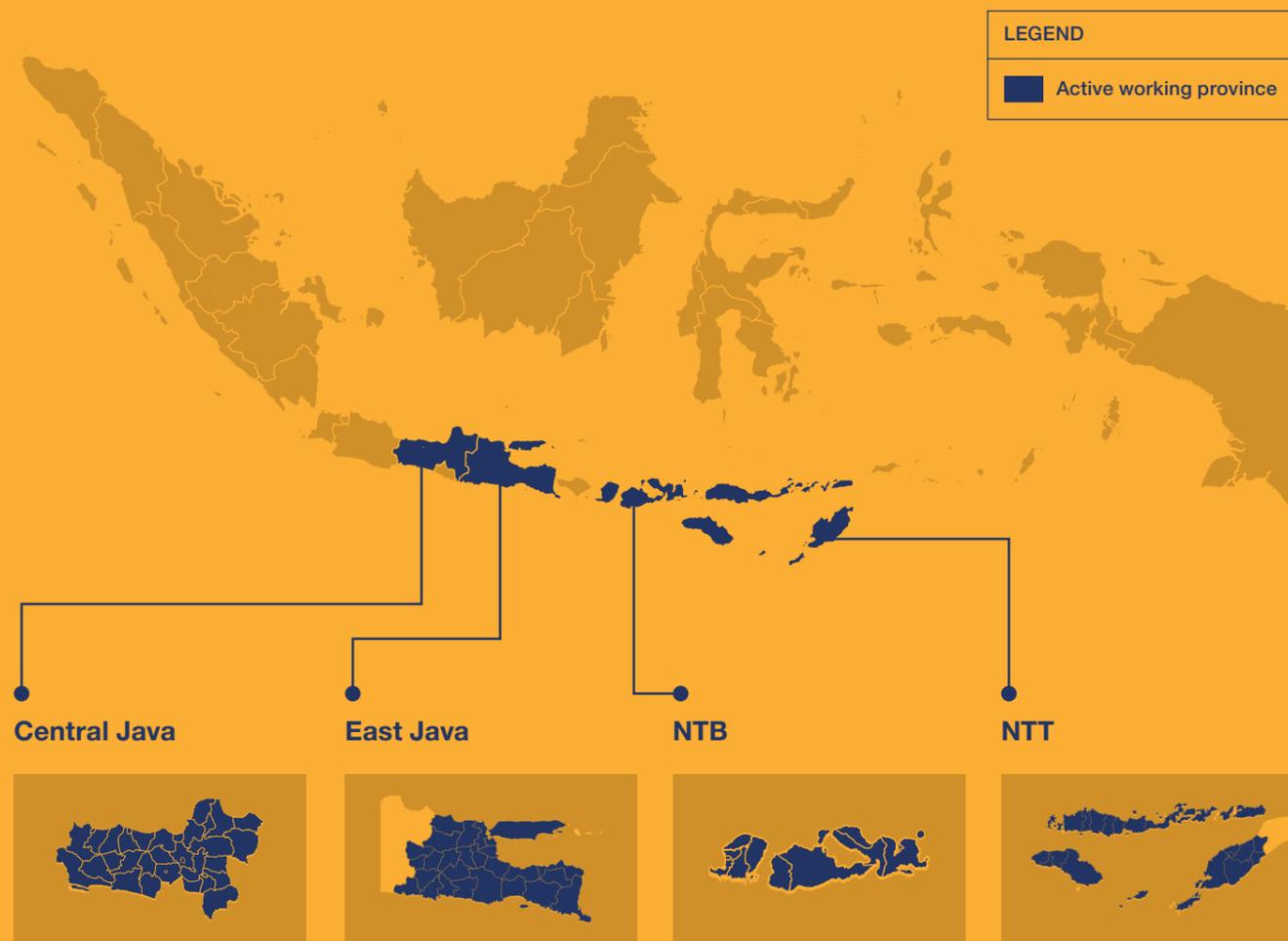
Respond

- PT KOMUNAL Finansial Indonesia (a Surabaya-based fintech company) has successfully closed the first case of irrigation financing to a former TIRTA's partner in Tuban.

Maize Sector Summary

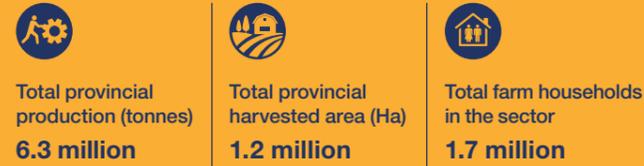
PRISMA Performance up to December 2020

Indicator	<p>Cumulative Outreach Actual to Dec 2020 (HHs) 106,032</p> <p>Cumulative Outreach Projected to Dec 2023 (HHs) 236,954</p>	<p>Total NAIC to Dec 2020 (%) 193% ↑</p>	Value for Money (VFM)	<p>Investment Leverage 2.2</p>	<p>Investment Per HH AUD 70</p>	<p>Social Return 2.4</p>
	<p>Total NAIC up to Dec 2020 (IDR) 177.6 billion</p>	<p>Total projected NAIC to Dec 2023 (IDR) 377.2 billion</p>				

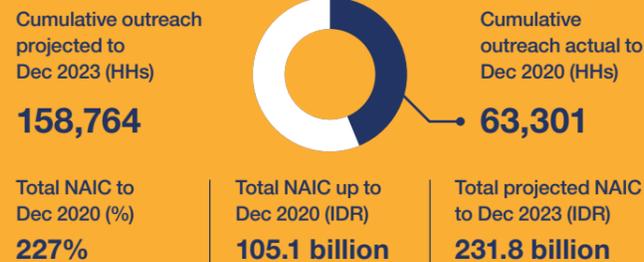


East Java

Quick Facts



PRISMA Performance

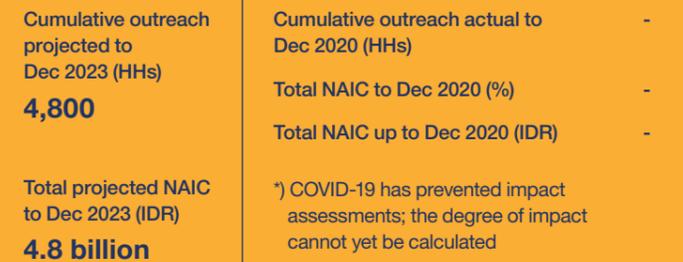


Central Java

Quick Facts



PRISMA Performance

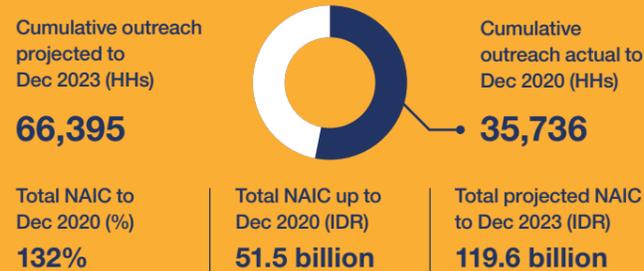


NTT

Quick Facts



PRISMA Performance

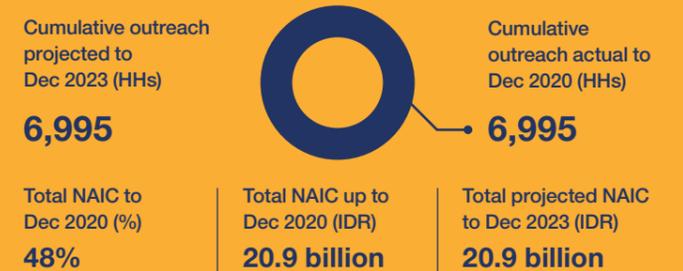


NTB

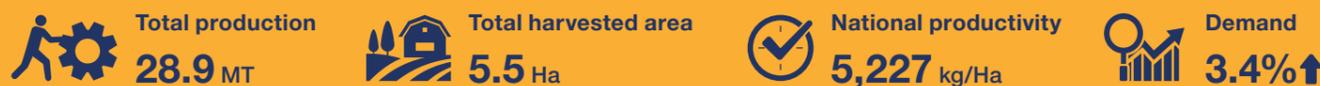
Quick Facts



PRISMA Performance



QUICK FACTS



Facts Source: Statistik Pertanian 2019

Maize Central Java

Central Java (CJ) is the second largest producer of maize in Indonesia, accounting for around 12 per cent of national production. Maize is a primary cash crop, engaging around 843 thousand farmers, with an average cultivated land size of 0.6 ha per household¹⁶. However, growth in production is very low, at only 2.3 per cent per year (2014 – 2018). Over 87 per cent of farmers already plant hybrid seed, obtaining average productivity of around 6.9 MTs per ha. Less than two per cent of maize produced in the province is for human consumption; the remaining 98 per cent is used in the feed industry (the expansion of which in CJ has led to a tremendous economic boost for farmers).

Despite these opportunities, farmers still garner low profits from maize cultivation, especially in the peak harvest period during the rainy season. Improper application of inputs such as fertiliser and lack of pest and disease control prevent farmers from obtaining optimum productivity, which can be up to 10 MTs per ha. Some farmers have also difficulty cultivating maize in the dry season which limit them from earning more income.

During the COVID-19 pandemic, national maize demand dropped to 50 per cent, impacting lower maize grain absorption and prices across the nation, including in CJ. Farmers became more risk-averse, hesitant to cultivate maize due to uncertainty around buyers and lower farming capital. At the same time, big maize buyers' supply was not sufficient to sell maize grain to feed mills or export to other countries. Additionally, the government's free seed program was disrupted during delivery to farmers due to movement restriction.



Challenges and constraints

Maize farmers in Central Java find it difficult to increase their income for the following reasons:

Low production in some areas due to geography and poor soil condition, improper application of fertiliser and pest and disease attacks (particularly downy mildew or Bulai and Fall Armyworm (FAW)). In pockets where local or retained seed varieties are cultivated, some farmers have not realised the economic value of cultivating higher-yielding seed varieties. In addition, some areas have not been reached by the government's seed subsidy program.

The absence of water and irrigation systems hinders maize production and reduces productivity, especially during the dry season. Establishing an irrigation service is considered costly, especially in hilly areas; in low-lying lands, farmers prefer to plant rice as it delivers a higher income when water is available. Consequently, some farmers are unable to engage in cultivation of either maize or other maturity crops during the dry season and they also encounter difficulties in obtaining suitable seed, up-to-date knowledge and the tools needed to cultivate maize on dry land.

Many farmers lack access to post-harvest technology and facilities for storage and drying. When harvest occurs during the rainy season, farmers tend to sell all their yield as soon as possible to avoid damage and loss. Because of over-supply, off-takers often push down the prices.

The supply chain from farmers to end customers is long in some locations. Feed mills, the biggest maize consumers in the province, are concentrated in the north east. This means that farmers in some locations receive lower prices because the chain to end consumers is long.

Due to COVID-19 restrictions, farmers in some locations experience difficulties in finding off-takers and experience delays in agri-input deliveries. There has also been a decline in the maize grain price due to weaker demand from feed mills. In addition, physical distancing measures have caused delays in the procurement and distribution of subsidy programs, agri-input sales, as well as activities in the field. The scarcity of affordable fertiliser and available farming capital has made farmers hesitant to cultivate higher quality hybrid maize seeds. Some are using lower quality inputs or not cultivating maize at all. Financial resources remain stretched as the economy struggles, further limiting uptake.



Intervention areas

To address these challenges and constraints, PRISMA works with partners to:

Promote the use of hybrid seed suitable for farming in identified pocket areas.	Improve the provincial government's subsidised seed delivery and implementation.	Promote farming techniques suitable for the dry season.	Promote appropriate post-harvest services and better linkages to off-takers.
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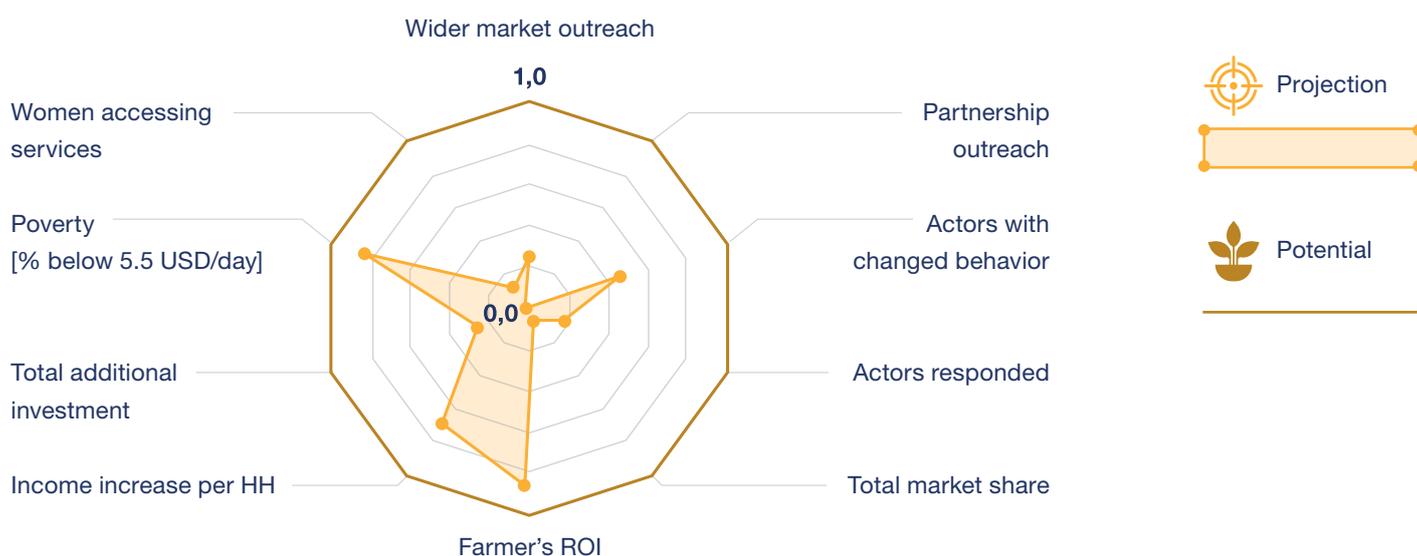


Subsector vision for systemic change

PRISMA aims to increase maize production and productivity by helping seed producers to promote quality hybrid seed and farming techniques, off-takers to source grain and provide embedded services, and government to improve its subsidy program concept and delivery in underperforming areas.

By 2023, at least 39,857 farming households in underperforming areas of CJ will experience a minimum income increase of 40 per cent by adopting quality hybrid seed, applying proper farming practices, and accessing off-takers services.

Maize Central Java system boundary and vision



Progress towards subsector vision

Adopt

- Corteva invested in conducting promotional and GAP knowledge-sharing activities in new hybrid markets (Wonogiri and other piloted districts).
- Corteva engaged three women canvassers as part of its canvassing strategy to conduct promotional activities and GAP knowledge sharing in the districts mentioned above.

Adapt

- Corteva has taken up a canvassing model as its main strategy to increase access to quality seed during COVID-19. Corteva distributed promotional materials with GAP information in Grobogan district and hired two additional canvassers for Gunung Kidul and Bantul districts in the neighbourly province DI Yogyakarta.

Expand and respond

- Crowding-in and responses from other market actors are yet to be seen. Progress will be observed throughout the next semester and on an ongoing basis.

Maize East Java

East Java is Indonesia's highest maize producer, accounting for around 22 per cent of national production. It produced 6.7 million MTs of maize in 2018, nearly twice that of Indonesia's second leading producer. There are 1,922,318 smallholder farming households involved in cultivating maize with a Poverty Probability Index (PPI) score of 52.7 per cent in mainland areas and 75 per cent in Madura Island.

Maize is an important commodity for East Java, hence the ubiquitous presence of commercial actors (traders, feed millers and seed companies) along the maize value chain in the province. Despite being the leading producer of maize and having the largest total harvested area in Indonesia, in 2017 average yields were only 5.0 MTs per ha, lower than national average productivity 5.2 MTs per ha. Additionally, in some dryland areas the productivity is as low as 2.1 MTs per ha because of limited range of products suitable for dryland. Average maize yields for districts on Madura Island were as low as 1.9 MTs per ha (2017), attributable to the limited adoption of hybrid seed and the subsistence nature of maize farming in Madura.

Disruption of the national maize market due lower demand of up to 50 per cent from feed mills has resulted in lower prices and maize grain absorption from farmers in EJ. COVID-19 also created new challenges for information transfer, agri-input logistics to farmers, and general economic downturn in Madura. These new constraints have caused problems for public and private market players in Madura in promoting the adoption of hybrid seeds.



Challenges and constraints - EJ, Madura

Low productivity maize farming in Madura is mainly caused by:

Low quality seed, inputs and inadequate GAP application. In 2019, over 75 per cent of smallholder maize farming households were using local varieties of seed, despite its low productivity, remaining reluctant to invest in better seed, inputs and GAP. In January 2020, the potential damage to crops by FAW is likely to be exacerbated by this minimum use of high-quality inputs and GAP application. Furthermore, the scarcity of subsidised and commercial fertiliser during the COVID-19 pandemic made farmers more risk averse towards planting higher quality maize seeds.

Economic, cultural, and social contexts are strong barriers for seed companies to promote hybrid seed in Madura. Smallholder farming households prefer to use local seed as maize is viewed as a staple crop and not a cash crop. Slow adoption of hybrid seed in Madura has disincentivised seed companies from investing in product marketing and GAP assistance for reaching Madura farmers.

Access to hybrid seed is concentrated in South Madura, leaving around 46 per cent of the maize farming population with limited access to hybrid seed. Transportation costs and the strenuous effort needed to obtain inputs are compromising farmers' ability to use hybrid seed.

Lacklustre government subsidies which provide limited GAP assistance. Government subsidy has a prominent role in introducing hybrid maize seed to farmers in Madura. However, government extension services are limited hence insufficiency in GAP information distribution. As a result, the subsidy program hardly increases the rate of hybrid seed adoption. Sometimes the government program even disincentivises the private sector from developing commercial seed market and delivering GAP assistance, as this program becomes the preferred target for seed companies to achieve scale in Madura.

Rainfed water system and marginal soil. About 76 per cent of maize farming in Madura depends on rain as its irrigation source, so most maize farmers start planting at the end of the year (November - December).

The COVID-19 pandemic has caused a significant economic slowdown, affecting farmers' financial situations. This has made them even more averse to investing in more expensive seed.



Challenges and constraints - EJ, Mainland

Although the productivity rate of maize farmers is higher on the mainland than on Madura Island, several constraints in the market prevent them attaining a higher income.

Farmers experience difficulties in increasing maize production during the dry and second planting season.

Based on PRISMA's baseline, 55 per cent of maize farmers plant maize for the second time following the main season when there is enough rain or irrigation in place. However, as adequate volumes of rain or irrigation are not always certain, farmers will invest less in inputs due to the risk of crop failure. Technical irrigation is limited, and drought-resistant seeds are not widely available.

Maize downy mildew disease is common and destructive. With intensive maize farming and sugarcane farming areas located next to each other, downy mildew outbreaks are very common, probable and can become a serious, frequent threat in mainland areas.

Illegal seed distribution in upland areas. Upland farmers are less advanced at maize farming and less concerned than lowland farmers about the brand of maize seed. They prefer to use retained hybrid or illegal seed to reduce sunk costs, especially for dry season cultivation of maize in case the harvest fails.

Poor application of fertiliser. The average usage of fertiliser in EJ Mainland is 382kg of NPK per ha and 496kg of urea per ha (the level recommended by the GOI is 300kg per ha). In addition, most smallholder farming households opt to sow fertiliser on the surface of the soil instead of under it. This takes less time and reduces labour costs, but also minimises fertiliser absorption and induces leaf-rust disease.

Low penetration of mechanisation or utilisation of access to finance. Despite the intensive nature of maize farming in the region, most farmers do not use simple mechanisation (such as land tractors or seed planters) to reduce labour costs (which constitute 51 per cent of farming costs), mainly because of the limited availability and high cost of machinery (the mechanisation penetration rate is a mere four per cent across 12 districts and mainly in the form of land tractors).

COVID-19 has impacted the feed mill industry, in turn reducing its demand for maize grain, further lowering maize grain prices. This has limited farmers' purchasing power. While there were no significant changes in maize production at the beginning of pandemic, the impact started to be felt by farmers and input companies towards the end of 2020, with farmers switching to lower price product options and sales declined by 30 per cent in comparison to the same season last year.



Intervention areas

To address these challenges and constraints, PRISMA works with partners to:

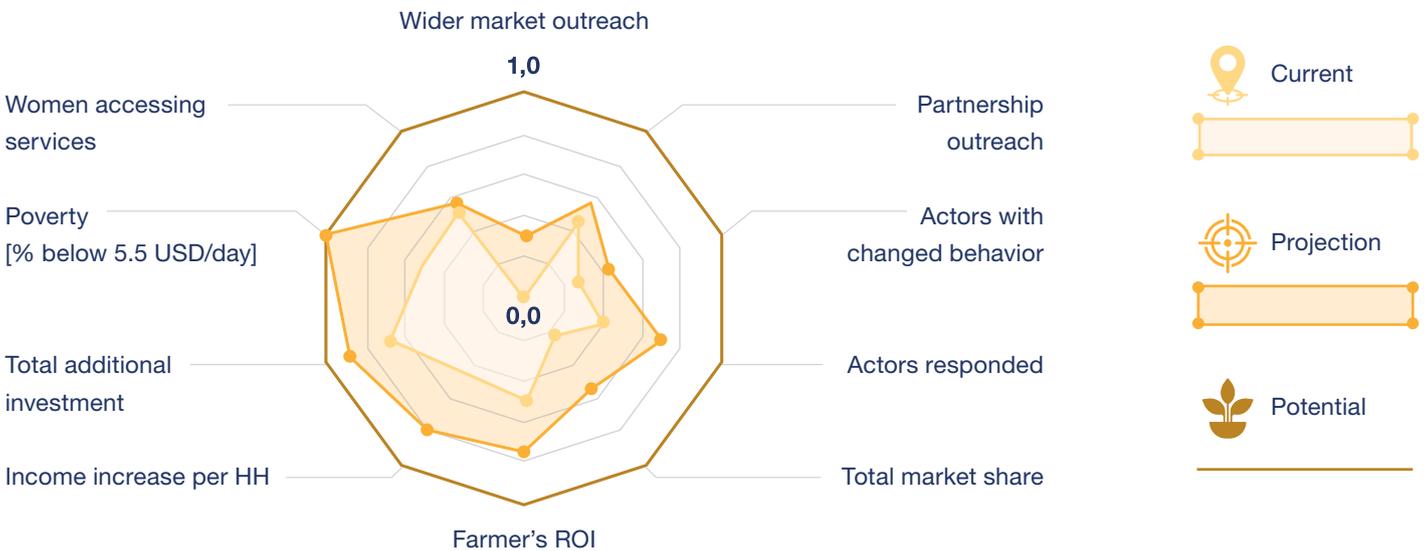
Promote hybrid seed and GAP in selected areas with low productivity rates.	Improve subsidy program policy.	Optimise inputs (fertiliser, crop protection) and GAP.
Increase access to irrigation and its services (for grain farmers and seed growers)	Promote financial products for maize farmers	Promote affordable mechanisation (planting machinery, drying and threshing services).

Subsector vision for systemic change

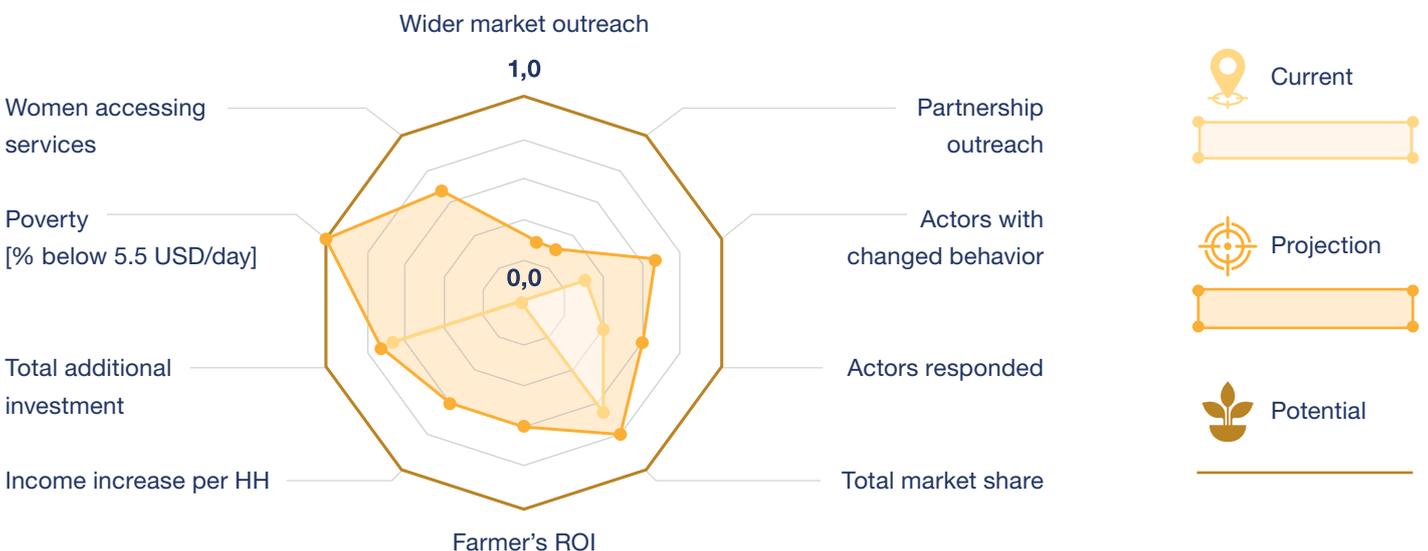
PRISMA aims to increase maize production and productivity by facilitating more seed players to tap into the Madura market, encouraging district governments to continue with its smart subsidy concept and delivery (targeting non-commercial hybrid areas and collaborating with private seed companies) and influencing other input companies to expand their target markets on the island. By 2023, at least 122,800 maize farming households in Madura will have increased income by 347 per cent due to the adoption of hybrid seed and improved agricultural inputs and practices.

In mainland EJ, PRISMA aims to increase maize production and productivity by facilitating seed companies to produce improved seed for captive markets (such as drought-tolerant varieties), introducing crop protection for FAW control and by connecting other private players (i.e., financial institutions, input and mechanisation producers) to promote their innovation and supporting services. By 2023, 18,300 maize farming household farmer incomes will increase income due to the adoption of improved drought tolerance hybrid seed.

Maize East Java - Madura system boundary and vision



Maize East Java - Mainland system boundary and vision





Progress towards subsector vision

East Java - Madura

Adopt

- Syngenta Indonesia invested in training for government extension services to ensure its products are maintained and endorsed as part of the government scheme of work.
- Corteva launched a Location Based Advertisement (LBA) SMS blast for promotion in areas where kiosks are limited during the pandemic.

Adapt

- Corteva acknowledged Sumenep district as a commercial area and expanded its business through the public and private sectors to the mid-North areas.
- Corteva increased its investment in developing distribution channels in Sampang and forging stronger engagement with local government.
- Corteva continued hiring the Woman Front Liner in Sumenep.
- BISI maintained private sector sales in Madura and expanded its extension services to Sampang and Pamekasan.

Expand

- PT Giri Aryo Raya Sejahtera (2017), Pertiwi (2018), PT Benih

East Java - Mainland

Adopt

- Corteva invested in a market baseline study to analyse maize market constraints and opportunities, as well as maize seed performance across the brand.
- Corteva implemented a marketing strategy plan recommended by PRISMA for its P21 (drought-resistant seed) new product launch, which included SMS blasts to keep farmers informed about its new product and marketing programs during COVID-19.

Adapt

- Corteva invested in gender inclusive initiatives as part of Global Vision in Sustainability and appointed two managers to develop the strategy for the Indonesian market, which will incorporate gender lens learning and a study supported by PRISMA
- Corteva adapted a hybridisation strategy in Madura to develop

Citra Asia and Dhanaya Seeds (2019) have been crowding into the seed market in Madura.

- Eighteen input retailers were established in 2016-2017 and have prioritised their stock of maize seeds in response to demand. 67 per cent of canvassers from Corteva's canvassing program continued to sell inputs after the program ended, increasing the availability of hybrid seed.

Respond

- District Agriculture Offices of Sumenep and Pamekasan have reduced overlaps in the subsidy-free market and have prioritised underdeveloped areas for subsidy to increase overall production. GAP information from PRISMA seed partners is now continuously applied by government extension services beyond the lifetime of their partnership with PRISMA. The government has changed the type of subsidy seed from OPV to dominated hybrid varieties and allocated the hybrid seed subsidy to more underdeveloped areas.
- DGW, BASF, FMC and Petro Kimia Kayaku (crop protection companies), and Pupuk Tawon and NPK Mutiara (fertiliser) started conducting joint promotion activities, targeting maize farmers with Corteva and Syngenta seed.

marketing strategy in the new targeted areas in Sulawesi.

- Based on results from the market assessment, Corteva developed new drought-resistant seed to fulfil market demand during the dry season. They also modified the marketing and communication strategy proposed by PRISMA to retarget customers in dryland areas. Some of the marketing strategy includes a Product Guarantee Program and Product Bundling with crop protection.
- Corteva allocated resources to conduct a product satisfaction survey as part of the P21 launch agenda, continuing on from PRISMA's support with an interim survey. The report is expected to be published by April 2021.

Expand and Respond

- Crowding-in and responses from other market actors are yet to be seen. Progress will be observed throughout the next semester and on an ongoing basis.

Maize NTB

West Nusa Tenggara (NTB) is among Indonesia's top ten maize-producing provinces accounting for 6.8 per cent (two million MTs) of the country's maize production in 2018. Although its contribution is small, maize cultivation in NTB has increased by more than 200 per cent since 2013. This corresponds to a CAGR of 27.2 per cent between 2014 and 2018. In comparison, the national CAGR was 12.1 per cent over the same period. The average productivity of maize in NTB is 6.7 MTs per ha – higher than the national figure (5.2 MTs per ha). Rapid growth in NTB's maize sector was driven by significant increases in the harvested area and it is estimated that there is an increase in the number of 66,202 new maize farming households. Between 2015 and 2017, there was a 167,000-ha increase in maize farming area, which only slightly decreased in 2018. Trends in food crop cultivation in NTB indicate that this increase was realised from switching 63,000 ha from other crops (such as soybean, mung bean, cassava and sweet potato) and possibly 104,000 ha from expanding the planting area. In other districts like Lombok Timur, the trend of tobacco farming showed a significant decrease between 2012 and 2018, with 60 per cent of farmers leaving the industry and switching to planting secondary crops - mainly maize. These new maize farmers have an average experience of growing maize of less than three years and have significantly lower productivity compared to more advanced districts.

As the COVID-19 pandemic developed rapidly, farming activity has been influenced in several ways. Labour is scarce due to travel restrictions and labour costs are higher. The latest information from NTB shows that farmers are having trouble with financing their farming activities, leading them to buy fewer inputs and reduce the amount of input used.



Challenges and constraints - NTB

Although maize productivity in NTB is high, farmers continue to face challenges in their efforts to maximize productivity and reduce costs. These include:

Limited access to affordable bank loans. The use of hybrid seed requires a sufficient supply of other inputs such as fertiliser, agrichemicals (including herbicide and pesticide) and labour. Farmers have little money to support these and limited access to external financial resources. Some farmers rely on moneylenders who provide loans at exorbitant rates of interest. The NTB market survey showed 25 per cent of farmers in Lombok take out informal loans, while only three per cent of borrowers are able to access formal finance. In Sumbawa, 16.7 per cent of farmers take out informal loans, and 54 per cent of farmers in Lombok and Sumbawa respectively are self-funded.

Mechanisation to support agricultural activities has not been widely introduced. Maize prices vary depending on the physical form in which it is sold. For example, grain is much more expensive than cobs. Particularly in Lombok, farmers do not have access to affordable maize threshing machines or service providers. In addition, the cost of labour is increasing, making the need to use agricultural machinery increasingly important.

Maize productivity does not reach its optimum level due to improper application of GAP; in pockets low productivity correlates with low quality seed. Farmers have limited access to information from public extension officers, who only visit farmers at times of subsidy provision and proposal development. Information from input suppliers is available, but delivery has not been effectively received by farmers.

Due to COVID-19, labour scarcity has become a new challenge for farmers in areas such as Sumbawa and Lombok. Movement restrictions have hindered farmers from hiring labour from other areas such as Bima and NTT. Consequently, harvest and post-harvest processes take longer, leading to low quality grains, damage and pests. In addition, farmers are experiencing low purchasing power due to limited access to finance and they have lost their other sources of income. As a result, farmers are trying to sell their assets to be able to continue farming during the main season.



Intervention areas

To address these challenges and constraints, PRISMA works with partners to:

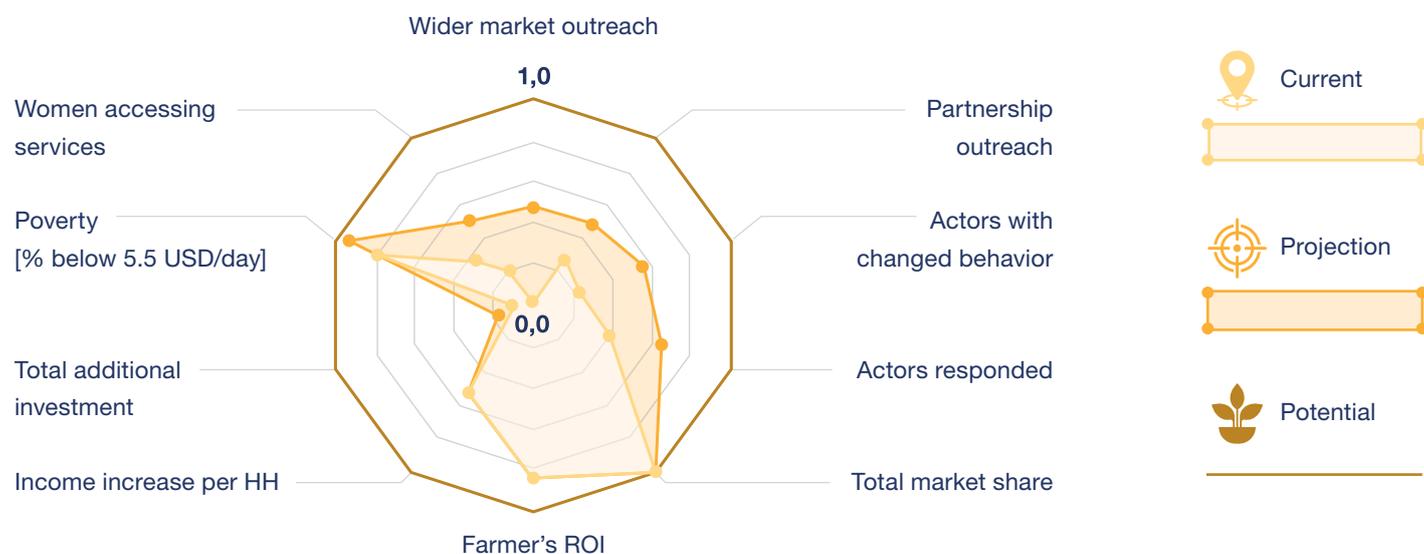
Promote quality hybrid seed and GAP to new maize farmers.	
Promote financial products appropriate for maize farmers.	Optimise fertiliser inputs in more advanced areas.
Promote access to affordable on-farm and off-farm machinery and services.	Facilitate access to irrigation and its services for the second planting season.



Subsector vision for systemic change

PRISMA aims to increase production and productivity in pocket areas by facilitating seed producers and other input companies to reach out to farmers with quality inputs, GAP training and private off takers to expand sourcing areas and provide embedded services. By 2023, about 9,095 farming household will increase their incomes by 47.6 per cent due to proper use of and/or access to improved hybrid seed, fertiliser, mechanisation, finance and off-taking services.

Maize NTB system boundary and vision





Progress towards subsector vision

Adopt

- Corteva invested in promotional activities for hybrid maize in pocket areas (former tobacco areas in Lombok Timur and Lombok Tengah, and newly developed maize areas in West Sumbawa). 14,268 farmers (49 per cent are female farmers) have accessed the information and Corteva's sales rose from 17 to 280 tonnes in 2019.
- Corteva conducted applied research in tobacco-farming areas by utilising a tobacco oven as an alternative dryer for maize. The result has been shared with a wider audience including local governments, farmers, and other private sectors.

Adapt

- Corteva increased its investment into expanding hybrid maize seed promotion in pocket areas (former tobacco areas in Lombok Timur and Lombok Tengah, and newly developed maize areas in West Sumbawa).
- Corteva initiated and implemented a market survey to analyse farmers' purchasing power during the COVID-19 pandemic in Sumbawa, Lombok, Bima and Dompu. The survey results will be used to develop a more suitable marketing strategy during the pandemic.

Expand

- Dinas Pertanian Lombok Timur and Lombok Tengah are interested in sharing the results of alternative drying tools for maize to their extension service staff in those areas.
- Sakpattana, a machinery company, has entered the market in Sumbawa and introduced combine harvesters to maize farmers.

Respond

- Crowding-in from other market actors are yet to be seen. Progress will be observed throughout the next semester and on an ongoing basis.

Maize NTT

East Nusa Tenggara (NTT) is largely characterised by its drylands and a dry climate; it is Indonesia's twelfth largest producer of maize, contributing 859,230 MTs (2.9 per cent) to national production in 2018¹⁷. With a greater harvest area than paddy, maize is the most widely grown crop in NTT, engaging 512,021 (71 per cent) of all of the province's smallholder farming households¹⁸. However, production growth is very low, at only 0.9 per cent per year (2010-2016)¹⁹. Productivity is just 2.5 MTs per ha, less than half the current national average of 5.23 MTs per ha²⁰. Unlike East Java and NTB, where most of the grain goes to supply milling operations, maize produced in NTT is used mainly for human consumption and for feeding household livestock. Local maize, which is the main variety grown, is popular because of its taste, cooking characteristics, and resistance to pests during storage.

In 2019, the government of NTT announced its vision of increasing production of maize by 218 per cent from 2018-2023, which means that the production of maize NTT in 2023 will need to reach 1.85 million tonnes. The target is to achieve self-sufficiency of maize in NTT: for human consumption (7 per cent), to fulfil raw material demand from the future feed mill factory (54 per cent) and to export the rest to other provinces such as East Java for production (39 per cent). To achieve this target, the NTT provincial government paid considerable attention to the maize development program, mainly through following the "Corn Agri-business Community Movement (GEMA AGUNG)" approach initiated by National Corn Council. GEMA AGUNG approach, it is expected to be able to meet the needs of feed industry raw materials and ensure the availability of food self-sufficiency in NTT. To realise GEMA AGUNG, the NTT government has developed a program called "Tanam Jagung Panen Sap" (TJPS), which is expected to strengthen supply-demand system of maize NTT.

The COVID-19 pandemic has negatively impacted almost all maize stakeholders in NTT. At the farmer level, the price of maize grain in 2020 was 12 per cent lower than in 2019. However, although they have limited access to information due to social restriction, some farmers under TJPS program could still benefit from easy access to products and services (inputs, GAP information, and off-takers). Private players and the government cut their budgets (e.g., Provincial Agriculture Office of NTT cut their budget by almost 50 per cent), resulting in operational delays (eg: staff reduction for private players, limitation on contract field staff for Government, limited field and promotional activities). In some area, local seed producers have struggled to find agri-inputs such as fertiliser.



Challenges and constraints - NTT

PRISMA has focused mainly on the Timor island, whose five districts are among NTT's top seven maize producing districts. In summary, challenges and constraints faced by smallholder farmers are:

Limited access to improved seeds. Information and access to good quality seed is not widely available. Local nurseries do not expand their market beyond subsidy programs to reach commercial farmers, while private seed companies are hesitant to enter the NTT market due to limited information on risk profiles and market research.

Low productivity because of poor agricultural practices. Current yields are constrained by farmers' limited access to information on proper input application to increase productivity. This condition occurs mainly because public extension services are not updated with current technology and information, while private sector extension services are not widely available.

Limited access to other inputs such as fertilisers and crop protection products. Limited commercial fertiliser and crop protection companies enter the market because farmers have low purchasing power and still have a subsistence farming mindset.

Lack of labour and access to machinery. The provision of machines by the government is still limited and many of those machines fall into disrepair because farmers have limited knowledge of how and where to repair them. Private providers are rare because they lack knowledge of the market's potential.

Poor post-harvest practices. Poor quality maize can be attributed to insufficient knowledge of good post-harvest practices and maize quality standards, along with limited access to good post-harvest equipment.

¹⁷ Badan Pusat Statistik NTT 2018.

¹⁸ Survei Pertanian antar Sensus (SUTAS) 2018.

¹⁹ Statistik Pertanian Nusa Tenggara Timur 2016.

²⁰ Statistik Pertanian 2017.

Limited access to irrigation. Low cost well drillers have not entered the market because farmers lack the purchasing power needed to use their services and do not yet think of long-term investment (subsistence farming mindset).

Limited access to market. Off-takers struggle to procure local maize because of its limited availability: low productivity and low quality are caused by poor GHP and storage practices.

Due to COVID-19, some new challenges have arisen particularly at the farmer level. There is a significant decline in demand from feed mills, causing prices to plummet. In addition, limited access to information and labour shortage due to large social restrictions have added to challenges. These impact farmers who struggle to secure investment for the next planting season.



Intervention areas

To address these challenges and constraints, PRISMA will work with partners to:

Promote the use of OPV and improve OPV seed production and promotion.	Promote the use of hybrid seed in more advanced areas.	Support off-takers (local and national) to develop supply chain in NTT	Promote the use of and access to other inputs (e.g., fertiliser, crop protection), irrigation, financing and machinery (collaborative work with other PRISMA's sectors).
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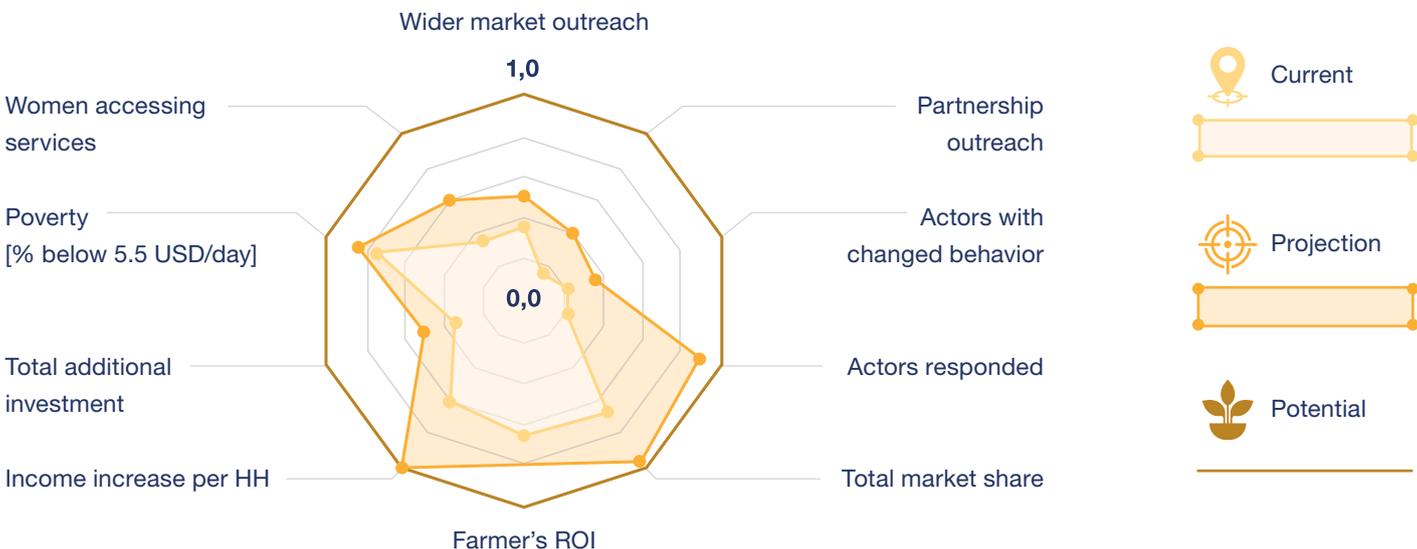


Subsector vision for systemic change

PRISMA aims to increase production and productivity of maize in NTT by improving the capacity of OPV seed producers for production and commercial market, facilitating local government in development and implementation of the sector strategy and policy, facilitating national and local off-taking companies in sourcing supply, and facilitating coordination among key market players.

By 2023, about 70,674 maize farming households will have increased their income by 94 per cent due to the adoption of and/or better access to improved cultivation techniques and quality seeds, grain market, and other agriculture inputs and services.

Maize NTT system boundary and vision





Progress towards subsector vision

Adopt

- The Agriculture Office and BPTP of NTT developed the Maize NTT Roadmap as guidance for the achievement of its maize production target in 2023. Some activities (e.g. capacity development of selected local nurseries and private sector engagement at demand side) are already ongoing.
- The Government invested in promoting maize value-chain development by providing subsidy seed (OPV and Hybrid), technical support to farmers and connections with off-taker (e.g., TJPS OPV, Gema agung, and food estate hybrid) and has increased its target to 200,000 ha of planting area by 2023.
- Corteva invested in promotional activities in Kupang and Malaka and hired an additional field employee to target 30 tonnes of total sales from the commercial market by 2020.
- PT Seger Agro Nusantara (the largest off-taking company in Indonesia) invested resources for assessment in NTT and participated in discussions with the Agriculture Office of NTT on off-taking maize grain from the TJPS program in 2021.

Adapt

- The Agriculture Office of NTT re-activated a certification lab in Ende (Flores Island) and West Sumba (Sumba Island) since May 2020. As per September 2020, the sub-lab in Ende has released a certificate for 12 MT of maize seeds and 18 MT of rice seeds. The sub-lab in West Sumba has released certificate for 50 MT for both maize and rice seed.
- Three prominent local nurseries (YMTM, TPM and Gaspar Bao) expanded their target markets for commercial seeds in Timor (TTU, TTS, Malaka, Belu) and Flores (East Flores, Sikka, Ngada).
- =Gaspar Bao (a local seed producer) invested in eight irrigation wells and expanded his business to off-taking in East Flores and Sikka. OPV seed production increased by 117 per cent and commercial sales increased by 125 per cent compared to 2019. He became adaptive by himself during COVID-19 by requesting a certificate of health from Public Health Office and a permit pass from Transportation Office to ease mobilisation for selling the seeds.

- Petrus Mulyanto (a local seed producer in Belu) expanded his seed business to off-taking in Belu and Malaka.
- The Agriculture Office of NTT incorporated PRISMA's suggestion to improve the TJPS program design by adding four topics in the existing module which includes marketing strategy, monitoring and evaluation.
- Corteva increased the participation of women in its activities by hiring women canvassers and inviting female farmers to its Kampung Pioneer activity.

Expand

- Yohanes Mulyono (a local seed producer in East Flores), with support from Gaspar Bao, copied best practices and increased his production by 100 per cent compared to 2019. Targeting East Flores as a commercial market, his sales increased by 48 per cent in 2020.
- Sangkara, a national hybrid seed company started to produce hybrid seed on 50 ha as part of a Farming Corporation program. Initial target production was 75 tons of seed. However, they could only produce 4 tons due to drought.

Respond

- Two off-takers (PT Suaka Bumi and PT Flobamora) have started to procure maize from the TJPS program and successfully delivered around 750 tonnes of maize grain to Java.
- Pupuk Kalimantan Timur (PKT) has expanded in three districts (Kupang, TTU, TTS) for commercial fertiliser and engaged with two distributors.
- PowerAgro, an irrigation service provider based in Kupang, engaged with Gaspar Bao to promote irrigation services in Sikka and East Flores.
- \PT Rutan Surabaya, a mechanization company, started discussions on developing an entry strategy to promote harvesting tools in low land areas.



Mechanisation Sector Summary

PRISMA Performance up to December 2020

Indicator		Cumulative Outreach Actual to Dec 2020 (HHs)*	Total NAIC to Dec 2020 (%)* -		Value for Money (VFM)*		Investment Leverage -		Investment Per HH -		Social Return -
		Cumulative Outreach Projected to Dec 2023 (HHs)	Total NAIC up to Dec 2020 (IDR)* -	Total projected NAIC to Dec 2023 (IDR)							



East Java

Quick Facts

- Estimated mechanisable area (paddy) **28%**
- Total number of (paddy) farmers within mechanizable area **445,951**
- Total potential market of mechanisation (paddy wetland) (Ha) **295,996**

PRISMA Performance*

Cumulative outreach actual to Dec 2020 (HHs)	-	Total NAIC to Dec 2020 (%)	-
Cumulative outreach projected to Dec 2023 (HHs)	19,288	Total NAIC up to Dec 2020 (IDR)	-
		Total projected NAIC to Dec 2023 (IDR)	5.7 billion

Central Java

Quick Facts

- Estimated mechanisable area (paddy) **28%**
- Total number of (paddy) farmers within mechanizable area **426,423**
- Total potential market of mechanisation (paddy wetland) (Ha) **295,996**

PRISMA Performance*

Cumulative outreach actual to Dec 2020 (HHs)	-	Total NAIC to Dec 2020 (%)	-
Cumulative outreach projected to Dec 2023 (HHs)	7,800	Total NAIC up to Dec 2020 (IDR)	-
		Total projected NAIC to Dec 2023 (IDR)	5.0 billion

QUICK FACTS

- Global agricultural machineries market growth **8.6%**
- CAGR agriculture labour in Indonesia, 2009-2018 **-1,2%**
- CAGR day labour cost in Indonesia (harvesting) **3.9%**
- Ratio labour cost to production cost in Indonesia **49%**

Facts Source: Ministry of Agriculture 2018, Technavio 2018, BPS (SOUT) 2017, BPS 2019

NTB

Quick Facts

- Estimated mechanisable area (paddy) **38%**
- Total number of (paddy) farmers within mechanizable area **90,549**
- Total potential market of mechanisation (paddy wetland) (Ha) **62,060**

PRISMA Performance*

Cumulative outreach actual to Dec 2020 (HHs)	-	Total NAIC to Dec 2020 (%)	-
Cumulative outreach projected to Dec 2023 (HHs)	19,114	Total NAIC up to Dec 2020 (IDR)	-
		Total projected NAIC to Dec 2023 (IDR)	12.4 billion

*) interventions are currently working at the activity, partner and ISP level; the degree of impact cannot yet be calculated
COVID-19 has prevented impact assessments; the degree of impact cannot yet be calculated

Mechanisation East Java and NTB

Increasing production costs are a primary challenge for smallholder farmers in Indonesia. Labour costs account for up to 49 per cent of total production (Agriculture Labour Cost Survey or SOUT, 2018). An aging rural labour market perpetuates high and increasing labour costs as young people tend to migrate to urban areas searching for job opportunities. In East Java (EJ) and West Nusa Tenggara (NTB), total labour in agriculture has declined at a CAGR of 2.4 per cent and 4.8 per cent from 2014 to 2018 respectively, making it increasingly difficult for farmers to find workers for their land.

Agriculture mechanisation can address the labour cost and availability issue. Approximately 28 per cent and 38 per cent in EJ and NTB farming areas can be accessed easily by large machinery. The rest of the farming areas are not easily accessible, which presents an opportunity for intermediary technology, such as small agricultural machinery and tools.

COVID-19 has had a significant impact on the sector, specifically with regard to limited availability of machine financing options. Machinery companies also face limited field marketing activities due to travel and mass gathering restrictions.



Challenges and constraints

The root cause of agriculture machinery market underperformance is as follows:

Limited information about large machine service market and business potential. Many importers have not built their commercial market capacity as they have been relying on government procurement. As a result, the growth of private machine service providers (MSPs) is limited as manufacturers do not actively promote and provide information about the machine and the business opportunity to potential market segments. Meanwhile, the government MSPs have limited machine utilisation. This market dynamic leads to limited access to machinery service at farmer level. As per PRISMA's survey in 2019, 68 per cent of farmers in East Java are interested in using the service but do not have access to it.

Limited information about relevant small machinery and tools. Farmers have little awareness of small machinery and tools that are relevant to them. Most small agricultural machinery vendors do not promote their products as they lack information about the local context or needs and perceive marketing as a high-effort low-return activity

The mechanisation sector has been hit hard by COVID-19:

- **Supply chain disruption.** In the earlier phase of the COVID-19 outbreak, the temporary closure of manufacturing plants due to lockdown measures in China resulted in a slowdown in worldwide agriculture machinery production. Companies with limited remaining stocks and which rely on China as a sole product supplier have been the most impacted. Companies are still experiencing higher logistic costs in 2021: one partner reported that its logistic costs are ten times higher than before the pandemic.
- **Travel and mass gathering restrictions** have caused problems for companies wishing to promote their machines. Before the pandemic, companies relied on machine demonstrations as the main vehicle of introducing their products to farmers. Machine demonstrations are one of the highest priorities in marketing agendas and contribute the most sales. Unable to do that, some companies have stopped their marketing activities completely. Other companies are still conducting limited machine demos by reducing audiences and implementing health protocols.
- **Most financial institutions have cut off agricultural machinery loans** to prospective buyers and companies due to lower confidence in borrowers' capacity for repayment. Only a few financial institutions are providing loans with higher down payment requirements, which has caused some prospective buyers to cancel their machine purchases.

MSPs have limited capacity and supporting functions to operate profitably. Many MSPs struggle to achieve profitable returns from machine operation due to their low utilisation rate. This risk can be caused by lack of management capacity, marketing, and ability to coordinate small orders, as well as the high occurrence of machine breakdown. Such factors present a high barrier of entry for aspiring MSPs and causes some MSPs to exit the business.



Intervention areas

To address these challenges and constraints, PRISMA will work with private sector partners to:

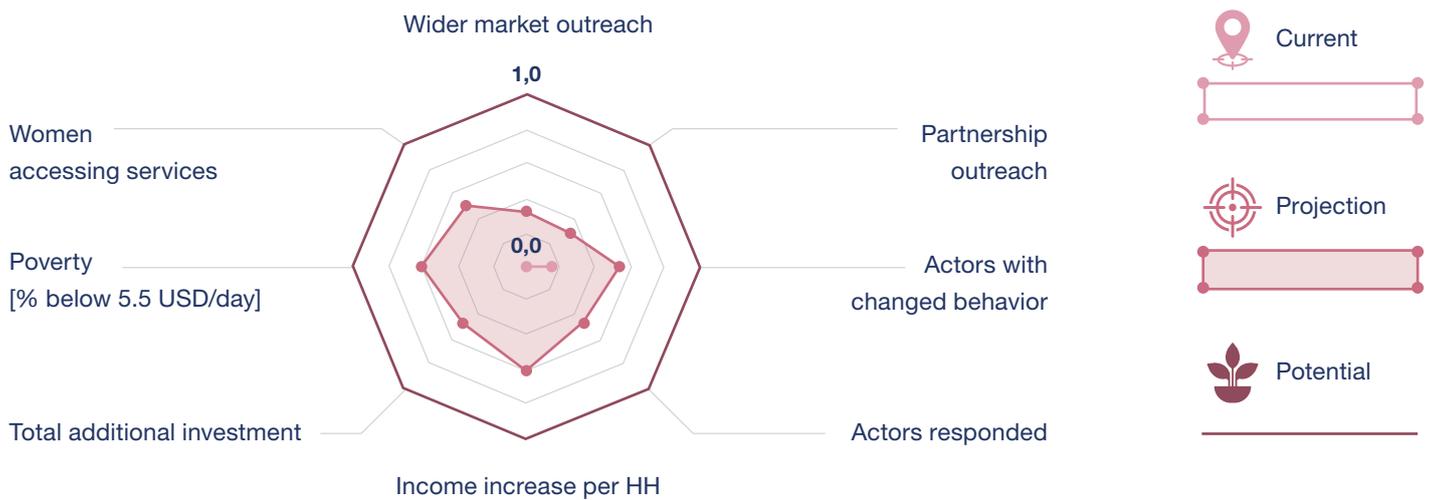
<p>Innovate offline and online marketing activities for potential large and small machinery to increase farmers access to machinery/machinery services.</p>	<p>Introduce machine management outsourcing service to support machine service providers in reaching more farmers.</p>
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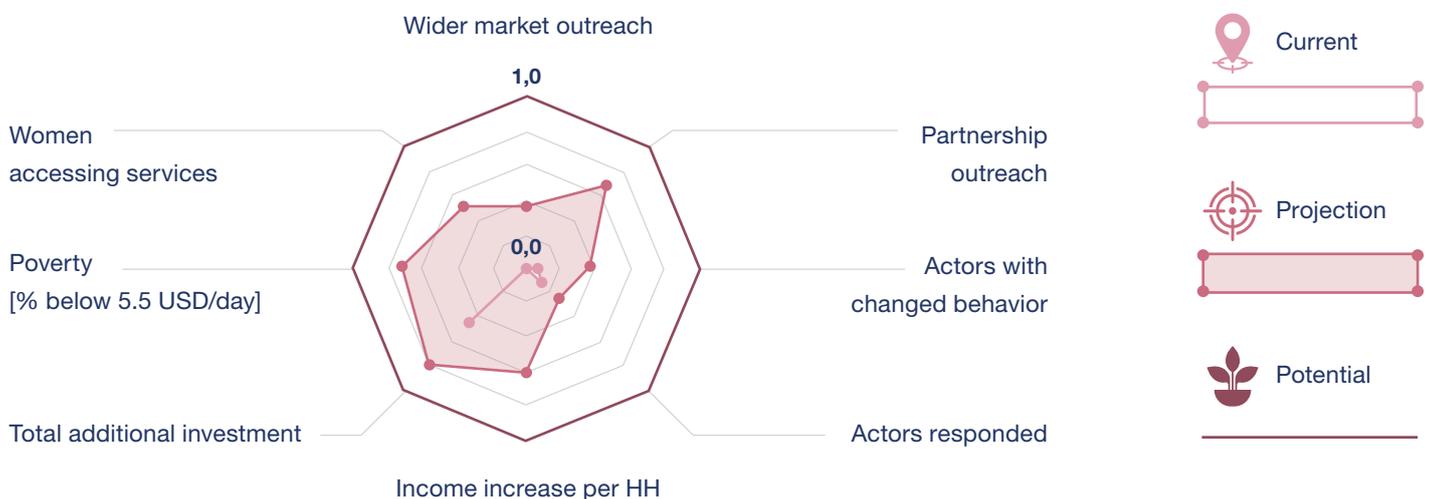
Subsector vision for systemic change

PRISMA aims to improve farmers' access to small and large machinery services in East Java and NTB, leading to a more efficient farming process and reduced production costs. To achieve this, PRISMA will support manufacturers/importers in promoting their machines and business potential, hence there will be more MSPs providing service to farmers. Small machinery and tools will lead to more farmers using products suitable for their needs and context. PRISMA also aims to support the introduction of a machine management outsourcing service, which is expected to reduce the barrier of entry for aspiring large machinery service providers.

Mechanisation East Java system boundary and vision



Mechanisation NTB system boundary and vision





Progress towards subsector vision

Adopt

- PT Rutan has incorporated market research insights into its marketing strategy development and targeted areas where farmers are still lacking access for machine demonstrations.
- As a response to the travel and mass gathering restrictions posed by COVID-19, PT Rutan is shifting from offline marketing to social media marketing. Furthermore, it is improving its after-sales service strategy to gain more commercial market share. This has resulted in 46 per cent growth in commercial sales year on year, representing approximately 14,344 farmers accessed by these machineries.
- Terra executed its machine management business model in NTB, working with five local agents to provide machinery services to 310 ha of farming areas.
- As part of COVID-19 response, PRISMA supported PT Galaxy Partani Mas, a potential partner, to set up its social media presence and perform a preliminary online marketing trial. Galaxy is satisfied with the result and has now dedicated one online customer service employee to managing incoming queries from farmers.
- PT Galaxy Partani Mas implemented specific Facebook ads targeted to female farmers. As a result, it increased women's access to information about farming tools suitable for them. The ads also have better engagement rate compared with non-specific ads targeted at both male and female farmers.
- PT Galaxy Partani Mas hired new field staff in two areas, Kudus (CJ) and Bojonegoro (EJ) to implement their offline marketing activities. The current activities include small machinery demo and canvassing, which have led to the sales of some products including maize planters, mini rice milling units and electric sprayers.

Adapt

- Terra has expanded its operations to EJ as recommended by PRISMA. In EJ, the machine service delivery is handled in-house and brokers are registered into the system to promote Terra's service and aggregate smallholder farmers' orders. The EJ model has outperformed NTB and Terra plans to mobilise more machines to EJ.
- Terra has expanded promotion to B2B clients, such as PT Syngenta and PT MHI as a gateway to introducing new machines to the market such as drone sprayers, maize planters and whole cob corn combine harvesters.
- Terra has lowered their service price in NTB to IDR1.5 million during low season to IDR2.1 million during high season, to attract more farmers and collectors to use their service.

Expand

- Other machine suppliers, PT Corrin Mulia Gemilang and Firman Indonesia are showing interest in expanding their market through online and offline marketing in the less saturated area of EJ, CJ, NTB, NTT and Papua to promote machinery for commodities aside from rice. PRISMA is expecting at least two new contracts within the next semester.

Respond

- Andaf Corporation, a digital marketing agency, is interested in expanding their portfolio to the agriculture sector. PRISMA is supporting Andaf to promote its services to agriculture machinery companies. Andaf has provided services to two agriculture machinery companies.

Mung Bean Sector Summary

PRISMA Performance up to December 2020

Indicator	<p>Cumulative Outreach Actual to Dec 2020 (HHs) 18,766</p> <p>Cumulative Outreach Projected to Dec 2023 (HHs) 53,528</p>	<p>Total NAIC to Dec 2020 (%) 29% ↑</p>	Value for Money (VFM)	<p>Investment Leverage 0.3</p>	<p>Investment Per HH AUD 86.4</p>	<p>Social Return 0.6</p>
	<p>Total NAIC up to Dec 2020 (IDR) 9.6 billion</p> <p>Total projected NAIC to Dec 2023 (IDR) 30.9 billion</p>	<p>Investment Leverage 0.3</p>		<p>Investment Per HH AUD 86.4</p>	<p>Social Return 0.6</p>	



Central Java

East Java

NTT



LEGEND	
	Active working province
	Past working province

East Java

Quick Facts



Total provincial production (MT)
40,780



Total provincial harvested area (Ha)
32,110



Total farm households in the sector
181,306

PRISMA Performance

Cumulative outreach projected to Dec 2023 (HHs)
17,017

17,017

Total NAIC to Dec 2020 (%)
33%



Cumulative outreach actual to Dec 2020 (HHs)
8,059

8,059

Total NAIC up to Dec 2020 (IDR)
3.9 billion

Total projected NAIC to Dec 2023 (IDR)
11.4 billion

Central Java

Quick Facts



Total provincial production (MT)
108,037



Total provincial harvested area (Ha)
104,442



Total farm households in the sector
239,959

PRISMA Performance

Cumulative outreach projected to Dec 2023 (HHs)
35,750

35,750

Total NAIC to Dec 2020 (%)
23%



Cumulative outreach actual to Dec 2020 (HHs)
9,946

9,946

Total NAIC up to Dec 2020 (IDR)
5.3 billion

Total projected NAIC to Dec 2023 (IDR)
19 billion

QUICK FACTS



Total production
207,000 MT



Total harvested area
192,000 Ha



Total productivity
1,079 kg/Ha



Demand
4.5% ↑

Facts Source: Statistik Pertanian 2019, Sutas 2018

NTT

Quick Facts



Total provincial production (MT)
10,319



Total provincial harvested area (Ha)
12,236



Total farm households in the sector
38,829

PRISMA Performance

Cumulative outreach projected to Dec 2023 (HHs)
761

761

Total NAIC to Dec 2020 (%)
41%



Cumulative outreach actual to Dec 2020 (HHs)
761

761

Total NAIC up to Dec 2020 (IDR)
400.8 billion

Total projected NAIC to Dec 2023 (IDR)
400.8 billion

Mung bean Central Java

Indonesian mung bean consumption is increasing by 4.5 per cent annually according to data from the General of Ministry of Agriculture. However, national production has yet to fulfil demand, resulting in high annual mung bean imports (102,000 MT in 2018). In addition, Indonesia also increased its mung bean export by 16 per cent from 2016 to 2018 and is currently the seventh-largest exporter worldwide. The government subsidy program's budget on mung bean in 2020 was mostly re-allocated to other national strategic crops such as rice and maize when COVID-19 hit. Otherwise, the COVID-19 impact on mung bean has been relatively moderate in comparison to other crops such as maize and vegetables.

Central Java (CJ) is the largest mung bean producer in Indonesia, accounting for around 40 per cent of national production. After paddy, it is a popular crop among farming households in CJ (about 258,000 households), even though domestic production is declining by approximately 3 per cent annually.²¹ Productivity in CJ alone is 1.2 MTs per ha, slightly higher than national productivity (1.1 MTs per ha) but still lower than other provinces (South Sumatera, West Sulawesi and Gorontalo). Increasing mung bean productivity can be achieved by using high yield seed varieties, which could increase the production up to 2 MT per ha. Considering the number of low-income households and different market actors' availability in the mung bean sector, CJ has the potential to increase its production and productivity to meet the national demand gap.



Challenges and constraints

There are several reasons why the mung bean sector in Central Java is unable to increase its productivity and production:

Limited use of high yield varieties of mung bean seed. Most smallholder farming households use retained or uncertified seed, considering it more accessible and affordable. However, local seed varieties usually produce a lower yield and need multiple harvests, corresponding to higher labour costs. The limited number of high-quality seed available is the reason behind farmers' lack of awareness of better varieties. The challenge arises from the limited number of seed producers in the open market and unequal seed subsidy distribution in CJ.

Mung bean farmers in Central Java do not apply proper GAP due to their limited access to GAP information. The practice is exacerbated by the traditional perception of most farmers that mung bean will grow without GAP. Mung bean is currently not a government priority program and public extension service providers focus only on staple crops. Moreover, only a limited government budget is allocated to incentivising extension services to disseminate GAP information for farmers.

Mung bean farmers experience high production costs and choose to plant mung bean only in small areas due to high labour costs. During harvesting, workers cannot pick the beans simultaneously, as farmers use many different varieties in the same field. Limited information on affordable options of harvesting technology also has disincentivised farmers from planting more mung bean.

Due to COVID-19, farmers' access to quality seed and GAP has been disrupted. Limitations on seed subsidy program and mass gathering have obstructed public and private sector initiatives to disseminate more extension services for mung bean farmers.



Intervention areas

To address these challenges and constraints, PRISMA will work with private sector partners to:

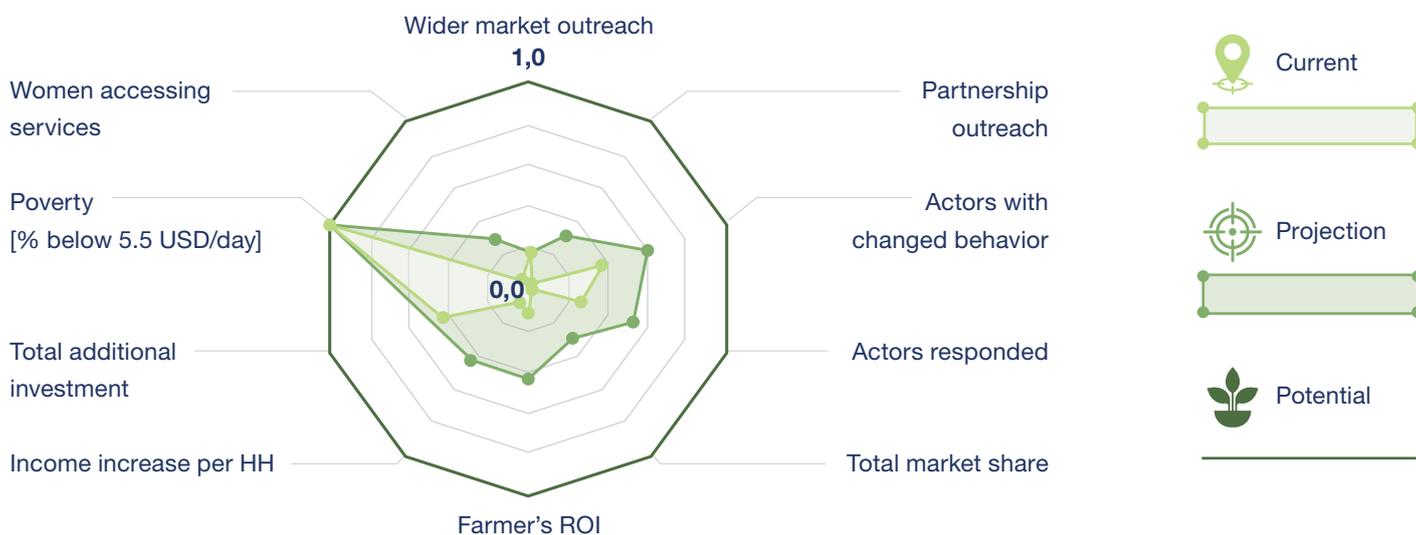
<p>Collaborate with private sector seed nurseries to produce a higher quality of mung bean seed and increase farmer awareness in GAP.</p>	<p>Initiate multi-stakeholder discussions to explore potential collaboration between market players (both private and public sector) to increase their awareness of the mung bean industry.</p>
<p>Facilitate partnerships between seed research institutions (such as Balitkabi) and the private sector to provide capacity building to seed producers (farmers). This approach aims to produce better quality mung bean seed and ensure the timely availability of foundation seed.</p>	<p>Facilitate collaboration between government and seed providers to improve the implementation of the seed subsidy program. This public-private partnership aims to give access to high-quality seed for more farmers, as well as embedded extension services.</p>



Subsector vision for systemic change

PRISMA aims to establish a better mung bean seed market and create GAP awareness by improving key market actors' capacity. Seed producers and agri-input kiosks will actively promote certified/ high-quality varieties of the mung bean seed and GAP importance. By 2023, up to 50,000 smallholder farming households in CJ will experience income increases due to higher mung bean productivity and lower production costs, as well as better access to and knowledge of certified mung bean seed and GAP. The better quality and single variety used of mung bean production as the result of the intervention has the potential to increase the export number of national mung bean commodity and fulfilled the local market demand.

Mung bean Central Java system boundary and vision



Mung bean East Java

East Java (EJ) is Indonesia's second-largest producer of mung bean. Together with the largest producer, CJ, the two provinces accounted for 68 per cent of Indonesia's total production of mung bean in 2018. East Java has around 233,000 mung bean farmers, roughly half of whom are in Madura, while the rest are spread across 30 or more districts. Since 2008, mung bean production and its cultivation area have decreased in EJ, with only a slight increase in productivity, currently at 0.8 MT per ha. This yield average is much less than the potential to increase production up to 2 MT per ha by using high-quality certified seeds.

Farmers in EJ have the potential to increase their income from mung bean cultivation to supply increasing national and international demand as well as the availability of better quality input.



Challenges and constraints

There are several reasons why the mung bean sector in Central Java is unable to increase its productivity and production:

Lack of commercial players and limited distribution of quality mung bean seed, including in areas with high numbers of mung bean farmers. Seed producers are reluctant to instigate production and invest in marketing as demand and profit are still uncertain. Farmers in sub-districts in Madura, which are the highest mung bean producers, are perceived to have low purchasing power.

Lack of information about better cultivation practices, improved seed and inputs, and mung bean's overall potential as a more profitable cash crop. There are no market actors providing cultivation information for farmers.

Mung bean is not considered a nationally important crop according to the government development strategy. As a result, extension services (which function with limited knowledge and resources) do not focus on it.

The rat attack has resulted in harvesting failure. East Java has suffered from persistent rat attacks in several sequential planting seasons, which also happened to other crops. As a result, farmers are reluctant to invest more in mung bean production.

COVID-19 has made the distribution of information more difficult due to the limitation of farmer meetings and gatherings. The pandemic has also forced MoA and local government to focus more on staple crops such as maize and paddy and cancelled the mung bean seed subsidy for this budget year.



Intervention areas

To address these challenges and constraints, PRISMA is working with partners to:

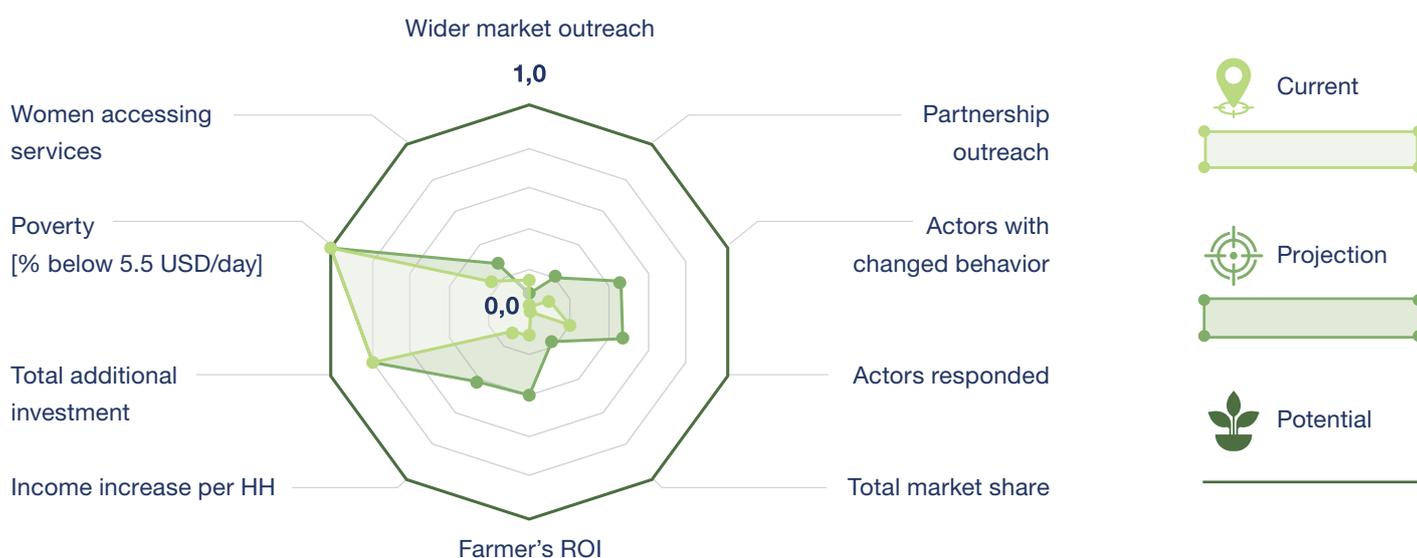
<p>Promote high-yielding varieties of the mung bean seed and GAP application through partnerships with seed companies. High-yielding varieties will allow farmers to produce mung bean varieties that have higher yields and a uniform harvest.</p>	<p>Develop new and high-yielding varieties of mung bean seed which match end-market demand, by linking seed companies with research institutions.</p>	<p>Initiate multi-stakeholder discussions to explore potential collaboration with other market players (both private and public) to increase market player awareness of the mung bean industry.</p>
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Subsector vision for systemic change

By 2023, PRISMA aims for up to 20,000 male and female mung bean farmers in EJ to have increased their productivity by having access to certified mung bean seed. It will achieve this by helping seed producers to develop their business portfolios and increase turnover through effective marketing strategies designed to sell certified quality mung bean seed and educate farmers in GAP. This approach will result in mung bean farmers producing and selling more mung beans at a higher price.

Mung bean East Java system boundary and vision





Progress towards subsector vision (Central Java and East Java)

PRISMA works in CJ and EJ with the same partners and intervention areas; progress is similar in both provinces.

Adopt

- EWINDO and CV Semi produce a certified, high-quality variety of mung bean seed (Vima 1 for EWINDO, Vima 1 and 3 for CV Semi). Both continue to follow the business model that PRISMA promoted in its first intervention.
- EWINDO underwent the legal process needed to expand its business to food crop seed production.
- EWINDO has utilised Facebook to promote its products and disseminate GAP through webinars. Initially EWINDO aimed to promote mung bean nutrition benefit to farmers and rural households in response to food insecurities during COVID-19. However, following internal evaluation on the impact of nutrition campaign, EWINDO decided to continue to stop the nutrition campaign and focus on their product features and GAP as key message in their digital marketing.
- EWINDO has developed a new normal agriculture practice campaign to farmers as a response to COVID-19. EWINDO will distribute this guidance to dealers all around Indonesia and use its digital platform.
- CV Semi has established social media and website development as part of digital marketing plans to substitute the direct marketing approach that is hampered during COVID-19.

Adapt

- CV Semi has independently applied for a licence to produce the Vima 2, 4, and 5 seed variety and the breeder seed of all Vima varieties.
- CV Semi is serving the untapped market in NTT and South Kalimantan through the government subsidy program and NTB, Banten, West Java, South Sulawesi, and Riau through the open market.
- EWINDO has sold mung bean seed independently all over Indonesia and included mung bean in its Anoxia storage testing.
- EWINDO proposed and received licensing for internal seed certification and conducted a trial for expiration date extension with the Institute for Quality Management System Certification (Lembaga Sertifikasi Sistem Manajemen Mutu or LSSM).

Expand

- An additional mung bean seed nursery (PB Utama) entered the mung bean seed market by copying the business model from CV Luwes (a PRISMA intervention partner from Phase 1).

Respond

- Nestle Indonesia is collaborating with EWINDO to source mung bean locally. It aims to gradually replace the imported mung bean raw materials for baby food products due to the improved quality of local mung bean from the Vima variety.
- Terasindo, a food processing company, is interested in improving its mung bean sourcing to be more traceable and improve quality. Currently, Terasindo is collaborating with PB Utama to source mung bean for their mung bean powder product.
- National Nuclear Energy Agency of Indonesia (Badan Tenaga Nuklir Nasional or BATAN) is partnering with CV Semi to commercialise Murai, mung bean variety owned by BATAN. BATAN will be the second institution in Indonesia who provides mung bean foundation seed for the commercial market.

Peanut Sector Summary

PRISMA Performance up to December 2020



Central Java

East Java

NTT



LEGEND	
	Active working province
	Past working province

East Java

Quick Facts



Total provincial production (tonnes)
145,939



Total provincial harvested area (Ha)
110,414



Total farm households in the sector
476,725

PRISMA Performance

Cumulative outreach projected to Dec 2023 (HHs)

1,256

Total NAIC to Dec 2020 (%)
56%



Cumulative outreach actual to Dec 2020 (HHs)

1,209

Total NAIC up to Dec 2020 (IDR)
2.4 billion

Total projected NAIC to Dec 2023 (IDR)
2.4 billion

QUICK FACTS



Total production
457,024 MT



Total harvested area
353,768 Ha



National productivity
1.292 MT/Ha



Demand
-1.6% ↓

Facts Source: Statistik Pertanian 2019, Sensus Pertanian 2013

Central Java

Quick Facts



Total provincial production (tonnes)
86,910



Total provincial harvested area (Ha)
63,341



Total farm households in the sector
268,858

PRISMA Performance*

Cumulative outreach projected to Dec 2023 (HHs)

1,181

Total projected NAIC to Dec 2023 (IDR)
2.0 billion

Cumulative outreach actual to Dec 2020 (HHs)

-

Total NAIC to Dec 2020 (%)

-

Total NAIC up to Dec 2020 (IDR)

-

*) COVID-19 has delayed intervention activities; the degree of impact cannot yet be calculated

NTT

Quick Facts



Total provincial production (tonnes)
9,978



Total provincial harvested area (Ha)
11,564



Total farm households in the sector
48,793

PRISMA Performance

Cumulative outreach projected to Dec 2023 (HHs)

1,340

Total NAIC to Dec 2020 (%)
53%



Cumulative outreach actual to Dec 2020 (HHs)

1,340

Total NAIC up to Dec 2020 (IDR)
1.6 billion

Total projected NAIC to Dec 2023 (IDR)
1.6 billion

Peanut East Java and Central Java

Indonesia is the 21st largest peanut producer in the world, with total production of 276 thousand tonnes, comprising 0.6%²² of global production. From 2016-2021, Indonesian peanut production declined at a CAGR of 14.6 per cent with a slight increase at the end of 2018.²³ The decrease was mainly due to the refocusing of maize subsidies due to COVID 19, making it a more profitable crop alternative. Nationally, the top peanut producers are mostly located in Java Island, where East Java (29 per cent), Yogyakarta (20 per cent), Central Java (19 per cent), and West Java (eight per cent) contributed to 76 per cent of national production.

In Central Java (CJ), productivity levels have remained relatively stagnant over the past five years, at between 1.3 and 1.4 MTs per ha for its 268,858 farmers. East Java (EJ), which is home to 476,725 farming households, has consistently surpassed average national yields since 2011. Its productivity remains low compared to other top producers such as West Java (1.8 MTs per ha in 2015; an average of 1.6 MTs per ha from 2012-2016) and Central Sulawesi (an average of 1.6 MTs per ha). There is a market opportunity to expand peanut production in these provinces to meet the growing demand from industrial food processors, who are looking to expand their procurement of local peanut.



Challenges and constraints

Despite its market potential, peanut farmers are unable to obtain substantial profits due to the following constraints:

Many farmers sell peanuts at the wet pod stage directly from the farm gate, preventing value addition and improved returns. This practice originated decades ago, mainly due to factors such as well-established relationships between farmers and the farmgate buyers, labour scarcity during harvest season and farmers' preference for the quick cash system received via the farm gate system.

Farmers typically obtain peanut seed through three main channels: (1) retaining seed from the previous harvest; (2) purchasing seed from collectors, traders or neighbours, and (3) planting a small quantity of peanut alongside their primary crop during the rainy season as a source of seed. These are favoured by farmers over certified seed which is more expensive and is rarely available in traditional markets.

Large processors are allocating limited resources on sourcing peanuts from local farmers. As their core business are in trading and manufacturing, these large processors employ few staff to share information related to GAP, GHP or GPP compliance with the company standards. As such, they are unable to reach the economies of scale due to scattered farmers who own small plots.

Peanuts are not a government priority crop; as a result, allocation of public extension services is limited. In addition, no specialty input product for peanut exists, meaning that private input companies also provide no extended services to peanut farmers.

Due to COVID-19, large processors experienced a decline in peanut snack product sales and therefore reduced their input supplies. The unstable economic situation and consumer behaviour changes due to COVID-19 have led large processors to adjust their sales targets.



Intervention areas

To address these challenges and constraints, PRISMA is working with partners to:

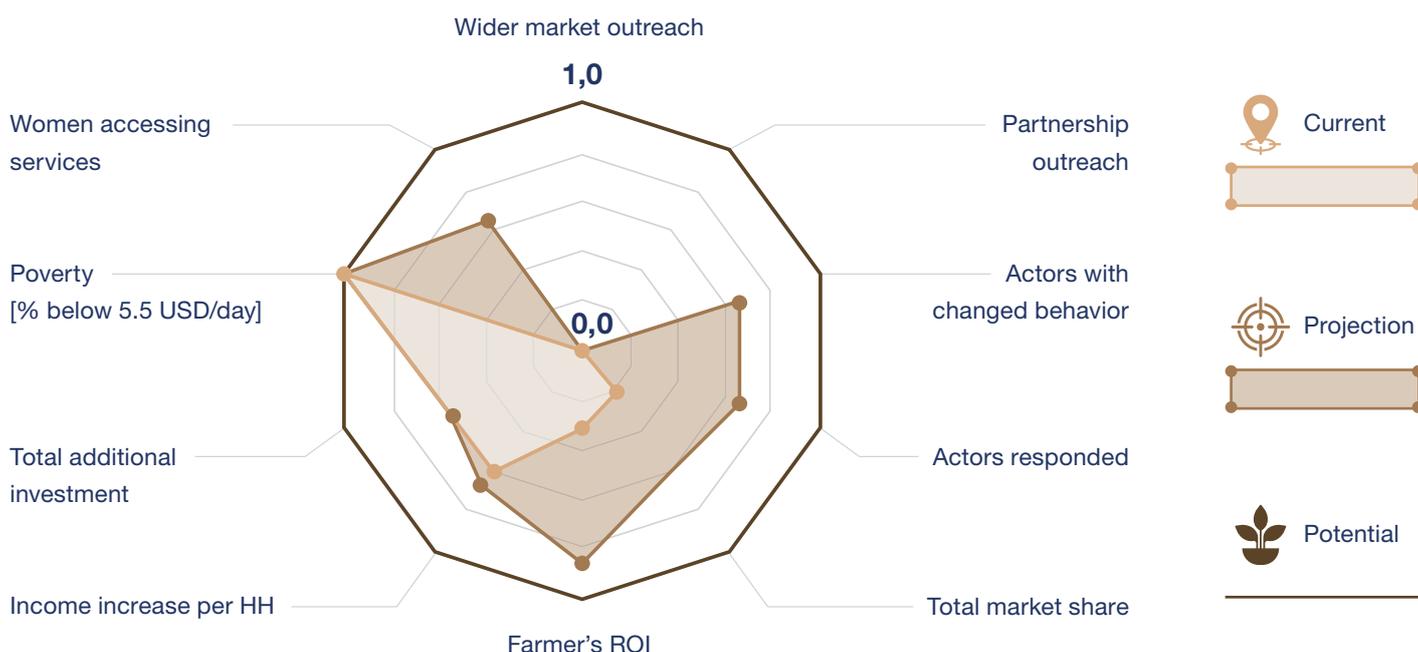
Promote peanut off-taking partnerships.

Promote good quality seed for peanut production.

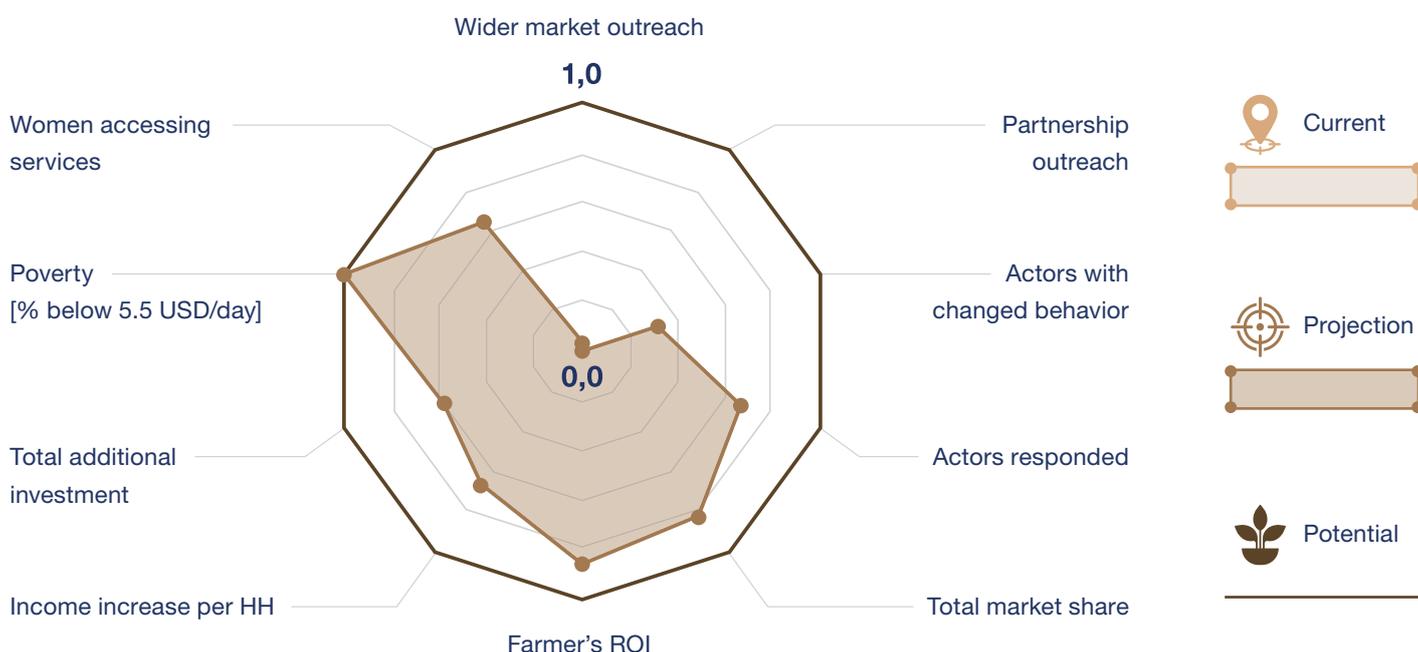
Subsector vision for systemic change

Building on experience from Phase 1, PRISMA Phase 2 is focusing on providing strategic advisory services to peanut processors to enable them to expand their business and source locally, and slowly substitute imports. It is expected that farmers will benefit from increased incomes. Food processors will also be better-informed on sourcing locations and factors affecting supply quality. Their technical capacity in terms of peanut GAP and GPP will also have improved by partnering with external partners. By the program's end, seed nurseries will be operating profitably in the market, with better location targeting; they will be informed of the commercial opportunity of the seed market and be well-connected with the existing network established in PRISMA's primary intervention.

Peanut sector East Java system boundary and vision



Peanut sector Central Java system boundary and vision





Progress towards subsector vision

Adopt

- Garudafood invested and established partnership/contract farming with newly identified farmer groups in EJ and CJ as part of their peanut sourcing strategy.
- Garudafood provided good quality seed and peanut farming technical assistance to newly identified female and male farmers groups in EJ and CJ through collaboration with harvester service providers.
- Processing service providers invested in peanut processing machines that are rented to farmers allowing newly identified farmers in EJ and CJ to process their harvest before selling it to Garudafood.
- Garudafood developed an app-based monitoring tool, which would assist them in monitoring contract farmers remotely, while helping them to better maintain and manage the farmers database.

Adapt

- Garudafood started to apply the partnership farming scheme with its existing supplying farmers and collectors to fulfil its demand.
- Garudafood committed to focus on sustainable partnership with the existing farmers group.

Expand

- Tanihub as a new actor in peanut sector took role as an off-taker. Tanihub previously focused on vegetable.
- CV Jawa Dwipa as a new actor in peanut sector took role as an off-taker and provided post-harvest service with newly invested thresher. Jawa Dwipa previously focused on hotel, restaurant, and café supply business.

Respond

- CV Karya Sembada as a agri tool producer creates thresher tools for the CV Jawa Dwipa to provide post-harvest service.



QMT decision and reasoning

The current incentive for major market players to invest in peanut farming assistance in Indonesia is quite low, mainly due to the high dependency on imported peanuts from other main producing countries which enjoy competitive advantages, especially in term of price. In addition, the position of peanut as a secondary crop also disincentivises both farmers and the private sector from investing more in the sector.

Against this backdrop, PRISMA has decided to complete its activities and initiatives in this subsector. At the end of the contract, Garudafood agreed to follow PRISMA's suggestion to optimise the implementation of the recently developed monitoring tool, to explore more financing opportunities from CROWDE and TaniFund to provide alternative sources of capital for farmers, and to continue seeking for potential partnership in EJ. As the last intervention in the peanut sector, Garudafood also had committed to openly share the updates for future impact assessment.

Up to December 2020, 2,549 smallholder farming households in the sector have benefited from increased income due to PRISMA's interventions.

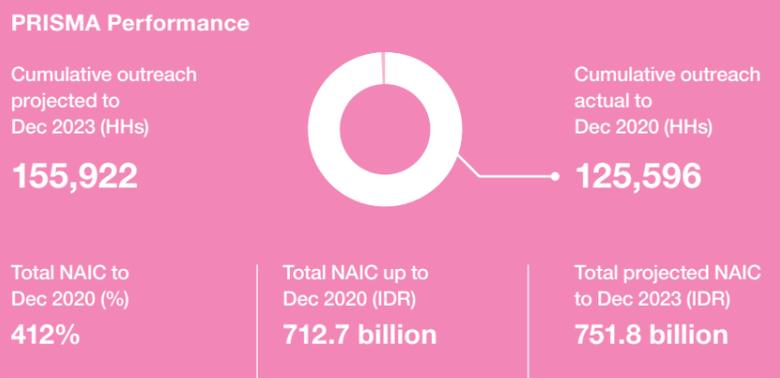
Pigs Sector Summary

PRISMA Performance up to December 2020



LEGEND
■ Active working province

NTT



Facts Source: Statistik Peternakan dan Kesehatan Hewan 2020

Pigs NTT

East Tenggara Timur (NTT) has the largest pig population of any of Indonesia's provinces; its 2.4 million pigs account for 27 per cent of the national pig population. An estimated 85 per cent are managed by around 709,226 smallholder farmers, rearing an annual average of three pigs per household. The development of the pig sector is driven mainly by its cultural and religious significance as part of customary ceremonies and practices.

Despite having the country's largest pig population, the market and production are underdeveloped. A pig is normally slaughtered at around 100kg, a weight which can be achieved at six to eight months if farmers raise a good breed with quality rearing practices. However, a PRISMA assessment of the pig market system in NTT revealed that farmers were using traditional rearing methods - using local breeds, traditional feed and minimal pharmaceutical inputs - which mean it can take up to two years to reach the same weight. African Swine Fever (ASF) was first detected on Timor Island in early 2020. ASF virus is highly contagious with a high fatality rate, which spreads quickly between infected pigs and contaminated equipment and food. The virus has killed at least 24,000 pigs in NTT and as there is no vaccine, it continues to spread. Farmers, breeding farms, feed companies and off-takers are all affected. The dual impact of ASF and COVID-19 currently presents significant challenges, but also opportunities: triggering innovations, increasing awareness of biosecurity and stimulating multi-stakeholder collaboration to tackle these challenges comprehensively.



Challenges and constraints

Farmers are unable to increase pig rearing productivity for the following reasons:

Use of low-quality local breeds instead of high-quality breeds. The high prevalence of low-quality breeds in NTT is due to interbreeding (which leads to high mortality rates), low weight gain and the overall poor health of piglets. Improving the breed quality of pigs NTT from top-down proves to be a challenging task as it requires either the importation of live pigs from outside NTT, which is currently banned by local government policy due to ASF, or the use of fresh semen. The latter is the most cost-effective and straightforward option, but it is a relatively new practice so capacity building in this area is needed. Farms with upgraded genetics will then have to explore artificial insemination (AI) services to help improve the breed quality at farmer level, which also requires investment in training and equipment procurement.

Use of traditional feeding practices. Many farmers use traditional feeding practices which are time-consuming and are of low nutritional content, leading to low daily weight gain and increased risk of disease. They also apply minimum animal health products (vitamins, supplements, vaccines) and poor rearing practices (breeding, and pen and waste management), which increase health risks and lower pig survival rates.

A high incidence of epidemic diseases causes slow weight gain and even death. Lack of farmer access to and willingness to apply health products, and information on how to use them, as well as poor application of biosecurity lead to slow pig growth and sometimes death. It is critical to address the prevalence of classical swine fever (hog cholera) and ASF to avoid the devastation of pig populations. Moreover, in the field of animal health, pharmaceutical companies have yet to prioritise pig health products, resulting in a limited product range available in the market, (and large pack sizes even when products are available) and poor distribution networks.

Unhygienic and underdeveloped live pig and pork end markets, making a limited market for pig meat. When pigs are ready to sell, there are only a few markets in which to sell their products as the processing business is very limited. While smoked pork (sei) is widely available in Kupang and Timor Island, this is not apparent in other NTT islands. In NTT, the demand for continuity of pork supply is still very low, and live pig demand is highly dependent on religious and cultural ceremonies (95 per cent in Flores, 98 per cent in Sumba, 68 per cent in Timor). Live pig trading also exists, but there is no certainty of when to sell, and negotiating terms is often challenging.

The COVID-19 pandemic has led to budget reallocations, feed price increases and setbacks in the pig end market.

To respond to the current pandemic and government plans, the NTT government reallocated IDR2 billion of its pig sector budget to COVID-19. Furthermore, feed prices have increased twice in the last year due to currency fluctuations and increased export demand such as from China, which is trying to secure its stock to buffer against future natural disasters. Furthermore, as noted above, there is a strong link between cultural and religious events with pig demand. COVID-19 and the measures to contain the spread of the virus have led to a decline in social events. This has flattened demand for not only fattened pigs, but also piglets and pig feed. Also, any on-farm capacity building sessions for pig breed partners' staff has been delayed numerous times due to travel bans and/or restrictions under COVID-19 situation.



Intervention areas

To address these challenges and constraints, PRISMA is working with public and private partners to:

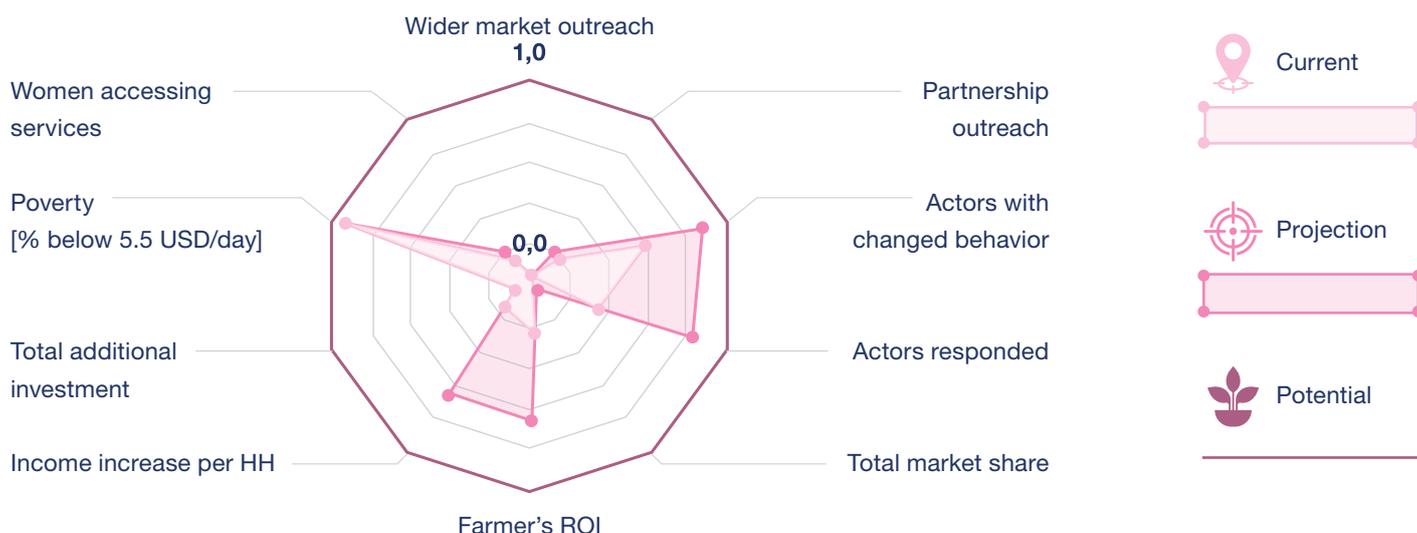
<p>Develop an NTT breeding strategy to include improved breeds, strengthen biosecurity practices and develop an efficient breeding system by replenishing breeding stock, improving breed management and establishing selection mechanisms. This will help to produce superior sires of different promising breeds for both natural mating and for semen extraction, facilitating fresh semen AI on a wider scale.</p>	<p>Improve good husbandry and health management (to ensure GHP) by building the capacity of farmers and ISPs in pig animal husbandry (breeding, rearing, feeding) and health management practices. This will include biosecurity to reduce the risk of disease and lower pig mortality rates.</p>
<p>Develop and disseminate strategic advice on ASF preparedness, prevention and response in collaboration with the government (national and sub-national), private sectors, and other relevant stakeholders. As well to initiate an ASF awareness campaign to increase farmer's and other market actor's knowledge on risk and prevention to the virus.</p>	<p>Improve traditional feed and feeding practices by promoting the use of complete feed, concentrate, additives and/or supplements to help boost pig productivity.</p>
<p>Promote linkages between farmers and higher end markets, increase pig absorption from the commercial pork market by linking farmers or pig producers with buyers and facilitate capacity building for butchers, processors and the end market, including promotional activities and services.</p>	<p>Promote an enabling environment by organising public-private dialogue, pig and pork strategy development and implementation, humane and hygienic breeding, rearing, transportation and slaughter for the overall development of pig and pork industry in NTT.</p>



Subsector vision for systemic change

Starting the second phase of program implementation, PRISMA is aiming to achieve an income increase for an additional 50,000 smallholder pig farming households on top of 120,000 beneficiaries from previous years (29 per cent of NTT's total of 595,750) by 2023. This will be achieved by providing farmers with access to information about artificial insemination (AI) as well as improved pig breeds and breeding system, quality feed and balanced feeding practices, use of biosecurity measures, animal health and pharmaceutical products, good pig husbandry practices, linkages to downstream markets, and a conducive regulatory environment.

Pigs sector NTT system boundary and vision



In addition, key upstream actors (including feed producers, pharmaceutical producers, breeders) and downstream market actors (including micro slaughterhouses, butchers, restaurants) will continue activity in existing markets, achieving profits and expanding their business to reach smallholder farming households in new areas. Pig breeding centres will continue to provide quality breeds as well as AI services to farmers to establish a sustainable breeding market system. The increase in better production of piglets at the farm level will stimulate the growth of downstream market actors (including traders, abattoirs, processors) and improve their skills and capacity. In addition, policymakers will continue to create a conducive business regulatory environment to support sector growth.

Progress towards subsector vision

Adopt

- With PRISMA's facilitation, feed partners PT Sreeya Sewu Indonesia (Sreeya), PT Panca Patriot Prima (Patriot), PT Sinar Indochem (Indochem), PT Sinta Prima Feedmill (Sinta Prima) and PT Sinar Terang Madani (STM) have expanded their distribution channels and developed marketing capacity for better market penetration.
- As COVID-19 has made face-to-face marketing difficult, PRISMA supported its partners to shift to alternative platforms. Sreeya implemented several digital marketing such as paid Facebook Ads, Google SEM, SMS blasts, Facebook and WhatsApp group promotion. Patriot has implemented promotions through Facebook Ads, local radio and SMS blasts. Indochem allocated budget to SMS blasts and produced a video animation tutorial as part of its online marketing strategy. The partners' ability to adopt these marketing alternatives has helped recover or maintain their sales during the turmoil from the COVID-19 and ASF outbreaks.
- Before social gathering restrictions were applied, Indochem conducted coaching clinics on the weekend when most female farmers were at home. It was intended that more female farmers could attend the event and receive information on good pig husbandry practices.
- In June 2020, together with PRISMA, Patriot conducted an SMS blast in several areas, one of which is Ende district. In Ende, the SMS blast was targeted only at women because there are more female citizens there and according to an impact assessment conducted in 2019, women are involved in determining feed for the pigs.
- Despite a significant fall in sales due to widespread pig deaths from ASF, Sreeya continues to support and maintain its staff. Patriot has added one more employee to support its marketing activities in the eastern part of Flores, while Sinta Prima which recently entered the market has hired one field staff to be based in Flores and support its market penetration strategy. Also, STM will assign one of its employees as a field staff in Kupang.

- Based on observations shared by PRISMA, Sreeya, Patriot, Indochem and STM tailored feed according to customer needs. This included producing 10kg pig feed packages and launching sow concentrate.
- Patriot opened a depot in Ruteng, while Indochem's distributor in Sikka opened a new warehouse to ensure the availability of feed should movement restrictions delay shipments.
- Patriot and Indochem are including local context in their marketing strategies, such as by collaborating with churches that own breeding farms.
- PRISMA's breeding intervention partners CV Aroma Duta Boga (Aroma), CV Tiba Mori Go (TMG), and PT Kame Adonara Farm (KAF) have implemented better biosecurity measures to protect the farm from ASF.
- Aroma has imported four batches of semen from Java to improve the stock quality in their farm. Aroma has also invested in a mini lab including purchasing a microscope and providing fridge to store semen as part of Aroma's adoption to artificial insemination practices.
- KAF, a recent breeding intervention partner, has hired four farm staff - one of whom is a veterinarian - to improve breed quality and breeding management at the farm. KAF hopes to provide better quality piglet and Artificial Insemination (AI) services to the farmer in NTT.
- Some partners, i.e. Sinta Prima, Kame Adonara Farm, and Aroma, have recognised the importance of hiring veterinarians to better serve the market in times of ASF outbreak.
- Recognising its success, Sreeya has expressed plans to expand its digital marketing and focus on online marketing. Sreeya will also publish the jingle that has been developed together with PRISMA to local radios in NTT and other areas in Indonesia.
- Sreeya has responded to the ASF outbreak by providing biosecurity products to its pig farms.
- Aroma has imported an additional two batches of pig's semen on top of the planned four batches as the farm understand the importance of diversifying the herd. To support its plans to double the number sows, Aroma also plans to build more pens and increase the farm capacity.
- Ever since the COVID-19 pandemic started, all marketing by Sreeya, Patriot, Indochem that requires physical presence is conducted according to the current safety protocols.
- Patriot and Indochem applied adaptive marketing strategies during the pandemic, such as providing free masks or free delivery for a certain amount of feed purchase.

Expand

- Sreeya expanded its successful pig feed product in NTT (local pig feed products and single component feed products) to other provinces (Bali and Papua), and provided smaller packaging from the common 50kg.
- According to Sreeya field staff a competitor is apparently copying Sreeya's feed product for local pig. Further confirmation is needed; crowding-in by other feed companies will be monitored.
- No crowding-in yet from breeding intervention, possibly since it is in early stages of the intervention. However, we will continue to monitor evidence crowding-in, especially of semen importation or providing artificial insemination services.

Respond

- Koperasi Florete sells Patriot pig feed to its members and plans to set up an Arisan for pig feed. Progress will be observed throughout the next semester.
- In collaboration with PRISMA and NTT Provincial Animal Husbandry Office, Medion Farma Jaya (Medion) conducted an online ASF education session with wide range of participants from farmers, breeding farm, vet, extension officer, feed and pharma companies' distribution networks.

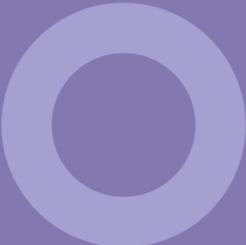
Adapt

- Sreeya, Patriot, Indochem and STM expanded their market to other areas in NTT as well sells other feed products (poultry, beef, fish, corn milled, and rice bran). Patriot has expanded its poultry market in Sumba reaching up to 75 tonnes feed sales per month.
- In response to the ASF outbreak, Patriot and Indochem now sell animal health products.
- After launching Sow Concentrate, Indochem plans to conduct research related to its market segmentation. Indochem has also replicated and modified its contract demo plot with the breeding farm. Indochem's distributor started to offer credit instalments to agents to grow its sales and network.

- Aroma has an agreement with Sreeya to supply quality feed and provide technical support on Aroma's farm feed needs.
- In light of ASF, Medion conducted a meeting with Aroma to introduce its products and provide training on pig health management
- Power Agro, an irrigation construction service based in Kupang, approached Aroma to generate a water source for the farm. The company also provide services on biogas plant (waste management system common in pig farming) construction.
- Church-owned breeding farms have begun to sell quality pig feed with their piglets in bundles. Keuskupan Sikka which is selling piglets together with Indochem pig feed products. Similarly, Kesusteran Paroki Santa Maria in Ruteng sell piglets with products from Patriot.
- Agriculture and Livestock Agency of Flores Timur will continue to implement the Youth Farmer Program previously handled by the Cooperative and SME Agency. The program includes introducing pig feed and poultry feed and training on GFP and GHP.
- The government in Flores continues to support the adoption of quality pig feed at government-owned breeding farms (District Livestock Office of Manggarai) and includes pig feed product in its social programs (Cooperative and SME agency in Flores Timur).
- Off-takers (butchers, restaurants) are yet to pay higher prices to farmers for better quality pork due to the use of quality feed and good rearing practices as these would take a time to materialise into higher quality pork and price change will take some time to be visible.

Poultry Sector Summary

PRISMA Performance up to December 2020

Indicator		Cumulative Outreach Actual to Dec 2020 (HHs)*	Total NAIC to Dec 2020 (%)*		Value for Money (VFM)*		Investment Leverage		Investment Per HH		Social Return
		Cumulative Outreach Projected to Dec 2023 (HHs)	Total NAIC up to Dec 2020 (IDR)*	Total projected NAIC to Dec 2023 (IDR)							
		134	-	25.2 million							



NTT



LEGEND
 Active working province

NTT

Quick Facts



Total provincial production (MT)
11,760



Total provincial population (Ha)
11 million



Total farm households in the sector (Hhs)
345,014

PRISMA Performance*

Cumulative outreach projected to Dec 2023 (HHs)	Total projected NAIC to Dec 2023 (IDR)	Cumulative outreach actual to Dec 2020 (HHs)	-
134	25.2 billion	Total NAIC to Dec 2020 (%)	-
		Total NAIC up to Dec 2020 (IDR)	-

*) COVID-19 has delayed intervention activities; the degree of impact cannot yet be calculated
 COVID-19 has prevented impact assessments; the degree of impact cannot yet be calculated

QUICK FACTS



Total production
312 million



Demand
-7.7% ↓



Total national production
298,680
 tonnes



National Consumption
0.71
 kg/head or kg/capita

Facts Source: Statistik Pertanian 2019

Poultry NTT

Approximately 70 per cent of chicken meat and eggs in Nusa Tenggara Timur (NTT) is imported from Java and Bali. The number of broiler farmers in NTT remains low compared to Java, with around 120 in Timor Island producing less than 250,000 chickens each month. The price of chicken meat and live birds is also considered high in NTT, at times being double that of Java.

Given the high price and lack of local supply of broiler chickens, farmers of local chicken continue to rear poultry only for household consumption. A few local poultry farmers also target bulk buyers, such as restaurants. These farmers tend to buy adult chickens to breed with their own birds, and there is no supplier of high-quality local chicken in NTT, unlike in Java. BPTP Kupang is the sole research centre breeding KUB chicken²⁴; however, its capacity is too low to provide a constant supply of KUB day-old chicks (DOC). Currently, chicken production is one of the government's main priorities. Chicken meat and eggs are a source of affordable animal protein which can contribute to the eradication of stunting in infants and children under five, providing a potential opportunity for the growth of local chicken farmers.

COVID-19 has caused the national demand for chicken to drop significantly, forcing prices down by up to 70 per cent by mid-2020, though they have since started to stabilise. Transport and movement restrictions caused problems for native chicken DOC flow, including in NTT. Furthermore, feed prices have increased due to currency fluctuations while farmers have struggled to sell their harvest. Recently, the sector has started to recover by around 80 per cent in NTT but is still facing difficulties in DOC distribution due to transport limitations.



Challenges and constraints

The major challenges and constraints faced by the poultry sector in NTT are:

The supply of chicken carcasses and eggs - especially broiler eggs - are still limited. Opportunities therefore exist to improve the supply.

High production risk at the farmer level due to exposure to transmissible diseases, poultry cannibalism and the chickens' vulnerability to stress. Farmers need to start at a large scale due to the small profit margin per chick and high initial investment and, as part of the production process, need to master advanced rearing practices in order to minimise losses.

Ineffective rearing practices lead to increased loss or lower income unless the farmer is involved in contract farming.

Lack of day-old chicks (DOC) and feed supply, as there is only one broiler hatchery in NTT and no accessible high-quality feed miller. DOCs are imported from Java, doubling costs because of high transportation costs, and the feed supply is unstable because of resellers' reliance on stock from Java.

High price of DOC and feed caused by high transportation costs. The capacity of local hatcheries currently cannot cope with DOC demand, so they continue to rely on imports from Java. This creates a domino effect, as the feed price is impacted by maize imports, currency fluctuations, and the global maize price, while the input price (of DOC) is highly affected by feed price.

The poultry sector has been hit hard by COVID-19. Chicken demand has decreased significantly as restaurants are closing and the tourism sector has imploded. Hatcheries need to reduce their production to prevent oversupply. PSBB prohibited air transportation of native chicken DOC from Denpasar to NTT in April and May, completely wiping out sales from native chicken hatcheries during the period. As the airline industry is yet to recover, DOC transportation remains an issue. Often airlines cancel the flights due to inadequate passenger volume, causing scarcity of fresh DOC in NTT. The feed price has slightly increased due to currency fluctuations. Additionally, farmers struggle to connect to the downstream market, making it harder to sell the harvest. Some farmers have stopped rearing chicken altogether and are waiting until the situation is back to normal.



Intervention areas

To address these challenges and constraints, PRISMA will work to:

Facilitate market promotion of high-quality local chicken (KUB chicken) from Java to NTT.

Promote green feeding and market linkages with feed and pharmaceutical suppliers.



Subsector vision for systemic change

PRISMA aims to improve the income of at least 9,125 poultry farming households (six per cent of 150,000 potential poultry farmers in NTT) by facilitating their improved access to high quality input, good rearing practices and market information. It will achieve this through an increased input supply from hatcheries, feed producers, pharmaceutical companies and effective downstream markets, enabling farmers to rear and sell more chickens in a supportive regulated environment and with the relevant government permits.



Progress towards subsector vision

Adopt

- PT Sumber Unggas Indonesia (SUI) has been selling DOC in NTT through established agents and training events.

Expand

- PT SUI is planning to expand its distribution channel to Papua and West Papua by establishing a hatchery in Makassar to serve eastern Indonesian market.

Adapt

- PT SUI has been exploring the development of a marketing strategy through online channels such as Facebook, WhatsApp groups, e-commerce and Search Engine Optimisation (SEO). Since the pandemic hit, online marketing has become a key activity for marketing DOC. Following COVID-19, PT SUI has actively modified its online marketing strategy to fit the current condition.
- PT SUI has also been improving its offline marketing strategy from conducting socialisation to conducting farmer canvassing and farmer visits.
- PT SUI acknowledges the importance of tackling stunting and the group of women in reproductive age (WRA) as a target, therefore, PT SUI in collaboration with Nusa Cendana University, conducted a GHP training for rearing KUB chicken for all women farmers group in Kupang.

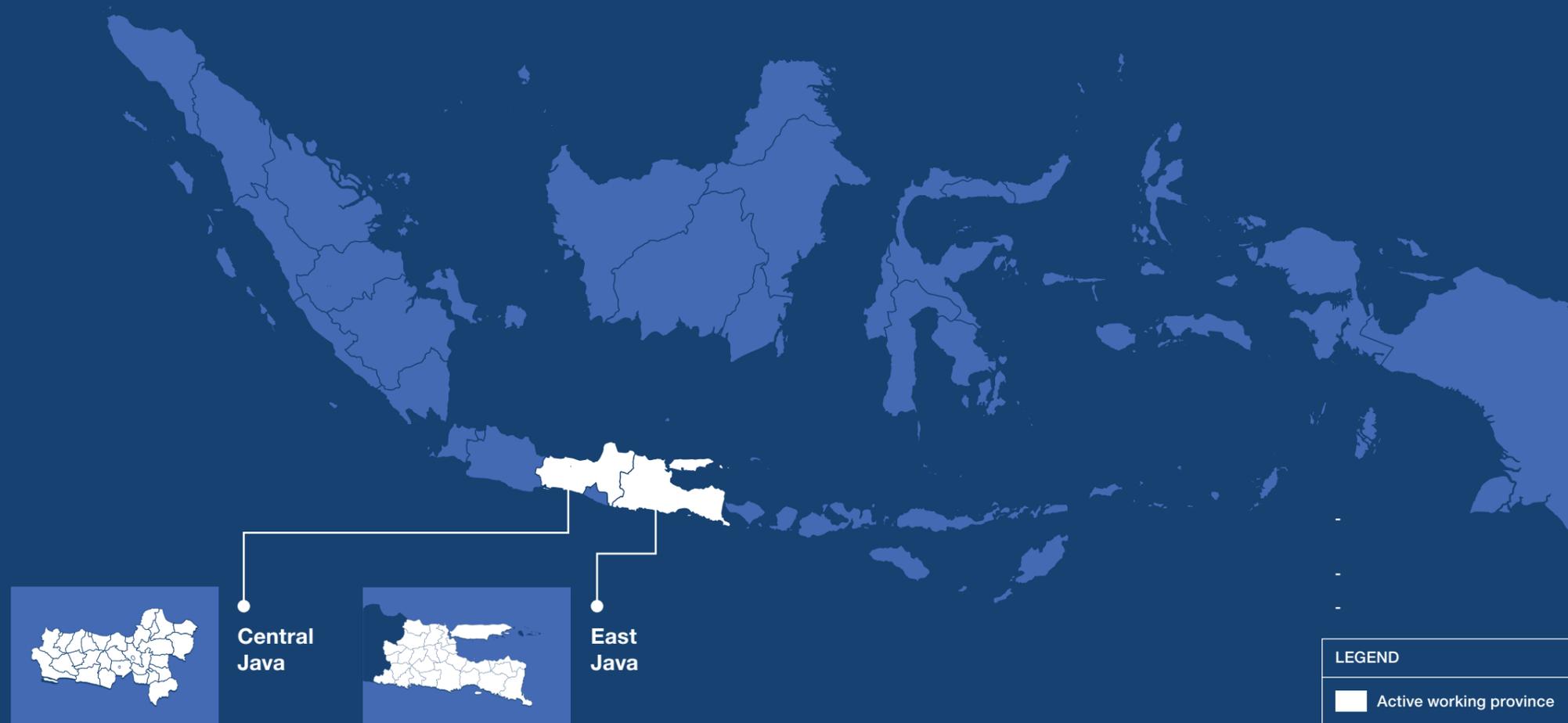
Respond

- DOC agents have started to sell single/not boxed DOC aged one week to one month to accommodate farmers who have expressed concerns about DOC vulnerability and price.

Rice Sector Summary

PRISMA Performance up to December 2020

Indicator		Cumulative Outreach Actual to Dec 2020 (HHs)*	Total NAIC to Dec 2020 (%)*		Value for Money (VFM)*	 Investment Leverage 0.2	 Investment Per HH -	 Social Return -
		Cumulative Outreach Projected to Dec 2023 (HHs)	Total NAIC up to Dec 2020 (IDR)*	Total projected NAIC to Dec 2023 (IDR)				
		38,988	-	152.2 billion				



East Java

Quick Facts		
 Total provincial production (MT) 10.2 million	 Total harvested area (Ha) 1.7 million	 Total potential farmers 1.3 million

PRISMA Performance*	
Cumulative outreach projected to Dec 2023 (HHs) 20,988	Cumulative outreach actual to Dec 2020 (HHs) -
	Total NAIC to Dec 2020 (%) -
	Total NAIC up to Dec 2020 (IDR) -
Total projected NAIC to Dec 2023 (IDR) 79.8 billion	*) COVID-19 has delayed intervention activities; the degree of impact cannot yet be calculated

Central Java

Quick Facts		
 Total provincial production (MT) 10.5 million	 Total harvested area (Ha) 1.8 million	 Total potential farmers 1 million

PRISMA Performance*	
Cumulative outreach projected to Dec 2023 (HHs) 18,000	Cumulative outreach actual to Dec 2020 (HHs) -
	Total NAIC to Dec 2020 (%) -
	Total NAIC up to Dec 2020 (IDR) -
Total projected NAIC to Dec 2023 (IDR) 72.4 billion	*) COVID-19 has delayed intervention activities; the degree of impact cannot yet be calculated

QUICK FACTS

Total production 59.2 million MT Un-milled Dried Paddy	Total harvested area 11,4 million Ha	Productivity 5.2 MT/Ha	Demand 1.89 ↑
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Facts Source: Statistik Pertanian 2019, BPS KSA 2018

*) COVID-19 has delayed intervention activities; the degree of impact cannot yet be calculated

Rice East Java and Central Java

Indonesia is the third largest rice producer in the world. It is also ranked 24th on the global rice productivity scale at 5.1 MT per ha in 2020 - slightly higher than the world's average productivity of 3.9 MT per ha, but behind many countries.²⁵

Central Java (CJ) and East Java (EJ) are the two biggest rice producers in Indonesia, contributing to more than 30 per cent of total national production. In both provinces, rice is the main staple crop, with nearly 98 per cent of inhabitants using it as the main source of food; most households spend around 20 per cent of their income on rice. Rice farming is also a major source of employment, especially for the poor (80 per cent of Indonesia's rice production is grown by small-scale, low-income farming households).

Although current supply has been able to satisfy (and even exceed) provincial consumption, rice from the provinces is distributed to other non-producing areas. The sustainable production of rice in CJ and EJ is therefore crucial to national food security. In addition, increasing the production in these two provinces could mitigate the risk of potential food insecurity due to the COVID-19. Farmers across Indonesia, including in the two provinces, have not yet reached their potential production for several reasons, in particular the use of low-yield seed varieties and limited availability of other seed options.



Challenges and constraints

PRISMA will focus on addressing the following constraints:

Limited knowledge of new improved seed varieties. Many rice farmers are unaware of the benefits of using improved certified seed and rely on retaining current varieties, which produce lower yields and higher rates of crop failure because of pest and disease (which are common when the same variety is used for more than ten years). In addition, many smallholder farming households are dependent on subsidised government seed which leads to their unwillingness to invest more in improved seed.

Lack of access to improved inbred seed. Nurseries and inbred seed producers generally produce only well-known varieties such as Ciherang and IR64, so improved inbred seeds are hard to find in the market.

Unavailability of hybrid seed. Although awareness of the benefits of hybrid seed has been increasing in some areas, the seed itself is often unavailable in the market. The main reasons are the high investment cost of seed production and restrictive government policy affecting the import of commercial hybrid seed. Currently, only two private companies i.e. Agrosid and Corteva Agriscience (both are PRISMA partners) have invested in producing hybrid seed in Indonesia. However, they are still in the early stage of promoting their hybrid rice seed products.

Farmers in the private and public sectors have been affected by the COVID-19 pandemic. Farmer access to information, services and inputs has been disrupted. Supply and demand have not been adversely affected so far, but movement restrictions mean that private and public sector actors need to adjust their marketing and information strategies. Cash flow problems are also inevitable in this pandemic period. Thus, several big companies need to focus on their sector that contribute more in their revenue stream.



Intervention areas

To address these challenges and constraints, PRISMA is working with partners to:

Improve and accelerate domestic production of hybrid and inbred seed varieties.

Improve the marketing strategy of high yielding rice seed producers to target the best suited areas.

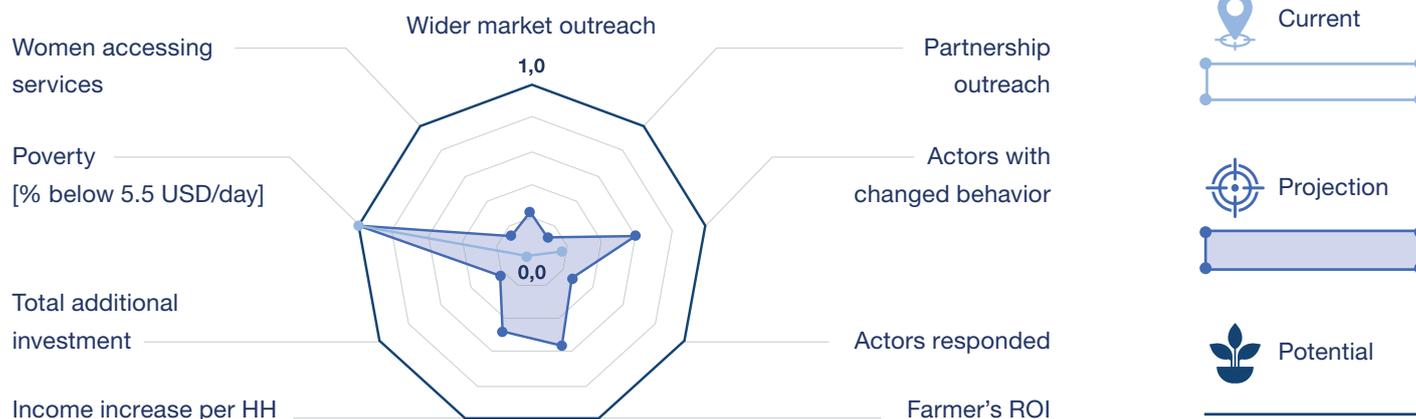
²⁵ Such as China (6.9 MT per ha), Vietnam (5.6 MT per ha), Australia (10.2 MT per ha), Egypt (9.3 MT per ha), Uruguay (8.5 MT per ha) and the USA (8.1 MT per ha).



Subsector vision for wider market outreach

PRISMA aims to leave behind a resilient rice market system where farmers use high yielding seeds, adopt safer, and high efficacy inputs (crop protection and fertilisers), and use appropriate machinery and irrigation systems. By 2023, PRISMA envisions that 65,422 farmers in CJ and EJ will use high yielding seed varieties with GAP, promoted by both private and public sectors.

Rice East Java system boundary and vision



Progress towards subsector vision

Adopt

- PRISMA signed a partnership with Agrosid/Primasid to expand the hybrid seed market.
- Agrosid hired more field staff and extended its coverage area to promote rice hybrid seed in Madura EJ and Timor NTT.
- Agrosid focused on small-scale audiences to promote seeds and put health and safety measures in place to continue promoting their products (mask, washing hands, physical distancing). By the end of 2020, more than 1,500 farmers had participated in Agrosid promotional activities.
- A partnership with Corteva Agriscience to expand its domestic production of new found high yielding hybrid rice seed.

Adapt

- Agrosid collaborates with PT OMYA Indonesia (a chemical company) to produce and promote calcium fertiliser (calcipril) aimed at agriculture soil improvement.

Expand

- CV Semi has expressed an interest in trying hybrid seed. More companies have expressed their interest in investing in hybrid seed.
- PT TWIIN and PT BCA (both are seed companies, originally focused on hybrid maize seed) obtained a licence from Indonesian Rice Research Center (Balai Besar Penelitian Tanaman Padi or BBPADI) to produce hybrid rice seeds.

Respond

- BB Padi is interested in disseminating new improved varieties of rice seed.
- The number of distributors/retailers that want to sell hybrid seed is increasing. As a result, for example, Agrosid is entering the Sumenep area for the first time due to interest from retailers.
- Agrosid and the Ministry of Agriculture are planning to conduct a cultivation test using hybrid rice seeds in Kalimantan by 2021 with total planting area of 100 ha. It is part of the Ministry of Agriculture's efforts to establish Kalimantan as a national food estate.

Seaweed Sector Summary

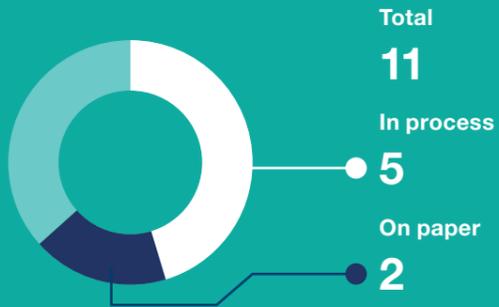
PRISMA Performance up to December 2020



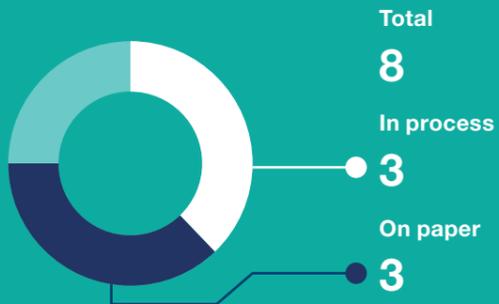
*) Previously sub-contracted intervention

Policy Work Progress

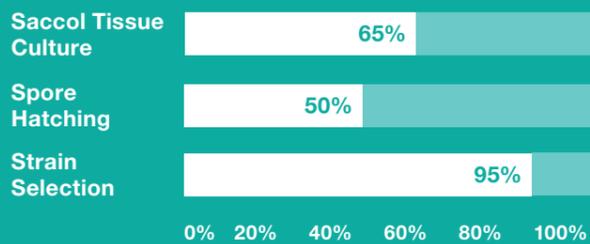
National



Sub-National



Research and Development



QUICK FACTS



Facts Source: DJPB 2016, PRISMA internal survey

Seaweed

As the world's largest producer of red seaweed, seaweed culture provides one of the major income-generating opportunities for the country's main coastal communities, particularly in eastern Indonesia. Demand of carrageenan from raw dried seaweed (RDS) for pharmaceutical and cosmetic products has risen during the COVID-19 period, but RDS prices have since remained stable at IDR22,000 per kg. The RDS price did not change much although there were constraints from logistics and raw material quarantine procedures that could halt the supply. This growing demand has not been met by local production which has been steadily declining by eight per cent annually since 2015. This is attributable to factors including increasingly unpredictable weather, poor cultivation techniques and the deteriorating quality of seaweed seedlings.

Local and national government have made sporadic advances towards increasing production through direct grants, by establishing nurseries and processing state-owned enterprises, equipment and inputs. However, these initial grants intended to boost sector growth have become entrenched and led to minimal impact and inefficiency. Several quasi-public research institutions have attempted to address the issue of poor-quality seedlings through the creation of tissue culture seaweed seedling but have shown subpar performance. With the pandemic, all these regular activities have been placed on hold, causing extreme fluctuations in supply and demand. This underlines the considerable vulnerability of the sector to shocks.



Challenges and constraints

Farmers are unable to increase seaweed production and productivity for the following reasons:

Meagre production and productivity due to lack of knowledge and information on seedling-specific and general cultivation practices. Many farmers treat seedlings and production seaweed in the same way, decreasing productivity by using poorly treated retained seedlings.

Subpar access to improved seedlings due to the non-existence of permanent, localised nurseries. With high market distortion in the seaweed seedling market, private ISPs are disincentivised from establishing nurseries. They also lack technical knowledge of the seaweed seedling business, especially regarding how to deal with the new breed of tissue culture seedlings which need special care and attention in their initial stages.

Suboptimal access to improved seedlings due to market distortion caused by poor and unsustainable subsidy system planning. Tissue culture seedlings are currently only available for farmers through direct subsidies. The lack of private nurseries is due to the high distortion rates caused by subsidies in the seaweed seedling market, disincentivising seedling businesses and affecting farmer behaviour, encouraging them to become subsidy dependent. In addition, subsidies have targeted the wrong areas using inappropriate media.

Substandard quality of improved seedlings due to lack of research, constraining budget and infrastructure, and poor management of development centres. Current tissue culture seedlings have not been able to support market needs, in terms of both quality and quantity.

COVID-19 has caused a 37 per cent decline in price (on average) and sharp fluctuations. Exporters have exiting the trade lines and logistics are strained due to various pandemic related restrictions. Additionally, a major budget-refocus of government program has caused a halt on the dispersal of grants and subsidies, and an overhaul of activities and planning for the public sector.

Intervention areas

Given the steady growth in demand in the seaweed sector and the enormous potential that improved seaweed seedlings have to increase productivity, PRISMA aims to revamp and expand seaweed interventions to achieve nationwide coverage through engaging with the Ministry of Marine Affairs and Fisheries (MMAF). This will involve:

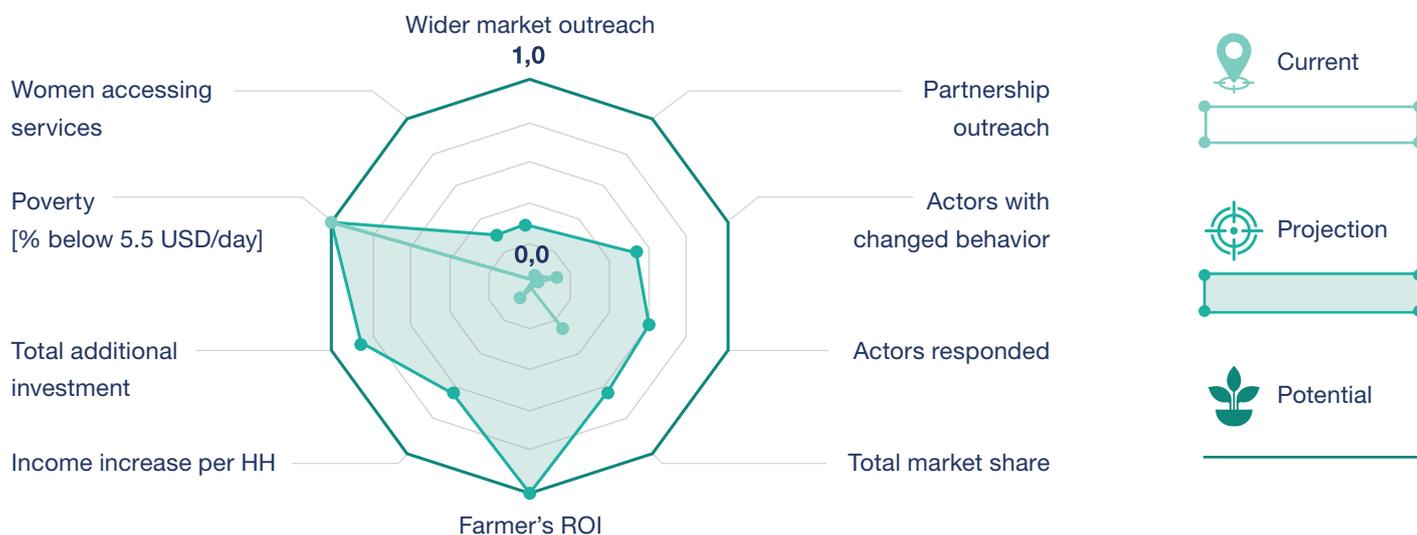
Inducing partnerships for improving improved seedling research and production.	Improving the MMAF strategy of improved seedling (and cultivation knowledge) provision and distribution systems.	Establishing and engaging with private local seaweed nurseries for sustainable seedling sources.
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Subsector vision for systemic change

PRISMA aims to increase national production and productivity of seaweed cultivation by partnering with and facilitating the MMAF to strengthen partnerships and collaboration with private institutions, private nurseries, and local government for improving the research, production, and strategy of provision and distribution system of improved seedling.

By 2023, 31,908 seaweed farming households will gain 47 per cent more income due to the use of, and better access to improved seedlings and seedling cultivation techniques.

Seaweed system boundary and vision



This vision of change will be achievable through:

- **Data and policy making.** The GOI has sufficient real-time data and local insights into the seaweed sector to ensure better policymaking, improved grant aiming and system planning, mainstreamed interdepartmental and ministerial collaboration, as well as integration of the private sector in their activities, providing resources for development centres.

- **Research and development.** Research Institutions increase their capacity, knowledge, and resources for the development and production of improved seedlings. They distribute seedlings through and provide technical assistance to local government and nurseries, expanding their scope to new areas. They support the continuous development of the commodity improving seedling quality and expanding research to different stages in the supply chain.
- **Roles and involvement of private sector.** Local private sector players gain knowledge about establishing seaweed nurseries and managing seaweed businesses, and gaining the relevant business information and opportunities through the open access of government seaweed sector development plans. They establish private nurseries, gaining income through the sales of improved seedlings to farmers and through supplying government grant quotas.



Progress towards subsector vision

Adopt

- The General Guideline in Seaweed Cultivation was successfully revised to include local strains (such as Saccol) as an option for areas such as NTT to be eligible for government grants and subsidies.
- The use of the intermediary private nurseries model was included in the 2020-2024 National Strategic Plan (Rencana Strategis or Renstra).
- Policy changes, 2020 grant recipient: MMAF allocated eight packages (out of 40, 5 MT each) to a pilot location in Lembata, Sabu, Rote and Sumba Timur NTT. The MMAF is buying in to PRISMA's program design and recommendation on refocussing on areas that have a dire need for seedlings.
- A parent sample of the local NTB and NTT Saccol strains and natural strains from Biak are being used by BIOTROP and the Takalar Development Centre to create a new strain of improved seaweed seedling.
- Revised general SOPs for seedling distribution, as well as technical SOPs for seedling production and acclimatisation have been drafted and are being piloted before final sign-off.

Adapt

- The Directorate General of Aquaculture of MMAF to support six development centres in conducting a strain mapping study. This will identify different local varieties and adaptations of seaweed strains, as well as the best strains to be used in developing improved seedlings.

- The survey and forecast framework taken from the baseline study will be used in Secretariat General of Marine and Fisheries guidelines on surveying, monitoring and using data.
- Balai Budidaya Laut Ambon (BBL Ambon) will be signing off partnership with the Papua Provincial Government to develop Saereri Cluster's pilot districts: Yapen, Biak, and Supiori.

Expand

- Crowding-in from other market actors is yet to be seen. Progress will be observed throughout the next semester and on an ongoing basis.

Respond

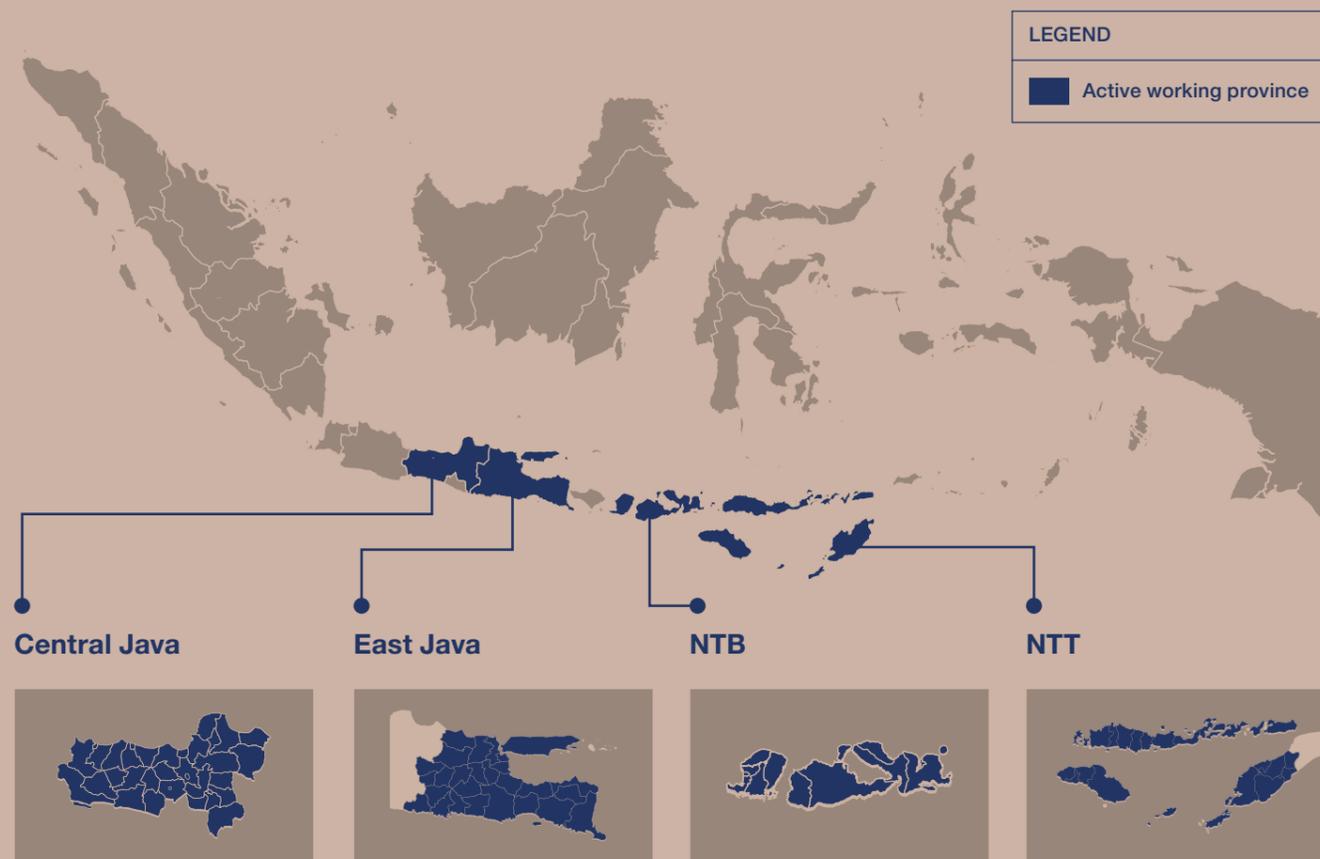
- The provincial government of NTT will mainstream the national level seaweed seedlings business model on a local level, working with district agencies. The provincial seaweed road map will also be reviewed.
- Biak District Agency of Marine and Fisheries in Papua will mainstream the national level seedlings business model at a local level, taking the lead to establish a cluster zone including Biak Numfor, Supiori, Yapen, Waropen, Nabire and Sarmi as part of a seaweed development strategy.
- PT Hidrocolloid Indonesia (a seaweed products manufacturer) will create a 400 ha seaweed production site in NTT using improved seedlings created by the MMAF Development Centre.
- Yapen district government will distribute 1.3 MT seedlings produced by Balai Ambon to Yapen farmers using Dana Alokasi Khusus (DAK) budget and applying an improved SOP for seedling distribution.



Soil Treatment Sector Summary

PRISMA Performance up to December 2020

Indicator		Cumulative Outreach Actual to Dec 2020 (HHs) 21,225	Total NAIC to Dec 2020 (%) 23%↑	Value for Money (VFM)	 Investment Leverage 1.8	 Investment Per HH AUD 32.7	 Social Return 13.0
		Cumulative Outreach Projected to Dec 2023 (HHs) 76,296	Total NAIC up to Dec 2020 (IDR) 89.9 billion				



QUICK FACTS

Total harvested area (Ha) 47.4 million	Total farmers HH 22.4 million	Potential demand of fertiliser (tonnes) 36.1 million	Subsidised fertiliser realisation from government (tonnes) 8.5 million (96%)	Shortage demand vs realisation (tonnes) 27.6 million
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Facts Source: Statistik Pertanian 2019

East Java

Quick Facts

Total harvested area 2018 (Ha) 4.2 million	Total farmers HH 2018 3.7 million	Potential demand of fertiliser 2018 (tonnes) 4 million
Subsidised fertiliser realisation from government 2019 2.6 million (94%)		Shortage demand vs realisation 2019 1.4 million

PRISMA Performance

Cumulative outreach projected to Dec 2023 (HHs) 26,366		Cumulative outreach actual to Dec 2020 (HHs) 1,125
Total NAIC to Dec 2020 (%) 22%	Total NAIC up to Dec 2020 (IDR) 6.9 billion	Total projected NAIC to Dec 2023 (IDR) 55.7 billion

NTT

Quick Facts

Total harvested area 2018 (Ha) 932,722	Total farmers HH 2018 692,364	Potential demand of fertiliser 2018 (tonnes) 701,566
Subsidised fertiliser realisation from government 2019 48,547 (96%)		Shortage demand vs realisation 2019 653,019

PRISMA Performance

Cumulative outreach projected to Dec 2023 (HHs) 4,006		Cumulative outreach actual to Dec 2020 (HHs) 76
Total NAIC to Dec 2020 (%) 51%	Total NAIC up to Dec 2020 (IDR) 271.1 million	Total projected NAIC to Dec 2023 (IDR) 7.4 billion

Central Java

Quick Facts

Total harvested area 2018 (Ha) 2.9 million	Total farmers HH 2018 3.4 million	Potential demand of fertiliser 2018 (tonnes) 2.9 million
Subsidised fertiliser realisation from government 2019 1.5 million (97%)		Shortage demand vs realisation 2019 1.4 million

PRISMA Performance*

Cumulative outreach projected to Dec 2023 (HHs) 22,400	Cumulative outreach actual to Dec 2020 (HHs)	-
Total NAIC to Dec 2020 (%)	-	-
Total NAIC up to Dec 2020 (IDR)	-	-
Total projected NAIC to Dec 2023 (IDR) 25.6 billion	*) COVID-19 has delayed intervention activities; the degree of impact cannot yet be calculated	

NTB

Quick Facts

Total harvested area 2018 (Ha) 858,089	Total farmers HH 2018 508,592	Potential demand of fertiliser 2018 (tonnes) 818,440
Subsidised fertiliser realisation from government 2019 235,294 (98%)		Shortage demand vs realisation 2019 565,146

PRISMA Performance

Cumulative outreach projected to Dec 2023 (HHs) 23,524		Cumulative outreach actual to Dec 2020 (HHs) 20,024
Total NAIC to Dec 2020 (%) 23%	Total NAIC up to Dec 2020 (IDR) 82.7 billion	Total projected NAIC to Dec 2023 (IDR) 129.1 billion

Soil treatment²⁶ East Java and Central Java

The Indonesian fertiliser market is heavily subsidised as part of the government's efforts to promote agriculture sector development and ensure food security. However, there is a wide gap between fertiliser need and allocation of subsidised fertiliser by the government. Furthermore, both the budget allocation for subsidies and volume of subsidies show a decreasing trend, thereby providing more opportunity for the commercial fertiliser market.

There is a high degree of similarity in the context, challenges and opportunities between the East Java (EJ) and Central Java (CJ) fertiliser sectors. They are both very dynamic, with large numbers of market actors and farmers who are far more informed and have better access to market information than provinces such as NTT and NTB. High consumption of fertiliser in both provinces, especially urea, is due to increased agricultural activity and large harvest areas which drive overall demand. Potential fertiliser demand in EJ is 4.03 million MTs and in CJ 2.92 million MTs. However, actual demand is less than the potential demand, as farmers are generally unaware of the availability of quality fertiliser (which contains macro and micronutrients) and appropriate dosages (with the exception of urea fertiliser which is often overapplied), and consequently tend to buy or demand less.

The main difference between the two geographic markets is the farmer purchasing power of fertiliser product. Farmers in CJ have lower price floors than farmers in EJ in terms of purchasing power capacity. Based on the fertiliser market study, the affordable price of commercial fertiliser in EJ is IDR11,601 per kg compared to only IDR6,274 per kg in CJ.

During the early months of the COVID 19 pandemic, there were concerns of raw material shortage from exporting countries Major fertiliser exporters (China, Canada, Russia) to Indonesia, however since the second semester 2020, those countries have moved to 'normalised' production mode (Argus Media, 2020). At the national level, there were distribution slowdown during March – June, due to government-imposed mobility restrictions in several areas. Nevertheless, the distribution have since then returned to normal levels. A PRISMA study on the Impact of COVID-19 on Agriculture: Farmers' Perspective found that access to fertiliser (especially to subsidised fertiliser) was among the main challenges for farmers during COVID-19. However, in general, the supply chain for fertiliser has remained largely unimpacted – which has been seen from the increasing commercial fertiliser sales from PRISMA's partners.



Intervention areas

To address these challenges and constraints, PRISMA collaborates with PT Pupuk Kalimantan Timur (PKT) and CV Saprotan Utama (SU) in these two provinces to:

Promote a wide range of high-quality commercial fertiliser.	Promote good agriculture and fertilising practice at the farmer level.
---	--

Soil treatment NTB and NTT

The government has made significant strides in the push for domestic maize cultivation in NTB, especially in the previously under-utilised dryland areas of the province. This has resulted in farmers who have traditionally planted coffee and coconut now either expanding cultivation into dryland areas or shifting cultivation to other crops (such as maize, a large consumer of fertiliser). However, this push has not impacted the government allocation of subsidies, which has remained flat for some time and is persistently in short supply. This has created an opportunity for the use and supply of commercial fertiliser, despite awareness and acceptance among farmers being relatively low. There is an estimated annual demand for 0.82 million MTs of fertiliser, only 45 per cent of which is covered by subsidised fertiliser, meaning that 55 per cent of demand (equivalent to 0.45 million MTs) is yet to be realised.

The three main islands of NTT are Flores, Timor and Sumba. Flores leads in term of NTT's production (especially in the vegetable sector), supplying 28 per cent of the province's total production. NTT is also one of Indonesia's driest regions, with an average of eight rain-free months each year. The agriculture sector is developing in NTT and there is much potential to grow further. This has created an opportunity for the use and supply of commercial fertiliser, despite awareness and acceptance among farmers being relatively low. There is an estimated annual demand for 0.7 million MTs of fertiliser, only 17 per cent of which is covered by subsidised fertiliser.



Intervention areas

To address these challenges and constraints, PRISMA is collaborating with PKT in NTB and NTT to:

Promote a wide range of high-quality commercial fertiliser.

Promote good agriculture and fertilising practice at farmer level.



Challenges and constraints East Java, Central Java, NTB, and NTT

The major constraints in the fertiliser sector remain mostly the same across all PRISMA provinces; only the extent and gravity of the challenges vary from province to province. To address these market conditions, PRISMA is prioritising the following key constraints in all provinces:

Farmers lack access to fertiliser (both subsidised and commercial). Subsidy from the government has declined over the last few years. Furthermore, the Farmers Group Definitive Requirement Plan (Rencana Definitif Kebutuhan Kelompok or RDKK) process through which subsidy is allocated and distributed is inefficient, resulting in a large number of farmers remaining outside the boundaries of subsidy. Many commercial fertiliser companies do not invest in expanding and developing the capacity of their distribution network due to (1) prevalence of high subsidies in fertiliser, and (2) broader focus on plantation crops through their business-to-business portfolio. Companies also lack market intelligence regarding opportunities in the supply-demand gap.

Farmers lack awareness of how to apply fertiliser properly. Commercial fertiliser companies do not invest in extension services due to the competition from subsidised fertiliser and focus on more matured plantation sectors. They also lack the skill to target smallholder farmers with appropriate marketing and communication strategies, such as the cost-benefit analysis of proper fertiliser application.

Government imposed mobility restrictions have hindered promotional activities in the field and distribution chain, especially in the early pandemic. In several areas, where there are stricter local restrictions at the sub-district or village level, a PRISMA study on the Impact of COVID-19 on Agriculture: Farmers' Perspective found that access to fertiliser (especially to subsidised fertiliser) was among the main challenges for farmers during COVID-19. However, in general, the supply chain for fertiliser has remained largely unimpacted.

Possible price increase of commercial fertiliser due to a combination of rising logistical costs and exchange rate fluctuation. The effects of this have not yet been observed by PRISMA partners in soil treatment, which will continue to be monitored in the next semester and on an ongoing basis.

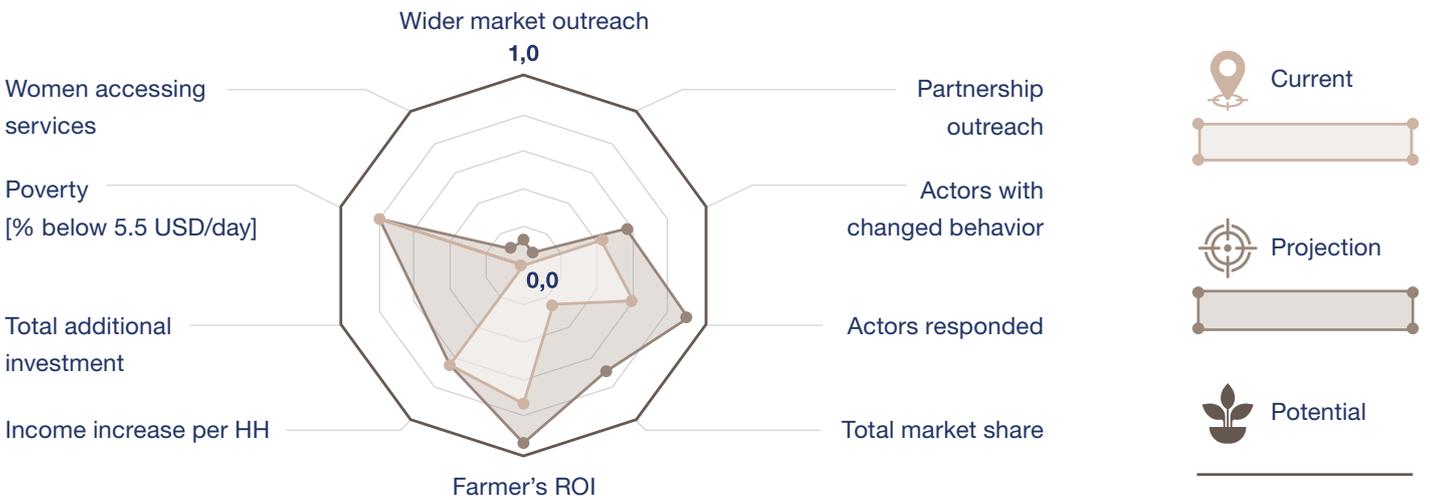


Subsector vision for systemic change

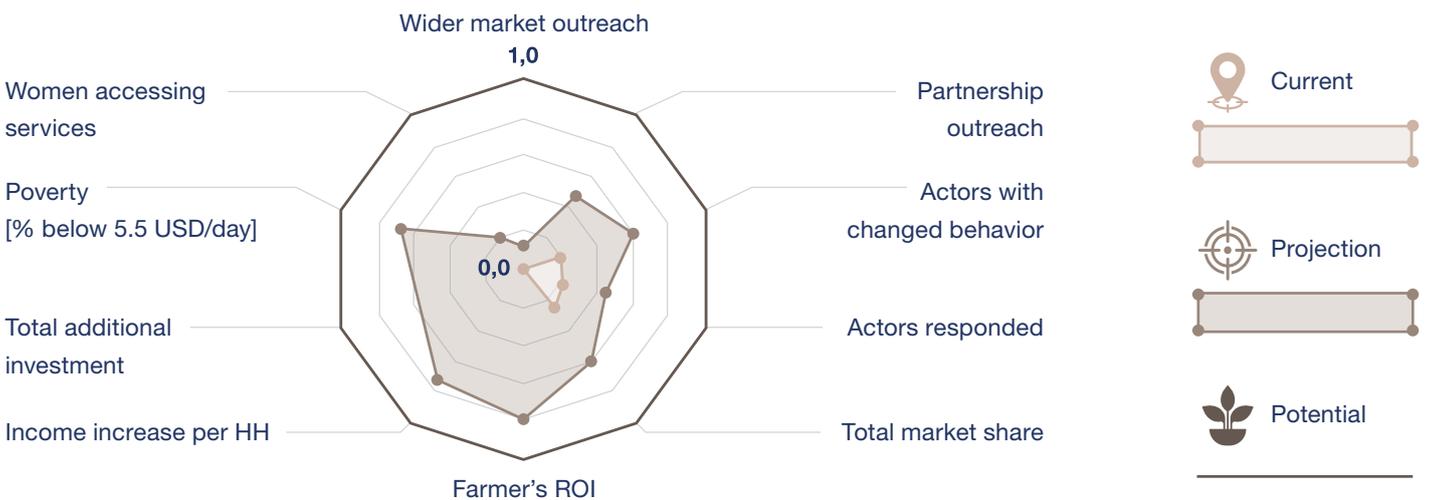
PRISMA aims to achieve greater systemic change in CJ, EJ, NTB and NTT fertiliser sectors. It is envisioned that by 2023, the commercial fertiliser sectors in all provinces will have increased their market size (in terms of both overall market size and percentage of commercial fertiliser market share) and will be more competitive through increased product offering. This will be achieved through on-time availability of fertiliser, an expanded distribution and retail network, provision of embedded extension information, and collaboration with other market players including non-fertiliser input companies and off-takers. All these initiatives by the fertiliser companies will be driven by growing, unmet demand for fertiliser.

It is expected that 76,126 farmers in EJ, 31,400 farmers in CJ, 66,520 farmers in NTB, and 3,930 farmers will have benefited by new and improved services offered by fertiliser companies.

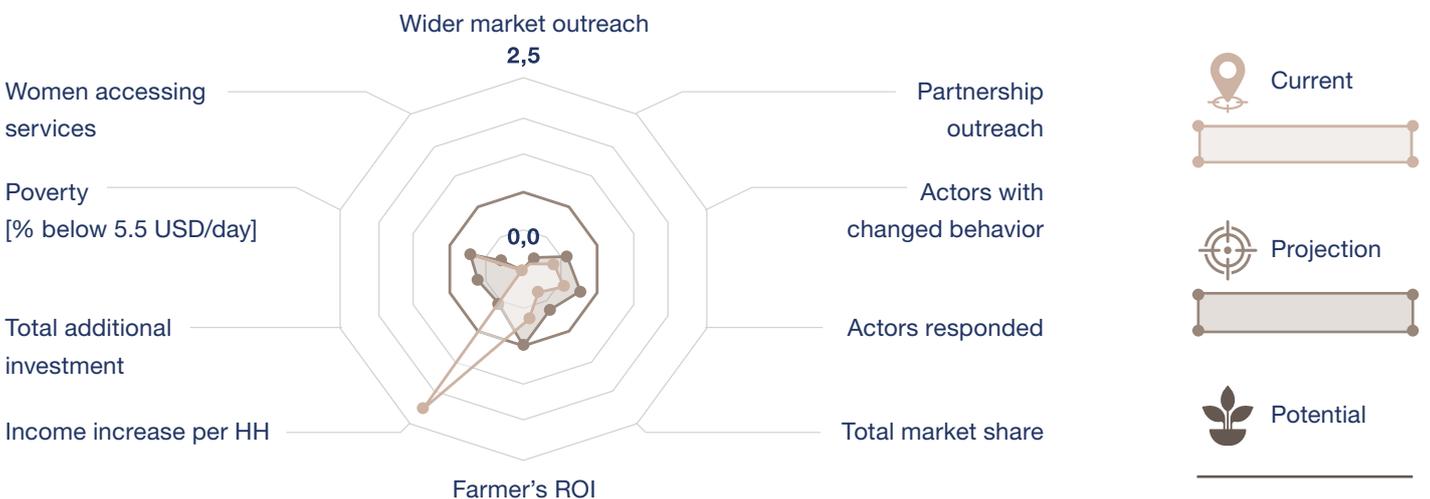
Soil treatment East Java system boundary and vision



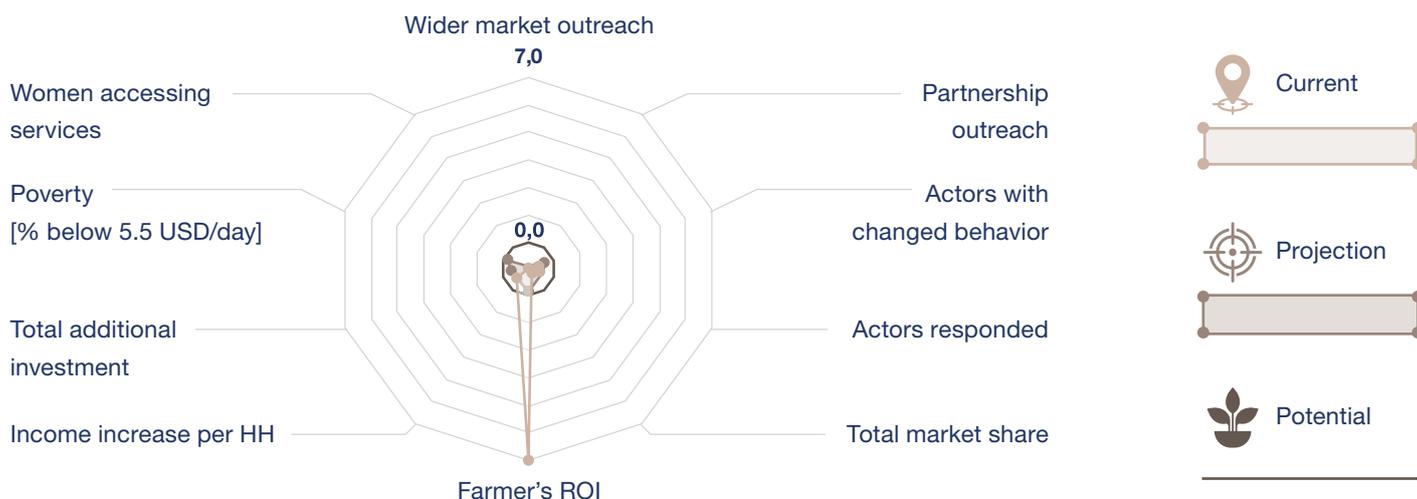
Soil treatment Central Java system boundary and vision



Soil treatment NTB system boundary and vision



Soil treatment NTT system boundary and vision



Progress towards subsector vision (East Java and Central Java)

Adopt

- PKT conducted a ToT Master Workshop to develop master trainers, who can train PKT's Account Executives across Indonesia. They will train distributors and large retailers in product knowledge, sales and marketing to promote the use of commercial fertiliser to farmers.
- PKT established 37 main demo plots and over 400 satellite demo plots in East Java. The aim of the plots was to demonstrate GAP including proper fertiliser application for rice, maize and shallot crops.
- PKT has conducted a total of 34 farmer meetings in the districts of Magetan, Madiun, Tulungagung, Ponorogo, Kediri, Blitar, and Malang.
- PKT conducted a retailer workshop to inform participants of PKT commercial fertiliser and good fertiliser practices. The workshop delivered training to kiosk owners, distributors, and BUMDes personnel on product knowledge, and marketing and sales skill.
- PKT conducted six farmer harvest days in Madiun, Madura and Ponorogo. Half of the farmer harvest days were implemented during COVID-19 by following the necessary safety protocols.
- PKT's distributor has hired sales agents to monitor and boost fertiliser sales.

- PKT has initiated collaboration with other market actors for the promotion of quality inputs and GAP at the farmer level. PKT is continuing partnerships with other agri-business such as Corteva, BNI, Crowde and PT Seger Agro Nusantara for East Java activities.
- PKT has also formed a new partnership with Bayer and conducted joint activities for the promotion of quality inputs and GAP at the farmer level.
- In both East and Central Java, Saprotan Utama is conducting activities such as demo plots, farmer meetings, one day promotions and three-day promotions of its products at the retailer level to create awareness of good fertilising practice.

Adapt

- PKT has responded to COVID-19 challenges by adapting COVID-19 safety protocols for all field activities.
- As a COVID-19 response, Saprotan Utama has adapted its marketing activities by developing and implementing digital marketing strategies including using SMS-blasts. Saprotan Utama has also updated its website to make access to learning materials and customer services easier. The digital marketing activities have also increased the portion of female followers from 18 per cent to 27 per cent (From November to December 2020).

- PKT has specifically designed a workshop to involve women stakeholders in agriculture. Through a program branded as “Agent of Change” workshop, PKT invited women actors to become aggregators who has multiple functions as input seller, off-taker, facilitation to financial institution. The women participation rate is 75 per cent from three Agent of Change events.
- To involve women farmer groups (Kelompok Wanita Tani – KWT) PKT have organized several farmer meetings which specifically invited members of KWT in EJ and NTB.
- PKT initiated activities to trial a specific fertiliser formulation for maize, paddy and coffee which, if successful, will result in more cost-effective and efficient fertiliser application. With PRISMA support, it has already launched a specific fertiliser for the cacao sector.
- As a form of multi-partnership collaboration, PKT has piloted the setting-up of aggregators who will act as agents for input producers, financial institutions and off-takers.
- Under the multi-stakeholder partnership program Agro Solution, PT Pupuk Kaltim (PKT) is now covering 12 provinces. In addition to PRISMA’s working areas of Central Java, East Java, NTB, and NTT, PKT has expanded its Agro Solution initiatives to provinces in Kalimantan, Sulawesi, and Lampung. PKT is working with different partners in these provinces, such as Mondelez in South Sulawesi and West Sulawesi.

Expand

- Crowding-in from other market actors is yet to be seen. Progress will be observed throughout the next semester and on an ongoing basis.

Respond

- MOA has engaged PKT in pilot projects in East Java to ensure that farmers in the project areas have timely access to fertiliser (both subsidised and commercial).
- Following the advice of the Bupati of Madiun, PKT has engaged five BUMDes and two female farmer groups in their retail network to promote and sell commercial fertiliser.
- As part of the COVID-19 response, PKT collaborated with its distributor to socialise good fertilising practices to the extension agents (PPL). The collaboration aims to transfer product knowledge to the farmers during their regular field activities through PPL assistance. PKT has held three such socialisation events with PPLs in EJ.
- PKT’s multi-stakeholder partnership model branded as “Agro Solution” (designed together with PRISMA) has been adopted by Pupuk Indonesia (PKT’s holding company).



Progress towards subsector vision (NTB)

Adopt

- PKT established 36 main demo plots in five districts (Sumbawa, West Sumbawa, Bima, East Lombok, and Dompu) in NTB.
- Furthermore, PKT successfully established over 500 satellite demo plots in those areas. The aim was to demonstrate GAP including proper fertiliser application for rice and maize crops.
- PKT has conducted 34 farmer meetings in NTB within the districts of East Lombok and Bima.
- PKT conducted 3 retailer gathering workshops (in Lombok,

Bima and Sumbawa), at which over 250 distributors, retailers and key farmers learned about PKT commercial fertiliser and enhance skill on sales and marketing.

- PKT conducted 17 farmer harvest days, most of which were implemented during COVID-19 with limited attendance and applying safety and health protocols.
- PKT distributors have started providing information to retailers or kiosk owners and farmers about good fertilising practice and product knowledge.
- PKT piloted a partnership with BISI (maize seed) and Tanindo (crop protection).

Adapt

- PKT has responded to COVID-19 challenges by adapting COVID-19 safety protocols for all field activities.
- PKT has formed a new partnership with Bayer Indonesia and DNA farm (off-taker).
- In collaboration with Bayer, DNA, BNI and Jasindo (insurance), PKT has launched a new campaign named “Better Life Farming Alliance”.
- PKT has engaged eight new distribution agents to promote and sell its commercial fertiliser.
- It has also engaged two female farmer groups to promote commercial fertiliser.
- As part of a multi-partnership collaboration, PKT has successfully set up 10 aggregators who take the roles of input producers, financial institutions, and off-takers.

Expand

- Crowding-in from other market actors is yet to be seen. Progress will be observed throughout the next semester and on an ongoing basis.

Respond

- The GOI has responded to the initiative of PKT to trial and produce specialty fertiliser for the cocoa sector, by bringing it under the government’s subsidised fertiliser scheme (forecast to produce 17,000 MTs of cocoa-specific fertiliser in the year 2020).
- PKT’s multi-stakeholder partnership model branded as “Agro Solution” that was designed together with PRISMA has been adopted by Pupuk Indonesia.



Progress towards subsector vision (NTT)

Adopt

- PKT conducted two farmer meetings to disseminate information to farmers about good fertilising practices.
- PKT has conducted one retailer workshop attended by over 100 participants, including distributors, retailers and key farmers, to provide product knowledge on PKT commercial fertiliser and sales and marketing skills.

Expand & respond

- Crowding-in and responses from other market actors are yet to be seen. Progress will be observed throughout the next semester and on an ongoing basis.

Adapt

- PKT has assigned three distributors to sell commercial products.
- As a form of multi-partnership collaboration, PKT has successfully set up one aggregator.
- PKT has started communication with local government regarding alignment of company target with government goals.

Vegetable Sector Summary

PRISMA Performance up to December 2020



QUICK FACTS



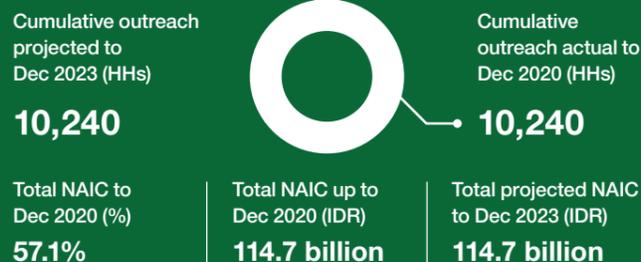
Facts Source: Statistik Pertanian 2019, Sensus Pertanian 2013, Outlook TPHORTI 2017

East Java (Phase 1)

Quick Facts



PRISMA Performance

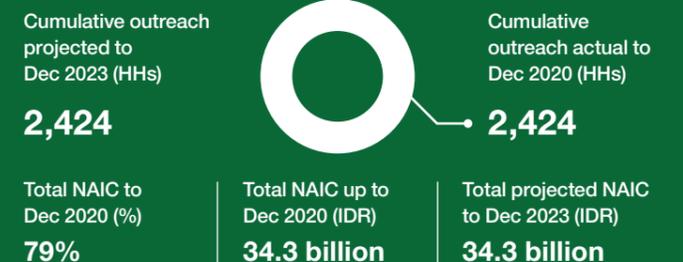


NTT (Phase 1)

Quick Facts



PRISMA Performance

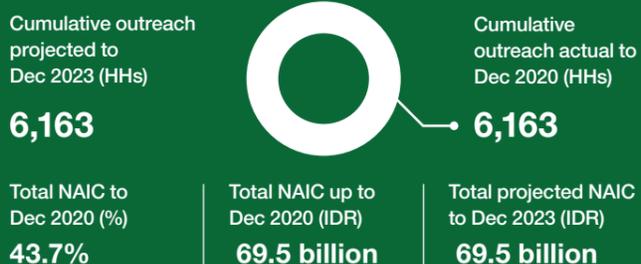


NTB (Phase 1)

Quick Facts



PRISMA Performance

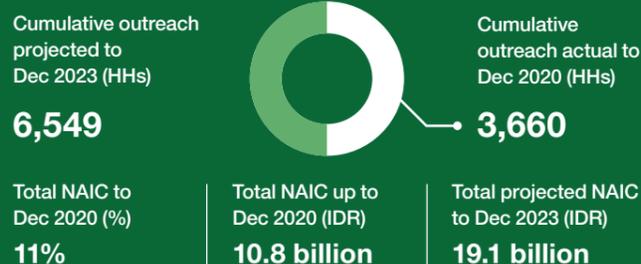


Papua

Quick Facts



PRISMA Performance

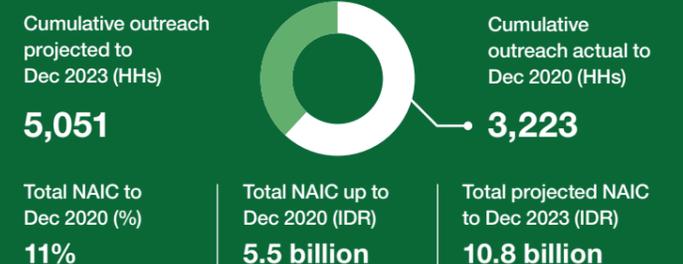


West Papua

Quick Facts



PRISMA Performance



Vegetable Papua and West Papua

The quantity of vegetables produced in Papua and West Papua is insufficient to meet local market demand, so vegetables have to be imported from Sulawesi and Java. As a result, there is strong potential to increase productivity in the vegetable sector in these provinces. In Phase 1, PRISMA worked with PT EWINDO to promote good quality vegetable seeds and GAP, benefitting 5,968 smallholder farming households of both migrant and indigenous farmers. Local vegetable production has increased, confirmed by farmers in Sulawesi (Palu) who state that the demand for vegetables from Papua and West Papua has decreased over the past two years. In Phase 2, PRISMA is focusing on ensuring that these changes will sustain, and that more private sector organisations enter the Papuan and West Papuan markets to promote good products and services to smallholder farming households. COVID-19 has generally reduced vegetable demand due to the slowing down of horeca (hotel, restaurant, café) sector and limited household visit to markets - despite the increase of purchases as part of a temporary panic buying phenomenon and a healthy eating trend in the higher income urban population. Around 65 per cent of vegetables are produced in Java island and North Sumatera and transported to other islands and provinces. However, as vegetables are perishable, trading across large distances is limited, making Papua and West Papua dependent on supply from Sulawesi and East Java. Logistical disruptions during COVID-19 have highlighted the need to strengthen vegetable production areas in these provinces.



Challenges and constraints

The major challenges faced by the vegetable sector in Papua and West Papua are listed below. The first three challenges are more prevalent among indigenous farmers who comprise at least 38 per cent of the total vegetable farmers in the provinces.

Low quality inputs and lack of GAP information mean productivity is low. Certified seed options in the market are limited, supply is inconsistent and product sales are not accompanied by up-to-date GAP information. Lack of GAP application hinders farmers from seeing the benefits of using certified seed, and as a result, some continue with the traditional practice of using low quality retained seed, which reduces productivity. Some informal GAP learning exists among transmigrant farmers, who are mainly from Java and Sulawesi, as they have access to information from relatives back home; however, this information is not regularly updated.

Inefficient supply chains contribute to high vegetable distribution costs. The role of aggregation is not yet functioning in the value chain. The limited number of collectors in remote areas forces most farmers to take their harvest directly to the market and sell it to big collectors.

For highland farmers, transportation can be a barrier. Some highland areas can only be reached via air transport, while bad road conditions mean that others need four-wheeled vehicles. This results in high transportation costs, rendering farmers' vegetable prices uncompetitive in comparison to vegetables traded from other islands.

Indigenous farmers are scattered between locations, making operational costs higher for private extension services to reach them. Providers of these services also experience a cultural barrier, which prevents them from developing an effective marketing strategy to target indigenous farmers. The livelihood and social structure of indigenous communities is unique, and a lack of understanding of these aspects hinders the private sector from communicating effectively about product benefits as well as providing technical assistance.

For up-to-date information on GAP, indigenous farmers currently rely heavily on public extension services. However, the number of government officers providing these services is low compared to the population served, impeding regular and timely assistance to farmers. In addition, the assistance they do provide can be ineffective due to their limited capacity.

As they live farther away from demand centres, indigenous farmers also have less access to market information.

They usually sell their produce directly to consumers in the market, which take up to three days to travel to.

Female farmers are especially impacted by these challenges. Traditionally, indigenous Papuan women are viewed as food providers, giving them the integral responsibility of agriculture production, starting from selecting seeds to selling harvested products.

Some new challenges have arisen for farmers and market actors due to COVID-19. The disruption of transport has affected vegetable shipments from other provinces or between districts, increasing vegetable prices. The closure and restriction of local market activities implemented in the beginning of COVID-19 outbreak (March to June 2020) has also impacted farmer incomes, especially that of women farmers, who are more likely to engage in agriculture selling activities. As of December 2020, however, vegetable shipments from Sulawesi and Java have partially recovered, while the local government has eased restrictions on local activities – including market opening hours – which is allowing domestic vegetable trading to slowly recover.



Intervention areas

PRISMA is focusing on two intervention areas:

Promoting good quality inputs and GAP. PRISMA works to scale up the intervention by working with other seed producers, facilitating them to identify areas with the best market potential and feasibility, allowing them to allocate resources to capacity building and demand creation more effectively, not only to transmigrant farmers but also to indigenous farmers.

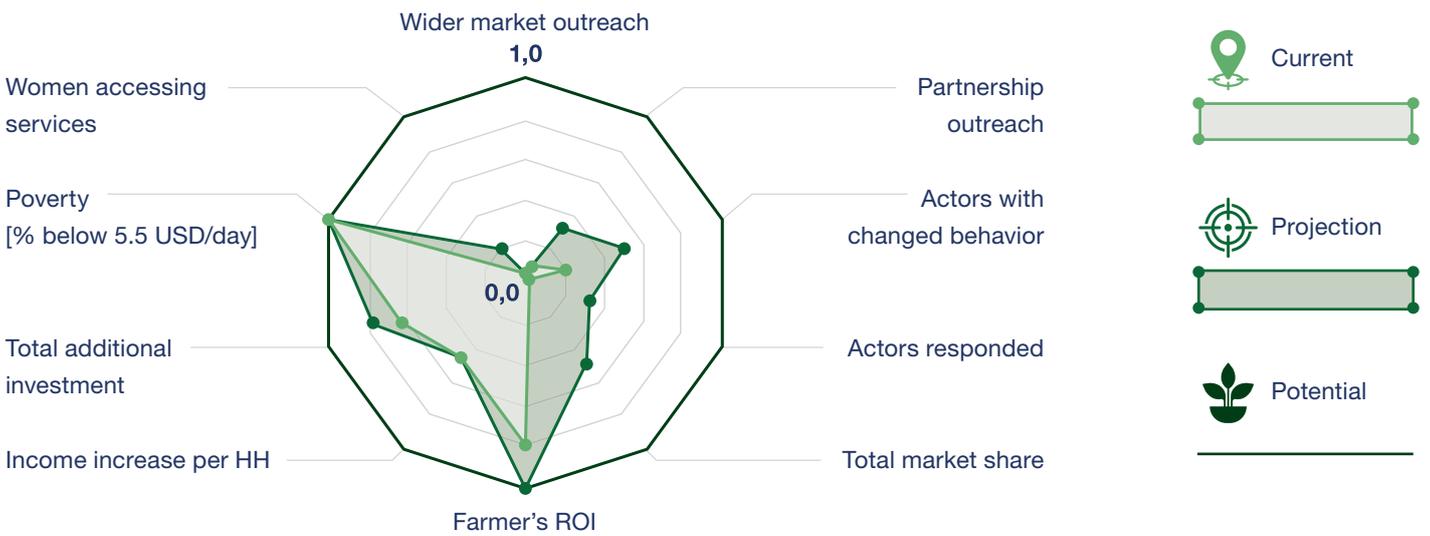
Improving access to and quality of public extension services. As indigenous farmers rely heavily on government public extension services, PRISMA aims to identify knowledge gaps of the public extension officers in order to develop a capacity building curriculum. This will also help to build an effective incentive system so that smallholder farmers have access to public extension service assistance. The program will also facilitate the formation of multi-stakeholder engagement with government and input companies to provide capacity building for public extension service officers.



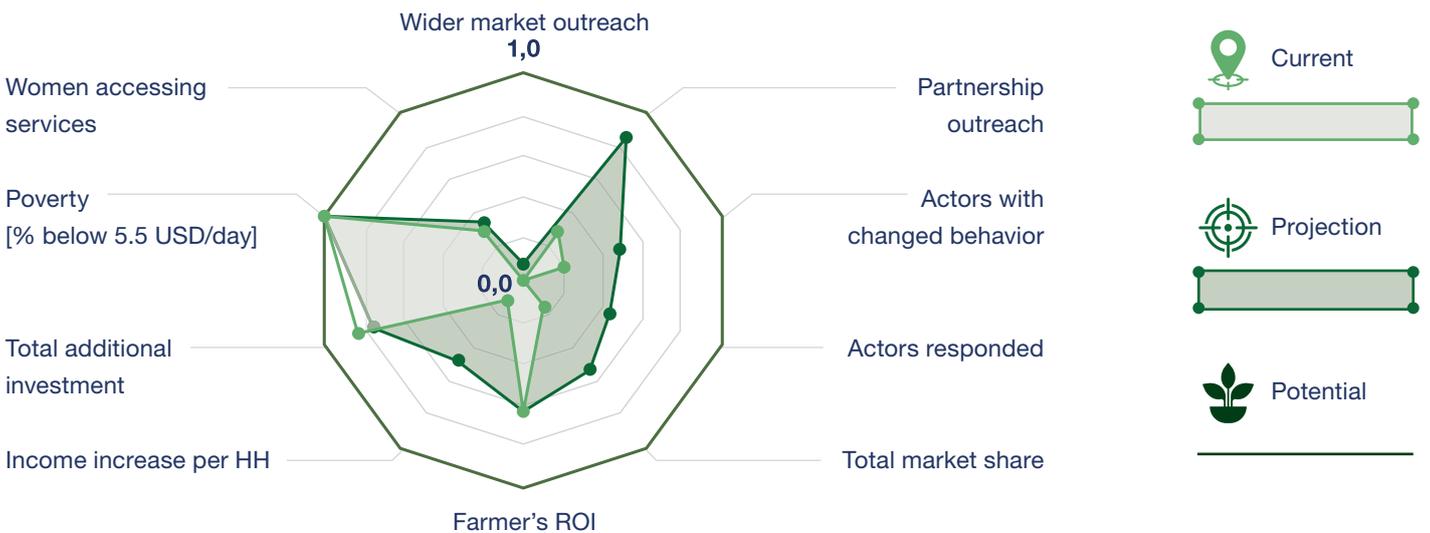
Subsector vision for wider market outreach

By 2023, over 17,000 vegetable farmers in Papua and West Papua will have increased access to high quality vegetable seeds and GAP knowledge. This will be achieved through co-investing with seed producers in developing a territorial management strategy for Papua and West Papua which will help them identify those areas with the highest sales potential and feasibility of market entrance. The sector will also work with GOI to improve the government extension service capacity building curriculum and incentive system, facilitating the provision of more farmers with better GAP knowledge.

Vegetable Papua system boundary and vision



Vegetable West Papua system boundary and vision





Progress towards subsector vision

Adopt

- EWINDO adopted the PRISMA business model to promote quality seed and GAP in Papua and West Papua between 2016 and 2018.
- EWINDO adopted PRISMA's Territorial Management strategy that focuses on identifying, engaging, and utilising women and men change agents in indigenous people communities.
- Agrosid has conducted pilot marketing activities with PRISMA in two districts (Merauke and Manokwari). The short-term pilot activities are part of Agrosid and PRISMA pre-intervention activities and will be evaluated in March 2021 to assess feasibility of continuing the partnership in the two provinces. Agrosid and PRISMA plan to sign partnership in Y21S1.

Adapt

- EWINDO continued to promote quality seed and GAP in Papua and West Papua after its contract with PRISMA.

Expand and respond

- Crowding-in and responses from other market actors are yet to be seen. Progress will be observed throughout the next semester and on an ongoing basis.

Annex 4

QMT results December 2020

Change & Improve	Let Flow	
<ul style="list-style-type: none"> ▪ Irrigation-EJ (1) ▪ Crop protection-EJ (1) ▪ Maize-NTT (2) 	<ul style="list-style-type: none"> ▪ Maize-CJ (2) ▪ Maize-NTB (1) ▪ Maize-NTT (1) ▪ Innovative finance-CJ (2) ▪ Innovative finance-EJ (2) ▪ Innovative finance-NTT (1) ▪ Innovative finance-NTB (1) ▪ Rice-EJ (2) ▪ Rice-CJ (1) ▪ ICT-CJ (2) ▪ ICT-EJ (3) ▪ ICT-NTB (1) ▪ ICT-NTT (2) ▪ Beef-CJ (2) 	<ul style="list-style-type: none"> ▪ Beef-EJ (2) ▪ Mechanisation-CJ (1) ▪ Mechanisation-EJ (2) ▪ Mechanisation-NTB (1) ▪ Seaweed-P (1) ▪ Dairy-CJ (1) ▪ Poultry-NTT (1) ▪ Crop protection-NTB (1) ▪ Pig-NTT (6) ▪ Mung bean-CJ (1) ▪ Marcomm-EJ (2) ▪ Marcomm-NTT (2) ▪ Vegetable-P (1) ▪ Vegetable-WP (1)
Push		Dropped
<ul style="list-style-type: none"> ▪ Soil Treatment-EJ (2) ▪ Beef-EJ (1) ▪ Mung bean-EJ (1) ▪ Soil treatment-CJ (1) ▪ Soil treatment-NTB (1) ▪ Soil treatment-NTT (1) ▪ Maize-EJ (2) ▪ Beef-CJ (1) ▪ Mung bean-CJ (1) ▪ Crop protection-CJ (2) ▪ Crop protection-EJ (2) 		<ul style="list-style-type: none"> ▪ Irrigation-EJ (1) ▪ ICT-NTT (1)
Ended	Innovate	
<ul style="list-style-type: none"> ▪ Peanut-EJ (1) ▪ Peanut-CJ (1) ▪ Innovative finance-EJ (1) 	<ul style="list-style-type: none"> ▪ Beef-CJ (1) ▪ Crop protection-CJ (1) ▪ Maize-EJ (1) ▪ Pig-NTT (3) 	

Annex 5

Portfolio development plan

Subsector	Actual Cumulative			Plan 2020S2			Actual Plan 2020S2			Plan 2021S1			Plan 2021S2		
	ICN	IP	Intervention with contract	ICN	IP	Intervention with contract	ICN	IP	Intervention with contract	ICN	IP	Intervention with contract	ICN	IP	Intervention with contract
Beef-CJ	-	5	4	-	2	2	-	2	1	1	1	1	-	2	2
Beef-EJ	-	4	3	-	2	2	-	2	1	1	1	1	-	2	2
Beef-NTB	-	1	-	-	-	-	-	1	-	1	2	1	-	-	1
Beef-NTT	-	1	-	-	-	-	-	1	-	-	-	-	-	-	-
Coconut-CJ	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Coffee-CJ	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Coffee-EJ	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Coffee-NTT	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Crop Protection-CJ	2	3	3	1	-	1	-	-	-	-	1	1	-	2	1
Crop Protection-EJ	1	3	3	1	-	1	-	-	-	-	1	1	-	2	1
Crop Protection-NTB	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-
Crop Protection-NTT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Crop Protection-Papua	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Crop Protection-West Papua	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dairy-CJ	1	2	1	-	2	1	-	-	-	-	2	2	-	-	-
Dairy-EJ	1	1	-	-	1	1	-	-	-	-	2	2	-	1	1
ICT-CJ	3	4	2	-	1	3	-	-	2	1	-	1	-	1	-
ICT-EJ	3	6	3	-	1	2	-	-	2	1	-	1	-	1	-
ICT-NTB	3	3	1	-	1	1	-	-	1	-	-	1	-	-	-
ICT-NTT	2	2	3	-	-	1	-	-	2	-	-	-	-	-	-
ICT-Papua	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-
ICT-West Papua	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Innovative Finance-CJ	2	3	2	-	1	-	-	1	-	-	1	1	1	-	1

Subsector	Actual Cumulative			Plan 2020S2			Actual Plan 2020S2			Plan 2021S1			Plan 2021S2		
	ICN	IP	Intervention with contract	ICN	IP	Intervention with contract	ICN	IP	Intervention with contract	ICN	IP	Intervention with contract	ICN	IP	Intervention with contract
Innovative Finance-EJ	1	4	3	-	1	2	-	1	-	-	-	1	1	-	-
Innovative Finance-NTB	-	2	1	-	1	1	-	1	-	-	-	-	1	-	-
Innovative Finance-NTT	-	-	1	-	-	-	-	-	-	-	-	-	1	-	-
Irrigation-CJ	1	-	-	-	-	-	-	-	-	-	1	1	-	-	-
Irrigation-EJ	4	6	2	1	3	3	1	3	-	-	-	1	-	-	-
Irrigation-NTB	1	1	-	-	1	-	-	1	-	-	-	-	-	-	-
Irrigation-NTT	1	-	-	-	1	-	-	-	-	-	-	-	-	-	-
Maize-CJ	2	3	2	1	-	2	1	2	1	-	1	1	-	-	1
Maize-EJ	2	1	3	-	-	-	-	-	-	-	-	-	-	-	-
Maize-NTT	1	2	3	1	-	1	1	1	1	-	1	-	-	-	1
Maize-NTB	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-
Mechanisation-CJ	-	3	1	-	1	2	-	1	1	-	1	2	-	-	-
Mechanisation-EJ	2	3	2	-	1	2	-	1	1	-	-	1	-	-	-
Mechanisation-NTB	-	2	1	-	-	1	-	-	-	-	-	1	-	-	-
Mechanisation-NTT	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-
Mechanisation-Papua	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-
Mung Bean-CJ	1	4	2	-	1	-	-	1	-	-	1	2	-	1	1
Mung Bean-EJ	-	1	1	-	-	-	-	-	-	-	2	-	-	-	2
Peanut-CJ	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-
Peanut-EJ	-	2	1	-	-	-	-	-	-	-	-	-	-	-	-
Pig-NTT	1	2	9	-	-	4	-	1	3	-	-	1	-	-	-
Pig-Papua	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Poultry-CJ	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Poultry-EJ	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Poultry-Papua	-	1	-	-	-	-	-	1	-	-	-	1	-	-	-
Poultry-West Papua	-	-	-	-	-	-	-	1	-	-	-	1	-	-	-
Poultry-NTB	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Subsector	Actual Cumulative			Plan 2020S2			Actual Plan 2020S2			Plan 2021S1			Plan 2021S2		
	ICN	IP	Intervention with contract	ICN	IP	Intervention with contract	ICN	IP	Intervention with contract	ICN	IP	Intervention with contract	ICN	IP	Intervention with contract
Poultry-NTT	1	1	1	-	-	-	-	1	-	-	-	-	2	2	-
Rice-CJ	-	3	1	-	1	-	-	1	-	-	1	1	-	1	2
Rice-EJ	1	3	2	-	1	1	-	-	-	-	2	2	-	1	2
Rice-NTT	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-
Seaweed-NTT	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Seaweed-Papua	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-
Soil Treatment-CJ	-	2	1	-	2	1	-	-	-	-	2	2	-	-	1
Soil Treatment-EJ	-	2	2	-	2	1	-	-	-	-	2	2	-	-	1
Soil Treatment-NTB	-	1	1	-	-	-	-	-	-	-	1	1	-	-	1
Soil Treatment-NTT	-	-	1	-	-	-	-	-	-	-	1	1	-	-	1
Vegetable-EJ	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vegetable-Papua	2	1	1	-	-	1	1	-	1	1	1	1	-	3	-
Vegetable-West Papua	2	1	1	-	-	1	1	-	1	1	1	1	-	3	-
Marketing Communication-CJ	1	1	-	-	-	1	-	-	-	-	-	-	-	-	-
Marketing Communication-EJ	1	1	2	-	-	1	-	-	2	-	-	-	-	-	-
Marketing Communication-NTB	1	1	-	-	-	1	-	-	-	-	-	-	-	-	-
Marketing Communication-NTT	1	1	2	-	-	1	-	-	2	-	-	-	-	-	-
Marketing Communication-Papua	1	1	-	-	-	1	-	-	-	-	-	-	-	-	-
Marketing Communication-West Papua	1	1	-	-	-	1	-	-	-	-	-	-	-	-	-

Annex 6

Projections up to December 2021

Subsector	Y21S1								Y21S2							
	Access	User	Outreach	Outreach <\$2.5PPP	Outreach <\$5.5PPP	NAIC	NAIC <\$2.5PPP	NAIC <\$5.5PPP	Access	User	Outreach	Outreach <\$2.5PPP	Outreach <\$5.5PPP	NAIC	NAIC <\$2.5PPP	NAIC <\$5.5PPP
Anggur Merah-NTT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Beef-CJ	5,183	3,346	2,125	1,029	1,411	11,152,135,639	5,450,712,892	7,458,097,629	15,653	7,199	5,095	2,541	3,458	26,606,826,797	13,340,812,095	18,130,041,376
Beef-EJ	2,664	1,674	970	437	650	4,687,034,046	2,109,165,274	3,140,312,876	12,672	5,091	4,016	1,807	2,691	21,351,753,078	9,608,288,818	14,305,674,655
Beef-NTB	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Beef-NTT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cacao-Papua	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cashew-NTB	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cashew-NTT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cassava-EJ	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cassava-NTT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Coconut-EJ	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Coconut-NTB	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Coconut-NTT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Coffee-EJ	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Coffee-NTT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Crop Protection-CJ	3,835	1,395	1,400	492	780	1,831,972,896	581,492,350	1,053,166,595	4,967	3,300	2,656	-	-	12,750,902,640	-	-
Crop Protection-EJ	11,531	4,934	4,705	1,517	2,480	13,706,696,536	4,420,409,633	7,224,799,744	15,716	11,346	9,136	2,946	4,816	43,852,662,000	14,142,483,495	23,114,738,140
Crop Protection-NTB	573	169	170	46	102	815,840,335	220,276,890	489,504,201	2,243	1,470	1,183	319	710	5,679,324,000	1,533,417,480	3,407,594,400
Crop Protection-NTT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dairy-CJ	-	-	-	-	-	-	-	-	8,606	8,001	6,400	2,304	3,520	78,464,268,800	28,247,136,768	43,155,347,840
Dairy-EJ	2,155	1,508	1,050	735	903	-	-	-	1,766	1,236	1,000	700	860	-	-	-
Extension Service-EJ	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Extension Service-NTB	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Feed Mill-NTT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Soil Treatment-CJ	-	-	-	-	-	-	-	-	5,091	2,800	2,240	815	1,232	2,560,320,000	931,956,480	1,408,688,064
Soil Treatment-EJ	-	-	-	-	-	-	-	-	12,282	5,200	4,826	1,556	2,544	11,950,675,518	3,854,092,757	6,299,201,388
Soil Treatment-NTB	-	-	-	-	-	-	-	-	5,833	3,500	3,500	1,532	2,158	46,461,870,000	20,341,006,230	28,653,034,932
Soil Treatment-NTT	-	-	-	-	-	-	-	-	1,667	1,000	1,000	438	617	1,803,705,000	789,662,031	1,112,344,862

Subsector	Y21S1								Y21S2							
	Access	User	Outreach	Outreach <\$2.5PPP	Outreach <\$5.5PPP	NAIC	NAIC <\$2.5PPP	NAIC <\$5.5PPP	Access	User	Outreach	Outreach <\$2.5PPP	Outreach <\$5.5PPP	NAIC	NAIC <\$2.5PPP	NAIC <\$5.5PPP
Fish-EJ	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GOI-EJ	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GOI-NTB	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GOI-NTT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GOI-Papua	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GOI-West Papua	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ICT-CJ	-	-	-	-	-	-	-	-	22,215	6,933	3,443	1,258	1,912	2,113,440,000	781,972,800	1,183,526,400
ICT-EJ	-	-	-	-	-	-	-	-	52,122	13,978	10,002	3,270	5,340	5,276,118,528	1,750,616,200	2,859,128,520
ICT-NTB	-	-	-	-	-	-	-	-	7,020	1,404	-	-	-	-	-	-
ICT-NTT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Innovative Finance-CJ	1,400	525	362	130	199	2,315,765,766	833,675,676	1,273,671,171	9,467	3,578	2,469	681	1,016	1,168,584,000	-	-
Innovative Finance-EJ	1,714	897	619	199	327	2,784,206,766	892,117,268	1,474,271,107	6,427	2,410	1,663	616	922	-	-	-
Innovative Finance-NTB	-	-	-	-	-	-	-	-	9,867	3,700	2,553	1,040	1,508	1,883,700,000	824,683,841	1,161,677,778
Innovative Finance-NTT	-	-	-	-	-	-	-	-	400	150	187	82	120	184,600,000	81,224,000	119,048,544
Innovative Finance-Papua	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Irrigation-EJ	-	520	520	168	262	1,084,987,358	350,450,917	546,725,130	23,971	15,239	14,954	5,180	7,688	13,725,000,000	4,433,175,000	6,916,027,500
Maize-CJ	6,238	6,000	4,800	1,728	2640	4,848,000,000	1,745,280,069	2,666,400,058	16,750	15,075	-	-	-	-	-	-
Maize-EJ	159,117	122,411	95,463	39,332	65,526	126,676,119,763	54,314,232,660	90,184,514,807	-	-	-	-	-	-	-	-
Maize-NTB	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Maize-NTT	18,158	13,931	9,622	4,811	6,832	23,203,077,248	11,601,538,624	16,474,184,846	4,800	3,600	-	-	-	-	-	-
Mango-EJ	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mango-NTB	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mechanisation-CJ	960	960	-	-	-	-	-	-	7,060	3,732	3,108	1,119	1,709	1,502,640,000	540,950,400	826,452,000
Mechanisation-EJ	1,920	1,920	672	215	356	134,400,000	43,008,000	71,232,000	12,180	7,268	4,964	1,619	2,646	1,390,000,000	444,800,000	736,700,000
Mechanisation-NTB	1,710	1,510	450	257	351	292,500,000	166,725,000	228,150,000	6,560	4,780	3,824	2,180	2,983	1,986,400,000	1,132,248,000	1,549,392,000
Mechanisation-NTT	960	960	-	-	-	-	-	-	960	960	768	330	492	-	-	-
Mechanisation-Papua	-	-	-	-	-	-	-	-	480	480	384	150	211	-	-	-
Mung Bean-CJ	1,226	1,226	1,226	576	821	645,987,170	303,613,970	432,811,404	27,931	27,931	20,967	8,067	12,098	2,484,566,038	1,167,746,038	1,664,659,245
Mung Bean-EJ	7,569	7,569	6,056	2,059	3,512	4,151,265,378	1,411,430,243	2,407,733,850	-	-	-	-	-	-	-	-
Mung Bean-NTB	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mung Bean-NTT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Peanut-CJ	350	350	315	102	166	540,521,415	174,318,156	284,908,838	175	175	158	51	83	270,260,708	87,159,078	142,454,419
Peanut-EJ	52	52	47	15	25	80,306,039	25,898,698	42,329,313	-	-	-	-	-	-	-	-

Subsector	Y21S1								Y21S2							
	Access	User	Outreach	Outreach <\$2.5PPP	Outreach <\$5.5PPP	NAIC	NAIC <\$2.5PPP	NAIC <\$5.5PPP	Access	User	Outreach	Outreach <\$2.5PPP	Outreach <\$5.5PPP	NAIC	NAIC <\$2.5PPP	NAIC <\$5.5PPP
Peanut-NTT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pig-NTT	15,239	2,108	1,884	904	1,300	1,491,073,590	715,715,323	1,028,840,777	167,229	82,138	81,138	46,370	52,531	2,419,902,425	1,161,553,164	1,669,732,673
Poultry-NTT	-	-	-	-	-	-	-	-	600	192	134	79	86	25,192,000	14,863,280	16,122,880
Poultry-Papua	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Poultry-West Papua	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Research-EJ	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Research-NTB	-	-	-	-	-	-	-	-	5,500	4,400	4,400	1,594	2,420	9,651,552,000	3,513,164,928	5,310,283,910
Rice-EJ	8,960	2,988	2,988	964	1,575	7,455,891,667	2,404,525,063	3,930,000,498	5,500	4,400	4,400	1,494	2,365	9,651,552,000	3,112,625,520	5,087,333,059
Rice-NTB	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rice-Papua	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rice-West Papua	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Seaweed-NTT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Seaweed-Papua	-	-	-	-	-	-	-	-	410	410	369	159	251	774,900,000	333,207,000	526,932,000
Seaweed-West Papua	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Shallot-EJ	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Shallot-NTB	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Soybean-EJ	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Soybean-NTB	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vegetable-EJ	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vegetable-NTB	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vegetable-NTT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vegetable-Papua	959	-	-	-	-	-	-	-	960	1,151	1,151	483	633	3,318,032,592	1,393,573,689	1,824,917,926
Vegetable-West Papua	454	-	-	-	-	-	-	-	634	676	676	284	372	1,949,646,888	818,851,693	1,072,305,788

Annex 7A

Semester outreach breakdown

Name	Actual Outreach Y20S2	Actual Cummulative Outreach up to Y20S2	Actual NAIC Y20S2	Actual Cummulative NAIC up to Y20S2
Beef - EJ - KJUB Puspetasari	-	-	-	-
Beef-EJ-Fermen Hipro	-	-	-	-
Beef - EJ - Bima Feed	-	-	-	-
Crop Protection-EJ-Bina Guna Kimia	-	-	-	-
Crop Protection-EJ-Agricon	-	-	-	-
Crop Protection-EJ-UPL	-	-	-	-
Soil Treatment - EJ - PT Pupuk Kaltim	-	-	-	-
Soil Treatment-EJ-Saprotan	-	-	-	-
Innovative Finance - EJ - PT Rekan Usaha Mikro Anda, PT Rekan Usaha Mikro Anda	-	-	-	-
Innovative Finance-EJ-Tanijoy	-	-	-	-
Innovative Finance-EJ-Crowde	1,426	1,426	5,910,442,995	5,910,442,995
Irrigation-EJ-Ewindo	-	-	-	-
Irrigation-EJ-Syngenta	100	100	557,338,600	557,338,600
ICT - EJ - PT Agri Tekno Karya (HARA), PT Agri Tekno Karya (HARA)	2,349	2,349	9,816,243,147	9,816,243,147
ICT - EJ - Viamo	-	-	-	-
Mechanisation - EJ - PT Rutan	-	-	-	-
Mechanisation - EJ - Galaxy	-	-	-	-
Maize - EJ - PT Dupont Indonesia	-	-	-	-
Maize - EJ - PT Syngenta Indonesia	-	-	-	-
Maize – EJ - Corteva	-	-	-	-
Mung Bean - EJ - PT East West Seed Indonesia (EWINDO)	-	2,608	-	1,430,292,922
Peanut - EJ - Garuda Food, PT Garudafood Putra Putri Jaya	-	-	-	-
Rice - EJ - PT Primasid Andalan Utama, PT Agrosid Manunggal Sentosa	-	-	-	-
Rice – EJ - Corteva	-	-	-	-
Crop Protection-NTB-Bina Guna Kimia	-	-	-	-
Soil Treatment - NTB - PT Pupuk Kaltim	-	13,346	-	77,253,829,071
Innovative Finance - NTB - PT BISI International	1,754	1,754	5,277,335,744	5,277,335,744
ICT - NTB - Viamo	-	-	-	-
Mechanisation-NTB-Terra	-	-	-	-
Maize - NTB - PT Dupont Indonesia	-	-	-	-
Soil Treatment - NTT - PT Pupuk Kaltim	-	-	-	-
Innovative Finance - NTT - PT BISI International	94	94	77,300,829	77,300,829

Name	Actual Outreach Y20S2	Actual Cumulative Outreach up to Y20S2	Actual NAIC Y20S2	Actual Cumulative NAIC up to Y20S2
ICT-NTT-Ditant	-	-	-	-
ICT - NTT - Viamo	-	-	-	-
Maize - NTT - Dinas Pertanian NTT	3,455	3,455	3,778,328,911	3,778,328,911
Maize - NTT - PT Dupont Indonesia	-	-	-	-
Pig-NTT-Sierad	1,435	1,435	2,192,337,795	2,192,337,795
Pig-NTT-Sierad	586	586	282,300,678	282,300,678
Pig-NTT-Indochem	151	151	232,150,391	232,150,391
Pig-NTT-Panca Patriot	1,154	1,154	2,659,186,440	2,659,186,440
Pig-NTT-Sinta Prima	-	-	-	-
Pig - NTT - Aroma	-	-	-	-
PIG - NTT - TMG	-	-	-	-
Pig - NTT - Kame Adonara	-	-	-	-
Pig - NTT - Mesang Nalley	-	-	-	-
Poultry - NTT - PT Sumber Unggas Indonesia, PT Sumber Unggas Indonesia	-	-	-	-
Seaweed-MMAF	-	-	-	-
Vegetable - Papua - PT East West Seed Indonesia	-	-	-	-
Vegetable - West Papua - PT East West Seed Indonesia	-	-	-	-
Beef - CJ - KJUB Puspetasari	-	-	-	-
Beef-CJ-Fermen Hipro	-	-	-	-
Beef - CJ - Sr Feedmills	-	-	-	-
Beef - CJ - Bima Feed	-	-	-	-
Crop Protection-CJ-Bina Guna Kimia	-	-	-	-
Crop Protection-EJ-Agricon	-	-	-	-
Crop Protection-CJ-UPL	-	-	-	-
Dairy-CJ-Nufeed	-	-	-	-
Soil Treatment-CJ-Saprotan	-	-	-	-
Innovative Finance - CJ - PT Crowde Indonesia, PT Crowde Membangun Bangsa	-	-	-	-
Innovative Finance-CJ-Tanijoy	-	-	-	-
ICT - CJ - Viamo	-	-	-	-
ICT - CJ - Panen.ID	-	-	-	-
Mechanisation - CJ - Galaxy	-	-	-	-
Maize - CJ - PT Dupont Indonesia	-	-	-	-
Mung Bean - CJ - CV Semi	-	8,477	-	4,465,306,917
Mung Bean - CJ - PT East West Seed Indonesia	1,469	1,469	805,636,619	805,636,619
Peanut - CJ - Garuda Food, PT Garudafood Putra Putri Jaya	-	-	-	-
Rice-CJ-Corteva	-	-	-	-

Name	Actual Outreach Y20S2	Actual Cumulative Outreach up to Y20S2	Actual NAIC Y20S2	Actual Cumulative NAIC up to Y20S2
Soil Treatment - EJ - PT Behn Meyer Agricare	-	855	-	6,973,128,856
Crop Protection - EJ - PT Bina Guna Kimia (FMC)	-	4,548	-	39,560,459,621
Soil Treatment - NTB - PT Behn Meyer Agricare	-	330	-	5,418,194,695
Soil Treatment - NTT – PT Behn Meyer Agricare	-	55	-	271,138,444
Beef - EJ – UD Pangestune Utama (Wahyu Utama)	-	834	-	4,965,548,700
Beef - EJ - Yayayan PKM	-	1,212	-	15,728,907,644
Beef - EJ - KJUB Puspetasari	-	8,534	-	149,882,015,225
Beef - EJ - PT. Japfa Comfeed Indonesia	-	328	-	1,131,173,962
Cassava - EJ - PT Natural Nusantara Yogyakarta (NASA)	-	643	-	700,662,655
Cassava - EJ - Cassava Supplier (Taman Organic and Pak Amir)	-	-	-	-
Cassava - EJ - PT Natural Nusantara Yogyakarta (NASA)	-	-	-	-
Coffee - EJ – PT Hextar Fertilizer Indonesia	-	-	-	-
Coconut - EJ - PT Bening Big Tree Farms	-	431	-	302,292,000
Coconut - EJ – CV Sekar Arum, Dinas Pertanian Kabupaten Pacitan	-	-	-	-
Extension Service - EJ - BASF	-	-	-	-
Fish - EJ - Bank Jatim, P Trimitra Anugrah Segara	-	6	-	11,850,863
Fish - EJ - Bank Jatim, PT Trimitra Anugrah Segara	-	-	-	-
GOI - EJ – PT DuPont Indonesia, Dinas Pertanian Kabupaten Pamekasan	-	1,950	-	6,406,408,244
GOI - EJ - PT East West Seed Indonesia (EWINDO)	-	-	-	-
GOI - EJ - PT East West Seed Indonesia (EWINDO), Dinas Ketahanan Pangan dan Peternakan Kabupaten Pamekasan	-	499	-	401,530,059
GOI - EJ - Dinas Tanaman Pangan, Hortikultura dan Perkebunan Kabupaten Situbondo	-	-	-	-
Irrigation - EJ – PT Vasham Kosa Sejahtera	-	-	-	-
Vegetable - EJ - PT East West Seed Indonesia (EWINDO)	-	6,461	-	90,972,600,000
Crop Protection - EJ – PT Natural Nusantara Yogyakarta (NASA)	-	38,774	-	181,305,539,083
Maize - EJ - PT Asian Hybrid Seed Technologies (AHSTI)	-	14,517	-	26,548,268,875
Maize - EJ - DAGRIO Kabupaten Sumenep	-	5,106	-	38,505,556,857
Maize - EJ – PT Syngenta	-	2,502	-	4,737,466,054
Maize - EJ – PT DuPont Indonesia	-	13,474	-	22,001,846,933
Maize - EJ - PT BISI International TBK	-	10,004	-	13,322,503,955

Name	Actual Outreach Y20S2	Actual Cumulative Outreach up to Y20S2	Actual NAIC Y20S2	Actual Cumulative NAIC up to Y20S2
Mung Bean - EJ - PT Indoacitama	-	-	-	-
Mung Bean - EJ - UD Sumber Tani	-	-	-	-
Mung Bean - EJ - PT East West Seed Indonesia (EWINDO)	-	-	-	-
Mung Bean - EJ - CV Semi, Toko Luwes	-	4,920	-	2,545,355,814
Mango - EJ - PT Syngenta	-	5,580	-	16,842,090,592
Mango - EJ - PT Syngenta	-	1,094	-	4,867,969,680
Mango - EJ - PT Rainbow Agrosiences, PT Syngenta	-	-	-	-
Mango - EJ - PT Rainbow Agrosiences	-	27	-	9,075,540,000
Peanut - EJ - CV Trubus Gumelar	-	101	-	111,555,563
Peanut - EJ - Balai Penelitian Tanaman Aneka Kacang dan Umbi	-	-	-	-
Peanut - EJ - PT Syngenta	-	790	-	1,791,451,304
Peanut - EJ - BASF	-	173	-	460,110,293
Rice - EJ - PT Bayer Indonesia	-	-	-	-
Soybean - EJ - UD Karya Tani	-	9,639	-	6,966,467,242
Soybean - EJ - Local Government of Sampang, Local Government of Trenggalek	-	4,035	-	4,772,864,964
Soybean - EJ - BASF	-	-	-	-
Soybean - EJ - PT East West Seed Indonesia (EWINDO), BATAN	-	-	-	-
Soybean - EJ - PT Karisma Indoagro Universat	-	-	-	-
Soybean - EJ - PT Rainbow Agrosiences	-	-	-	-
Shallot - EJ - PT Solusi Bioteknologi Indonesia (SOLBI)	-	1,540	-	4,928,000,000
Crop Protection - EJ - CropLife Indonesia	-	490	-	20,184,308,886
Crop Protection - EJ - PT Nufarm Indonesia	-	771	-	40,664,134,640
Shallot - EJ - PT East West Seed Indonesia (EWINDO)	-	-	-	-
Shallot - EJ - Bejo Zaden BV	-	-	-	-
Vegetable - EJ - PT Rainbow Agrosiences	-	878	-	9,765,000,000
Vegetable - EJ - PT Agrosid Manunggal Sentosa	-	2,447	-	13,918,089,440
Crop Protection - EJ - PT Danken Indonesia	-	1,016	-	844,425,855
Crop Protection - EJ - PT Agricon Indonesia	-	709	-	5,019,028,597
Beef - NTB - PT Bintang Pribumi Tulen, UD Imama, UD Sinar Rejeki	-	645	-	4,678,089,946
Beef - NTB - KJUB Puspetasari, PT Sanbe Farma	-	-	-	-
Coconut - NTB - PT. Aria Supra Nugraha (ASN), PT. Kai Sun	-	-	-	-
Cashew - NTB - PT Gerbang NTB Emas	-	1,387	-	2,979,158,865
Cashew - NTB - PT Comextra Majora	-	-	-	-

Name	Actual Outreach Y20S2	Actual Cumulative Outreach up to Y20S2	Actual NAIC Y20S2	Actual Cumulative NAIC up to Y20S2
Extension Service - NTB - PT. 8Villages, BAPELUH (District level Extension Services Implementation Unit for Farming) in Bima, BAPELUH (District level Extension Services Implementation Unit for Farming) in Lombok Timur, BAPELUH (District level Extension Services Implementation Unit for Farming) in Sumbawa Besar	-	-	-	-
Soil Treatment - NTB – CV Saprotan Utama	-	-	-	-
Soil Treatment - NTB – PT Pupuk Kaltim	-	-	-	-
GOI - NTB – PT BISI International TBK, Badan Perencanaan Pembangunan Daerah Kabupaten Lombok Utara	-	-	-	-
GOI - NTB - PT BISI International TBK, Dinas Pangan Kabupaten Sumbawa	-	1,077	-	151,857,000
Vegetable - NTB – PT East West Seed Indonesia (EWINDO)	-	1,566	-	22,056,400,000
Crop Protection - NTB - PT Natural Nusantara Yogyakarta (NASA)	-	7,904	-	56,277,660,537
Maize - NTB – PT Sarottama Dharma Kalpariksa	-	-	-	-
Maize - NTB – PT BISI International TBK	-	3,367	-	11,156,772,078
Maize - NTB – PT BISI International TBK	-	3,231	-	9,767,556,735
Mung Bean - NTB – PT East West Seed Indonesia (EWINDO)	-	-	-	-
Mango - NTB – PT Syngenta	-	1,372	-	6,018,445,126
Mango - NTB – PT Syngenta	-	896	-	3,434,276,720
Mango - NTB – PT Rainbow Agrosciences, PT. Syngenta	-	-	-	0
Soybean - NTB - BASF	-	1,609	-	2,830,648,866
Soybean - NTB - PT East West Seed Indonesia (EWINDO)	-	-	-	-
Soybean - NTB - CV Agro Makmur Mandiri, UD Pemuda Kreatif	-	1,492	-	1,996,632,650
Soybean - NTB - PT BISI International TBK	-	-	-	-
Soybean - NTB – CV Bintang Tani Sejahtera	-	-	-	-
Shallot - NTB – PT East West Seed Indonesia (EWINDO)	-	8,028	-	30,450,552,840
Crop Protection - NTB - CropLife Indonesia	-	385	-	4,631,065,463
Crop Protection - NTB - PT Nufarm Indonesia	-	1,532	-	42,224,004,642
Shallot - NTB - Bejo Zaden BV	-	-	-	-
Vegetable - NTB - PT Rainbow Agrosciences	-	4,414	-	47,428,500,000
Vegetable - NTB - PT. Agricon Indonesia	-	-	-	-
Anggur Merah - NTT - PUSKUD, Bappeda NTT	-	-	-	-
Anggur Merah - NTT - PT Sierad Produce, Bappeda NTT	-	-	-	196,990,886
Anggur Merah - NTT - CV Tiga Putri Mandiri, Bappeda NTT	-	-	-	-
Cassava - NTT - PSE Unit (Unit on Diocese for Social Economic Development), PT. Singkong Timor Jaya	-	-	-	-

Name	Actual Outreach Y20S2	Actual Cumulative Outreach up to Y20S2	Actual NAIC Y20S2	Actual Cumulative NAIC up to Y20S2
Beef - NTT - PUSKUD	-	65	-	212,240,015
Coffee - NTT - ICCRI, Koperasi Sekunder MPIG Ngada, Koperasi Serba Usaha Asnikom	-	4,598	-	9,292,704,699
Coffee - NTT - Bank NTT, Koperasi Sekunder MPIG Ngada, PT. Indokom Citra Persada	-	2,212	-	6,939,565,320
Coffee - NTT - PT Indokom Citra Persada	-	3,126	-	1,070,761,245
Coconut - NTT - CV Nusa Permai	-	-	-	-
Coconut - NTT - PT Barco	-	91	-	121,169,922
Cashew - NTT - CV Peduli Kasih	-	423	-	1,630,802,052
Cashew - NTT - PT Novelvar	-	5,412	-	7,087,533,396
Cashew - NTT - Dinas Pertanian Alor, Dinas Pertanian Flores Timur, Dinas Pertanian Manggarai Barat, Dinas Pertanian Nagekeo, Dinas Pertanian Sumba Timur	-	443	-	278,468,078
Cashew - NTT - PT Comextra Majora	-	-	-	-
Feed Mill - NTT - PT Garda Wahana Perkasa	-	-	-	-
GOI - NTT - PT BISI International TBK, Dinas Pertanian Tanaman Pangan dan Hortikultura Kabupaten Kupang	-	62	-	41,958,000
GOI - NTT - PT BISI International TBK, Dinas Ketahanan Pangan Kabupaten Timor Tengah Selatan	-	22	-	58,671,000
GOI - NTT - PT BISI International TBK, Dinas Pertanian Manggarai Timur	-	569	-	445,138,373
GOI - NTT - PT BISI International TBK, Dinas Pertanian Manggarai Barat	-	261	-	21,512,925
Vegetable - NTT - PT East West Seed Indonesia (EWINDO)	-	1,759	-	31,096,400,000
Crop Protection - NTT - PT Natural Nusantara Yogyakarta (NASA)	-	4,571	-	32,112,369,655
Maize - NTT - YMTM	-	7,298	-	9,488,606,923
Maize - NTT - CV Intan, CV Tiga Putri Mandiri, Kokdale	-	10,342	-	17,633,208,685
Maize - NTT - PT Buana Ika Syahputra	-	141	-	5,898,825
Maize - NTT - CV Intan, Kokdale, YMTM	-	4,081	-	3,917,760,000
Maize - NTT - Domenggus Benggu, Gaspar Bao, Pancrattus Vitalis Padjji, Dinas Pertanian Provinsi NTT	-	6,668	-	16,124,782,567
Maize - NTT - PT BISI International TBK	-	1,071	-	580,086,801
Mung Bean - NTT - PT East West Seed Indonesia (EWINDO)	-	-	-	-
Mung Bean - NTT - Balai Penelitian Tanaman Aneka Kacang dan Umbi	-	761	-	400,840,008
Pig - NTT - Biara Susteran Kompanionis Pelayan Maria, Central Ternak Bajawa Flores, Kebun Misi Boanawa, Misi Patiahu Seminari Tinggi St. Paulus Ledalero, Pig Breeding Farm Gerinus Sanda, PT. Charoen Pokphand, Seminari St. Yohanes Paulus II, Yayasan Bintang Firdaus, Yayasan Solidaritas Ruteng	-	1,118	-	16,984,152,468

Name	Actual Outreach Y20S2	Actual Cumulative Outreach up to Y20S2	Actual NAIC Y20S2	Actual Cumulative NAIC up to Y20S2
Pig - NTT - CV Rembu Tedeng, PT Japfa Comfeed Indonesia, PT Malindo Feedmill, PT Medion Ardhika Bhakti, PT Sierad Produce	-	54,555	-	367,624,518,904
Pig - NTT - PT Cargill Indonesia, PT Malindo Feedmill, PT Medion Ardhika Bhakti, PT Sierad Produce, PT Sinar Terang Madani	-	56,863	-	322,735,788,696
Peanut - NTT - CV Anjas, CV Tiga Putri Mandiri	-	716	-	491,753,405
Peanut - NTT - CV Dirgajaya Teknik, Gaspar Bao, Pius Botu	-	271	-	1,145,500,315
Seaweed - NTT - CV Evadian, UD Alga	-	630	-	159,906,600
Seaweed - NTT - PT Rote Karaginan Nusantara	-	30	-	209,570,877
Seaweed - NTT - CV Sentinel Pratama	-	-	-	-
Seaweed - NTT - CV Mazu Seaweed	-	850	-	170,534,303
Vegetable - NTT - UD Sumber Tani	-	516	-	3,171,797,568
Vegetable - NTT - PT Rainbow Agrosiences	-	-	-	-
Cacao - Papua - CV Kakao Kita	-	298	-	255,876,806
Cacao - Papua - PT Tanah Mas Celebes Indah	-	-	-	-
GOI - Papua - Dinas Ketahanan Pangan, Peternakan, dan Kesehatan Hewan Kabupaten Merauke	-	-	-	-
Rice - Papua - BASF	-	-	-	-
Seaweed - Papua - Badan Usaha Milik Daerah Yapen Mandiri Sejahtera, Bank Papua Cabang Biak Numfor, Bank Papua Cabang Kepulauan Yapen, Yayasan Rumsram, Pemerintah Daerah Kabupaten Biak Numfor	-	-	-	-
Vegetable - Papua - PT East West Seed Indonesia (EWINDO)	-	2,397	-	7,473,853,836
Vegetable - Papua - Yayasan Bina Tani Sejahtera	-	111	-	128,548,878
Vegetable - Papua - PT East West Seed Indonesia (EWINDO)	-	1,146	-	3,174,848,586
Vegetable - Papua - Yayasan Bina Tani Sejahtera	-	-	-	-
GOI - West Papua - Dinas Pertanian dan Ketahanan Pangan Kabupaten Manokwari	-	-	-	-
Rice - West Papua - BASF	-	-	-	-
Seaweed - West Papua - Bank Papua Cabang Fakfak	-	-	-	-
Vegetable - West Papua - UD Konco Tani, Yayasan Bina Tani Sejahtera	-	-	-	-
Vegetable - West Papua - Yayasan Bina Tani Sejahtera	-	176	-	330,108,813
Vegetable - West Papua - PT East West Seed Indonesia (EWINDO)	-	2,839	-	4,725,141,349
Vegetable - West Papua - PT East West Seed Indonesia (EWINDO)	-	124	-	357,521,762
Vegetable - West Papua - Yayasan Bina Tani Sejahtera	-	84	-	92,767,500

Name	Actual Outreach Y20S2	Actual Cumulative Outreach up to Y20S2	Actual NAIC Y20S2	Actual Cumulative NAIC up to Y20S2
Vegetable - West Papua - Yayasan Bina Tani Sejahtera	-	-	-	-
Innovative Finance - EJ - Bank Rakyat Indonesia	-	3,903	-	33,861,487,176
Innovative Finance - EJ - Bank Negara Indonesia 1946, DAGRIO Kabupaten Sumenep	-	-	-	3,767,770,660
Innovative Finance - EJ - PT. Syngenta	-	-	-	-
Innovative Finance - EJ - Bank Sinarmas	-	-	-	124,083,216
Innovative Finance - EJ - BPR Arta Kencana	-	-	-	-
Innovative Finance - EJ - Puskopdit	-	16	-	76,184,533
Innovative Finance - EJ - CU Sawiran	-	3	-	55,440,500
Innovative Finance - NTB - Bank NTB	-	-	-	4,893,672,098
Innovative Finance - NTB - Bank Andara, Bank Pesisir Akbar	-	-	-	-
Innovative Finance - NTB - PT BISI International TBK	-	-	-	5,531,974,282
Innovative Finance - NTT - Bank NTT	-	-	-	634,406,101
Innovative Finance - NTT - Tanaoba Lais Manekat	-	-	-	-
Innovative Finance - NTT - BPR Central Pitoby	-	-	-	-
Innovative Finance - NTT - Koperasi Simpan Pinjam Tanaoba Lais Manekat	-	-	-	-
Innovative Finance - Papua - Bank Papua	-	-	-	-
Irrigation - EJ - UD. Rosa Abadi	-	162	-	752,615,482
Irrigation - EJ - CV. Multi Mesindo, UD. Anugrah	-	320	-	3,473,535,551
Irrigation - EJ - Jinawan (Pompanisasi Eka Sekawan), UB. Mitra Usaha Tani	-	563	-	3,943,401,699
Irrigation - EJ - Hanah Drs.	-	36	-	261,569,492
Irrigation - EJ - Ali Murtadho	-	914	-	1,649,556,781
Irrigation - EJ - G-HIPPA Berkah Tirta Mandiri Malo	-	184	-	951,761,253
Irrigation - EJ - Mas Un	-	81	-	714,113,901
Irrigation - EJ - H. Arifin	-	286	-	6,282,714,992
Irrigation - EJ - BUMDes Kedung Primpem	-	-	-	-
Irrigation - EJ - HIPPA Tirto Kencono	-	799	-	2,804,990,504
Irrigation - EJ - UD. Rosa Abadi	-	-	-	-
Irrigation - EJ - H. Arifin	-	244	-	531,044,665
Irrigation - EJ - Kusnadi	-	89	-	1,645,297,978
Irrigation - EJ - Pawitnar, Drs. H., PT Hextar Fertilizer Indonesia	-	363	-	1,417,520,882
Irrigation - EJ - Haji Achsin, PT Syngenta, Local government of Pilanggede Village-Bojonegoro	-	703	-	11,536,413,012
Irrigation - EJ - GHIPPA Sumber Barokah-Piyak	-	112	-	46,467,792
Irrigation - EJ - UD Saifudin	-	346	-	2,266,442,691

Name	Actual Outreach Y20S2	Actual Cumulative Outreach up to Y20S2	Actual NAIC Y20S2	Actual Cumulative NAIC up to Y20S2
Irrigation - EJ - CV Multi Mesindo	-	1,531	-	8,897,954,932
Irrigation - EJ - PT Dharma Guna Wibawa, PT Hextar Fertilizer Indonesia	-	5,844	-	6,356,223,787
Irrigation - EJ - Sudjono	-	-	-	-
Irrigation - EJ - Bumdes Mitra Sejahtera	-	181	-	1,142,979,467
Research - EJ - Jember University, PT Bangkit Cassava Mandiri	-	483	-	2,794,702,891
Research - EJ - Brawijaya University	-	2,571	-	71,427,301,464
Research - EJ - PT Nufarm Indonesia	-	-	-	67,965,295,613
Research - EJ - Jember University	-	6	-	11,920,356
Research - EJ - PT Gendhis Madura Mukti, PT Perkebunan Nusantara X, Pusat Penelitian Perkebunan Gula Indonesia (P3GI)	-	406	-	21,289,821,964
Research - NTB - Mataram University, Persatuan Pedagang Hewan Nasional Indonesia, PT Dharma Raya Hutamajaya, Dinas KPP Sumbawa Barat, Dinas Peternakan Sumbawa	-	2,667	-	28,967,404,029
Research - NTB - Asia Crop Solutions (ACS), Bank NTB, Mataram University, PT Syngenta, DPPKP Lombok Utara	-	2,735	-	26,545,385,326

Annex 7B

NAIC breakdown in percentage at the sector level

Sector	Sector NAIC% Weighted	Sector	Sector NAIC% Weighted
Anggur Merah	414%	Innovative Finance	77%
Beef	131%	Irrigation	83%
Cacao	110%	Maize	193%
Cashew	21%	Mango	39%
Cassava	79%	Mechanisation	0%
Coconut	17%	Mung Bean	29%
Coffee	32%	Peanut	54%
Crop Protection	44%	Pig	412%
Dairy	0%	Poultry	0%
Extension Service	0%	Research	86%
Feed Mill	0%	Rice	0%
Soil Treatment	23%	Seaweed	11%
Fish	1310%	Shallot	55%
Gol	279%	Soybean	51%
ICT	64%	Vegetable	40%

Annex 8

Value for money

Investment per farm household

Total intervention costs



Social return on investment

Total intervention costs



Investment leverage sector

Total intervention costs



Investment leverage sector

Total intervention costs



Annex 10

Partner details

Private sector partner

Sector Beef		
CV Fermen Hipro Feed		
Working Province : Central Java, East Java 	Core business : An agri-business company producing organic concentrate feed for ruminants formulated from agricultural and agroindustry wastes.	Intervention: Promoting cattle specific concentrate feed for improving cattle productivity
Partner objectives : <ul style="list-style-type: none">  Increase production and sales of concentrate feed through expansion of distribution network to new areas.  Target untapped market of concentrate feed for post-partum cows through product diversification. 	PRISMA facilitation : <ul style="list-style-type: none">  Conduct research on market segmentation for new areas, potential agent assessment for distribution network expansion, and new product development study to facilitate product diversification.  Provide support in promotional activities and capacity building for staff as well as agents.  Facilitate multi-stakeholder partnership especially establishing relationships with government. 	

Sector Beef		
KJUB (Koperasi Jasa Usaha Bersama) Puspetasari		
Working Province : Central Java, East Java 	Core business : Feed company specialising in producing cattle fattening and dairy concentrate feed	Intervention : Promoting cattle specific concentrate feed for improving cattle productivity
Partner objectives : <ul style="list-style-type: none">  Increase high quality feed selling through product diversification and expansion of distribution network to new areas using research-based marketing strategy. 	PRISMA facilitation : <ul style="list-style-type: none">  Expand and improve capacity of distribution channel or agents.  Conduct formula development study and market research for new product and area.  Develop improved offline and online marketing strategy based on market research.  Provide capacity building to farmers, staff and agents. 	

Annex 13

Sector Beef		
UD Munir Jaya (Bima Feed)		
Working Province : Central Java, East Java 	Core business : Concentrate feed for ruminant	Intervention : Promoting cattle specific concentrate feed for improving cattle productivity
Partner objectives : <ul style="list-style-type: none">  Improving business operations system and organizational development.  Increasing concentrate feed selling through market expansion and improving distribution network to new areas using online and offline marketing strategy. 	PRISMA facilitation : <ul style="list-style-type: none">  Providing consultancy in organizational development and business operations.  Improving its distribution network and market expansion.  Developing offline and online marketing strategy.  Providing capacity building to farmers, staffs, and agents. 	

Sector Beef		
UD Sumber Rejeki (SR)		
Working Province : Central Java 	Core business : A ruminant feed producer under SR Feedmills Group with 3 product brands - SR Feed (UD SR Feed), AD Feed (CV AD Feed), and Indo Java (UD Indo Java)	Intervention : Promoting cattle specific concentrate feed for improving cattle productivity
Partner objectives : <ul style="list-style-type: none">  Business development of SR Feedmills Group as quality feed producer in the commercial market  Increase production and sales of concentrate feed through distribution network expansion and product branding 	PRISMA facilitation : <ul style="list-style-type: none">  Strengthen company and product branding by developing offline and online marketing strategies.  Improve distribution channel by developing agent system and rewarding mechanism.  Support for capacity building and market insights to partner about smallholder farmers and potential agents.  Conduct capacity building for PSP, ISP, and farmers 	

Sector Crop Protection		
PT Agricon Indonesia		
Working Province : Central Java, East Java 	Core business : Agrochemical production, formulation and distribution. Greenhouse manufacture	Intervention : Improving marketing strategy for soil treatment product and good crop protection practices (GCP) through farmers education
Partner objectives : <ul style="list-style-type: none">  National level sales strategy restructuring. Agricon is using a customer-centric strategy that focuses on increasing its service in order to gain loyalty.  Provide farmers with newly launched soil treatment/ catalyst products. 		PRISMA facilitation : <ul style="list-style-type: none">  Provide consultancy for managerial issues related to KPI and incentives in order to successfully adopt the new business model.  Facilitate promotion of new technologies by enhancing promotion targeting.

Sector Crop Protection		
PT UPL Indonesia		
Working Province : Central Java, East Java 	Core business : Agrochemical production, formulation and distribution	Intervention : Improving Marketing Audit and Strategy for Water Treatment and Multi-Active Ingredient Pesticide Products and Good Crop Protection Practices (GCP) Through Farmers Education
Partner objectives : <ul style="list-style-type: none">  New sales-marketing strategy and approach based on farmers behaviour.  Provide rice farmers with new multi active ingredients, pesticide products and water treatment.  Promote audit and marketing data base collection for better decision making.  Pilot new format of promotional activities embedded with farmers education. 		PRISMA facilitation : <ul style="list-style-type: none">  Provide consultancy for new marketing strategy and marketing audit.  Provide data and information on farmers behaviour survey and research.  Facilitate the promotion of new format promotional activities embedded with farmers education, including good crop protection practices (GCP).

Annex 13

Sector Crop Protection		
PT Bina Guna Kimia		
Working Province : Central Java, East Java, NTB 	Core business : Agrochemical manufacturing company focuses on pesticides and soil treatment products	Intervention : Innovative marketing strategies to increase adoption of selective safer pesticides and good crop protection practices.
Partner objectives : <ul style="list-style-type: none">  Follow FMC global initiatives to move away from broad spectrum (highly toxic) pesticides.  Market expansion of selective safer pesticides Improve farmers' adoption of Good Crop Protection Practices (as part of product stewardship). 	PRISMA facilitation : <ul style="list-style-type: none">  Support partner to replace broad spectrum pesticides with safer ones.  Support market research and rural communication experts to understand farmers' rationale for use of broad-spectrum pesticides and improper crop protection practices.  Support partner to tailor effective communication approaches for selective pesticides and Good Crop Protection Practices . 	
Sector Dairy		
PT NUFEED International Indonesia		
Working Province : Central Java 	Core business Feed and supplement producer	Intervention Promote good quality feed for dairy cow
Partner objectives: <ul style="list-style-type: none">  Become a market leader and provide various nutrition products for livestock.  Provide and develop high quality products suitable for farmers.  Expand market to new areas  Increase sales by providing a good product experience and technical services to customers. 	PRISMA facilitation : <ul style="list-style-type: none">  Support product development or feed formulation based on market segmentation and farmer needs.  Provide consultancy on business model and opportunity.  Facilitate new channel opening and develop marketing strategy.  Support promotional tools to effectively reach costumers Develop distribution channels. 	

Sector Information and Communication Technology		
Credit Union Swasti Sari		
Working Province : NTT 	Core business : A National Level Primary Credit Cooperative that is originated in NTT and considered one of the largest CU in NTT	Intervention : Improving the flow of information of maize farming through multi-stakeholder partnership
Partner objectives : <ul style="list-style-type: none">  Reduce the risk in providing credit to farmers by connecting to complementary products and service.  Ensure good quality products to avoid harvest failure and access to buyers to ensure farmers can sell their products at a fair price. 		PRISMA facilitation : <ul style="list-style-type: none">  Connect all the stakeholders (Ditant, PT BISI, and Swasti Sari) and improve the business model.  Provide consultation and support to PT Ditant, PT BISI, and Swasti Sari as needed.  Oversee and monitor project implementation.

Sector Information and Communication Technology		
PT Agri Tekno Karya (HARA)		
Working Province : East Java 	Core business : HARA is a blockchain-based data exchange for the food and agriculture sector	Intervention : Improvement of credit disbursement process and proof of concept of input and off-taking business case through digital data exchange
Partner objectives : <ul style="list-style-type: none">  Connect farmers with other players (financial institutions, off-takers and input producers) in the agriculture sector through digital data exchange using HARA agriculture application. 		PRISMA facilitation : <ul style="list-style-type: none">  Develop and improve the business model.  Prove the business case (piloting, connect with relevant stakeholders and socialisation).

Annex 13

Sector Information and Communication Technology		
PT BISI International Tbk		 PT BISI International Tbk
Working Province : NTT 	Core business : BISI is Indonesia's largest producer of hybrid seeds for maize, rice, and fruits and vegetables	Intervention : Improving the flow of information of maize farming through multi-stakeholder partnership
Partner objectives : <ul style="list-style-type: none">  Increase its target sales by expanding its business to wider region and create more product distribution channel. 		PRISMA facilitation : <ul style="list-style-type: none">  Connect all the stakeholders (Ditant, PT BISI, and Swasti Sari) and improve the business model.  Provide consultation and support to PT Ditant, PT BISI, and Swasti Sari as needed.  Oversee and monitor project implementation.

Sector Information and Communication Technology		
PT Ditant Brinanta Jaya		 PT. DITANT BRINANTA JAYA
Working Province : NTT 	Core business : An agri-product off-taking company which currently focuses its business in maize off-taking	Intervention : Improving the flow of information of maize farming through multi-stakeholder partnership
Partner objectives : <ul style="list-style-type: none">  Expand their business to other areas, especially in East Nusa Tenggara.  Need to be connected to complementary product and service such as agri-input and access to loan to ensure the yields quality and support the business process. 		PRISMA facilitation : <ul style="list-style-type: none">  Connect all stakeholders (Ditant, PT BISI and Swasti Sari) and develop the business model.  Provide consultation and support to PT Ditant, PT BISI and Swasti Sari as needed.  Oversee and monitor project implementation.

Sector Innovative Finance		
PT Tanijoy Agriteknologi Nusantara		
Working Province : Central Java, East Java		Core business : Fintech Peer to Peer (P2P)
Partner objectives :		Intervention : Expanding innovative agri-financing
<ul style="list-style-type: none">  Provide secure loan for crowd funder (P2P funder) Help TTB on getting fund through P2P lending.  Scale up their business by reaching more farmers to be funded and gain more funder. 		PRISMA facilitation : <ul style="list-style-type: none"> Increase more farmers to be reached by utilising agent model.

Sector Innovative Finance		
PT BISI International Tbk		 PT BISI International Tbk
Working Province : NTT		Core business : BISI is Indonesia's largest producer of hybrid seeds for maize, rice, and fruits and vegetables
Partner objectives :		Intervention : Expanding access to agri-input financing for farmers through BISI-YARO
<ul style="list-style-type: none">  Grow market sales by utilising agri-input financing as one of its promotional tools.  Expand maize seed market to NTT.  Improve effectiveness of current market database management and analysis. 		PRISMA facilitation : <ul style="list-style-type: none">  Improve partner's capacity in managing agri-input financing through YARO and developing credit history for their farmers.  Facilitate more engagement with other financing providers to offer more agri-input financing products to farmers .  Support promotional activities through YARO distribution channel.  Support improvement of market database management and analysis.

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Sector Innovative Finance		
PT Crowde Membangun Bangsa		
Working Province : Central Java 	Core business : An agri-tech financing platform working using crowdfunding schemes to provide financial services to the agricultural sector	Intervention : Expanding innovative agri-financing
Partner objectives : <ul style="list-style-type: none">  Increase portfolio by expanding to other areas or commodities.  Leverage other business opportunities or financing.  Confirm partner's position as market leader in the agri-tech financing industry. 	PRISMA facilitation : <ul style="list-style-type: none">  Improve marketing strategy (including setting-up kiosk agent system)  Improve credit scoring system and collection system  Conduct stakeholder gatherings to support market actors (insurance companies, banks)  Speed up technical development of farmers' marketplace  Speed up IOT support for monitoring  Support TONI app (a kiosk app) improvement and promotion 	

Sector Innovative Finance		
PT Rekan Usaha Mikro Anda (RUMA)		
Working Province : East Java 	Core business : PT RUMA (Gojek Group)'s flagship service, Arisan Mapan, provides innovative products for consumers in rural Indonesia through digitally-supported rotating savings group (Arisan).	Intervention : Improving access to high-quality input through women led rotating savings groups
Partner objectives : <ul style="list-style-type: none">  Reach more rural market segments by including agriculture products into partner's product catalogue. 	PRISMA facilitation : <ul style="list-style-type: none">  Facilitate agriculture product marketing strategy, including support in promotional activities and market research to identify customer segmentation, product types, and focus areas. 	

Sector Irrigation		
PT Syngenta Indonesia		
Working Province : East Java 	Core business : PT Syngenta Indonesia is a multi-national company focusing on improved seeds and crop protection technology and products	Intervention : Promotion of new and improved irrigation provision for maize seed growers
Partner objectives : <ul style="list-style-type: none"> Secure seeds supply which from maize seed growers in East Java. 	PRISMA facilitation : <ul style="list-style-type: none"> Support in irrigation market assessment within production area to identify farmers behaviour and profile of irrigation service providers. Linkage with competent irrigation contractors to execute the project on the ground. Capacity building for partner on technical irrigation through irrigation expert. 	

Sector Irrigation		
PT East West Indonesia (EWINDO)		
Working Province : East Java 	Core business Headquartered in the Netherlands, East West Indonesia focuses its business on horticulture seeds through the Panah Merah brand	Intervention Promotion of new improved irrigation provision for seed nursery farmers
Partner objectives: <ul style="list-style-type: none"> To secure partner's seed supply which came from its seed nursery farmers in EJ. 	PRISMA facilitation : <ul style="list-style-type: none"> Support irrigation market research within production area to identify farmer behaviours and profile of irrigation service providers. Linkage with competent irrigation contractors to execute the project on the ground. Support in quality control of irrigation design through technical expert. 	

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Sector Maize			
PT Syngenta Indonesia			
Working Province : East Java		Core business : PT Syngenta Indonesia is a multi-national company focusing on improved seeds and crop protection technology and products	Intervention : Hybrid maize seed market development
Partner objectives:		PRISMA facilitation :	
<ul style="list-style-type: none">  Improve business strategies and inclusive business models.  Expand their hybrid maize seed market. 		<ul style="list-style-type: none">  Provide information about market condition and farmers' behaviour.  Support promotional strategies and activities.  Support the optimisation of subsidy program to promote hybrid maize seed. 	

Sector Irrigation			
Corteva Agriscience (PT DuPont Indonesia)			
Working Province : Central Java, East Java, NTB, NTT		Core business Balanced and diverse seed, crop protection technology and products	Intervention Promoting better farming practices and technology for increasing yield
Partner objectives :		PRISMA facilitation :	
<ul style="list-style-type: none">  Improve strategies and inclusive business models.  Expand hybrid maize seed market. 		<ul style="list-style-type: none">  Conduct research (market research, gender study) related to business case and inclusive marketing.  Develop partner's promotional program and activities including facilitation to multi-stakeholder partnerships.  Support capacity building and frameworks of marketing research and analysis.  Support new seed business. 	

Sector Maize		
Seger Group (PT Seger Pangan Sejahtera/ PT Seger Agro Nusantara/ PT Sumber Energi Pangan)		
Working Province : Central Java, NTT		Core business : Wholesale of food commodities
		Intervention : Improving Off-taking Services in Underdeveloped Areas
Partner objectives : <ul style="list-style-type: none">  Expand maize supplying areas to achieve the company's supply target.  To realise the company's vision in supporting Indonesia's food security and improve farmers' welfare. 		PRISMA facilitation : <ul style="list-style-type: none">  Provide support in conducting field assessment.  Partnership brokering with public and private market players.  Support in developing partner's capacity building and field activities.  Support partner's in the optimisation of the use of data.

Sector Mechanisation		
PT Rutan		
Working Province : Central Java, East Java		Core business : Agricultural machinery importer that provide pre to post harvest machinery
		Intervention : PT Rutan market penetration in East Java
Partner objectives : <ul style="list-style-type: none">  Shifting the focus from government market to commercial market.  Increasing its shares in the open market for its new products.  Integrating market insights into their customer centric marketing strategy. 		PRISMA facilitation : <ul style="list-style-type: none">  Integrating market research into their marketing strategy development.  Developing internal business development capacity building.

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Sector Mechanisation		
PT Terra Agro Digital		
Working Province : NTB 	Core business : Terra provides digital platform for agricultural mechanisation service, manages an ecosystem of machine investors, local management agents, and supports actors with revenue-sharing mechanism	Intervention : Introducing agricultural machinery management service
Partner objectives : <ul style="list-style-type: none">  Create a complete package of mechanisation service portfolio for farmers.  Develop local agents to provide agricultural machinery service efficiently and effectively for farmers.  Connect machine investors to local agents and supporting actors. 		PRISMA facilitation : <ul style="list-style-type: none">  Support the development, validation, and improvement of the business model through market research, capacity building and strategic consultancy.

Sector Mechanisation		
PT Galaxy Partani Mas		
Working Province : Central Java, East Java 	Core business : Agricultural Machinery and Tools	Intervention : Promoting large and small machinery
Partner objectives : <ul style="list-style-type: none">  Improving brand awareness and sales of their agricultural product through online and offline marketing activities. 		PRISMA facilitation : <ul style="list-style-type: none">  Providing consultation for online and offline marketing strategy development. Facilitate PT. Galaxy Partani Mas with digital marketing agency that can optimize their online marketing strategy.

Sector Mung Bean		
PT East West Indonesia (EWINDO)		
Working Province : Central Java, East Java		Core business : Headquartered in the Netherlands, East West Indonesia focuses its business on horticulture seeds through the Panah Merah brand
Intervention : Commercialisation of mung bean seed		
Partner objectives :	PRISMA facilitation :	
 Develop its business portfolio to include staple crop (mung bean) in addition to horticulture.	 Phase 1 : business plan and consumer research.  Phase 2 : marketing activities and mung bean consumption mapping through research and mung bean industry FGD.	

Sector Mung Bean		
CV Semi		
Working Province : Central Java, East Java		Core business : Mung bean seed nursery, producing certified mung bean seed (Vima variety) which currently is serving both market and government programs. It is also a distributor of agriculture input products for some agri-input companies
Intervention : Promoting certified mung bean seed and GAP		
Partner objectives:	PRISMA facilitation :	
 Enlarge mung bean seed business by expanding its mung bean seed market nationwide through the market (retailers/distribution channels) and government subsidy program.	 Provide business analysis and solutions to facilitate partner's development of better strategy in regard to the mung bean seed market (e.g. improve distribution channels, linkage with government, linkage with potential off-season contract farmers to produce more mung bean seed).	

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Sector Peanut		
PT GarudaFood Putra Putri Jaya, Tbk		
Working Province : Central Java, East Java 	Core business : GarudaFood is the largest peanut snack manufacturer in Indonesia with three business divisions: food, beverage and distribution.	Intervention : Promoting peanut off-taker
Partner objectives :  Promote off-takers for wet pod and local kernel peanut through direct partnership with farmers groups/entities.	PRISMA facilitation :  Provide research on potential partnership, facilitation with stakeholders, and pilot partnership event.	

Sector Pig		
PT Sreeya Sewu Indonesia, Tbk		
Working Province : NTT 	Core business : The company focuses on its core competencies of feeds production, production of day-old chicken (DOC), broiler commercial farm, contract growing, chicken slaughtering and production of processed (frozen food) and value-added chicken products. The company produces poultry feed, swine feed, duck feed and quail feed	Intervention : Expanding Sreeya Sewu feed products in NTT.
Partner objectives :  Increase feed sales in NTT through strengthening and expanding feed channel distribution and promoting high quality pig feed.	PRISMA facilitation :  Support the development of training materials and conduct the capacity building for field staff, marketing and outsourcing staff.  Support partner to strengthen and expand their distribution channel through market survey in new areas.  Support the development of marketing strategy (e.g. design of marketing materials, branding, communication platform, media coverage, etc.) Link partner with other market actors (e.g. pig collectors, input retailers, government agencies, farmers groups, church communities, etc.).	

Sector Pig		
PT Sinta Prima Feedmill		
Working Province : NTT 	Core business : Animal feed producer for pig feed, fish feed and poultry feed	Intervention : Expanding Sinta Feed products in NTT to promote quality feed and good feeding practice
Partner objectives : <ul style="list-style-type: none">  Introduce Sinta Feed in NTT (new market).  Increase sales of Sinta Feed.  Increase farmer's access to high quality feed and information on GRP and GHP in NTT.  Increase farmers' income in NTT through the use of pig feed, good rearing practice (GRP) and good husbandry practice (GFP). 		PRISMA facilitation : <ul style="list-style-type: none">  Introduce new market.  Enhance marketing strategy (online and offline).  Helping in field staff appointment and network establishment.  Building capacity and knowledge.

Sector Pig		
CV Sinar Terang Madani		
Working Province : NTT 	Core business : Animal feed producer for pig feed, poultry feed and produce day old chicken (DOC) in Indonesia.	Intervention : Expanding Perkasa feed in NTT to promote quality feed and good feeding practice.
Partner objectives : <ul style="list-style-type: none">  Improve its feed distribution network to secure supply of feed in NTT.  Increase feed sales in NTT by implementing effective marketing strategies, recruitment of technical staff, and introduce feed for other livestock (poultry). 		PRISMA facilitation : <ul style="list-style-type: none">  Link partner with potential distributors and market actors to strengthen and expand its distribution channel. Support recruitment of STM.  Provide market insights and develop marketing strategies, such as information on market potential of livestock (poultry) feed, smaller feed packaging, and more effective marketing materials.  Support marketing consultant to support STM in developing module and train STM staff (marketing and field) related to topic: business management, agri-business analysis, marketing technique, warehousing, inventory management, and record keeping.

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Sector Pig		
Dr Marlene Mesang Nalley		
Working Province : NTT 	Core business : Breeding	Intervention : Improving Breed Stock and Breeding Management
Partner objectives : <ul style="list-style-type: none">  Provide good quality semen through establishment of Bank Semen in NTT.  Setting up Artificial Insemination (AI) training centre to increase the capacity of pig farmers or public and local veterinary on AI. 	PRISMA facilitation : <ul style="list-style-type: none">  PRISMA support Dr Marlene to establish Bank Semen through procurement of live pig sow and sentinel piglet with good quality, importation of frozen semen. Improve knowledge of pig farmers and veterinary in NTT through AI Training.  PRISMA collaborate with Dr Marlene to develop AI training module.  PRISMA assist Dr Marlene on adopting software for better farm information recording.  Develop Standard Operating Procedure (SOP) related biosecurity.  Conduct promotional activities to promote AI training and services from Dr Marlene. 	

Sector Pig		
PT Panca Patriot Prima		
Working Province : NTT 	Core business : Animal feed producer (for pigs, cattle, fish and poultry) and day-old chickens (DOC) based in Surabaya.	Intervention: Expanding Patriot feed in NTT to promote quality feed and good feeding practices
Partner objectives : <ul style="list-style-type: none">  Improve feed distribution network to secure supply of feed in NTT.  Increase feed sales in NTT by implementing effective marketing strategies, recruitment of technical staff, and introducing feed for other livestock (poultry).  Establish feed depot to support marketing and sales in NTT. 	PRISMA facilitation : <ul style="list-style-type: none">  Link partner with potential distributors and market actors to strengthen and expand its distribution channel.  Provide market insights and develop marketing strategies (e.g. information on market potential of livestock (poultry) feed, smaller feed packaging) and more effective marketing materials (e.g. banners, leaflets, jingles) design.  Support marketing consultant to help partner develop training module for marketing and field staff, related to various topics (business management, agri-business analysis, marketing technique, warehousing, inventory management and record keeping). 	

Sector Pig		
CV Aroma Duta Boga		
Working Province : NTT		Core business : Breeding Production
		Intervention : Improving Breed Stock and Breeding Management
Partner objectives :		PRISMA facilitation :
<ul style="list-style-type: none">  Increase the quantity and the quality of pigs breed to supply good quality pig stock in NTT among limited number of commercial breeding farms in NTT.  Improve breeding management by SOP development, training and software to record the information in farm.  Help other breeders to improve breed stock on-farm with training and socialisation. 		<ul style="list-style-type: none">  Procure fresh semen of good quality boar and inseminate selected sow to increase breed quality on-farm.  Provide technical assistance to evaluate breeding farm management and apply the strategy to achieve the target.  Develop SOP for breeding management in improving breeding stock and farm management.  Develop software pig recording system for better farm information recording.  Develop video promotion, brochures and flyers to assist in promoting ASF prevention and biosecurity practices.  Build capacity building for the stock keeper to conduct trainings, including on GHP (good husbandry practice) and GFP (good feeding practice).

Sector Pig		
PT Kame Adonara Farm		
Working Province : NTT		Core business : Breeding Production
		Intervention : Improving Breed Stock and Breeding Management
Partner objectives :		PRISMA facilitation :
<ul style="list-style-type: none">  Supply good quality breed (piglets and/or fresh semen) to farmers in eastern Flores.  Provide AI service to farmers in eastern Flores. 		<ul style="list-style-type: none">  Support partner to improve its biosecurity measure to withstand threat of virus or disease.  Support partner to upgrade the genetic of its parent stock through fresh semen importation.  Support partner to improve its farm management with trained farm staff (probation period on PRISMA), provide capacity building and introduce a recording system.  Support partner to develop new product/service (AI of fresh semen).  Support partner to conduct promotional activities to help accelerate the adoption rate at consumers (farmers) level.

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Sector Pig		
PT Sinar Indochem		
Working Province : NTT		<p>Core business : PT Sinar Indochem is a feed producer of poultry feed and pig feed</p> <p>Intervention : Expanding Star feed products in NTT to promote quality feed and good feeding practices</p>
<p>Partner objectives :</p> <p>Partner objective is to make the best of the market opportunity and solve specific limitation in Promoting High Quality Pig Feed that will be impactful for poor farmers in Nusa Tenggara Timur (NTT).</p> <p>To achieve the objective, partner will:</p> <ul style="list-style-type: none"> Strengthen and expand its distribution channels (distributors and retailers) through business gathering and regular meetings. Develop and implement its market strategy (promotional materials, demo-plots, coaching clinic, market storm and pig farming competition). 		<p>PRISMA facilitation :</p> <ul style="list-style-type: none"> Provision of consultant for development of marketing strategies, farm business analysis, inventory management, training and promotional materials. Facilitate partners with local market actors including government to promote feed products and conduct training for potential agent, sub agents and farmer leaders.

Sector Pig		
CV Tiba Mori Go		
Working Province : NTT		<p>Core business : Breeding</p> <p>Intervention : Improve breed and breeding management</p>
<p>Partner objectives :</p> <ul style="list-style-type: none"> Supply good quality breed (piglets) to farmers in western Flores. 		<p>PRISMA facilitation :</p> <ul style="list-style-type: none"> Strengthen partner's implementation of biosecurity measures. Upgrade partner's seed stock genetics through fresh semen importation. Improve breeding management through capacity building and introduction to recording system. Develop new product/service: artificial insemination service of fresh semen to farmers. Conduct promotional activities to help accelerate adoption rate at farmers level.

Sector Poultry		
PT Sumber Unggas Indonesia		
Working Province : NTT		Core business : Local chicken farm, hatchery, and fresh meat & egg production
Partner objectives :		Intervention :
<ul style="list-style-type: none">  Introduce and promote KUB chicken in NTT.  Expand distribution channel by acquiring DOC agents in NTT to increase sales. 		Promoting and producing KUB (kampung unggas Balitnak) chicken breed in NTT
PRISMA facilitation :		
<ul style="list-style-type: none">  Develop business models and provide market insights for better marketing strategy.  Facilitate permit for partner to transport and sell DOC in NTT.  Connect partner to crucial stakeholders and existing market actors to promote KUB chicken from input to output market.  Facilitate training for potential farmers and agents.  Develop marketing campaign strategy for boosting chicken demand. 		

Sector Rice		
PT Agrosid Manunggal Sentosa (Agrosid)/ PT Primasid Andalan Utama (Primasid).		
Working Province : Central Java, East Java, NTB, NTT		Core business : Agrosid and Primasid are sister companies of seed importer and producer in Indonesia. They produce, import, and sell seeds (horticulture and food crop), bio fertilisers, and bio pesticides in Indonesia.
Partner objectives :		Intervention :
<ul style="list-style-type: none">  Increase production capacity.  Increase product penetration in the market.  Improving monitoring and management system. 		Promoting and increasing the availability of rice hybrid seeds
PRISMA facilitation :		
<ul style="list-style-type: none">  Support seed trial production for best production method.  Support monitoring system to increase staff performance Staff capacity building.  Product promotion to educate and change the behaviour of the farmers. 		

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Sector Rice		
Corteva Agriscience		
Working Province : Central Java, East Java 	Core business : Balanced and diverse seed, crop protection technology and products	Intervention : Promoting and increasing the availability of rice hybrid seed
Partner objectives : <ul style="list-style-type: none">  Increase hybrid rice seed production.  Expand hybrid rice seed market. 	PRISMA facilitation : <ul style="list-style-type: none">  Conduct research (market research for grower's selection and agent database).  Support partner's production and promotional strategy. 	

Sector Soil Treatment		
PT Pupuk Kalimantan Timur		
Working Province : East Java, NTB, NTT 	Core business : A producer of fertiliser and other agri-chemical products. It is the subsidiary of PT Pupuk Indonesia Holding Company (a state-owned company)	Intervention : Promoting high quality commercial fertiliser and best fertilising practice
Partner objectives : <ul style="list-style-type: none">  Increase commercial fertiliser selling through expanding collaboration with other stakeholders (through multi-stakeholder partnership).  Become a growing and sustainable world-class company in the fertiliser, chemical and agrobusiness industry. 	PRISMA facilitation : <ul style="list-style-type: none">  Strengthen retailers' marketing/ sales skills through TOT.  Facilitate multi-stakeholder partnerships to leverage farmers producing products for institutional buyers.  Market segmentation analysis.  Improve distribution channels and work with more retailers.  Develop new side business for retailers.  Develop an R&D station aimed at developing organic products which target women in NTB.  Improve the PKT field activity reporting system. 	

Sector Soil Treatment		
CV Saprotan Utama		
Working Province : Central Java, East Java 	Core business : Saprotan Utama offer many kinds of fertilisers, pesticides, and high-quality seeds	Intervention : Promoting high quality commercial fertiliser (macro and micronutrients) and introduce peat moss as an innovative planting media
Partner objectives : <ul style="list-style-type: none">  Improve marketing and sales strategy to increase sales and market share at national level, especially in Central Java and East Java.  Introduce farmers with high quality fertiliser to improve farmers' farming practice and increase their loyalty to Saprotan Utama's products.  Introduce farmers to alternative planting materials called peat moss. 	PRISMA facilitation : <ul style="list-style-type: none">  Provide consultancy for managerial issues as well as marketing and sales strategy.  Facilitate promotion of new planting material by developing market entry strategy for new product.  Introduce online marketing as an alternative media for marketing and promotion strategy. 	

Sector Vegetable		
PT East West Indonesia (EWINDO)		
Working Province : Papua, West Papua 	Core business : Headquartered in the Netherlands, East West Indonesia focuses its business on horticulture seeds through the Panah Merah brand	Intervention : Market Strategy of Seeds Channel Distribution in Papua and West Papua
Partner objectives : <ul style="list-style-type: none">  Identify and expand target market areas in Papua and West Papua. 	PRISMA facilitation : <ul style="list-style-type: none">  Phase 1 : Initial market expansion strategy and activity in Papua and West Papua  Phase 2 : Supporting development of cluster-based marketing strategies that provides identification of ethnicity clusters with similar cultural and agricultural behaviours 	

Annex 13

Sector Marketing Communication		
PT Gara Gara Teman Dekat (Teman Dekat)		
Working Province : East Java		Core business : Activation, digital activation, advertising Intervention : Integrated Marketing Communication Services for Agriculture Industry
Partner objectives :	PRISMA facilitation :	
<ul style="list-style-type: none">  Providing activation, digital activation and advertising services to agriculture businesses to improve their product/service competitiveness in the industry. 	<ul style="list-style-type: none">  Conduct joint research with RAD research to improve Teman Dekat's understanding in rural agriculture industry.  B2B marketing workshop to improve Teman Dekat's understanding in agriculture industry, thus can provide better service to potential clients.  Market facilitation with potential agriculture clients, including but not limited to marketing activities through joint research result launching and agri businesses marketing activities collaboration.  Develop a social media hub for agriculture sector to improve Teman Dekat presence in agriculture industry, as well as to provide agriculture market players a full package of agriculture information. 	

Sector Marketing Communication		
PT RAD Utama Riset (RAD Research)		
Working Province : East Java		Core business : Market research Intervention : Integrated Marketing Communication Services for Agriculture Industry
Partner objectives :	PRISMA facilitation :	
<ul style="list-style-type: none">  Providing market research services and training to agriculture businesses to improve their business and marketing strategy. 	<ul style="list-style-type: none">  Conduct joint research with Teman Dekat, to improve RAD capacity in agriculture research.  B2B marketing workshop to improve RAD's understanding in agriculture industry, thus can provide better service to potential clients.  Market facilitation with potential agriculture clients, including but not limited to marketing activities through joint research result launching. 	

Public sector partner

Sector MAIZE		
Balai Pengkajian Teknologi Pertanian NTT 		
Working Province : NTT 	Core business : Agency for Agricultural Technology Assessment of NTT Province	Intervention : Maize development strategy and roadmap
Partner objectives : To support Dinas Pertanian NTT program in increasing maize production by : <ul style="list-style-type: none">  Sharpening the planning contained in the Grand Design of the Development of Dry Land Agriculture in the East Nusa Tenggara Islands, particularly in encouraging the production and use of high-quality maize seeds of open pollinated varieties (OPV).  Increasing nursery capacity to become professional seed producers Strengthening maize GAP practice by increasing the capacity of TJPS staff (upstream-downstream program).  Release second edition of GAP book with updated information on FAW and TJPS role. 		PRISMA facilitation : <ul style="list-style-type: none">  Support in developing Maize Roadmap 2019 – 2023.  Conduct nursery survey to identify potential nursery to be further developed as professional nurseries.  Conduct market survey to provide analysis for partner decision-making.  Support in capacity building for nurseries to enter open market.  Provide GAP tools (flipchart and brochure) for TJPS field staff.

Sector MAIZE		
Dinas Pertanian NTT 		
Working Province : NTT 	Core business : Agriculture Office of NTT Province	Intervention : Maize development strategy and roadmap
Partner objectives : <ul style="list-style-type: none">  Sharpen the planning contained in the Grand Design of the Development of Dry Land Agriculture in NTT, particularly to encourage the production and use of high-quality maize seeds of open pollinated varieties (OPV), and to promote the good application of maize cultivation practices for both farmers in NTT.  Increase maize production in NTT in response to government's plan for self-sufficiency and feed mill development plan by encouraging the use of certified seed (OPV and Hybrid) and collaboration with off-takers. 		PRISMA facilitation : <ul style="list-style-type: none">  Support in developing Maize Roadmap 2019 – 23.  Conduct nursery survey to identify potential nursery to be further developed as professional nurseries.  Conduct market survey to provide analysis for partner decision-making.  Support in capacity building for nurseries to enter open market.  Provide GAP tools for TJPS field staff.

Annex 13

Sector SEAWEED		
Kementerian Kelautan dan Perikanan Republik Indonesia – Directorate General of Aquaculture (DGoA)		
Working Province : Papua, NTT 	Core business : Technical Government Unit for National Aquaculture of the Indonesian or Ministry of Marine Affairs and Fisheries (MMAF)	Intervention : Seaweed – MMAF, Partnerships for improved seedling production and provision
Partner objectives : Will be focused - though not limited - to DGoA as the centre of program activities: Carry out routine activities : <ul style="list-style-type: none">  Budgeting and program planning and grants  Create and revise SOPs and policies to regulate activities for the development of a resilient and responsive seaweed sector.  Collaborate and coordinate with teams between directorates, ministries and other stakeholders, to get feedback and information. Piloting and applying the new framework and tools with the collaboration of PRISMA and Kalimajari : <ul style="list-style-type: none">  Implement an assessment framework to expand to other provinces to enrich the database for better decision making.  Use new modules to train internal human resources to improve technical and business knowledge.  Integrate private sector involvement in seaweed nursery activities; also integrated with planning.  Ensuring all policies and activities encourage a better business climate for sustainable nurseries. Actively dealing with seaweed stakeholders, such as : <ul style="list-style-type: none">  Create new partnerships and harmonize cooperation with market players, research institutions, and government agencies for the development of seaweed.  Involved in G2G cross-directorate, ministry and institutional collaboration. 		PRISMA facilitation : 2 main roles - direct assistance and facilitation, as well as creating mediation and connecting : Facilitating and enhancing existing activities : <ul style="list-style-type: none">  Revise grant plans backed up with valid and reliable data.  Change / update policies on the flow and quality of nursery quality improvement programs.  Updated SOPs for seedling shipments, and seaweed seed vendor requirements.  Increase knowledge and share information between stakeholders. Provide assistance in creating frameworks, tools, databases, such as : <ul style="list-style-type: none">  Design, test and implement an assessment framework to be integrated with the DGoA's monitoring and evaluation strategy.  Make modules and provide technical and business training to stakeholders.  Collecting and analysing data to complement the basis of policy making through providing input and findings.  Create SOPs for, and choose potential intermediaries who will run private nurseries. Mediating and bridging seaweed stakeholders, such as : <ul style="list-style-type: none">  Connect to other market participants (upstream and downstream) for collaborative actions.  Connecting to other research institutions to encourage innovation.  Facilitating in realigning cross-directorate relations and institutional collaboration to work together in the development of seaweed.

Co-facilitator

Sector SEAWEED		
Yayasan Kalimajari		
Working Province : Papua		<p>Core business :</p> <p>The foundation focuses on seaweed and cacao commodities by implementing projects on capacity building, research and technical assistance, funded by various private and public institutions</p> <p>Intervention : Seaweed improved seedlings</p>
<p>PRISMA objectives :</p> <ul style="list-style-type: none">  Induce partnerships for improving improved seedling research and production.  Improve MMAF strategy of improved seedling (and cultivation knowledge) provision and distribution system. 		<p>Co-facilitator roles :</p> <p>Substantial role in</p> <ul style="list-style-type: none">  Mediating between and bridging seaweed seedling stakeholders.  Knowledge and information sharing.  Providing inputs and presenting findings on seedling development to all partners.

