



Draft Progress
Report and
Implementation
Plan

Promoting Rural Income through Support
for Markets in Agriculture

Strengthening Agricultural Finance
in Rural Areas

February 2018



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List of Abbreviations

AIP-Rural	Australian-Indonesia Partnership for Rural Economic Development
ARISA	Applied Research and Innovation Systems in Agriculture
AUD	Australian dollar
BAPPENAS	Badan Perencanaan Pembangunan Nasional – National Development Planning Agency
BPS	Statistics Indonesia
BUMDes	Village Business Council
Dana Desa	Village fund
DCED	Donor Committee for Enterprise Development
DFAT	(Australian) Department of Foreign Affairs and Trade
EMS	Environmental Management System
EJ	East Java
EWINDO	East West Indonesia Ltd (company)
GAP	Good agricultural practices
GoA	Government of Australia
Gol	Government of Indonesia
HH	Household
IOD	Indian Ocean Dipole
IP	Intervention plan
ISD	Intervention steering document
KPI	Key performance indicator
M4P	Making markets work for the poor
MIS	Management information system
MRM	Monitoring and Results Measurement
MOMF	Ministry of Marine and Fisheries
NAIC	Net attributable income change
NTB	Nusa Tenggara Barat – West Nusa Tenggara province
NTT	Nusa Tenggara Timur – East Nusa Tenggara province
OPV	Open Pollinated Variety (Hybrid)
PKK	Women’s farmer groups
PPI	Progress out of poverty index
PPP	Purchasing power parity
PRISMA	Promoting Rural Income through Support for Markets in Agriculture
PRIP	Progress Report and Implementation Plan
PT	Perseroan Terbatas - Limited Liability Company
RML	Results measurement and learning
SAFIRA	Strengthening Access to Finance in Rural Agriculture
TIRTA	Tertiary Irrigation Technical Assistance
UPSUS	Upaya Khusus (Special Efforts program of Ministry of Agriculture)
VCF	Value Chain Finance
VfM	Value for Money

Executive summary

PRISMA

BACKGROUND

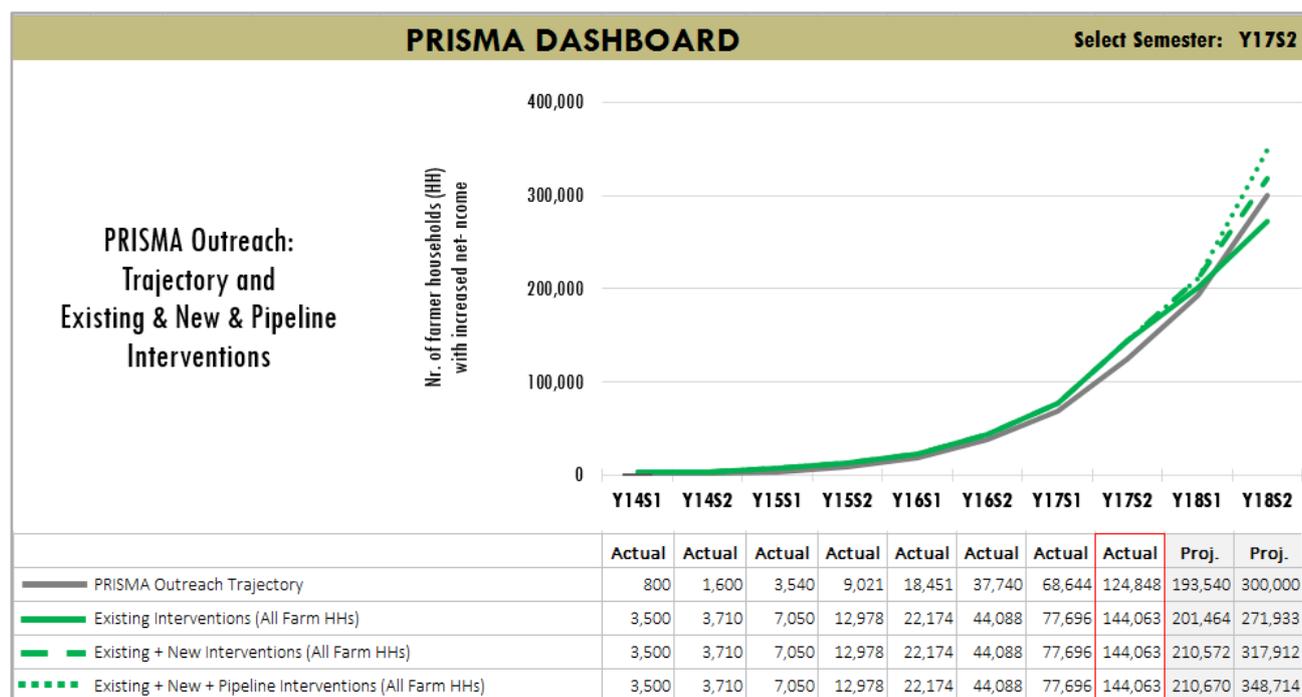
The objective of Promoting Rural Income through Support for Markets in Agriculture (PRISMA) is to increase the competitiveness of 300,000 smallholder farming households (HH) in Eastern Indonesia, resulting in a net attributable income increase of at 30% by the end of 2018. PRISMA is the largest program under the Australia-Indonesia Partnership for Rural Economic Development (AIP-Rural), a partnership between the Governments of Australia and Indonesia to address the most significant constraints to rural income growth and boost farmer incomes in five provinces in Eastern Indonesia.

One of PRISMA's main goals over the past six months was to improve the quality and innovation of its interventions. Other goals and challenges include reducing dependence on the results from Maize and Pigs by strengthening efforts in Vegetable (including fertiliser and soil treatment); preparing interventions in Rice and in different crops in partnership with local government; analysing in detail the impact of the maize subsidy program and options for how to manage its market distorting effects.

PROGRESS

1. **PRISMA developed 26 interventions with contracts against a target of 15**, including 6 in collaboration with local governments, 5 in vegetable homestead gardening, 5 in Vegetable, 4 in Seaweed, and 3 in Rice. These interventions strive to benefit 45,979 Households (HH) by end of the project.
2. **Through its existing and new interventions, PRISMA benefited 66,367 HH (45,630 HH < \$2.50PPP)**, 31,188 HH over the semester projection of 35,179 HH and 19,215 over the semester target of 47,152 HH. This amounts to a cumulative total of 144,063 HH (100,240 HH of which are below the USD 2.5 purchasing power parity poverty line, (<\$2.5PPP)) since the beginning of the project, 16% above the target trajectory. Contributions above projections came mainly from Pig Timor (mainly impact from systemic change), Maize East Jawa (EJ; mainly from DuPont) and Vegetable (including 1,880 from West Papua (WP), Cashew Nusa Tenggara Timur (NTT), and Beef EJ. Pig Flores contributed negatively.

FIGURE 1: PRISMA OUTREACH TRAJECTORY



3. **The expected cumulative outreach for existing and new interventions is 317,912 HH (211,707 HH <\$2.50PPP) and 348,714 HH (233,777 HH <\$2.50PPP) including pipeline interventions by the end of 2018.** This implies that we will need to benefit 49,478 HH in the first semester 2018 to stay above the target trajectory. We regard this as realistic as well as achieving the project goals. However, success will strongly depend on Pig and Maize and history shows that both sectors are prone to external shocks.
4. **Pig NTT has reached a good level of systemic change with increasing dynamism and resilience.** Maize EJ and NTT and Shallot Nusa Tenggara Barat (NTB) show clear signs of systemic change.
5. **The average net attributable income change (NAIC) per farm household is 191%, up from 147% at the end of the last semester.** We expect this trend to continue as the share of Vegetable and Beef, sectors with high income change, increases.
6. **Other key performance indicators (KPI) continue to reflect increasing levels of sustainability.** Average ISP turnover increased by 63% to IDR 129,273,234 (AUD 12,927), and the number of intermediary service providers (ISPs) grew by 20%, far less than projected. Cumulative co-investment grew by 81% to IDR 163bn (AUD 16.3m), with IDR 37,1bn (AUD 3,7m) from partners and the remaining 77% (up from 71%), IDR 125.8bn (AUD 11.7m) from farmers.

TABLE 1: PRISMA KEY PERFORMANCE INDICATORS (KPI)

KPI tracking	Actual cumulative Y17S2	Actual Y17S2
1 # Outreach (all farm HH)	144,063	66,367
1b # Outreach (<\$2.50 PPP)	100,240	45,630
2 Net Income Impact in IDR (all farm HH)	688,105,546,926	477,938,447,377
2b Net Income Impact in IDR (<\$2.50 PPP)	480,396,958,096	320,024,564,196
3 # ISPs	1,355	224
4 Increased Turnover ISPs in IDR	175,165,232,658	85,317,226,934
5 # Innovations/Interventions	115	26
6 # Initiatives by Government to improve BEE	21	11
7 # Intervention Partners (public & private sectors)	107	30
8 Private Partner co-investment in IDR	37,115,328,704	11,269,750,472
9 Value of additional investment by farmers	125,874,189,197	61,456,957,473

7. **All three value for money indicators improved.** Most progress made the social return on investment (SROI): measured against total investment cost, it stands now at AUS 1.91, up from AUD 0.64. Investment leverage against direct intervention costs reached 49%, 1% below the target of 50%.

MANAGEMENT RESPONSE FOR THE NEXT TWELVE MONTHS

8. **Several measures will be undertaken to address the anticipated increase in demands on management capacity in the coming semesters:** assigning more mentoring responsibility for sub-sectors to Principle Business Consultants (PBC); promoting at least one Indonesian staff member to Head of Portfolio in the middle of 2018; make use of short term experts where needed.
9. **We will continue improving PRISMA's portfolio management systems, particularly regarding WEE.** To this end we will propose several semester targets.
10. **PRISMA portfolio development will continue at the current pace.** This is necessary to ensure that PRISMA 2 can hit the ground running in January 2018. However, it is likely that implementation work will nevertheless see a slight setback in Y18S2 and Y19S1.
11. **PRISMA will push the Beef, Vegetables and Rice sectors and we will intensify efforts to identify outreach through systemic change.** The chance to replicate the successes with pig feed exists in the Beef sector. A focus of the measurement of outreach from systemic change is the application of jointly developed strategies and approaches by our partners in other provinces.

12. **We will need to shift the thinking of staff away from the perception that only outreach equals success.** Overachieving the semester targets creates a great opportunity to re-emphasise and to internalise the message that outreach in itself is not the main goal, but rather achieving outreach from systemic change and facilitative interventions.
13. **We will begin preparations for the transition plan early to ensure there is adequate time to conduct the regular portfolio review in June and July.** The target is to have a draft mid-February and a full plan by the end of April.
14. **We will start early to actively manage the hard and soft transition elements through a range of internal mechanisms.** We recognise that the transition period requires strong change management and special measures. Backstopping staff and acknowledging their concerns sufficiently will be crucial to enable them to remain focused on delivering core program activities.

SAFIRA

BACKGROUND

Under AIP-Rural, Strengthening Agricultural Finance in Rural Areas (SAFIRA) focuses on agricultural value chain financing to expand small holder farmers' access to finance, with the goal of increasing the incomes of rural small holder farmers in Eastern Indonesia. SAFIRA aims to improve the overall value chain finance (VCF) market through enhancing supporting market functions and institutional strengthening at financial institutions. These activities intend to formalise agricultural VCF with partner financial institutions as one way to scale up cost effective and sustainable lending to smallholder farmers.

SAFIRA's revised strategy prioritises the institutionalisation of value chain finance among various actors in the market. The three main approaches to achieve this are:

1. Institutional strengthening of financial institutions in terms of core business practices and systems.
2. Developing the VCF consulting and support services market through institutional strengthening of consulting firms and other actors.
3. Knowledge sharing among stakeholders.

This semester SAFIRA focused on activities 1 and 2, supporting the development of VCF products and building skills and linkages to VCF consulting services. Some of SAFIRA's partners which received VCF training are demonstrating commitment and confidence in the commercial viability of the model at an institutional level.

SAFIRA's portfolio has diversified to include new types of partner FIs, to gather a broad evidence base from different actors in the ecosystem. Partner financial institutions now include state-owned commercial banks, regional banks, rural banks, Credit Unions, a financial group, an agribusinesses, and private banks.

This semester SAFIRA has begun to report positive results from interventions, captured in the loans disbursed and partner co-investment KPI data below. In accordance with the recommendations by the SRP, SAFIRA will not seek out new independent interventions and will focus on completing and monitoring the existing portfolio as well as interventions already being implemented by PRISMA. 6 of the 11 active interventions are now implemented in collaboration with PRISMA (5) and ARISA (1; Applied Research and Innovation Systems).

PROGRESS

1. **At the end of the second semester 2017, SAFIRA has 11 active interventions, with two interventions in the pipeline.** This is the second period in which SAFIRA recorded farmer households benefitting from intervention activities, recording 22 HH (14 HH <\$2.50PPP) all from the intervention with Bank Sinarmas. Low outreach numbers compared to the forecast is due to the data collection and reporting for key interventions being scheduled for the impact assessments which will take place in Y18S1.

2. SAFIRA expects the portfolio of 7 existing and 4 new interventions to benefit 4,805 farmer HH (3,238 <\$2.50PPP) with increased income by the end of semester 1 2018. The majority of this outreach is expected to be attributed to the YARO credit scheme with PT Bright Indonesia Seed Industry (BISI) in NTB, institutional strengthening with Bank Rakyat Indonesia (BRI) EJ, and institutional strengthening with Bank Negara Indonesia (BNI) EJ.
3. **SAFIRA expects to achieve a total outreach of 11,458 HH (8,051 <\$2.50PPP) from existing and new interventions by the end of the current phase of the program in December 2018.** As mentioned in the previous PRIP, projections accelerate towards the end of 2018 primarily due to expected results from loans issued at the end of 2017 and beginning of 2018.
4. **This semester SAFIRA recorded NAIC per farmer HH at IDR 112,170,136 (AUD 11,269), and IDR 5,098,643 (AUD 512) NAIC per farmer, increasing income by 33%.** All NAIC recorded this semester was from Bank Sinarmas, as data from BISI and BNI will be collected during the impact assessment in Y18 S1.
5. **Partner financial contribution to VCF this semester increased significantly to over IDR 234.5 million, the majority of which was from the credit union Sawiran, and a further IDR 82 million investment from BISI.** SAFIRA now expects IDR 754 million partner co-investment in semester 1 2018
6. **This semester SAFIRA specific indicators 2, 3, 4 and 6 were recorded for the first time in accordance with the new measurement protocol.** 211 farmers with increased income were recorded from the Sinarmas intervention and Maize NTB. The impact assessments scheduled in S1Y18 will provide more data on the outreach and impact of the bank NTT and Maize NTB interventions. Non-performing loans recorded this semester are from the Sinarmas intervention, as a result of internal fraud in the off-taker PT DBM (detailed in section 3.4).

MANAGEMENT RESPONSE FOR THE NEXT 12 MONTHS

SAFIRA is in the process of conducting an in-depth review of the due diligence processes that were carried out prior to the issue with off taker PT DBM on the Sinarmas intervention to identify any potential weaknesses in AIP-Rural controls. New processes have been rolled out by both Sinarmas and SAFIRA to strengthen VCF training and implementation, improving partner selection processes and reducing the risks of fraud.

In an effort to develop VCF products and link consulting firms to partners, SAFIRA provided a VCF introductory training. SAFIRA conducted a VCF training that facilitated introductions to local consulting firms and provided SAFIRA a means of vetting them for further work with our partners. The training was delivered to 36 participants including AIP-Rural staff and consulting firms to introduce broader applications of the VCF model and help conceptualise what we are trying to achieve with partner FI's.

This semester SAFIRA finalised the VCF toolkit, a significant step towards the realisation of the updated strategy. In addition to the VCF introductory training, an in-depth, high quality toolkit consisting of training materials, accompanying resources, and a facilitators guide was produced (which can be used as a VCF implementation guide with or without a detailed training course). The toolkit consists of two modules and a facilitators' guide, which has been piloted with Bank BRI and Bank Perkreditan Rakyat (BPR) Arta Kencana. By the end of Y18S1 SAFIRA will have selected 6 consulting firms to train VCF and will provide 10 partners with training and technical assistance to implement VCF.

In the remaining semesters SAFIRA will focus on delivering the current portfolio of interventions, and on the third activity under the new strategy - facilitating knowledge sharing amongst stakeholders. SAFIRA will disseminate VCF tools and information to those who have interest in entering the market in the agriculture sector (financial institutions, government) through workshops, roundtables, national and international conferences.

1 Broader policy, institutional and environmental context

Indonesia rose 20 places in the World Bank's Doing Business 2018 rankings to 72nd in 2018, up from 91st last year. The 15 reform packages introduced by the Jokowi Government since 2015 to reduce and simplify regulations affecting several sectors including tourism, logistics, pharmaceuticals and energy have begun to bear fruit, however the agriculture sector remains heavily protected. With the upcoming elections in 2018 the government will be under increasing pressure to achieve self-sufficiency targets in several key crops including soybean, onion, spices, and garlic. This is expected to increase non-tariff barriers in these sectors to further stimulate domestic production.

In 2017 the Ministry of Agriculture declared self-sufficiency was achieved in maize, rice, shallots and chili, although supply shortages and sharp rises in the price of rice has led to the government authorising up to 500,000 metric tons (MT) of rice to be imported in late 2017. Following import restrictions on maize, price increases incentivised more farmers to plant maize over alternative crops, increasing total production by 7% in 2017. This and other causes resulted in soybean production falling by 36.9%, as farmers switched to planting maize and other more valuable crops.

Fluctuations in prices of key crops including rice drove food price inflation up to 2.95% in January 2018. This surge in prices has led the government to relax import restrictions to bring down the price of key food commodities. Government commitment to maintaining stable food prices remains a strong imperative, with the overall inflation target for 2018 set at a lower 2.5-4.5% (compared to 3-5% last year).

The Ministry of Agriculture's Upaya Khusus (UPSUS) subsidy program which provided a range of subsidies targeted at priority sectors including Maize ended in 2017. Although the government continues to provide subsidised fertiliser and seeds, we expect new measures will be brought in to help achieve self-sufficiency targets before the election this year for key crops, particularly for soybean.

This semester the government also announced plans to reduce the interest rate on Kredit Usaha Rakyat credit from 9% to 7%. In the short term this will allow farmers to access capital at a lower rate, however there severe concerns about the long-term sustainability of the scheme. SAFIRA continues to see Kredit Usaha Rakyat as a stepping stone towards a more sustainable financing model, and will monitor the impacts of the lower rate in the intervention with bank BNI.

Imports of over 110,000 tonnes of Indian buffalo meat has not resulted in lower or more stable beef prices. The Ministry of Agriculture has decided not to issue a recommendation for future Indian buffalo meat imports next year as a result. The importing policy (1:5 cattle for feedlots; and 1:10 for cooperatives) mandates importers to buy one breeding animal for every 5 or 10 steers imported for slaughter, respectively, has caused significant disruptions to the import market, resulting in fluctuations in supply and directly affecting the price of beef. PRISMA is continuing to monitor the effects of price fluctuations on the beef interventions in NTT, NTB and EJ.

To address the prevailing threat of hog cholera, PRISMA coordinated a series of meetings culminating in a multi-stakeholder workshop between the private sector partners in the pig sector (feed companies and pharmaceutical companies) and the relevant government departments at national, provincial and district levels. The event was chaired by the Director General of Livestock and Animal Health from the Ministry of Agriculture and resulted in several agreements being reached. The stakeholders agreed to supply and distribute vaccines, train vaccinators and establish a biosecurity protocol to limit the impact of future hog cholera outbreaks.

The combination of a weak La Nina and a neutral Indian ocean dipole means that forecasts are showing probabilities of either slightly above average rainfall or slightly below average conditions for the rainy season in eastern Indonesia. There is a possibility that the La Nina might strengthen slightly, which would push the probabilities to a stronger chance of above average rainfall in the later part of the wet

season. This is positive situation for intervention implementation as the chances of extreme conditions are much reduced.

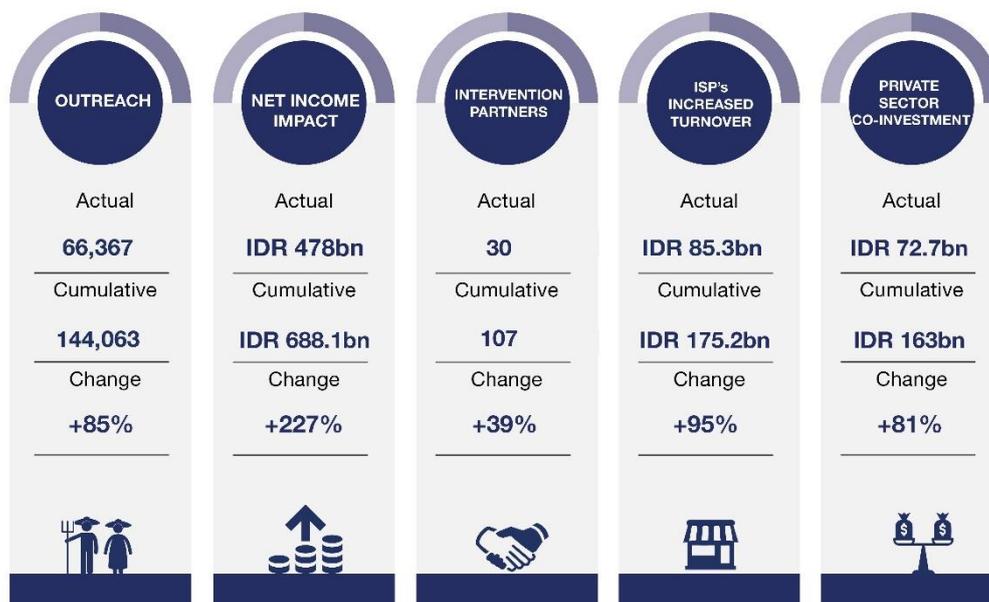
2 PRISMA - Portfolio management and monitoring

2.1 Portfolio development progress

With a total of 26 new contracts (11 more than the semester target of 15), the speed of portfolio expansion reached a new high. This was mainly driven by rapid expansion of the relatively young Vegetable sector (with 5 new interventions) and the start of interventions jointly designed with local governments during the M4P training (6 new interventions, 5 of which in Vegetable). In addition, 4 interventions were added in Seaweed, 3 each in Maize (1 in collaboration with the local government) and Rice, 2 in Peanut, and 1 each in Soybean, Coffee, Beef and Mung bean.

Thematically, two new areas emerged: Vegetable (including homestead gardening, soil treatment and fertiliser), and Rice. With this, PRISMA is now working in two areas that were excluded at the start of the program. Vegetable due to the broad range of species and varieties, and Rice due to the fear of heavy distortions of the market and prevalence of vested interests. However, with growing interest from the private sector and based on the observation that in many cases we already reach out to rice farmers, we have revisited the strategy and now expect the two sectors to become large contributors to impact in PRISMA 2.

2.2 Progress of Key Performance Indicators



OUTREACH

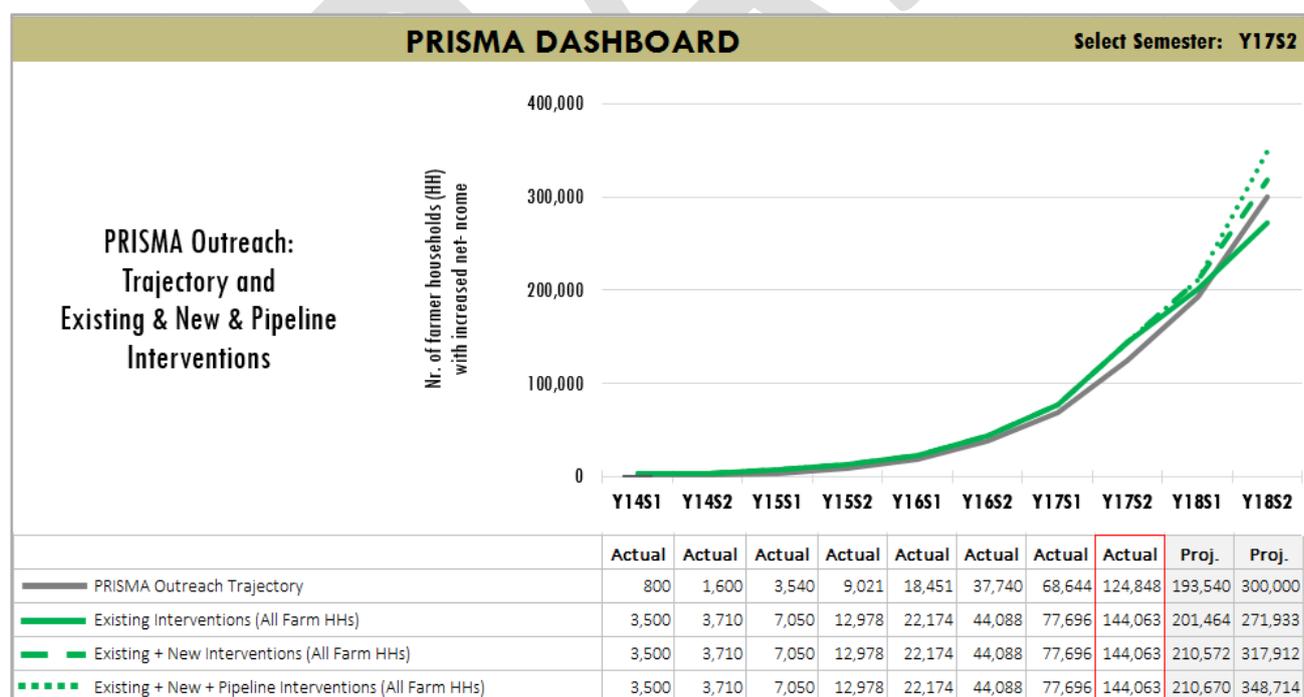
PRISMA reached 66,367 HH (45,630 HH<\$2.50PPP) during the reporting period; 31,188 HH over the semester projection of 35,179 HH and 19,215 over the semester target of 47,152 HH. This amounts to a cumulative 144,063 HH (100,240 HH<\$2.50PP) since the beginning of the project, 16% above the target trajectory. The following sub-sectors were the main contributors:

- **Pigs NTT +9,109 HH (+59% above projections);** this increase is largely impact from systemic change (+18,120), attributed to our previous partner PT Charoen Pokphand. They applied the business model developed in partnership with PRISMA on the island of Sumba, a solid indicator of systemic change. However, the impact of hog cholera in Flores was more severe than anticipated (-9,011 HH).

- **Maize EJ +6,778 HH (+86%);** Our projection was based on the sales figures provided by the partner companies. However, the companies found that the kiosks in Madura were selling more; they purchased additional seeds from distributors in other areas, mostly in Central Jawa. We therefore did a kiosk survey and captured the additional seed sales. The majority of outreach this semester is attributed to DuPont (8,927 HH), and BISI (3,744 HH).
- **Vegetable EJ +3,596 (+204%);** the higher than expected outreach numbers were a positive surprise, largely attributable to a high level of partner activities PT Natural Nusantara (NASA) and good response from the market.
- **Beef EJ +3,208 HH (+182%);** PRISMA’s strategy of working with small partners with the aim of attracting larger ones and trying to copy the approach of Pig NTT has proven successful. Nutrifeed has shifted some of its attention from dairy to beef with current sales of 600-700 MT per month and a target to increase this to 1400 MT. Another large producer, Japfa Comfeed, has signed a contract. We are also seeing evidence of crowding in, with other companies entering the feed market for the first time (e.g. Bima Feed, Bonang Feed, Susfeed, KBRM).
- **Cashew NTT +3,244;** we did not project any outreach for this semester; but outreach from systemic change from another was recorded in North Sumatra.
- **Vegetable WP +1,880 (+335%);** The success of this intervention came as a real surprise and reflects the great commitment of the partner PT East West Indonesia (EWINDO).

The variance between total projections and actuals this semester is +88%; stronger than expected results were recorded across the portfolio, with systemic change contributing a significant amount to total outreach. With this, projections become more complex and harder to predict. New businesses entering markets for the first time as an attributable result of PRISMA interventions in particular are challenging to forecast.

FIGURE 2: PRISMA OUTREACH TRAJECTORY



The expected cumulative outreach for existing and new interventions is 210,572 HH (145,555 HH < \$2.50PPP) by the end of Y17S2, and 317,912 HH (211,707 HH < \$2.50PPP) by the end Y18S2. Confidence in the projections is supported by outreach continuing to exceed the target trajectory; the success of the last semester; that the final projections for program completion remains for the first time at the same level as six months earlier, and the strength of successes in existing and new key sectors.

The total projected outreach for existing, new and pipeline interventions is now at 348,714 HH (233,777 HH <\$2.50PPP) by the end of 2018, 2% below the projections made in the last semester PRIP. However, we must be aware that an increasing dependence on few successful sectors bears the risk of a larger backlash in case of events like the bird flu outbreak in 2008/9.

INCOME

Average NAIC per farm household is 191%, up from 147% at the end of the last semester, and significantly above the target of 30%.

The total NAIC for all farm HH in Y17S2 is IDR 477.9bn (AUD 47.8m), with absolute NAIC per HH at IDR 4,776,421 (AUD 478) compared to IDR 2,704,993 (AUD 270) in S1Y17. The average NAIC per farmer HH <\$2.50PPP is IDR 4,744,353 (AUD 474), compared to IDR 2,809,287 (AUD 281) last semester. This significant change in NAIC calls for a deeper analysis to fully interpret the causes and effects.

Pigs, Beef, Vegetable and Shallot were the largest contributors of NAIC: Two Pig interventions in NTT achieved NAIC of IDR 9.5m/HH (AUD 950) and IDR 5.5m (AUD 550) respectively; 3 Beef interventions in EJ and NTB achieved NAIC between IDR 7.2m (AUD 720) and IDR 19.6m (AUD 1,960); 3 Vegetable interventions in EJ, NTB and PA achieved NAIC between IDR 6.7m (AUD 670) and IDR 10.5m (AUD 1,050); and Shallot EJ integrated pest management posted NAIC of 63.0m (AUD 6,300) this semester.

Poverty targeting is working relatively well even in these interventions with high NAIC: the poverty assessments revealed that all these interventions had a probability of 60% - 94% of living below the \$2.50PPP line. The average probability of PRISMA's interventions >\$2.50 PPP is now at 70%, down from 74%, but still significantly above the target of 60%.

Less successful interventions with a NAIC of less than IDR 1m (AUD 100) were Soybean in EJ, Maize storage in NTT, one Cocoa intervention in NTT, and Vegetable in WP. Soybean EJ was closed, Maize and Cocoa NTT are being implemented through co-facilitators and will be phased out. Vegetable WP reached 2,265 HH and the business model works well for the partner, but farmers have on average only IDR 202,811 (AUD 20) additional income. One of the main reasons is that many of the benefitting farmers already apply GAP, use quality seeds and achieve a relatively high income level. That implies that poverty targeting needs to be improved and more remote areas targeted.

OTHER KPIS

Average cumulative ISP turnover rose by 63% to IDR 129,273,234 (AUD 12,927) in Y17S2, a significant increase from IDR 79,465,080 (AUD 7,946) last semester. We expect this trend to continue in the next two semesters as interventions in mature sectors with proven business models expand, and newer interventions in adjacent areas such as Beef EJ begin to scale up.

The cumulative number of ISPs increased by 20% or 224 (789 below projection), a consistent rate to previous semesters, to a total of 1,355 this semester. Deviation from projections is not attributable to a single or a handful of interventions only and thus needs further analysis. It did not affect overall results or total ISP turnover, but needs to be understood to better plan, build projections and set budgets.

Cumulative co-investment grew by 81% to IDR 163bn (AUD 16.3m), with IDR 37,1bn (AUD 3,7m) from partners and the remaining 77% (up from 71%) from farmers. This semester on-farm investment of IDR 61,5bn (AUD 6.1m) were 5.5 times higher than partner investments. Partner investments during the semester grew by 74% (up from 55% last semester) or IDR 11.26bn (AUD 1.1m). This could indicate that the return on investment for our partners is increasing, thereby improving the chance of sustainable and systemic change¹.

11 new public-private initiatives were launched, 50% of which resulted from the government market development training. 7 of the interventions involve the government at a district level; in 2 we are partnering for seed research; and in Seaweed we work with the district and the national government. The private sector is involved through BASF (Vegetable PA and WP), BISI (Vegetable NTT and NTB), DuPont (Maize EJ), EWINDO

¹ Deeper data analysis would be needed to make a clearer conclusion since partner and on-farm investment do not necessarily happen in the same semester.

(Vegetable EJ), and several small partners as well as Bank Papua in Seaweed PA and WP. The number of active partners increased from 41 to 65, reflecting the same 2 main factors.

DRAFT

TABLE 2: PRISMA KEY PERFORMANCE INDICATORS

	KPI tracking	Actual cumulative Y17S2	Actual Y17S2
1	# Outreach (all farm HH)	144,063	66,367
1b	# Outreach (<\$2.50 PPP)	100,240	45,630
2	Net Income Impact in IDR (all farm HH)	688,105,546,926	477,938,447,377
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7	# Intervention Partners (public & private sectors)	107	30
8	Private Partner co-investment in IDR	37,115,328,704	11,269,750,472
9	Value of additional investment by farmers	125,874,189,197	61,456,957,473

VALUE FOR MONEY (VFM) INDICATORS

All value for money indicators continue to show positive trends. With an increasing share of outreach coming from systemic change (38% this semester vs. 31% last semester), these positive trends affirm that the structure and makeup of the portfolio continues to progress in the right direction. This semester we did not include farm level investment in the VfM calculations, but we propose to do so from Y18S1 onwards.

Ex-post investment against total intervention costs per HH is now at AUD 250, down from AUD 422 at the end of the last semester. The trend of the decrease was linear over the past 3.5 years. If we assume that we will spend approximately 75% of PRISMA's overall budget on interventions (AUD 55m), this should come down to around AUD 180 towards the end of the project if we reach 300,000 and to AUD 159 if we reach the current projection of 348,000 HH.

Social return on investment (SROI) more than tripled from AUD 0.64 to AUD 1.91 (total intervention costs). Minus Pig and Beef, SROI would have only seen an increase from AUD 0.36 to AUD 0.72. Taking into account the significant contribution from only a few sectors, it is not possible to make a robust projection for estimated final SROI at the end of the phase.

Investment leverage for total intervention costs is 10.29%, up from 7.89% the last semester, and is at 49.03% for direct intervention costs only, up from 38.38% last semester. PRISMA has almost reached the target of 50% for investment leverage at direct intervention level, set during the mid-term review.

2.3 Portfolio analysis

PRISMA's portfolio currently comprises of a total of 80 interventions with 42 in the pipeline. 28 interventions are ongoing in EJ, 17 in NTB, 27 in NTT, 3 in WP and 5 in PA. They are projected to reach 317,912 HH, 17,912 over the phase target. Including pipeline interventions, we expect to benefit 348,714 HH by the end of semester the project. New interventions were not assessed in the strategy workshop.

The portfolio development and review process has led to a clear focus on more successful (Pig, Maize) or promising (Beef, Vegetable) sectors. On average we have now 5 interventions per sector, 2 more than last semester and 4 more than mid-2015. The number of partners per sector increased from 1.25 mid-2015 to 3 in Y17S1 and to 4.5 in Y17S2. Taking also into account the high rates of partner satisfaction revealed by a recent stakeholder engagement survey (see section 4.4), both ratios reflect an effective allocation of PRISMA's resources, and more importantly a high level of up take by the public and private sector.²

² These numbers were calculated after combining several interventions shown in PRISMA's systems as GOI, Extension Services, ICT and Vegetable as Vegetable sector as all of them work in vegetables.

Despite the hog cholera outbreak in Flores, Pig NTT continues to be a star sub-sector, accounting for 31% of total outreach (44,920), with Maize EJ (22,776) and Maize NTT (19,064) the next largest contributors at 16% and 13% respectively. The two largest sectors - Maize and Pig - contribute currently 60% of outreach. This share is expected to go down to 54% by the end of the phase, mainly due to expected successes in Vegetable (expected to reach 13% end of 2018, a plus of 6%), Rice (0%, +3%) and Mung bean (0%, +3%). This reflects a broader diversification among successful and promising sectors and will contribute to reducing overall risks to the portfolio.

Using the revised QMT scoring, the January 2018 strategy meeting determined 13 interventions to push, 5 of which are in Vegetable sector, 2 in Beef EJ, 4 in Maize and the last 2 in Pig NTT and Mung bean EJ. 8 interventions will be changed or improved, 20 let flow, 6 to innovate, and 9 interventions will be dropped. The outcome of the QMT process reflects a maturing portfolio coming towards the end of the current phase. In successful and promising sectors we dropped interventions that were not focussing on sustainability and scale (Shallot Social Marketing, Beef PKM, Soybean Rainbow and Small Nurseries) and allocated higher priority to other interventions in the same sectors. Mung bean and Vegetables are new additions to the high priority group.

The underlying rationale for selection of the key sectors remains strong and relevant. Among the top 5 sectors in terms of expected outreach, Maize, Pig, Vegetable and Beef are large, pro-poor, relatively to very pro-women, and exhibit good growth potential and partner take up. The one sector with issues is Soybean; despite strong partners (EWINDO, BISI) we remain sceptical about the overall impact due to low margins for farmers and seed producers, and powerful market distortions both nationally and internationally. After phasing out activities in Mango and Cassava, all other sectors fulfil the criteria of being large sectors with good growth potential which could become key sectors in PRISMA 2. The rationale for continuing smaller sectors including Coffee, Cocoa, Peanut and Seaweed is in their relevance to remote locations (PA, WP, NTT) and/or their relevance for WEE. Coconut and Cashew struggle with elements of feasibility, where rejuvenation is the most crucial issue facing the commodity but no market actors are willing to address this.

EXPERIENCE BOX 1: SIGNS OF SYSTEMIC CHANGE

Our partners who produce pig feed are increasingly ready to diversify into cattle feed in EJ, to try and replicate the market successes they had with pigs, but in the cattle sector. Cargill for instance is reconsidering collaborating with PRISMA in Pigs and Beef.

At PRISMA's suggestion, pig feed producer Sierad developed a new incentive scheme for its sales force and invested in additional field staff.

Several pig traders have committed to dealing-in and delivering feed to farmers from whom they buy pigs, with some even entering contracts with the farmers to grow and fatten pigs specifically for them. Others have started processing of pigs to cut meat and sausages.

A nursery in Central Java named CV. Luwes Tani, has copied the business model of our partners for Mung beans and started planting 12 hectares of Vima 3 seeds for sale in EJ and CJ in March 2018.

Two maize nurseries in NTT, Pius and DALA, have expanded their business to peanut on 7 ha. They received the market information and technical support from PRISMA's partner CV. Dirga Jaya Teknik.

The District Agriculture Office in Sumenep shifted the subsidy program to non-hybrid areas. Previously, there were 98% overlaps between the free seeds recipients and the private sector's existing customers.

BNI and BRI provided credit to 3000 maize farmers in Madura to buy hybrid seeds and other agriculture inputs. 3 feed mills approached the agriculture office to explore procuring maize from these farmers.

Government of Fakfak's (WP) district sets an IDR 3 Billion budget in the development of seaweed business and partners with BPPT (5 years span) in researching and identifying potential seaweed areas and climatic changes. Kaimana, Biak Numfor, Yapen districts are soon to follow similar partnerships.

Mazu, a bstate owned, professionally managed Seaweed processing company is involved in the establishment of a new factory in Batu Licin, South Kalimantan, and is responsible for securing its supply by adapting the business model developed together with PRISMA in NTT in Sabu. The factory is scheduled to open in Q2 2018.

Clear systemic change has been achieved in Pigs NTT where PRISMA has reached 11% of relevant HH. Here we strive to scale up to 24% by end of the phase. Considering several qualitative changes observed (see e.g. Box 1 above), the transformation of this sub-sector is highly dynamic. To achieve better resilience and to be prepared for a breakout of pig diseases, we have started collaborating with pharmaceutical companies early 2017, and have linked and coordinated all important markets actors when the breakout started early in the reporting semester. All in all, we have worked with 16 partners over the past 3 years in Pigs NTT.

A concept how to measure systemic change within our partners' organisation was developed and tested. In addition, we have improved our methodology to define system size to assess which group within the system we are working with: innovators, early adopters, early majority, late majority or laggards. Currently we are mostly working with innovators and early adopters. However, in Cashew NTB, Pig NTT, Vegetable WP, Shallots NTB and Seaweed NTT we have reached an early majority with HH producing a specific crop in the districts we are working in. By end of the phase, we expect to have reached an average 8% of actors within the target system, which means the majority of interventions will be working with the 'early adopters' category.

PRISMA has successfully restructured to 5 portfolios, with the new Head of Portfolio responsible for interventions in Coffee NTT and EJ, Cashew NTT and NTB, and Seaweed NTT, PA and WP. Portfolio 5 remains the smallest in terms of sectors, outreach and staff, but has taken on the role of coordinating all interventions directly or indirectly relating to Rice.

2.4 Highlights, challenges and lessons learned

PRISMA's dependence on results from maize and pigs was a key risk for achieving targets this semester. In our initial projections we had estimated outreach of 112,875 HH for the semester, almost 12,000 HH below the target trajectory. With the outbreak of hog cholera, this projection was increasingly unattainable. The vaccination program initiated by PRISMA reached 11,236 HH, but 7283 of them had been counted as feed users before. This means that we were only able to record 3,953 new HH in Flores against a projection of 12,964 HH. Fortunately, these negative impacts were compensated for by outreach through systemic change in Pigs NTT, over-performance in Maize, and better than expected results across the board.

This underlines the importance of sector and geographic diversification as well as thematic coverage of multiple constraints within sub-sectors. PRISMA has begun pushing several other sectors to become clear winners (Vegetable, Beef and Rice) to ensure that PRISMA 2 can count on a larger number of promising sub-sectors for systemic change. However, we recognise this is still not enough and we therefore continue to invest in more difficult crops with large numbers of poor farmers such as Coconut, Mung bean and Cashew. Without our existing contacts with pharmaceutical companies with whom we had planned preventive measures addressing the vulnerability inherent to every husbandry sector, we would not have been able to react sufficiently quickly to the cholera outbreak, and the overall results in pigs would have been in jeopardy.

Over-reliance on demo plots was identified as a risk in the last strategy retreat, subsequent efforts to diversify our strategies on the ground have shown early success. Several options were identified in the mid-2017 strategy seminar, since then we have introduced or designed mini demo plots for Maize and Vegetables in cooperation with local governments; seed sales from trucks; trucks for soil testing demonstrations (an idea generated by a partner); use of SMS to reach seaweed farmers whose main communication channel is SMS; SMS blasts to increase seed sales (successful in NTT, not in Madura); seed selling on weekly markets (Maize and Peanut); working through associations in Cashew and Coffee involving off-takers in the strategies (e.g. Coffee, Seaweed, ongoing negotiations in Maize); SMS blasts on ISP level for feed promotion; sponsorship for TV shows and village TV (Layar Tancin); use of radio to create interest in technologies, and practices and production of radio content to promote products and good practices. Many of these activities started this semester, with others to commence in early 2018.

A successful means to increase innovation and increase staff motivation was the organisational development workshop in August. Two of the main topics in the workshop were speaking up, and breaking

down hierarchical barriers. A recent series of follow-up exercises and discussions revealed that staff feel now much more encouraged to voice their ideas and to contribute to overall dialogue.

Looking forward, a significant challenge is in addressing and reducing staff stress levels. As mentioned in the last PRIP, pressure to achieve outreach targets experienced during the first semester continued to weigh on business consultants during the second semester. With the results achieved in terms of outreach from systemic change, we can now be confident enough to purely focus on systemic change without having to conduct activities serving the purpose to create or identify sufficient outreach to “stay above the curve”.

Initiating two series of case studies, learning series and preparatory studies may stretch management resources in the coming two semesters. Although work relating to this will be outsourced, management, coordination and review functions will remain within PRISMA. In addition to completing the studies, the biggest upcoming challenge will be to successfully prepare the transition of PRISMA to PRISMA 2 and achieving the program goal of 300,000 HH. There is a significant likelihood that this will overstretch management capacity.

2.5 Management response

Several measures will be undertaken to address the anticipated increase in demands on management capacity in the coming semesters. The first is to increase mentor capacity - we will assign more mentoring responsibility for sub-sectors to all PBC which will help to free up HoP capacity, build PBC capacity and further improve collaborative practices across the portfolios. The mentor system has proven to be highly effective in sharing knowledge, improving strategies and coaching staff, and has so far significantly increased capacity of PRISMA PBC. Secondly, we will promote at least one Indonesian staff to Head of Portfolio in the middle of 2018. This strategy only adds to management capacity however if none of the current international HoPs leave PRISMA early, which is a risk we are actively managing but may nevertheless materialise. Thirdly, we will make use of short term experts where needed to free up resources of the GM and the DGM to focus on core program needs, specifically in relation to the transition and to increase monitoring and impact assessment capacity.

We will continue improving PRISMA’s portfolio management systems, particularly regarding womens economic empowerment (WEE). To this end we will propose several semester targets that ensure that PRISMA does not lose dynamism and momentum.

PRISMA portfolio development will continue at the current pace. This is necessary to ensure that PRISMA 2 can hit the ground running in January 2018. However, it is likely that implementation work will see a slight setback in Y18S2 and Y19S1 due to partners who might not be willing to collaborate without a contract; staff leaving the program; reduced HoP attention to individual interventions due to broadening workloads, and twice the number of impact assessments that will be undertaken in comparison to previous years, especially in the second semester of 2018.

PRISMA will push the Beef, Vegetabl and Rice sectors and we will continue to identify outreach through systemic change. The chance to replicate the successes with pig feed is very real in the beef sector, especially in East Java if we can win the support from a few of the companies we are currently talking to. A focus of the measurement of outreach from systemic change is the application of jointly developed strategies and approaches by our partners in other provinces. Where it makes sense, we will also support our partners to identify strategies for how to make their marketing in other provinces more successful.

With reduced pressure to achieve outreach targets, we will refocus efforts on achieving impact through systemic change. In addition to enabling staff to think more strategically about interventions, this will help to address some of the negative impacts created by a too strong focus on outreach targets. Overachieving the semester targets has shown that we can achieve significant systemic change by focusing on the right market challenges and responding appropriately. Looking forward, it is crucial that intervention conception, design and implementation is guided primarily by the principles of facilitation and ‘systems thinking’ in order to achieve genuine systemic change at a larger scale for PRISMA 2.

We will begin preparations for the transition plan early to ensure there is adequate time to conduct the regular portfolio review in June and July. The target is to have a draft mid-February and a full plan by the end of March. We will start early to actively manage the hard and soft transition elements through a range of internal mechanisms (e.g. information lines, town hall, internal contact points) as well as additional external support (coaches). The clear message to staff will be ‘business as usual’, however, we also recognise that the transition period requires strong change management and special measures. Backstopping staff and acknowledging their concerns sufficiently will be crucial to enable them to remain focused on delivering core program activities.

3 SAFIRA - Portfolio management and monitoring

3.1 Portfolio development progress

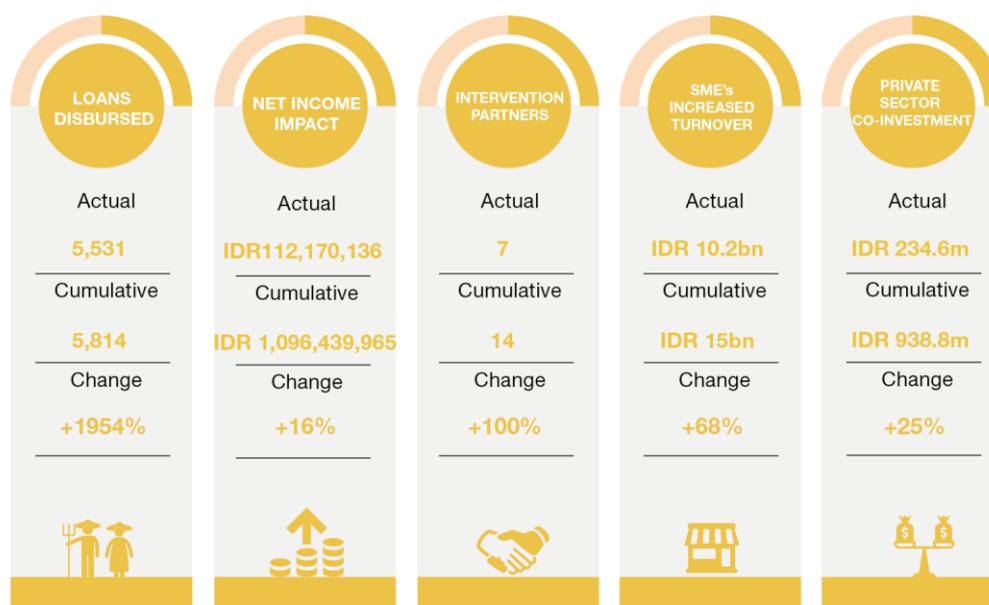
At the end of the second semester 2017, SAFIRA has 11 active interventions, with two interventions in the pipeline. SAFIRA’s revised strategy focuses on developing and institutionalising VCF within the financial ecosystem in Indonesia. This semester SAFIRA has focused on developing and delivering VCF training to partner institutions as well as providing technical assistance to support implementation of VCF. SAFIRA significantly diversified the portfolio; partner financial institutions now include state-owned commercial banks (Bank BRI and Bank BNI), regional banks (Bank NTT, Bank NTB), rural banks (BPR Pesisir Akbar, BPR Arta Kencana, BPR Central Pitoby), Credit Unions Sawiran, Tanaoba Lais Manekat (TLM) Financial Group, agribusinesses (BISI), and private banks (Bank Sinarmas).

This semester SAFIRA has begun to report positive results from interventions, captured in the loans disbursed and partner co-investment KPI data below. In accordance with the recommendations by the SRP, SAFIRA will not seek out new independent interventions and will focus on completing and monitoring the existing portfolio as well as interventions already being implemented by PRISMA. The remaining interventions in the pipeline are institutionalising VCF with Bank Papua, developed in response to a request from BAPPENAS and DFAT at the program coordination committee (PCC) meeting in November 2017, which capitalises on a PRISMA intervention, and the final pipeline intervention is institutionalising VCF with PUSKOPDIT which has been in development since the first semester 2017.

SAFIRA continued to strengthen integration and collaboration with other AIP-Rural programs this semester, with 6 of the 11 active interventions implemented in collaboration with PRISMA (5) and ARISA (1). Two SAFIRA partners, BNI and BISI, provide financing to PRISMA interventions (Maize in Sumenep District East Java and Maize in Lombok Island, NTB), while BRI is currently scaling up Sugarcane, Soybean and Maize in East Java. SAFIRA will also collaborate with PRISMA on the intervention with Bank Papua, focusing first on the seaweed sector.

SAFIRA has successfully on-boarded 3 new staff from cohort 5 and managed a transition process to cover for the Team Leader as she commenced extended leave. The 3 new staff completed the induction and training process and have successfully begun supporting interventions. Their experience in business development, marketing strategy, and the financial sector in Indonesia has been valuable in quickly getting up to speed with SAFIRA’s interventions. With the departure of SAFIRA’s team leader onto leave for 2.5 months, a handover process was implemented to ensure no disruption to intervention activities. Responsibilities for daily management of the team have been transitioned to one of SAFIRA’s staff, who is being supported by the Deputy General Manager and Contractor Representative for AIP Rural.

3.1 Progress of key performance indicators

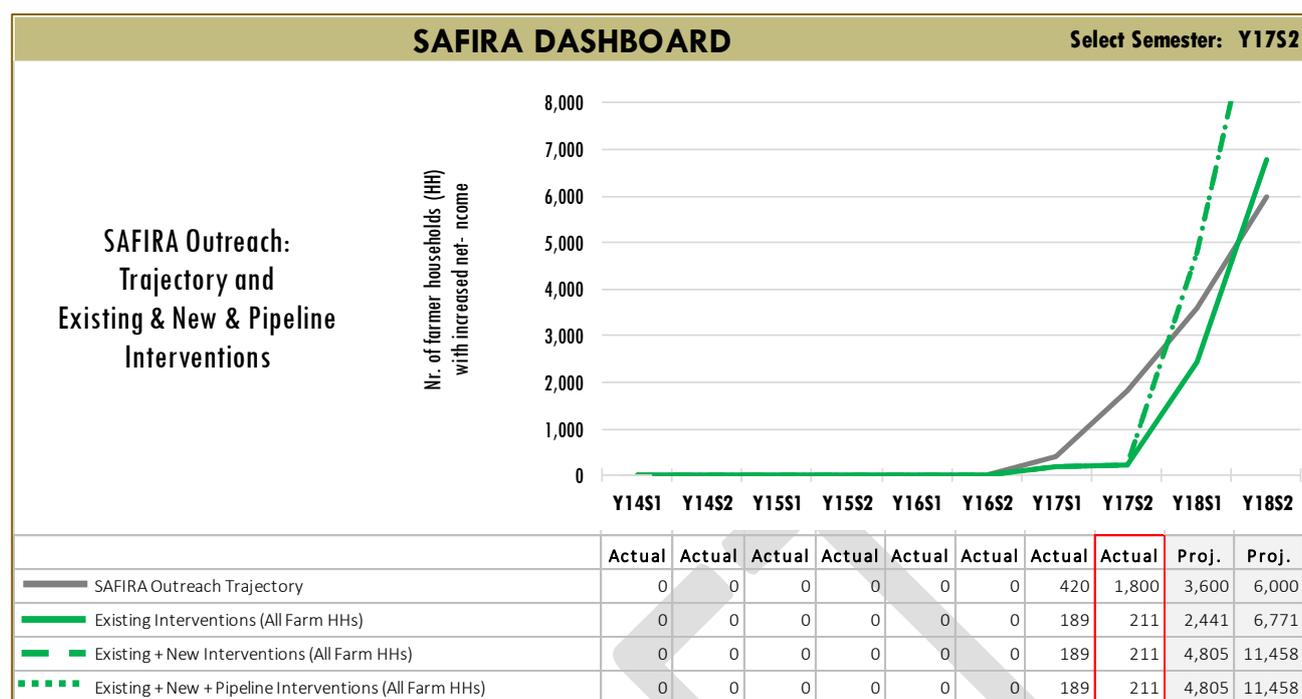


The second semester of 2017 is the second period in which SAFIRA recorded farmer households benefitting from intervention activities, recording 22 HH (14 HH <\$2.50PPP) all from the intervention with Bank Sinarmas. Low outreach numbers compared to the forecast is due to the data collection and reporting for maize NTB and institutional strengthening for Bank NTT interventions being scheduled for the impact assessment, which will take place in Y18S1. SAFIRA's forecasted outreach for the semester was from these two interventions. For maize NTB and East Java, we estimate that farmers will repay their loans in April to May 2018 after the harvest takes place, so we do not expect to see results from our current activities until the next semester results materialise. As recommended by the Strategy Review Panel, this semester SAFIRA focused on the households receiving finance through partner financial institutions – recording 5,531 HH against the target of 4800, receiving a loan disbursement through VCF, exceeding the target for this semester.

SAFIRA expects the portfolio of 7 existing and 4 new interventions to benefit 4,805 farmer HH (3,238 <\$2.50PPP) with increased income by the end of semester 1 2018, 362 below the target trajectory but a significant improvement for the program overall. The majority of this outreach is expected to be attributed to the YARO credit scheme with BISI in NTB, institutional strengthening with BRI EJ, and institutional strengthening with BNI EJ. SAFIRA's strategy to focus on improving institutional knowledge and skills on VCF is showing promising signs of real up-take by partner financial institutions. BRI has begun disbursing loans to sugarcane farmers in Malang and is assessing the potential to expand the VCF model to new sectors including in maize and soybean, vegetables, potato, and potentially dragon fruit. Total outreach from BRI is expected to benefit 3,560 farmer HH in by the end of 2018.

SAFIRA expects to achieve a total outreach of 11,458 HH (8,051 <\$2.50PPP) from existing and new interventions by the end of the current phase of the program in December 2018. Out of the 11 interventions, 6 are expected to contribute a significant proportion to outreach. In addition to BISI, BRI, BNI and Bank Sinarmas, SAFIRA expects BPR Arta Kencana will finance shallot and maize farmers and is assisting its various branches to explore potential for VCF in mungbean and other crops. SAFIRA will focus on providing technical assistance to Tanaoba Lais Manekat (TLM) and BPR Central Pitoby in vegetables as the first commodity. As mentioned in the previous PRIP, projections accelerate towards the end of 2018 primarily due to expected results from loans issued at the end of 2017 and beginning of 2018.

FIGURE 3: SAFIRA OUTREACH TRAJECTORY



This semester SAFIRA recorded net attributable income change (NAIC) per farmer HH at IDR 112,170,136 (AUD 11,269), and IDR 5,098,643 (AUD 512) NAIC per farmer, increasing income by 33%. All NAIC recorded this semester was from Bank Sinarmas, as data from BISI and BNI will be collected during the impact assessment in S1Y18. We are currently monitoring the use of loans by farmers and will be reporting the results after the impact assessment. Early results indicate most of the loan is being used by farmers to purchase seeds. We expect this purchase to ultimately increase incomes after the growing season as they will be able to buy a larger quantity of seeds and of better quality.

TABLE 3: SAFIRA KEY PERFORMANCE INDICATORS

KPI tracking		Actual cumulative Y17S2	Actual Y17S2
1	# Outreach (all farm HH)	211	22
1b	# Outreach (<\$2.50 PPP)	148	14
2	Net Income Impact in IDR (all farm HH)	1,096,439,965	112,170,136
2b	Net Income Impact in IDR (<\$2.50 PPP)	768,615,324	69,545,484
3	# SMEs with increased turnover	36	33
4	Increased Turnover SMEs in IDR	14,985,125,993	10,197,349,145
5	# Innovations/Interventions	12	5
6	# Initiatives by Government to improve BEE	1	1
7	# Intervention Partners (public & private sectors)	14	7
8	Private Partner co-investment in IDR	938,762,980	234,550,000

Partner financial contribution to VCF this semester increased significantly to over IDR 234.5 million, the majority of which was from the credit union Sawiran, and a further IDR 82 million investment from BISI. SAFIRA now expects IDR 754 million partner co-investment in semester 1 2018, with IDR 433.8 million committed by BPR Arta Kencana, IDR 200 million from Bank BNI, IDR 78.8 million from Tanaoba Lais Manekat, and another 41.4 million from BISI. This increased financial commitment from SAFIRA's partners is an indication of genuine buy-in and understanding of the value of VCF at an institutional level.

TABLE 4: SAFIRA PROJECT SPECIFIC INDICATORS

SAFIRA specific indicators		Cumulative Y17S2	Actual Y17S2
1	# HH who have received finance based on our intervention(s) (directly and indirectly)	5,814	5,531
2	# farmers with increased income	211	22
3	# farmers who benefit from inputs purchased	189	-
4	# SMEs or ISPs that receive finance and on-lend	36	33
5	# financial institutions that increase agricultural lending by a significant amount	4	2
6	Percentage of Non-Performing Loan in partner financial institution	22%	22%

This semester SAFIRA specific indicators 2, 3, 4 and 6 were recorded for the first time in accordance with the new measurement protocol. 211 farmers with increased income were recorded from the Sinarmas intervention and Maize NTB. The impact assessments scheduled in S1Y18 will provide more data on the outreach and impact of the bank NTT and Maize NTB interventions. Non-performing loans recorded this semester are from Sinarmas, where an issue with the off-taker Pt DBM (detailed in section 3.4) resulted in farmers' loans automatically being registered as defaulted. 70% of YARO recipients have already repaid their loan from 1,692 loans disbursed on the BISI intervention and we expect to have results from the other partners after the impact assessment in April/May.

Value for money indicators were recorded for SAFIRA this semester. With total outreach numbers at 211, meaningful analysis of VfM is not currently possible, however total investment leverage including both direct and indirect costs stands at 7%, compared to 10% for PRISMA, and actual partner investment was AUD \$938,662 at the end of S2Y17. We expect to be able to provide more robust analysis of VfM indicators next semester.

3.2 Portfolio analysis and strategy

SAFIRA's revised strategy aims to achieve systemic change by socialising and formalising VCF within the financial ecosystem in Indonesia through three main approaches:

1. Supporting financial institutions and agribusinesses to develop VCF products;
2. Development of and linkages to VCF consulting services, and;
3. Facilitating knowledge-sharing amongst stakeholders.

This semester SAFIRA focused on activities 1 and 2, supporting the development of VCF products and building skills and linkages to VCF consulting services. Some of SAFIRA's partners which received VCF training are demonstrating commitment and confidence in the commercial viability of the model at an institutional level. As per 31 December 2017, BNI disbursed 3,400 loans to maize farmers in Sumenep, and now plans to expand the model to other commodities including rice with a further 2,826 loans expected in the next semester. BISI disbursed 1,692 YARO loans to farmer HH in NTB, 70% of which have already been repaid, a further 249 loans are expected next semester. Sinarmas's new CEO has affirmed the bank's commitment to implementing VCF throughout their branches, although they are taking a cautious approach with only 45 loans disbursed in S2Y17.

SAFIRA added four new interventions this semester, the majority of interventions are now collaborations with PRISMA and ARISA. SAFIRA continued to capitalise on the benefits from leveraging existing relationships, significantly reducing the time required to develop interventions. All 4 of SAFIRA's new interventions are focused on institutional strengthening, a total 9 out of 11 interventions are now focused on delivering the new strategy. The remaining interventions are with Maize with Bank NTB (ARISA) and developing a digital scoring tool.

SAFIRA has two interventions related to ICT – the SRYIA application with CU Sawiran and a credit-scoring tool with BPR Pesisir Akbar called SIMBUKA. SAFIRA is supporting CU Sawiran in developing an android-based application called SRYIA. The application can be used by CU Sawiran members to update

their financial relationship with CU Sawiran and keep up-to-date financial records on their businesses. Through SRIYA, CU Sawiran staff can access data compiled in the back office which can be used to analyse financial profiles and background information for processing loans, allowing them to provide financial services more effectively. SIMBUKA is a credit scoring tool that works to reduce processing times for applying and disbursing loans to farmers. The tool digitises and automates data collection, loan documentation, and administration.

SAFIRA has focused efforts on branching out to new types of partner FIs to gather a broad evidence base from different actors in the ecosystem. The portfolio now comprises of a diverse mix of partner FIs. SAFIRA expects upwards of 20,400 loans to be disbursed through these partner FIs by the end of S2 2018, with total projected outreach at 11,458 HH. Combined with the increased co-investment commitments from SAFIRA's partners this semester, these indicators are showing positive signs that the new strategy is working. SAFIRA's portfolio is sufficiently diverse to be able to provide tangible indicators of systemic change in partner institutions and in the wider ecosystem, if the current portfolio remains on-track it will be able to generate sufficient evidence to prove the concept by the end of S2Y18.

3.3 Challenges and lessons learned

With the first loans disbursed and due for repayment this semester, SAFIRA gained valuable lessons learned from experiencing an issue with an off-taker in the Sinarmas intervention. In Tuban, Sinarmas partnered with Pt DBM, one of two off-takers set to recommend farmers to receive VCF to purchase fattened cattle from farmers, and repay the loan back to Sinarmas - returning any surplus back to the farmers. Farmers received the loan from Sinarmas through DBM and reared the cattle as planned, transferring the fattened livestock to DBM at the end of the season.

The first season's loan repayments were due in May 2017. At this time DBM failed to pay two of the farmers for the cattle and as a result these loans went into default, with the farmers receiving no income and gaining an automatic negative credit score from the bank. This situation was not immediately flagged by Sinarmas as an issue until payments were missed again in the subsequent round of loans, due in August. In August the issue was raised with SAFIRA, and SAFIRA informed all key stakeholders via the monthly report. In the months following, the situation was monitored closely.

In September 2017 after 1 month of non-payment, SAFIRA questioned whether Sinarmas would like to investigate the off-taker for fraudulent business practices, this was declined as DBM elected to conduct an internal audit. As there no program funds involved in this intervention, it was felt that SAFIRA should take the lead from Sinarmas and support them where requested. In October 2017 SAFIRA added new staff from cohort 5 to work closely with our existing team on this intervention in an attempt to ensure it was well resourced, and also revised the MoU to clarify Bank Sinarmas' reporting requirements. In the meantime the internal audit of DBM identified the source of the issue to be internal fraud, and repayments were subsequently agreed with Sinarmas for four monthly instalments to repay the loan to Sinarmas and the farmers.

This experience highlights the risks associated with using off-takers to distribute and repay loans. In response, Sinarmas has developed new guidelines and implemented a more rigorous due diligence process for selecting new partners. SAFIRA has also integrated similar guidelines and processes to the VFC toolkit and training materials, to ensure that all our partners and those working with the consulting companies are aware of these potential risks, how to spot them ahead of time where possible, and how to mitigate against the impact (via other securities including factoring and insurance). Above all SAFIRA is encouraged not only by Sinarmas' commitment to expand VCF even with this challenge, but also their ownership as a private sector player and their lack of reliance on SAFIRA for support which shows a strong degree of sustainability for this intervention.

Another challenge SAFIRA has faced is in distinguishing the VCF work we are trying to do with the large number of other donor/ direct development programs focused on financial institutions in Indonesia. Some FIs have received several trainings from external parties within the last year, when presented with another donor-financed concept SAFIRA has experienced some difficulty in establishing

relationships on a partnership basis - focusing on a robust business case and program's sustainability (e.g. Bank NTT and BPR Pesisir Akbar). FIs that have worked with AIP-Rural through PRISMA or ARISA however have not had this issue as they already have a clear understanding of AIP-Rural, our objectives and ways of working.

The Survey on Financial Inclusion and Access (SOFIA) did not produce results that met the needs of SAFIRA's partners. The survey lacked detail specifically regarding financing for the agricultural sector and did not take into consideration alternative metrics the FI partners are using to assess clients under a VCF model. Feedback was provided to OPM (the provider of the survey and the results) however, there was no improvement in the analysis of the results. SAFIRA intends to recruit a research institution to process the data that was gathered to extract useful insights both for current partners and to inform the next phase of the program.

3.4 Management response

SAFIRA is in the process of conducting an in-depth review of the due diligence processes that were carried out prior to the issue with DBM on the Sinarmas intervention to identify any potential weaknesses in AIP-Rural controls. SAFIRA is also investigating the extent of potential knock-on losses experienced by the farmers relating to the secondary impact of not being able to secure further loans as a result of the negative credit score (loan collectability status) set by Bank of Indonesia, and will explore options to mitigate against any negative impacts, ensuring that the affected farmers are not left out of pocket. Both SAFIRA and bank Sinarmas have gained a heightened understanding of the potential risks involved in the VCF model, and have implemented more robust due-diligence and fraud control processes following the experience. Sinarmas remains committed to the overall objective of expanding the rollout of VCF across its network, and we are confident the lessons learned have contributed to better intervention design.

In an effort to develop VCF products and link consulting firms to partners, SAFIRA provided a VCF introductory training. In November SAFIRA conducted a VCF training that facilitated introductions to local consulting firms and provided SAFIRA a means of vetting them for further work with our partners. The training was delivered by Connexus to 36 participants including AIP-Rural staff and consulting firms to introduce broader applications of the VCF model and help conceptualise what we are trying to achieve with partner FI's. Although delivery was let down by a poor-quality trainer, the objectives mentioned here were met with success. Furthermore, the exercise produced valuable material and content that we were able to incorporate into our own VCF materials.

This semester SAFIRA finalised the VCF toolkit, a significant step towards the realisation of the updated strategy. In addition to the VCF introductory training, we also utilised the materials from Connexus and support from Linda Jones to improve upon and refine the toolkit. As a result, an in-depth, high quality toolkit consisting of training materials, accompanying resources, and a facilitators guide was produced (which can be used as a VCF implementation guide with or without a detailed training course). The toolkit consists of two modules and a facilitators' guide, which has been piloted with Bank BRI and BPR Arta Kencana. By the end of S1Y18 SAFIRA will have selected 6 consulting firms to train VCF (MicroSave, Hadidaya Jaya Abadi, Spire, MICRA Indonesia, Microfin and KIRAN Resources Consulting consulting) and will provide 10 partners (BRI, BNI, Bank Sinarmas, BPR Arta Kencana, BPR Central Pitoby, TLM, CU Sawiran, PUSKOPDIT, Bank NTT, and Bank Papua) with training and technical assistance to implement VCF.

In the remaining semesters SAFIRA will focus on delivering the current portfolio of interventions, and on the third activity under the new strategy - facilitating knowledge sharing amongst stakeholders. SAFIRA will disseminate VCF tools and information to those who have interest in entering the market in the agriculture sector (financial institutions, government) through workshops, roundtables, national and international conferences. The analysis of the SOFIA dataset we hope will provide insights which will be useful to the market. SAFIRA will develop a report for best practices in digital credit scoring, tailoring this to focus on applications for the Indonesian context. We will host a roundtable with our partners presenting the report once completed in semester 1 2018. SAFIRA will hold an information session on the various types of VCF

and risk mitigation options, and is also looking into a larger study examining the effects of VCF in terms of increasing incomes.

4 Cross cutting issues

4.1 Results measurement

This semester DCED pre-audit checks were completed for SAFIRA, TIRTA and ARISA. The results measurement system for TIRTA and SAFIRA were found to be strong against most control points. Improvement areas are mainly a more regular monitoring and enhanced review process. Project teams will make sure that all the recommendations from the pre-audit process are adopted and implemented. As DCED extended the validity of audits from 2 to 3 years, a consolidated DCED full audit will occur in 2019 for PRISMA-2 instead of 2018 as planned.

During the second semester of 2017, the RML team completed 26 intervention impact assessments³ and impact from 3 interventions (Maize Nursery, Soybean Nursery and Shallots EWINDO) were extrapolated from the previous assessments. 5 assessments captured impact from systemic change, particularly in maize NTT, pigs NTT, coffee NTT and cashew NTT.

In the reporting semester RML has piloted improved WEE measurement indicators. Two WEE consultants Linda Jones and Holly Krueger worked closely with the RML team to develop an improved set of indicators and questions for the survey to capture the change in WEE, focusing on the agency part (decision-making, workload, leadership role). RML piloted the questions with 2 interventions in Pigs NTT successfully. Based on the experience and usability, RML will incorporate a pragmatic and useful WEE measurement section for all future impact assessments and the indicators will be integrated in the QMT assessments.

Disability inclusion indicators and questions were used for the first time with 6 intervention impact assessments. RML piloted indicators and questions to capture impact from our existing interventions on disable people. In addition, one qualitative assessment has been designed with the help of Disabled Person Organization (DPO) to capture key inclusion pathways and future entry points. Data collection will be in January 2018. Analysis from both qualitative and quantitative assessments will help defining the disability inclusion strategy of AIP-Rural.

Induction training on results measurement for Cohort-5 was conducted in October. As a part of capacity building for the new staffs, a 5-days training was delivered by Phitcha Wanitphon.

In the last 6 months the MIS was updated to strengthen the data aggregation system. Analysis of aggregated data (infographics, charts) is being added in the Power BI dashboard.

In the next semester, RML will complete up to 46 impact assessments, focusing on impact from farmers copying and systemic change. Program will provide more emphasis on refining the WEE measurement, disability inclusion, non-monetary and unintended (beyond program KPIs) benefits. Additional systemic change indicators focussing on partners' institutional development has been formulated in the reporting semester, and an initial survey to collect data and evidence from the partners has been carried out.

Other areas of systems development and forward-looking data analysis planned may include: program productivity analysis, gender data triangulation, crop productivity analysis, a revision of the QMT and mentor system, a revision of the ICN and IP templates, and development of a concept for capturing impact on food security with focus on nutrition.

AIP-Rural requests not to conduct a second DCED audit during 2018. The validity of the DCED audit was increased to 3 years, i.e. for us until 2019. To ensure data quality, the management of AIP-Rural will assign an external consultant to assess selected areas of the system without specific preparation.

³ Impact assessments were carried out in the following sub-sectors: Beef EJ and NTB, Vegetable EJ, NTT, NTB PA and WP, Cashew NTT, Shallot EJ and NTB, Soybean EJ and NTB, Pig NTT, Peanut NTT, and Maize EJ and NTT, Cocoa PA and Coffee NTT .

4.2 Gender and social inclusion

In this past semester, AIP-Rural worked with an international Women's Economic Empowerment (WEE) Specialist to upgrade the team's capacity and tools in relation to building commercial WEE deal-making strategies. Notably, this included: developing and rolling out a stock-take method to assess the current level of 'strategic thinking' and approaches to WEE in the interventions; upgrading Focus Group Discussion methods to better focus on informative, commercially-driven data outcomes; making significant modifications to the Impact Assessment Methodology to better support informed WEE feedback loops and strengthened WEE impact measurement; capacity building of staff in relation to developing suitable strategies (data - to business case - to commercial pitch tactics - to effective monitoring) in developing WEE in the business case design.

Early signs indicate are that teams are already displaying increased critical and independent WEE thinking, and that this is already translating to improved WEE design, as outlined below.

- With an improved WEE business case pitch, PRISMA staff were able to convince PT Danken that as women are key decision makers in the purchase of pesticides, they should engage more women in product demonstrations, and, as a result of influencing the national manager, female farmers were invited to 10 field day events and 12 farmers meetings in December 2017.
- Similarly, SAFIRA staff were better able to explain to BISI that with women being key decision makers in hybrid maize seed purchases, and with their high involvement in managing household finances, this represented a commercial opportunity to increase sales and credit repayment for the company, which convinced BISI that they should prioritise hiring female sales agents in the upcoming season.
- With a more strategic approach to Focus Group Discussion (FGD) design, partner Hextar was invited to join an FGD to witness first-hand the high level of female decision-making, purchasing and fertiliser application roles of women in the coffee sector, which then convinced them to agree to the PRISMA team's proposal of targeting at least 40% of their product demonstrations on women (the team is now exploring monitoring tools to help Hextar track the ultimate impact of their female-only sessions, so as to convince them of the long-term benefits of continuing this practice moving forward and ensure its sustainability).

Other on-going WEE related activities are integrated in relevant sections of the report and annexes.

As of last semester, PRISMA has an overall 42% female farmer participation rate (181,145 female HH members vs. 428,391 male), with 7 sub sectors at or over 50%, and 10 subsectors between 40-50% female participation. Peanut NTT remains the subsector with the highest female participation rate at 73%, with shallots EJ the lowest at 8%. PRISMA will continue to use this information to inform its decision on where to engage in WEE, for example by selecting sectors with higher participation and thus often more commercial traction potential. In doing so, equally it will seek to further improve its understanding and capture methods of what participation entails.

Average female farmers training participation was at 22% (measured so far in 17 interventions) compared to a 42% average female participation rate in the sub-sectors included in the analysis.

Female training participation in Pigs-NTT, Vegetables-WP and Cashew-NTT interventions well reflects female farmers involvement in the sector, and in some cases it is even higher. This indicates a good understanding and use of gendered market data and the appropriateness of the access strategy developed and implemented by the program in these interventions. Conversely, Beef-EJ/NTB, Vegetables-EJ/NTB and Maize-EJ have the lowest female training participation rates relative to female participation in the sector. As the analysis continues, particular attention will be paid to interventions with higher variances to identify and address the constraints to inclusiveness. With upgraded systems and tools and strengthened staff capacity, the program expects to achieve better results in the next semester.

During the second semester of 2017, AIP-Rural conducted a disability inclusion assessment for 17 (15 PRISMA's and 2 TIRTA's) interventions in 10 subsectors to identify households with disabled people.

Two different kinds of questioning methods were used during the assessment. One method was to directly

ask whether the farmers' household consists of people with a disability, which resulted in identification rate of 3.94% (with 68% of those who identified as disabled being Users on our interventions). The second method, further refined and based on international best-practice, utilised the method of assessing whether a household consists of people who are unable, or with limited ability in undertaking certain activities, which resulted in disability prevalence identification rate of 9.55% (with 62% of the identified being our users). The significant difference in response rate – closer to what would be expected within the population - indicates the importance of using appropriate assessment methods when seeking to identify disability prevalence.

In the next semester, the capacity building work with the external consultant will continue, including a further update of the stock-take, alongside further strengthening of integration of WEE within key program assessment tools (namely the Intervention Concept Note process and the Quality Management Tool) and additional improvements to the WEE Impact Assessment. WEE study topics will also be included into the overarching preparatory studies assignment; one tentative topic inclusion is to explore the status of current explicit or implicit marketing strategies to women clients in select agricultural sectors (either directly within partners or wider support service markets).

With the help of a Disabled People's Organizations (DPO), 1 disability qualitative assessment was conducted in connection with 13 pig farming households in East Nusa Tenggara Province. The households had previously been identified using an activity-based questioning method to determine whether the intervention has in anyway benefited those households. Our results found several households that had faced difficulties in pig rearing interconnected with the disabled men or women in their household, however only one household could be identified which had the difficulties related to the disability eased as a result of utilising our innovation. Further implications of this study, both in terms of the intervention and more broadly in terms of future disability impact assessment and design, will be discussed shortly.

4.3 Environment

During the second semester of 2017, PRISMA conducted environment assessment for 4 interventions in 4 sub-sectors to identify the impact risk level of PRISMA's interventions toward the environment. To date, a total of 54 environmental assessments across 34 subsectors have been completed by PRISMA.

SAFIRA conducted 1 additional environmental assessment by extrapolation from its' PRISMA sister interventions, as these share a joint business model with the PRISMA counterpart. To date, SAFIRA has conducted 3 environmental assessments out of 12 interventions in the portfolio.

By the end of second semester 2017, 18 PRISMA interventions and 1 SAFIRA intervention has been identified to pose a moderate risk toward the environment. At the same time, 35 PRISMA interventions and 1 SAFIRA intervention are exposed to a higher than 'moderate' risk from environmental conditions. According to PRISMA's Environmental Management System, all interventions are being regularly reviewed, but no further steps are currently required since no intervention is rated high risk.

Severe weather and climatic issues continued to be the main concern over this semester with the ongoing weather constellation causing heightened rainfall intensity. Across 2017, an array of natural disasters numbering more than 2000 separate incidents also affected areas where PRISMA operates, such as Pacitan, Madiun, and several other locations – causing damage to infrastructure and agricultural production areas. The La Niña phenomenon itself is currently projected to exceed the normal threshold by the end of the year and is forecasted to last at least until the first quarter of 2018.

PRISMA partnered with the South-Pole Group (SPG), one of global leaders in sustainable environment solutions, and successfully carried out the pilot for a complementary Environment Impact Assessment in Coffee NTT sub-sector. A follow up way forward concept based on the pilot will be prepared and will be utilised as a key foundation for the program's review and adjustment of the Environmental Management System (EMS). This will accommodate feedback on the EMS from the program's mid-term review, adding climate change elements in assessments, and ensure that environmental awareness issues and opportunities are more integrated and accessible to PRISMA and SAFIRA in developing and implementing their interventions.

4.4 Communications

This semester the communications unit focused its efforts on producing a wider range of communications products with a far more strategic emphasis; the team increasingly designs products to carry far clearer pre-established core program messages and brand positioning, actively responding to the needs, opinions and perceptions the program's stakeholders (as systematically explored in the recent Stakeholder Engagement Perception Survey, outlined below). The team has also worked to ensure these products (and embedded messages) are designed in a manner that allows for rapid and effective absorption by key audiences (often with shorter, tighter delivery formats that are far more easily and broadly disseminated). In turn, this also aims to maximise product efficiency, utility, and lifespan, thus making far better use of communication production resources (including HR time), and in turn representing better value for money.

These products include: Farmers of Indonesia (FoI) – showcasing the program's success in an easily relatable 'human interest' beneficiary perspective; **Partner Perspectives**, illustrating partners' experiences in working with the program, how they have benefitted from the joint collaboration, and why the activity is set to sustain; **Our Approach in Action**, capturing AIP-R staff insights and perspectives of implementing the inherent market systems development approach; **Women's Economic Empowerment (WEE)**, focusing on the commercial case for inclusive business practices, and; **Commodity Snapshots**, which summarise key aspects of the commodities the program is targeting. The final products will be disseminated through, among other formats, printed and digital info-cards and short info videos.

Six Farmers of Indonesia story has been published this semester, with 7 info-cards on the same theme currently awaiting approval. One FoI info-video has been developed and distributed through the Embassy's Facebook channel and AIP-Rural website, three Partner Perspective cards, two Our Approach in Action, and two community snapshots have been developed and are expected to be distributed during the first semester of 2018, with many more to follow (the timeline of which will be delivered to DFAT within Semester 1 2018). **The AIP-Rural Learning Series** (case study series), led with the support of Palladium staff, has also been designed, and case study topics selected in the current semester, all products will be rolled out under a clear over-arching AIP-Rural communications messaging 'banner'.

The major achievement this Semester has been the completion of the Stakeholder Engagement Perception Survey (SES). Positively, the survey informed the program and DFAT that PRISMA and SAFIRA (and more broadly, AIP-Rural) is highly regarded by its stakeholders who see the program as offering a high level of value-addition to their work. The survey also explored topics of perception, image and relationships at depth, and this will be reported back to the staff next semester for reflection and (where needed) adjustment of approach, as well as being heavily taken into account in the upcoming revised Communications Strategy update. The final report draft will be published early in Semester 1 2018.

The AIP-Rural website has been updated and made more user-friendly. The current sub-optimal effectiveness of the website as a key communications tool was raised in the SES, and the team will reflect on this in the upcoming Communications Strategy update.

4.5 Risk management

AIP-Rural has updated its combined risk matrix following the strategy meeting. The risk of market-distorting policies and practices affecting the success of PRISMA interventions continues to be high, and is likely to intensify in the lead up to the Indonesian national elections this year as the government tries to meet self-sufficiency targets in key crops. PRISMA and TIRTA are intensifying collaboration with local governments to identify potential win-win solutions.

This semester an issue with an off-taker on SAFIRA's intervention with bank Sinarmas highlighted the need for more robust due-diligence and fraud control processes when identifying and selecting new partners. SAFIRA has implemented new processes, updated tools and guidance and is in the process of conducting an internal review of due-diligence that was taken prior to the intervention to identify any areas of

weakness. SAFIRA is also monitoring any potential knock-on impacts on the farmers who were affected by the issue.

PRISMA will investigate potential negative impacts on farmers and third parties in its intervention areas to assess any unforeseen or unexpected consequences from activity design and implementation. Potential negative impacts include lost income, and negative health or social impacts. PRISMA will conduct an environment assessment for all subsectors in semester 1 2018 which will be reviewed semi-annually to complement existing controls.

Communications with key stakeholders will be enhanced in the next semester, with the production and dissemination of the Info Learning Series and several gender case-studies. The stakeholder engagement survey highlighted the demand for more and better communications, and a more interactive platform for the AIP-Rural website. New media and crisis communications guidelines are being developed and implemented next semester.

5 Stakeholder relationship management

5.1 Government of Indonesia national and sub-national agencies

Phase 4 M4P training for local governments concluded in October 2017 with 41 participants (10 women and 31 men) from 15 local governments. The focus was to understand systemic change, how local governments can play their roles in implementing and scaling up the interventions and how to integrate the interventions into their strategic plans or programs.

In addition to the 6 interventions with local government developed this semester, we expect another 3 interventions to be launched and implemented in 2018. The partners for these interventions would be the local governments of Manggarai Timur, Bima and Situbondo.

Interventions with other local governments will be developed as the replication or scale of the interventions from the M4P training for local governments. Potential locations are Pemakasan, Manggarai Barat and Manggarai Tengah. We will also try to replicate vegetables (home gardening) interventions in Sumbawa to Lombok Utara, Pamekasan, Kupang, and Timor Tengah Selatan. Home gardening interventions promote small seed packages to women using the national government program i.e. Kawasan Rumah Pangan Lestari (KRPL) as the entry point.

Under the agreed ICT strategy, PRISMA is also collaborating with the Ministry of Village on linking village businesses (BUMDes) with market actors using an IT solution. This action research is conducted in 6 villages in East Java, NTB and NTT based on the recommendation and endorsement by the Ministry of Villages.

5.2 Private sector and civil society partners

An overarching AIP-Rural Stakeholder Engagement Perception Survey was conducted in December 2017 among DFAT, GoI and partners and AIP-Rural staff with 38 external and 91 internal staff respondents. The survey provides a basis for the Communications Unit in updating the effectiveness of AIP-Rural's communication, and revealed clear demand for more targeted and accessible information on events, fairs, expos from the private sector; and more information about achievements, forums, expos and workshops from district governments and research institutes. It also revealed strong positive perceptions of the program, and a high (89%) commitment of partners to continue and expand collaboration?'

The remaining three co-facilitators play a key role in implementing some of the most successful interventions in terms of outreach, however at the QMT strategy meeting clear areas requiring improvement were identified, including guiding co-facilitators to do less direct delivery through their own staff in keeping with the principles of facilitation and contractual arrangement between co-facilitators and their partners.

6 Operations

6.1 Operations

The 'One Operations' model continues to work well providing efficient and effective support to all three programs. Capacity of staff is increasing, and the high output of operational activities has required changes to some position descriptions to better share the workload. The Finance team has implemented more focussed duties and a job-rotation to increase cross-skilling and to provide greater variety in tasks. The Provincial Admin Officers have taken on increased duties.

An external audit was held in late October, and wrap-up discussions noted a high level of quality for our procedures and supporting documentation. The Palladium Director of Risk conducted an internal systems audit and congratulated the team on the quality and robustness of our Practice Notes and tools, and provided staff with refresher training on fraud.

The Contracts and Procurement Team continue to develop innovative contracting strategies and have recently created a tripartite Partnership Agreement that allows our partners to work together determining who will do what and when, and invoice accordingly to the limit of the overall agreement. This provides greater flexibility and better reflects the working environment of the private sector.

The Program Budget has undergone a complete re-structure to focus on commitments as opposed to interventions. As part of this re-structure, project teams are now completing their monthly forecasts using a set template that allows senior management to easily drill down to a greater level of detail (where required) to verify unit rates and assumptions. Where possible, budgets have been grouped by cost type and team to simplify the coding and provide accountability in terms of measuring budget vs actual. This is a new process for many staff and teams have received additional training. Early results are positive and expected to improve further over the coming months.

6.2 Human Resource Management

Capacity of staff remains critical to program success and this is addressed in the new Human Resources Management (HRM) Strategy. The HRM strategy brings together the disciplines of personnel management, and human resource development, and aligns our HRM strategic objectives with the Program's Organisational Strategy.

The Performance Management Guidelines have been revised to reflect a competency based framework and will be trialled in January 2018. The staff performance reviews will feed into ongoing capacity building of staff in the final year. An HRD specialist will be engaged to better manage this process.

Cohort 5 started in September, completing a detailed month-long induction program consisting of both classroom and on-the-job training:

- PRISMA (15 BC and 6 SBC)
- SAFIRA (3 Rural Finance Specialists and 1 BC RML)
- TIRTA (2 BC and 1 SBC)

This brings total staff numbers to 146 (136 local staff and 10 expatriate). **Following three unsuccessful recruitments for a local Head of Operations and Finance (HOF), the program will recruit an Operations and Finance Specialist to support the HOF** through a particularly busy period and ensure effective planning, coordination, control and overall program delivery in the final year. DFAT has approved the proposed TOR and it is hoped that the successful applicant will join the program in February.

6.3 IT and MIS

The socialisation of Power BI was provided for implementation staff in November 2017, the focus of the socialisation was on the use of Power BI to better support their work. Power BI Pro licenses have also been provisioned for 25 users for all AIP-Rural teams.

PMT and QMT tools have been improved during this semester. With the total of 149 interventions, the enhancement of the tools is needed to accommodate the growth of AIP Rural Portfolio. Suggestions for further refinement of the QMT were proposed and accepted at the January strategy meeting and will be implemented next semester.

Poor internet access in the Provinces has continued to create difficulties for staff accessing the main server from the field. Additional ISPs have seen an improvement in available bandwidth however it is still intermittent.

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Annex 1 – Sub Sector Profiles

SAFIRA

1. INSTITUTIONAL STRENGTHENING – BANK SINARMAS

Indonesia is the largest beef producer in Southeast Asia. Nevertheless, the country is experiencing a shortfall in production as domestic consumption outstrips supply. At the same time, national demand cannot depend on imports. Since 2010, the government has been tightening import quotas with the aim of creating 90% self-sufficiency in beef. These two factors have significantly increased the demand for locally sourced beef. PRISMA's research indicates that increasing the availability of feed and artificial insemination services will enable cattle farmers to meet local export standards and increase their volume of cattle production.

East Java is Indonesia's biggest cattle producing province. According to BPS 2015 data, East Java accounted for 19% of national beef production and 28% of national beef cattle population. It is also the largest exporter of live cattle between provinces. Local consumption is a significant driver of East Java's cattle and beef sector.

The number of poor people in East Java is slightly higher than the national average. Most farmers in East Java raise cattle as family asset and source of ready cash. They do not see cattle rearing as a business or livelihood, and do not make conscious decision to participate in national cattle and beef production.

Cattle productivity in East Java is low, particularly during the dry season (May to November). This is caused by (a) lack of supplementary feedstock, and (b) limited awareness of the benefit of supplementary feeding. Farmers' reliance on native grass to feed their cattle results in a fattening period of 11 to 12 months. The fattening period is halved on a feedlot, where the use of concentrate or supplementary feed will reduce the fattening period to only three to four months before slaughtering. The low cattle productivity is also due to poor breeding practices where natural mating results in poor genetics of calves and lower conception rate, and the provision of artificial insemination services has not been effective.

Challenges and constraints

- Lead farmers reached through PRISMA's cattle fattening intervention **lack the access to finance** to increase their cattle numbers. Meanwhile, other farmers who are potentially interested in applying better fattening practices do not have sufficient funds to do so. Some of the farmers may purchase better feed but do not necessarily supply themselves with enough feed or purchase feed but give this to low quality young cattle.
- **Limited capacity of feedlots** which play the roles of cattle suppliers and off-takers in target area (Tuban). The business model for cattle fattening loan requires involvement of feedlots which supply farmers with better quality calves to farmers. Existing feedlots only have limited number of calves which can be supplied to farmers. Thus, despite the willingness of the partner financial institution to meet the target number of farmers to be financed, the partner is restrained by feedlots' capacity to supply calves to farmers.

Vision of change

SAFIRA's vision of change is that by 2018, the recipient cattle farmers can access credit to purchase better calves, increase use of better inputs and improve the market prices for the fattened cattle, as a result of which smallholder farmers will increase their incomes.

The SAFIRA approach

To achieve this vision, SAFIRA has partnered with Bank Sinarmas and will collaborate with the private sector, as follows:

- Bank Sinarmas and SAFIRA will develop a loan product for cattle fattening in Tuban. The loan is provided 'in-kind', in the form of quality calves and feed.

- **To deliver such a loan product, Bank Sinarmas collaborates with other value chain actors.** SAFIRA facilitated the collaboration between Bank Sinarmas and feedlots and feed producers.

Specifically, the main additional value from SAFIRA in this partnership is Institutional Strengthening on Value Chain Financing (VCF) through human capacity development (training and technical assistance on VCF) as well as:

- Providing advice and technical assistance to develop VCF loan products;
- Hire a consultant to develop SOPs for the loan product;
- Hire and build the capacity of VCF Focal Points, whose role is to promote the loan product, assist farmers in preparing loan applications, and monitor cattle growth and health;
- Re-engineer and improve loan sales and cattle monitoring tools;

The Business Model and Partners

Collaboration occurs with three private partners (PT Dua Berlian, PKM Holcim, and UD Wahyu Utama). Their roles in regard to expanding finance to farmers will be:

- PT Dua Berlian Mandiri
 - Provide calves to farmers and purchase fattened cattle;
 - Deduct loan amount from proceeds before paying the farmers.
- PKM Holcim
 - Provide a list of farmers recommended for the loan;
 - Provide concentrate feed and inputs to farmers.
- UD Pangestune Utama
 - Provide a list of farmers recommended for the loan;
 - Provide calves and supplementary feed to farmers and purchase fattened cattle;
 - Deduct loan amount from proceeds before paying the farmers.

Progress and signs of systemic change

Bank Sinarmas has adopted and adapted the financing model that SAFIRA developed during a pilot cattle fattening VCF intervention in Tuban. By the end of October 2017, 104 farmers have been financed. Although the majority of these farmers are in Tuban, Bank Sinarmas has expanded the application of VCF to other areas including Lampung, Bandung, Solo, Tegal, and Magelang, and has selected and worked with 6 new off-takers in these areas.

In addition to expanding to new geographical areas, Bank Sinarmas has also widened the VCF product to commodities outside of cattle. Bank Sinarmas is implementing horticulture VCF in Bandung and Magelang with PT. Royal Sun Fruit & PT. JIT Investama Harapan Sukses.

SAFIRA met with the Board of Directors of Bank Sinarmas in November 2017 and confirmed that they are still very much interested and committed to continue pursuing applications of the VCF model. Despite a fraud issue with one of off-takers in Tuban (PT DBM), Bank Sinarmas' CEO remains convinced that the business model is sound and views the incident as an isolated due-diligence issue. He wishes to further the application of VCF with more caution however, factoring in lessons learned from the pilot phase. One of Bank Sinarmas' Directors has also expressed interest in developing a cocoa VCF product in Mamuju, West Sulawesi.

In December 2017, SAFIRA conducted an impact assessment in Tuban and a field visit to Lampung & Bandung to monitor VCF application in those areas. The findings in Tuban show that Bank Sinarmas's VCF product, SimasAgri, is well received by Wahyu Utama and its farmers. Wahyu Utama has reported positive feedback from the financing model and intends to continue adopting it, while some of the farmers have taken a second loan from Bank Sinarmas. Although the fraud issue with DBM has caused delays in Tuban, with

repayments still being made to Sinarmas and the farmers in instalments by DBM, Bank Sinarmas' long-term plan is to continue VCF application in this region by finding another off-taker to replace DBM.

The findings from Lampung & Bandung show that SimasAgri is also well received by its stakeholders. Bank Sinarmas staff are positive about the product as the scheme allows borrower searching to be done through recommendations from off-takers. This means Sinarmas account officers only have to look for off-takers to find new clients for loan products. In the conventional method for finding new clients, account officers have to undertake laborious activities including canvassing (on-field sales), cold-calling and so on, to find willing borrowers - which takes enormous amount of time. Engaging with off-takers instead saves considerable time and resources. Off-takers in Bandung and Lampung have also responded positively the product as it allows them to empower farmers with finance according to their level of need. Finally, farmers have also expressed positive feedback about the product for two main reasons: 1) no requirement for collateral, and 2) more favourable payment terms in comparison to other available options and conventional lending products offered by financial institutions. Based on the information gathered so far, VCF application in both areas is likely to move forward. Nevertheless, there are risks involved with outsourcing key functions to off-takers. Bank Sinarmas has reviewed its due-diligence processes following the incident with PT. DBM and is proceeding cautiously, learning as it goes. Sinarmas requires one loan term to come to completion for an evaluation to be conducted before deciding to find and expand to new off-takers or commodities.

One indicator of systemic change in Bank Sinarmas' is their investment in building systems to support the SimasAgri product. When the product first launched all records were kept manually. Since March 2017, Sinarmas has digitised and automated application systems that contain complete borrower information profiles. In Bandung, to deal with geographical obstacle of conducting surveys in very remote horticulture plantation areas, Bank Sinarmas staff used satellite data to monitor the conditions of fields remotely. The off taker In Lampung, PT. Great Giant Live Stock (GGL) provides field officers (PPL) to monitor and provide technical assistance and information on a daily basis on rearing practices to farmers who are involved in this program. Also Bank Sinarmas' staff have to monitor the progress of rearing and achievement of ADG weekly to ensure that the program and loans provided are running well. Realising that local context is important to provide more appropriate financing, the loan term is different between Tuban (6 months) and Lampung (10 months).

2. INSTITUTIONAL STRENGTHENING – BANK BRI, EAST JAVA

BRI is currently the largest bank in Indonesia in terms of assets and has one of the most extensive networks of branches and ATMs in Indonesia. Given its extensive reach in rural areas, BRI is in a strong position when it comes to agricultural lending in the Indonesian banking industry landscape. BRI's agriculture lending accounts for approximately 22% of its own overall lending and a significant portion of national lending for the sector as well. BRI is also the forefront of government programs attempting to boost the agriculture sector. BRI was entrusted by government to distribute 206,905 Farmers Card (Kartu Tani) in 2016 and disbursed 6,97 trillion Rupiah in fisheries lending through JARING program, which was the highest achievement among banks in Indonesia.

BRI's current model of agriculture lending still lacks coordination between market actors however, limiting its efficiency in acquiring new borrowers (clients). BRI has several interfaces with market actors but misses a robust financing model that can be replicated and modified throughout all sectors. Having conducted an assessment of the market conditions, SAFIRA works with the Program Division of BRI Regional Office Malang to enhance their institutional capacity in agricultural lending through a value chain finance (VCF) approach.

Challenges and constraints

- **Limited market access.** BRI has a financing model similar to VCF called the Trickle Down Business (TDB) model. In this model, BRI finances a large firm, and then aims to finance all parts of the firm's supply chain from the buyers to the suppliers. BRI accesses actors in the supply chain both upstream and downstream of the lead firm. This model allows BRI to capture all the potential clients in a specific

supply chain, but is reliant upon successfully finding the entry point by providing financing to a large firm. If BRI is not successful in securing a deal with the firm, they may miss the entry point to provide services along the entire supply chain. Financing a large firm can be an extremely complicated and exhaustive process, in which BRI incurs significant time and labour costs until a deal is reached. Not to mention, there are other factors which might influence the deal such as pricing or terms & conditions of the financing. In contrast, the VCF model allows BRI to still work collaboratively with market actors without having to necessarily finance a large firm (although the option to do so remains open). With VCF, other market actors such as agriculture input providers or off-takers play an important role in sourcing, securing and distributing finance. The benefits of VCF can be experienced relatively sooner in comparison to traditional financing. Input providers will have more market to sell their products, while off-takers will have a more stable supply of agricultural production.

- **Inefficient processes for acquiring new borrowers** in terms of time and costs. Despite its extensive portfolio of clients, BRI's access to large segments of the rural population remains low. In many smaller branch offices, agricultural lending is still conducted through a time consuming traditional process where Account Officers spread across an area to promote BRI products and look for new clients. This model has high operational costs and relies on extensive networks to achieve targets for agricultural lending. BRI can benefit from a financing model that improves efficiencies in this process. VCF offers this benefit through coordination and cooperation with intermediaries and other market actors. VCF allows BRI to tap into market information that other actors have through years of contact and experience in the area. Through this model, time and costs of searching for new clients and mapping borrowers' profiles & capacity, commodities & area potential can be significantly reduced.
- **Limited human resource capacity** to implement financing models involving various market actors. Even in TDB, initiatives to develop new models mostly come from the Regional Office, which is transferred to branch offices and then executed by the branch officers. This condition is undesirable as branch offices are expected to be able to develop and execute their own financing model.

Vision of change

- SAFIRA's vision of change is that, by 2018, BRI is able to implement Value Chain Finance independently, has internalised & operationalised the VCF knowledge & tools at an institutional level, and utilises VCF as a key market strategy of agricultural lending.

The SAFIRA approach

To achieve this vision, SAFIRA has partnered with Bank Rakyat Indonesia (BRI) to develop value chain finance, as follows:

- SAFIRA hires trainers to deliver VCF training for BRI Program Account Officers & Managers to empower human resources & institutional capacity of agriculture lending.
- SAFIRA hires consultants to provide technical assistance for BRI to develop the pilot project of VCF scheme, develop VCF tools & operational guidance, and documents the knowledge and learnings of the pilot project for future reference.
- SAFIRA assists BRI in linking with other market actors.

Specifically, SAFIRA supports the bank to:

- Conduct market analysis.
- Develop a business model for value chain finance.
- Develop BRI staff and farmer internal capacity on farm/livestock management.
- Develop a toolkit to evaluate, develop, and implement a VCF scheme.

Progress and signs of systemic change

In November 2017, BRI started disbursing loans to sugarcane farmers in Malang area through a VCF scheme. The loan is targeted to reach Rp. 150 billion upon completion of disbursements. The loan is directed at lead

farmers under cooperatives. Each lead farmer head a farmers group and the loan is used to finance the input needs of a farmers group, not just the individual lead farmers. Lead farmers are responsible for coordinating the input requirements for their farmers group and act as a form of social control to ensure farmers under their group maximise sugarcane cultivation and repay the loan. Data submitted by BRI to SAFIRA in early December 2017 indicates that 426 lead farmers have been financed with average ticket size of Rp. 290,140,845.07 per lead farmer. With Rp. 26,4 billion remaining, it is estimated that there are 91 lead farmers left to be financed in the intervention area in Malang, as the total number of lead farmers is estimated to be 517. To capture the number of farmer groups under the lead farmers, SAFIRA will conduct data collection in the first semester of 2018 on cooperatives, lead farmers, and at the farmers level.

BRI's sugarcane loans may have been in place for several years, but the financing model in this year's sugarcane loan is different than the previous years as cooperatives become an intermediary and coordinator for distributing loans and inputs to farmers. Previously BRI used a credit channelling system, in which BRI lent to cooperatives who then managed and distributed the loan on their own without much supervision from BRI. The cooperatives had to repay BRI in a year, as opposed to value chain finance model where the lead farmer system is used and BRI takes more active role in loan distribution & supervision. This lead farmer system is believed to be effective in mitigating possible risks as the lead farmers are responsible for the cultivation behaviour of group members which can affect repayment capacity of their group. Since the connection between lead farmers and the group members is strong, this acts as a form of social control to ensure farmers are in line with the scheme's goal. The development of this scheme by BRI and the inclusion of lead farmer system is an indication that the knowledge from Value Chain Finance Training provided by SAFIRA has been utilised by BRI in their sugarcane VCF model.

3. MAIZE NTB – BANK ANDARA (BPR PESISIR AKBAR), BANK NTB, PT BISI INTERNATIONAL TBK

Maize is one of Indonesia's primary food crops. According to USDA data, around 9 million MT⁴ are grown each year in Indonesia on three to four million ha of farmland; more than half is used to cater to the ever-increasing demand for animal feed. It is a seasonal crop, with a surplus during peak harvest months and a severe undersupply the rest of the year.

At the national level the price of maize has been increasing steadily over recent years. However, the province of NTB has experienced no growth in its maize production, despite productivity being above the national average at 5.8 MT per ha. Most farmers there plant their crop during the wet season on dry farmland, with only a small number having the capacity to irrigate their land during the dry season. Poor post-harvest handling and lack of storage facilities add to the problem of inconsistent supply.

Around 127,000 ha of land in NTB is given over to maize farming, with approximately 87,700 maize farming households living below the poverty line. Just over half of these (43,900) are in Bima, Dompu, West Lombok and North Lombok.

Challenges and constraints

Analysis of the market reveals number of problems that currently constrain the ability of NTB farmers to take advantage of this market opportunity:

- **Limited provision of good agricultural practices and extension services** because of weak public provision and lack of private alternatives. There are few reliable sources of information for maize farmers. Government extension services are not able to satisfy the need for technical information, and it is rare for input suppliers and traders to provide embedded information on maize cultivation. When input suppliers do provide information services, these are geared towards promoting their own products.

⁴ The Ministry of Agriculture claim annual production of 20 million MTs against USDA data of 9million MTs. The reason for this discrepancy is that MoAg obtains a substantial portion of their budget based on high production figures.

- **Few commercial providers of fertilizer, post-harvest equipment, and irrigation services**, particularly given the strong government presence in these areas. In addition to lower than optimal yields, farmers' production costs are high because they are producing hybrid maize, which requires more investment. Since farmers have limited access to affordable credit, many farmers will borrow from moneylenders and collectors at high interest rates. This increases farmers' production costs and reduces their margins. Finally, farmers also receive low prices because of poor post-harvest practices that affect the quality of maize. There are few commercial or government providers of quality post-harvest services.
- **Limited affordable options for finance**, particularly given the difficulties in accessing bank loans. The use of hybrid seed requires a sufficient supply of other inputs such as fertilizer, agro chemicals (e.g. herbicide, pesticide) and labour, as well as careful and informed treatment and maintenance. Poor farmers have little money to support these, and no access to external financial resources. Some farmers rely on moneylenders who provide loans at exorbitant rates of interest.

Vision of change

- SAFIRA's vision of change is that, by 2018, maize farmers in NTB, through inputs paid for with credit and embedded provision of good agricultural practices by partner, will have increased the volume and quality of their maize production, in ways which are sustainable and increase their income.

The SAFIRA approach

To achieve this vision, SAFIRA: 1) has partnered with Bank Andara, a private bank focusing on wholesale lending to rural banks in agriculture finance for many years. It has established a model for input financing for maize farmers through BPR Pesisir Akbar and Syngenta retailers in Bima and Dompu NTB in 2014. SAFIRA supported BPR Pesisir Akbar on Institutional Strengthening through MIS-based credit scoring and loan monitoring system development, 2) has collaborated with ARISA to facilitate its beneficiaries to receive loan from Bank NTB so that they were able to apply agricultural practices that ARISA introduced, 3) is working with PRISMA to support PT BISI International Tbk, an input company, to develop an input financing scheme for farmers through YARO financing scheme. This financing scheme allows farmers to pay some amount upfront and do repayment through YARO agents with flexible payment term agreed by the agents and PT BISI International.

Progress and signs of systemic change

The credit scoring and loan monitoring system, SIMBUKA System has been installed in BPR Pesisir Akbar. However, BPR has not yet fully utilised the system since rollout was only completed after the loan cycle started. As a result, the BPR can only use and review the new system in the next loan cycle i.e. by the end of 2017 to January 2018. In spite of the missed opportunity in using the new system, the BPR financed around 750 farmers this loan cycle, representing a 15% increase from last cycle where 643 farmers received finance. This actual number however is lower than the original target of 1,000 farmers.

SAFIRA signed an MoU directly with BPR Pesisir Akbar on April 13th, 2017 and SAFIRA will provide final training and technical assistance on SIMBUKA. The training and technical assistance supports BPR Pesisir Akbar to use SIMBUKA system to fill credit applications from farmers, reducing processing times for filling in the application and disbursing credit. In addition to receiving loans from BPR Pesisir Akbar, maize farmers will receive information on GAP from Syngenta through the BPR Pesisir Akbar partner program Agri-fin implemented by Mercy Corps Indonesia.

Related to agriculture financing from Bank NTB to maize farmers, Bank NTB has financed 227 farmers in Lombok in November 2016. Under the supervision of Universitas Mataram, farmers have applied better agricultural inputs and practices in December 2016. It is expected that farmers will harvest by the end of March 2017 and repay the loan in April or May 2017. Bank NTB is keen to expand the loan if the repayment rate is high. ARISA welcomes SAFIRA to support the design of loan products if the bank is positive about the results.

Currently only 5 out of 227 loan receivers have not yet fulfilled their repayment to Bank NTB by the end of 2017. This small number of nonperforming loans has led Bank NTB to expand the loan model to Kabupaten Sumbawa in the 2nd semester of 2017. Socialisation on GAP and loans Bank NTB has disbursed in North Lombok, East Lombok, and Kabupaten Sumbawa to a total of 1,423 farmers (access), with 455 of this number being female farmers. As a result, Bank NTB has financed 204 farmers in Kabupaten Sumbawa this semester.

In the YARO intervention, SAFIRA supports PT BISI International on bookkeeping, promotion tools and events, marketing methodology, and developed a new model that is more inclusive of women, as well as supporting the selection of female farmers to act as distribution agents of behalf of PT BISI.

Several activities related to YARO promotion were already conducted with a total of 2,191 maize farmers including events for female farmers, farmers meetings, farmer field days, and field visit events. In May 2017, SAFIRA supported BISI for capacity building to PT BISI's staff and to retailers, individual investors and farmers group. SAFIRA also trained on bookkeeping, promotion tools and marketing methodology, and provided the YARO financing module as a guideline for BISI's agronomist.

During the 2nd semester of 2017, BISI has conducted YARO agent training with a total of 117 participants in which 22 of them are female agents. During this semester, promotional events were also conducted four times with 318 farmers attending, 126 of them female. Moreover, 150 socialisation events on GAP for hybrid seeds to promote the YARO scheme were delivered to 2,515 farmers this semester. As a result, PT BISI has distributed seeds with YARO scheme through the selected agents to 1,692 farmers in Lombok Island. This actual number is slightly higher than the target of 1,680 farmers. In the next semester, BISI plans to expand YARO financing to new areas in Central Lombok.

Mr. Ruruh Sujadmoko, Area Manager of PT BISI Nusa Tenggara stated that female farmers are one of the best market segments for maize seed promotion. This follows SAFIRA's initiative suggesting to PT BISI in the 1st semester of 2017 to hold promotional events for female farmers. PT BISI learned that female farmers are eager to learn and pay attention to detail for good farming practices in maize, with high levels of adoption of GAP. In addition, administration tools and promotion tools developed by SAFIRA has had a significant effect on outreach to reach new farmers, resulting in a 70%-80% increase in sales for BISI over the past year.

4. INSTITUTIONAL STRENGTHENING – CREDIT UNION SAWIRAN

Credit Union (CU) Sawiran is a financial institution that focuses on the economic empowerment of the local community on a (sub) district level. CU Sawiran is one of the credit cooperatives in Indonesia which has a very strong reputation in terms of technical capacity and innovation, with a good rating from MICRA based on standard rating of CGAP.

Currently CU Sawiran is a major CU in East Java in terms of total assets and number of members, and recently became one of the members of the respected East Java Puskopdit. CU Sawiran is perceived to be an influential role model for other members of the CU Puskopdit in East Java, with members of Puskopdit-East Java covering about 2/3 area of the province. CU Sawiran is in the top five members of East Java Puskopdit (June 2017, out of 42 members):

Members	Assets	AVG Assets/member
1. CU Standalone	1. CU Kosayu	1. Kopkar RS Lavalette
2. CU Kosayu	2. CU Sawiran	2. CU Rahayu Rejotangan
3. CU Sawiran	3. CU Standalone	3. CU Kosayu
4. CU SANQTI	4. CU SANQTI	4. Kopkar Widya Nirmala
5. CU Eastern Star	5. CU Rays Of Hope	5. CU Sawiran

Credit Unions operate based on a trust model, its members have shares as a form of collective ownership, so the whole organisation is focused on a single purpose - the welfare of the members. Professionally managed, CU Sawiran provides financial services in savings, loans and other financial services. Starting from a cooperative for employees (KopKar: Employees Coöperative), CU Sawiran was established to find a solution to the difficulties of communities looking for a cheap and accessible working capital so that it can

help increase the amount of income and standards of living within the community. Since the year 2000, it was decided to change the name of the institution be CU Sawiran, who serves all members of society openly, without exception and regardless of the level of economic, educational, religious, and tribal culture. Until recently CU Sawiran had served thousands of members in the 13 points of services in several towns in East Java, 4 of them serving rural communities. CU Sawiran has shown strong willingness to cooperate with SAFIRA to improve their current loan selection and distribution processes, carrying out financing through a VCF scheme.

Challenges and constraints

Initially, the collaboration with SAFIRA in VCF has focused on developing schemes for potato cultivation, providing quality seeds/certification and restoring the quality of agricultural land. With support from SAFIRA, CU Sawiran is developing products specifically using VCF methods (Seasonal Loans VCF) including specific COAs (Code of Account), where there are easier loan terms compared to regular seasonal loan products that already exist in terms of interest rate, and collateral requirements.

However, during field implementation various activities that have been conducted do not show the expected results in terms of the number of seed grower farmers who received VCF loan. Early results and findings from implementation have highlighted challenges to implementing VCF with CU Sawiran:

- Weather constraints: variable weather patterns made the seed grower farmers hesitate to start planting seed potatoes.
- Some farmers, particularly in Tosari and Ngadisari have a bad credit record with CU Sawiran in the past so were ineligible for VCF loans.
- Some farmers who are interested and need financing have no collateral and/or less economic assets, or collateral ownership is not clear and/or already have another loan from CU Sawiran or other financial institutions.
- Internal communication and socialisation in CU Sawiran and externally to farmers and, ISPs, and off-takers did not successfully convey the model or the rationale for implementing it effectively.
- The independence of the ISP and the off taker has not appeared because of all the market participants involved in the business model are members of CU Sawiran.
- The availability of seed G2 in the market turned out to be quite varied with a price that is much less expensive compared to certified seeds. Most farmers do not check the quality of G2 seeds and prefer a cheaper price that cannot be guaranteed in terms of results.
- The cost of investment for generating quality seeds is significant and the duration of the breeding process is long, which reduces the regularity of income for smallholders.
- Variations in the needs of the farmers for cultivation of agriculture varies between percentage needs seeds, fertilisers, pesticides and labor, so it takes a loan package with the VCF product designation is more flexible.

Taking into consideration the challenges experienced above, several meetings have taken place to change the nature of the collaboration between CU Sawiran and SAFIRA as follows:

- 1) We will expand VCF Financing for commodities other than potatoes, broadened the scope of farmers who can get access to loans from the VCF CU Sawiran.
- 2) SAFIRA will conduct a review of CU Sawiran's customised Loan products, including VCF that are able to the needs of farmers.
- 3) We will not form new VCF farmer groups, but rather optimise the farmer groups that already exist, with both members and non-members to socialize the VCF model.
- 4) We will optimise applications from farmers and field officer applications already developed by CU Sawiran an SAFIRA to function effectively in the implementation of the financing of the VCF.

Vision of change

- SAFIRA's vision of change is that, by 2018, the farmers can access credit that facilitates access to high quality seeds, other inputs, and advice on good agricultural practices so that farmers can increase their productivity.

The SAFIRA approach

To achieve this vision, SAFIRA has partnered with Credit Union Sawiran to strengthen its capacity to develop and implement value chain finance at an institutional level through the following activities:

- **CU Sawiran and SAFIRA will develop a flexible loan product and supporting tools for farmers.** The loan is provided 'in-kind', in the form of quality seeds, fertilizers, and agricultural advice.
- **CU Sawiran collaborates with other value chain actors.** SAFIRA facilitates the collaboration between the credit union, seed suppliers, and Agri-kiosks

Specifically, SAFIRA supports the credit union to:

- Develop a business model for value chain finance.
- Develop their internal capacity for loan monitoring through mobile based applications.
- Support establishment of demo-plots through collaboration with a fertilizer company.
- Provide advice on the credit union's business plan for VCF implementation.

Progress and signs of systemic change

- SAFIRA and CU Sawiran have signed the Memorandum of Understanding for the collaboration.
- CU Sawiran has adopted the proposed business model. The credit union has financed ten farmers until S2Y17 and still committed to finance a number of farmers as planned in initial MoU: 655 farmers until S2Y18.
- CU Sawiran is interested in developing further institutional capacity for value chain financing as an enabler to develop a loan products in another market segment i.e. VCF for trading segments in urban areas.

5. INSTITUTIONAL STRENGTHENING (I.S.)/ COFFEE NTT - BANK NTT

Coffee

Initially, the SAFIRA collaboration with PRISMA was to support access to finance for coffee associations and coffee farmers in NTT area. Coffee in NTT is mainly produced in Flores Island, especially Arabica. There are approximately 17,000 Ha Arabica area and 33,000 Ha Robusta cultivation area. The increase demand of coffee worldwide is a big opportunity for coffee farmers in Flores.

However, current production of good quality coffee (Grade 1 and Specialty Arabica coffee) is still low with approximately 10% of total production. Farmers currently, not only facing low productivity due to their regular coffee maintenance process but also low-price due to low quality of the coffee produced.

Most of plantation uses traditional cultivation technique instead of treating it as a coffee plantation. The trees are too high and not yielding much cherries to be picked. Another reason of the low productivity is lack of labour. Most of the farmers have 1 or more hectares coffee plantation, however the high tree and lack of labour result production loss (cannot harvest all of the plant).

There are several causes for the low quality of the coffee produced, two of them are lack of knowledge of good post-harvest processing and also limited processing unit available in the area. SAFIRA together with PRISMA links buyer/exporter/cafe (such as INDOKOM, one of exporter) and Bank NTT to Cooperatives. Cooperatives develop local coffee processing unit in each village and buyer/exporter/cafe (INDOKOM) provide standard operational procedures of producing good quality coffee to cooperatives as a procedure to be met by each of their CPUs (Central Processing Unit) in processing their cherries to parchment. This parchment will be sold by cooperative to the buyer based on agreed price. To buy cheeriest from farmers, CPUs get a bridging loan from Bank NTT through an agreement between cooperatives and INDOKOM as a

collateral. Besides having a wider access of market, farmers get an opportunity to sell the cherries higher than existing market, resulting in increasing of their income.

Institutional Strengthening

Based on SOFIA report dated May 2017, only 36% of NTT population has access to borrowing functions from financial institutions, 7% of them are served through informal lending while the remaining 57% are financially excluded. These figures demonstrate the pertinent access to finance problem in NTT.

Having the coffee financing model agreed by all the parties involved and contemplating on the broader access to finance issue mentioned above, SAFIRA moves toward a more comprehensive strategy which is providing Institutional Strengthening (“IS”) to Bank NTT for implementing VCF in several agricultural sectors. SAFIRA believes the access to finance problem is not sourced solely from the farmers side, but also resides in the Financial Institution sides (“FI”). Under IS approach, SAFIRA works focus more on the capacity building of Bank NTT to provide financing to all potential sectors in NTT to reach approximately 770,000 farmers household based on the BPS data. IS approach enables Bank NTT to work in multi-sectors with potential in NTT such as seaweed, cocoa, paddy, maize and soy bean.

Challenges and constraints

There are several challenges that currently constrain the ability of both FI and farmers in NTT as follows:

- **Limited knowledge on Good Agricultural Practices (“GAP”):** Lack of provision of GAP by private agriculture players and extension services renders farmers to cultivate their crop in traditional way. Therefore, embedded services from input providers or retailers or government extension is largely needed while in reality these things rarely or partially happened. In the case of coffee, since majority of the farmers cultivate without input hence no information on GAP is relayed to them. These render the low yield of NTT farmers and low quality of the harvest which subsequently drive the price down.
- **Limited affordable options for finance:** As mostly the farmers are smallholders in NTT area, their bankability is low due to available collateral. Several credit unions offer non-collateralised loans however it comes with high interest rate (~2% per month). Farmers in NTT are also accompanied with high uncertainty from climate changes and limited GAP knowledge that will affect their repayment ability. This then repels farmers in NTT from formal financial institution and some of them must resort to money lenders who provide loans at exorbitant rates of interest.
- **Lack of knowledge from FIs to provide financing to farmers:** FI’s understand that agriculture sector posits abundant potential but comes with high risks. Consequently, banks impose higher requirements and expensive financing methods to reach out farmers through traditional financing activities. FIs must adopt a new model of financing which will reduce the perceived and real risks of the farmers to increase the access of finance toward agriculture sector.

Vision of change

- SAFIRA’s vision of change is that, by 2018, farmers in NTT, can have increased access to finance from Bank NTT directly or indirectly through VCF model which will enable them to obtain quality inputs and embedded provision of GAP, which will lead to increase volume and quality of their production and increase their income in a sustainable manner.

The SAFIRA approach

To achieve this vision, SAFIRA has expanded the partnership with Bank NTT from coffee financing to institutional strengthening for VCF implementation. Bank NTT has welcome the agenda for IS which will be initiated with the provision of VCF training to Bank NTT. By providing IS, SAFIRA will also facilitate technical assistance on VCF to Bank NTT, brokering partnerships between Bank NTT with agriculture players, ISPs and PRISMA for potential agriculture financing. SAFIRA also emphasises to Bank NTT that the VCF model can be implemented in other sectors, improving financial inclusion in multiple areas.

Progress and signs of systemic change

The intervention with Bank NTT was initiated through supporting PRISMA's coffee intervention in NTT. The business model has been set using VCF schemes comprising farmers, association as farmers' collector and PT Indokom as buyers. In the VCF model, Bank NTT will provide bridge financing to associations so the association can provide cash payment to farmers. Bank NTT is fully committed to support this model, however in 2017 the La Nina event hampered the harvest of coffee throughout Indonesia. Therefore, associations did not require loan from Bank NTT. Despite of the issues, Bank NTT branches are still committed to supporting this model in the next harvesting season. Additionally, SAFIRA is exploring an opportunity with Bank NTT to provide pre-harvest financing to coffee farmers as they often have a cash gap period for living during December to April.

SAFIRA's new strategy focuses on institutional strengthening, building Bank NTT capacity and supporting implementation of VCF in multiple sectors. As an initial move, SAFIRA together with PRISMA introduced seaweed as a sector ripe for potential financing. The model involves seaweed farmers, farmer collectors (including Sentinel) and input suppliers through their lead farmers and PT Hydrokoloid Indonesia. Bank NTT's role is to provide financing to Sentinel's lead farmers to purchase seaweed from farmers in cash and provide loan to farmers for purchasing inputs from Sentinel. The initial meetings with Bank NTT Headquarters and Sumba branch (the location of pilot project) and MoU draft were submitted in mid November 2017 to Bank NTT, however the progress from Bank NTT has been slow and no updates since then.

As part of IS, SAFIRA has sent formal invitations in early November 2017 to conduct VCF training in Bank NTT. Initially the training was scheduled to occur in December 2017 however due to slow response from Bank NTT, the schedule was delayed probably until February 2018. Despite those issues at headquarter level, the Bank NTT branches are open to financing opportunities using the VCF model, and have suggested looking at new commodities including potato and pigs.

The projection to finance 400 farmers in S2Y17 was not achieved this semester, due to the factors above. However, it is hoped that in S1Y18 the projection of 500 farmers receiving finance can be achieved due to the approval of Sentinel's MoU. SAFIRA will revisit the cooperation with Bank NTT. A meeting to revisit the collaboration between SAFIRA and Bank NTT's management is planned to take place in early 2018. SAFIRA will elaborate VCF potential and review last year's collaboration performance during the meeting.

6. INSTITUTIONAL STRENGTHENING – KBPR ARTA KENCANA

There is a prevalent lack of access to finance in East Java. Based on SOFIA report dated May 2017, only 29% of East Java population has access to borrowing from a financial institution, 13% of the population is served through informal lending while the remaining 58% are financially excluded.

SAFIRA is providing Institutional Strengthening ('IS') to KBPR Arta Kencana ("BPR-AK") for implementing VCF in agricultural sectors. SAFIRA believes the access to finance problem is not sourced solely from the farmers side, but also resides in the Financial Institution sides ("FI"). Under an IS approach, SAFIRA focuses more on the capacity building of BPR-AK to provide financing to all potential sectors in BPR-AK's working area, which are Madiun, Ngawi, Nganjuk and Pacitan district, to reach approximately 577,000 farmer households based on BPS data. The IS approach enables BPR-AK to work in multi-sectors with potential in East Java such as paddy, shallot, maize and soy bean.

Currently, SAFIRA supports Institutional Strengthening for BPR Arta Kencana on VCF through the following activities:

- 1) Delivering capacity building on VCF to BPR Arta Kencana by holding training and providing technical assistance for their staff;
- 2) Assisting in the development of promotional strategies, activities and tools;
- 3) Providing linkages to ISP or private partners.

SAFIRA is focused on agriculture value chain financing (VCF) to improve access to finance for smallholder farmers. SAFIRA's intention is not only to support financial institutions and other value-chain actors to utilise the available information about VCF and strengthen the institutional capacity in VCF at each level but also to

strengthen the support system surrounding financial institutions through guidance and implementation assistance.

There is a large demand for agriculture finance as farmers, suppliers, processors and buyers need access to finance to operate and develop their businesses. However, on the supply side, financial institutions often struggle to contain their risks and cover costs for financing smallholder farmers, which results in a large gap in adequate financing.

Challenges and constraints

There are several challenges that currently constrain the ability of both FI and farmers in East Java as follows:

- **Lack of access to markets:** The major commodities in BPR-AK's working area are paddy, shallot and maize. All of them are dominated by big buyers who come from outside the city, especially paddy and shallot, which would absorb all the harvests. Despite the guaranteed sales of a certain production quantity, the market is thin in the buying side. This has driven prices down and caused price to fluctuate rapidly during harvesting season which affects farmers' income, especially from shallots.
- **Limited knowledge on Good Agricultural Practices ("GAP"):** Lack of provision of GAP by private agriculture players and extension services means farmers cultivate their crop in traditional way. Therefore, embedded services from input providers or retailers or government extension is largely needed while in reality these things rarely or partially occur.
- **Limited affordable options for finance:** As mostly the farmers are smallholders in East Java, their bankability is low due to lack of collateral. Several credit unions offer non-collateralised loans however it comes with a high interest rate (~1.7% per month). Farmers in East Java are also categorised as higher risk, due to limited GAP knowledge and fluctuations in prices that will affect their repayment ability. These factors mean farmers in East Java are not attractive for formal financial institutions and some of them must resort to money lenders who provide loans at exorbitant rates of interest.
- **Lack of knowledge from FI to provide financing to farmers:** FI understands that the agriculture sector posits abundant potential, but comes with high risks. Consequently, banks impose higher requirements and expensive financing to reach out farmers through traditional financing methods. FIs must adopt a new model of financing which will reduce the perceived and real risks for the farmers to increase access of finance in the agriculture sector.

Vision of change

- SAFIRA's vision of change is that, by 2018, farmers in Madiun, Ngawi, Nganjuk and Pacitan, can have increased access to finance from BPR-AK directly or indirectly through VCF model which will enable them to obtain quality inputs and embedded provision of GA and better access to market, which will lead to increase volume, quality of their production and price and finally increase their income in a sustainable manner.

The SAFIRA approach

To achieve this vision, SAFIRA has established the partnership with BPR-AK using an IS approach for VCF implementation. One of the main activities is the provision of agriculture VCF training to BPR_AK. Under IS activities, SAFIRA will also facilitate technical assistance on VCF to BPR-AK, brokering partnerships between BPR-AK and agriculture private players, ISPs and PRISMA for potential agricultural financing. SAFIRA also emphasises to BPR-AK that this VCF model can be implemented across all sectors and can enhance financial inclusion.

Progress and signs of systemic change

SAFIRA commenced IS for VCF approaches to BPR-AK in August 2017. In October 2017 SAFIRA conducted the first VCF training to BPR-AK. Since then SAFIRA has been providing technical assistance toward three of the biggest branches of BPR-AK, namely Madiun, Nganjuk and Ngawi. The planned technical assistance in 2018 will be delivered more intensively through consultants.

After assessing the market potential, we found that in each working area the commodities with the highest potential for VCF are different. Madiun and Ngawi mainly produce paddy and maize with small portions of beans (soy bean, mung bean and peanut). Nganjuk's main commodity is shallot. SAFIRA with BPR-AK has focused on VCF for commodities based on this analysis of what works where.

The intervention in Nganjuk for shallot has more clarity compared to others. SAFIRA and BPR-AK agree that shallot farmers in Nganjuk have been identified as needing access to finance due to high cost of inputs, especially for pesticides. On that basis, SAFIRA collaborates with PRISMA to introduce NuFarm, a chemical company which has specialised products for shallot treatment. The first meeting has been held where NuFarm and BPR-AK switched client bases. We have targeted creating an in-kind loan product for inputs by the May 2018 harvesting season. The Ngawi region has also found new collectors bridging the loan potential for maize.

As for paddy, SAFIRA and BPR-AK are still exploring opportunities for expanding access to finance as the sector is crowded out by the government and private players in both production and post-production, access to finance is relatively be high in this sector.

SAFIRA plans to conduct the 2nd VCF training for BPR-AK in January 2018. This will be accompanied by technical assistance to ensure effective implementation of the VCF product, especially for shallots in May 2018. The outreach figures estimated by S2Y18 is 534 farmers, through as in-kind loan shallot products and is estimated to be launched by May 2018.

SAFIRA sees that there is a high potential for BPR-AK to adopt VCF at an institutional level, as they are now considering the idea of the shallot in-kind loan for inputs and bridging loans for maize collectors. It is expected that BPR-AK will apply the VCF to another commodity financed by them.

7. INSTITUTIONAL STRENGTHENING – BANK BNI

PRISMA's interventions in maize sector in East Java, especially in Sumenep District focus on promoting maize hybrid seeds through Private Public Coordination (PPC). One of market actors involved in this intervention is Bank BNI, who provide loans to maize farmers.

Bank BNI is one of the three largest Government Banks in Indonesia, and has a service network spread across Indonesia through 1,763 domestic branches. BNI provides its services mostly to corporate clients, where corporate customers contribute significantly to BNI's portfolio. However, in line with the Indonesian government's program to provide adequate financial services for micro-scale enterprises, BNI began to establish micro businesses as one of their target clients. One of the efforts made by BNI in providing services to micro-enterprises is through the channeling of credit programs initiated by the government i.e. Kredit Usaha Rakyat Mikro or KUR Mikro.

Distribution of KUR is one area where BNI supports micro and small business. BNI also provides education and assistance to MSMEs to improve their ability to develop their business and improve their welfare. To continue developing KUR, BNI has done the following things:

- Conduct KUR distribution through cooperation pattern of BUMN / Institution synergy.
- Optimise outlets by authorising 314 sub-branches.
- Optimise linkage programs especially to rural banks.
- Utilising channels include Agent46 and e-commerce.

Currently, BNI is working to expand its agricultural financing services and the allocation of KUR micro which has not yet been allocated. BNI's management team considers Value Chain Financing to be a potential method for improving KUR Micro. Some potential sectors are maize, rice, soybean, and other commodities that can be targeted through Value Chain Financing.

Challenges and constraints

- Currently in financing operations, BNI uses the Supply Chain Financing approach. Through this approach, BNI finances a large-scale corporation and proceeds to finance all the actors involved in the company's supply chain, starting from producers, retailers to buyers of the supply chain. By using this approach, BNI can provide financing for all actors involved in the supply chain. However, the key success for BNI

to enter to the supply chain financing is the willingness of the large-scale corporation to open opportunities for financing companies both upstream and downstream from the business.

- Farmers in East Java tend to use working capital from the previous harvest or are able to access low-interest or no-interest loans from collectors. Given the high constant demand for agriculture products from agroindustry, collectors have incentives to encourage agriculture production, particularly during the low season. By providing input credit, collectors are able to secure greater volumes of agricultural product. In East Java, small-scale subsistence agriculture product farming requires minimal investments and a low input-low output production system. This, however, also means that households are not accumulating sufficient capital from traditional agriculture product farming to engage in more capital-intensive activities such as high-quality agriculture product farming. Some of the farmers who are now growing high quality agriculture products were initially introduced to these varieties through the government's project to promote higher quality agriculture products. These farmers have used the higher incomes that they generated during the project to continue growing high quality agriculture product without government support.

Vision of change

SAFIRA's vision of change is that, by 2018, BNI can implement VCF in the agriculture sector, also farmers in East Java have ability to plant high quality agriculture product according to good agriculture practices and have access to the capital offered by banking institutions, so farmers able to obtain greater harvest volume and increased income.

The SAFIRA Approach

To achieve this vision, SAFIRA has partnered with Bank BNI to develop agricultural value chain financing, as follows:

- 1) SAFIRA supports BNI to increase their capacity to provide agricultural lending through Value Chain Financing.
- 2) SAFIRA provides technical assistance for BNI to develop and implement VCF in their operations.
- 3) SAFIRA supports BNI linking with market actors in specific agricultural products.
- 4) SAFIRA provides assistance to BNI in piloting the VCF approach for specific agricultural products.

Specifically, SAFIRA will support BNI to:

- Conduct VCF training and provide the VCF toolkit.
- Assist BNI to develop loan scheme and loan disbursement mechanism.
- Develop standard operating procedures (SOP) for VCF loan disbursement.
- Facilitate linkages to BNI with off-takers.
- Develop repayment schemes for the off-taking process through Farmer Groups.
- Assist BNI to develop tripartite agreements between off-takers, farmer groups and BNI.

Progress and signs of systemic change

SAFIRA and BNI have developed a Memorandum of Understanding for the collaboration and will sign in early 2018. Since November 2017, BNI has already implemented the business model through SOPs, providing loans to maize farmers. Until mid December 2017, approximately 3,100 maize farmers received loans from BNI. In 2018, BNI has plans to further develop institutional capacity for value chain financing as an enabler to provide financing for the agriculture sector in maize, but also in rice, soybean, and other commodities that can be helped through Value Chain Financing in East Java.

8. INSTITUTIONAL STRENGTHENING FOR BPR CENTRAL PITOBY

BPR Central Pitoby is a rural bank in Kupang, East Nusa Tenggara. The number of their borrowers currently amounts to approximately 300 to 400 customers, with 80% of the loan portfolio being SMEs in and around the Kupang area dealing in general trading business. BPR Central Pitoby has experience of agricultural financing using conventional methods in the past. It did not lead to encouraging results as many farmers defaulted on

the loan. BPR Central Pitoby cited that lack of supervision and mentoring in cultivation practices and weakness in the financing model to be the leading cause of high default rate among farmers.

Refusing to give up on their previous experience, BPR Central Pitoby now wishes to find an alternative financing scheme that can open avenues for relatively secure investments for the bank and a more accessible source of capital for agriculture value chain actors. In addition to that BPR Central Pitoby aims to outpace competitors in Kupang area in agricultural financing.

The pilot commodity of this intervention will be vegetables and it will be a collaboration between SAFIRA & PRISMA by linking together BPR Central Pitoby with EWINDO, which is PRISMA's partner whose business is in vegetables seeds production.

Challenges and constraints

- BPR Central Pitoby has limited know-how and capacity to assess the market potential for agricultural lending, and low knowledge of appropriate methods of agriculture financing, but high enthusiasm to do so.
- BPR Central Pitoby has limited linkages to agricultural value chain actors to develop a collaborative scheme.
- Agriculture, specifically, shallholder farmers, is a sector that is relatively untapped by financial institutions in East Nusa Tenggara. The problem is still prevalent even in agriculture regions surrounding the capital city.

Vision of change

SAFIRA's vision of change is that, by 2018, BPR Central Pitoby will be able to deploy agricultural financing through VCF scheme to SMEs and farmers across potential commodities in areas surrounding Kupang. Farmers in and around the Kupang area are also expected to have better access to financial products which can help to boost agricultural production through purchase & use of good quality inputs, increasing their income.

The SAFIRA Approach

To achieve this vision, SAFIRA is committed to support the bank's institutional capacity to implement VCF, with activities as follows:

1. Capacity building on VCF through training and technical assistance on VCF
2. Provide linkage to ISPs, third-party agricultural buyer or agricultural input company, and other possible actors which can potentially enhance the business model
3. Assist BPR Central Pitoby's product promotion

Specifically, SAFIRA will support BPR Central Pitoby to:

- Hold training & technical assistance for BPR Central Pitoby's staff.
- Conduct agricultural market assessments and develop the VCF business model.
- Facilitate stakeholder meetings between various agricultural value chain actors and BPR Central Pitoby.
- Hold promotional events either independently or jointly with other market actors.

Progress and signs of systemic change

There is not yet any sign of systemic change as the intervention is still in the early stage of development. SAFIRA has signed Memorandum of Understanding with BPR Central Pitoby on October 2017 and conducted its first activity, VCF Training for BPR Central Pitoby, in December 2017. The training was well received by the director of BPR Central Pitoby and its staff. Moving forward, SAFIRA will provide technical assistance through selected consultants for BPR Central Pitoby to develop a VCF business models and link the bank to more agricultural value chain actors operating in Kupang area.

9. INSTITUTIONAL STRENGTHENING FOR TANA OBA LAIS MANEKAT

Tanaoba Lais Manekat (TLM) is a financial group in East Nusa Tenggara (NTT) consisting of TLM Foundation, TLM Rural Bank (BPR), TLM Loan and Saving Cooperative, and TLM Business Cooperative. TLM is known as an institution that has a strong commitment to empowering grassroots communities through its foundation and empowering women through its TLM Loan & Saving Cooperative (KSP TLM), which has offices spread across NTT. KSP TLM has members/ borrowers that are all women as it is a financial service body with women's group financing at its core. Women from villages are put into several groups, and then each member of the group receives a loan. The group serves as a form of social control and joint responsibility among the members because if one of the group members fails to repay the loan, every other member of the group has to take joint responsibility to cover up the outstanding debt. Through this scheme, KSP TLM manages to capitalise on existing social fabric within the rural women community to mitigate default risks. As a result of this scheme, non-performing loans have been very low in KSP TLM.

Yet agriculture has never been a primary focus of TLM in its business. None of the financial products from any entities are specifically directed or intended to agriculture sector. Although recently, BPR TLM has initiated a collaboration of shallot farmers financing in Kupang district with EWINDO, however the number of borrowers is still small and there is still much room for improvement in the model.

Realising that there is huge potential for women's economic empowerment, SAFIRA intends to enhance the already existing women's group financing model in KSP TLM and farmers financing in BPR TLM through application of agricultural value chain financing.

The pilot commodity of this intervention will be vegetables and it will be a collaboration between SAFIRA & PRISMA linking together TLM with EWINDO, which is PRISMA's partner whose business is in vegetables seeds production.

Challenges and constraints

- TLM has limited know-how and capacity to assess agricultural market potential in areas surrounding KSP TLM's branch offices, and low understanding of appropriate methods of agriculture financing, but high enthusiasm to do so.
- TLM needs advice on modifying or adjusting the current product or financing model (especially women group financing) to be attractive for smallholder farmers and agricultural players.
- TLM has limited linkages to off-takers and other actors in the value chain to be able to secure a closed-loop financial scheme.
- Agriculture and smallholder farmers are a segment that is relatively untapped by financial institutions in East Nusa Tenggara generally. The problem is most prevalent in Flores & Sumba Island as many farmers still resort to informal sources of finance to support farming activities.

Vision of change

SAFIRA's vision of change is that, by 2018, TLM will be able to deploy agricultural financing through VCF schemes to farmers across several potential commodities in NTT. Farmers in several districts of NTT are also expected to have better access to financial products which can help to boost agricultural production through purchase & usage of good quality inputs, therefore increasing income.

The SAFIRA Approach

To achieve this vision, SAFIRA is committed to support the TLM's institutional capacity to implement VCF, with activities as follows:

1. Capacity building on VCF through training and technical assistance on VCF.
2. Provide linkages to ISPs, third-party agricultural buyers or agricultural input companies, and other possible actors which can potentially enhance or benefit from the business model.
3. Assist TLM's product promotional activities.

Specifically, SAFIRA will support TLM to:

- Hold training & technical assistance for TLM's staff.
- Conduct agriculture market assessments and develop a VCF business model.
- Support TLM in modifying the current financing scheme to fit the agricultural market.
- Hold promotional events either independently or jointly with other market actors.

Progress and signs of systemic change

There is not yet any signs of systemic change as the intervention is still in the early stage of development. SAFIRA has signed a Memorandum of Understanding with TLM on August 2017. Due to TLM's focus on internal organisational restructuring, communication between SAFIRA & TLM remained dormant for the most part of 2017. Nevertheless, TLM & SAFIRA are currently planning to conduct the first activity, which is VCF Training for TLM in March 2017. In the meantime, SAFIRA will also conduct market assessments with PRISMA to determine commodity potential around KSP TLM's branch offices and conduct needs assessments on several KSP TLM's branch offices with high potential for agriculture lending.

DRAFT

PRISMA

1. BEEF

Beef Sector Summary

Indonesia is the largest beef producer in Southeast Asia. Nevertheless, the country is experiencing a shortfall in production as domestic consumption outstrips supply hence, there is still dependency on imports to fulfil national demand. But since 2010, the government has been tightening import quotas with the aim of creating 90% self-sufficiency in beef. These two factors have significantly increased the demand for locally sourced beef. In 2016, the government lifted the import quota for beef and live cattle but imposes new requirement for importers to import one breeding cattle for every five feeder cattle. The import of beef and live cattle remains a contentious political issue, but national policy is to increase beef and cattle productivity in Indonesia to reduce beef prices.

Quick facts:



Total production
531,756 Tons



Total population
16.6 million



Consumption
0.42kg/head



Female participation*
38%



Demand
3.21% (increase)

*from AIP-Rural intervention areas



East Java

- ✓ Total production : 103,625
- ✓ Total population : 3.5 million
- ✓ Total farm HHs : 1,908,037

Indicator	Total
Outreach Last Semester	5,031 HHs
Cumulative Outreach Up to Dec 2017	6,240 HHs
Total Outreach Projection to Dec 2018	15,396 HHs
NAIC Actual Cumulative Dec 2017	IDR 103,068,093,702
Total Projected NAIC to Dec 2018	IDR 163,958,083,141



NTB

- ✓ Total production : 10,444
- ✓ Total population : 643,576
- ✓ Total farm HHs : 192,304

Indicator	Total
Outreach Last Semester	586 HHs
Cumulative Outreach Up to Dec 2017	657 HHs
Total Outreach Projection to Dec 2018	1161 HHs
NAIC Actual Cumulative Dec 2017	IDR 4,678,089,946
Total Projected NAIC to Dec 2018	IDR 4,678,089,946



NTT

- ✓ Total production : 12,718
- ✓ Total population : 984,508
- ✓ Total farm HHs : 207,539

Indicator	Total
Outreach Last Semester	-
Cumulative Outreach Up to Dec 2017	65 HHs
Total Outreach Projection to Dec 2018	441 HHs
NAIC Actual Cumulative Dec 2017	IDR 212,240,015
Total Projected NAIC to Dec 2018	IDR 591,860,143



Beef OVERALL

Indicator	Total
Outreach Last Semester	5,617 HHs
Cumulative Outreach Up to Dec 2017	6,962 HHs
Total Outreach Projection to Dec 2018	16,998 HHs
NAIC Actual Cumulative Dec 2017	IDR 107,958,423,663
Total Projected NAIC to Dec 2018	IDR 169,228,033,230

Value For Money (VFM)	Beef Overall
Investment Leverage:	75.93%
Investment Per HH:	\$66.66 AUD
Social Return:	23.50

Subsector Profiles

1.1 Beef East Java

East Java is Indonesia's biggest cattle producing province accounting for 19% of national beef production and 28% of the national beef cattle population. It is also the largest exporter of live cattle between provinces. Local consumption is also a significant driver of East Java's cattle and beef sector. Most farmers in East Java raise cattle as a family asset and a source of ready cash. They do not see cattle rearing as a business or livelihood, and do not usually make conscious decisions to participate in national cattle and beef production.

This approach to raising cattle, coupled with a lack of supplementary feedstock and limited awareness on the benefit of supplementary feeding results in low productivity of cattle in East Java, particularly during the dry season (May to November) when farmers that mostly depend on grass as fodder experience a shortage in supply. Farmers generally experience a fattening period of 11 to 12 months, but this fattening period can be halved with the use of concentrate or supplementary feed. Low cattle productivity is also due to inferior breeding practices using natural mating which contribute to poor genetics of calves and low conception rate. The provision of artificial insemination services by government agents has been largely ineffective.

Challenges and constraints

There are two main reasons for the low income of East Java's cattle farmers:

- **Inability to increase production.** Inefficient artificial insemination (AI) practices are a result of farmers having a) a lack of information on proper AI practices and b) a lack of access to timely AI services; and
- **Low productivity.** Slow weight gain in calves and cattle is due to farmers lacking awareness of and access to quality and quantity of feed and proper feed practices that are needed to accelerate cattle weight gain.

Intervention areas

To address the challenges above, PRISMA collaborates with partners to:

- In partnership with the feed companies, promote commercially available, appropriate and affordable feed and GRPs for cattle fattening to boost cattle weight gain and raise awareness among farmers of the benefits of investing in cattle feed products.
- Promote professional AI services, which should include information about good AI practices. The aim is to increase the supply of good quality calves through achieving higher AI success rate.
- Promote appropriate financial products for cattle fattening. The aim is to provide farmers, especially poor farmers, with the financial means to enter into the cattle fattening business. PRISMA will work with SAFIRA on this.
- Promoting the use of commercial feed as, with around 4 months of fattening period, this provides a quick win for the farmers. The area of focus for the interventions is the Tuban District, which has the second largest cattle population in East Java, and its proximity to Surabaya, the second largest city in Indonesia, makes Tuban a very strategic cattle producer.

Progress and signs of systemic change

In the second semester of 2017, the following activities and progress towards systemic change were observed:

Adopt

- PKM conducted demo events in Tejo village, Kanor sub-district, Bojonegoro after which the BUMDES registered as an agent for PKM's feed in Bojonegoro.

Adapt

- Several beef EJ partners have expanded into new areas (districts) as they try to capture more of the vast cattle market in EJ.

- PKM has started selling concentrate feed to farmers in neighboring areas (6 villages in Ring 1 Holcim (3 sub districts in Tuban), and are now expanding in other sub-districts in Tuban, Lamongan and Bojonegoro district.
- Beef concentrate feed sales are starting to take off in EJ, more partners are showing interest both in the cattle feed market and in pharmaceuticals market. Malindo for instance is currently in the process of applying for a license to produce and sell cattle feed and are doing so after being convinced of the market opportunity by PRISMA.
- PKM has developed a new feed packaging design and plans to produce smaller packages of feed. They have also filmed the intervention activities and plan to use this video footage as a learning tool and promotional material.
- Nutrifeed participated in the Situbondo district Livestock Expo where they promoted their concentrate feed product. They were also invited by the Malang government to promote their products at the Malang City Expo, where they used the cattle contest during the expo as a platform to promote its product. Nutrifeed is now working with LIPI (Lembaga Ilmu Pengetahuan Indonesia) to produce probiotic and premix for its feed.
- Japfa has hired four Vet Assistants that were trained and commissioned in November 2017.

Expand

- There is evidence of other local concentrate feed producers entering the cattle market and starting to sell feed in our pilot intervention area (Tuban).
- Nutrifeed is now interested in selling their cattle concentrate feed to NTB and is in discussions with PRISMA to be a possible partner of the beef intervention there. They have also invested in a new factory in West Java as they feel confident in the prospects for the beef feed market there.
- Japfa Comfeed signed an MOU with PRISMA to cover collaboration throughout several Eastern Indonesia provinces including: EJ, NTB, NTT, Kalimantan, Bali, North Sulawesi, Papua, Ambon and Maluku. The change is made for flexibility, in case PRISMA wants to engage Japfa in small activities for Beef NTB or Beef NTT.

Respond

- The Livestock Dept. of Tuban district ordered 30 MT concentrate feed from PKM to be supplied to goat farmers in Tuban.
- Nutrifeed is starting to develop concentrate feed for goat as they now have an understanding of the market for concentrate feed which can be replicated for other livestock.

1.2 Beef NTB

NTB plays an important role for Indonesia's beef production by providing live cattle and supplying breeder animals for other provinces. Rearing practices in Lombok Island often involves an enclosed system; cattle rearing practices here are more intense than elsewhere. Two different cattle rearing techniques are observed in NTB, with a spatial pattern to each. Farmers in the Sumbawa area raise cattle following the ranch system – an extensive farming practice relying on pastures and open water sources. In Lombok on the other hand, an enclosed system is the most common; here, cattle rearing practices are intense. The enclosed system is more investment intensive and allows greater control over breeder selection, feed management and disease control. PRISMA has chosen to work with cattle farmers in NTB because of (1) the potential to achieve change on a large scale, and (2) the province will be able to fill the national demand gap currently being supplied by imports.

Challenges and constraints

The main reason for the low income of NTB's cattle farmers is the low weight of their cattle, which results in it fetching a low price. There are two main reasons for the low cattle weight in NTB:

- **Limited availability of good quality calves, particularly among ranch beef cattle in Sumbawa Island.** For cattle reared in a ranch, calves are of low quality, largely as a result of inbreeding due to the farmer's limited knowledge of animal and breeding management. Even in an enclosed system, production of calves has not been optimal because farmers have (a) inadequate knowledge of the proper timing of artificial insemination (AI) and (b) limited access to effective and quality AI service.
- **Poor nutritional intake for the cattle.** Good quality fodder is lacking during the dry season, as farmers depend on natural production and do not have knowledge of quality fodder production or understand the need for fodder cultivation. There is a lack of water resources for cattle due to poor water infrastructure. In addition, there is low use of supplementary feed because farmers are unaware of its benefits. They do not know how to produce nutritious feed, and ready-to-use feed is unavailable.

Intervention areas

To address the challenges above, PRISMA collaborates with the private sector to:

- Enable public extension service providers and breeding companies / bull owners to support the development of improved ranch management services;
- Encourage feed companies to promote commercial nutritious feed application and production; and
- Enable breeding inputs companies to support the government programs to solve the bottleneck for efficient service delivery of AI (e.g. nitrogen supply).

Progress and signs of systemic change

PRISMA has devised a length to weight conversion table which was shared with feed partners, agents and at collective pens, farmers are now familiarised with the concept of estimating weight by measuring the length and girth of the animal. We expect that this conversion table will help farmers estimate the right feed intake for their cattle and redress the information imbalance that exists between farmers and cattle traders. Progress in the last semester:

Adapt

- UD Imama has spent over IDR 100,000,000 purchasing new machinery (hammer mill, mixer, sewing machine and printing tools) and renovating their warehouse. The company also engaged two feed distributors and expanded sales area to Bima and East Lombok.
- UD Sinar Rejeki similarly has invested more than IDR 55,000,000 on a new hammer mill and improving their warehouse.
- Both PSPs above were granted licenses to produce and sell concentrate feed in October.

Expand

- A coordination meeting with Livestock Department of Central Lombok, West Lombok and Bima districts was held. The Livestock Department of each district agreed to share information about cattle feed and medicine to farmers, this will greatly support the intervention.
- Staff of the Livestock Department of Central Lombok District visited UD Sinar Rejeki to get insights from a local producer who can actually produce concentrate for cattle. Based on the discussion, there is a possibility that the government will buy concentrate feed from UD Sinar Rejeki for its subsidy program next year.
- BPMDES (Badan Pemberdayaan Masyarakat Desa/Village Empowerment Body) invited LP2DER to present about the beef NTB intervention. As a result BPMD agreed to promote concentrate feed for cattle to BUMDES (Village Owned Enterprise) and village officials. One of these BUMDES has agreed to become a feed distributor in Bima and ordered 1 ton of Bilo feed from UD Imama feed.

1.3 Beef NTT

NTT has one of the largest numbers of beef cattle in Indonesia (over 900,000 - the 6th largest nationally) and exports at least 65,000 live cattle to other islands in the archipelago, particularly to Java and Kalimantan. Of

its one and quarter million farmers, 16 percent are cattle farmers and are poor or near poor, typically raising livestock as a source of family income and selling their cattle before they reach their optimum weight. The utilisation of cattle ferry ("tol laut") from Kupang directly to Jakarta with the capacity to bring 500 heads per trip began in 2017 and will help to reduce previous losses from the transportation costs borne by the traders. Consequently, the traders are able to offer higher cattle price which benefits the farmers.

Challenges and constraints

The major reasons for the low income of NTT's cattle farmers are:

- **Inability to increase production of calves because of long inter-calving intervals and high rates of calf mortality.** These are due to farmers lacking access to feed, water, and good rearing practices to reduce mortality among calves; low awareness of the benefits of quality feed and water; and minimal access to services and information on proper breeding (including on the management and selection of prime bulls and female breeders)
- **Low productivity because of slow weight gain in cattle.** These are due low farmer access to nutritious feed, water, and good practices to accelerate weight gain and farmers having low awareness of the benefits of appropriate quantity and quality feed and water for cattle productivity.

Intervention areas

PRISMA's interventions aim to ensure beef cattle farmers in NTT will have increased production and productivity. At the service level, it is envisaged that farmers will have improved access to: (1) feed, (2) water, (3) breeding information and prime bull rental services, and (4) information services. To address the challenges above:

- Introduce affordable nutritious feed for calves and cattle to cattle feed companies. This can partly be achieved by establishing linkages with fattening companies and feed companies.
- Introduce prime bull rental and breeding information services to cattle breeding companies
- Promote sustainable water services for cattle farming to water or irrigation companies, fattening companies and local government.

Progress and signs of systemic change

The following progress was achieved in the last semester:

Adapt

- PUSKUD conducted a roadshow to other districts in Timor Island to introduce their program to other stakeholders.
- The Government of Kupang district plans to purchase Lamtoro Tarramba seeds from PUSKUD to be supplied to farmers' groups in several villages/areas in NTT. This aims to contribute to increasing the success rate of the Lamtoro Tarramba program as it will attract other farmers in surrounding areas.
- PUSKUD sealed this collaboration partnership with Kupang District to promote Lamtoro Tarramba as nutritious forage and will start with 12 farmers groups with 10,500 seedlings will be distributed. They plan to expand the existing model by growing their membership in TTS, TTU and Belu districts of Timor. PUSKUD's plan is to find and assess more farmer groups that are interested in contract farming.
- Pharmaceutical companies are also showing increasing interest in the NTT livestock market. So far 3 companies - Medion, Sanbe and SCI, have approached PRISMA to discuss the market.
- PUSKUD now plans to sell drugs for cattle and pigs and has signed a deal with Sanbe and Medion to this effect. PUSKUD registered as a Sanbe distributor.

Respond

- In response to the growth of the pig feed market, PUSKUD has also started collaborating with KSP (*Koperasi Simpan Pinjam* - Saving and Loan Cooperatives) in Malaka and Kefa to sell pig feed.

- PUSKUD is also currently assessing the possibility to produce concentrate feed using lamtoro as the main ingredients so farmers can improve their cattle ADG further.

2. CASHEW

Cashew Sector Summary

Indonesia is the 8th largest producer of cashew in the world, contributing 3.5% of the world's raw cashew nut (RCN) market in 2015. Global demand for cashew has increased by 53% since 2010, with half of consumption accounted for by India and the US. Since 2009, production of RCN in Indonesia has been decreasing however – the cultivated area has declined from 572,870 ha in 2009 to 513,348 Ha in 2016, during the same period production decreased from 147 thousand MT, to 130 thousand MT. Several opportunities exist to improve farming practices, access to market information and financial literacy to address underlying reasons for this decline in production, allowing Indonesian farmers to be more competitive and benefit from the global boom in demand.

Quick facts:



Total production
130,072 MT



Total harvested area
513,348 Ha



Productivity
414kg/Ha

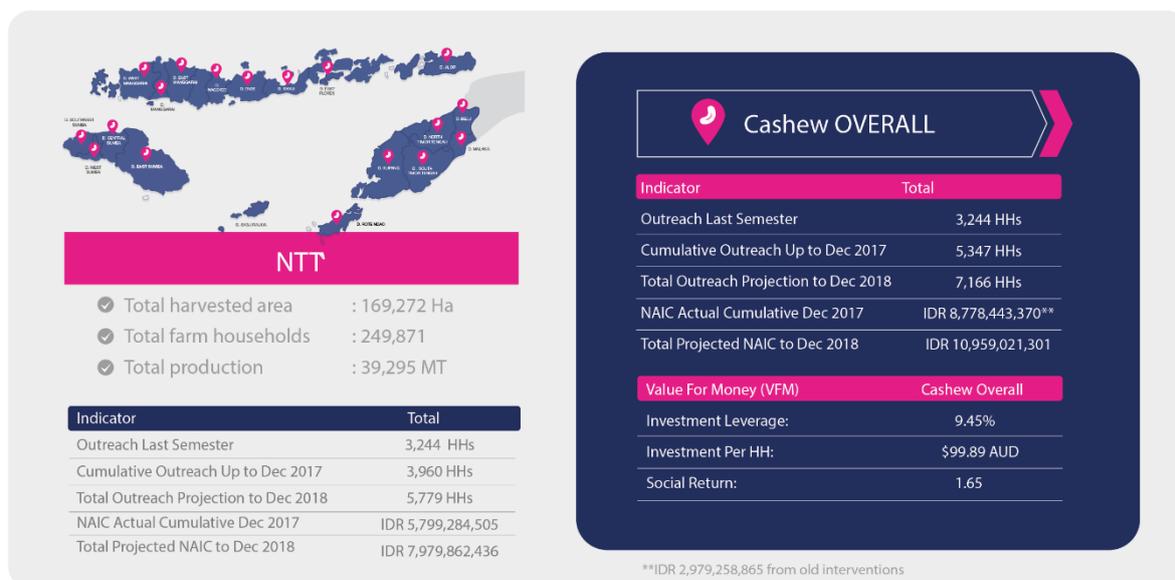


Female participation*
53%



Demand
10% (increase)

*from AIP-Rural intervention areas



Subsector Profiles

2.1 Cashew NTT

Despite an overall decline in the national yield, in NTT cashew production has remained relatively stable; the area under production has increased slightly over the years, the largest plantation and the highest production of cashew in Indonesia is in NTT. Around 99% of raw cashew nuts (RCN) produced in NTT is exported to other islands and countries, and the rest is processed locally to make kernel. Cashew is one of NTT's major commodities. With comparatively sparse rainfall and a long dry season, NTT is one of Indonesia's most suitable cashew production zones. Around 250,000 farming households, spread across all districts of NTT produce RCN.

Challenges and constraints

Productivity of cashew in NTT is low and in decline. The two major reasons for this are pest and disease (mainly in Sumba) and the relatively old age of the trees (especially in Flores). The specific problems and their underlying causes are summarised below:

- **Plantations typically use cashew trees that are almost 30 years old** and thus less productive. Farmers do not have access to rejuvenation and grafting techniques, and seedlings.
- **Lack of proper agriculture practices** leading to infection by pests and disease. Little or no fertiliser or pesticide is applied, and pruning and sanitation are rarely carried out. The main underlying cause for this is that no one appears to have an interest in offering these information services.
- **Farmers lack knowledge of better farming practices**, are not business and financially literate, and cannot access market information.
- **Cashew processing and value addition (kernel) is extremely limited.** Only a few women farmers produce kernel with heavy support from the government with few market linkages.
- **Farmers rely on the price set by the traders and have little bargaining power.** Traders appear to offer a slightly higher price when cashews are aggregated but generally farmers sell their harvest individually. Farmers' associations and cooperatives do not provide aggregation services for cashew farmers. Another reason for the relatively lower price are the high costs of transportation
- **Government extension services have little interest in cashew and insufficient knowledge about cashew production practices.** With limited resources, they prioritise other major crops; an exception is the occasional free distribution of seedlings to cashew farms.
- **Input suppliers and financial institutions (FI) do not target cashew farmers as their clients.** They lack awareness of the market's potential and have limited capacity to expand their business in the cashew sub-sector in NTT.

Intervention areas

PRISMA works with partners to address the constraints above by:

- Supporting the development of input supply services that provide embedded services (plant protection services, better farming practices).
- Supporting the supply and promotion of grafting services that have embedded services (grafting technology, total plantation management).
- Support financial institutions and cooperatives to design and promote loan products with embedded services (business analysis and financial literacy) for cashew farmers in NTT.
- Assist traders, inter-island traders, national buyers and financial institutions in the development of local kernel processing units at the farm level.

Progress and signs of systemic change

The following progress was achieved in the last semester:

Adopt

- CV Peduli Kasih has engaged more ISPs and government extension services to provide crop protection services for cashew nut cultivation, targeting new farmer clusters.
- The governments of East Sumba and South West Sumba have endorsed the training and demonstration plots instigated by CV Peduli Kasih, by issuing a recommendation letter to government extension staff to disseminate information about pruning and space thinning to cashew farmers in the regions. The government of East Sumba has taken a further step by conducting training of trainers for extension service agents, facilitating replication of best practice of CV Peduli Kasih.
- The intervention attracted interest in the tools provided by CV Peduli Kasih of West Manggarai's Department of Agriculture which has procured pruning tools to be distributed to cocoa farmers.
- PT Nufarm Indonesia, CV Peduli Kasih's products principal, took an active role in supporting CV Peduli Kasih's new business model in Sumba, by supporting the training of trainers activity and cashew demo plot establishment. As a result of the intervention, Nufarm has now recognised cashew farmers in Sumba as a target market.

Adapt

- PT Novelvar took a proactive role and provided product samples to ISPs to enable them to develop their own demo plots. The company also formulated market penetration strategies by creating promotional materials and knowledge dissemination. It has now registered itself as a TASCO distributor to provide ISPs and farmers with direct access to affordable spraying tools.
- As issues at the farmer and ISP levels intertwine with lack of capital and limited access to financial institutions, Novelvar has partnered with several institutions (e.g. TaniFund) to provide better access to finance for farmers.

Expand

- PT Novelvar has targeted the three major islands of NTT and included crops other than cashew (paddy, vegetable, cocoa, coffee and maize). It has also expanded outside NTT to North Sumatera, mainly targeting rice farmers through the ISPs that PRISMA identified.

Respond

- Influenced by the positive impact of Novelvar products on crop productivity, East Sumba's Department of Agriculture and the area's village governments purchased them for distribution to rice and cashew farmers.
- More institutions and individuals have expressed an interest in signing up as Novelvar ISPs, including CU Swastisari (in South West Sumba) and UD Nuasara (in Nagekeo, Ngada and Ende).

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3. CACAO

Cacao Sector Summary

Demand for cocoa is rising globally. Indonesia being the 3rd largest Cocoa producing country can benefit from this unmet demand, with relatively young plantation in certain parts, however the overall production in Indonesia has decreased. South Sulawesi (70- 80 %) is the major cocoa producing region in Indonesia, with production reaching almost saturation. Moreover, Papua has a strong potential to emerge as a strong supplier (young trees and scope for area expansion) from its current position (1.4% of total national production). Unfortunately, there are still many local farmers who don't have enough input for farming. Local farmers adoption level is still low and they still need full assistances. PRISMA works to enable farmers in gaining sustainable access to knowledge and information on appropriate farm management and cultivation practices for cocoa production.

Quick facts:



Total production
5,018 MT



Total harvested area
23,035Ha



Productivity
0.2 MT/Ha



Female participation*
35%



Average productive land
1,2 Ha/ HH

*from AIP-Rural intervention areas



Jayapura District - Papua

- ✓ Total harvested area : 14,627 Ha
- ✓ Total farm households : 14,327
- ✓ Total production : 3,678 MT

Indicator	Total
Outreach Last Semester	298 HHs**
Cumulative Outreach Up to Dec 2017	298 HHs**
Total Outreach Projection to Dec 2018	798 HHs**
NAIC Actual Cumulative Dec 2017	IDR 255,876,806**
Total Projected NAIC to Dec 2018	IDR 900,980,006**



Keerom District - Papua

- ✓ Total harvested area : 143,117 Ha
- ✓ Total farm Households : 147,632
- ✓ Total production : 959.973 Ton

Indicator	Total
Outreach Last Semester	298 HHs**
Cumulative Outreach Up to Dec 2017	298 HHs**
Total Outreach Projection to Dec 2018	798 HHs**
NAIC Actual Cumulative Dec 2017	IDR 255,876,806**
Total Projected NAIC to Dec 2018	IDR 900,980,006**

** Total Jayapura District and Keerom District



Cacao OVERALL

Indicator	Total
Outreach Last Semester	298 HHs
Cumulative Outreach Up to Dec 2017	298 HHs
Total Outreach Projection to Dec 2018	798 HHs
NAIC Actual Cumulative Dec 2017	IDR 255,876, 806
Total Projected NAIC to Dec 2018	IDR 900, 980, 006

Value For Money (VFM)	Cacao Overall
Investment leverage:	3.19%
Investment per HH:	\$ 663.48 AUD
Social return:	0.13

Subsector Profiles

3.1 Cacao Papua

In Papua, cocoa is an important cash crop, however the province contributes to only 1.47% to total national production. Jayapura and Keerom are Papua's major cocoa producing districts, with 74% of the province's total cocoa farmers. Most of the cocoa farmers in Papua are subsistence farmers, and women are involved in almost all of the tasks in the production cycle. There is currently very little reinvestment in the commercialisation of cocoa farming to use fertiliser and quality seedlings; productivity is less than 200 kg per ha compared to the national average of 800-900 kg per ha. A few large local traders dominate the market. In the recent past Mondelez, in collaboration with Armajaro, introduced a 'cocoa doctor' concept where interested parties (collectors or others) were trained to provide technical services to farmers. This input was however temporary and currently none of the big processors have a direct involvement in Papua.

Challenges and constraints

The challenges that the cocoa farmers in Papua face are:

Low Productivity and Low Production. The underlying causes of this are:

- **Farmers do not apply Good Agricultural Practices.** Cocoa trees are starved of proper nutrients and frequently infested with pest and disease, caused mainly by inappropriate farm maintenance practices. Farmers tend to have little knowledge on how to grow cocoa better.
- **Cocoa plants are old, low density, and unproductive.** The average of age of cocoa trees in Papua are more than 10 years.
- **Input markets and information channels related to cultivation techniques are largely dominated by public agencies;** farmers' incentives are driven by subsidies.
- **Absence of strong traders and a direct procurement channel** of the large processing companies. This has further weakened incentives and ability to invest in more intense cocoa farming.

Low Selling Price. The underlying causes of this are:

- **Farmers prefer to sell cocoa wet beans than dry beans.** Many Farmers sold their cocoa in the form of fresh cocoa beans without drying (drying time varied between 2-3 days).
- **Farmers sell wet cocoa beans to collectors who can pay quick cash even with lower prices.** Farmers are constantly in need for quick cash, but the traders who are willing to pay higher price does not come frequently to the villages.

Intervention areas

To achieve this, PRISMA is considering collaborating with public and private sector partners to implement the following interventions:

- Support revitalisation of the existing and development of new ISPs (in this case, the cocoa collectors at a village level) by cocoa traders to increase productivity of cocoa farmers through promoting Good Agricultural Practices and Side Grafting.
- Promote fertiliser alongside information on better cultivation practices.
- Support the promotion of the use of good quality seedlings.
- Support the piloting of existing financing modalities into cocoa sectors in the district of Jayapura and Keerom.
- Support financial institutions and provincial government to develop appropriate risk sharing and financing products targeting cocoa farmers.
- Facilitate modification of government seed certification process to include and promote locally suitable varieties among nursery owners.

Progress and signs of systemic change

The following progress was achieved in the last semester:

Adopt

- The partner company (Ecom) has begun activities in the proposed sub-districts and villages which were not targeted previously.
- Ecom has hired additional extension service workers to support their activity in Papua.

Adapt

- Ecom has continued the business model with the government in Papua on promoting shoot grafting cocoa seedlings. This innovation enables farmers to access seedlings in order to use the shoot grafting method.

4. COCONUT

Coconut Sector Summary

Indonesia produces around 61 billion coconuts annually or around 31% of total global production. The country is also one of the major exporters of fresh coconuts, alongside the Philippines and India. Despite being a major producer, Indonesia is far below other countries in terms productivity and exports of value-added coconut products. With the increasing global demand for coconut products such as crude coconut oil (CCO), coconut sugar, Virgin Coconut Oil (VCO), Indonesia has huge potential to increase its average yield and coconut value-added products derived from coconut.

Quick facts:



Total production
2.9 million MT (Copra)



Total harvested area
3.5 million Ha



Productivity
1.1kg/Ha



Female participation*
53%



Demand
500% (increase)

*from AIP-Rural intervention areas



NTT

- ✓ Total harvested area : 140,909 Ha
- ✓ Total farm households : 239,961
- ✓ Total production : 68,811 MT

Indicator	Total
Outreach Last Semester	-
Cumulative Outreach Up to Dec 2017	-
Total Outreach Projection to Dec 2018	4,932 HHs
NAIC Actual Cumulative Dec 2017	-
Total Projected NAIC to Dec 2018	IDR 2,187,773,816



Coconut OVERALL

Indicator	Total
Outreach Last Semester	-
Cumulative Outreach Up to Dec 2017	-
Total Outreach Projection to Dec 2018	4,932 HHs
NAIC Actual Cumulative Dec 2017	-
Total Projected NAIC to Dec 2018	IDR 2,187,773,816
Value For Money (VFM) Coconut Overall	
Investment leverage:	119.78%
Investment per HH:	\$ 1,545.82 AUD
Social return:	0.05

Subsector Profiles

4.1 Coconut NTT

NTT currently produces around only 2% of the total domestic supply of fresh coconut, with a clear potential to improve production and productivity. It is the third poorest province in Indonesia, and the majority of farmers are involved in coconut farming. In Flores Island, Ende, Sikka and East Flores districts are NTT's

biggest coconut producing areas. Past local NTT government initiatives have introduced more than 9,000 farmers to coconut derivatives such as VCO and CCO, and provided training to produce them. However, the resultant quality was low and buyers very limited, and as a result, many farmers stopped producing VCO and CCO. Production continues to be very low and products are generally only sold in the local market.

Challenges and constraints

The overarching problems encountered by the coconut, copra and VCO farmers in NTT are i) the declining productivity of coconut, ii) the low quality of copra, and iii) the low quality and inadequate production of value-added coconut products such as VCO and CCO. Together, these have resulted in reduced income from coconut and coconut products. The specific problems and their underlying causes are summarised below.

- **Production of value added coconut products such as VCO is low and not known to international buyers.** Previous government program failed to attract buyers; this has discouraged the trained women to continue producing VCO with the expected quality standard. Accordingly, the quality of VCO produced in NTT is low at the moment. Coupled with the absence of market linkage to buyers, lack of information on required standard quality and limited access to quality processing equipment, farmers suffer low competitiveness from coconut products, thus resulting in low income.
- **Decreasing productivity of coconut trees,** particularly in Sikka and Nagekeo due to poor management of aging trees. High yield coconut seedlings are produced and supplied by specific nurseries via government replenishment projects. Farmers do not have regular access to best quality seedlings and many are reluctant to plant new trees due to lack of awareness and knowledge towards its long-term benefit.
- **Low quality of copra in NTT** due to a) use of old technology, and b) low provision of information about better technologies. On-farm and off-farm copra producers operate at sub-optimal capacity as they do not have enough capital to finance expansion of production. Limited interest in and access to financial services exacerbates the problem.
- **Lack of incentives for public extension services** to provide information on coconut, copra and other coconut by-products. Government subsidies have deterred private sector actors from providing relevant information on coconut trees replenishment and quality standards for copra. Provincial traders demonstrate weak knowledge and capacity for improving existing copra drying techniques at the producer level. Financial institutions (FIs) are not motivated to invest in developing this market segment. They do not understand the need of copra or other coconut by-product markets.

Intervention areas

To address the challenges above, PRISMA works with partners to:

- Improve farmer access to better value markets introduced by private investors in and buyers for national and/or international markets
- Improve availability of knowledge, tools and technology needed for coconut derivatives production, by:
 - Supporting industrial organic VCO consumers by developing a sourcing model for coconut farmers in Flores⁵ and supporting industrial buyers by developing a sourcing model for CCO farmers/producers.⁶
- Improving the availability of high yield coconut seedlings for farmers by supporting seedling producers to promote (1) use of high yield seedlings, and (2) systematic management of replenishment plans to farmers.

Progress and signs of systemic change

⁵ The industrial buyer as PSP provides organic certification and technical assistance to the coconut farmers, linking the market with a local ISP who buys the organic coconuts from farmers at a premium price. A standardised quality is agreed between them and the PSP. The ISP then processes the coconuts and sells the organic VCO products to the PSP, who exports them to global markets.

⁶ The industrial buyer provides training, tools and quality assurance to the farmers who will produce CCO and sell the product to the buyer.

The following progress was achieved in the last semester:

Adopt

- In 3CTA, PT Nusa Permai agreed to procure organic VCO supplied by the ISPs/aggregators at an agreed price.
- PT Nusa Permai is paying the organic certification expenses for coconut farmers in targeted areas. It has registered a first batch of 2,113 farmers in Sikka and East Flores districts for organic certification through the control union.
- Two VCO production houses are currently being built in Sikka, with another planned for Adonara, East Flores. These ISPs have committed to investing over IDR 3 billion in building organic VCO factories.
- In 3CTB, PRISMA has been developing a sourcing model for non-organic coconut products (particularly for CCO products) for bigger industrial buyers.

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5. COFFEE

Coffee Sector Summary

Indonesia is the world's fourth largest coffee producer and exporter. It produces approximately 10 million bags of green beans annually (equivalent of 639,412MT of coffee) from about 1.2 million Ha farms annually. There are five main coffee production areas in Indonesia: Sumatera, Java, Eastern Nusa Tenggara and Bali, Kalimantan, and Sulawesi, where 96% of production comes from smallholder farmers. Despite a strong international reputation for Indonesian coffee, the overall quality of processed coffee is low, suppressing prices for farmers. A clear opportunity exists to increase production volume and quality to meet steadily increasing international demand.

Quick facts:



Total production
639,412 MT



Total harvested area
1.2 million Ha



Productivity
0.7 MT/Ha
(mature only)



Female participation*
51%



Demand
1.55% (increase)

*from AIP-Rural intervention areas



East Java

- ✓ Total harvested area : 105,314 Ha
- ✓ Total farm households : 253,358
- ✓ Total production : 67,189 MT

Indicator	Total
Outreach Last Semester	-
Cumulative Outreach Up to Dec 2017	-
Total Outreach Projection to Dec 2018	1,050 HHs
NAIC Actual Cumulative Dec 2017	-
Total Projected NAIC to Dec 2018	IDR 29,974,350,000



NTT

- ✓ Total harvested area : 64,716 Ha
- ✓ Total farm households : 110,858
- ✓ Total production : 21,079 MT

Indicator	Total
Outreach Last Semester	-
Cumulative Outreach Up to Dec 2017	7,907 HHs
Total Outreach Projection to Dec 2018	9,308 HHs
NAIC Actual Cumulative Dec 2017	IDR 16,232,270,019
Total Projected NAIC to Dec 2018	IDR 32,068,948,843



Coffee OVERALL

Indicator	Total
Outreach Last Semester	-
Cumulative Outreach Up to Dec 2017	7,907 HHs
Total Outreach Projection to Dec 2018	10,358 HHs
NAIC Actual Cumulative Dec 2017	IDR 16,232,270,019
Total Projected NAIC to Dec 2018	IDR 62,043,298,842.90

Value For Money (VFM) Coffee Overall

Investment leverage:	20.51%
Investment per HH:	\$82.28 AUD
Social return:	2.90

Subsector Profiles

5.1 Coffee EJ & NTT

East Java and East Nusa Tenggara account for 14% of national production. Productivity varies from 300 kg GBE/Ha in Flores and Sumba to 2MT GBE/Ha in some subdistricts of Malang, East Java. The island of Flores produces high quality Arabica coffee; its *kopi Flores* has a successful international market reputation. Nevertheless, most farmers do not receive a favourable price as the quality of the overall processed coffee is low. Seventy per cent of production is exported and 30% consumed domestically. Average productivity is around 700 kg green bean equivalent (GBE)/Ha for mature trees. This is very low compared to Brazil (1,5MT GBE/Ha) or even Vietnam (2,5MT GBE/Ha).

Challenges and constraints

The major challenges and constraints faced by the coffee sector in EJ and Flores Island, NTT are:

- **Lack of access to farming knowledge and capital.** Incapable extension services and limited availability of private sectors who provide knowledge of good agricultural and post-harvest processing practices cause the low proficiency in coffee farming. Eventually, farmers are unable to achieve high productivity and premium quality of speciality green coffee.
- **Reaching peak productivity age.** Most coffee trees in Flores are too old and tall. Coffee trees should be pruned twice a year after harvest and be continuously rejuvenated (either grafting method or replantation). Since farmers do not apply these practices, the yield per tree is low and coffee are difficult to be harvested.
- **Lack of added value process for Arabica Flores coffee.** Limited large good quality coffee buyer who can provide favourable payment system and coffee processor provides disincentives for farmers to sell and/or to practice value added process for good quality coffee. They choose to accept lower prices with a quick payment system.
- **Lack of access to financial support.** Constraints on financial capital contribute to practices that farmers do not apply and limit the capacity of subsequent market players such as cooperatives or buyers.

Intervention areas

To address the challenges above, PRISMA works with partners to:

- Promoting the use of commercial fertiliser and developing proficiency in GAP
- Developing proficiency in GAP and provision of quality input through research institute (ICCRI)
- Developing decentralised processing facilities for specialty coffee and linking them to financial service providers
- Improving market access and increasing productivity of Arabica coffee in collaboration with exporters, processors and local government rejuvenation program

Progress and signs of systemic change

The following progress and signs of systemic change have been observed:

Adopt

- PRISMA's partner PT Indokom, a coffee exporting company, is providing support to cooperatives and processing units on GPP, and providing purchase guarantee contracts for cooperatives.
- Six cooperatives in Ngada and Manggarai that manage coffee processing units (CPUs) have received loan approvals totalling IDR 3 billion (IDR 500,000 each) from Bank NTT. Four cooperatives have already used a total of IDR 970 million to purchase coffee from farmers. Although this loan scheme did not continue in 2016, Bank NTT, inspired by the success of the pilot, is currently developing a loan product to support coffee farmers in Flores.

- In 2017, PRISMA expanded the partnership to include not only cooperatives but also two privately-owned processors in Manggarai and Ngada, each with more than 100MT capacity per season.
- The Ngada Agricultural Department (Dinas Pertanian) has released a quality control regulation and partnered with PRISMA in the rejuvenation assistance program.
- The NTT regional office of Bank Rakyat Indonesia has disbursed individual loans for coffee cultivation to farmers whom cooperatives had recommended.

Adapt

- As a result of the PRISMA intervention, PT Hextar Fertilizer Indonesia (PT HFI) signed a partnership contract in November 2017 to promote its commercial fertiliser to coffee farmers. It then hired an additional product development officer (effective from January 2018) to be stationed in Banyuwangi.
- PT HFI has started promotional activities with coffee farmers in East Java in three subdistricts proposed by PRISMA (Malang, Jember, Banyuwangi). It has committed to ensure at least 40% of their activities are female-focused; since November 2017 it has conducted an activity specifically targeting women coffee farmers.

Respond

- The Flores regional office of PT POS Indonesia (a postal and logistics service) provided a special rate for ASNIKOM in transporting their coffee to other islands;
- The Manggarai Agricultural Department (Dinas Pertanian) has sourced cadre services to provide GAP and GPP training for farmers in other villages.

6. EXTENSION SERVICES & ICT



Extension Services & ICT

Sector Summary

According to government legislation (UU No. 19 Tahun 2013), each farming village ideally should have one dedicated extension service worker. However, the current condition shows that there are only 32,299 public extension workers for 71,470 farming villages throughout Indonesia, which shows a wide gap of about 39,190 workers. While voluntary extension workers might gradually close the gap, the sector's scope has been expanded to include Information and Communications Technology (ICT) services as PRISMA sees it as the key driver to solve information-shortages at the farmer's level. PRISMA recent large-scale farmer's survey in East Java, NTB, and NTT shows some opportunities for ICT to take its part in closing the gap and solve information-shortages.

Quick facts:



Extension workers
32,299



Farming villages
71,470



Labour gap
39,190



Smartphone ownership
15%



Internet usage
5%



East Java

- ✓ Public Extension Workers : 4,367
- ✓ Food Crop Farm Households : 3,673,364



NTB

- ✓ Public Extension Workers : 1,286
- ✓ Food Crop Farm Households : 473,274



NTT

- ✓ Public Extension Workers : 2,281
- ✓ Food Crop Farm Households : 701,852

Source:

Simluhtan (13 Feb 2018) <https://app2.pertanian.go.id/simluh2014/gst/welcome.php>
BPS – Sensus Pertanian 2013

Subsector Profiles

ES – ICT EJ: introducing productive use of the smartphone and provision of information for farmers (Karsa)

East Java farmers are frequently regarded as the most advanced nationally, probably due to a number of district governments – such as Malang or Banyuwangi – being open to innovation and actively supporting their farmers. Farmers in East Java also benefit from the presence of strong government research bodies which focus on high yield seed and agriculture technologies. In the majority of districts, private agronomists have a significant presence and are also a source of information for farmers. However, there are only 4,812 public extension workers in the whole province, which means that a single worker has to cover 873 farmer households on average. Assuming 260 working days per year and a single worker able to serve 3.35 households per day, each farming household will only see a public extension worker once a year.

ES – ICT NTB: Agriculture Intelligent Platform (HARA) with Dana Desa: Village Agriculture Cadre

Post-harvest expertise, and pest and disease management are key areas of concern for NTB farmers, who lack access to reliable sources of information. The majority rely on other farmers for advice; some get information from kiosks. This limited access to information also affects public extension service workers, who lack up-to-date, relevant knowledge about pest and disease. Average loss due to pest attack can be as high as 30% per harvest. In NTB, there are 1,785 public extension workers with a routine schedule for field visits from Monday to Thursday each week. A public extension worker provides technical assistance to a handful of farmer groups, where one group may have more than 200 members. The limited number of public extension workers combined with remote and hard-to-reach areas means that many farmers receive no benefit from the public extension service.

Challenges and constraints

The major challenges faced by the extension and ICT services sector in East Java and NTB are:

- **Limited provision of information.** Farmers have insufficient knowledge of modern, appropriate and efficient farming techniques and practices, which results in low productivity compared to the potential. This is caused by a) a lack of public extension workers, and b) limited reach of private extension services.
- **Limited capacity of public extension workers.** Minimum upfront training combined with very limited opportunities for continuous learning compromises the quality of the government extension service. It is common to find experienced or progressive farmers who understand agriculture better than public extension workers. Some farmers have understandably become sceptical of public extension workers and are beginning to disregard their advice completely.
- **Poor agricultural kiosk extension services.** Kiosk owners usually direct farmers to purchase products that bring them the highest margins, with little regard to product quality or the farmer's actual needs. This is a serious challenge because collectively these kiosks reach practically all farmers, who are dependent on them for both input availability and advice.
- **Poor ICT actors understanding of the sector.** Most of the agriculture start-ups have very minimum business experience and little to no agriculture knowledge.

Intervention areas

To address the challenges above, PRISMA works with partners to:

- Promote productive use of smartphone technology to access information, for example the agriculture app (Karsa).
- Promote Agriculture Cadre at the village level which will be dedicated to one village.
- Improve reliable and accurate field agricultural data collection.
- Facilitate ICT actors to better understand the sector through brainstorming and partnership with input producers as well as off-takers.

- Promoting GHP to farmers through Eragano field staff.
- Providing farmers with information about market requirements related to one commodity or product.
- Promoting good quality pesticide products, including good pest and disease management practices to farmers.
- Collaborating with public extension services to execute their implementation plans.

Progress and signs of systemic change

Introducing the productive use of smartphone and provision of information for farmers (Karsa)

Karsa is an Indonesian smartphone agriculture application, aiming to increase farmer access to the latest and most up-to-date agricultural information. Supported by the increased penetration of smartphone use and broadband internet access in villages, Karsa will equip farmers, extension workers, traders and product owners with the information they need and enhance the way they work.

Karsa is developing new features and business models (including information dissemination, finance, off-taking, price information) while at the same time working aggressively to acquire new customers to grow the user base for the application. PRISMA's support of Karsa will take the form of providing business consultancy and connecting it to relevant stakeholders within PRISMA's network. Together with the partners, we will create awareness among farmers of smartphone functions, and promote productive smartphone usage for farmers and the Karsa application.

Agriculture Intelligence Platform (HARA) with *Dana Desa*: Agriculture Village Agent

The purpose of the Village Agriculture Cadre is to provide information for farmers and obtain farmers farming data which enables villages to be connected to input producers and off-takers. Using apps developed by PRISMA partner Dattabot, the Cadre will collect field data to be translated into a dashboard able to be accessed by related stakeholders.

As part of its action research, together with Dattabot, PRISMA conducted a pilot project for the Village Agriculture Cadre in ten villages in partnership with the Ministry of Villages. In collaboration with village government, these Agriculture Cadres are funded by *Dana Desa*. These villages have demonstrated strong buy-in for the concept, as the Agriculture Cadres serve not only as extension workers for field data collection (including geotagging of farmer's land) but also as the village's contact point for agricultural sector actors (including farmers, input producers, off takers, government and village-owned enterprises or BUMDES).

- Dattabot has developed the HARA platform, which will be tailored to accommodate the current business model and concept as suggested by PRISMA. It has demonstrated its commitment by deploying dedicated resources to the villages to support Agriculture Cadres in conducting geotagging and data collection.
- Dattabot plans to expand outside the pilot project areas of Bojonegoro and Kerawang, and set specific targets and business metrics for the platform up to March 2018.
- The Ministry of Villages plans to expand the program of Village Agriculture Cadre and ICT platform to other villages in Indonesia following the success of this pilot project.
- BNI has expressed an interest in partnering to provided loans to the farmers in the pilot area (specifically East Java) in relation to the Village Agriculture Centre's data collection conducted using Dattabot's platform.

Agent Scaling up Off-Taker, GAP and Agriculture Platform (Eragano)

Eragano has tested the off-taking business model in Kupang, particularly in the maize sector. It has built a relationship with the local Department of Agriculture and promised to off-take farmers' harvest product. Although the quantity of maize they off-take is currently still small, it is hoped that after the model is proved successful, it will scale-up immediately. The company also obtained support from Indonesia's Ministry of Information, and itself built a relationship with relevant stakeholders (including financial institutions) to support

its business. The partnership with PRISMA is expected to leverage the development of Eragano's existing business.

- Expanding Eragano's reach to include an increased number of farmers, crops, buyers and geographical areas. PRISMA will support Eragano by providing business consultancy, and connecting the organisation to relevant stakeholders within PRISMA's network.
- Eragano is focusing on the off-taking of maize, chilli, shallot and potato, with the aim of helping farmers with post-harvest processing knowledge so they can obtain a better price through the use of technology.
- PRISMA is building a wide coalition of actors who are interested in promoting productive smartphone usage among smallholder farmers. Eragano has provided an example of a smartphone app which PRISMA believes can increase farmers' productivity and income.

Crop Protection Papua (PT BASF Indonesia)

PT BASF Indonesia has established a partnership with local distributors in Jayapura and Merauke, and Sorong is expected to follow imminently. It has assigned field staff to conduct demonstration plots and promotional activities on the ground. PT BASF's partnership with PRISMA helps it to leverage activity by establishing a collaboration with public extension services. PRISMA's intervention with PT EWINDO in the vegetable sector also supports PT BASF's field staff are also able to draw on PRISMA's experience of partnering with PT EWINDO , with whom they also collaborate to conduct certain activities.

- Local government, in particular in Merauke, is willing to work with BASF on providing good pest and disease management to farmers. This could leverage BASF's activity to achieve much greater scale.
- Public extension services are also showing willingness to collaborate with BASF field staff on the ground.
- Farmers agree they need pest and disease management to help them improve productivity, and are willing to spend more on good quality pesticide. An opening of new farmland in Merauke could provide a new, potential area for BASF to penetrate the market.

7. MAIZE

Maize Sector Summary

Maize is one of Indonesia's primary food crops. Across the country, almost 20 million MT are grown each year on around 3.4 million ha of farmland; more than half is used to cater to the ever-increasing demand for animal feed. It is a seasonal crop, with a surplus during peak harvest months and a severe undersupply the rest of the year. The Government of Indonesia, under its 'self-sufficiency' agenda, highly subsidizes the sector; around 80% of the total harvested area is covered by the free seeds and subsidized fertilizers. The maize price has been increasing steadily over the years; the zero import quota has further contributed to the higher corn price in 2017. The average productivity is estimated to be around 5.5 Tons/ha; however, the field observation and USDA data shows lower productivity (around 3 - 3.5 Tons/ha) of maize, especially in the eastern Indonesia. PRISMA has identified a clear opportunity to increase maize production, productivity and quality as part of Indonesia's drive towards import substitution.

Quick facts:



Total production
531,756



Total population
16.6 million



Consumption
0.42kg/head



Gender



Demand increasing
by 7% each year



East Java

- ✓ Total harvested area : 1,213,654 Ha
- ✓ Total farm Households : 1,922,300
- ✓ Total production : 6,131,163 MT

Indicator	Total
Outreach Last Semester	14,649 HHs
Cumulative Outreach Up to Dec 2017	22,776 HHs
Total Outreach Projection to Dec 2018	61,851 HHs
NAIC Actual Cumulative Dec 2017	IDR 40,609,358,017
Total Projected NAIC to Dec 2018	IDR 122,273,871,816



NTB

- ✓ Total harvested area : 143,117 Ha
- ✓ Total farm Households : 147,632
- ✓ Total production : 959,973 MT

Indicator	Total
Outreach Last Semester	-
Cumulative Outreach Up to Dec 2017	-
Total Outreach Projection to Dec 2018	3,370 HHs
NAIC Actual Cumulative Dec 2017	-
Total Projected NAIC to Dec 2018	IDR 6,804,000,000



NTT

- ✓ Total harvested area : 273,000 Ha
- ✓ Total farm Households : 522,612
- ✓ Total production : 685,000 MT

Indicator	Total
Outreach Last Semester	4,955 HHs
Cumulative Outreach Up to Dec 2017	19,319 HHs
Total Outreach Projection to Dec 2018	38,696 HHs
NAIC Actual Cumulative Dec 2017	IDR 27,898,110,653
Total Projected NAIC to Dec 2018	IDR 56,152,593,275



Maize OVERALL

Indicator	Total
Outreach Last Semester	8,053 HHs
Cumulative Outreach Up to Dec 2017	22,312 HHs
Total Outreach Projection to Dec 2018	61,545 HHs
NAIC Actual Cumulative Dec 2017	IDR 68,507,468,670
Total Projected NAIC to Dec 2018	IDR 185,230,465,091

Value For Money (VFM)	Maize Overall
Investment Leverage	1162%
Investment per HH	\$87.00 AUD
Social Return	4179%

Subsector Profiles

7.1 Maize EJ

East Java province is the largest producer of maize in Indonesia; however, growth in production is very low at only 0.49% per year (2014 figures). Productivity is in line with the national average (5.05 MT per ha) but this is below that of NTB. PRISMA is focusing on the island of Madura, where farmers cultivate maize as a subsistence crop and where productivity is less than a quarter (1.7 MT per ha) of that on mainland East Java. Traditional cultivation methods, used of local seed varieties and the lack of knowledge of and access to irrigation and post-harvest management services are the main reasons for the lower productivity.

Challenges and constraints

Farmers in Madura are unable to increase their maize production and productivity for three main reasons:

- **Lack of understanding of GAP.** Many maize farmers are unaware of the benefits of using improved seed and continue to rely on local seed varieties which provide lower yields.
- **Availability of more lucrative commodities.** Many farmers here have chosen to plant tobacco. The pull towards this is increased by two local cigarette companies which have provided storage facilities for the crop.
- **Lacklustre government subsidies which provide no incentives.** Farmers get free or subsidised hybrid seed and fertiliser from the government. Not only is this unsustainable, it provides no incentives for the private sector to get involved in supplying these inputs.

Intervention areas

To address the challenges above, PRISMA works with partners to:

- Promote good quality hybrid seed and GAP application.
- Facilitate farmers' access to markets for hybrid maize.
- Promote use of improved seed suitable for dry season farming in non-irrigated drylands.
- Facilitate public-private coordination to expand the hybrid seed market (especially in Madura).
- Facilitate access to finance and use of off-takers (piloting in Sumenep).

Progress and signs of systemic change

The following progress was achieved in the last semester:

Adopt

- PRISMA's partners (PT AHSTI, PT Syngenta, PT DuPont and PT BISI) are actively promoting hybrid seed in the islands of Madura. From July to December 2017, these private companies sold more than 150 MT, a significant increase on the 60 MT of 2016.
- The public-private committee in Sumenep district established by the project (comprising the district agriculture office, DAGRIO, and PRISMA's four partners mentioned above) shifted the free seed distribution to a non-hybrid area. The prevailing overlap between free seed recipients and the open market reduced in 2017 to 42% from 98% in 2016.

Adapt

- All four partners increased their investment in the promotion of hybrid maize seed and shifted their marketing efforts to non-hybrid seed. DuPont recruited more front-liners (and for the first time included women) and intensified its marketing strategy in Madura to include activities such as mini demonstrations, competitions and mobile selling.
- PT BISI has changed its business model by facilitating its field staff to sell directly to those farmers with no access to kiosks, instead of its earlier focus of supplying the government subsidy program. PT Syngenta has allocated more staff in East Java and collaborated with PRISMA in the peanut sector.

Expand

- PT DuPont has started a marketing campaign in the uplands of Madura and East Java. To achieve this, it hired additional five front liners, collaborated with district government offices, and started providing GAP information to farmers.
- The public-private committee plans to expand hybrid maize cultivation area by 23,000 Ha by the end of 2018. DAGRIO has allocated extension workers to create awareness and provide GAP information to non-hybrid maize farmers intensively together with seed companies. BISI and DuPont have commercially distributed around 100 MT of hybrid seed to supply this expansion program.

Respond

- Two government banks, BNI and BRI, have responded to the PRISMA intervention by providing loans to 3,000 maize farmers to enable them to buy good quality hybrid seed. These loans are covered by crop insurance to cover the risk of failure during cultivation. More farmers are being assessed for their suitability to acquire loans during the next semester.
- Three maize off-takers (feed mills) partnered with local traders and DAGRIO of Sumenep to procure from Madura starting from next harvesting season in S1Y18.

7.2 Maize NTB

At national level the price of maize has been increasing steadily over recent years. The province of NTB has experienced significant growth in its maize production, productivity in NTB is above the national average at 5.8 MT per ha. Most farmers here plant their crop during the wet season on dry farmland, with only a small number having the capacity to irrigate their land during the dry season. Despite all these opportunities, farmers still experience low profits from maize cultivation. In addition to that, the import restriction leads to a hike in harvest prices, limiting maize traders' capacity to purchase maize. Improper application of maize good agricultural practices (GAP) and good handling practices (GHP) hinders farmers from obtaining optimum productivity which can be up to 8 to 10 MT per ha, and optimum price from traders. On top of that, particularly in Lombok, farmers' limited access to in-kind credit, agricultural machineries, and traders adds on to the low price and profit received by farmers.

Challenges and constraints

Maize farmers in NTB find it difficult to increase their income because of three major reasons:

- **Maize productivity not reaching its optimum level due to improper application of GAP.** This can be traced to the limited amount of information farmers obtain from public extension officers, as they only visit farmers at times of subsidy provision and proposal development. On the other hand, input suppliers do provide information services, however their delivery has not been effectively received by farmers. In addition to that, farmers perceive GAP application as more complicated, labour-intensive, and costly. Even for farmers who realize the net benefits of GAP, applying them would require more financial resources and extensive capital.
- **Limited affordable options for finance, particularly given the difficulties in accessing bank loans.** The use of hybrid seed requires a sufficient supply of other inputs such as fertiliser, agro chemicals (e.g. herbicide, pesticide) and labour, as well as careful and informed treatment and maintenance. Poor farmers have little money to support these, and no access to external financial resources. Some farmers rely on moneylenders who provide loans at exorbitant rates of interest. On the other hand, banks are reluctant to provide loans to farmers due to their perceived low bankability. Farmers tend to resort to borrowing from other sources.
- **Limited access to post-harvest services for farmers.** Maize prices vary depending on the physical form in which it is being sold, i.e. grains are much more expensive than cobs. Nevertheless, farmers particularly in West and Central Lombok, do not have access to affordable maize threshing machines or service providers.

Intervention areas

To address the challenges above, PRISMA works with private sector partners to:

- Promote the use of improved hybrid seed, GAP and GHP.
- Facilitate private sector partners to provide effective capacity building to their extension workers and retailers.
- Promote affordable internal and external value chain financing schemes as a means to encourage farmers to adopt improved hybrid seed varieties.

Progress and signs of systemic change

The following progress was achieved in the last semester:

Adopt

- PT BISI has implemented an improved scheme of internal value chain financing in the form of hybrid maize seed credit for farmers. By November 2017, 33 male and female agents had been recruited and 27.4 MT of seed distributed. The partner reports that its sales figures have increased and its distribution network widened.
- BISI is equipping its agents with training and modules on GAP and GHP, enabling up-to-date and appropriate information to be disseminated to seed credit recipients.

Adapt

- BISI are willing to expand its seed credit scheme to NTT as its market entry strategy, targeting Malaka district as its pilot area.
- Having seen the potential and growth of maize growing in the districts, BISI is recruiting more staff to intensify its promotional and technical assistance activities in Sumbawa Barat.

Expand

- Bank NTB has expressed an interest in providing in-kind credit to maize farmers in Lombok, targeting inputs and post-harvest tools.

Respond

- Local district offices in Lombok have encouraged lead farmers with limited access to inputs to become BISI seed agents.

7.3 Maize NTT

In NTT, maize is the staple food for the majority of the population, and one of the local farmers' most popular crops. Despite its importance however, maize cultivation is characterized by low input, low output subsistence farming practices. This low productivity, which consistently fails to meet mainly for local consumption, is largely caused by the limited access to improved seeds as well as use of extension services, which are insufficiently equipped to assist farmers. Most farmers in NTT plant their crops during the wet season on dry farmland; only a small number have the capacity to irrigate their land during the dry season. Poor post-harvest handling and lack of storage facilities adds to the problem of production loss.

Challenges and constraints

Maize farmers in NTT find it difficult to increase their income for two following reasons:

- **Limited knowledge of GAP.** Farmers practice subsistence farming on a small amount of land (usually half a Ha or less). This produces insufficient maize to feed the household, partly because of low yielding variety crop management practices and substantial post-harvest loss due to pest attack.
- **Recycling of seed from the previous harvest.** Most farmers in NTT do this, a practice which eventually reduces yields.

- **Limited supply of good quality seed.** High yielding maize seed such as OPV or hybrid variety is difficult to obtain by farmers. The supply of OPV and hybrid seed through government subsidy cannot meet the need for quality seed in NTT.

Intervention areas

To address the challenges above, PRISMA works with private sector partners to:

- Promote the use of high yielding maize seed (composite or OPV and hybrid seed) with embedded GAP information.
- Introduce good drying practices and affordable farm-level storage solutions.
- Introduce affordable commercial fertiliser.

Progress and signs of systemic change

The following progress was achieved in the last semester:

Adopt

- As part of PRISMA's intervention in West Timor, local OPV seed companies Yayasan Mitra Tani Mandiri (YMTM) and CV Tiga Putri Mandiri (TPM) have started to produce and sell good quality maize seed to farmers in TTU, Belu and Malaka districts. In 2017, together they sold a total of 37 MT of seed on the open market, an increase from 20 MT in 2016.
- PT Buana Ika Syahputera (BIS) continues to produce jerry cans for improved farm-level storage of maize and other crops. In 2017, BIS shipped six containers (approximately 4,000) of jerry cans to West Timor.
- PRISMA has signed a contract with three OPV seed producers, who have adopted the business model to sell good quality OPV seed both as part of the government seed subsidy procurement and to retail channels. These seed producers are located in TTS, Sikka and East Flores districts.

Adapt

- PT BISI has started to invest more in promoting hybrid maize cultivation and other agro chemical products, particularly in Sumba and Flores islands, and Malaka district, Timor Island. It also provided training to public extension service workers in Sumba Barat Daya, Kupang and Malaka districts to enable them to disseminate hybrid maize GAP information to those farmers who receive the BISI hybrid maize seed subsidy.
- YMTM and TPM are investing more in increasing their capacity to produce and sell OPV seed in NTT. Both companies have invested in renovating their warehouses, and acquiring production assets such as packing sealers, threshers and sorting machines. CV TPM has added a 1 kg package of OPV seed to their product line and adopted a similar business model to sell paddy, peanut and mung bean seed to the open market.

Respond

- A seed nursery in South West Sumba district has adopted the business model to produce OPV maize seed to supply the government seed subsidy procurement and the open market.
- A local poultry farm in South West Sumba district has engaged PT BISI to sell BISI hybrid maize seed and agro chemical products with embedded maize GAP guidance to its contracted maize farmers. A local cooperative is providing finance for contracted maize farmers to obtain their working capital.

8. MANGO

Mango Sector Summary

Indonesia is the fourth largest producer of mangoes globally. The country accounts for 3-5% of global production depending on the year, and produced 1.8 million tons of Mango in 2016. Mango is Indonesia's second largest fruit crop after banana. In line with global rise in demand, mango production in Indonesia has also been increasing at a CAGR of 4% over the past decade. East Java province dominates the Indonesian mango sector. The province produces more than 1.8 million MT a year, around 38% of the national annual supply.

Quick facts:



Total production
1.8 million MT



Total harvested area
165,608 Ha



Productivity
10.96 MT/Ha



Female participation*
22%



Demand
4% (increase)

*from AIP-Rural intervention areas



East Java

- ✓ Total harvested area : 69,857 Ha
- ✓ Total farm HHS : 701,309
- ✓ Total production : 655,692 MT

Indicator	Total
Outreach Last Semester	-
Cumulative Outreach Up to Dec 2017	5,580 HHS
Total Outreach Projection to Dec 2018	5,850 HHS
NAIC Actual Cumulative Dec 2017	IDR 16,842,090,592
Total Projected NAIC to Dec 2018	IDR 20,528,046,592



NTB

- ✓ Total harvested area : 9,767 Ha
- ✓ Total farm HHS : 40,919
- ✓ Total production : 109,069 MT

Indicator	Total
Outreach Last Semester	-
Cumulative Outreach Up to Dec 2017	1,372 HHS
Total Outreach Projection to Dec 2018	1,432 HHS
NAIC Actual Cumulative Dec 2017	IDR 6,018,445,126
Total Projected NAIC to Dec 2018	IDR 7,240,213,926



Mango OVERALL

Indicator	Total
Outreach Last Semester	-
Cumulative Outreach Up to Dec 2017	6,952 HHS
Total Outreach Projection to Dec 2018	7,282 HHS
NAIC Actual Cumulative Dec 2017	IDR 22,860,535,718
Total Projected NAIC to Dec 2018	IDR 27,768,260,518
Value For Money (VFM) Mango Overall	
Investment leverage:	39.65%
Investment per HH:	\$80.63 AUD
Social return:	4.08

Subsector Profiles

8.1 Mango EJ and NTB

East Java province dominates the Indonesian mango sector. The province produces more than 650,000 MT a year, around 38% of the national annual supply. NTB is one of Indonesia's smaller mango producing areas, contributing only a fraction of the amount supplied by East Java, producing about 110,000 MT per year. This amount was sufficient to put NTB on the 5th rank in terms of national mango production. Here, mango farmers are typically poorer, and have fewer crops and fewer income options than farmers in East Java.

A value chain study shows that in both East Java and NTB, the low peak-season price (IDR2,000-2,500/kg) is a major disincentive for smallholder mango farmers to consider investing in the new technology which would make their business more productive at other times of the year. Instead, they leave their mango trees to bear fruit naturally or rent them out to collectors to manage. From renting out, farmers receive guaranteed stable income that is paid upfront. Renting period can vary between 1-3 years for most farmers.

In the off-season, however, the average on-farm price of mangoes can be more than 5 times higher than the price stated above. This means that if half their crop can be sold during the off-season months, the farmer's income from mango will increase by more than 80%. The crop treatment technology, which is designed to help deliver an early harvest and thus obtain higher prices, is intended to be accessible by 700,000 farmers in East Java and around 45,000 farmers in NTB. There is clearly an opportunity for PRISMA to tap into the possibility of shifting about 50% of the total mango production to an earlier harvest time, enabling smallholder farmers to get a better price for their production during the months which are currently off-season.

Challenges and constraints

The three key problems currently constraining smallholder mango farmers in East Java and NTB from taking advantage of this market opportunity are:

- **Lack of access to early flowering technology and alternative end markets.** Chemical companies see mango farming as a market with low potential, and do not actively promote the use of the right combination of chemicals for off-season mango production, or provide embedded services to assist farmers with successful application of such technologies. The export sector is largely underdeveloped; the processing industry is also in its infancy.
- **Farmers are reluctant to invest in the mango crop** because of the low prices they currently get in the peak season; they are generally smallholders, their production is low, and they generally follow a low investment, low return model. Farmers are also not willing to let go of income from renting out trees, and taking on the risks of cultivation.
- **Farmers also experience low productivity** when they manage their own trees because they lack access to GAP, particularly in terms of pest and disease management. Losses from pest and disease attacks can be significant, making mango farming even less attractive.
- **Potential risks outweigh potential benefits** because recent weather conditions are not favourable to mango farmers, and thus harvest failure is an imminent risk.

Intervention areas

To address the challenges above, PRISMA works with partners to:

- Increase mango production in the off-season.
- Introduce better agricultural practices, and more effective and affordable pest and disease management.

Progress and signs of systemic change

The following progress was achieved in the last semester:

Adopt

- PT Rainbow Agrosiences, seeing the potential sales from Pazole, wants to continue pushing the product in the market and has expressed an interest in penetrating beyond the mango market.

Adapt

- Rainbow is in the process of including its mango key farmers as Laskar Pelangi to promote its EFT products.
- The company is also developing a Rainbow retailer network to support the EFT and other knowledge dissemination further. It will be integrated with the Laskar Pelangi, as the shop will be a place to share knowledge.

Expand

- Other Paclobutrazol producers have started to market their promotions more aggressively (there are signs of a price war, new products emerging, and gimmick promotion taking place in East Java).

Respond

- Dinas Pertanian Situbondo has started work with Syngenta (although an MoU has yet to be signed) to promote EFT.

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9. MUNG BEAN

Mung Bean Sector Summary

Indonesia produced around 271,000 tonnes of mung beans in 2016. Demand for mung beans in Indonesia is largely met by domestic production, and although production experienced a dramatic decline in 2012, output levels recovered in 2014 and has remained stagnant since. There has been a persistent increase in imports since 2013 to cater for the food processing industry which dominates domestic demand. PRISMA has identified a clear opportunity to increase mung beans production, productivity and quality through commercializing quality mung beans seed.

Quick facts:



Total production
271,420 MT



Total harvested area
229,408 Ha



Productivity
1.18MT/Ha



Demand
1% (stagnant)



East Java

- ✓ Total harvested area : 41,635 Ha
- ✓ Total farm households : 205,845
- ✓ Total production : 49,499 MT

Indicator	Total
Outreach Last Semester	-
Cumulative Outreach Up to Dec 2017	-
Total Outreach Projection to Dec 2018	2,928 HHs
NAIC Actual Cumulative Dec 2017	-
Total Projected NAIC to Dec 2018	IDR 5,812,080,000



NTB

- ✓ Total harvested area : 15,242 Ha
- ✓ Total farm households : 36,838
- ✓ Total production : 14,842 MT

Indicator	Total
Outreach Last Semester	-
Cumulative Outreach Up to Dec 2017	-
Total Outreach Projection to Dec 2018	403 HHs
NAIC Actual Cumulative Dec 2017	-
Total Projected NAIC to Dec 2018	IDR 780,192,000



NTT

- ✓ Total harvested area : 10,776 Ha
- ✓ Total farm households : 54,642
- ✓ Total production : 7,196 MT

Indicator	Total
Outreach Last Semester	-
Cumulative Outreach Up to Dec 2017	-
Total Outreach Projection to Dec 2018	8,302 HHs
NAIC Actual Cumulative Dec 2017	-
Total Projected NAIC to Dec 2018	IDR 44,688,578,000



Mung Bean OVERALL

Indicator	Total
Outreach Last Semester	-
Cumulative Outreach Up to Dec 2017	-
Total Outreach Projection to Dec 2018	11,633 HHs
NAIC Actual Cumulative Dec 2017	-
Total Projected NAIC to Dec 2018	IDR 51,280,850,000

Value For Money (VFM)	Mung Bean Overall
Investment Leverage:	1.97%
Investment Per HH:	-
Social Return:	-

Subsector Profiles

9.1 Mungbean EJ, NTT & NTB

East Java is Indonesia's second largest producer of mung bean - together with the largest producer, Central Java, the province accounted for 61% of Indonesia's total production of mung bean. East Java has around 200,000 mung bean farmers, roughly half of whom are in Madura, while the rest are spread throughout 30 or more districts. Since 2005, mung bean production and its cultivation area has decreased in East Java, although productivity has increased.

Mung bean is rich in easily digestible protein and other nutrients. It adds nitrogen to the soil, requires less water and has a short crop duration, and is therefore widely used in crop rotation. It remains particularly relevant to the poor in terms of both income and nutrition. It is cultivated as an attainable interval cash crop in the dry season due to its low maintenance and production costs. Poor farmers in EJ have the potential to increase mung bean productivity without significantly raising production costs. There is viable scope for import substitution, due to escalating domestic and international demand coupled with the rising sale prices witnessed over the last years.

Challenges and constraints

The major challenge to mung bean farmers in East Java, East Nusa Tenggara, and West Nusa Tenggara is low productivity, and the underlying causes for this are:

- **Lack of use of appropriate quality and quantity of inputs.** Minimising cost and effort dominates the farmers' cultivation methods.
- **Lack of commercial production and distribution of quality mung bean seed.** Seed producers are reluctant to instigate production as they are not assured of demand and profit.
- **Farmer reliance on residual fertiliser present in the soil from previous crops.** Fungicide, herbicide and pesticide are widely available in the market, but are not targeted to mung bean production.
- **Lack of information about better cultivation practices, improved seed and inputs, and the overall potential of mung bean as a more profitable cash crop.** No information is actively supplied by any actor in the market.
- **Lack of information on better market prices** (e.g. export market)
- **Mung bean is not considered a nationally important crop** according to the government development strategy. As a result, extension services – which are functioning with limited knowledge and resources – do not focus on mung bean. Nevertheless, there is some growing interest from the government as seen from several local government mung bean seed subsidy programs.

Intervention areas

To address the challenges above, PRISMA works with partners to:

- Promote good quality mung bean seed and application of GAP.
- Facilitate a partnership between Balitkabi and private sector to produce mung bean seed.
- Ensure the provision of foundation seed to nurseries from Balitkabi.
- Facilitate access to mung bean markets (especially for traders and exporters in Surabaya).
- Facilitate partnership between Balitkabi and private sector to produce mung bean seeds.
- Support provision of foundation seeds to nurseries from Balitkabi.
- Disseminate information on good post-harvest practices to nurseries.

Progress and signs of systemic change

The following progress was achieved in the last semester:

Adopt

- PT EWINDO has completed its trial stages for mung bean and is in the process of moving the new business unit to its commercial pipeline.
- EWINDO has also trained its staff in mung bean GAP which was facilitated by PRISMA. The company start selling activities in January 2018.
- EWINDO will distribute its mung bean seeds through its distributors and retailers in NTB and NTT, and start selling to farmers in January 2018.
- Balitkabi has implemented PRISMA's business model and started to produce an increased amount of foundation seed to meet the demand of nurseries. It also provides capacity building activities to mung bean nurseries on GAP and good handling practices (GHP).

Expand

- CV Semi Purwodadi has expanded its business to mung bean seed production and has started to penetrate the East Java market.
- An additional mung bean nursery in Central Java has expressed an interest in working with PRISMA and in expanding its mung bean seed business to reach farmers in East Java.

Respond

- Local seed multiplication agency BBI has demonstrated a commitment to distributing good quality extension seed to nurseries by approaching Balitkabi and participating in a training event facilitated by PRISMA.

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10. PEANUT

Peanut Sector Summary

Indonesia is the fifth largest peanut producing country in the world. Its population however consumes more than it can produce, leaving a shortfall of around seven hundred thousand MTs every year. From 2010 to 2014, peanut imports into Indonesia grew steadily by 7.7%, today Indonesia is the world's 2nd largest importer of peanuts. Java Island is the centre of production and East Java the highest contributing province, supplying 30% of total national production. Despite this, local producers are still unable to meet domestic demand. A clear business opportunity exists to increase the production volume and the quality of the peanut production in Indonesia.

Quick facts:



Total production
605,409 MT



Total harvested area
454,439 Ha



Productivity
1.26 MT/Ha



Female participation*
62%



Demand
7.7% (increase)

*from AIP-Rural intervention areas



East Java

- ✓ Total harvested area : 106,418 Ha
- ✓ Total farmers : 420,000
- ✓ Total production : 140,000 MT

Indicator	Total
Outreach Last Semester	-
Cumulative Outreach Up to Dec 2017	101 HHs
Total Outreach Projection to Dec 2018	3,711 HHs
NAIC Actual Cumulative Dec 2017	IDR 111,555,563
Total Projected NAIC to Dec 2018	IDR 4,785,555,563



NTT

- ✓ Total harvested area : 11,941 Ha
- ✓ Total farmers : 53,123
- ✓ Total production : 10,375 MT

Indicator	Total
Outreach Last Semester	-
Cumulative Outreach Up to Dec 2017	155 HHs
Total Outreach Projection to Dec 2018	4,239 HHs
NAIC Actual Cumulative Dec 2017	IDR 127,615,500
Total Projected NAIC to Dec 2018	IDR 3,568,011,900



Peanut OVERALL

Indicator	Total
Outreach Last Semester	155 HHs
Cumulative Outreach Up to Dec 2017	256 HHs
Total Outreach Projection to Dec 2018	7,950 HHs
NAIC Actual Cumulative Dec 2017	IDR 239,171,063
Total Projected NAIC to Dec 2018	IDR 8,353,567,463

Value For Money (VFM)	Peanut Overall
Investment leverage:	8.28%
Investment per HH:	\$1,402.16 AUD
Social return:	0.08

Subsector Profiles

10.1 Peanut EJ

East Java is home to around 420,000 peanut farmers. Bangkalan, Sampang, Sumenep, Tuban, Pamekasan, Pacitan, Magetan, Bojonegoro, Ngawi and Ponorogo are the ten areas with the highest concentration. Here, the farmers use impure local seed varieties or retained seed, which produces a poor yield and lower quality; at the same time they have little access to information on other quality inputs. On average, the farmers use seeds from the previous harvest, both from inventory kept themselves or purchased from local collectors (traders). Although Balitkabi (the Indonesian Legumes and Tuber Crop Research Center) has developed and released some varieties of better quality peanut seed, there are few nurseries able to produce it in quantities large enough to be commercially viable. The nurseries which do, do so to provide a small quantity for free distribution by the government.

Challenges and constraints

Peanut farmers in East Java are currently unable to increase production for the following reasons:

- **Low quality and low productivity.** East Java's peanut farmers are unable to access high quality or improved varieties of seed. Instead they are dependent on local, retained and impure seed which produces suboptimal yields. The low quality and quantity of their crop hinders them from selling their harvest to the big buyers.
- **Minimum usage of quality inputs.** Farmers in East Java suffer from rat infestation and other pests and diseases on their farms due to the minimum usage of high quality agri-inputs.
- **Lack of stable production.** Peanut farmers only cultivate in the rainy season. Lack of irrigation, good storage facilities, and access to peanut varieties resistant to fungi, hinder them from building the capability to supply big buyers.
- **Lack of knowledge on how to sort retained seed.** The farmers have a lack of knowledge on how to handle, sort and select the previous seed to be used during the next planting session.
- **Limited number of nursery who able to produce certified quality seed.** The demand for certified peanut seed from farmers is much lower than demand for other seed. The certification expiry date is too short to give farmers enough of an opportunity to sell the seed. At the same time, Garuda, a producer of peanuts for consumption, already owns a patent for its peanut seed implemented by its captive farmers. These constraints have led to a reluctance by nurseries to develop a peanut seed business.
- **Limited applicaiton of GAP.** If well-managed, peanut productivity can reach two to three MT per hectare of dry peanuts. One of the constraints leading to optimal results not being achieved by farmers is that they frequently tend not to fully adopt improved cultivation techniques.
- **Lack of knowledge about market standards.** Most farmers in East Java do not know about the standard preferred by the market, particularly industrial markets.
- **Limited knowledge of good post-harvest handling practices.** Peanut traders have to ship their crop to food processing companies within forty-eight hours of harvest to avoid the risk of spoilage by Aflatoxin (a naturally-occurring carcinogenic toxin which can develop in warm, damp storage conditions).

Intervention areas

To address the challenges above, PRISMA works with partners to:

- Facilitate production planning of Balitkabi and pre-order systems from nurseries.
- Develop the capacity of nurseries in GAP and post-harvest practices.
- Promote proper application of GAP in peanut cultivation to farmers.
- Promote effective use of crop protection products for peanut cultivation.

Progress and signs of systemic change

The following progress was achieved in the last semester:

Adopt

- Balikabi is implementing PRISMA's business model and has started to produce an increased amount of foundation seed to meet nurseries' demand.
- Balitkabi now provides capacity building activities to peanut nurseries on GAP and good handling practices.

Respond

- Agro chemical company PT BASF has started to include the peanut sector in its business strategy as the company's new source of growth, and in 2018 will begin to promote its products in Tuban, Lamongan, Bojonegoro, Ponorogo, Magetan and Ngawi.
- PT Syngenta, another agrochemical company, also plans to expand its business portfolio by entering the peanut market, and in 2018 is targeting peanut farmers in Tuban, Magetan, Pasuruan, Sampang and Bangkalan as its new focus areas.

10.2 Peanut NTT

Although NTT is the sixth largest peanut producing province in Indonesia, it lags far behind the top four provinces which are all in Java. Here, productivity, at 0.87 MT per ha, is below the national average of 1.33 MT per ha; peanut production and acreage however have steadily increased, contrary to the national trend of decreasing production and area cultivated, regardless of the significance decrease in terms of acreage and yield of peanut production. NTT's peanut is produced in Flores, Sumba and Timor. Timor has the largest production base spread over four districts. Significant imports have occurred during periods of lean production, such as 2011 when up to 8,000 MTs were imported into the province.

Many poor farmers are involved in peanut cultivation in NTT. Climatic conditions here make peanut a suitable crop. There is immense scope for improving productivity and quality by introducing quality seed, improving production and post-harvest practices, and increasing the number of buyers. Peanut in NTT thus has potential to reduce poverty, substitute imports, and increase exports to other provinces and countries.

Challenges and constraints

The overarching problem with the peanut sub-sector in NTT is its low competitiveness. This stems from relatively low productivity and production, which does not attract traders to rely on the domestic supply. The specific problems and their underlying causes are summarised below.

- Farmers do not apply good farming practices (in terms of seed selection, land preparation, planting and maintenance); in general, farmers lack access to information on better farming practises.
- Farmers use retained seed, as there is no commercial business to multiply and distribute good quality seed in NTT. Seed producers in other provinces have no established networks, stable water supply, or knowledge of NTT to motivate them to promote peanut seed.
- Farmers do not apply good post-harvest technology (especially drying technology) and this restricts them from improving the quality of their produce and storing them for long periods. As peanut is not yet a highly commercial crop, no commercial provider has been motivated to address this information and service gap. The collectors and inter-island traders lack capacity to provide information about post-harvest techniques and drying. Inferior quality pulls down the price further. As well as dry processing, the traditional threshing methodology also adversely affects the harvesting time; due to lack of labour, farmers often leave their crop too long and allow the peanuts to sprout in the ground. This reduces yields and contributes to a decrease in the farmer' income.

- Farmers often do not have enough capital to buy and use better inputs and tools. Their financial literacy is often limited, meaning they are unable to make use of the financial services available.
- Farmers also plant peanuts for their subsistence needs, not focusing production on gaining profit. Thus, productivity is not essential for them.
- The government extension service has limited resources and capacity; it therefore tends to focus on other priority sectors and is unable to meet the needs of the peanut farmers.
- Private input companies do not see peanut farmers as major clients, and lack the capacity and vision to expand their client base.
- Local **Seed Supervision and Certification Agency (BPSB)** has limited capacity and experience on technical skills in peanut.

Intervention areas

To address the challenges above, PRISMA works with private sector partners to:

- Facilitate production planning of Balitkabi and pre-ordering system from nurseries.
- Capacity development of nurseries in GAP and post-harvest practices.
- Promote proper GAP application for peanut cultivation to farmers.

Progress and signs of systemic change

The following progress was achieved in the last semester:

Adopt

- PRISMA's private sector partners (CV Tiga Putri Mandiri, CV Sinar Tunbeis Makmur) are producing and selling good quality peanut seed for farmers in Kupang and Belu districts. These nurseries have recruited agronomists to promote the seed, alongside providing appropriate and up-to-date information on GAP and technical assistance to farmers.

Adapt

- PRISMA's partners are also expanding their business to other areas and crops. CV STM has invested in mung bean production, and CV Anjas is currently at the trial stage for soybean seed production.

Expand

- Three new nurseries (CV Anjas, CV Dirga Jaya Teknik and Pius Botu) have shown interest and started initial production of peanut seed.

Respond

- Local government has expressed an interest in introducing and distributing good quality peanut seed for farmers, and procuring from PRISMA's partners.
- Recognising the substantial demand for peanut foundation seed, Balitkabi has started to establish communications with nurseries.

11.PIG

Pigs Sector Summary

With a predominantly Muslim population, pork is the 4th most widely consumed source of meat protein in Indonesia after chicken, cattle and fish. Consequently, pork consumption per capita for the country is less than 3kg per head, compared with more than 20kg per head in neighbouring Philippines and up to 40% in Hongkong. Nevertheless, certain areas of Indonesia have a high per capita consumption rate e.g. Bali with its predominantly Hindu population, Nusa Tenggara Timur (NTT) and Papua with predominantly Christian populations. There is a growing demand at 2.14% in the last 7 years from the 32.5 million non-Muslim Indonesians and 9.5 million tourists visiting the country every year.

Quick facts:



Total production
344,246 Tons



Total population
8.1 million



Consumption
3kg/head

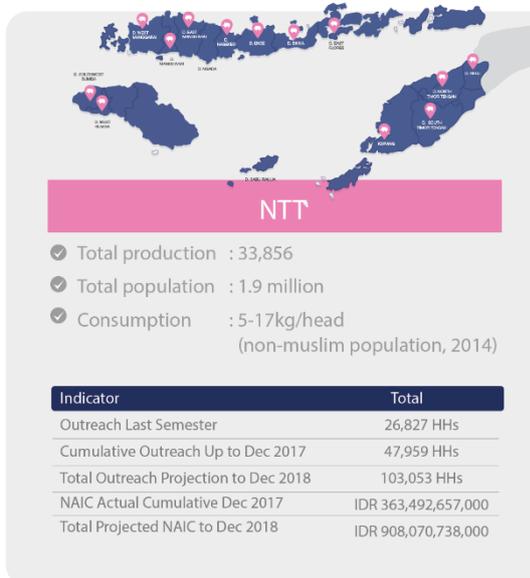


Female participation*
42%



Demand
2.14% (increase)

*from AIP-Rural intervention areas



Subsector Profiles

11.1 Pig NTT

East Nusa Tenggara (NTT) is the largest producer and consumer of pork in Indonesia where about 90% of the population of 5 million are non-Muslim and consume pork. NTT contributes to 23% of national production and in NTT 85% of household rear pigs (more than three pigs per household on average). Pigs are considered an important commodity for people in NTT and around 86% is consumed for traditional and religious events. In 2014, 7.8 million pigs lived in Indonesia. The pig population in NTT was 1.7 Million in 2014 and pig meat production of NTT was around 32,000 tons. Timor (38%), Flores (34%) and Sumba (16%) are the main producers of pig in NTT.

Pigs are typically reared, slaughtered and marketed in a traditional way, leading to low productivity. Pig rearing practices are still very rudimentary as indicated by low quality breeds, low quality feed, low quality sows and boars, poor rearing/farming practices including poor pig health management and diseases treatment. Around 93% of pig rearers use poor quality local waste/agriculture products as feed; 91% know nothing about diseases like swine fever, and 65% have never had extension or veterinarians visit their farm.

Challenges and constraints

The two main reasons pig farmers in NTT are not able to increase production can be attributed to:

- Lack of access to good quality feed, vet services, and improved breeds/piglets. This limits pig growth and performance. Low quality feed and breeds/piglets, increased risk of disease outbreaks and pig mortality ultimately impact the potential productivity and profitability of pig-rearing for farmers, particularly for women farmers. As a result, farmers are reluctant to invest in pig rearing activities. Government interventions do not take into account the need for high quality feed and pharmaceutical and vet services, and therefore have not been successful.
- Traditional rearing methods. Farmers, particularly women, lack the knowledge, skills and experience needed to breed, grow and fatten pigs commercially; the use of traditional methods means local pigs are often unhealthy, generating suboptimal weight and providing suboptimal returns.

Intervention areas

To address the challenges above, PRISMA works with partners to:

- Introduce and promote good rearing practices (GRP) to farmers through a series of demonstrations, marketing activities, information-sharing sessions and other tools to raise awareness and adoption of GRP and complete feed by poor rural households.
- Advise feed and pharmaceutical companies in their entry and expansion in the NTT market, supporting the development of rural distribution networks, recommending sales strategies and practices that effectively target the bottom of the pyramid.
- Support introduction and supply of improved breeds to poor farmers by working with a network of breeders and government departments to increase farmer access to breeds and use of improved breeding and rearing practices.
- Training in business calculations are bundled with training on GRP so farmers can see the sense in “investing” in their pigs by building decent pens, buying complete feed and pharmaceuticals and looking after their investment. Linking these farmers to collectors (traders, abattoirs, restaurants and processors) also improves their access to consistent markets for their pigs.

Progress and signs of systemic change

The following progress was achieved in the last semester:

Adopt

- Suggestions for pharmaceutical partner Medion to enter the NTT swine market (such as putting safety labels on disinfectant products, producing smaller packets, designing market promotion and education kits for farmers, providing a weight chart/table to measure the pigs’ weight, and promoting products through SMS blasts and establishing a call centre or local representative in NTT).

Adapt

- Partners are repackaging their feed in smaller packs (5 kg, 10 kg, 20 kg), making it more within the reach of farmers with limited disposable income. This practice was also adopted by PRISMA’s pharmaceutical partners whose products were aimed at more commercial farmers with large numbers of pigs.
- Partners have introduced diversified pig feed product (e.g. for local breeds, pregnant and nursing pigs). In Flores and Sumba, they have also started selling other animal feed products (for poultry and cattle); some have been motivated to use the same marketing strategies to promote cattle feed products in East Java.
- Partners are offering incentives to buyers and sellers of their feed products. For example, feed companies offer points to consumers for their purchases, and incentivise agents to meet targets with rewards including motorbikes and visits to their factories. In NTT, PT Sierad Produce Tbk launched its customer loyalty scheme *Sierad Poin 2017* whereby buyers of their feed are rewarded with points which they can redeem for products such as measuring cups, mugs and jackets.

- Recruitment and delegation of more staff and to support agents in their marketing efforts. In some cases these staff are trained veterinarians able to provide technical and health advice to farmers while the agents can focus on selling the product.
- Establishment of warehouses in NTT for their feed for buffer stock and to smooth out irregularities in the supply of feed from Surabaya, usually brought about by bad weather affecting shipments and other delivery constraints.

Expand

- Pig feed partner Japfa Comfeed agreed to work with PRISMA to market beef cattle feed in East Java using the same marketing model it adopted for pig feed in Flores.
- The head of the Mimika Livestock Department in Papua visited Flores accompanied by four staff members, to meet various pig market actors and explore the possibility of implementing a pig intervention in Papua. The government indicated it had an IDR 5 bn budget at its disposal to support a pig program for indigenous farmers.

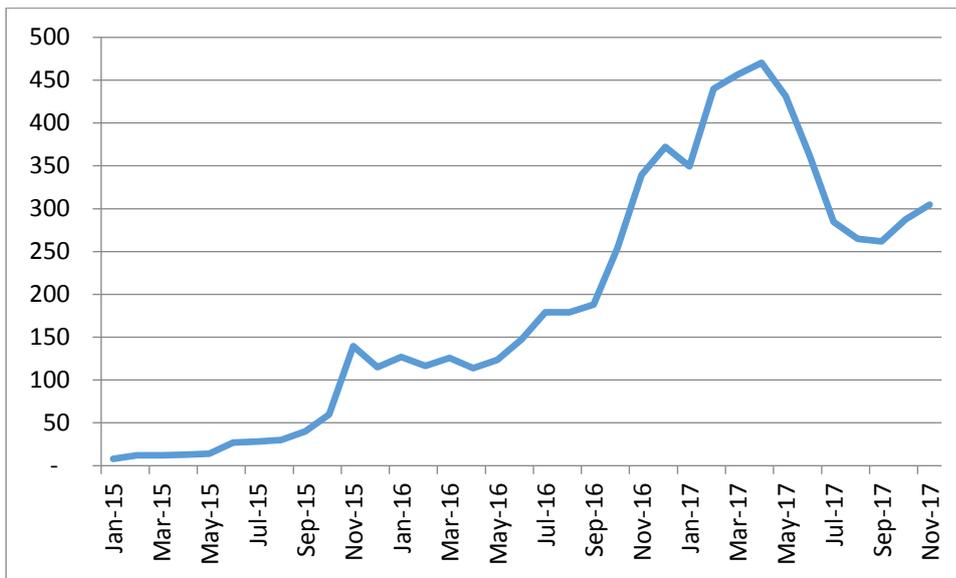
Respond

- A growing number of new pork restaurants are offering pork-related menus. There are at least 67 restaurants and *warungs* now, increased from less than 12 when this intervention started.
- One district government hosted a pork festival to raise awareness of the growth of the pig sector and to drive interest in all aspects of the market.
- An increasing number of transporters, traders, butchers, meat shops and private slaughterhouses (two in Bajawa, one in Ende, one in Maumere). Pork processing is also becoming increasingly viable with several companies (UD Dwi Boga Utama, PT Aromaduta Rasaprima, Bruder Santo Konradus, CV Rembu Tedeng) expressing an interest in investing in processing facilities.
- Pak Gerald, a pig trader in Ende, signed contracts with five farmers to supply him 10-14 pigs per week, an indication of backward vertical integration. He bought a bread oven to make pork meat rolls, indicating forward vertical integration into the downstream sector.
- Other pig traders in Flores also have started trading in feed; some have bought vehicles to deliver feed to farmers when they go to pick up pigs.
- Bruder Lusi, a breeder partner from PRISMA's earlier breeding intervention has started a contract farming model, providing farmers with feed and piglets to rear on his behalf.
- Pharmaceutical products for swine are progressively available in the market as pharmaceutical partners increasingly recognise existing opportunities.
- Related to this, two agents from Flores travelled independently to attend a livestock expo in Surabaya where they struck deals with drug companies to supply them with drugs for the swine market in Flores.

Response to hog cholera outbreak

Rumours of a hog cholera outbreak surfaced in May 2017. However, as it was not confirmed, Flores was designated a "hog cholera-free zone", meaning that farmers could not privately import the vaccine to treat their surviving animals. An estimated 10,000 pigs died as a result of the outbreak before the government response kicked in, estimating to have cost Flores farmers USD 2.5m in lost revenue. The remaining pig population of 750,000 pigs remains at risk.

Deaths from hog cholera have also impacted feed company revenues, with pig feed sales reversing their previously persistent upward trend, as pig deaths started to impact farmers demand for feed. After reaching a monthly peak of 470 MT in Flores in May, demand for pig feed started to drop off, falling as low as 260 MT by September 2017 (down 44% from the peak), before starting a tentative recovery.



In June 2017, six districts in Flores declared cases of hog cholera, which were believed to have started up to four months earlier. In response, the PRISMA team met with the Ende district and provincial livestock departments to hear their proposed response to the outbreak and advise on an action plan. The meeting reached the following agreements:

- NTT governor to send a letter to all districts in Flores, endorsing a quick response to prevent further spread of hog cholera
- Provincial livestock department to conduct a seminar with PRISMA at its next monthly coordination meeting
- NTT government to increase the budget for fiscal year 2018 to include an amount to cover hog cholera vaccination, and data collection and investigation into hog cholera throughout NTT.
- NTT government declares itself open to working with the private sector (which provides vaccines) to educate farmers and supply the vaccine to the area.

The Newspaper Flores Pos published an article on 29 August 2017 about Bruder Lusi, an Ende pig breeder who lost more than 400 pigs due to hog cholera. This instantly raised awareness among market actors, particularly pig farmers, government representatives, and feed and pharmaceutical companies. As a direct result of this newspaper story, the Directorate General for Livestock and Animal Health sent a team comprising two members of head office staff (one from BBVet (Indonesia Veterinary Research) Denpasar, one from the provincial office) to NTT to investigate the hog cholera epidemic. During their visit 30,000 vaccines were dispersed. Due to the lifting of the ban on vaccines, Flores is no longer considered “hog cholera free”. An animal drug store owner in Ende ordered the first batch of 15 50-dose bottles of hog cholera vaccine from vaccine supplier PT Romindo Primavetcom; he also ordered 20 20-dose bottles from another vaccine manufacturer.

To raise awareness of hog cholera and encourage the growth of the pig sector in Flores, PRSMA’S co-facilitator teamed with Nagekeo’s tourism department for the first ever Pig Festival in the district. Three of PRISMA’s feed partners disseminated information and promotional materials and sold their feed. A workshop on hog cholera was also held, the first since the outbreak started in February 2017.

- At the end of October 2017, PRISMA held a multi-private sector hog cholera workshop as part of ILDEX (International Livestock, Dairy, Meat Processing and Aquaculture Exposition). This involved existing partners (such as Sierad, Malindo, Medion) and other animal industry stakeholders (e.g. pharmaceutical companies SCI, Romindo, Sanbe and Kalbe) to develop a strategy for handling hog cholera in NTT and to form a united response to present to the NTT government.
- As a direct outcome of this workshop, in November 2017 four training sessions were conducted in Flores for 156 vaccinators (extension officers, paramedics and veterinarians). The Association of Indonesia

Monogastric Animal Vets released certification signed by the Board of Indonesian Veterinarians certifying the holder as a legitimate vaccinator. These certificates were presented to the attendees of the vaccinator training and is a new concept developed specifically for this training.

- In November 2017, a Multi-Stakeholders Workshop on Hog Cholera was conducted in Labuan Bajo. Hosted by the NTT provincial livestock department in partnership with PRISMA, this event was attended by the Director General of Livestock and Animal Health from the MOA, BBVet Denpasar and representatives of all 22 district livestock departments in NTT, as well as feed and pharmaceutical companies and their distribution agents. The purpose of the workshop was to:
 - (1) raise awareness among stakeholders (farmers, government and private sector representatives) o hog cholera, its threats its impact on NTT pig sector development
 - (2) develop a national roadmap for hog cholera eradication, particularly for NTT province
 - (3) establish a hog cholera coordination team to oversee the development of the roadmap.

As part of the workshop, the government voiced its strong support of the development of road map, at both the national and the sub-national levels. Agreements were reached on:

- policy facilitation, including the creation of a coordinating forum to initiate a plan to eradicate hog cholera. This involves the government and steering governor regulations on hog cholera eradication across NTT
- access to vaccines and information services, including assessment of facilities to distribute vaccines, training for vaccinators, development of vaccinating methodology, and surveillance
- biosecurity improvements, including development and provision of procedures, tools and equipment to ensure biosecurity and public awareness
- monitoring and control of pig movement and trading (including checkpoint improvement), pig health certification enforcement, and improvements to the pig database.

61,800 doses of vaccine were administered, benefiting an estimated 12,000 farmers whose pigs would otherwise have contracted hog cholera and died.

12.PPC MAIZE PAMEKASAN (GOI)



PPC Maize Pamekasan (GoI)

Sector Summary

The Government of Indonesia, under its 'self-sufficiency' agenda, highly subsidizes the sector; around 80% of the total harvested area is covered by the free seeds and subsidized fertilizers. The maize price has been increasing steadily over the years. There is a clear opportunity to increase maize production, productivity and quality as part of Indonesia's drive towards import substitution; the zero-import quota has further contributed to the higher corn price in 2017. The average productivity is estimated to be around 5.5 Tons/ha; however, the field observation and BPS data shows lower productivity (around 3 - 3.5 Tons/ha) of maize, especially in Madura island. PRISMA has identified a clear opportunity to increase maize production, productivity and quality by supporting a private public collaboration in promoting short maturity hybrid maize seed in the island.

Quick facts:



Funds for GAP Provision
IDR 4.1 Trillion



Average land ownership < 0.5 Ha



Average productivity
3.5 MT/ha



Total planting area
2.63 million Ha



Total farming households
3.2 million

*from AIP-Rural intervention areas



Pamekasan

- ✓ Total Farmer Households : 141,602
- ✓ Hybrid Maize Seed Sales : 7 MT
- ✓ No of demo plots : 135 demo plots

Indicator	Total
Outreach Last Semester	-
Cumulative Outreach Up to Dec 2017	-
Total Outreach Projection to Dec 2018	2,120 HHs
NAIC Actual Cumulative Dec 2017	-
Total Projected NAIC to Dec 2018	IDR 4,744,793,200



PPC Maize OVERALL

Indicator	Total
Outreach Last Semester	-
Cumulative Outreach Up to Dec 2017	-
Total Outreach Projection to Dec 2018	2,120 HHs
NAIC Actual Cumulative Dec 2017	-
Total Projected NAIC to Dec 2018	IDR 4,744,793,200.00

Value For Money (VFM)	PPC Maize Overall
Investment Leverage:	-
Investment Per HH:	-
Social Return:	-

Subsector Profiles

12.1 Maize Pamekasan

The Government of Indonesia's National Medium-Term Development Plan 2015-19 provides the basis for public budgeting and has set self-sufficiency in food crop production as a target for Indonesia's development by 2019. Through its Strategic Plan 2015-19 policy, the MOA has interpreted this to mean self-sufficiency in rice, maize, soya bean and beef by the end of 2017, to be achieved by its planting expansion program, UPSUS.

The MOA plans to allocate:

- IDR 7.8 trillion in 2018 and IDR 7.7 trillion in 2019 to achieve this target.⁷ The government expects that the UPSUS program will enable Indonesia to cease maize imports by the end of 2017.
- IDR 4.4 trillion (in 2018) and IDR 4.1 trillion (in 2019) for GAP provision to achieve the self-sufficiency target in rice, maize and soya bean production.

The existing UPSUS program does not include the provision of GAP from private seed companies; rather, it places the onus on PPLs and POPT staff to do so. However, there is no evidence that PPLs work more

⁷ Strategic plan of Directorate-General of Crops, Ministry of Agriculture, 2015-19, p.79.

effectively in GAP provision than private extension service providers. Private seed companies are unable to provide GAP effectively because the MOA makes subsidised seed more attractive, making it available to farmers at 30%-40% of the market price. The MOA also plans to allocate APBN to encourage farmers to produce high value crops (including shallot and chili) in 2018 and 2019 at the subnational level. At the district level (East Java), local government representatives who have completed M4P training are aware that the subsidy program could distort the market and are willing to collaborate with private sector organisations.

Challenges and constraints

- Use of retained local seed and poor application of GAP.
- Slow adoption of hybrid seed due to social and cultural norms (farmers are willing to use hybrid seed only if its age is similar to that of local seed).
- Increasing maize seed subsidies with no GAP provision.
- Lack of private extension services and weak public extension provision.
- Leakage of UPSUS seed to short maturity hybrid seed market area.

Intervention areas

To address the challenges above, PRISMA works with partners to:

- Promote short maturity quality hybrid seed and application of GAP.
- Facilitate access to markets for hybrid maize farmers.

Progress and signs of systemic change

The following progress was achieved in the last semester:

- The agriculture office of Pamekasan district has asked its PPLs to provide PT DuPont with data on those farmer groups who appear to have the potential to respond to the promotion of the P35 strain of hybrid rice seed and, since July 2017 (after M4P training), to encourage farmers to use short maturity hybrid maize seed. As impact, by early December 2017, DuPont reports that sales of P35 have increased significantly (from 0 kg in 2016, 500 kg from January-June 2017, to almost six MT in November 2017).
- DuPont almost left Pamekasan in early 2017 to work in Sumenep due to existence of better opportunities to increase sales. If they could commit to the Sumenep district agriculture office that they would allocate one agronomist/field staff to assist farmers working on 800-1000 Ha of maize farming land, in return the government would buy hybrid seed from DuPont to support the UPSUS program in Sumenep. Up to July 2017, PT DuPont received information from Dinas in Sumenep that Gol would buy hybrid seed from Dupont and distribute it over an area of 1,500 Ha. To facilitate this, DuPont would need to allocate two agronomists/field staff to assist UPSUS farmers with GAP. At the same time, Dinas is finding more than 10,000 Ha of land for the promotion of hybrid seed, with financial assistance from BNI (KUR program). This means that DuPont will need ten more agronomists/field staff to assist those farmers receiving loans from BNI, with GAP; DuPont had five field staff (including an agronomist) in Madura. From July to October 2017, Pamekasan would not be targeted for P35 promotion if Dinas failed to convince them to support the massive promotion of short-term seed in Pamekasan. This intervention process led to the conclusion that the role and willingness of PPLs to provide data on potential farmer groups for promotion makes DuPont able to significantly increase their sales in the district, even beyond their 2017 sales target.

13.PPC HOMESTEAD GARDENING



PPC Homestead Gardening

Sector Summary

Indonesia is among the largest vegetable consumers, along with India, Japan and China. It is the 14th largest producer, and the largest producer out of the ASEAN countries - contributing to approximately one per cent of the global vegetable production. However, when the productivity of each crop key vegetable crop in Indonesia remains lower compared to its neighboring countries. There is a significant gap between vegetable consumption and production in Indonesia, where the consumption rate is higher than that of production (-0.78).

Quick facts:



Total production
12 million MT



Total harvested area
1.1 million Ha



Productivity
1.18MT/Ha



Demand
-3% (decrease)



NTT

- ✓ Total Potential Harvested Area: 1,266 hectares (80 m² per HH)
- ✓ Total farm household: 158,171
- ✓ Projected cost savings per farm household: IDR 234,000

Indicator	Total
Outreach Last Semester	-
Cumulative Outreach Up to Dec 2017	-
Total Outreach Projection to Dec 2018	8,326 HHs
NAIC Actual Cumulative Dec 2017	-
Total Projected NAIC to Dec 2018	IDR 288,512,000



NTB

- ✓ Total Potential Harvested Area: 506 hectares (50 m² per HH)
- ✓ Total farm households: 101,205
- ✓ Projected cost savings per farm household: IDR 392,400

Indicator	Total
Outreach Last Semester	-
Cumulative Outreach Up to Dec 2017	-
Total Outreach Projection to Dec 2018	4,650 HHs
NAIC Actual Cumulative Dec 2017	-
Total Projected NAIC to Dec 2018	IDR 244,112,064



Homestead Gardening OVERALL

Indicator	Total
Outreach Last Semester	-
Cumulative Outreach Up to Dec 2017	-
Total Outreach Projection to Dec 2018	12,976 HHs
NAIC Actual Cumulative Dec 2017	-
Total Projected NAIC to Dec 2018	IDR 532,624,064

Value For Money (VFM) Homestead Gardening Overall

Investment Leverage:	-
Investment Per HH:	-
Social Return:	-

Subsector Profiles

13.1 PPC Homestead Gardening EJ & NTB

Under its 'food sovereignty' agenda, the GoI legislates for the promotion of food diversification to mitigate against the risk of social problems arising from food and nutrition scarcity at the household level. One approach has been to implement a homestead gardening program. The MOA, provincial governors and district heads have been instructed by government to allocate funds to female farmer groups to establish fruit and vegetable seedling nurseries, greenhouses, demonstration plots and annual GAP training. In addition, and significantly for the PRISMA, the GoI is also encouraging local government to manage and scale up the homestead gardening program through collaboration with the private sector. PRISMA has identified a clear opportunity to increase vegetable production, productivity and quality by facilitating a private-public collaboration to promote vegetable quality seed through homestead gardening in rural regions of East Java, starting with Madura Island and NTB. In Madura, this initiative is facilitating EWINDO's reach to an increased number of rural farmers, enabling it to deliver GAP and sell more vegetable seed.

Challenges and constraints

- Farmers are unaware of hybrid vegetable seeds and continue to use retained seed.
- Farmers have been planting vegetables but their understanding of and use of GAP is low.
- Farmers believe that the cost of planting vegetables at home is greater than buying from the market instead.
- The absence of a homestead yard constitutes one of the main reasons women in NTT are hesitant to plant vegetables at home. This is coupled with lack of information about the use of polythene bags for planting.

Intervention areas

To address the challenges above, PRISMA works with partners to:

- Promote small packets of quality vegetable seed for rural farmers.
- Promote garden utilisation using high quality vegetable seeds and GAP to improve family nutrition, improve efficiency in producing vegetables, and increase the farmers' income.

Progress and signs of systemic change

For this new intervention, the following progress was achieved in the last semester:

- EWINDO (in East Java) and BISI (in NTB and NTT), acting as PRISMA's private partners in the homestead gardening intervention, will invest in small packets of vegetable seed by distributing an increased number of products to the targeted intervention area.
- The Government of Indonesia (in this context, represented by the district government of the intervention areas) will obtain its supply of seed for its KRPL program from BISI and EWINDO, thereby ensuring that the seed distributed to farmers is of high quality.
- EWINDO and BISI will approach the district government suggesting the use of KRPL program as a means for their market penetration. This will provide an indication of private partner buy-in to the intervention, which is an essential part of any M4P programme and is required by PRISMA before the intervention can proceed. PT EWINDO and PT BISI International will thus begin to establish a relationship with government as the intervention owner.
- A number of other companies are already selling small packets of vegetable seed in the intervention areas, and it is predicted that the success of the partnership will encourage them to implement this business model. DuPont Pioneer, Bintang Asia and/or Permata Hati will start marketing their seeds in small packets (targeted for household use) through collaboration with district government and help from PPLs during distribution and selling.

14. SEAWEED



Seaweed

Sector Summary

Global demand for seaweed since 2010 has grown 13% annually, driven by vast growth of products in which seaweed is an important raw material including in food, materials, and for the pharmaceutical industry. Between 2000 and 2013, annual Raw Dried Seaweed (RDS) production in Indonesia rose from under 200,000 MT to around 1.1 million MT, and in 2007 Indonesia replaced the Philippines as the world's largest seaweed producer. In Indonesia, RDS production is mainly centralized in Eastern Indonesia, where the Sulawesi and NTT provinces account for the majority of national production.

Quick facts:



Total production
1.1 million MT



Total population
384,733 Ha



Productivity
2.8MT/Ha



Female participation*
46%



Demand
13% (increase)

*from AIP-Rural intervention areas



NTT

- ✓ Total cultivated area : 10,786 Ha (in 2014)
- ✓ Total farm households : 30,589 (in 2014)
- ✓ Total production : 200,144 MT (in 2014)

Indicator	Total
Outreach Last Semester	-
Cumulative Outreach Up to Dec 2017	630 HHs
Total Outreach Projection to Dec 2018	3,066 HHs
NAIC Actual Cumulative Dec 2017	IDR 159,906,600
Total Projected NAIC to Dec 2018	IDR 24,382,386,600



PAPUA

- ✓ Total harvested area : 23.2 Ha**
- ✓ Total farm households : 900**
- ✓ Total production : 115-125 MT** (2017)

Indicator	Total
Outreach Last Semester	-
Cumulative Outreach Up to Dec 2017	-
Total Outreach Projection to Dec 2018	154 HHs
NAIC Actual Cumulative Dec 2017	-
Total Projected NAIC to Dec 2018	IDR 4,615,260,960



WEST PAPUA

- ✓ Total harvested area : 23.2 Ha**
- ✓ Total farm households : 900**
- ✓ Total production : 115-125 MT** (2017)

Indicator	Total
Outreach Last Semester	-
Cumulative Outreach Up to Dec 2017	-
Total Outreach Projection to Dec 2018	501 HHs
NAIC Actual Cumulative Dec 2017	-
Total Projected NAIC to Dec 2018	IDR 16,132,563,103



Seaweed OVERALL

Indicator	Total
Outreach Last Semester	-
Cumulative Outreach Up to Dec 2017	630 HHs
Total Outreach Projection to Dec 2018	3,720 HHs
NAIC Actual Cumulative Dec 2017	IDR 159,906,600
Total Projected NAIC to Dec 2018	IDR 45,130,210,664

Value For Money (VFM)	Seaweed Overall
Investment Leverage:	49.25%
Investment Per HH:	\$673.71 AUD
Social Return:	0.04

** total Papua and West Papua

Subsector Profiles

14.1 Seaweed NTT

In Indonesia, RDS production is mainly centralized in Eastern Indonesia where the Sulawesi and NTT provinces dominate total national production. NTT is an established area for seaweed production, second after South Sulawesi in the current list of top RDS producers. Initially, NTT produced approximately one fifth of national production but it has fallen to 200k MT in 2014. Although NTT has high potential for development due to its good local growing conditions and weather, it is estimated that up to 30k active farmers still continue cultivating seaweed in a decreasing cultivation area. Although logistics and transportation services are functioning well and are provided by collectors and traders, farmers lack access to knowledge, market information, and quality seedlings. In most regions in NTT, farmers do not apply improved technologies or cultivation techniques, and often engage in labour-intensive practices and unproductive cultivation techniques. Technology transfer services from the private sector are performing poorly, while support provided by local government are not focused on knowledge and information, but rather on the provision of cultivation materials instead.

Challenges and constraints

Four major root causes contributing to why farmers in NTT gain low profit from cultivating seaweed:

- Limited access to knowledge and information.
- Almost no access to quality inputs (seedling) and related supporting functions to cultivate seaweed.
- Wide gap of relationship and distance between RDS end markets and farmers.
- Interrupted source of income due to the effects of current weather changes and geographical constraints.

Intervention areas

To address the challenges above, PRISMA works with partners to:

- Promote application of GAP and GHP through demonstration plots.
- Facilitate a feedback mechanism from industry to farmers on seaweed quality standards.
- Promote fair profit distribution between the industry, its collectors and farmers.
- Facilitate access to finance through strengthening partners by collaborating with financial institutions.

Progress and signs of systemic change

The following progress was achieved in the last semester:

Adopt

- PRISMA's partners PT RKN and CV Sentinel have carried out two training of trainers (ToT) sessions, involving a total of 18 trained to reach out and train farmers on the agreed module of GAP and GHP.
- CV Sentinel and CV Mazu Seaweed have established a demonstration plot, implementing the recommended GAP, to serve as both a learning centre and nursery.
- CV Sentinel is located in Kerewei, West Sumba, an area no longer active in seaweed cultivation. Five demo farmers participated in the making of the demonstration plot, aimed at contributing to seedling availability and inducing the area's 150 former seaweed farmers to start cultivating again.
- CV Mazu Seaweed is located in Biu, East Sabu, where seaweed farming provides a subsidiary income for farmers. The demo plot was established by six selected farmers, one of whom has initiated the copying of the suggested methods in their own cultivation area. This is to the east of the demo plot site in Matiki, increasing possible access numbers to about 80 farmers.

Adapt

- PT RKN invested IDR 13 Mio in creating a BUMR (Badan Usaha Milik Rakyat) in Semau, Kupang, as means of both securing its supply and strengthening farmers of the area to create their own business unit.
- PT RKN also adapted the business models, exploring and expanding to new regions outside its intervention area, carrying out transactions in Wetar (Maluku), Lombok, increasing areas for expansion. It has also started its own farming scheme in Pantar, Alor, accommodating about 50 farmers and hiring the women of the village to assist in seedling preparation.
- CV Mazu Seaweed held a meeting of 32 ISPs, along with local government representatives, to address concerns regarding seaweed quality and the market in Sabu Raijua which has been greatly affected by ongoing price fluctuations. The results have greatly impacted local government, influencing it to accelerate the issuing of a 'quality policy', aside from the existing retribution scheme of IDR 500/kg for seaweed transported out of the area.

Expand

- CV Mazu Seaweed is involved in the establishment of a new factory (scheduled to open in the second quarter of 2018) in Batu Licin, South Kalimantan, and is simultaneously responsible for securing its seaweed supply. It is planning to adapt the existing business model in Sabu, pitched by PRISMA, in the new area.

Respond

- The local government of Sabu Raijua responded to CV Mazu Seaweed's forum held with local ISPs and farmers and capturing the rising concern of quality degradation in their district. It is drafting a policy addressing quality standards for the area. The only hinderance to this initiative is the absence of Sabu Raijua's regent.
- Bank NTT has responded to the needs of CV Sentinel, creating a new financial product (Kredit Usaha Rakyat or KUR, with a 9% interest rate), appropriate for seaweed with its unique, short cycle. The credit scheme became active from mid-January 2018.

14.2 Seaweed Papua & West Papua

Even though there is huge potential, currently West Papua and Papua haven't become provinces that produce significant quantities of seaweed in Indonesia. However, with increasing domestic and global demand of carrageenan over the years, new cultivation areas such as Fakfak and other islands out of West Papua and Papua such as Nunukan, Sebatik, Morotai have started increasing their production. Although the high transportation cost of shipping RDS from West Papua and Papua is still an influential factor in the buying price, RDS production in Papua is increasing where 44,8 MT was shipped out from the region since 2014, making this region a promising new seaweed producer in the country.

Challenges and constraints

Four major root causes contributing to why farmers in WP/P gain low profit from cultivating seaweed:

- **Seaweed is an inconsistent source of income** because of current weather changes and geographical constraints that severely affect production.
- **Long distances that cause high transportation and distribution costs** between RDS end markets and farmers.
- **Almost no access to quality inputs (seedlings)** and related supporting functions to cultivate seaweed.
- **Limited access to knowledge and information on good practices.**

Intervention areas

To address the challenges above, PRISMA works with private sector partners to:

- Promote application of GAP and GHP.
- Provide access to markets and feedback mechanisms on quality from industry level to farmers, while promoting fair profit distribution between the industry, its collectors and farmers.

- Facilitate access to finance through strengthening capacity in partners and collaborating with financial institutions.
- Provide access to seedlings and equipment.
- Facilitate access to information for environmental impact research.

Progress and signs of systemic change

The following progress was achieved in the last semester:

PRISMA has reached an agreement and signed MoUs with six partners: Bank Papua; the local governments (DKP and DPMK) of Fak Fak, Biak Numfor and Yapen; Indonusa, and YAMASE (an ISP in Yapen). PRISMA and the local regency governments of Biak Numfor, Yapen and Fak Fak have conducted ToTs, incorporating knowledge of seaweed GAP and GHP for a total of 31 people, comprising PPLs, collectors & Bank Papua staff.

Adopt

- PRISMA's partners, Fak Fak, Kaimana, Biak Numfor and Yapen local governments have procured quality seed and equipment from the Special Allocation Fund of the Ministry of Marine and Fisheries. A list of recipients has been published, and distribution took place between from November to December 2017 through local BUMKamps. The subsidy was IDR 3.4 billion, or 10 MT of seedlings and 110 seaweed plot units (long-line).
- Bank Papua adapted the business model and tailored a KUR credit scheme specific to the seaweed sector for BUMKamps, small collectors and seaweed farmers; at the same time, it provided each BUMKamp with a thorough explanation of the credit scheme.

Adapt

- In December 2017, Fakfak's regency government announced a budget for the development of the seaweed business in APBD Y2018/2019 worth IDR 3 billion to stimulate activities in production and trade.
- Fakfak regency reached an agreement with BPPT for a five-year contract to research and identify (1) potential seaweed areas, and (2) climate change statistics for its district, to support the growth of the local seaweed sector. As an expansion to this, three other regencies (Kaimana, Biak Numfor, Yapen) are in the process of following the lead of partnering with BPPT to explore their areas' potential in seaweed cultivation.
- Pelindo, a government-owned logistics operator, has conducted an initial survey on the potential increase of cargo transport for seaweed farmers in Fakfak to Makassar. This is tied to the present probation period of the maritime highway, where Fakfak's routes are currently exclusively directed towards Surabaya, while many seaweed processing factories are in Makassar.
- The Ministry of Marine and Fisheries (MOMF) has expressed interest in contributing more and allocating resources to the development of the seaweed sector in Papua and West Papua. It will attend a workshop scheduled for March 2018 arranged by Fakfak regency government, which aims to facilitate marine transportation policy advocacy strategy, improving the transportation of seaweed farmer goods in Papua and West Papua, to the MOMF and Ministry of Transportation (Kemenhub).

Expand

- MOMF has also expressed interest in expanding its focus on seaweed to NTT province, and conducted a field visit in early January, 2018.
- Five districts of West Papua and Papua (Teluk Wondama, Raja Ampat, Manokwari, South Manokwari and Supiori) have expressed interest in replicating the business model used in this intervention. They will also plan to attend the workshop arranged by the Fakfak regency government in March 2018.

Indonesia is the world's second largest importer of shallots and onions. The volume of imported shallots has increased sharply over the past decade - between 2002 and 2014, imports rose from 33,000 MT to 74,903 MT with most imported bulbs being consumed as food. Imports have accounted for 6% to 15% of domestic shallot consumption each year, and exports are negligible – less than 1.5% of total production. Shallot is one of the seven major commodities that are priority crops for the Government of Indonesia to achieve self-sufficiency in, as volatility in market prices has a significant impact on the population, and food price inflation.

Quick facts:



Total production
1.4 million MT



Total population
149,635 Ha



Productivity
9.67 MT/Ha



Female participation*
11%



Demand
17% (increase)

*from AIP-Rural intervention areas



East Java

- ✓ Total harvested area : 36,173 Ha
- ✓ Total farm HHHs : 45,722
- ✓ Total production : 304,521 MT

Indicator	Total
Outreach Last Semester	617 HHHs
Cumulative Outreach Up to Dec 2017	942 HHHs
Total Outreach Projection to Dec 2018	3,898 HHHs
NAIC Actual Cumulative Dec 2017	IDR 39,896,350,816
Total Projected NAIC to Dec 2018	IDR 51,991,949,816



NTB

- ✓ Total harvested area : 19,275 Ha
- ✓ Total farm HHHs : 17,438
- ✓ Total production : 2,390 MT

Indicator	Total
Outreach Last Semester	509 HHHs
Cumulative Outreach Up to Dec 2017	2,913 HHHs
Total Outreach Projection to Dec 2018	5,937 HHHs
NAIC Actual Cumulative Dec 2017	IDR 10,749,235,989
Total Projected NAIC to Dec 2018	IDR 28,816,724,111



Shallot OVERALL

Indicator	Total
Outreach Last Semester	1,126 HHHs
Cumulative Outreach Up to Dec 2017	3,855 HHHs
Total Outreach Projection to Dec 2018	10,072 HHHs
NAIC Actual Cumulative Dec 2017	IDR 50,645,586,805
Total Projected NAIC to Dec 2018	IDR 80,808,673,927

Value For Money (VFM)	Shallot Overall
Investment leverage:	129.61%
Investment per HH:	\$37.69 AUD
Social return:	34.86

15.1 Shallot EJ

East Java is the second largest shallot producing province in Indonesia, contributing around 20.9% of national production in 2016⁸. Most of the farmers in East Java cultivate shallot in the dry season during mid-year using retained bulbs, and have to face the challenge of pest attacks mainly from caterpillars. While some farmers also cultivate shallot in the wet season, they are more susceptible to threats from fungi attacks and adverse weather conditions. Nganjuk and Probolinggo are the main areas in East Java where shallot is produced, with around 25,000 farmers involved in the production process.

Challenges and constraints

The key challenge which prevents smallholder shallot farmers from taking advantage of this market opportunity are:

- **Lack of knowledge of pest and disease management.** Farmers are unaware of the technologies available to combat disease and pest attacks. Crop losses from fungi disease attack (*Fusarium Oxysporum*) and pest (in particular *Spodoptera exigua* caterpillars) can range from 10% to 90% of the entire crop and have a significant impact on the volume of shallot available for sale.
- **Large amounts of money spent on chemical inputs by farmers to combat the high incidence of pest and disease.** This further reduces their income by keeping average production costs high.
- **Lack of advanced storage technology.** Farmers cannot store their crops long term due to the high shrinkage rate of the crops. They have to sell the product immediately to prevent loss in weight even though the price is low. The other main reason for selling immediately is they have to pay the debt for the input or chemical cost to the retailer immediately after they harvest crops.
- **Low productivity due to low quality of planting materials.** Farmers are used to planting shallots with retained bulbs, which carry tuber borne disease. Retained bulbs with tuber borne disease have lower yield, less than 10 ton/ha, while bulbs without tuber borne disease can have approximately 15 ton/ha yield.
- **Limited availability of quality planting materials.** The government of Indonesia has recognized and recommended farmers to plant using TSS (True Shallot Seeds) instead of using retained bulbs. In addition to having a better productivity, TSS is significantly cheaper compared to retained bulbs, and shallot price fluctuation won't affect the planting material price. The constraint of planting TSS is the limited availability. PT EWINDO (East West Seed Indonesia), as the only TSS sellers in the market, currently do not have enough seeds to be sold in the market.

Intervention areas

To address the challenges above, PRISMA works with partners to:

- Promote the use of IPDM through private partnerships and social marketing campaigns.
- Promote production of TSS.
- Establish farmer access to appropriate financial products.
- Promote good post-harvest technologies to farmers.

Progress and signs of systemic change

The following progress was achieved in the last semester:

Adopt

- PRISMA's partners (CropLife Indonesia Association and PT Nufarm) are promoting IPDM technology and knowledge through social marketing campaigns, marketing events and promotional tools.

Adapt

⁸ Produksi Bawang Merah Menurut Provinsi, 2012-2016, www.pertanian.go.id

- PT EWINDO is successfully selling TSS to Indonesian shallot farmers and expanding its TSS production nationally and internationally.
- PT Nufarm has expressed an interest in expanding its IPDM product line to other crops and in bringing in other key stakeholders to promote IPDM technology and knowledge.

Expand

- Seed company BISI is exploring the possibility of adding TSS to its product line.

Respond

- In 2017, in response to increased awareness of its benefits, the Ministry of Agriculture mandated Balitsa (Balai Penelitian Sayuran, or Vegetable Crops Research Institute) to produce two MT of TSS.

15.2 Shallot NTB

After Central Java and East Java, NTB is the third largest shallot producer in Indonesia — producing 2,020,267 ton of shallots or almost 14% of national production in 2016. The district of Bima and Sumbawa Besar in Sumbawa Island and Lombok Timur are the main NTB's shallots production area. PRISMA has identified an opportunity for local farmers in NTB to increase productivity through the availability and use of higher quality planting materials with embedded GAP services and quality assurance.

Challenges and constraints

The major challenges to the shallot sector in NTB are:

- **Farmer productivity is low** because of their use of poor quality planting materials. Most of the smallholder farmers use retained bulbs sourced from their own farms, neighbouring farms or shallot traders as seeds used for planting material. The study of Vegetable Crops Research Institute in Lembang Indonesia⁹ shows that nearly 90% of Shallots in Indonesia have been infected by the tuber borne disease and its impact has been a decline in shallots productivity. Shallot production in Indonesia is based on crops grown from seed bulbs. The introduction of True Seed Shallot (TSS) could be an option to improve competitiveness of Indonesian shallot production.
- **Production costs, crop failure and losses are high because of pest and disease.** Farmers lack knowledge of GAP and are unaware of more affordable technologies (including those suitable for rainy season production) to combat disease and pest. Crop losses from *Fusarium* and pest attack (in particular the *Spodoptera exigua* caterpillar) range from 10-90%. Farmers spend large amounts on chemical inputs, further reducing income by keeping average production costs high.
- **Farmers are unable to benefit from higher prices during the off-season.** They tend sell their entire crop immediately after harvest (when prices are low) because of no access to storage facilities. While farmers need sufficient cash flow for household needs and inputs for the next planting season, this can usually be fulfilled by selling part of the harvest; the remainder of the crop could be stored and sold when price conditions are more favourable. Traditional storage practices are not suitable for extended periods of time. The lack of mechanisms to control humidity and to ensure that the shallot harvest stays dry can result in a significant deterioration in quality.

Intervention areas

To address the challenges above, PRISMA works with partners to:

- Promote the use of IPDM through private partnerships and social marketing campaigns.

⁹ "In the period 2007 till 2010 a research project was conducted to improve growing techniques of TSS. Seed emergence in the nursery was improved if the seed was sown in furrows 0.5-1.5 cm deep and by closing the furrow after sowing with soil instead of burned rice husks. Compared to traditional seed bulb crops productivity of TSS was much higher, up to twice as high in some experiments, while the growing period of TSS was two to three weeks longer. A recently developed cultivar, 'Sanren', which is an improvement in productivity, earliness, quality for the local market and which can be grown at a lower plant density than the older cultivar 'Tuktuk', has increased feasibility of TSS in Indonesia. Optimal plant density of 'Tuktuk' was 175 plants per m²; optimal plant density of 'Sanren' was about 75-100 plants per m², depending on the costs of seedlings. Optimal nitrogen fertilization of 'Tuktuk' was 180 kg N/ha; optimal nitrogen fertilization of 'Sanren' was 240 kg N/ha." L. van den Brink, R.S. Basuki (PRODUCTION OF TRUE SEED SHALLOTS IN INDONESIA)

- Promote the use of TSS.
- Promote post-harvest technology to farmers.

Progress and signs of systemic change

The following progress was achieved in the last semester:

Adopt

- PRISMA's partners Croplife Indonesia Association and PT Nufarm are now promoting IPDM technology and knowledge through social marketing campaigns, marketing events and promotional tools.
- PT EWINDO tried multiple business models to sell TSS and was successful with the seedling nurseries business model.

Adapt

- PT EWINDO has treated TSS as its business development product in the past; due to the success of the partnership it moved it to its commercial section and scaled up the business model to sell TSS throughout Indonesia.
- PT EWINDO has increased its TSS sales targets to 5.5 MTs for 2017, 10 MTs for 2019 and 40 MTs for the next five years, and has added more TSS varieties (Lokananta and Sanren) to its product line.

Expand

- PT Agrosid is registering its TSS variety in response to the increase demand for TSS in Indonesia.

Respond

- The MoA mandated Balitsa to produce two tons of TSS in 2017 in response to the increased awareness of the benefits of TSS.

16.SOYBEAN

Soybean Sector Summary

The national demand for soybean in Indonesia is growing at an average of 6.4% annually. However, a sharp decrease in the country's national soybean production in 1998 triggered a significant increase in soybean imports. Average annual production is currently at 0.9 million MT; Indonesia also imports 1.9 million MT every year to meet domestic consumption demand, making it one of the world's major soybean importers. Although productivity is increasing, the country's total harvested acreage has been experiencing a downward trend of -7.7% per year (particularly after 2009).

Quick facts:



Total production
542,000 MT



Total harvested area
357,000 Ha
(-35% from 2013-2017)



Productivity
1.5 MT/Ha



Female participation*
38%



Demand
6.4% (increase)

*from AIP-Rural intervention areas



East Java

- ✓ Total harvested area : 141,602 Ha
- ✓ Total farmers : 170,000
- ✓ Total production : 226,418 MT

Indicator	Total
Outreach Last Semester	1,346 HHs
Cumulative Outreach Up to Dec 2017	13,674 HHs
Total Outreach Projection to Dec 2018	19,683 HHs
NAIC Actual Cumulative Dec 2017	IDR 11,739,332,206
Total Projected NAIC to Dec 2018	IDR 14,318,122,577



NTB

- ✓ Total harvested area : 42,321 Ha
- ✓ Total farmers : 26,000
- ✓ Total production : 51,365 MT

Indicator	Total
Outreach Last Semester	1,432 HHs
Cumulative Outreach Up to Dec 2017	2,195 HHs
Total Outreach Projection to Dec 2018	5,381 HHs
NAIC Actual Cumulative Dec 2017	IDR 4,056,495,783
Total Projected NAIC to Dec 2018	IDR 10,646,189,938



Soybean OVERALL

Indicator	Total
Outreach Last Semester	2,778 HHs
Cumulative Outreach Up to Dec 2017	15,869 HHs
Total Outreach Projection to Dec 2018	25,064 HHs
NAIC Actual Cumulative Dec 2017	IDR 15,795,827,989
Total Projected NAIC to Dec 2018	IDR 24,964,312,515
Value For Money (VFM)	Soybean Overall
Investment leverage:	87.10%
Investment per HH:	\$4.80 AUD
Social return:	20.72

Subsector Profiles

16.1 Soybean EJ & NTB

Soybean farmers in PRISMA provinces (numbering almost 270,000) can tap into this opportunity. East Java and NTB are among the country's largest soybean producing regions, contributing an estimated 48% to national production. In East Java, around 30% of soybean farmers are poor or near-poor; the province has the highest productivity per ha in Indonesia (1.6 MT per ha) but not all of its districts are able to reach this level. The scenario in NTB is similar. Compared to the average national productivity rate of 1.6 MT per ha, some soybean farmers in NTB experience relatively low productivity (an average of 1.1 MT per ha or less).¹⁰

Challenges and constraints

The inability of farmers in EJ and NTB to increase production can mainly be attributed to:

- **Low productivity of soybean.** Farmers use poor quality input and apply poor agriculture practices which results in lower productivity. This is caused by a) the limited availability of good quality seed, b) a lack of access to information on GAP, c) improper use of agro-chemical inputs
- **Lack of new and highly productive soybean seed varieties** available in the market. Even though government R&D such as BATAN and BALITKABI have developed highly productive varieties, the availability is very low in the market due a to lack of coordination with other government institutions to disseminate the new varieties. On the other hand, private seed producers who have capacity and good distribution channels have not committed to enter this market..
- **Loss of soybean in the post-harvest process.** Soybean farmers lose about 5% of their harvest and the loss rate increases during the rainy season because of their reliance on inefficient traditional harvesting methods and lack of post-harvest knowhow and technology.
- **Low price of locally produced soybean.** Soybean price is also becoming one of the main issues as farmers are demotivated to plant soybean because the market price is too low. This is caused by low quality of locally produced soybean as a result of improper practices mentioned above.

Intervention areas

To address the challenges above, PRISMA works with partners to:

- Develop new nurseries to produce certified soybean seed.
- Develop the commercial market for certified soybean seed.
- Disseminate new commercial soybean varieties resulting from government R&D partnership with EWINDO.
- Promote GAP and crop protection through extension service workers (PPLs) in Lombok Tengah, NTB.

Progress and signs of systemic change

The following progress was achieved in the last semester:

Adopt

- Nursery CV Tani Mulia Agung in Trenggalek, East Java, continues to provide good certified seed to supply the government (both local and in other districts) program.
- PT East West Seed Indonesia (EWINDO) produced 14 MT of a new soybean variety (Mutiara-1) from BATAN. The seed is being sold in the first quarter of 2018 as part of a marketing trial, before expanding the company's scope of business from horticulture seed to food crop seed.
- Nursery UD Pemuda Kreatif introduced new packaging design as part of its brand awareness program and changed the size of the branded packaging from 10 kg to 25 kg. New retailers, including women, started marketing commercial soybean seed.

¹⁰ BPS, 2013; BPS, 2012; PRISMA calculations, 2014.

Adapt

- EWINDO has conducted trials of two new soybean varieties obtained from PT Balitkabi Malang.
- PT BASF has expressed an interest in continuing its partnership with PRISMA to promote soybean and expand the intervention's activities to include peanut. The soybean intervention will target soybean nurseries and their contract farmers to bundle seed with crop protection products, to increase productivity and reduce the risk of failure for both farmers and nurseries. The project with the soybean nurseries is expected to start in January 2018.
- PT BISI International Indonesia signed an MoU with PRISMA for "Promoting GAP and Crop Protection through Extension Service Workers (PPLs)" in Lombok Tengah, NTB. This intervention will provide PPLs with updated crop protection information for paddy, maize and soybean, and will be motivated to promote products and provide embedded services to farmers.

DRAFT

17. VEGETABLE

Vegetable Sector Summary

Indonesia's market for vegetable, potato and fruit products grew by 25% from 2007 to 2012. Despite being the 14th largest vegetable producer in the world and the largest producer in Southeast Asia, Indonesia's vegetable import volume continues to grow faster than exports. As Indonesia's domestic horticulture sector has suffered declining competitiveness, the government has taken steps towards more protective and restrictive trade policies. Thirty-three provinces in Indonesia produce over 20 types of vegetable, although 85% of all vegetables produced are grown on the islands of Java and Sumatra.

Quick facts:



Total production
12 million MT



Total harvested area
1.1 million Ha



Productivity
16.8 MT/Ha



Female participation*
43%



Demand
25% (increase)

*from AIP-Rural intervention areas



East Java

- ✓ Total harvested area : 119,401 Ha
- ✓ Total farm households : 625,950
- ✓ Total production : 1,184,575 MT

Indicator	Total
Outreach Last Semester	5,614 HHs
Cumulative Outreach Up to Dec 2017	5,614 HHs
Total Outreach Projection to Dec 2018	20,894 HHs
NAIC Actual Cumulative Dec 2017	IDR 18,868,200,000
Total Projected NAIC to Dec 2018	IDR 77,226,840,417.10



NTB

- ✓ Total harvested area : 12,320 Ha
- ✓ Total farm households : 58,398
- ✓ Total production : 180,083 MT

Indicator	Total
Outreach Last Semester	925 HHs
Cumulative Outreach Up to Dec 2017	925 HHs
Total Outreach Projection to Dec 2018	2,880 HHs
NAIC Actual Cumulative Dec 2017	IDR 8,930,100,000
Total Projected NAIC to Dec 2018	IDR 14,160,736,642



NTT

- ✓ Total harvested area : 13,697 Ha
- ✓ Total farm households : 92,633
- ✓ Total production : 61,500 MT

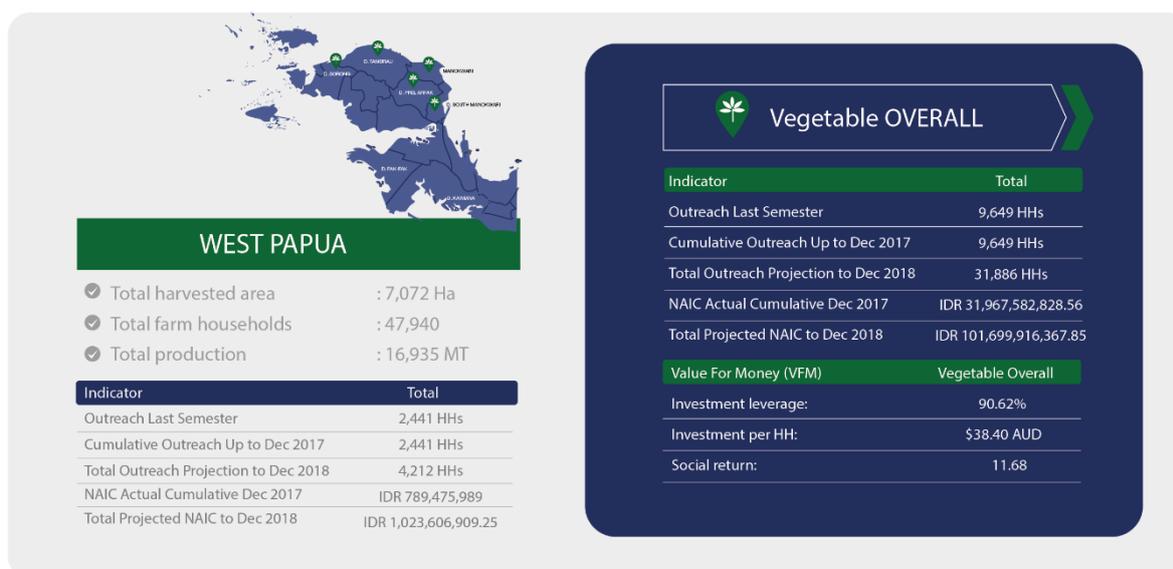
Indicator	Total
Outreach Last Semester	255 HHs
Cumulative Outreach Up to Dec 2017	255 HHs
Total Outreach Projection to Dec 2018	2,688 HHs
NAIC Actual Cumulative Dec 2017	IDR 602,400,000
Total Projected NAIC to Dec 2018	IDR 4,549,658,750



PAPUA

- ✓ Total harvested area : 10,123 Ha
- ✓ Total farm households : 266,054
- ✓ Total production : 65,772 MT

Indicator	Total
Outreach Last Semester	414 HHs
Cumulative Outreach Up to Dec 2017	414 HHs
Total Outreach Projection to Dec 2018	1,212 HHs
NAIC Actual Cumulative Dec 2017	IDR 2,777,406,830
Total Projected NAIC to Dec 2018	IDR 4,739,073,649,50



Subsector Profiles

17.1 Vegetable EJ, NTB & NTT

Despite being the third largest region producing vegetables in Indonesia, East Java (EJ) has lower productivity compared to the provinces in West of the country. Compared to the national average, productivity of potato, cabbage and shallot of EJ are slightly higher. However, chili and tomato produced in EJ has a lower productivity than the national average¹¹. The Vegetables sector in EJ is dominated by multi-layer distribution system where the transfer of harvested crops from farmers to end customers takes place through multiple market actors. The long distribution chain implies to poor information flow and information asymmetry among players within the chain.

NTB has 4,5 million inhabitants and is one of the poorest provinces in Indonesia with the poverty rate that stands at 16.48%, higher than the 10.96% national poverty. NTB heavily relies on agricultural production as its source of income. Based on PPI study conducted by PRISMA, 70% of vegetable farmers in NTB are poor. For the last decade, NTB has been facing issues with chronic poverty, with prevalence of nutritional deficiencies in the population as 43.65% (Rencana Aksi Daerah Pangan dan Gizi, 2015).

NTT is one of the lowest vegetable-producing provinces, contributing only 0.43% to Indonesia's total vegetable production¹². It is recognised that NTT is a net importer of vegetables (with the exception of garlic and spinach), with supply mainly from Java (ACIAR 2007), suggesting an opportunity to stimulate production in less developed regions. NTT has a low productivity for vegetables, which is reflected by a negative productivity index with just 2.9 MT per ha, less than 30% of the national average (10.32 MT per ha) in 2013.

Challenges and constraints

The major challenges to the vegetable sector are:

- **Farmer productivity is low** due to unfavourable environmental and climatic conditions, limited practice of land and water management, poor farming practices, and a lack of application of quality inputs and integrated pest management techniques.
- **Farmers have limited access to information on vegetable market, prices, and weather.** On the ground, actors who channel this information are also limited, this has hampered knowledge sharing and transfer down the value chain to the farmers.

¹¹ Calculated based on Ministry of Agriculture, 2014. http://www.pertanian.go.id/ap_pages/mod/datahorti

¹² "Final Report AIPD Rural Vegetables NTB & NTT 2013"; Ignatius Khomasurya and Phillip Morey, 10th October 2013

- **Product price is low due to an oversupply of vegetables**, harvested vegetables are poor quality due to limited post-harvest practice knowledge and techniques, farmers have a weak bargaining power and an inability to access modern markets.

Intervention areas

To address the challenges above, PRISMA works with partners to:

- Promote good quality agro-inputs and vegetable sector extension services (seed, fertiliser, crop protection, soil treatment products).
- Strengthen dissemination of GAP and agricultural information through a mobile application for agribusiness.

Progress and signs of systemic change

The following progress was achieved in the last semester:

Adopt

- PT Rainbow Agrosiences, PT NASA and PT EWINDO have built the capacity of key stakeholders to introduce good quality inputs and GAP, and supported them to actively introduce good quality inputs to farmers (in particular for crop protection) with embedded services on GAP (for example, by providing in-kind products and promotion materials).
- NASA and EWINDO have launched and socialised their apps through their communication platforms. NASA socialised the NASA-Agro app for android phone through several channels: its annual anniversary event, a SMS blasts, WhatsApp groups and regular training events.

Adapt

- PT Rainbow Agrosiences, PT NASA and PT EWINDO have each broadened their sales area and built the capacity of key stakeholders in that area (for example, by conducting training and initiating technical visits).
- Each private sector organisation has improved the reach of PT NUSA's agro app, PT EWINDO and PT NASA through their own internal capacity, PT EWINDO through a performance review scheme of their field staff, and PT NASA through the bundling package in the app's starter kit for its expanded distribution channel network. New partnerships are also being made to add to the app's functionality (for example, with *Pusdatin Kementan*).

Expand

- PT Danken has adopted a similar but customised business model which was initiated by PT Rainbow AgroSciences (known as Laskar Pelangi) by establishing *Duta Danken* to disseminate the product knowledge and GAP, and by helping retailers to promote and sell their products
- Another startup agriculture company, Crowde, approached PT EWINDO to establish a partnership, with a view to increasing the capability of the app to disseminate information and provide access to finance.

Respond

- A number of Agriculture Office staff members have become NASA distributors.
- Responding to the high quality of PT NASA's products and rapid market penetration in Sikka, local village business units (BUMDES) have become part of NASA's new distribution network.

17.2 Vegetable Papua & West Papua

Vegetable farming in Papua and West Papua is broadly split into two categories: lowland farming and highland farming. Lowland farming is mostly done by trans migrants and indigenous farmers; highland farming is only done by indigenous farmers. For highland vegetables, the additional factors of infrastructure and transportation are major issues, leading to high transportation costs which increases the price of goods, including knock-on effects for other agricultural products.

The total Population of Papua and West Papua is 4 million, 1,4 million people or 35% of those work in the agriculture sector. 31% of the total population in Papua and 27% of the total population in West Papua are living in poverty. Especially in West Papua, 47,940 (or 68% of the total) farmer households work as horticulture farmers in 2013. Aside from some green leafy vegetables, many vegetables in Sorong, Manokwari, Timika, Jayapura, and Merauke are still imported from outside the island due to low production and low productivity, resulting from a lack of good quality seed use and low application of good agricultural practices.

Challenges and constraints

The major challenges faced by the vegetable sector in West Papua are:

- **Farmers experience low productivity due to low quality seed.** In general, farmers in West Papua, and especially in Greater Manokwari use seed bought from seed kiosks. However, most farmers still do not use good quality seed. There are different types and brands of seed in the market. In certain crops, farmers are unaware of the damage using low quality retained seeds to cut cost. There is, however, little or no information for farmers on how to use good quality seed so as to increase crop yields.
- **Farmers lack knowledge of supply management, contributing to high vegetable distribution costs.** Farmers have no access to information about demand for different types of vegetable. Instead, the majority take their harvest directly to the market place and sell it to big collectors. Indigenous farmers sell directly to the consumers in the market place, it can take up to three days for them to sell their produce.
- **For highland farmers, transportation can be a barrier;** especially in Arfak Mountain District, high transportation costs render their vegetable prices uncompetitive, particularly in comparison to similar, imported vegetables.
- **Farmers lack information on Good Agricultural Practices.** Most farmers use traditional farming techniques. Even though many transmigrant farmers have used branded seeds, transmigrant farmers are lacking knowledge on vegetables GAP. Hence, it leads to pest, diseases and fungi problems which in turn reduces productivity or failed harvest.
- **Insufficient post-harvest handling practice of harvested vegetables** is one of the constraints to obtaining a better selling price in the modern market. Farmers usually do not pre-sort or package the harvested crop due to limited awareness, knowledge or skills, or the resources needed to invest in these activities. The lack of up-to-date harvest and post-harvest know-how leads to many putting minimal effort into maintaining their vegetable crops, resulting in low quality of produce.

Intervention areas

To address the challenges above, PRISMA works with partners to:

- Promote use of good quality seed and application of GAP.
- Encourage nurseries to supply quality seedlings.
- Promote agro-enterprises.

Progress and signs of systemic change

The following progress was achieved in the last semester:

Adopt

- EWINDO and its foundation Yayasan Bina Tani Sejahtera have adopted the previous business model to expand and add additional field staff in Manokwari, Timika, Jayapura and Arfak.

Expand

- Pesticide producer BASF has adopted EWINDO's business model. It has hired a product promotor and is now PRISMA's partner (Portfolio 2).

Respond

- Bank Indonesia has decided to promote the use of true shallot seed (TSS) produced by EWINDO in preference to growing shallot from bulbs as part of its program designed to control the volatility of the national shallot price.
- The Department of Agriculture, guided by EWINDO's product promoter, as a result of PRISMA's intervention now uses high quality seed (especially EWINDO's own) for its programs such as CPCL (Calon Petani, Calon Lahan). Local government will also assign public extension workers to be trained by EWINDO to enable it to deliver improved extension services to farmers.

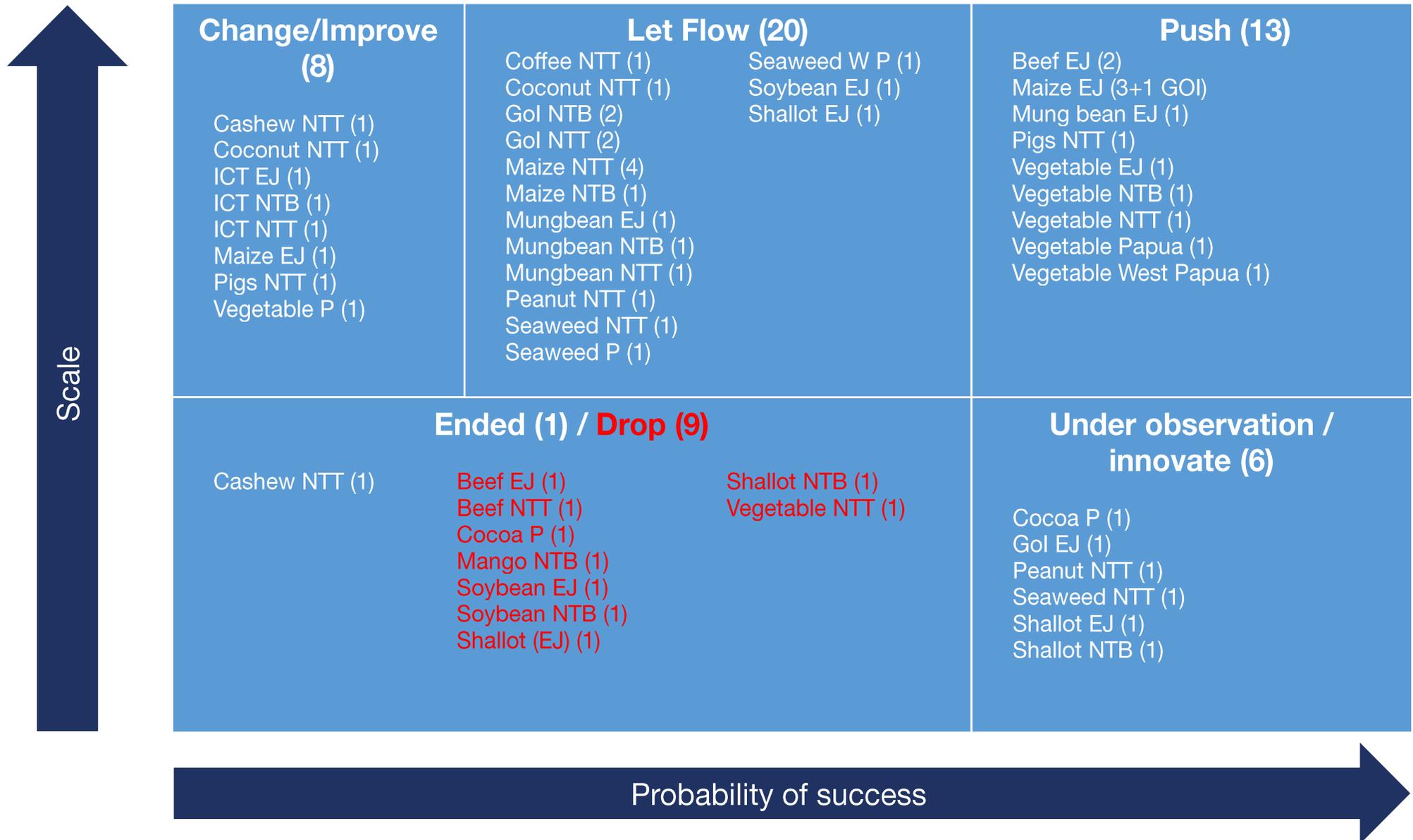
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Annex 2 – SAFIRA private sector partners

Partner	Type	Activities	Target group/entity	Participants
Bank Andara/ BPR Pesisir Akbar	Wholesale bank	Hiring and briefing consultant for credit scoring and loan monitoring	International consulting company	5
		Piloting of and training on Credit Scoring System	BPR Pesisir Akbar	6
		Agreement on input supply for farmers	SMEs / Syngenta retailer	3
		VCF training	Bank Andara staff and 7 BPRs	25
Bank Sinarmas	Private bank	VCF training	Sinarmas staff	75
		Hiring and briefing consultant	International consulting company based in Indonesia	1
		Training on product knowledge and SOP of loan for cattle fattening	Sinarmas staff	20
		Agreement on cattle fattening with intermediary service providers in Tuban area	SMEs	3
		Promotion on loan for cattle fattening	Farmer	48
		Agreement on VCF implementation outside Tuban	SMEs	7
Bank BRI	State-owned commercial bank	VCF Training	Staff	30
		VCF Technical Assistance	Staff	30
		Link with ISP	ISP (input provider/off-taker)	2
CU Sawiran	Credit Union	Hiring consultant on building loan monitoring dashboard and mobile apps for officers and members of CU Sawiran	national consulting company	1
Bank NTB	Provincial Development Bank (state owned bank)	Conducting socialization on GAP and loan Bank NTB	Farmers	1423
Syngenta	Agribusiness	Hiring a consultant to conduct market analysis for rice EJ	National consulting company	1
PT BISI International	Agribusiness	Hiring consultant for YARO financing model	National individual consultant	1
		Training on YARO module	BISI staff	3
		Training on loan administration tool	BISI staff	2
		Training on YARO potential agent	Retailers, Farmers group representation, Individual investors, Individual agents	117
		Conducting YARO promotional events	Farmers	588
		Conducting socialization events on GAP to promote YARO scheme	Farmers	3517
Bank NTT	Provincial Development Bank (state owned bank)	MoU has been agreed but activities has yet to implement		
BPR Arta Kencana	Rural Bank	1 st VCF Training	BPR Arta Kencana staff, NuFarm	18

Bank BTPN	State-owned commercial bank	VCF training	BTPN staff	22
Bank Jawa Barat	Provincial Development Bank	VCF training	Bank staff	29
Cooperative Association of Maumere (Puskopdit Maumere)	Secondary cooperative	VCF training	Association members (credit unions)	41
Cooperative Association of Ruteng (Puskopdit Ruteng)	Secondary cooperative	VCF training	Association members (credit unions)	33
BPR Central Pitoby	Rural Bank	VCF Training	BPR Staff	18
		VCF Technical Assistance	BPR Staff	18
		Promotion events	Farmers/SMEs	2050
		Link with ISP	ISP	2
Tanaoba Laismanekat (TLM)	Financial Group	VCF Training	TLM Staff	30
		VCF Technical Assistance	TLM Staff	30
		Promotion events	Farmers	4000
		Link with ISP	ISP	2
Bank BNI	State-owned commercial bank	Link with Off-taker	Off-taker	1
		Market event	Staff	12
		Develop SOP and Flowchart	Input provider, ISP, Farmer groups, off-taker	N/A

Annex 3 – PRISMA QMT results January 2018



Annex 4 – PRISMA portfolio development plan

Sub-Sector	Intervention Code	Actual - cumulative Per 2017S2		Actual - semester	Projection - semester	Projection - semester
		New & existing interventions (cumulative)		Portfolio development Y17S2 (new interventions)	Portfolio development Y18S1	Portfolio development Y18S2
		Number of interventions with contract - actual	Targeting Outreach Up to 2018	New contracts and contract extensions actual	New contracts and contract extensions	New contracts and contract extensions
Anggur Merah-NTT	3AH	3	-			
Beef-EJ	1BF	4	15,273	1		
Beef-NTB	2BF	1	1,149		1	
Beef-NTT	3BF	1	438			
Cashew-NTB	2CW	1	1,387	0		
Cashew-NTT	3CW	2	5,774	0	2	
Cassava-EJ	1CA	3	643			
Cocoa-PA	4CO	2	798			
Cocoa-WP	5CO	0	553		1	
Coconut-EJ	1CT	1	709		1	
Coconut-NTB	2CT	1	1,411		1	
Coconut-NTT	3CT	1	4,932		1	
Coffee-EJ	1CE	1	1,050	1		
Coffee-NTT	3CE	3	8,211	0		
Extension Services-EJ	1ES	1	-			
Extension Services-NTB	2ES	1	-			
Feed-NTT	3FD	1	-			
Fish-EJ	1FH	2	6	0		
GOI-EJ	1GI	2	340	2	1	
GOI-NTB	2GI	2	4,650	2		
GOI-NTT	3GI	2	8,868	2	5	
Maize-EJ	1ME	5	52,482	0	2	
Maize-NTB	2ME	2	3,370	0	1	

Maize-NTT	3ME	6	38,387	2	1
Mango-EJ	1MO	4	5,850	0	
Mango-NTB	2MO	3	1,432	0	
Mungbean-EJ	1MN	4	2,928	0	
Mungbean-NTB	2MN	1	403	0	
Mungbean-NTT	3MN	2	8,302	1	
Peanut-EJ	1PT	2	3,711	1	
Peanut-NTT	3PT	2	3,293	1	
Pig-NTT	3PG	3	93,208		1
Pig-P	4PG	0	40		1
Potato-EJ	1PO	0	120	0	1
Rice-EJ	1RE	1	6,163	1	
Rice-P	4RE	1	2,035	1	
Rice-WP	5RE	1	739	1	
Seaweed-NTT	3SD	3	3,066	2	
Seaweed-P	4SD	1	154	1	
Seaweed-WP	5SD	1	501	1	
Shallots-EJ	1ST	4	4,062	0	2
Shallots-NTB	2ST	3	5,937	0	
Soybean-EJ	1SN	6	19,683	0	2
Soybean-NTB	2SN	4	5,381	1	
Vegetable-EJ	1VE	6	20,302	3	3
Vegetable-NTB	2VE	4	2,861	1	1
Vegetable-NTT	3VE	4	2,688	0	1
Vegetable-P	4VE	4	1,212	0	2
Vegetable-WP	5VE	3	4,212	0	4
Total		115	348,714	26	35

Annex 5 – PRISMA projections until December 2018 (excluding pipeline)

Intervention	Projection 2018 S1 (Jan-Jun 2018)					Projection 2018 S2 (Jul-Dec 2018)				
	Semester access (all farmer) Jun-18	Semester use (all farmer) Jun-18	Semester outreach (all farmer) Jun-18	Semester outreach (< \$2 PPP) Jun-18	Semester outreach (< \$2.5 PPP) Jun-18	Semester access (all farmer) Dec-18	Semester use (all farmer) Dec-18	Semester outreach (all farmer) Dec-18	Semester outreach (< \$2 PPP) Dec-18	Semester outreach (< \$2.5 PPP) Dec-18
Anggur Merah-NTT	-	-	-	-	-	-	-	-	-	-
Beef-EJ	5,719	-	-	-	-	10,754	16,212	9,091	1,812	3,617
Beef-NTB	-	-	-	-	-	-	-	-	-	-
Beef-NTT	545	545	100	60	87	545	545	273	163	236
Cashew-NTB	-	-	-	-	-	-	-	-	-	-
Cashew-NTT	-	1,048	1,400	579	951	-	-	419	173	285
Cassava-EJ	-	-	-	-	-	-	-	-	-	-
Cassava-NTT	-	-	-	-	-	-	-	-	-	-
Cocoa-PA	400	345	-	-	-	-	280	500	305	405
Coconut-EJ	-	-	-	-	-	-	-	-	-	-
Coconut-NTB	-	-	-	-	-	-	-	-	-	-
Coconut-NTT	-	-	-	-	-	-	1,796	1,706	682	1,092
Coffee-EJ	2,520	-	-	-	-	1,800	1,313	1,050	-	-
Coffee-NTT	1,050	-	-	-	-	-	1,399	1,401	602	981
Extension Services-EJ	-	-	-	-	-	-	-	-	-	-
Extension Services-NTB	-	-	-	-	-	-	-	-	-	-
Feed-NTT	-	-	-	-	-	-	-	-	-	-
Fish-EJ	-	-	-	-	-	-	-	-	-	-
GOI-EJ	4,000	-	-	-	-	-	-	-	-	-
GOI-NTB	4,151	2,906	930	-	-	4,151	2,906	3,720	-	-
GOI-NTT	4,400	3,080	986	229	495	5,040	3,528	4,301	1,022	2,213
Irrigation-EJ	-	-	-	-	-	-	-	-	-	-
Maize-EJ	28,757	23,664	19,470	9,081	15,194	13,000	11,229	9,207	4,664	7,492
Maize-NTB	245	2,160	1,620	972	1,150	-	-	-	-	-

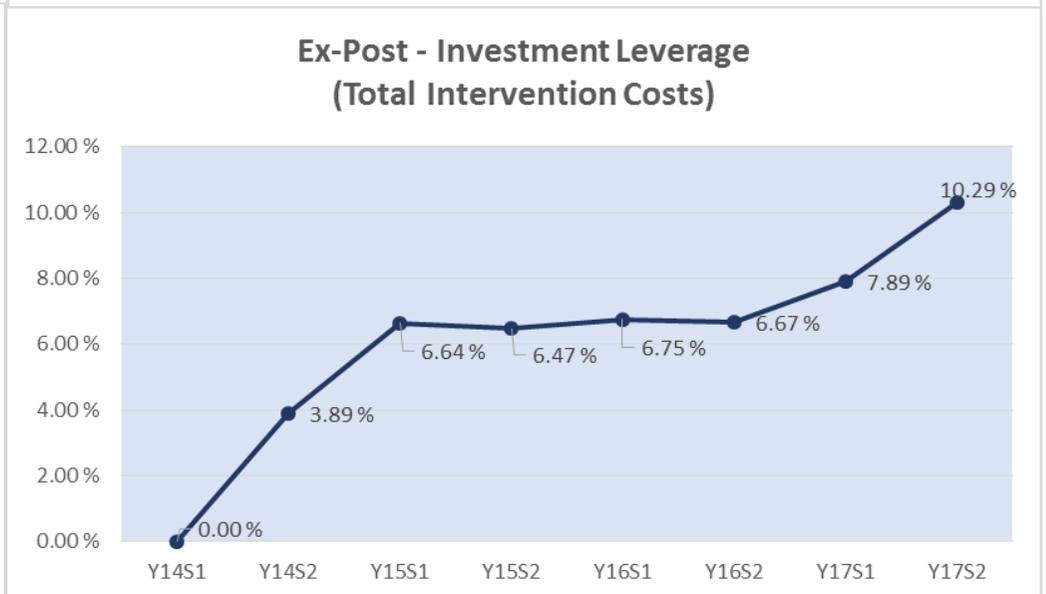
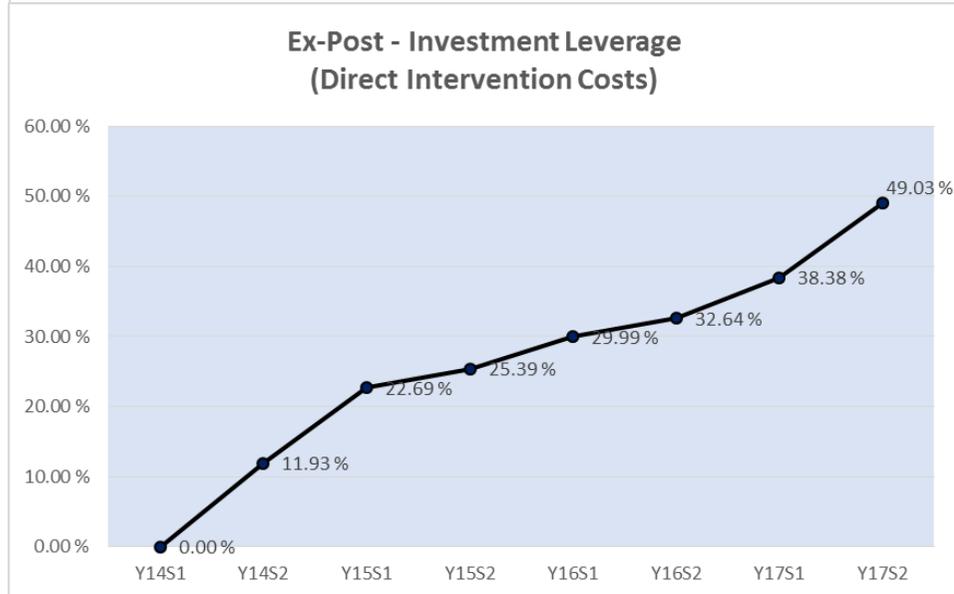
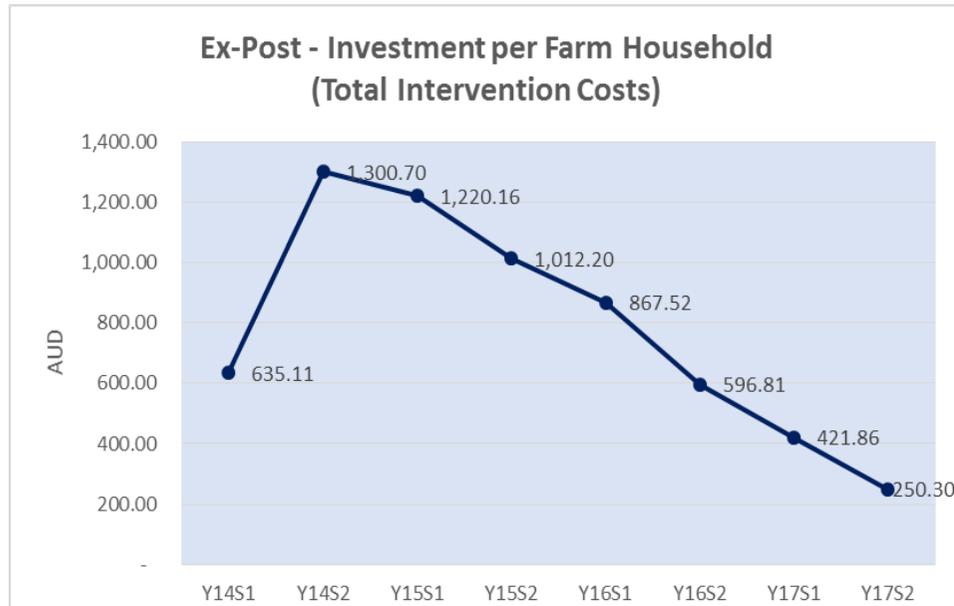
Maize-NTT	-	-	-	-	-	42,438	32,026	18,265	9,001	14,337
Mango-EJ	581	495	270	97	187	-	-	-	-	-
Mango-NTB	643	214	60	23	43	-	-	-	-	-
Mungbean-EJ	3,504	2,904	2,323	1,045	1,928	756	756	605	272	502
Mungbean-NTB	202	202	161	72	134	302	302	242	109	201
Mungbean-NTT	5,030	3,039	2,590	1,202	2,167	11,038	6,776	5,712	218	327
Peanut-EJ	-	-	-	-	-	3,231	1,424	1,140	467	809
Peanut-NTT	7,100	1,937	-	-	-	2,200	3,317	3,192	1,851	2,646
Pig-NTT	60,596	19,151	20,017	7,726	13,212	80,358	46,908	28,271	10,868	18,659
Rice-EJ	-	-	-	-	-	-	-	-	-	-
Rice-P	4,660	2,436	1,949	-	-	180	108	86	-	-
Rice-WP	1,180	708	566	-	-	360	216	173	-	-
Seaweed-NTT	1,055	817	638	485	581	1,375	1,044	796	605	724
Seaweed-P	122	115	91	73	82	100	80	63	50	57
Seaweed-WP	600	480	383	306	345	185	148	118	94	106
Shallots-EJ	2,940	1,817	1,159	707	776	2,729	2,858	1,797	1,052	1,229
Shallots-NTB	2,775	3,546	1,996	838	1,358	800	1,960	1,028	431	699
Soybean-EJ	3,750	2,340	1,053	316	684	5,625	4,500	2,848	978	1,851
Soybean-NTB	2,298	1,166	890	377	586	5,967	3,017	2,296	929	1,398
Vegetable-EJ	30,678	9,077	5,123	2,442	3,512	33,823	12,519	6,826	3,424	4,681
Vegetable-NTB	2,890	872	515	287	361	2,146	1,440	818	456	573
Vegetable-NTT	3,537	1,155	808	432	572	3,191	1,591	1,204	648	852
Vegetable-P	1,335	428	257	193	218	135	240	192	157	180
Vegetable-WP	504	1,297	1,154	392	692	-	-	-	-	-
Grand Total	187,767	87,944	66,509	27,934	45,315	232,229	160,438	107,340	41,033	66,152

Annex 6 – PRISMA semester outreach breakdown (July 2017)

Intervention Code	Intervention Name	Cumulative Actual	Y17S2 Actual	Y18S1 Projection	Y18S2 Projection
1BFA	Beef Feed WU	834	-	-	-
1BFB	Beef Feed PKM	1,116	741	-	1,036
1BFC	Beef Nutrifeed	4,232	4,232	-	4,400
1CAA	Access to GAP and Fertilizer	643	-	-	-
1CTA	Organic Certif - Coconut Sugar	431	-	-	-
1FHA	Fish Cage Farming	6	-	-	-
1ITB	ICT NASA	4,728	4,728	2,720	4,508
1MEA	Maize AHSTI	8,484	357	4,294	633
1MEC	Maize Syngenta	1,621	1,621	-	-
1MED	Maize-DuPont	8,927	8,927	3,155	4,117
1MEE	Maize BISI	3,744	3,744	2,764	1,764
1MOA	Mango EJ Syngenta	5,580	-	-	-
1PTA	Good Quality Seed	101	-	-	-
1SNA	Developing Commercial Market	9,639	1,346	-	823
1SNB	Certification and Nurseries	4,035	-	-	-
1STA	Shallots SPILT	325	-	-	-
1STC	IPDM Nufarm	617	617	539	748
1VEA	Rainbow - Vegetable EJ	629	629	-	-
2BFA	Commercial Feed	645	574	-	-
2CWA	Pest Control and GAP Services	1,387	-	-	-
2ITB	ICT NASA	96	96	201	377
2MOA	Mango NTB Syngenta	1,372	-	-	-
2SNA	BASF Soy Doctor Program	1,609	846	-	-
2SNC	ACCESS	586	586	625	1,251
2STA	Shallots EWINDO	2,913	509	557	520
2VEA	Rainbow - Vegetable NTB	810	810	-	-
3BFA	Beef Lamtoro	65	-	100	273
3CEA	Coffee GAP	4,598	-	-	-
3CEB	Decentralized Processing	2,212	-	-	-

3CWA	Cashew Peduli Kasih	423	-	-	-
3CWB	Quality Inputs and Tools	3,532	3,244	1,400	419
3ITB	ICT NASA	255	255	266	397
3MEA	Maize YMTM	4,936	2,428	-	2,641
3MEB	Maize Nurseries	10,012	2,416	-	2,378
3MEC	Maize Storing	35	35	-	-
3MED	Stimulating market of OPV Seed	4,081	-	-	-
3PGA	Pig Rearing	1,118	-	-	-
3PGB	Decentralized feed for pig	23,282	3,953	12,019	12,461
3PGC	Promoting Improved Feed and Good Rearing Practices in Timor	20,520	20,520	7,998	15,810
3PTA	Good Quality Peanut Seeds	101	-	-	1,656
3SDA	Seaweed UD Alga	630	-	-	-
4COA	Cocoa YPPWP	298	298	-	-
4VEA	Promotion of Good Quality Seed and GAP Provision	414	414	257	-
5VEB	Highland Vegetables	176	176	-	-
5VEC	Promotion of Good Quality Seed and GAP Provision	2,265	2,265	1,154	-
Total		144,063	66,367	38,049	56,212
Target Cumulative - Trajectory		124,848			

Annex 7 – PRISMA value for money ex-post until Dec 201



Annex 8 – PRISMA private sector partner details

PRISMA partner details

Partners' Details		
Soybean EJ and NTB	Intervention 1	Promoting commercially certified seed
	Partners 1	Mr. Sugito (UD Karya Tani)
	Description	Mr Sugito currently runs a nursery business and has certificate from BLPP. He currently has 260 ha with 1,000 nursery farmers supplying seeds that he sells to government agencies and also to farmers.
	Partners' Rationale	He would like to expand his nursery business to 1,000 ha with 4,000 contract nursery farmers because demand remains high. Farmers on a 0.25 ha farm can only obtain 2kg of subsidized seed compared to the 10 kg needed. Hence, there is a substantial demand for soybean seed in the commercial market. Mr. Sugito will work with farmers currently working on rice nursery cultivation. These farmers will be his marketing and distribution channels.
	Partnership Roles	PRISMA will help Mr. Sugito with the marketing of non-subsidized soybeans seeds in the commercial market. PRISMA will also help create distribution channels for Mr. Sugito by identifying the ISP (nursery contract farmers) and/or seed retailers and also prepare marketing tools for the ISPs.
	Intervention 2	Improve certification procedures for soybean seed
	Partners 2	East Java Local Government Agencies
	Description	The local government of East Java has a mandate to provide certified soybean seed. Several institutions are involved, such as BBI (a provincial government nursery) producing foundation seed, Balitkabi (a national agency) that produces breeder seed/ basic seeds, BPSB (a provincial agency) that issues certification, BPPP (a national agency) that trains farmers in nursery skills. The certification process needs to improve to increase efficiency and reduce waiting periods.
	Partners' Rationale	Due to the lack of nursery facilities in Sampang, the Sampang Department of Agriculture (<i>Dinas Pertanian</i>) has taken the lead to establish new nurseries. The target is 6-22 nurseries, depending on the season.
	Partnership Roles	PRISMA will help facilitate the Sampang and Trenggalek Department of Agriculture to coordinate the relevant agencies and develop capacity for PPL (extension).
Intervention 3	Improve dissemination of new soybean varieties	
Partner 1	Badan Tenaga Nuklir Nasional (BATAN)	
Descriptions	BATAN is a government research agency that has mandate to carry out government duties in the field of research, development and utilization of nuclear science and technology in accordance with the provisions of legislation. The research, development and utilization of nuclear science and technology in Indonesia is directed as much as possible for the welfare of the Indonesian people.	
Partners' rationale	One of the tasks of BATAN is to develop agricultural varieties that have competitiveness and can improve agricultural productivity in Indonesia. One of the commodities developed by BATAN is soybean. However, BATAN has limitations in producing and disseminating their products in large scale, resulting to only small number of soybean farmer benefited from this technology There is no private sector involvement in dissemination of commercial and labelled soybean seed and government R & D has limited capacity in dissemination and	

	production of new soybean seed varieties. BATAN has capacity to produce new and high yield soybean seed and EWINDO has capacity and network to produce/multiply new soybean seed and promote it to farmers.
Partnership Roles	PRISMA's role is to support BATAN to scale up the production and dissemination of their product by connecting BATAN to seed producers so that many soybean farmers can benefit from this intervention
Partner 2	PT East West Seed Indonesia (EWINDO)
Descriptions	EWINDO is an integrated vegetable seed company in Indonesia which produces its seeds through plant breeding, and market its products for Indonesian farmers with the brand CAP PANAHA MERAH, since more than two decades ago.
Partners' rationale	EWINDO is highly interested to venture out their business to soybean seed production and distribution. Their mission to provide better seeds for smallholder farmers and increase their income, is in line with PRISMA's goals. EWINDO also has a well-established distribution channel in Indonesia, which will aid PRISMA in reaching thousands of soybean farmers, particularly in Eastern Indonesia.
Partnership Roles	PRISMA's role is connecting EWINDO to seed resource institutions to identify existing and potential new high yielding soybean varieties. PRISMA will support EWINDO in conducting a market research in order to identify customer segmentation, area focus, and varieties to produce. PRISMA will also support EWINDO with experts in production, promotion and storage of soybean seed.
Intervention 4	Increase productivity by promoting GAP information through soy doctor
Partners 1	PT. BASF Indonesia
Descriptions	PT. BASF INDONESIA is a chemical company with broad portfolio including crop protection. The portfolio also includes products for turf and ornamental plants, pest control and public health. PT. BASF INDONESIA Crop Protection division is a leading innovator in partnership with farmers to protect and improve crop yields, enabling them to produce high quality food more efficiently.
Partners' rationale	BASF saw potential market in soybean and has soybean pilot program in Banyuwangi in 2014. From these pilot, farmers are able to increase income until 45%. Meanwhile, BASF has a program called MTA (Mitra Tani Agri-Aexcellent) for other crops to reach farmers through cooperation with lead farmers or head of group farmers. BASF aims to reach as many farmer as possible with minimum operational spending. MTA program did not work well due to lack of planning and management.
Partners Roles	PRISMA support BASF to improve their program and be the first agro-input company focuses on soybean market by introducing new program called "soy doctor". PRISMA support for soy doctor implementation include: <ol style="list-style-type: none"> 1. Support BASF in developing better program management including soy doctor selection criteria, proper incentive and reward scheme, training plan, and monitoring plan 2. Support capacity building for soy doctor and BASF staffs to be able to deliver GAP information to farmer Support BASF to identify location for intervention where there is significant number of user
Intervention 5	Alternative Channel of Certified Soybean Seeds (ACCESS) in East Java
Partners 1	PT. Karisma Indoagro Universal
Descriptions	PT. Karisma Indoagro Universal is a company working in distribution of wide range of agriculture products, including seeds, fertilizer, and pesticides. The company has been working with numerous chemical companies, suppliers, and R1 and R2 (retailers) all over districts in East Java.

Partners' rationale	Partner saw potential market in soybean seed which involve 600,000 of farmers in East Java. Currently most farmers use retained seeds with low and declining yields, and more farmers seek to find commercial good quality seeds in store. This condition encourages PT. KIU to become the first distributor selling commercial certified seeds in East Java.
Partnership Roles	In this intervention, PRISMA links soybean nurseries with limited access to market to be the supplier of good quality certified soybean seeds to PT. Karisma Indoagro Universal that will distribute it to the agriinput stores R1/R2 (retailers) in district level in East Java. <ol style="list-style-type: none"> 1. PRISMA supports the partner in determining the location of potential district to sell the soybean seeds, based on the seasonality. 2. PRISMA supports the nurseries by upgrading their capacities to be able to sell their seeds commercially, in term of packaging. PRISMA also supports the promotion of certified seeds to the farmers.
Intervention 6	Alternative Channel of Certified Soybean Seeds (ACCESS) in NTB
Partners 1	CV. Agro Makmur Mandiri
Descriptions	CV. Agro Makmur Mandiri is a company working in distribution of wide range of agriculture products, including seeds, fertilizer, and pesticides. The company has been working with numerous chemical companies, suppliers, and R1 and R2 (retailers) all over districts in Bima and Dompu, NTB.
Partners' rationale	Partner saw potential market in soybean seed which involve 27,000 of farmers in NTB. Currently most farmers use retained seeds with low and declining yields, and more farmers seek to find commercial good quality seeds in store. This condition encourages CV. AMM to become the first distributor selling commercial certified seeds in NTB.
Partnership Roles	In this intervention, PRISMA links soybean nurseries with limited access to market to be the supplier of good quality certified soybean seeds to CV. Agro Makmur Mandiri that will distribute it to the agriinput stores R1/R2 (retailers) in district level in NTB. <ol style="list-style-type: none"> 1. PRISMA supports the partner in determining the location of potential district to sell the soybean seeds, based on the seasonality. 2. PRISMA supports the nurseries by upgrading their capacities to be able to sell their seeds commercially, in term of packaging. PRISMA also supports the promotion of certified seeds to the farmers.
Partners 2	UD. Pemuda Kreatif (New)
Descriptions	UD. Pemuda Kreatif is a soybean nursery in Bima with production capacity 250 ton per year. The main market is to supply subsidy seed program from Dinas (local and outside Bima)
Partners' rationale	Partner saw potential market in soybean seed. Currently most farmers use retained seeds with low and declining yields, and more farmers seek to find commercial good quality seeds in store. This condition encourages UD. Pemuda Kreatif to sell soybean seed commercially
Partnership Roles	PRISMA support UD. Pemuda Kreatif on market assessment for commercial market in Bima, improve brand awareness, and identification potential retailers
Intervention 7	GAP Through Rainbow Ambassadors (Laskar Pelangi)
Partners	PT. Rainbow Agrosience Indonesia
Descriptions	PT. Rainbow Agrosience Indonesia (RAID) is a multinational company started in 2012 in Indonesia. Their Core Values are formulation development of Agrochemicals. RAID owns 100 registrations of chemicals that are repackaged and sold by BASF, Syngenta, Bayer etc in Indonesia. Currently RAID has just started their commercial business in 2015 where they are aiming to be a one stop chemical

		solution from seed to harvest. Rainbows commercial area in Indonesia are divided into 3 Areas – Sumatera, Jawa and East Indonesia
	Partners' rationale	RAID has an existing project called Pelangi Farmers Group (PFG) where they design and deliver curriculums solely to help farmers increase their yields. Currently they have one for Shallots but they do not have one for soybeans which PRISMA can provide. In addition, since RAID is relatively new in the commercial market, specifically within the East Java province, they saw that entering the market through soybean commodity is a great opportunity to establish their brand name and products in the province.
	Partnership Roles	PRISMA support RAID to improve their "Pelangi Farmer Group" program under the name "Laskar Pelangi". PRISMA support for Laskar Pelangi by: <ol style="list-style-type: none"> 1. Support partner in developing better program management including Laskar Pelangi selection criteria, proper incentive and reward scheme, training plan, and monitoring plan 2. Support capacity building for Laskar Pelangi to be able to deliver GAP information to their peer farmers Support RAID to identify location for intervention where there is significant number of users
	Intervention 8	Promoting GAP and Crop Protection through Extension Service Worker (PPL)
	Partners	PT. BISI International
	Descriptions	PT. BISI has been in Indonesia since 1983 focusing Seeds distribution. They also have own an array of agro-chemical products under the name of Tanindo. Their main mission is the provision of innovative products, technology and support to help farmers increase productivity through both seeds and agrochemicals.
	Partners' rationale	PT. BISI has agrochemical products under the name of Tanindo, market share in Lombok Tengah before intervention mainly comes from horticulture and currently looking to expand their business focusing on Paddy, Maize, and Soybean. BISI has good reward and incentive scheme for their retailers and inviting PPL with the same scheme will increase PPL's interest to disseminate GAP information particularly on pest and disease management with additional incentives.
	Partnership Roles	PRISMA support BISI to engage with Local Dinas and get access to all PPL in Lombok Tengah, support in training to PPL for pest and disease management, improving reward scheme, and support in promotional activity.
Maize EJ	Intervention	Promoting hybrid seeds
	Partner 1	PT Asian Hybrid Seed Technologies Indonesia (PT AHSTI)
	Description	PT AHSTI has developed seed stock for dry conditions and piloted cultivation in Gunung Kidul, Yogyakarta. The company is experienced in selling hybrid seed in Sumatra and Sulawesi.
	Partners' Rationale	The company wants to expand their seed market beyond mainland Java island to neighbouring Madura island. To realize this vision, they are willing to invest in demonstration plots and good agricultural practices (GAP) capacity building for maize farmers in Madura.
	Partnership Roles	PRISMA supports PT AHSTI develop distribution channels (sales agents/retailers) in Madura and promote and distribute their seeds among target groups.
	Partnership Roles	PRISMA supports PT AHSTI develop distribution channels (sales agents/retailers) in Madura and promote and distribute their seeds among target groups.
	Partner 2	Dinas Pertanian Tanaman Pangan Kabupaten Sumenep (District Agriculture Office/DAGRIO) of Sumenep

Description	DAGRIO is one of Sumenep District Government Agencies that have authority to plan, implement and evaluate any activities to increase agriculture production and productivity. The agency is operating based on Regional Regulation Number 16/2008 on the Establishment of Regional Agencies Organization. DAGRIO is an implementing unit of regional autonomy in the area of agriculture and staple crops within the territory of Sumenep District. The agency is led by a Head of Agency which is selected, work and responsible to Head of District (Bupati). Basically, the Head of DAGRIO receives mandate from Bupati to implement District Government's authority in the field of agriculture and staple crops through planning, implementation and evaluation activities.
Partners' Rationale	The company has responsibility to support national government in achieving agriculture commodities production and productivity targets, including maize. However, the role of DAGRIO in poverty reduction is limited and they are willing to improve their hybrid maize promotion approach to better serve the poor farmers while strengthening hybrid maize system in Madura. On the other hand, the DAGRIO also has a vision to increase the percentage of maize farmers who using the hybrid seed to 60% at least that can leverage the local economic development.
Partnership Roles	PRISMA support DAGRIO to improve coordination with private sector to avoid negative impact of annual hybrid maize subsidy to the existing hybrid maize market system in Madura, particularly in Sumenep as well as conducting massive social media campaign to change the mindset of the farmers
Partner 3	PT BISI International Tbk
Description	PT BISI International, Tbk is the largest producer of hybrid seeds in Indonesia, and a major Indonesian producer of pesticides and a distributor of fertilizer. The Company was founded by the Charoen Pokphand Group, the largest producer of feed in Indonesia. Today, BISI maintains a nationwide operational footprint for research and development, production, marketing, distribution and sales.
Partners' Rationale	The company wants to expand their market to maize farmers who still use local seeds, and improve their promotional activities, including the capacity building to farmers in Madura. The company also wants to cooperate for conducting research.
Partnership Roles	PRISMA support BISI re-vitalize their BISI Club (lead farmer organization consisting of 10-15 lead farmer which important to disseminate the information, knowledge and information of Hybrid Maize Seed and its GAP), and conduct plot research. PRISMA also support BISI promote hybrid maize seed and GAP in Madura.
Partner 4	PT Syngenta Indonesia
Description	Syngenta is one of the world's leading companies that raise up their purpose in "Bringing Plant Potential to Life". Through product development with world-class science, Syngenta has an aim for increasing customer's productivity, protect the environment and improve health and quality of life. Syngenta has wide ranging agro-input products including hybrid maize seed.
Partners' Rationale	Syngenta is aiming to increase its hybrid maize product penetration in Madura. Business Development team in Syngenta envision to have an improvement in its marketing strategy for Madura market and do some research regarding the impact of the strategy.
Partnership Roles	Syngenta need a fresh-eye to take a look and measure the impact of their improved marketing strategy. It also need a better understanding about Madura market as the basis for them in the future strategy improvement. This is where PRISMA came in to give a support, particularly in providing essential information through market research and program evaluation.
Partner 5	PT Du Pont Indonesia
Description	DuPont is a science company dedicated to solving challenging global problems, meeting urgent needs in agriculture, nutrition and health, bio-based industrials,

		electronics and communications, advanced materials, and safety and protection. In the agriculture business line, one of their biggest business is hybrid seed.
	Partners' Rationale	They have an objective to improve the quality of maize farmers in Indonesia with a program name "Indonesia Panen Melimpah" and they realize that could not get a fast return in their investment in Madura (and other local maize farmers).
	Partnership Roles	PRISMA supports Du Pont mainly to re-enter Madura hybrid maize market, through portion in promotional activities and capacity building of their sales agents (Front Liners) and lead farmers partners (MAP). In addition, PRISMA also presents gender aspect internalization through support in hiring female Front Liners to target the female maize farmers market.
Maize NTB	Intervention	Introducing better maize cultivation practices through YARO model
	Partner 1	PT. BISI International
	Description	PT. Bright Indonesia Seed Industry (PT. BISI International) is a subsidiary company of Charoen Pokphand Group, a Thai feed mill company. PT BISI International mainly sell maize, paddy, and vegetable seeds along with pesticides and herbicides products in Indonesia and to other countries since 1983. BISI has one of the largest maize seed market share in Indonesia.
	Partners' Rationale	A commitment has been stated by the partner that they agreed to reach 3,000 farmers with PRISMA's facilitation and to expand the upcoming intervention in other provinces. BISI also stated that they are willing to hire more resources (if needed) to support the intervention.
	Partnership Roles	PRISMA, along with SAFIRA, supports PT. BISI to develop a new system of in-kind credit to farmers, as well as developing capacity building modules and events to reach more farmers in North Lombok, West Lombok, East Lombok, Central Lombok.
Maize NTT	Intervention	Promoting composite seeds
	Partner 1	CV INTAN
	Description	CV INTAN has produced composite seed and stock for dry conditions and piloted cultivation in Kupang District, West Timor-NTT. Since 2008, CV INTAN had engaged in paddy and maize seed. Seed producing effort is made to meet the demand of local government. Since 2013, began to expand its business through the free market. Composite maize seed varieties produced are LAMURU purple and blue label.
	Partners' Rationale	The company wants to expand their seed market around NTT province. To realize this vision, they are willing to invest in promotion include demonstration plots and good agricultural practices (GAP) capacity building for maize growers in Timor island.
	Partnership Roles	PRISMA supports CV INTAN in production of composite seed and develop sales and distribution channels (sales agents/retailers) in TTS and Kupang District and promote and distribute their seeds among target groups.
	Partner 2	Kokdale
	Description	Kokdale has produced composite seed and stock for dry conditions and piloted cultivation in Kupang District, West Timor-NTT. Since 2005, Kokdale has engaged in paddy and maize seed. Seed producing effort is made to meet the demand of local government. Since 2014, began to expand its business through the free market. Composite maize seed varieties produced are LAMURU Purple and Blue label.
Partners' Rationale	The company wants to expand their seed market around NTT province. To realize this vision, they are willing to invest in promotion include demonstration plots and good agricultural practices (GAP) capacity building for maize growers in Timor island.	

Partnership Roles	PRISMA supports Kokdale in production of composite seed and develop sales and distribution channels (sales agents/retailers) in TTS and Kupang District and promote and distribute their seeds among target groups.
Partner 3	CV Tiga Putri Mandiri
Description	CV Tiga Putri Mandiri has produced composite seed and stock for dry conditions and piloted cultivation in Kupang District, West Timor-NTT. Since 2005, CV Tiga Putri Mandiri had engaged in paddy and maize seed. Seed producing effort is made to meet the demand of local government. Start on 2015, began to expand its business through the free market. Composite maize seed varieties produced are LAMURU Purple and Blue label.
Partners' Rationale	The company wants to expand their seed market around NTT province. To realize this vision, they are willing to invest in promotion include demonstration plots and good agricultural practices (GAP) capacity building for maize growers in Timor island.
Partnership Roles	PRISMA supports CV Tiga Putri Mandiri in production of composite seed and develop sales and distribution channels (sales agents/retailers) in Belu and Malaka District and promote and distribute their seeds among target groups.
Partner 4	Yayasan Mitra Tani Mandiri (YMTM)
Description	Yayasan Mitra Tani Mandiri (The Foundation for Partnership with Independent Farmers) was found in 1997 with the aims to help communities to expand its local capacity for economic development by increasing competitiveness, farm productivity and providing alternative source of households' income on sustainable agricultural systems. It has two main activities: 1) project development/ implementer for donors or as co-facilitators, 2) business unit/partner for the intervention or market actor include service provider;
Partners' Rationale	The business unit of YMTM wants to develop their seed market around NTT province. To realize this vision, they are willing to invest in production and promotion include demonstration plots and good agricultural practices (GAP) capacity building.
Partnership Roles	PRISMA will support YMTM business unit to produce and distribute quality maize seeds in the region and also conduct promotional activities for the farmers so that the farmers get proper knowledge on maize cultivation. For seed production, YMTM depends on a number of seed growers who produces maize as well in addition to seed production using their retained OPV seeds. YMTM engages a number of seed distributors and retailers for distributing the seeds in those areas and utilize farmer groups for dissemination.
Partner 5	Tunas Harapan
Description	Tunas Harapan is a farmers group consisting of 12 farmers, located in Bipolo village, Kupang. Since 2014, Tunas Harapan farmers group has started its seed nursery business. They started by producing paddy and maize seed to fulfill local government subsidized seed procurement. In 2015, Tunas Harapan sold their maize OPV seed to Flores and Sumba for the government market. They also started to sell maize OPV seed for free market although still in limited amount. The nursery average seed production is 2.5 – 3 MT/Ha.
Partners' Rationale	Tunas Harapan wants to develop their maize seed business market around NTT province. To realize this vision, they are willing to invest in production and promotion include demonstration plots and good agricultural practices (GAP) capacity building for farmers.
Partnership Roles	PRISMA supports Tunas Harapan to improve the quantity and quality in producing maize OPV seed. The intervention also supports partners to develop their sales channels (sales agents/retailers) in Kupang, promote the use of OPV seed along with good cultivation practice knowledge dissemination.
Partner 6	Gaspar Bao (New)
Description	Gaspar Bao owns a maize seed nursery and the leader of Karya Bersama Farmer Group in Kolisia village, Sikka district, Flores. In 2014, he started to produce composite maize seed. He has his own land around 2.5 Ha. Gaspar Bao initially

	supplied composite maize seed for government seed subsidy procurement. Since 2016, Gaspar Bao started to produce more varieties of composite maize seed (Srikandi Kuning, Lamuru, Provit A-I, Purple Pulut and White Pulut). His nursery also supervised by BPTP NTT to produce hybrid variety – Bima URI-20.
Partners' Rationale	The nursery wants to increase their production and improve quality of their seed. They are interested to expand their seed market around NTT province for both government subsidy procurement and free market. To realize this vision, Gaspar Bao is willing to invest in increasing his seed production by engaging contract seed growers, promoting the benefit of good quality seed and disseminating good agricultural practices to maize farmers.
Partnership Roles	PRISMA supports Gaspar Bao to improve the nursery's quantity and quality in producing maize OPV seed. The intervention also supports partners to develop new sales channel in NTT (especially Sikka and East Flores district), and promote the use of OPV seed along with good cultivation practice knowledge dissemination to farmers.
Partner 7	Dominggus Benggu (New)
Description	Dominggus Benggu owns a maize seed nursery at Batu Putih Sub District, Timor Tengah Selatan (TTS) District. In 2009 he obtained nursery permission to become a producer of composite maize seeds. His initial production capacity is around 6-8 MT. Now the nursery will try to increase production up to 16 MT.
Partners' Rationale	The nursery wants to increase their production and improve quality of their seed. They are interested to expand their seed market around NTT province for both government subsidy procurement and free market. To realize this vision, Dominggus Benggu is willing to invest in increasing his seed production by engaging contract seed growers, promoting the benefit of good quality seed and disseminating good agricultural practices to maize farmers.
Partnership Roles	PRISMA supports Dominggus Benggu to improve the nursery's quantity and quality in producing maize OPV seed. The intervention also supports partners to develop new sales channel in NTT (especially Sikka and East Flores district), and promote the use of OPV seed along with good cultivation practice knowledge dissemination to farmers.
Partner 8	Pancratius Padji (New)
Description	Pancratius Padji owns a maize seed nursery and the leader of farmer group Sinar Ilimodo located at Sikka district, NTT. He has started his nursery since 2005. Currently the nursery can produce maize up to 40 MT. In 2016, Pancaratus Padji sold 1 MT of seed to free market.
Partners' Rationale	The nursery wants to increase their production and improve quality of their seed. They are interested to expand their seed market around NTT province for both government subsidy procurement and free market. To realize this vision, Pancratius Padji is willing to invest in increasing his seed production by engaging contract seed growers, promoting the benefit of good quality seed and disseminating good agricultural practices to maize farmers.
Partnership Roles	PRISMA supports Pancratius Padji to improve the nursery's quantity and quality in producing maize OPV seed. The intervention also supports partners to develop new sales channel in NTT (especially Sikka and East Flores district), and promote the use of OPV seed along with good cultivation practice knowledge dissemination to farmers.
Partner 9	Dinas Pertanian Provinsi Nusa Tenggara Timur (New)

	Description	Dinas Pertanian Provinsi NTT is Governmental Agency who have authority to plan, implement and evaluate programs and policies to increase agriculture production and productivity in NTT. In the year 2017, Dinas Pertanian NTT has a target to implement UPSUS program of 70,000 Ha hybrid seed and 14,000 Ha OPV seed.
	Partners' Rationale	Dinas Pertanian Provinsi NTT is targeting to increase production and productivity of maize in NTT. The Head of Dinas Pertanian wants to change farmers behaviour in using retained seed and raise farmers awareness that they need to use good quality seed to increase maize production. Dinas Pertanian Provinsi NTT also aiming local nurseries in NTT can fulfill all OPV seed demand for government seed subsidy procurement. Therefore, Dinas Pertanian NTT will collaborate with private sector (hybrid and OPV seed companies) to use PPL to help campaigning the use of good quality seed to farmers and disseminate maize GAP information.
	Partnership Roles	This partnership is complementary to both OPV and hybrid maize intervention to reach more farmers using public Extension Service Workers. Dinas Pertanian Provinsi NTT also provide maize GAP information through demo plots managed by extension service workers. PRISMA and seed companies collaborate to develop capacity of PPL in providing maize GAP information. PRISMA also supports Dinas Pertanian NTT to design an information system to manage demand and supply information of maize seed of local nurseries in NTT.
	Intervention 2	Promoting Hybrid Maize Cultivation (New)
	Partners	PT. BISI International
	Description	PT. BISI International is a subsidiary company of Charoen Pokphand Group, a Thai feed mill company. PT BISI International mainly sell maize, paddy, and vegetable seeds along with pesticides and herbicides products in Indonesia and to other countries since 1983. BISI has one of the largest hybrid maize seed market share in Indonesia.
	Partners' Rationale	In 2017, PT. BISI started to invest more in NTT to promote their products in NTT, not just in Timor island but also in Flores and Sumba island. PT. BISI is the biggest supplier of hybrid maize seed for government UPSUS program in NTT. However PT. BISI wants to increase hybrid seed sales in NTT, promote other products such as agro-chemicals and secondary fertilizer to increase hybrid maize farmers productivity in NTT.
	Partnership Roles	PRISMA supports PT. BISI to reach more farmers in NTT and networking with local stakeholders in NTT (local government officers, civil society, retailers, farmers group, etc.) to promote BISI's products and achieve sales target. PRISMA also supports PT. BISI to engage farmers with local maize off-takers to market farmer's hybrid maize grain production.
Mungbean EJ	Intervention 1	Production and Distribution of Certified Mung Bean Seeds
	Partner 1	PT. East West Seed Indonesia (EWINDO)
	Description	PT. EWINDO is an integrated vegetable seed company in Indonesia which produces its seeds through plant breeding, and market its products for Indonesian farmers with the brand CAP PANAH MERAH, since more than two decades ago. PT. EWINDO is a
	Partners' Rationale	PT. EWINDO is highly interested to venture out their business to mung bean seed production and distribution. Their mission to provide better seeds for smallholder farmers and increase their income, is in line with PRISMA's goals. PT. EWINDO also has a well-established distribution channel in Indonesia, which will aid PRISMA in reaching thousands of mung bean farmers, particularly in Eastern Indonesia.

Partnership Roles	PRISMA will support PT. EWINDO in conducting a market research in order to identify customer segmentation, area focus, and varieties to produce. PRISMA will also facilitate PT. EWINDO in meeting seed resource institutions, such as BALITKABI and BATAN, to obtain the rights to distribute the foundation seeds.	
Partner 2	BALITKABI (New)	
Description	BALITKABI (Research Institutes for Various Legumes) is Technical Implementation for R&D field under Head of Center for Food Crops Research and Development which produces foundation seeds.	
Partners' Rationale	In nursery-related interventions, foundation seed (FS) scarcity in mung bean and peanut has become a major problem that hinders higher production by nurseries. BALITKABI is the major part of supporting function of peanut and mung bean seed markets. BPATP (Indonesian Agency for Agricultural Technology Transfer), which is the parent institution for BALITKABI, provides good supporting environment for new seed companies aiming to acquire license to multiply government-owned varieties.	
Partnership Roles	PRISMA will support BALITKABI with a market study identifying the demand gap of FS suffered by nurseries in EJ and facilitate a strategic intervention creating SOPs/contracts between nurseries and BALITKABI, thus more certified seeds are available for poor farmers. Along in the partnership, nurseries will also obtain training from BALITKABI on seed quality-enhancing factors, such as seed production, packaging, and storing.	
Intervention 2	Empowering Female Farmers through PKK Group	
Partner 2	CV. Semi	
Description	CV. Semi is a Purwodadi-based paddy, maize, and vegetable nursery and agri-input products distributor.	
Partners' Rationale	CV. Semi is highly enthusiastic to enter the mung bean market, seeing the potentials and demand in the market.	
Partnership Roles	PRISMA supports CV Semi suppliers to produce, distribute, and promote quality mung bean seeds through: <ul style="list-style-type: none"> Connecting CV Semi Purwodadi to BALITKABI in order to gain technical knowledge of mung bean seed production PRISMA also supports CV. Semi in identifying the right distributors for them (e.g female cooperatives, farmer groups and retailers) to promote mung bean seeds to farmers in East Java.	
Coffee NTT	Intervention 1	Improving Market Access and Increasing the Productivity of Arabica Coffee in Flores
	Partner 1	PT Indokom Citra Persada (Indokom)
	Description	Indokom is a coffee exporting company founded in 1996. The company has offices in Lampung province and Sidoarjo, East Java province. In 2012, the company exported 70,000 MT to markets in the European Union, Japan, the Middle East and the USA. They have bought coffee from Flores from 2005 and started to buy high quality from 2006. They still sort fro
	Partners' Rationale	In order to increase turnover, the company aims to increase sales of specialty coffee and for that it needs a continuous supply of quality coffee from farmers and reliable management systems.
Partnership Possibilities	Indokom are concerned to improve the welfare of coffee farmers in Indonesia through providing better price of the good quality coffee, giving technical assistance at post-harvest and in processing. PRISMA will help Indokom develop a scale up cooperation model based with processor.	

	Partner 2	UPK Karya Kasih (Coffee Processor in Ngada)
	Description	UPK karya kasih started their coffee processing unit in 2000 with a non-specialty processing. In 2016, they have sold 100 MT of grade 2 green bean and around 100,000 litre wet parchment to Indokom. They understand that there is a high demand of good quality Arabica coffee and they are keen to cater to i
	Partners' Rationale	In order to increase turnover, the company aims to increase its coffee and improve its quality and market segment of specialty coffee and for that it needs a continuous supply of quality coffee from his farmers member.
	Partnership Possibilities	UPK Karya Kasih is concerned to improve the welfare of coffee farmers in Ngada through providing better price of the good quality coffee, giving technical assistance at post-harvest and in processing. PRISMA will help UPK Karya Kasih to go to broaden market access for good quality coffee.
	Partner 3	UD Karunia (Coffee Processor in East Manggarai)
	Description	Kios Karunia is a small-enterprise developed by Mr. Gaspar Hasan in Golonderu village. He has been trading coffee commodity since 1994. In 2004, with a support from a committed buyer, Komodo Jaya, he started to trade good quality coffee with full-washed method. On the same year, he started to make a business collaboration with Mr. Karolus and Mr. Kornelis. Seeing the prospect of coffee business, Mr. Gaspar bought his own huller machine to produce good quality coffee in 2016. His current capacity reach 200 ton green bean coffee per year.
	Partners' Rationale	In order to increase its turn over, Kios Karunia aims to go to broaden market for high quality coffee and for that they need to improve its quality as well as its good quality coffee supply from their farmers.
	Partnership Possibilities	Kios Karunia is concerned to improve the welfare of coffee farmers in East Manggarai through providing better price of the good quality coffee, giving technical assistance at post-harvest and in processing. PRISMA will help Kios Karunia to go to broaden market access for good quality coffee.
	Partner 4	Agriculture Department of Ngada
	Description	Ngada has become one of famous single origin coffee with its Arabica Flores Bajawa patent name. More than 90% of their coffee are Arabica coffee and now become the star commodity.
	Partners' Rationale	Agricultural department of Ngada has seen PRISMA work in Flores from 2015-2016 and become more interested in the coffee sector. Currently, coffee is one of their main commodity. They put more resources and want to improve coffee productivity and quality. Ngada coffee productivity is around 300kg green bean/HA and target to increase to minimum 700kg green bean/HA.
	Partnership Possibilities	The partnership between PRISMA and the Agricultural Department of Ngada is intended to enhance the effectiveness of government funding with the overall development of the coffee industry. The government fund will be used to support the PRISMA strategy to develop the smallholder's coffee farmers.
Coffee EJ	Intervention 1	Promoting commercial fertilizer (New)
	Partner	PT Hextar Fertilizer Indonesia
	Description	PT Hextar Fertilizer Indonesia (PT HFI) is a subsidiary of PT Dharma Guna Wibawa due to a joint venture with Hextar Chemicals Sdn. Bhd. Malaysia. They produce various fertilizer and soil treatment products. Its current main market is horticulture farmers. It is currently developing a manufacturing plant in Gresik, East Java which has 250,000MT production capacity each year. The current sales volume is 40,000MT/year and they have a big target starting in 2019.
	Partners' Rationale	PT Hextar Fertilizer Indonesia (PT HFI) targets an increase of 525% from their current sales volume in 2019 due to its new manufacturing plant. To achieve this target, PT HFI partners with PRISMA to expand its market into new commodities and areas. Its current main commodity is horticulture and now expanding to coffee.

	Partnership Roles	PRISMA assesses the new possibilities in coffee commodity, cost-shares with PT HFI to promote their products to new areas and commodities. PT HFI will ensure the availability of the fertilizers in the market as well as agronomists (field staff).
Peanut NTT	Intervention 1	Empowering Female Farmers through PKK Group (New)
	Partners	CV Dirgajaya Teknik
	Description	CV Dirgajaya Teknik works in various sector such as construction, distribution. and agriculture. In agriculture sector, CV Dirgajaya Teknik serve as distributor of seeds, fertilizers, and other agricultural products. The main geographical focus area of CV Dirgajaya Teknik business includes Sikka and East Flores. It decides to produce peanut seeds partnering with PRISMA in 2017. Although CV Dirgajaya Teknik is considered new in peanut seeds business, it partners with experienced plasma farmers
	Partners' Rationale	This is the first time for CV. Dirgajaya Teknik to enter peanut seeds market. Previously, it mainly distribute products from other producers. However, it works together with experienced plasma farmers. The partner has high willingness to invest and develop the peanut seed business. The partner also sees a great business potential as no other private sector is entering the same market. The partner is independently building relationships with seed institutions such as BALITKABI and Dinas in Sikka District. .
	Partnership Roles	PRISMA supports CV Dirga Jaya Teknik in production of Takar 2 seeds and develop sales and distribution channels (sales agents/retailers) in Sikka district and promote and distribute their seeds among target groups.
Shallots NTB	Intervention	Shallot EWINDO
	Partners	PT East West Seed Indonesia (EWINDO)
	Description	In order to promote higher quality planting materials in NTB, PRISMA has been working with EWINDO to promote the use of true shallot seed and to develop a market for TSS derivative products such as the Improved Bulbs and Branded Seedlings. The True Shallot Seed, Bulb and Seedling can help farmers to get better yields than the low quality retained Bulb.
	Partners' Rationale	The success of the previous program establishing nurseries using the EWINDO seeds can be strengthened and up-scaled to benefit more male and female small-holder farmers in NTB, and it give more and better options for the farmers. The incentives for EWINDO are, among others, increased market share for seeds in a sustainable way, increased brand awareness (especially in NTB's shallot-producing areas of Bima and Lombok) and the potential to expand to other eastern districts.
	Partnership Roles	PRISMA's roles in this intervention are: 1. Nursery development Newly-established and existing nurseries will buy EWINDO-supplied seed to produce higher quality planting bulbs and seedlings sell them to shallot farmers, either directly or through traders. The incentives for nurseries include improved skills and knowledge, and the assurance and certainty of income. These will increase sales of EWINDO's true shallot seed (TSS), as well as the sale of TSS through input retailers. EWINDO expect through the Nurseries, more farmers will learn how to grow shallots from TSS. PRISMA supports EWINDO with agronomists, training and promotion activities. 2. Promote Improved bulbs and Seedlings to traders and retailers. Demonstrate the profitability of the business to traders and retailers, to encourage them to buy better quality planting bulbs and seedlings then sell them to shallot farmers. Work has already started on this:

		<ul style="list-style-type: none"> PRISMA supports studies to identify key areas in which to work to develop G0 bulbs. PRISMA has selected certain traders and linked them with EWINDO and the nurseries. EWINDO collaborates with these traders and retailers on distributing bulbs and seedlings to farmers. Traders are incentivised by the potential of increased income to be obtained by selling improved quality planting bulbs and seedlings at a higher price, creating a price differentiation for good quality planting materials. <p>3. Develop a partnership model.</p> <ul style="list-style-type: none"> Support EWINDO to find a system which works with its distribution channel to sell the planting bulb and seedlings obtained from the company's seed. This could be a franchise model, a trader system, a nursery model or a model otherwise appropriate to the needs of EWINDO. Support EWINDO to develop a branded bulb and a branded seedling franchise, trader system, and/or another partnership scheme, by providing consultants a) on post-harvest handling, and b) to carry out a trader study to find potential traders.
Mango EJ	Intervention	Mango EJ-NTB Scale up Syngenta
	Partners	PT Syngenta Indonesia
	Description	Syngenta is an internationally renowned agricultural company that produces and promotes seeds, crop protection products and agricultural solutions in many countries.
	Partners' Rationale	The early flowering technology for mango requires a combination of chemicals: <i>Cultar</i> , <i>Amistartop</i> , and <i>Actara</i> . Syngenta is the supplier of <i>Amistartop</i> and <i>Actara</i> in Indonesia under patent. <i>Amistartop</i> is widely available, as it is used in rice production. <i>Actara</i> is used to control insects in mango crops and improve fruit quality. Although <i>paclobutrazol</i> is available from many suppliers, Syngenta with its <i>Cultar</i> was the original patent owner and its product is proven to give the best result.
	Partnership Roles	<ul style="list-style-type: none"> Even though these products have been available in the marketplace, the combination had not been piloted in Indonesia. Syngenta took on a significant financial risk getting into this market. PRISMA supported Syngenta in piloting their products, primarily through supporting the collectors who tested the combination of chemicals in small-scale trials to see which combinations worked best. Now that the products and the business model are proven, PRISMA will support Syngenta to expand its distribution and promotion. After working with the pilot for 1.5 years, PRISMA and Syngenta decided to take the intervention to the next level by improving the field practices, such as removing the free samples, and decreasing PRISMA's contribution.
	Intervention	Mango EJ Scale up Rainbow
	Partners	PT Rainbow Agrosiences
Description	Rainbow is an internationally renowned agricultural company that produces and promotes crop protection products and agricultural solutions in many countries.	
Partners' Rationale	Rainbow has just started its operation in Indonesia with a wide range of products. They started as a manufacturer that serves other agro-chemical companies, but has now decided to enter the retail business on its own. They have the necessary chemicals for early flowering technology, which includes <i>Pazole</i> , <i>Fivestar</i> , <i>Raincozeb</i> , <i>Puntoxtra</i> , and <i>Nanofos</i> . They offer cheaper alternative to the market with wide range of selection under patent.	
Partnership Roles	After working with Syngenta for 1.5 years, PRISMA decided to work with Rainbow who is assessed to have more buy-in, clearer strategy, and more aggressive in penetrating the market for mango.	

	Intervention	Mango EJ-NTB Social Marketing
	Partners	PISAgro (Partnership for Indonesia's Sustainable Agriculture)
	Description	The Partnership for Indonesia's Sustainable Agriculture (PISAgro) was created in 2011 under the World Economic Forum (WEF).
	Partners' Rationale	The Partnership for Indonesia's Sustainable Agriculture (PISAgro) is one of the most established Country Partnerships, which has strong technical engagement on value chain initiatives from over 30 participating stakeholders across government, international agencies, civil society, and farmer organizations. PISAgro has ten value chain Working Groups, one of them is horticulture, which include pineapple and mango as sub-working group. Working with PISAgro as an association, other working groups or other companies can copy the model for other crops after the intervention is successful.
	Partnership Roles	Private input companies such as Syngenta and Rainbow are on-board with the campaign, as they are the product owner. PISAgro Mango Sub-Working Group is leading the campaign, in which PRISMA, Syngenta, and Rainbow are members. Once farmers will have increased knowledge on EFT, and private input suppliers will recognize the potential profit in the sector, there will be no need for further support from the project.
Shallot EJ	Intervention 1	Shallot SPILT
	Partner	PT Solusi Bioteknologi Indonesia (Solbi)
	Description	Solbi is a business unit of the SoeGee Group which aims to be a leader in innovative solutions in organic agriculture and as a biotechnology provider. In line with their vision, Solbi is willing to promote pest control technologies to shallot farmers.
	Partners' Rationale	Solbi is willing to invest in the production of pest lamps and provide technical assistance in the form of embedded services, including lamp maintenance, through commercial distribution channels and farmer groups.
	Partnership Roles	PRISMA's roles in this intervention are: <ul style="list-style-type: none"> • Short assessment for selection of distribution channels • Support in developing an effective business plan Development of a module for distribution channel training.
	Intervention 2	Shallot Social Marketing
	Partner	CropLife Indonesia
	Description	CropLife is an association that consist of several multinational chemical pesticide and seed companies in agriculture industry. CropLife has been known for their activities especially in stewardship. They main target is to create awareness of the farmers and change the farmers' behaviour towards the use of agriculture pesticides
	Partners' Rationale	Partner has experience to disseminate information on pest management. They are very interested to spread the Integrated Pest and Disease Management to the shallot farmers, because they found a lot of case of abusing pesticide use which impact to the farmers' health and also affecting the quality of the products.If this case happen a lot, public will starting to blame chemical company, because of that CropLife want to prevent that by conducting IPDM social marketing campaign.
Partnership Roles	PRISMA's roles in this intervention are: <ul style="list-style-type: none"> • Provide expert to develop IPDM module • Support in developing the campaign by hiring public relation agency • Support in conducting training to build capacity on IPDM 	

	Intervention 3	Shallot Nufarm
	Partner	PT Nufarm
	Description	PT Nufarm Indonesia is a subsidiary of the Australian company, Nufarm Ltd. This company is one of the world's leading crop protection and specialist seeds company. Their manufacturing and marketing operations are located in Australia, New Zealand, Asia, Europe, and Americas.
	Partners' Rationale	PT Nufarm Indonesia has been concerned about inappropriate use of pesticide that leads to pest resistance. They have one innovative product that targeting a specific pest (caterpillar) in shallot crop named "Dipel" with active ingredients: Bacillus Thuriensis. This products is an IPM compatible product and highly recommended for shallot crop.
	Partnership Roles	PRISMA and Nufarm with the support from IPM experts from Australia develop an IPM scheme and strategy for the shallot farmers. This partnership also encourage farmers to use IPM compatible products by disseminating IPM method through the demo plot, farmers meeting and other promotional event.
	Intervention 4	Shallot Trial Production EWINDO
	Partner	PT East West Seed Indonesia (EWINDO)
	Description	EWINDO is the first vegetable seed company, including shallot seeds (TSS), in Indonesia. The products are marketed in Indonesia under the brand "CAP PANAH MERAH".
	Partners' Rationale	The success of the previous intervention between PRISMA and EWINDO in West Nusa Tenggara (NTB) to promote quality shallot seeds (TSS) to shallot farmers, the demand for TSS has increased nationally. Currently, TSS is all imported, with no local production capacity. The demand for TSS has overcome the supply, hence EWINDO is exploring ways to increase their supply by having TSS production trial at several locations in Indonesia and outside Indonesia.
	Partnership Roles	PRISMA supports EWINDO in doing TSS production trial in East Java. This production trial aims to proof the feasibility of locally producing TSS in Indonesia and fulfilling the national demand of TSS. If the production trial proves that locally producing TSS is not feasible, from cost and quality perspective, EWINDO aims to have formal paper of how the trial goes to justify their TSS import volume.
Vegetable EJ / NTB / NTT	Intervention 1	Vegetable Apps EWINDO
	Partner	PT East West Seed Indonesia (EWINDO)
	Description	EWINDO is the first vegetable seed company in Indonesia. The products are marketed in Indonesia under the brand "CAP PANAH MERAH".
	Partners' Rationale	EWINDO already has the strong position in the vegetable seed market across Indonesia. To maintain their strong position in the market, they need to know their customers more. Hence, with the application, it will enable EWINDO to collect their customers' data to craft their sales and promotion strategies.
	Partnership Roles	Mobile app is a new for EWINDO and they don't have the capabilities to develop the app by themselves. PRISMA supported EWINDO by hiring developer and data scientist STA to develop the app, while EWINDO is focusing on the content of the app. EWINDO is also focusing on the marketing activities for the app throughout their channels.
	Intervention 2	Vegetable Apps NASA

Partner	PT Natural Nusantara (NASA)
Description	NASA is a national agricultural input company with multi-level marketing sales channel. NASA's product is an organic product ranging from fertilizer, crop protection, and livestock support products.
Partners' Rationale	With the multi-level marketing business model, everyone can be agents for NASA's products. This enables someone with non-agriculture background to join the network. The mobile app developed will be utilized as educational platform to improve agents' knowledge on agricultural practice.
Partnership Roles	PRISMA's roles in this intervention are: <ul style="list-style-type: none"> • Mobile app development to disseminate information on good agricultural practice • Accelerating bio-inputs introduction to smallholder farmers in the new districts
Intervention 3	Vegetable Rainbow
Partner	PT Rainbow Agrosiences
Description	Rainbow is an internationally renowned agricultural company that produces and promotes crop protection products and agricultural solutions in many countries.
Partners' Rationale	Rainbow has just started its operation in Indonesia with a wide range of products. They started as a manufacturer that serves other agro-chemical companies, but has now decided to enter the retail business on its own. They have the necessary chemicals for early flowering technology, which includes <i>Pazole</i> , <i>Fivestar</i> , <i>Raincozeb</i> , <i>Puntoxtra</i> , and <i>Nanofos</i> . They offer cheaper alternative to the market with wide range of selection under patent.
Partnership Roles	PRISMA's roles in this intervention are: <ul style="list-style-type: none"> • Mobile app development to disseminate information on good agricultural practice • Accelerating bio-inputs introduction to smallholder farmers in the new districts
Intervention 4	Vegetable FMC (New)
Partner	PT Bina Guna Kimia (FMC)
Description	FMC is a world's leading specialty chemical company based in Philadelphia, United States. Product range include insecticides, herbicides, fungicides, and specialty products.
Partners' Rationale	FMC is launching a new division called "Plant Nutrition Technology" (PNT) to complement its Pesticide division. PNT division has newly registered products in nutrition, which can improve soil condition of farmers.
Partnership Roles	PRISMA's roles in this intervention is supporting FMC in entering East Java market for vegetable and rice, by contribution in promotional events and Klinik Tanah FMC.
Intervention 5	Vegetable Agricon (New)
Partner	PT Agricon Indonesia
Description	Agricon is a leading national agrochemical company. Agricon has expanded its business portfolios to agrochemicals, greenhouse fabricator, irrigation system, pest control operator, coconut-derived products, and seeds.
Partners' Rationale	Agricon is one of the national market leader in crop protection market. They have their own RND and production facility. They want to expand their business in EJ and NTB.

Partnership Roles	<p>PRISMA's roles in this intervention are:</p> <ul style="list-style-type: none"> · Contributing in Promotion materials and event · Supporting in Training · Supporting the evaluation of the effectiveness of promotional activities and materials
Intervention 6	AGROSID Vegetable Soil Treatment GAP (New)
Partner	PT Agrosid Manunggal Sentosa
Description	AGROSID is the importer and producer of high quality vegetable seeds with more than 10 varieties of vegetables and non-seed products for soil and insecticides
Partners' Rationale	High quality seeds with poor soil treatment will reduce the number of seeds successfully grown into healthy seedling and seedling to produce good vegetables. Soil as the fundamental aspects in planting is important to be carefully handled. Nutrient contained in the soil should be maintained to let the plant grow healthy and free from tuber borne disease. Therefore, PRISMA work with Agrosid as producers of Seeds and non-seeds, include soil treatment to promote their product as well as promoting soil treatment GAP to the farmers and nursery.
Partnership Roles	PRISMA intended to work with Agrosid to promote the use of bundled soil treatment product with high quality vegetable seeds. PRISMA is supporting AGROSID to train their Trainer and agronomist on Soil Treatment GAP, and how to conduct soil sampling. With this activity, Agrosid are expected to train their field staff and other agronomist so they can give information and recommendation to farmers about their current soil condition. PRISMA also help Agrosid to develop tools kit to make the field staff easier on giving recommendation to the farmers and nursery. In addition, PRISMA are also support Agrosid to promote their agricultural input on several event.
Intervention 7	Danken Pest and Disease Management (New)
Partner	PT Danken Indonesia
Description	Lack of awareness in good pesticide practice among farmers and limited information and knowledge disseminated and applied by farmers invoke Prisma through PT Danken Indonesia to collaborate through Pest and Disease Management intervention for promoting Good Pesticide Practice and Good Agricultural Practices. In the beginning the intervention will be located in East Java with potency to be escalated in different area by Danken.
Partners' Rationale	PT Danken Indonesia is a subsidiary company of Danken International (Zongshan Group) in importing and providing wide range of crop protection products of pesticide (insecticide, herbicide and fungicide). As the new and growing business Danken products offer good quality with competitive price products as an additional option for Indonesian farmers, especially vegetable farmers. As a new entrance, established in Jakarta 30 April 2013, PT Danken Indonesia have a strong willingness to collaborate with PRISMA in penetrating their product and disseminating GPP and GAP to smallholder farmers. Danken products DK Fenzo, DK Mektin, DK Fostrin, DK Staronil Mix, and DK Duopro are qualified to be used for crop protection in vegetable crops.

	Partnership Roles	<p>PRISMA's roles in this intervention are:</p> <ul style="list-style-type: none"> • Capacity building in multilevel of stakeholder during intervention: field assistance, key leading farmers, shop assistance, retailers, and farmers. • Support in fostering company vision to be big five local crop protection company in Indonesia, survive penetrating market among MNC and other local crop protection company by having different strategy in empowering women and female farmers during the intervention to expand market opportunity. • Support in fostering company vision to be big five local crop protection company in Indonesia, survive penetrating market among MNC and other local crop protection company by having different strategy in empowering women and female farmers during the intervention to expand market opportunity.
Vegetables NTT	Intervention 1	Vegetable Sumber Tani
	Partners	UD SUMBER TANI
	Description	<p>UD Sumber Tani, a new input retailer has been built with the support and idea from PRISMA team. The purposes of this intervention are:</p> <ol style="list-style-type: none"> 1. Establishment of a new agro-input shop that could cover the farmers around district of East Manggarai and neighbouring districts. 2. Availability of extension services of GAP on vegetable production in the served areas. 3. Increase the number of farmer who has knowledge of GAP on vegetable production 4. Information tools of GAP on vegetable production will be available for the vegetable farmers 5. Farm shop / Inputs retailers will have sustain business plan which engages more ISP to optimize the benefits for the farmers' income
	Partners' Rationale	The owner is one of the biggest inter island trader for coffee, cashew, vanilla, tamarind, candlenut, eggs etc and one of the biggest contractor in the area. She sees a big opportunity since currently there is no Input shop in the East Manggarai.
	Partnership Roles	<p>PRISMA's roles in this intervention are:</p> <ul style="list-style-type: none"> • Developing the business idea and business model • Contributing in Promotion materials and event • Supporting in Training • Linking with Inputs companies
	Intervention 2	Vegetable Sahabat Tani
	Partners	UD SAHABAT TANI
	Description	<ol style="list-style-type: none"> 1. Sahabat Tani situated in Ende Flores island NTT and its business coverage reached Sikka, Lembata, Ende and Ngada districts 2. Sahabat Tani basically is the Distributor / retailer of agri-chemical
	Partners' Rationale	<ol style="list-style-type: none"> 1. Sahabat Tani is the authorized dealer of EWINDO for seed and DGW for pesticides 2. Potential to boost the outreach for the farmers in Flores Island in the Semester 2 of 2017
Partnership Roles	<p>PRISMA's roles in this intervention are:</p> <ul style="list-style-type: none"> • Developing the business idea and business model • Contributing in Promotion materials and event • Supporting in Training • Linking with Inputs companies 	

Beef EJ	Intervention 1	Promoting supplementary feed (crop residues) for cattle fattening
	Partner 1	UD Pangestune Utama or Wahyu Utama
	Description	UD Pangestune Utama or Wahyu Utama, is a Feedlotter, established in 2003 in Tuban, running business on cattle breeding, fattening, live cattle trading, and beef marketing. The company also produces and sells feed for cattle fattening (concentrate, crop residues, and molasses). However, the company only serves a limited number of farmers who are doing cattle fattening under a contract farming relationship model.
	Partners' Rationale	In order to expand the model and serving to a larger farmers outside current contract farming model, the Wahyu Utama is willing to provide benefits to the farmers through promoting the supplementary feed (crop residues) through development of demo plots and involving the retailers into the system to develop distribution channels.
	Partnership Roles	Prisma will support the company in: <ul style="list-style-type: none"> • Mapping out local sourced feedstuffs/fodders to make a cheaper cattle feed composition • Development of cattle feed composition formula using local sourced feedstuffs/fodders • Demo plots development model at selected Lead Farmers to promote crop residues usage for cattle fattening • Bring retailers into the system so that farmers have better access: • Looking for a wide and larger cattle feed market - serving and benefiting larger cattle farmers' population beyond its current market. • Development of a hard evidence based market promotion - using the success story business of demplots that shows commercial benefit of using appropriate feed to farmers in order to change their mindset and behaviors towards such investments.
	Intervention 2	Promoting concentrated feed for cattle fattening
	Partner 1	Community Business Centre (Pusat Kegiatan Masyarakat)
Description	Holcim is one of the largest international cement producers in the world and has a plant in Tuban district. As part of its commitment to CSR, Holcim along with local leaders founded a local People's Activity Centre (<i>Pusat Kegiatan Masyarakat - PKM</i>). Holcim invests in community economic development through the PKM. One of its programs supports a cooperative of producers of concentrate feed for cattle farming.	
Partners' Rationale	In order to develop the CSR program in the community, especially with cattle farmers, PKM is willing to provide benefits to the farmers through the development of concentrate feed. In addition to supporting production, the program supports the selling of the concentrate feed, which should enable it to be sustainable in future.	
Partnership Roles	PRISMA brings a commercial orientation and a focus on sustainability to the established CSR program. The program has a built-in component and can benefit a larger population beyond the current operational area. PRISMA supports the development of a business model to promote and distribute the concentrate feed product to more farmer groups by establishing distribution channels (agents/ lead farmers/ retailers).	
Intervention 3	Promoting Concentrate Feed in Eastern East Java	
Partner 1	KJUB Puspetasari or Nutrifeed	

	Description	Established in 1995, KJUB Puspetasari or more known as Nutrifeed, is a large secondary cooperative with main business in livestock feed industry. The organisation produce feed for dairy and beef cattle and is the 3 rd largest feed companies in East Java. Currently 90% of Nutrifeed's concentrate feed sales are for dairy cattle while 10% are for beef cattle
	Partner's Rationale	As a growing company, Nutrifeed have great desire to expand their feed business, especially on beef cattle feed business. Although they have invested further to expand feed business (e.g. purchasing new machine, procuring raw materials), they are still struggling in market penetration, especially on farmers' level as most of their sales at the moment is intended for dairy cattle and government order.
	Partnership Roles	PRISMA will support the company in promoting concentrate feed to increase cattle productivity through establishment of demoplots and attractive promotional strategy, as well as support the company in developing distribution channel, especially in Eastern part of East Java. Nutrifeed will invest in product samples, technical sales, VET assistant and delivery services.
	Intervention 4	Promoting Concentrate Feed for Cattle Fattening (New)
	Partner 1	PT Japfa Comfeed Indonesia Tbk
	Description	PT Japfa Comfeed Indonesia Tbk is one of the largest and most integrated agri-food companies in Indonesia. Its core business activities include animal feed manufacturing, chicken breeding, poultry processing as well as aquaculture farming.
	Partner's Rationale	Japfa Comfeed holds the second biggest market share for poultry feed in East Java. However, as the market for poultry feed is getting saturated, Japfa Comfeed wants to expand its market for other livestock feed. Considering that cattle feed market has big potential and PRISMA has prior experience in facilitating cattle feed producers to expand their market, Japfa Comfeed is interested in expanding its cattle feed market with assistance from PRISMA. Japfa Comfeed has been selling beef cattle feed under the name of "Gemuk A" with monthly sales of 500 ton/month, and Japfa wants to increase the sales at least by 2,000 kg/month on the first phase of expanding its market. East Java is chosen as the target market since it has 16 million cattle and 26% of it are for fattening. Japfa Comfeed is willing to invest in activities like farmers education, establishing the distribution channel to reach more farmers, and market storm in East Java to expand the cattle feed market with PRISMA's assistance as these activities are relatively new to Japfa Comfeed.
	Partnership Roles	Japfa Comfeed will promote the benefit of using concentrate feed through demo plot, demo event, market storm, and training to its retailer. In addition to that, Japfa Comfeed will expand the distribution channel of cattle feed in East Java by working with local cattle trader to promote cattle feed.
Beef NTT	Intervention	Promoting Lamtoro as a premium forage for cattle fattening
	Partner	PUSKUD
	Description	A study of the feed sector done by PRISMA and PUSKUD in July – October 2015 concluded that <i>Leucaena leucocephala</i> (Lamtoro) is a 'key' forage that is available all year round that can help farmers achieve an optimum Average Daily Gain (ADG) of cattle. Lamtoro has been proven to increase growth rate of Bali cattle under prevailing feeding management from 100-200 gram/day to 400-600 gram/day. However, this study also found that farmers do not widely use Lamtoro for cattle feed and they plant Lamtoro haphazardly in their farm so it is not easy to calculate forage production and the feeding capacity of each plot for their cattle.

		<p>In addition, it was observed that farmers did not have sufficient Lamtoro to supply to their cattle in the dry season. Consequently, it is predicted that farmers only offered one-half to two-third of the recommended Lamtoro requirement per day. Therefore, the optimum ADG is not achieved. Even worse, the farmers suffer from loss of their cattle weight in the dry season. Farmers also have poor knowledge and skills on good rearing practices, good feeding practices, and animal health control practices. These further exacerbate the low ADG of cattle.</p> <p>To address these problems, we plan to expand farmers' Lamtoro production and increase their knowledge and skills on Lamtoro cultivation (including seeds/seedlings selection, planting arrangement, cutting techniques, maintenance). Many farmers have idle land to expand Lamtoro plantation. Through the activities in this intervention, PRISMA will support PUSKUD to increase the awareness, knowledge, and skills of farmers through training on Good Agriculture Practices of Lamtoro cultivation, Good Cattle Feeding Management and Practices, Good Rearing Practices as well as Good Cattle Health Control Practices.</p>
	Partners' Rationale	<ul style="list-style-type: none"> • PUSKUD is one of the key and big player of cattle fattening in NTT • There are 45 Livestock Cooperatives under PUSKUD (consists of 139 farmer groups), with member around 9000 farmers • Experienced > 30 years in cattle fattening and sustain in their business ventures • Responsive and progressive to adopt innovations • Willing to share cost for intervention and invest to expand their business • Willing to invest to improve capacity of its staff <p>Have resources: 1 veterinary, 20 field staff.</p>
	Partnership Roles	PRISMA provides an expert to support PUSKUD in the capacity building (PUSKUD level, Nursery level, farmer level), demo plot design, study demand of Lamtoro, promotional & education tools, and facilitation for conduct event (training, launching, visit study)
Anggur Merah	Intervention 1	Synergy of Anggur Merah Program & PRISMA for Beef Sector NTT - Effective Use of Lamtoro as a Premium Forage for Cattle Fattening (closed)
	Partner	<p>Public partner: Provincial Government of NTT through the Secretariat of Program Anggur Merah (AM). A letter of acknowledgement has been prepared by the Prov. Govt for this partnership.</p> <p>Private partner: PUSKUD (the partner of Sub-Sector Beef NTT, where this AM Intervention will join the partnership)</p>
	Description	This intervention will take advantage of existing AM Program being implemented by the NTT Govt. The AM program provides stimulant grants to a village that majority uses the grants for financing community's cattle fattening. Common problems faced by cattle farmers are low productivity due to feed scarcity and low skills on managing cattle fattening, which impact on low income earned by cattle farmers.
	Partners' Rationale	<p>Prov. Govt. of NTT: to provide stimulant grants (AM funds) to each receiver village (including the location of this intervention); to hire village facilitators (PKM) who supervise the AM activities in each target villages (including the village targeted by this intervention); to establish and monitor the cooperatives at villages level (including those in the targeted villages of this intervention).</p> <p>PUSKUD: to do feed test; to produce and sell processed feeds through AM cooperatives; to sell input (chemical) through AM cooperatives for producing cattle feeds using local forages; to support in increasing the capacity of AM cooperatives in order to act as the ISP and a business entity.</p>
	PRISMA's Roles	PRISMA: to support PUSKUD to provide technical assistance and capacity building to AM cooperatives; to link AM cooperatives to other market actors for cattle fattening business

Intervention 2	Synergy of Anggur Merah Program & PRISMA for Pig Sector NTT – Support the Development and Promotion of Quality Feed Supply in NTT (closed)
Partner	SIERAD Produce (the partner of Sub-Sector Pig NTT, where this AM intervention will join the partnership between HIVOS as co-facilitator PRISMA
Description	This intervention will take advantage of existing AM Program being implemented by the NTT Govt. The AM program provides stimulant grants to a village that majority uses the grants for financing community’s cattle fattening and pig fattening. Common problems faced by pig farmers are access information of better quality feed and lack of good feeding practice which have influenced low productivity and longer pig fattening period which have impacted on low income earned by pig farmers.
Partner’s rationale	Prov. Govt. of NTT: to provide stimulant grants (AM funds) to each receiver village (including the location of this intervention); to hire village facilitators (PKM) who supervise the AM activities in each target villages (including the village targeted by this intervention); to establish and monitor the cooperatives at villages level (including those in the targeted villages of this intervention). SIERAD: to sell pig feed through Input shops and provides technical services through agronomist related with good feeding practice; to distribute promotion tools to farmers to increase access of information related with feed product knowledge and good feeding practice; to support in increasing capacity of AM cooperatives in order to act as the ISP and a business entity
PRISMA roles	PRISMA: to support SIERAD (including ISP – input shops) to provide technical assistance and capacity building to AM cooperatives; to link AM cooperatives to other market actors for pig fattening business; Expand target market area for SIERAD product
Intervention 3	Synergy of Anggur Merah Program & PRISMA for Maize Sector NTT – Promoting the use of composite (OPV) Seed (closed)
Partner	CV TIGA PUTRI MANDIRI (TPM) – maize composite nurseries in Atambua, NTT (the partner of Sub-Sector Maize NTT, where this AM intervention will join the partnership between Maize NTT PRISMA team.
Description	This intervention will take advantage of existing AM program being implemented by the NTT Government. The AM program provides stimulant grants to villages that use the grants mostly for financing maize of smallholder farmers. Common problems faced by maize farmers are access to better quality maize seeds. Those problems lead to low productivity and implicate on low income earned by maize farmers. AM cooperatives currently are not using their fund to finance productive sector such as maize business. the cooperatives and their member only earn small benefit from the cooperative annual surplus by targeting maize business, cooperatives can grow its portfolio & turnover. Besides, farmers will have access to finance through AM cooperatives so they can get in-kind loan especially for maize purple composite seeds. This access allows farmers to run maize business & gain profits too due to as contract farmers, and private partner can continue provide maize purple seeds to AM cooperatives and sell more maize blue seeds to other farmers
Partner’s rationale	Prov. Govt. of NTT: to provide stimulant grants (AM funds) to each receiver village (including the location of this intervention); to hire village facilitators (PKM) who supervise the AM activities in each target villages (including the village targeted by this intervention); to establish and monitor the cooperatives at villages level (including those in the targeted villages of this intervention). CV TPM: to maize composite seeds (blue label) through AM Cooperative and provides technical services through agronomist related with good agriculture practice; to distribute promotion tools to farmers to increase access of information related with maize composite good agriculture practice; to support in increasing capacity of AM cooperatives in order to act as the ISP and a business entity

	PRISMA roles	PRISMA: to link AM cooperatives to CV TPM for maize contract farming system; to support CV TPM to provide technical assistance and capacity building to AM cooperatives as a partner for contract farming; Expand target market area for maize composite seeds from CV TPM.
Vegetable West Papua	Intervention 1	Increase Productivity through Promoting the Provision of GAP Knowledge and the Use of Good Quality Seed
	Partners	EWINDO & Yayasan Bina Tani Sejahtera (YBTS)
	Description	<p>EWINDO is the first integrated vegetable seeds company in Indonesia which produces vegetable seeds through plant breeding. EWINDO aims to provide high quality seeds to increase farmer's income and promote vegetable consumption. EWINDO has been producing more productive seeds and expanding their business in West Papua.</p> <p>Bina Tani Sejahtera Foundation established 2009 (based on establishment statute) is length-arm of PT Ewindo who produces and supplies vegetable seeds. Bina Tani aims to advance farmer's prosperity by providing extension, advisory and training services to farmers. Bina Tani also acts a development agency towards markets in introducing and training of better vegetable cultivation and good agriculture practices to farmers before Ewindo enters to the market commercially.</p>
	Partners' Rationale	<p>PRISMA partnered with EWINDO to increase the productivity of vegetables by providing assistance and information on good agricultural practices and promoting the use of good quality seeds. EWINDO has Product Promoters who are located in various location to give assistances and promote GAP & quality seed to vegetable farmers. EWINDO has plan to expand their area of operation in West Papua.</p> <p>Bina Tani Sejahtera Foundation has capacity to undertake the tasks since Bina Tani has been doing similar activities/interventions with several international organizations.</p>
	Partnership Roles	<p>The role of partnership is to accelerate the provision on GAP and good quality seed and its application at farmer level. EWINDO will provide extension service through their Product Promoters (PP). PP delivers extension services to farmers through socialization, exchange visit, and demoplot activities to demonstrate correct horticultural practices.</p> <p>Meanwhile, YBTS will provides support in the form of training modules development and delivery training on those modules basis to EW, seed retailers and farmers. YBTS will equips EW with sufficient knowledge and management of extension service.</p>
Vegetables Papua	Intervention 1	Increase Productivity through Promote Good Quality Seed and GAP Provision
	Partner 1	EWINDO
	Description	EWINDO is the first integrated vegetable seeds company in Indonesia which produces vegetable seeds through plant breeding. EWINDO aims to provide high quality seeds to increase farmer's income and promote vegetable consumption. EWINDO has been producing more productive seeds and expanding their business in Papua.
	Partners' Rationale	PRISMA partnered with EWINDO to increase the productivity of vegetables by providing assistance and information on good agricultural practices and promoting the use of good quality seeds. EWINDO has Product Promotor who is located in various location to give assistances and promote GAP & quality seed to vegetable farmers. EWINDO has plan to expand their area of operation in Papua.

	Partnership Roles	EWINDO provide extension service through their Product Promotors (PP). PP delivers extension services to farmers through socialization, exchange visit, demoplot activities, and other promotional event to demonstrate correct horticultural practices.
Extension Services	Intervention 1	Pest and Disease Identification through Smartphone Application (NTB) 2ESA
	Partner 1	PT. 8Villages Indonesia
	Description	8Villages was founded in 2011 with the intent to change the way information flows from private and public sectors to rural populations. Today, 8Villages combines experienced marketers, agronomists as well as software and telecommunications engineers.
	Partners' Rationale	A starting point for further collaboration with Government's Agricultural Extension Department. In the future 8Villages want to collaboration with ministry of agriculture, they will show that they have good Application for farmers. Moreover 8Villages would like to Market intelligence and Brand exposure from this intervention. Gaining new extension service workers (and potentially lead farmers) customers in NTB.
	Partnership Roles	8Villages create smartphone application for identification pest and disease, conduct training of trainer for extension worker, follow up extension worker and monitoring app usage from server.
	Partner 2	Government's Agricultural Extension Department (BP4K)
	Description	BP4K is a Government's Agricultural Extension Department that conduct Extension of Agriculture, Fisheries and Forestry Effective. BP4K coordination with extension worker in level Sub district. We collaborate with BP4K in 3 district level (Lombok Timur, Sumbawa, and Bima).
	Partners' Rationale	This intervention match with Government's Agricultural Extension Department strategic plan. With this intervention BP4K have the new methodology for extension services and will increase in the level of technological innovation to extension workers.
	Partnership Roles	BP4K will identify and appoint personals to attend the training of trainer 'Dokter Tanaman' application, BP4K conduct training for broader extension workers (level sub district) in pest and disease identification through the 'dokter tanaman' application. Coordination and monitoring activities at the sub district level interventions.
	Intervention 2	Crop Protection Call Center (EJ) 1ESA
Partner	PT. BASF Indonesia	
Description	PT. BASF INDONESIA is a chemical company with broad portfolio including crop protection. The portfolio also includes products for turf and ornamental plants, pest control and public health. PT. BASF INDONESIA Crop Protection division is a leading innovator in partnership with farmers to protect and improve crop yields, enabling them to produce high quality food more efficiency.	
Partners' Rationale	BASF has an existing call-center to engage their lead farmers and also provide product consultation to their customers. They can expand their market share through educating farmers on proper crop-protection. PRISMA and BASF will collaborate to promote the Call center for farmers and be expected farmers will call the call center to crop consultation and BASF will Provide Crops' Pest & Disease Consultation so they can promote their products by phone and ensure that their products are available in the intervention areas.	

Partnership Roles	BASF will be contact center / call center capacity building, promotion of the pest and disease consultation call center, Ensure the availability of the Partner products that are recommended by the call center in the retail shop near the farmer. To direct agronomist or BC (Business Consultant) to follow up escalation cases by visiting the farmer's field. To ensure the pest and disease consultation call center provides a relevant and good quality information so that it can be a trustworthy information source for farmers.
Action Research 1	Introducing productive use of smartphone and provision of information for farmers in Java (1ESB) (New)
Partner 1	PT.EHR INDONESIA
Description	Karsa is an informative farming application that aims to increase farmers access to the latest and most up-to-date agriculture information. Supported by the increased penetration of smartphone and broadband internet in villages, Karsa will equip and enhance the way farmers, extension workers, traders, and product owners work by delivering the information that they need.
Partners' Rationale	PT.EHR INDONESIA has KARSA agricultural applications. They strive to spread the benefits of this application to farmers and also strive to always add features to better help meet the needs of farmers. with so many farmers who use KARSA application then KARSA will benefit from the business that he developed.
Partnership Roles	PT.EHR INDONESIA is developing several new features or business models (e.g. information dissemination, financing, offtaking, price information) while at the same time moving aggressively to acquire new customers and grow the application platform
Action Research 2	Agriculture Intelligent Platform (2ESB) (New)
Partner	PT Mediatrac Sistem Komunikasi (Dattabot)
Description	Dattabot is a company that engaged in technology and one of their focus is to deliver intelligent and integrated agriculture management support. By integrating Big Data analytics and smart sensing, Dattabot develop solution to help Indonesian farmers become more effective and efficient in farming
Partners' Rationale	A cooperation between Partner and PRISMA would mean a synergy between deep understanding of the issues holding farmers back and the potentials of technology to address those issues. The expected end result is a faster emergence of agriculture-specific technology solutions which can increase Indonesian farmers' income and improve the agriculture sector in general.
Partnership Roles	The partners will commit to deliver several things including: <ul style="list-style-type: none"> - Design software product which benefits farmer and gives solution to their problem on the field. - Conduct collaboration meeting & workshop with other partner(s) introduced by PRISMA. - Operate software developed by Partner in the field.
Action Research 3	Scaling up Off Taker, GAP and Agriculture Platform (EJ, NTB, NTT) (New)
Partner	PT Eragano Agritech Indonesia
Description	Eragano is a provider of end-to-end farming solution for farmers through easy to use android application. The goal is to make farmers more productive and to enable them to have a fair market price when they sell their harvest. Main activities of

		Eragano are connecting farmers with off-takers and/or financial institutions and providing GAP to farmers.
	Partners' Rationale	<p>PRISMA and Eragano agrees to work together for the benefits of smallholder farmers in East Java, NTT and NTB.</p> <ul style="list-style-type: none"> •The idea is by expanding Eragano's reach to include more farmers, more crops, more buyers, and more areas. PRISMA will support Eragano by providing business consultancy and connect Eragano to relevant stakeholders within PRISMA's network. •Eragano is focusing on offtaking of maize, chilli, shallot, and potatoes. Helping farmers with post-harvest processing knowledge so they can enjoy better price through technology.
	Partnership Roles	<p>Eragano agrees to:</p> <ol style="list-style-type: none"> Provide PRISMA access to Eragano's Application and Platform, which includes user information and data analytics from areas related to the program. Work together with PRISMA to develop, test, and pilot solution(s) to reach more smallholder farmers in East Java, NTT and NTB. Create technology tools needed to support the program/collaboration. Keep all related data in this program in confidential manner and use/give data to other parties with PRISMA's consent. Provide sufficient manpower to plan, manage, and implement the agreed activities.
	Intervention 3	Crop Protection (4ESA & 5ESA) (New)
	Partner	PT BASF Indonesia
	Description	PT. BASF INDONESIA is a chemical company with broad portfolio including crop protection. The portfolio also includes products for turf and ornamental plants, pest control and public health. PT. BASF INDONESIA Crop Protection division is a leading innovator in partnership with farmers to protect and improve crop yields, enabling them to produce high quality food more efficiency
	Partners' Rationale	<p>Partners see the potential for expanding their business to Papua and West Papua. Therefore, the partner establishes cooperation with several local distributors and provides field workers to carry out promotional activities thus creating demand for products. In addition to promotional activities, to increase their sales, Partners will also provide technical assistance and provide information on product knowledge, Good Agricultural Practices and pest and disease management to relevant stakeholders, especially Farmers.</p> <p>PRISMA and Partners cooperation will create mutually supportive synergy to bring the solution to farmers especially related to plant pests and diseases. With the cooperation, it is hoped that Farmers will acquire more knowledge related to Good Agricultural Practices and pest and disease management to ultimately increase productivity</p>
	Partnership Roles	<p>By having partnership with PRISMA, BASF commit to:</p> <ol style="list-style-type: none"> Establish Distribution Channel in Papua and West Papua Provide field staff to provide technical assistance and give information about product knowledge, Good Agriculture Practices, and Pest and Disease Management Develop promotional tools and establish promotional activities Conduct demoplots <p>The estimate budget for having those kind of activity mentioned above is around IDR 940 mio</p>
Homestead	Intervention 1	Promoting Small Package Vegetable Qualified Seeds for Homestead Gardening in Kupang District (3GIA) (New)

Gardeni ng NTT		
Partners	<p><u>Private partner</u>: PT. BISI International Tbk; a local established company in Indonesia, in 1983. PT. BISI is a producer of hybrid seeds of maize, paddy and horticulture, as well as the main producer and distributor of pesticides and fertilizers in Indonesia. Its head quarter is in Sidoarjo, East Jawa. While in East Nusa Tenggara Province, PT. BISI has a Marketing Executive who is based in Kupang, and acts on behalf of the company for this partnership, <u>Public partner</u>: Agriculture, Food Crops & Horticulture Office of Kupang District or Dinas Pertanian, Tanaman Pangan & Hortikultura (DISTAN-Kupang).</p>	
Partners' Rationale	<p>PT. BISI International Tbk is one of the two main vegetable-seeds producers who are expanding the sale of their products in the area of East Nusa Tenggara Province. PT. BISI in Kupang (NTT) is more responsive and interested to have partnership with PRISMA and also involving related local government offices, in promoting vegetable qualified seeds for homestead gardening.</p> <p><u>DISTAN-Kupang</u> is a District Govt. Office that implementas some programs focusing on homestead gardening by using APBN or APBD budgets. For this partnership, the PPL (govt. extension service) from the BP4K Office will be involved; while the BP4K (District Government's Agricultural Extension Unit) is in the preparation to be 'merged' under DISTAN-Kupang, as common in the whole districts in NTT Province.</p>	
Partnership Roles	<p>DISTAN-Kupang: to identify and mobilize the PPL and women's farmer groups (KWT) to participate in the agreed activities in the field; to coordinate with KWT and the village administratives for preparing lands for demoplot; to procure vegetable seeds and polybags to be distributed to all KWTs in the targeted locations; to coordinate PPLs to assist KWT during field activities.</p> <p>PT.BISI: to facilitate (conduct) the trainings (ToT) and to develop training materials; to assign agronomists or spot-workers (SW) to assist KWT and PPLs in executing field activities; to provide sample-seeds (mini-pack) for demoplot and other promotional activities; agronomists or SW to do monitoring to demoplots and to provide technical assistance for KWT.</p> <p>Role of PRISMA: to identify and to negotiate with private partners for the intervention; to facilitate all promotional activities, such as farmer's meetings, EXPO.</p>	
Partners' Contribution	<p>PT. BISI: to provide sample-seeds for 8 demoplot locations in Kupang District; to assign agronomists and/or spot-workers for supporting activities in 8 demoplots, as well as in 64 women-groups' sites.</p> <p>DISTAN-Kupang: to procure vegetable-seeds and polybags to be distributed to 64 KWT (total members: 1,432 people).</p>	
Intervention 2	Promoting Small Package Vegetable Qualified Seeds for Homestead Gardening in TTS District (3GIB) (New)	
Partners	<p><u>Private partner</u>: a local established company in Indonesia, in 1983. PT. BISI is a producer of hybrid seeds of maize, paddy and horticulture, as well as the main producer and distributor of pesticides and fertilizers in Indonesia. Its head quarter is in Sidoarjo, East Jawa. While in East Nusa Tenggara Province, PT. BISI has a Marketing Executive who is based in Kupang, and acts on behalf of the company for this partnership.</p> <p><u>Public partner</u>: Food Security Office of South Central Timor District or Dinas Ketahanan Pangan (DKP-TTS).</p>	
Partners' Rationale	<p>PT. BISI International Tbk is one of the two main vegetable-seeds producers who are expanding the sale of their products in the area of East Nusa Tenggara Province. PT. BISI in Kupang (NTT) is more responsive and interested to have partnership with PRISMA and also involving related local government offices, in promoting vegetable</p>	

		<p>qualified seeds for homestead gardening.</p> <p>Food Security Office of South Central Timor District (DKP-TTS) has some programs focusing on homestead gardening by using APBN or APBD budgets. For this partnership, the PPL (govt. extension service) from the BP4K Office will be involved. While BP4K has just been merged under DISTAN (Agriculture Office) of TTS District. This means there should be a good coordination between DKP-TTS and DISTAN TTS in ensuring the support of PPL in this partnership</p>
	Partnership Roles	<p>DKP-TTS: to identify and mobilize the PPL and women's farmer groups (KWT) to participate in the agreed activities in the field; to coordinate with KWT and the village administratives for preparing lands for demoplot; to procure vegetable seeds to be distributed to all KWTs in the targeted locations; to coordinate PPLs to assist KWT during field activities.</p> <p>PT.BISI: to facilitate (conduct) the trainings (ToT) and to develop training materials; to assign agronomists or spot-workers (SW) to assist KWT and PPLs in executing field activities; to provide sample-seeds (mini-pack) for demoplot and other promotional activities; agronomists or SW to do monitoring to demoplots and to provide technical assistance for KWT.</p> <p>Role of PRISMA: Role of PRISMA: to identify and to negotiate with private partners for the intervention; to facilitate all promotional activities, such as farmer's meetings, EXPO.</p>
	Partners' Contribution	<p>PT.BISI: to provide sample-seeds for 2 demoplot locations in TTS District; to assign agronomists and/or spot-workers for supporting activities in the 2 demoplots, as well as in 20 women-groups' sites.</p> <p>DKP-TTS: to procure vegetable-seeds to be distributed to 20 KWT (total members: 418 people).</p>
Homestead Gardening NTB	Intervention 1	Promoting Small Package Vegetable Qualified Seeds for Homestead Gardening in Sumbawa District (2GIB) (New)
	Partners	<p><u>Private partner</u>: PT. BISI International Tbk; a local established company in Indonesia, in 1983. PT. BISI is a producer of hybrid seeds of maize, paddy and horticulture, as well as the main producer and distributor of pesticides and fertilizers in Indonesia. Its head quarter is in Sidoarjo, East Jawa. PT BISI in West Nusa Tenggara is a regional office whose working areas cover the provinces of NTB and NTT. The chairman of this office is served by a Manager Area.</p> <p><u>Public partner</u>: In Sumbawa district the partner is the Food Department (Dinas Pangan)</p>
	Partners' Rationale	<p>PT. BISI International Tbk is one of the two major vegetable seed producers currently expanding its product sales in the Nusa Tenggara region. PT. BISI in Sumbawa district (NTB) is currently willing to cooperate and interested to partner with PRISMA and also involves the Sumbawa Regency Food Office, in an effort to promote quality hortory plant seeds for home garden.</p> <p>The Food Department of Sumbawa District is the agency responsible for food security especially in the provision of food and how to ensure the distribution of food evenly to the community. The financing comes from APBD 1-2 and APBN. For this partnership, government and private PPL (government counseling) will be involved, as well as the Village Government and BUMDes or community groups in the village.</p>
	Partnership Roles	The Food Department of Sumbawa District: Identify and mobilize PPL and female farmer groups (KWT) to participate in activities agreed on the ground; coordinate with KWT and village officials to prepare land for demoplot; to get vegetable seeds and polybags to be distributed to all KWTs in the targeted location; coordinate PPL

	<p>to assist KWT during field activities.</p> <p>PT.BISI: to facilitate (conduct) training (ToT) and to develop training materials; to provide assign agronomists or spot-workers (SWs) to assist KWT and PPL in conducting field activities; to provide sample seeds (mini packages) for demoplot and other promotional activities; agronomist or SW to conduct demoplot monitoring and provide technical assistance to KWT.</p> <p>The role of PRISMA: to identify and negotiate with private partners for intervention; facilitate all promotional activities, such as farmer meetings, EXPO.</p>
Partners' Contribution	<p>PT. BISI: Provide sample seeds for 10 demoplot locations / villages in 3 sub-districts of Sumbawa Regency; to establish agronomists and / or spot workers for support activities at 10 demoplot sites, as well as at women's group sites.</p> <p>THE FOOD DEPARTMENT of Sumbawa District: to get vegetable seeds and polybags to be distributed to several Groups (number of members: 2,021 people).</p>
Intervention 2	<p>Promoting Small Package Vegetable Qualified Seeds for Homestead Gardening in Lombok Utara District (2GIA) (New)</p>
Partners	<p><u>Private partner:</u> PT. BISI International Tbk; a local established company in Indonesia, in 1983. PT. BISI is a producer of hybrid seeds of maize, paddy and horticulture, as well as the main producer and distributor of pesticides and fertilizers in Indonesia. Its head quarter is in Sidoarjo, East Jawa. PT BISI in West Nusa Tenggara is a regional office whose working areas cover the provinces of NTB and NTT. The chairman of this office is served by a Manager Area.</p> <p>Public partners: The Food and Agriculture Security Department of Lombok Utara District (Kabupaten Lombok Utara).</p>
Partners' Rationale	<p>PT. BISI International Tbk is one of the two major vegetable seed producers currently expanding its product sales in the Nusa Tenggara region. PT. BISI in Lombok Utara district (NTB) is currently willing to cooperate and interested to partner with PRISMA and also involves the Food and Agriculture Security Department of Lombok Utara District in an effort to promote quality horticultural plant seeds for home garden.</p> <p>The Food and Agricultural Security Department of North Lombok District is the agency responsible for agriculture and food security especially in maintaining the production and productivity of agricultural products, the provision of food and how to ensure the distribution of food equally to the community. The financing comes from APBD 1-2 and APBN. For this partnership, government and private PPL (government counseling) will be involved, as well as the Village Government and BUMDes or community groups in the village.</p>
Partnership Roles	<p>The Food and Agricultural Security Department of North Lombok District: Identify and mobilize PPL and female farmer groups (KWT) to participate in activities agreed on the ground; coordinate with KWT and village officials to prepare land for demoplot; to get vegetable seeds and polybags to be distributed to all KWTs in the targeted location; coordinate PPL to assist KWT during field activities. Also coordination with BAPPEDA Lombok Utara.</p> <p>PT.BISI: to facilitate (conduct) training (ToT) and to develop training materials; to provide assign agronomists or spot-workers (SWs) to assist KWT and PPL in conducting field activities; to provide sample seeds (mini packages) for demoplot and other promotional activities; agronomist or SW to conduct demoplot monitoring and provide technical assistance to KWT.</p> <p>The role of PRISMA: to identify and negotiate with private partners for intervention; facilitate all promotional activities, such as farmer meetings, EXPO.</p>

	Partners' Contribution	<p>PT. BISI: Provide sample seeds for 29 group locations / villages in 4 sub-districts of Lombok Utara District; to establish agronomists and / or spot workers for support activities at demoplot sites, as well as at women's group sites.</p> <p>The Food and Agriculture Security Department of District: to get vegetable seeds and polybags to be distributed to several Groups (number of 29 groups).</p>
Homestead Gardening East Java	Intervention 1	PPC Promoting Small Veg Seed Package to Rural Area of Pamekasan (1GIC) (New)
	Partners	<p>Public partner: Dinas Ketahanan Pangan dan Peternakan, Kabupaten Pamekasan, Madura</p> <p>Private partner: EWINDO</p>
	Partners' Rationale	<p>Dinas Peternakan dan Ketahanan Pangan Pamekasan is implementing Kawasan Rumah Pangan Lestari (KRPL) program to empower women in the rural area. This program aims at improving the nutrition by giving access to quality vegetable to the household.</p> <p>EWINDO not only has strong presence in Madurese market but also has produced vegetable seeds in small package under its Panah Merah brand. Before this intervention is introduced, farmers and women in Pamekasan already planted vegetable at home and some of them use Panah Merah seeds. Partnering with EWINDO will give an advantage to PRISMA in a way that we could identify users earlier.</p>
	Partners' Roles	Engaging in this intervention, EWINDO acts as an input supplier, in this case, small package vegetable seeds. It will provide GAP for vegetable planting to female farmer groups while also promoting its seeds. Working with PPL as its ISP, EWINDO runs a business model where farmers order the seed from the company with PPLs acting as a distributor.
	PRISMA's Roles	PRISMA arranges activities that aim to introduce farmers to GAP for vegetable, especially the kinds they could plant at home. At the same time, PRISMA organizes a home garden competition among female farmer groups in Pamekasan to encourage and motivate them in planting.
	Intervention 2	PPC Promoting Small Vegetable Seed Package to Rural Area of Bondowoso (1GID) (New)
	Partners	<p>Dinas Ketahanan Pangan dan Perikanan, Kabupaten Bondowoso</p> <p>Private partner: EWINDO</p>
Partners' Rationale	Dinas Ketahanan Pangan dan Perikanan Bondowoso is implementing Kawasan Rumah Pangan Lestari (KRPL) program to empower women in the rural area. This program aims at improving the nutrition by giving access to quality vegetable to the household.	
Partners' Roles	While it has become an established brand in Pamekasan, Panah Merah by EWINDO still needs to better build its presence in Bondowoso. That said, EWINDO believes Bondowoso could be another good market for its small package vegetable seeds	
PRISMA's Roles	PRISMA arranges activities that aim to introduce farmers to GAP for vegetable, especially the kinds they could plant at home. At the same time, PRISMA organizes a home garden competition among female farmer groups in Bondowoso to encourage and motivate them in planting.	

M4P Training to GOI	Intervention 1	M4P Maize Pamekasan (1GIC) (New)
	Partner	Public partner: Dinas Pertanian dan Ketahanan Pangan Kabupaten Pamekasan, Madura Private partner: DuPont Pioneer Indonesia
	Description	This intervention is to follow up the M4P training given to district government of Indonesian, including officials of government in Pamekasan. It aims to promote short-term hybrid maize seeds for farmers in five subdistricts in Pamekasan, by collaborating with DuPont pioneer as its input producer.
	Partners' Rationale	Under its 'food sovereignty' agenda, GoI also claim right and authority to mitigate risk of population nutrition-related problem due to food & nutrition scarcity at household level, through food diversification promotion. One of the promotion agenda is to implement homestead gardening program. Ministry of Agriculture, every governor and Head of Districts are requested to allocate fund and distribute it through District Food Security Offices to different female farmer groups to establish fruit & vegetable seedling nurseries, green houses, demoplot, and GAP training, every years. The District Food Security Offices is also encouraged by the national government to manage and scale up the homestead gardening program (KRPL) in collaboration with private sector. With support from PRISMA, EWINDO has identified a clear opportunity to increase vegetable seed sales in rural area while promoting PANAHA MERAH seed through collaboration with the District Food Security Offices. EWINDO is interested to reach more rural farmers, deliver GAP and sell more vegetable seed through collaboration with District Food Security Offices in East Java, started from Pamekasan.
	PRISMA's Roles	Upon the M4P training, PRISMA contributes in conducting a series of FFD in five subdistricts (40 FFDs in total). The main purpose of the FFD is to train and socialize farmers on good maize farming practices. This is to create awareness of GAP and hybrid maize seeds among Madurese farmers as some of the targeted districts have not been penetrated with GAP and hybrid maize seeds. Farmers are allowed to observe successful maize field during the FFD while DuPont also sold its seeds.
	Intervention 2	Private Public Collaboration for Good Quality Chili Seed Promotion in Sampang - Madura (1GIB) (New)
	Partner	Public partner: District Government of Sampang through Bappelitbanda and District Agriculture Office of Sampang Private partner: Because BISI has stepped back from this intervention, PRISMA and LG are approaching alternative partner
	Description	This intervention is to utilise market opportunities and address specific constraints in private public collaboration for good quality vegetable seed and spesific chili seed promotion in Sampang dan Madura that will benefit rural poor farmers
Partners' Rationale	District Govt. of Sampang: to provide stimulant program for at least 25 spots in the form of sample seed, some other inputs and extension workers who are going to provide assistance and extension services	
PRISMA's Roles	PRISMA: to contribute in TOT for public EWs and Taruna Cabe, farmers field visits and identify retail channel	

Co-facilitators 1 – partner details

Partners' Details		
Coffee	Intervention 1	Development of ICCRI franchise
	Partner	ICCRI
	Description	ICCRI was founded on the 1st January 1911 and holds a national mandate to conduct research and development activities into coffee and cocoa as well as provide data and information to smallholders, private and estate companies, national and regional government agencies, associations and other stakeholders. The institution supports locations for on-farm Robusta coffee experiments. Since 2011, two of ICCRI's units have been awarded accreditation - its certification body and testing laboratory. ICCRI has a library with a vast collection of reference materials. The institute has 36 researchers comprising 12 PhD holders, seven Masters graduates and 17 Bachelors holders.
	Partners' Rationale	ICCRI wishes to disseminate knowledge and skills but does not have the capacity to develop branches in many areas of Indonesia. ICCRI branches enable farmers and related stakeholders to better access ICCRI products and services.
	Partnership Possibilities	ICCRI support can help increase the productivity and quality of coffee. PRISMA will help ICCRI expand their services through the franchise model in project locations.
	Partner 2	Cooperatives
	Description	Cooperatives is one of main player in coffee sector. Farmers who are in the cooperatives can get a better price as their product will be sold as certificate product, information, and access to finance.
	Partners' Rationale	Each cooperatives has at least 100 to more than 1000 coffee's farmers member. All of the member of the cooperatives will send their product through cooperatives, getting finance access recommendation, and information sources.
	Partnership Possibilities	Cooperatives seek to increase their quality of coffee with certificate, coffee supply from its coffee farmer's member, and their member number but doesn't have proper knowledge and management capacity yet. PRISMA will linkage them with Bank to increase their financial capacity and ICCRI to increase their knowledge capacity.
	Intervention 2	Development of decentralized processing facilities for specialty coffee through cooperatives
	Partner 1	PT Indokom Citra Persada (Indokom)
	Description	Indokom is a coffee exporting company founded in 1996. The company has offices in Lampung province and Sidoarjo, East Java province. In 2012, the company exported 70,000 MT to markets in the European Union, Japan, the Middle East and the USA. Most sales are done under long-term contract with an average price of around USD 4,000 per MT. While for the spot market is only 10% of total volume.
	Partners' Rationale	In order to increase turnover, the company aims to increase sales of specialty coffee and for that it needs a continuous supply of quality coffee from farmers and reliable management systems.
	Partnership Possibilities	Indokom are concerned to improve the welfare of coffee farmers in Indonesia through providing technical assistance at post-harvest and in processing. PRISMA will help Indokom develop a cooperation model based on harvest cooperatives for processing coffee in pilot project areas.
Partner 2	Bank NTT	

	Description	Bank NTT is a development regional bank based in NTT (Eastern Nusa Tenggara). It has been established since 17 July 1962 and become limited liability company on 22 April 1999 with current IDR 9.5 Trillion. Inspired by service spirit to the society, Bank NTT does not only serve in urban area but also spread across remote area in East Nusa Tenggara Province. Within this spirit, Bank NTT has existed in 22 Municipals/Cities in East Nusa Tenggara and Surabaya – East Java area.
	Partners' Rationale	Bank NTT has an organization target to improve regional business through access to finance in all over NTT areas.
	Partnership Possibilities	Bank NTT seeks to new credit areas in NTT but doesn't yet have proper understanding on the beneficiary capacity. PRISMA will linkage them with potential cooperatives who need to improve their financial capacity. The multi-stakeholder agreement will be used as one of the guarantee for the Bank to give finance.
Cashew	Intervention 1	Cashew GNE
	Partner	PT Gerbang NTB Emas (PT GNE)
	Description	PT GNE is a state-owned enterprise (SOE) of the West Nusa Tenggara (NTB) provincial government. The company was established on 5 April 2007 and has several business units, including construction and agriculture equipment production. The company's goal is to generate profit for the local government. As an SOE, PT GNE also has a mandate to support the economic potential of the local area and increase social welfare through productive activities.
	Partners' Rationale	PT GNE wishes to increase their business income and is planning to re-establish the currently idle agro-business unit. The unit will provide technical assistance and mentoring to service providers at PT GNE's own cost. PT. GNE will also develop partnerships with input producers and suppliers and will become their main distributor in NTB.
	Partnership Roles	PT GNE has a mandate to support the development of local economic potential in NTB. The cashew sector in Bima and Dompu is the target area for their products and services. PRISMA will help PT GNE develop the agro-business unit, mainly in business planning and marketing.
	Seaweed	Intervention 1
Partner 1		CV EVADIAN (IMTA MUZE Indonesia)
Description		CV EVADIAN was established by Iain C. Neish (PhD), an international seaweed expert involved in supplying dried seaweed to export and domestic markets. The company is based in South Sulawesi.
Partners' Rationale		CV EVADIAN is interested in establishing a Seaweed Support Centre (SSC) to work in two districts of the eastern Flores Islands, with investment in warehousing, drying and packaging facilities.
Partnership Roles		Through the SSC, CV EVADIAN will provide technical assistance in the form of good agriculture practice (GAP) development, post-harvest handling, marketing, logistics and market information. PRISMA will support networking in local communities, facilitation of capacity building for SSC staff and facilitate technical know-how and capacity building by SSC staff to seaweed farmers.
Partner 2		UD. ALGA
Description		UD. Alga was established by Kevin Suhaili as a seaweed trading company. UD. Alga based at Jl. Raya Ba'a Basalangga, West Rote-Rote Ndao, East Nusa Tenggara. It has seaweed cultivation area in Dodaek of Southern Rote. Since February 2015 UD. Alga has initiated to develop seaweed cultivation of variety "SAKOL" together with local community.

	Partners' Rationale	UD. ALGA is interested in establishing a Seaweed Support Centre (SSC) to work in two districts of the Kupang and Rote with investment in warehousing, drying and provide the training of Good Agriculture Practice (GAP) on Seaweed.
	Partnership Roles	Through the SSC, UD. ALGA will provide technical assistance in the form of good agriculture practice (GAP) development, post-harvest handling, marketing, logistics and market information. PRISMA will support networking in local communities, facilitation of capacity building for SSC staff and facilitate technical know-how and capacity building by SSC staff to seaweed farmers.
Fishery	Intervention 1	Developing fish cage farming (already closed)
	Partner	PT Trimitra Anugerah Segara (TAS) (formerly CV Berill Jaya Marine)
	Description	TAS is a <i>kerapu</i> (grouper) fish exporter based in Bali.
	Partners' Rationale	The business is rapidly expanding and faces constant demand.
	Partnership Possibilities	TAS will support kerapu production units to improve their productivity and product quality in return for access to an improved and consistent supply of fish. This will be achieved through developing apprenticeships and ToT programs, with the support of the project. TAS will support the apprenticeships and technical assistance providers. TAS will facilitate farmer group directly to export the fish to abroad markets and apply commission for this new role.
	Intervention 2	Developing innovative financial products for fish cage farming (already closed)
	Partner	Bank Pembangunan Daerah Jawa Timur (Bank Jatim)
	Description	Bank Jatim, established in 1961, is a local government-owned development bank with 40 branches throughout East Java and Jakarta.
	Partners' Rationale	Bank Jatim has a loan scheme focusing on the fisheries and agriculture sectors but the financial products are not specific to fish cage farming.
Partnership Possibilities	Bank Jatim will develop financial products and promote them to kerapu production units through the Kerapu Producers' Association. Bank Jatim will provide finance and develop a training program to improve the financial literacy and management skills of the kerapu production units and the Kerapu Producers' Association.	
Cassava	Intervention 1	Promoting rewarding system and GAP to increase the quantity and regularity of fresh cassava supply for starch processing (CLOSED)
	Partner 1	Pak Amir (Large Cassava Supplier)
	Description	Pak Amir started his business in cassava since 1998. He began as supplier of chips for local home industry in Sumenep- Madura. Currently, Mr. Amir supplies cassava to big tapioca factories in East Java * Malang, Kediri and Ponorogo. Pak Amir purchase cassava from farmers through local collectors. Pak Amir has 75 local collectors spread across Java and Madura. During the peak season Pak Amir can supply cassava to big factories between 14-25 tons per day
	Partners' Rationale	The company wishes to expand their sourcing base and consistent supply of cassava from farmers in order to meet expanding production needs.
	Partnership Possibilities	Pak Amir has some experience in purchasing cassava from Madura. PRISMA will help Pak Amir develop a cassava collection model as well as provide support in the form of technical mentoring services for good agricultural and post-harvest handling practices, which will be given to

		farmers through the collectors. This will ensure farmers have better market access and at the same time Pak Amir will be able to get consistent supply of quality cassava.
	Intervention 2	Increasing access to good agricultural practices (GAP) and fertilizer
	Partner 1	PT Natural Nusantara (NASA)
	Description	PT NASA is a liquid organic fertilizer company located in Yogyakarta that has much experience in researching their product. Product development activities began in 1985 and the company was formed in 2002. Many farmers in Java and Sumatra have used products from PT NASA for more than 15 years. PT NASA has a production capacity of 1 million litres per year.
	Partners' Rationale	PT NASA is eager to expand their market for liquid organic fertilizer products through cooperation with local agents and distributors in cassava-producing areas of East Java. For each additional one hectare of land, PT NASA expects additional sales of around IDR 1.2 million (for the use of three products, namely POC NASA, Supernasa and Homonik).
	Partnership Possibilities	PT NASA has the ability and experience to produce liquid organic fertilizer and to deliver technical assistance on product application in the field through their team of experts. PRISMA will help PT NASA develop the market for its products and connect the company with fertilizer distributors.
	Intervention 3	Developing a consistent supply of cassava chips for Animal Feed (CLOSED)
	Partner	Unit Pengembangan Sosial Ekonomi (PSE) Keuskupan Atambua
	Description	PSE Keuskupan Atambua consists of 60 Pariko with around 12.000 farmers as members; substantial number of these farmers are also involved in pig rearing. PSE has several production unit including briks, tile, and paving production, furniture production, truck rent, ect,
	Partners' Rationale	PSE is interested to develop animal feed miller business because of the opportunity arising out of limited animal feed availability in the market and growing animal population in NTT especially pig. There are local raw materials available including cassava, which is a major ingredient. The local animal feed thus produced can be competitive in the market due to high transportation cost of bringing feed from outside the island.
	Partnership Possibilities	The company is quite new in this business and needs support to establish feed miller company, feed testing, marketing, and collaborating with collectors. PRISMA will help PSE develop cooperative agreements with collectors in the project area as well as deliver capacity building to PSE about developing the feed production, testing, marketing,. PSE will provide capacity building of GAP and post harvesting knowhow to farmer through the collector.
Pigs	Intervention 1	Introducing improved pig breed and promotion of commercial pig rearing (CLOSED)
	Partner 1	Yayasan Bintang Firdaus (YBF)
	Description	YBF is a Pig Breeding Company and Key Service Provider. The company has invested in developing pig business in Ende since 2008.
	Partners' Rationale	YBF has interest to expand their piglets business in in Flores and other islands by upgrading their sows and piglet rearing management.
	Partnership Possibilities	YBF will supply piglets and knowledge on good rearing practice to farmers that are interested to improve their pig rearing. PRISMA will provide capacity building support to YBF and link YBF to other market actors to promote their piglets, and to source fodder, other necessary inputs for piglets breeding company.

Partner 2	Kebun Misi Bhoanawa (KMB)
Description	KMB is a Pig Breeding Company and Key Service Provider. The company has invested in developing pig business in Ende since 2010.
Partners' Rationale	KBM has interest to expand their piglets business in in Flores and other islands by upgrading their sows and piglet management.
Partnership Possibilities	KMB will supply piglets and knowledge on good rearing practice to farmers that are interested to improve their pig rearing. PRISMA will provide capacity building support to KMB and link KMB to other market actors to promote their piglets, and to source fodder, other necessary inputs for piglets breeding company.
Partner 3	Biara Bruder (BB)
Description	BB is a Pig Breeding Company and Key Service Provider. The company has invested in developing pig business in Ende since 2000.
Partners' Rationale	BB has interest to expand their piglets business in in Flores and other islands by upgrading their sows and piglet management.
Partnership Possibilities	BB will supply piglets and knowledge on good rearing practice to farmers that are interested to improve their pig rearing. PRISMA will provide capacity building support to BB and link BB to other market actors to promote their piglets, and to source fodder, other necessary inputs for piglets breeding company.
Partner 4	St Aloysiu (SA)
Description	SA is a Pig Breeding Company and Key Service Provider. The company has invested in developing pig business in Ruteng since 2012.
Partners' Rationale	SA has interest to expand their piglets business in in Flores and other islands by upgrading their sows and piglet management.
Partnership Possibilities	SA will supply piglets and knowledge on good rearing practice to farmers that are interested to improve their pig rearing. PRISMA will provide capacity building support to SA and link SA to other market actors to promote their piglets, and to source fodder, other necessary inputs for piglets breeding company.
Partner 5	Convasionis
Description	Convasionis is a Pig Breeding Company and Key Service Provider. The company has invested in developing pig business in Ruteng since 2013.
Partners' Rationale	Convasionis has interest to expand their piglet business in in Flores and other islands by upgrading their sows and piglet management.
Partnership Possibilities	CONVASIONIS will supply piglets and knowledge on good rearing practice to farmers that are interested to improve their pig rearing. PRISMA will provide capacity building support to CONVASIONIS and link CONVASIONIS to other market actors to promote their piglets, and to source fodder, other necessary inputs for piglets breeding company.
Partner 6	Ordo SVD
Description	Ordo SVD is a Pig Breeding Company and Key Service Provider. The company has invested in developing pig business in Labuan Bajo since 2005.
Partners' Rationale	Ordo SVD has interest to expand their piglet business in in Flores and other islands by upgrading their sows and piglet management.
Partnership Possibilities	ORDO SVD will supply piglets and knowledge on good rearing practice to farmers that are interested to improve their pig rearing. PRISMA will provide

	capacity building support to ORDO SVD and link ORDO SVD to other market actors to promote their piglets, and to source fodder, other necessary inputs for piglets breeding company.
Partner 7	Clements
Description	Clements is a Pig Breeding Company and Key Service Provider. The company has invested in developing pig business in Bajawa since 2013.
Partners' Rationale	Clements has interest to expand their piglet business in Flores and other islands by upgrading their sows and piglet management.
Partnership Possibilities	CLEMENTS will supply piglets and knowledge on good rearing practice to farmers that are interested to improve their pig rearing. PRISMA will provide capacity building support to CLEMENTS and link CLEMENTS to other market actors to promote their piglets, and to source fodder, other necessary inputs for piglets breeding company.
Partner 8	Pati Ahu
Description	Pati Ahu is a Pig Breeding Company and Key Service Provider. The company has invested in developing pig business in Maumere since 1995.
Partners' Rationale	Pati Ahu has interest to expand their piglet business in Flores and other islands by upgrading their sows and piglet management.
Partnership Possibilities	PATI Ahu will supply piglets and knowledge on good rearing practice to farmers that are interested to improve their pig rearing. PRISMA will provide capacity building support to PATI Ahu and link PATI Ahu to other market actors to promote their piglets, and to source fodder, other necessary inputs for piglets breeding company.
Partner 9	PT Charoen Pokphand (CP)
Description	PT Charoen Pokphand Indonesia is Indonesia's largest producer of poultry feed, Day Old Chicks and processed chickens. The Company was established in 1972 as the first high-volume feed mill in Jakarta manufacturing premium quality poultry feed.
Partners' Rationale	PT CP already worked in Flores and marketed around 50MT pigs feed per month recently. The company aims to increase the pigs feed market in Flores but farmers have limited access to good piglets and are not knowledgeable about the benefit and use of quality feed. Given the size of the pig market in Flores, this is a very high potential area for CP feed and therefore the company is willing to invest in educating the farmers.
Partnership Possibilities	PT CP with support from PRISMA will train and use distribution and other channel members such as traders, input sellers, credit union etc. to educate farmer by providing embedded service on GRP and promote use of quality fodder.
Intervention 2	Support the Development and Promotion of Quality Feed Supply and its Distribution Channel in Flores and Sumba, East Nusa Tenggara (NTT)
Partner 1	PT Sierad Produce Tbk
Description	Sierad Produce is an integrated poultry-based food company in Indonesia. Its core businesses include the production of primary processed and poultry feed; breeding and hatchery; commercial chicken farms; slaughtering and production of further processed and value added chicken products; and pig feed. Sierad is one of the largest player in the Indonesian feed industries. Sierad Produce manufactures and markets its processed chicken products under the Belfoods brand. Belfoods products are available at its retail outlets and in supermarkets and hypermarkets across Indonesia. Sierad Produce was established in 1985. The company has been listed on the Jakarta Stock Exchange since 1997 and became part of by Gunung Sewu in 2015 through acquisition by Great Giant Pineapple.

Partners' Rationale	Sierad is a new pig feed player in Flores NTT. The company entered into Flores market was influenced by PRISMA. They started selling their pig feed products in Flores since November 2015. In Dec 2016, their feed sale reaching up to 100 MT and will be growing further. The company aims to increase the pigs feed market in NTT, particularly in Flores but farmers have limited access to good quality feed and are not knowledgeable about the benefit and use of quality feed for pigs. Given the size of the pig market in NTT this is a very high potential area for the company's feed products to penetrate in and therefore the company is willing to invest in educating the farmers and developing distribution channel to remote areas so that farmers in the remote areas will have a better access.
Partnership Possibilities	PT Sierad Produce with the support from PRISMA will train and use feed distribution and other channel members such as input sellers, credit union, retailers, etc. to educate farmer by providing embedded service on GRP and promote use of good quality feed as well as animal welfare.
Partner 2	PT Japfa Comfeed Indonesia Tbk
Description	PT Japfa Comfeed Indonesia Tbk is one of the largest and most integrated agri-food companies in Indonesia. Its core business activities include animal feed manufacturing, chicken breeding, poultry processing as well as aquaculture farming.
Partners' Rationale	Japfa Comfeed a new pig feed player in Flores NTT. The company entered Flores market was influenced by PRISMA and just started selling their pig feed products in Flores since January 2016. In Dec 2016, their feed sale reaching up to 50 MT and will be growing further. The company aims to increase the pigs feed market in NTT, particularly in Flores but farmers have limited access to good quality feed and are not knowledgeable about the benefit and use of quality feed for pigs. Given the size of the pig market in NTT this is a very high potential area for the company's feed products to penetrate in and therefore the company is willing to invest in educating the farmers and developing distribution channel to remote areas so that farmers in the remote areas will have a better access.
Partnership Possibilities	PT Japfa Comfeed with the support from PRISMA will train and use feed distribution and other channel members such as input sellers, credit union, retailers, etc. to educate farmer by providing embedded service on GRP and promote use of good quality feed as well as animal welfare.
Partner 3	Rembu Tedeng
Description	Rembu Tedeng, is a small sized local feedmiller in Ruteng, Manggarai District, Flores. The company was established in 2015 and started producing pig feed products in May 2016. The monthly feed production is more less 30 MT.
Partners' Rationale	Rembu Tedeng is a small sized and "the first local player of pig feed in Flores and even NTT. Given the growing demand for compound feed for pig in Flores, the company aims to take the benefit from the day-to-day increased demand of the pigs feed market in Flores but farmers have limited access to good quality feed and are not knowledgeable about the benefit and use of quality feed for pigs. The company is willing to invest in educating the farmers and developing distribution channel to remote areas so that farmers in the remote areas will have a better access.
Partnership Possibilities	Rembu Tedeng with the support from PRISMA will train and use feed distribution and other channel members such as input sellers, credit union, retailers, etc. to educate farmer by providing embedded service on GRP and promote use of good quality feed as well as animal welfare.
Partner 4	PT Malindo Feedmill Tbk
Description	PT Malindo Feedmill Tbk, is one of the largest feed players in Indonesia, ranked 3rd (after Charoen Pokphand and Japfa Comfeed). The company was established in 1997 and has grown to have a wide range of products in animal feed, breeding farm, broiler farm and food processing. The continuous

		development is also demonstrated by the establishment of a breeding farm and feedmill in several regions in Indonesia such as Sumatra, Java, Kalimantan and Sulawesi.
	Partners' Rationale	PT Malindo Feedmill Tbk is a big feed producer in Indonesia and has been producing in Indonesia for 20 years. The company has entered market in Sumatra, Java, Kalimantan, Sulawesi and is looking for new places to expand their market. They were convinced by PRISMA on the potential NTT pig market and were interested to enter the market, specifically starting in Sumba. The company is willing to invest in educating and developing distribution channel reaching farmers in remote areas.
	Partnership Possibilities	PT Malindo Feedmill Tbk with the support from PRISMA will train and develop feed distribution also other channels such as input sellers, credit union, retailers, etc. to educate farmer on good rearing practices and provide embedded service to promote the use of good quality feed as well to encourage animal welfare.
	Intervention 2	Promoting Improved Feed, Good Rearing Practices and Weighing Scale Practices in Timor Island, East Nusa Tenggara (NTT)
	Partner 1	PT Malindo Feedmill Tbk
	Description	PT Malindo Feedmill Tbk, is one of the largest feed players in Indonesia, ranked 3rd (after Charoen Pokphand and Japfa Comfeed). The company was established in 1997 and has grown to have a wide range of products in animal feed, breeding farm, broiler farm and food processing. The continuous development is also demonstrated by the establishment of a breeding farm and feedmill in several regions in Indonesia such as Sumatra, Java, Kalimantan and Sulawesi.
	Partners' Rationale	PT Malindo Feedmill Tbk is a big feed producer in Indonesia and has been producing in Indonesia for 20 years. The company has entered market in Sumatra, Java, Kalimantan, Sulawesi and is looking for new places to expand their market. They were convinced by PRISMA on the potential NTT pig market and were interested to enter the market, specifically in Timor. The company is willing to invest in educating and developing distribution channel reaching farmers in remote areas.
	Partnership Possibilities	PT Malindo Feedmill Tbk with the support from PRISMA will train and develop feed distribution also other channels such as input sellers, credit union, retailers, etc. to educate farmer on good rearing practices and provide embedded service to promote the use of good quality feed as well to encourage animal welfare.
	Partner 2	PT. Sinar Terang Madani
	Description	PT. Sinar Terang Madani is established in 2012 as the first feedmill in Barru, South Sulawesi, producing premium animal feed. It has also opened another feedmill facility in Makassar, South Sulawesi.
	Partners' Rationale	PT Sinar Terang Madani has visions on becoming an integrated company for agribusiness in Indonesia, particularly in South Sulawesi and expand to Eastern Indonesia. After meeting with PRISMA and seeing the potential business for pig feed in NTT market, PT Sinar Terang Madani was convinced to enter NTT market, specifically Timor Island. The company is willing to increase the farmers' knowledge through training and/or demo plot also provide embed service to support farmers on good quality feed and establishing distribution channel to reach smallholder farmers in rural areas.
	Partnership Possibilities	PT Sinar Terang Madani with the support from PRISMA will conduct a series of educational activities, such as training of trainers, training for farmers, demo plot, also promotional activities, such as market storm, to promote information on good rearing practices and encourage animal welfare in rearing activities.
Coconut	Intervention 1	Promotion of organic coconut sugar certification (COMPLETED)

Partner	PT Big Tree Farms (BTF)
Description	BTF specialises in sourcing and marketing food products and has developed an innovative range of coconut sugar products.
Partners' Rationale	BTF already works with 7,000 coconut sugar producers, mainly in Central Java. The company aims to establish new linkages with producers in East Java but lacks experience and have limited access in East Java market.
Partnership Possibilities	BTF have been taking the lead in developing supply chain and covering the cost of organic certification for the first batch of farmers in Pacitan district. PRISMA have been supporting BTF for initial awareness-raising with farmers and developing the training materials. PRISMA will explore the potential market for innovative climbing tool that can increase the farmers' productivity, developing the business model in coordination with BTF. Note: the partnership with the co-facilitator has ended since End Jun'16. Currently PRISMA seek possibility to continue the partnership directly with BTF and with other potential partner in coconut sugar
Intervention 2	Establishment of aggregation point/Increasing productivity through GAP and fertilizer (CLOSED)
Partner	PT Kai Sun
Description	PT Kai Sun is a locally registered company and its activities are backed by US-based company EcoEnviro Corp., which supports PT Kai Sun in marketing, technology and finance. EcoEnviro Corp is the sole distributor of all PT Kai Sun's products.
Partners' Rationale	PT Kai Sun is looking to source sustainable exported quality coconut, which has a high demand in the exported market especially China, but has no experience in promoting good agriculture practice in their supply chain which can ensure such supply.
Partnership Possibilities	PT Kai Sun, with support from PRISMA, will establishes and develops commercially-operated coconut aggregation points. Aggregation will be under the management of local actors (such as collectors, traders and lead farmers) and PT Kai Sun will establish supply agreement. PT Kai Sun will provide all supports for promoting good agriculture practice in coconut, including surveys, capacity building for farmers and collectors, for establishing and operating aggregation point. PT Kai Sun will buy all coconut produced by their supply chain at agreed premium price. Note: partnership with PT Kai Sun has ended as the intervention proves not bringing significant impact at farmers (refer to sub-sector briefs)
Partner	PT Arya Supra Nugraha (ASN) (CLOSED)
Description	PT ASN, a group company of Saraswanti cooperation, specializes in agro-input trading and marketing.
Partners' Rationale	PT ASN aims to expand its B2C market for fertilizer products but have limited access and experience in Lombok area. In particular, the company intends to broaden its palma fertilizer market.
Partnership Possibilities	The changing direction of coconut intervention in Lombok results in the productivity increase focus. PT ASN, with support from PRISMA, has been introducing PALMO fertilizer for coconut crops. The company has been establishing 100 coconut demo plots showcasing the fertilizer's effect that aims to increase at least 30% of the coconut productivity. PRISMA has assessed the market linkages among the coconut suppliers and buyers and results shows adequate market capacity that can absorb the rising coconut production from the use of fertilizer, as well as to prevent price falls with the increased of coconut supply. New partnership possibility is currently taking place between PT ASN and PRISMA through the co-facilitator

Co-facilitators 2 – partner details

Partners' Details		
Maize NTT	Intervention 1	Good Drying & Storing Practice
	Partner	PT Buana Ika Syahputra (PT BIS)
	Description	PT BIS produces plastic products such as plastic bottles and plastic containers mostly for packaging. They have enough capacity and equipment to create and produce new product based on customer needs.
	Partners' Rationale	PT BIS is interested to expand their market area and entering eastern Indonesia/NTT. They willing to create new product model and invest in the innovation that will be match with the farmer/customer needs.
	Partnership Roles	PRISMA supports PT BIS in identifying the distribution channels, conducting promotion activities, and supporting in product designing as well as marketing strategy to promote technology on good drying practice using jerrycan (they call "Silo Jinjing") to farmers in Timor island, NTT.
Peanut NTT	Intervention 1	Production & Supply of Quality Seed
	Partner	CV Tiga Putri Mandiri
	Description	CV Tiga Putri Mandiri has produced high quality peanut seed, namely Hypoma 2 and Streep. In addition, improved local seed is also produced as a high quality commercial product. Peanut sector is a new business for CV Tiga Putri Mandiri as an expansion after having quite mature experience in nursery business for maize and also rice since 2005. It starts expanding to peanut business since 2015 in a partnership with YMTM. For peanut, CV Tiga Putri Mandiri has three focus area, which are TTU, Belu, and Malaka districts.
	Partners' Rationale	The company wants to expand their business portfolio by trying out another nursery development for new commodity. It has seen the potential of this market because there are still limited commercial peanut producer available. For the expansion, CV Tiga Putri Mandiri is ready to invest in promotion include demonstration plots, good agricultural practices (GAP), and harvest simple technology capacity building for peanut nursery farmers in their area of business.
	Partnership Roles	PRISMA supports CV Tiga Putri Mandiri in production of Hypoma 2, Streep, and improved local seed and develop sales and distribution channels (sales agents/retailers) in TTU, Belu, and Malaka districts and promote and distribute their seeds among target groups.
	Partner	CV Sinar Tunbeis Makmur
	Description	CV Sinar Tunbeis Makmur has produced high quality peanut seeds, namely Hypoma 2 and Lurik. In addition, it produces high productivity local seeds as high quality commercial products. Peanut sector is a new business for CV Sinar Tunbeis Makmur since mid-2016. In marketing its products, CV. STM focuses on Kupang and TTS districts.
	Partners' Rationale	CV. STM is a new partner who tries to produce peanut seed after discussing with YMTM. Previously, Mr. Otniel (the owner of CV. STM) was a plasma farmer for CV. Intan in producing Composite Maize seeds. Mr. Otniel also has experience in planting peanuts, as well as being a collector in his area to sell peanut consumption to the market. He is interested in entering peanut nursery business because peanut seed producer is scarce in NTT. To embrace this business, CV. STM has invested in producing seeds primarily: promoting good quality seeds, making demo plot, organizing peanut farmers meeting, and conducting assistance related to good and proper peanut cultivation and handling practices to peanut farmers in Kupang and TTS district. In the time of agreement, CV. Sinar Tunbeis Makmur already has a permit as a peanut seed nursery.

	Partnership Roles	PRISMA supports CV Sinar Tunbeis Makmur (STM) in production of Hypoma 2, Lurik, and improved local seed and develop sales and distribution channels (sales agents/retailers) in Kupang and TTS districts, and promote their seeds among target groups.
	Partner	CV Anjas
	Description	CV. Anjas has produced high quality peanut seeds, namely Hypoma 2 and Lurik. They also produce high productivity local seeds as high-quality commercial products. The peanut sector is a new venture for CV. Anjas. Every year, CV. Anjas produces peanuts twice, i.e. on cycle-1 (rainy season) and cycle-2 (dry season) to meet local market demand. In mid-2016, they try to grow the business as a producer of peanut seeds for sale to Nagekeo and Ngada district.
	Partners' Rationale	CV. Anjas is a new partner in Boawae, Nagekeo district who is interested to develop a peanut seed business. Their commitment to enter the business was raised after a discussion with YMTM. Previously, Mr. Makarius was a peanut farmer in his area. He produces peanuts and sells to the local market. To meet the demands of the local market, Mr. Makarius and his wife bought peanuts from other farmers around the area. He is interested in the business due to the fact that peanut seed producers do not yet exist NTT, especially in Flores. Farmers usually only use local seeds with low productivity. To develop this business, CV. Anjas has undertaken the following activities: producing seeds, promoting seed excellence, making demo plot, organizing peanut farmers' meetings, and conducting assistance on how to cultivate and handling good and true peanut yields to peanut farmers in Nagekeo and Ngada district.
	Partnership Roles	PRISMA supports CV Anjas in production of Hypoma 2, Lurik, and improved local seed and develop sales and distribution channels (sales agents/retailers) in Nagekeo and Ngada districts and promote and distribute their seeds among target groups.
Mung Bean EJ	Intervention 1	Promoting Certified Seeds
	Partner	UD. Sumber Rejeki
	Description	UD. Sumber Rejeki, which is located in Gresik, East Java, has been a certified nursery of BALITKABI, and has been operating since 1987. This nursery mainly breeds seeds for paddy, peanut, and mung bean, mostly to support government's demand. Currently, mung bean varieties produced are Vima 1, Vima 3, and Walet.
	Partners' Rationale	UD. Sumber Rejeki is interested to expand their production and distribution of Vima 1 variety mung bean seeds to Madura. They are willing to produce a smaller unit packaging (5 kg) to match smallholder farmers' needs. The packaging will also be supported with an added information on the seed planting methods.
	Partnership Roles	PRISMA supports UD. Sumber Rejeki in identifying the distribution channels as well as promotional activities such as demo plots and farmers' meeting.
	Intervention 2	Promoting the Use of Organic Fertilizer for Mung Bean Fertilizer
	Partner	PT. Indo Acidatama
	Description	PT. Indo Acidatama is a company that produces agri-chemical products such as organic fertilizers. The company is located in Solo and has been operating in chemical and fertilizer industry since 1983
	Partners' Rationale	PT. Indo Acidatama is interested in distributing their organic fertilizer to mung bean farmers in Madura. They agreed to provide their agronomists for research plot, demo plots, and farmers meeting in order to give capacity building on organic fertilizer usage for mung bean.

	Partnership Roles	PRISMA facilitates PT. Indo Acidatama in identifying the distribution channels as well as promotional activities such as demo plots and farmers' meeting.
Cashew NTT	Intervention 1	CV Peduli Kasih
	Partner	CV Peduli Kasih
	Description	CV. Peduli Kasih is the major player for agri-inputs trade in Sumba that owned by Ny. Feni. The company is based in Waingapu, East Sumba, NTT.
	Partners' Rationale	CV Peduli Kasih is interested to enter the Cashew sector for selling the product as its new business line. By investing through the demoplot and promotion CV. Peduli Kasih spread the market in two districts initially which are East Sumba and Southwest Sumba.
	Partnership Roles	CV Peduli Kasih, the major player for agri-inputs trader in Sumba, will have an agreement to collaborate with intermediary service providers to develop technical capacity as maintenance and plant protection services provider, with providing business support via provision of promoting material and supply of input needed - as a part of the business agreement between CV Peduli Kasih and the services providers. This will open a new market (cashew farmer) and increase turnover for CV Peduli Kasih. In the same time, service provider will have a new source of income as well as increasing cashew farmers' productivity and income from better yield. PRISMA supports capacity building and provide networks of ISPs to Peduli Kasih.
	Intervention 2	PT Novelvar
	Partner	PT Novelvar
	Description	PT Novelvar is an agri-inputs producer based in Jakarta. Two of their main products (Terra and Silika) applicability are proven to increase yield of many crops, including cashew.
Partners' Rationale	PT Novelvar initially enters NTT markets in East Sumba with small scale of demoplots for paddy and cashew. Since their products are applicable to various crops, easily applied by farmers, and affordable compared to other similar products, PT Novelvar through this intervention can expand their market across Sumba and Flores. PT Novelvar also intends to develop farmers' knowledge and financial capacity so farmers can benefit from technology and products they promote.	
Partnership Roles	Through this intervention, PT Novelvar will conduct promotion activities such as establishing demoplot, training, and direct presentation to identified intermediary service providers (ISP), farmers, local government and their extension staffs. ISP were assessed and selected as retailers who will extend cultivation knowledge and promote of Novelvar's technology and products, reaching out farmers within their networks. PRISMA provide networks of ISPs and support promotional activities.	
Coconut NTT	Intervention 1	Organic coconuts for Virgin Coconut Oil (VCO) production
	Partners	CV Nusa Permai
	Description	CV Nusa Permai is an exporter of virgin coconut oil sourced from organic coconut
	Partners' Rationale	Demand of VCO in the international market has been continuously increasing. As one of the major VCO exporter, CN Nusa Permai aim to expand their business in order to fulfill such market demand. They aim to strengthen the supply of VCO and to secure the supply of fresh organic coconut as the raw materials. They will do this by developing business partnership with potential local VCO producer as the Intermediate Service Provider (ISP), and by giving premium price to organic coconut farmers.

	Partnership Roles	CV Nusa Permai takes the lead in building the capacity of coconut farmers to be registered as organic coconut producers. The company will guide and finance the certification processes which aim to guarantee fresh organic coconut supply from the farmers. As part of a newly developed business, CV Nusa Permai will collaborate with two local ISPs who will establish a commercial VCO production house. The new VCO factories will be set up in Maumere and Adonara and are expected to accommodate production of VCO sourced from fresh organic coconut farmers in the surrounding areas. PRISMA have been supporting CV Nusa Permai in selecting suitable location for organic certification, disseminating the VCO production plan to farmers and facilitating both CV Nusa Permai and the ISPs in developing business partnership.
Beef NTB	Intervention 1	Production and Supply of Commercial Feed to Beef Cattle Farmers
	Partner	PT Bintang Pribumi Tulen; UD. Imama
	Description	<p>PT Bintang Pribumi Tulen is a maize processor, maize trader, and inter-island cattle trader in Lombok. It has been working for years in maize processing and trading business. From the maize business itself, the company has a lot of waste agriculture products and resources. The company has a little experience in cattle feed production using the waste product of maize for his own cattle. By looking at the market potential of concentrate feed business for cattle fattening, as no one sells commercial concentrate for cattle fattening, the company started new business to produce and sell concentrate feed to the market (cattle farmers).</p> <p>UD. Imama is a milling company that mills crops including rice, maize, and soya bean. It has access to raw materials of concentrate feed because of its business as a miller. The company is a supplier of intermediate feed product to PT. Bintang Pribumi Tulen, and has also been commissioned by PT. Bintang Pribumi Tulen to produce cattle feed. UD. Imama has also been a small producer of fish feed for a few years. Looking at the market potential of concentrate feed for beef cattle in Lombok, the company started a new business to produce and sell concentrate feed to cattle farmers.</p>
	Partners' Rationale	In order to start the new business of producing and selling concentrate feed to cattle farmers, PT Bintang Pribumi Tulen and UD. Imama are willing to provide benefits to the farmers through promoting concentrate feed through demo plots. And in developing a wider distribution channel, the company will work with inputs shops, cattle traders, and agriculture collectors into the system.
	Partnership Roles	<p>PRISMA will support the company in:</p> <ul style="list-style-type: none"> • mapping potential distribution channel • developing strategic business plan and marketing plan • developing training modules and design on use, application and benefit of commercial feed • delivering training • designing promotion material and promotional activities.
Cocoa Papua	Intervention 1	Increase productivity of cocoa in Papua
	Partners	CV Kakao Kita & PT Bumi Subur Makmur Abadi
	Description	<p>CV Kakao Kita is an export oriented small local company, mainly export to Japanese market and has focused on natural produced cocoa beans, adopting “People to People” trade approach.</p> <p>PT Bumi Subur Makmur Abadi is established in 2000 and currently is the biggest cocoa trader in Papua.</p>

Partners' Rationale	CV Kakao Kita has new increased demand therefore is willing to increase the buying volume and has plan to expand their area of operation. PT Bumi Subur Makmur Abadi is interested with the business model that has been developed by PRISMA and YPPWP, and plans to expand and develop its collectors by giving training and credit to selected collectors so that they can promote GAP and give assistance to cocoa farmers in Papua.
Partnership Roles	The private sector partners will be supported in developing modules (or adjusting existing modules to the local context) that can be used to train the ISPs in setting up a demo plot, provide side grafting services and introduce farmers to technical information in good agriculture practices on maintaining the farm, using or producing the fertilizer as well as post-harvest handling. Also, they will get help in selecting the right ISPs (collectors – most of them cocoa farmers themselves, and others – lead farmers) and developing modules to strengthen the business of ISP. Once this has proven to be successful, the PSP will involve in special activities for creating demand for the side grafting services. Most of the ISPs (mainly those ISPs that have an own cocoa garden) will set up a demo plot to promote and provide their services while at the same time giving information to the farmers on how to best cultivate cocoa. Depending on the demand, the ISPs will also give embedded service on the use of fertilizer - along with buying access information (incl. finance) and post-harvest handling. The PSP will ensure that the ISPs have the skill and knowledge to do so.
Partner Contribution	CV Kakao Kita has agreed to contribute IDR 270.375.000 and PT Bumi Subur Makmur Abadi has agreed to contribute IDR 160.303.000 - in strengthen the business of ISPs while YPPWP will focus more in develop business model between CV kakao kita, PT Bumi Subur Makmur Abadi, and ISP, hiring consultants/ expert in develop GAP material/ modules, promoting ISP's business.

Co-facilitators 3 – partner details

Partner details		
Seaweed	Intervention 1	Seaweed RKN (New)
	Partner 1	PT. ROTE KARAGINAN NUSANTARA (New)
	Description	PT Rote Karaginan Nusantara (RKN) is a seaweed Alkaline Treated Chip (ATC) processing company, cooperating with Koperasi and local farmers which serves as a provider of quality raw materials collected from cooperative member seaweed farmers in East Nusa Tenggara (NTT).
	Partners' Rationale	PT RKN is interested in securing the quantity and quality of their supply by providing the training of Good Agriculture Practice (GAP) on Seaweed and establish a nursery to provide superior seedlings to their farmers, whilst working together with other partners (CSR, BUMN) to provide farming equipment (rope, nets, etc) as initial support to the farmers
	Partnership Roles	PT RKN will provide technical assistance in the form of good agriculture practice (GAP) development and post-harvest handling, as well as creating demoplots, which will provide as nurseries, while providing feedback for quality of RDS received.
	Intervention 2	Seaweed Sentinel (New)
	Partner 1	CV. SENTINEL PRATAMA (New)

Description	CV. Sentinel Pratama is a Social Enterprise that engages in empowering and eradicating poverty through agricultural development; from providing farming inputs, building the capacity and competence of farmers, through to market access that cuts through the supply chain, finally achieving agricultural productivity increase, farmer welfare, and the ability to buy agricultural produce at affordable prices.
Partners' Rationale	CV Sentinel Pratama is interested ensuring the quality of their supply by providing the training of GAP and GHP on Seaweed, establishing a demoplot to serve as a nursery to their chosen lead farmers, whilst working together with other partners (Bank NTT (MoU pending) to provide a credit scheme for seaweed farmers as initial support.
Partnership Roles	Creating demoplots, which will provide as nurseries, and commercially distributing seeds to farmers. Selling seaweed from farmers to PSP. Providing feedback as well as good agricultural practices (GAP) to farmers based on quality evaluation from PSP (moisturizer content) 36% with a 2% impurity rate.
Partner 2	PT. HYDROCOLLOID INDONESIA (New)
Description	PT. Hydrocolloid Indonesia is a seaweed processing company that produces high quality refined carrageenan (RC) which is used as food mixture. PT HI's vision is to leverage the comparative advantage of seaweed in Indonesia to supply the pure and low-cost carrageenan products made at world-class manufacturing facilities.
Partners' Rationale	PT Hydrocolloid Indonesia is interested in ensuring the quality of their supply by providing information feedback, and securing supply by absorbing quality production from CV Sentinel's farmers
Partnership Roles	Ensure the purchase of seaweed produced by ISP. Ensure competitive purchase value. Provide feedback related to product quality to be forwarded to farmers. Communicate and process information transfer related to efforts to maintain and improve quality, market development information, prices and other information relevant to business development and program sustainability.
Intervention 3	Seaweed Mazu (New)
Description	CV. Mazu Seaweed is a private company engaged in the sale and purchase of dried seaweed in Sabu Rajua and surrounding areas. They have also established an Alkali Treated Chip (ATC) processing factory. Purchasing mechanism is done through cooperation with local collectors who serve as providers of quality raw materials collected from seaweed farmers, then purchased by CV. Mazu Seaweed.
Partners' Rationale	CV Mazu Seaweed is interested in ensuring the quality of their supply, and securing supply by absorbing production from Sabu Rajua's farmers by providing the training of GAP and GHP on Seaweed to its ISPs, establishing a demoplot to serve as a nursery to their chosen lead farmers.
Partnership Roles	Plays a role in the dissemination of knowledge (GAP, GHP and feedback on quality) to ISPs and farmers to produce RDS according to quality standards. Conduct demo plot and provide training ISPs. Applying a repurchase guarantee scheme, obtaining products from farmers on an ongoing basis.
Intervention 4	Seaweed Papua/West Papua(New)

	Partner 1	BANK PAPUA (New)
	Description	PT Bank Papua is active in developing Papua's excellent potentials to grow and expand, thereby strengthening local economic growth. Bank Papua has a strategic role to bring banking institutions closer to local communities in facilitating lending. This credit is effectively utilized to grow and keep the wheels of the local economy.
	Partners' Rationale	Bank Papua is interested in providing a credit scheme suitable for farmers and farmer groups, and increase community knowledge on financial governance and financial products.
	Partnership Roles	Plays a role in the dissemination of knowledge (GAP, GHP and feedback on quality) to ISPs and farmers to produce RDS according to quality standards. Conduct demo plot and provide training ISPs. Applying a repurchase guarantee scheme, obtaining products from farmers on an ongoing basis.
	Partner 2	DEPARTEMEN KELAUTAN DAN PERIKANAN (New)
	Description	Department of Marine and Fisheries is responsible for developing and maximising potential of the fisheries and marine sector to improve coastal community welfare. Seaweed is one commodity that can be developed by coastal communities. The magnitude of potential areas supported by competent human resources, will add to the point of success of the program.
	Partners' Rationale	DKP is interested in leveraging the seaweed sector as a main commodity, by providing seedlings and seaweed cultivation equipment to farmer groups, along with the dissemination of good agriculture and post harvest practices through PPL to farmers.
	Partnership Roles	Provide and distribute high quality seedlings to farmers. Give assistance in mentoring farmers through capable Field Extension Officers (PPL), with adequate capacity in terms of seaweed cultivation. Provide formal technical guidance training to PPL personnel on GAP and GHP. Provide facilities (ropes, buoys, drying racks/rafts, boats) for farmers.
	Partner 3	DEPARTEMEN PEMBERDAYAAN MASYARAKAT KAMPUNG (New)
	Description	The Department of Community Empowerment is responsible for the development, strengthening, and coaching of BUMKamp (Badan Usaha Milik Kampung), in an effort to improve the economic welfare of communities in rural areas. BUMKamp serves as a pillar of economic activity, functioning as social and commercial institutions.
	Partners' Rationale	DMPK is interested in encouraging cultivation of seaweed through allocating village funds (activity of Community Empowerment). and supporting BUMKamp in running business through the purchase and trade of dried seaweed from its farmers.
	Partnership Roles	Encouraging coastal villages to make seaweed commodity as one of the leading commodities, facilitating the procurement of seaweed cultivating facilities through village fund. Encouraging BUMKamp to make a business of purchasing dried seaweed. Assisting in post harvest practice at farmer level, to match market specification. Conducting entrepreneurship training for BUMKamp management in a planned manner, through PPL.
Cashew NTT	Intervention 1	Cashew Peduli Kasih

	Partner 1	Dinas Pertanian (Department of Agriculture) of East Sumba (New)
	Description	As a key player in promoting awareness of cashew GAP in the district, Dinas Pertanian of East Sumba role is crucial in creating conducive business enabling environment in cashew sectors, particularly for supporting the dissemination of GAP knowledge and agri-input products for cashew farmers.
	Partners' Rationale	After witnessing the result of activities held by CV Peduli Kasih, Dinas Pertanian is interested to further promoting GAP knowledge (particularly on pruning and land spacing) through their extension services staffs. Promoting the importance of GAP in cashew farming will stimulate better business environment for agri-input products and tools used in the cultivation.
	Partnership Roles	Dinas Pertanian of East Sumba will issue instruction letter for extension services agents to conduct pruning and land spacing program. The instruction letter will also be addressed to the head of villages to encourage and mobilize farmers to join the program. PRISMA will provide GAP training for extension services agents and lead farmers to increase their GAP knowledge. The expected impact of this partnership is business enabling environment related to the provision of cashew agri-inputs and tools, as well as greater awareness and knowledge of GAP technique.
	Partner 2	Dinas Pertanian (Department of Agriculture) of Nagekeo (New)
	Description	Dinas Pertanian (Department of Agriculture) of Nagekeo is a key player in promoting the awareness of cashew GAP in Nagekeo, due to their crucial role in creating business enabling environment in cashew sectors, particularly in supporting the distribution of GAP knowledge and agri-input products for cashew farmers.
	Partners' Rationale	Dinas Pertanian of Nagekeo is interested to promote pruning and land spacing to cashew farmers, due to the significant impact of these activities on cashew productivity. In addition, Dinas Pertanian also promotes soybean intercropping activity on cashew orchards that are already spaced, due to their goal to increase soybean cultivation area and as soybean has the ability to increase soil nutrients which are suitable for surrounding cashew trees.
	Partnership Roles	Dinas Pertanian of Nagekeo will create credit point system to provide incentive for extension services agents to conduct pruning and land spacing program for farmers in their area. Dinas Pertanian will also issue instruction letters for the head of villages to encourage and mobilize farmers to join the program. Dinas Pertanian will also provide free soybean seeds for farmers with cashew orchard that has been properly spaced (10mx10m) to be cultivated as intercrops. PRISMA will provide capacity building for extension services agents and selected farmers to increase their GAP knowledge. The expected impact of this partnership is business enabling environment related to the provision of agri-inputs and tools for cashew GAP, as well as a change in farmers' behavior and knowledge regarding cashew cultivation and intercropping activity.
Pigs NTT	Promoting Improved Feed, Good Rearing Practices and Weighing Scale, Practices in Timor Island, East Nusa Tenggara (NTT)	
	Partner 3	PT Medion Farma Jaya (New)
	Description	PT Medion Farma Jaya has been in the business of producing and marketing pharmaceutical products, vitamins, vaccines, and poultry equipment for 40 years. Through experience and commitment to deliver high quality products and meet the customers' satisfaction, it's known as one of the leading

	<p>companies in the local market and expanded throughout Asia and Africa. Medion has implemented GMP (Good Manufacturing Practice) in manufacturing processes to ensure the quality and safety of their products. With determination to provide the best service, Medion continuously innovates and keeps up with the latest technology.</p>
Partners' Rationale	<p>Nationally, Medion is one of the big players in the animal pharmaceutical industry and they continuously seek ways to expand their market to new areas. They also hold the largest market share for poultry pharmaceutical products and are eager to increase their market in other livestock sectors, such as pigs, cattle, goats, etc. Medion has entered the Timor market, however concentrated in Kupang and mostly on poultry, therefore they are seeking other ways to expand to other districts and for other livestock as they know livestock farming plays a huge role in Timor and that each household would have at least one livestock at their backyard. Therefore, aligning with their plan to expand to new areas also to promote other products, they are eager to enter Flores and Sumba.</p>
Partnership Possibilities	<p>Together with PRISMA, Medion will conduct a series of educational activities such as training of trainers for ISP to provide product knowledge sufficient to promote the products and share knowledge to consumers/farmers. Furthermore, Medion will support existing feed demo plots, for farmers to learn directly and show the results of using certain pharmaceutical products towards the animal's health.</p>
Partner 4	PT Cargill Indonesia (New)
Description	<p>Cargill provides food, agriculture, finance, and industrial products and services globally for over 150 years. Their expansive operations in Indonesia comprise sourcing, processing, handling, shipping and marketing of a wide range of agricultural, food and energy products and related services including animal nutrition (feed), cocoa, grain & oilseeds, industrial specialties, and palm oil. Cargill has started their animal nutrition business in Indonesia since 1974 by establishing a small feed mill in Bogor, West Java. Over the years their business grew substantially and they now serve hundreds of farmers across Indonesia with customized animal nutrition solutions for poultry, pork, and aquaculture. They manufacture over 100 different kinds of high quality feed products in six feed mills.</p>
Partners' Rationale	<p>To help livestock and aquaculture farmers improve their productivity, health and welfare of their animals - and ultimately increase their incomes and livelihoods – Cargill initiated a livestock farmer-training program. Since its inception in the year 2000, over 20,000 Indonesian livestock farmers already benefited from this program. Apart from that, Cargill is committed to provide the best services to their farmers, through their animal nutrition consultants, who are experts in their respective fields, will work with farmers to tailor-make performance-oriented feeding programs through which animals receive the right nutrients in the right quantities at the right times. They are certain that innovative feeding solutions will help to deliver optimum development, growth, health and performance of animals, and contribute to the success of farming operations. They are ready to expand their training program and market share to other areas in Indonesia, including Timor as they see the big business potential, specifically for their animal nutrition business.</p>
Partnership Possibilities	<p>Alongside PRISMA, Cargill will enter the Timor market and conduct a series of educational activities including their ongoing training program and establishing a demo plot, since Cargill's feed is considered as new for the area therefore farmers would require "testing" to allow farmers to learn directly and show the results of using their feed and other advantages. Furthermore,</p>

		Cargill will implement promotional activities, such as market storms and other strategic events that could support their sales on the ground.
Partner 5		PT Sierad Produce Tbk (New)
Description		Sierad Produce is an integrated poultry-based food company in Indonesia. Its core businesses include the production of primary processed and poultry feed; breeding and hatchery; commercial chicken farms; slaughtering and production of further processed and value added chicken products; and pig feed. Sierad is one of the largest player in the Indonesian feed industries. Sierad Produce manufactures and markets its processed chicken products under the Belfoods brand. Belfoods products are available at its retail outlets and in supermarkets and hypermarkets across Indonesia. Sierad Produce was established in 1985. The company has been listed on the Jakarta Stock Exchange since 1997 and became part of by Gunung Sewu in 2015 through acquisition by Great Giant Pineapple.
Partners' Rationale		Sierad has already entered the Timor market, specifically in the cities and is looking for ways to expand their market to rural areas working. As an experience from working worked with the project in Flores and Sumba pig intervention, they would like to work in Timor with the project. The company aims to increase the pigs feed market in Timor, considering the size of pig market in Timor that is also high as the demand for se'i (smoked pork) is growing, making Timor highly potential for improved feed.
Partnership Possibilities		The company will conduct similar business model and activities with the Flores and Sumba intervention, which includes enabling the access for farmers to good quality feed, conducting educational activities to increase the knowledge on the benefit and use of quality feed for pigs. The company will establish and develop distribution channel to remote areas as a strategy in enabling access to good quality feed. The company is willing to invest in promotional activities/tools, trainings, demo plots, and others to provide knowledge and access to information for the farmers.
Coconut NTT	Intervention 2	Coconuts for Crude Coconut Oil (CCO) production
	Partners	PT BARCO (New)
Description		PT Barco is a leading coconut oil producer in Indonesia. Established in 1950, the company holds 90% market share of coconut oil for cooking under its brand 'Barco'. The company supply to both domestic market (85%) and export market (15%). In addition to the cooking oil, Barco also produce coconut oil used for food ingredients, pharmacy and cosmetic products.
Partners' Rationale		There is unmet demand of coconut oil in both domestic and international market. PT Barco aims to expand their business in NTT to fulfill such demand gap. On the other hand, the company is also facing challenges in obtaining stable supply of coconuts/copra from major producing areas such as Sumatra, Java and Sulawesi as they have become more competitive each day. Entering NTT, particularly in Flores island which has the highest coconut production, would enhance Barco's supply chain as they will be able to get more supply of coconut oil from the local household producers.
Partnership Roles		PT Barco takes the lead in establishing supply chain of crude coconut oil (CCO) in Flores, particularly in target areas such as Ende, Nagekeo, Ngada and East Flores. The company will purchase the CCO produced by farmers with competitive price, and provide capacity building to farmers on how to produce the oil according to the required standard. Barco will prepare facilities in Ende including warehouse, storage equipment, transportation and recruit local staffs who will be employed in the facility. PRISMA supports

Barco in identifying the farmers in potential areas and together with Barco, conducting socialisation and promotional activities in the villages. PRISMA will also facilitate possible partnership between Barco and ISPs who will act as aggregator in the districts farther than Barco's facility.

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