



(MORINGA)

MORE INCOME GENERATED FOR POOR FAMILIES IN INDONESIA

Indonesia | Impact Brief
(2017–2022)

THIS MEANS THE WORLD



About this report

This brief summarises the results from an end-of-project evaluation of Wahana Visi Indonesia’s MORINGA project (2017-2022), completed independently by Perkumpulan Migunani Ian Mberkahi, led by Endro Kristanto, between February and June 2022. Evaluation design, data analysis and technical review of the draft report was supported by

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More Income Generated for Poor Farmers in Indonesia (MORINGA) Project was supported by the Australian Government through the Australian NGO Cooperation Program (ANCP).

All photos © World Vision

Front cover photo: By diversifying crops and markets, the Moringa project was able to test different local value chains for sustainable supply and demand.





Voni is a female intermediate service provider (female ISP) of Pilinut. she bought unpeeled pilinut from farmer with higher price, hiring some female workers to do processing and dry the peeled pilinut in the dry facility provided by private sector partner (PT.Timurasa)

CONTEXT

Poverty is a chronic issue in Indonesia, particularly in the rural eastern region of the country.

Indonesia's statistics agency reported that in September 2021, 9.71% of Indonesia's population (or more than 26 million people) were classified as 'poor', with 14.6 million residing in rural areas.¹ These people are living on less than the purchasing power parity (PPP) of US\$1.25 per day² (the national poverty line is IDR 486,168³ or US\$33⁴ per capita per month). With an average of 4.5⁵ people in a poor household, this translates to 5.9 million households living in poverty, and 13.2% of these are headed by women.⁶

As most of these poor rural families depend on agriculture as their main source of livelihood, promoting growth in the agricultural sector is one of the key pathways to poverty alleviation. A range of improvement strategies are needed to accelerate economic growth in this sector (particularly in regions outside Java), and these include increasing levels of private sector investments to enhance the productivity and value of underdeveloped value chains.

The MORINGA project worked in four provinces in eastern Indonesia, which are among the least economically developed areas. In these areas, 41% of the population are poor or near poor,⁷ and agriculture is critical to their livelihoods. Incomes are low due to numerous factors, ranging from inefficient cultivation techniques and lack of quality inputs, right through to poor infrastructure and long supply chains. The project target areas included: East Nusa Tenggara (NTT), where the following interventions or value chains were introduced – pili nut, moringa, paddy rice, horticulture; Central Sulawesi and West Sulawesi (maize); and North Moluccas (nutmeg and horticulture).

1 BPS. 2022. Statistical Yearbook of Indonesia, 2022.

2 Using a nominal currency exchange rate of Rp 14,536 per US\$1.00.

3 BPS. BRS No.07/01/Th. XXV, 17 Januari 2022. Profil Kemiskinan di Indonesia, September 2021. The poverty line in Indonesia is defined by Indonesia's national statistics office (Badan Pusat Statistik, BPS) as the amount of money required to obtain 2,100 calories per day, along with a small amount for other basic non-food items.

4 Using a nominal currency exchange rate of Rp 14,536 per US\$1.00.

5 BPS. BRS No.07/01/Th. XXV, 17 Januari 2022. Profil Kemiskinan di Indonesia, September 2021.

6 BPS. 2022. Statistical Yearbook of Indonesia, 2022.

7 Based on the 2019 data from the National Team for Acceleration of Poverty Reduction Indonesia and Statistics Indonesia, calculated by Migunani.

PROJECT OVERVIEW

MORINGA Goal: **To develop a network of agribusiness partners in the district, provinces, and at a national level to increase the income of 4,000 families by 2022.**

Project Overview: MORINGA had four outcomes:



Outcome 1:

An established network of partners to develop MORINGA and other commodity value chains



Outcome 2:

Partners introduce and invest in improved inclusive business models



Outcome 3:

Male and female farmers adopt improved agricultural practices and participate in new value chains



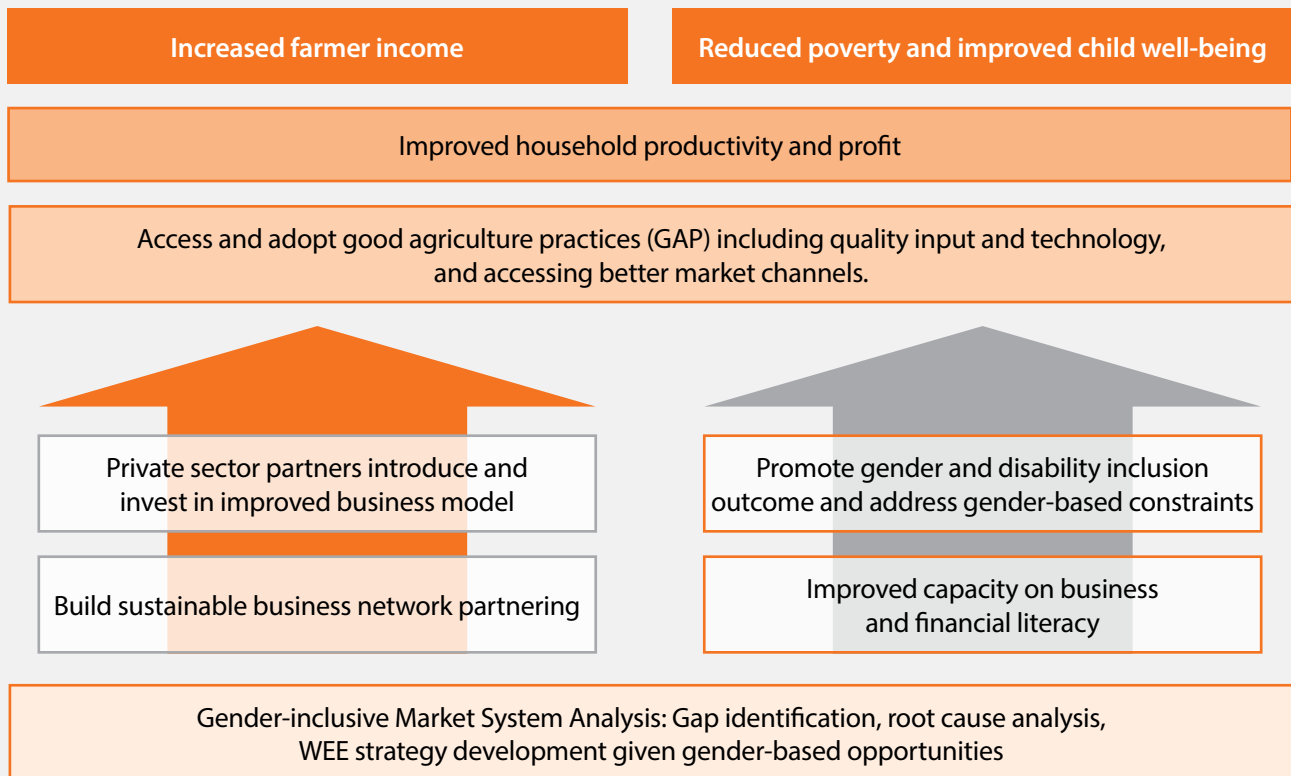
Outcome 4:

Ensure project quality is in compliance with design, monitoring and evaluation systems.

MORINGA used the inclusive market systems development (iMSD)⁸ approach, which applies a two-pronged approach to create an enabling business environment that supports both male and female farmers, including those with a disability (Box 1). This approach involves developing partnerships with private sector organisations and establishing inclusive business plans to facilitate connections between agricultural businesses and poor farming households (and other vulnerable groups). More inclusive business operations are designed to improve farmers' access to agri-inputs and output markets, as well as access to finance. It also included direct support to farmers to make use of the access to these economic opportunities, to improve their agricultural practices and eventually increase their productivity, sales and income. To assist with this, MORINGA introduced farmers to financial management and gender equality through Gender Inclusive Financial Literacy Training (GIFT),⁹ aimed at bringing about positive change in the domain of women's economic empowerment (WEE) (Box 1). Other trainings focused on disability awareness and inclusion, and the introduction of more environmentally responsible farming. Along with this, the project engaged in advocacy at government level to help improve policies that may contribute to gender- and disability-inclusive business operations. By delivering this two-pronged approach, the project aims to bring positive change to the market systems, making them more inclusive and accessible to disadvantaged farmers.

⁸ <https://www.worldvision.com.au/docs/default-source/seed-docs/wva-imsd-5-page-overview-2020-final.pdf>

⁹ <https://www.wvi.org/publications/manualtoolkit/gender-inclusive-financial-literacy-training-manual>

Figure 1: How the MORINGA Project achieves change**Box 1. Project approaches: iMSD and WEE**

iMSD is a hybrid approach consisting of two integrated parts: 1) The market-focused approach ('pull', 'indirect'), and 2) the household-focused approach ('push', 'direct'). The market-focused approach is centred around engaging with market actors (private and public sector). This approach is closely linked with the development of inclusive business models that include the poor within a company's supply chains as employees, producers and business owners, or develop affordable goods and services needed by the poor. The household-focused approach is designed to accelerate inclusion outcomes and directly increase households' productive capacities to engage in markets, manage finances or develop their livelihoods. Household-focused activities are implemented to reach more vulnerable groups, and when there are limited partners and/or services, such as in the context of thin markets. These activities are designed to complement and co-exist with market-focused activities. In many cases, these activities will accelerate systemic change by mitigating risks and increasing participation and benefits for target communities. This dual approach stems from a recognition that factors such as poverty, financial literacy and gender experienced by different groups will influence the way they engage with markets.

The project also worked towards mainstreaming **women's economic empowerment (WEE)**¹⁰ outcomes with a focus on **economic advancement, access, agency, and equitable systems**. To promote women's economic advancement and improve access, the project worked on a mixture of value chains with greater female participation, such as pili nut, nutmeg and moringa, as opposed to maize. The project also sought to promote women's agency, specifically linked to financial decision making through the GIFT training for couples. This was achieved by embedding gender-transformative sessions into sessions on financial management, such as budgeting and planning for emergencies. In addition, the project sought to promote positive social norms supportive of women's economic participation and agency through the engagement of religious leaders in the promotion of GIFT.

¹⁰ World Vision has a holistic definition of Women's Economic Empowerment (WEE) framework, including four key domains: economic advancement, access, agency and equitable systems. <https://www.wvi.org/sites/default/files/2022-03/WEE%20Framework%20Manual%20online%20version.pdf>

EVALUATION OVERVIEW

EVALUATION PURPOSE

The purpose of the MORINGA end-of-project evaluation was to examine how effectively the project delivery brought tangible impact to participants and the market system; and how efficiently project resources were spent to bring about sustainable, inclusive change. In line with the Organisation for Economic Co-operation and Development's (OECD) Development Assistance Committee (DAC) principles, the evaluation aimed to assess the impact, effectiveness, efficiency, sustainability, relevance, and coherence of the project. It also sought to draw lessons learned from the project and generate recommendations for future programming using the iMSD approach.

METHODOLOGY

The MORINGA evaluation used a mixed methods research approach. The quantitative approach involved secondary analysis of the project's database from previous MORINGA project impact assessments, as well as a comprehensive review of the project's Indicator Tracking Table (ITT) and other program documents. The qualitative approach involved primary data collection combined with document review, including previous MORINGA project qualitative study findings. The evaluation team reviewed 46 project

documents, and facilitated: (1) 22 focus group discussions (FGDs) with farmers (including poor farmers), where female and male farmers convened separately; (2) undertook in-depth interviews with female and male farmers, including persons with disabilities, to gather stories of change at the farmer level; and (3) key informant interviews (KIIs) with more than 60 market actors (including private sector partners [PSPs], intermediary service provider [ISPs], government official partners, as well as participating farmers). Both MORINGA and World Vision Australia team members were also interviewed. Stratified purposive sampling was used to ensure that a diverse cross-section of views is represented. Data validation was performed with the MORINGA team and key stakeholders to ensure the quality of the primary data.

LIMITATIONS

The end-of-project evaluation was conducted within a limited timeframe, with a small team interviewing a purposefully selected sample of informants from MORINGA's project locations and interventions. As a result, some qualitative data collected are not representative of the overall data. COVID-19 also limited interaction with study participants, e.g. small numbers in FGDs, area restrictions (village level), social distancing, mask wearing, etc. Therefore, the findings needed further clarification during the evaluation process.



Pili nut and moringa were experimental value chains including innovative ideas for processing and consumption. While moringa was phased out relatively early in the project, the pili nut market has taken off.

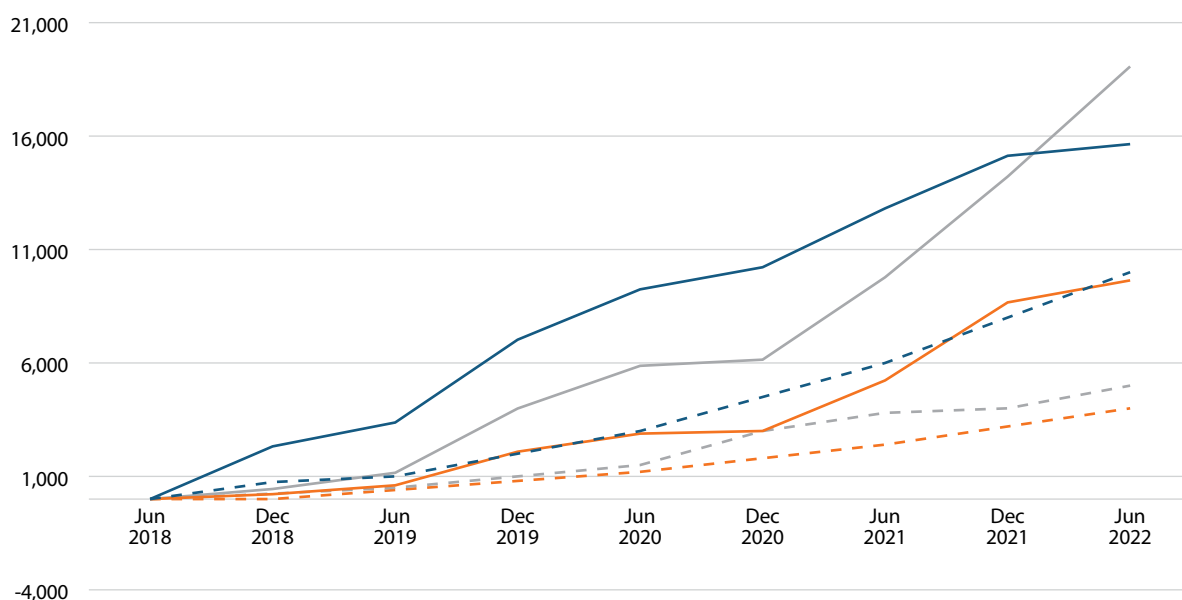
KEY FINDINGS

IMPACT

By February 2022, MORINGA had facilitated an increase in income for 9,640 farm households¹¹ through participation in five value chains – far exceeding the project’s target of 4,000 farm households (Figure 2). Of the total participants, 46%¹² were women and girls, while approximately 14% were from poor farming households (income below US\$1.25 PPP/day).¹³ Around 11%¹⁴ of the participants were

persons with disabilities, although the exact number of farmers with disabilities who participated in the target markets system directly was not documented. The project also facilitated access to finance for farmers within value chains (informal financing by ISPs for maize production) and outside value chains (formal financing by credit unions, e.g. for drip irrigation).

Figure 2. Project Performance against Project Goal (Plan vs Actual)¹⁵



Indicator	Jun 2018	Dec 2018	Jun 2019	Dec 2019	Jun 2020	Dec 2020	Jun 2021	Dec 2021	Jun 2022
--- Farm HHs with Increased Income (Impact) - Plan	0	0	400	800	1,200	1,800	2,400	3,200	4,000
— Farm HHs with Increased Income (Impact) - Actual	0	216	606	2,088	2,885	3,001	5,231	8,668	9,640 *
--- Farm HHs Adopt Improved Agriculture Practices (Use) - Plan	0	240	500	1,000	1,500	3,000	3,800	4,000	5,000
— Adopt Improved Agriculture Practices (Use) - Actual	0	444	1,159	3,992	5,874	6,145	9,778	14,214	19,068 **
--- Farm HHs Participate in the Intervention (Access) - Plan	0	750	1,000	2,000	3,000	4,500	6,000	8,000	10,000
— Farm HHs Participate in the Intervention (Access) - Actual	0	2,322	3,376	7,025	9,244	10,219	12,814	15,131	15,646 ***

Note: * using project data as per Feb 2022
 ** and *** using project data as per May 2022

11 Using assumption of 3.7 as average number of farm household members based on data in Table 3 in Self-Assessment Report. WVI. 2021.
 12 Based on Self-Assessment Report. WVI. 2021.
 13 The number of people in poverty reached could have been higher if MORINGA used the recent poverty line for lower-middle income countries (USD 3.20 PPP/day) or Indonesia’s national poverty line in 2018 (USD 2.70 PPP/day).
 14 Project data, data as per May 2022.
 15 Self-Assessment Report, data as per January 2022.

Box 2. Impact Summary

Household progress out of poverty

Out of the 9,460 farm households or 35,667 people, 13,554 adult males and 11,057 adult females can now provide for 11,057 children (5,750 boys and 5,307 girls) in regard to food, education, and health costs.

Of the 1,350 poor farm households or 4,993 poor people (income below US\$1.25 PPP/day), 1,748 adult males and 1,548 adult females can now provide for 1,698 children (899 boys and 799 girls) for food, education, and health costs.

Improved income

The project facilitated an average increase in net income of IDR 7,000,542 (A\$654) per household for 9,640 farm households or 35,667 people (19,260 men and boys and 16,407 women and girls).¹⁶

Women equitably engaged and economically empowered

Women had **equitable access**¹⁷ to information on good agricultural practices (GAP) and quality inputs (from intervention-related production), as well as information on markets and improved market channels (e.g. improved access to markets for pili nuts). Furthermore, 216 men and 221 women joined GIFT training to increase their financial literacy, including equitable financial decision making and management workload.¹⁸

Increased agency for women varied depending on the value chain. Women engaged in pili nut production were more likely (62%) to report equitable decision-making power over income-generation activities, compared to those engaged in moringa (52%) or maize (12%). Similarly, a higher proportion (67%) involved in pili nut production reported an equitable division of labour (on and off the farm), as compared to their counterparts engaged in moringa (55%) or maize (17%).

Persons with disabilities clearly benefitted from MORINGA

11%¹⁹ of project participants were either farmers or household members with disabilities, all of whom increased their income.

¹⁶ MORINGA's data for Vfm calculation, as per February 2022.

¹⁷ From project data, as per May 2022, 46% of adult women and 54% of adult men adopted innovative agricultural practices, and used improved agriculture inputs for applying GAP.

¹⁸ Based on Self-Assessment Report. WVI. 2021.

¹⁹ Project data, data as per May 2022.

How did MORINGA facilitate outcomes in holistic women's economic empowerment?



1. By increasing access

to capacity building and economic opportunities through participation in the prioritised business models, including GAP training, participation in the markets as ISPs and adopters of innovations, plus skills training and awareness-raising around financial management skills.



2. By increasing income/economic advancement

16,407 women and girls reported increased income through their participation in the project.



3. By increasing agency

Improvements in women's decision-making power was assisted by their increased contributions to household income, as well as skills and GIFT training. However, the evaluation showed that women's agency varies considerably depending on which value chain they are a part of (see Box 2).



4. By promoting equitable systems

The project engaged religious leaders as key allies to support the implementation of GIFT. The project sought to promote positive social norms to support women's economic participation and agency.

How MORINGA's partners benefitted

Most of the project's partners, especially ISPs, testified that working with MORINGA has been extremely worthwhile. It has helped their businesses grow and improved their income which has benefitted them in many different ways. Syngenta is the partner that has benefitted the most, having increased sales of seeds from 4.6 tons to 120 tons per annum in Central Sulawesi and West Sulawesi. Perseroan Terbatas (PT),²⁰ Timurasa and PT MORIFA also emphasised the important role MORINGA has played in connecting them with ISPs and farmers in NTT. This is something they would have found difficult to do otherwise, since the province was a new market for them and the logistical costs of reaching these villages would have proved prohibitive without the project.

²⁰ <https://www.investopedia.com/terms/p/pt-perseroan-terbatas.asp>

"I can support the household finances. In the past, I relied on my husband's income to meet the household's [daily meal] needs. Now, I can meet households' needs by working on the farms of other farmers. Income made by my husband can be used for other needs."

– Maize Intervention, Farmer, Female

"Money earned from selling the processed pili nut is used to buy daily necessities [such as] soap, salt, and rice. It is also used for children's education [such as] contribution in [school] committee, and buying books."

– Pili nut Intervention, Farmer, Female

"[I] thank WVI for leveraging maize farming and the seed so that the sales of maize farming input [in my shop] grows more than doubled, especially high-quality seed and other quality products related to maize farming. In the past, [my] shop only served retail sales but now we serve R2, retailers under my shop."

– Maize Intervention, Input shop, Male

"When WVI came [with MORINGA], [the community] was motivated to replant pili nut since WVI opened the market [access] and kept the price [feasible]. WVI has assisted the marketing and even [granted] the drying machine [which provided by private sector partner]."

– Pili nut Intervention, Collector, Male

EFFECTIVENESS

Overall, MORINGA delivered results quite effectively, although it was more successful in some interventions than others. For example, the project's maize intervention was rated as excellent, while the pili nut, moringa seed, and nutmeg and horticulture interventions were all rated as good. One intervention, moringa leaf, was dropped, and two others (horticulture dripping irrigation and paddy rice) were still at the pilot stage when the project ended. The network of business partnerships (private sector-ISP-farmer) in maize was strong and extensive

in Central Sulawesi, while the networks for pili nut and moringa seed in NTT and nutmeg and horticulture in North Moluccas were more localised and therefore required more facilitation for expansion. Cross-cutting issues, including gender and disability inclusion, were mostly addressed by focusing on households while encouraging partners to engage with women farmers, given the good business reason for doing so. The statement below from a PSP representative engaged in maize intervention is a good example of this.

“We already see female farmers as [our] target market and [we] plan to reach more of them by creating women farmer groups in Central Sulawesi similarly as [we did] in Gorontalo. Usually, women are the one responsible for managing the household's finances, and their husbands as the head of households would discuss with their wives in relation to the use of household finances, especially for agricultural purposes. Involving women to [our] activities would help [us] to spread the knowledge on [our] products as they would be able to advise their husbands in regards to good inputs [seeds].”

– Maize Intervention, PSP Representative, Male

MORINGA was also successful in facilitating farmers' access to finance from a formal financial institution in NTT. This was a good achievement considering the project worked mostly in fragmented, isolated areas with high poverty levels. The adoption of drip irrigation required a large upfront investment by horticulture farmers in the pilot area. Loans by formal financial institutions are generally difficult to obtain since they usually require collateral from farmers or a proven business model (value-chain finance), however, Monafen agreed to finance the farmers based on a demo plot which gave evidence of success. As a result, in March 2022,

MORINGA, Power Agro, and Monafen signed an MoU on the collaboration, providing in-kind financing for the farmers.

“We are ready to provide a loan for farmers who plan to use drip irrigation. The result [of drip irrigation] is good. We will support the advancement of farmers in NTT.”

– Horticulture Intervention, Financial Institution Representative, Male

While MORINGA's overall portfolio management followed the iMSD approach, there were several aspects of the intervention design that could have been improved upon, as follows:

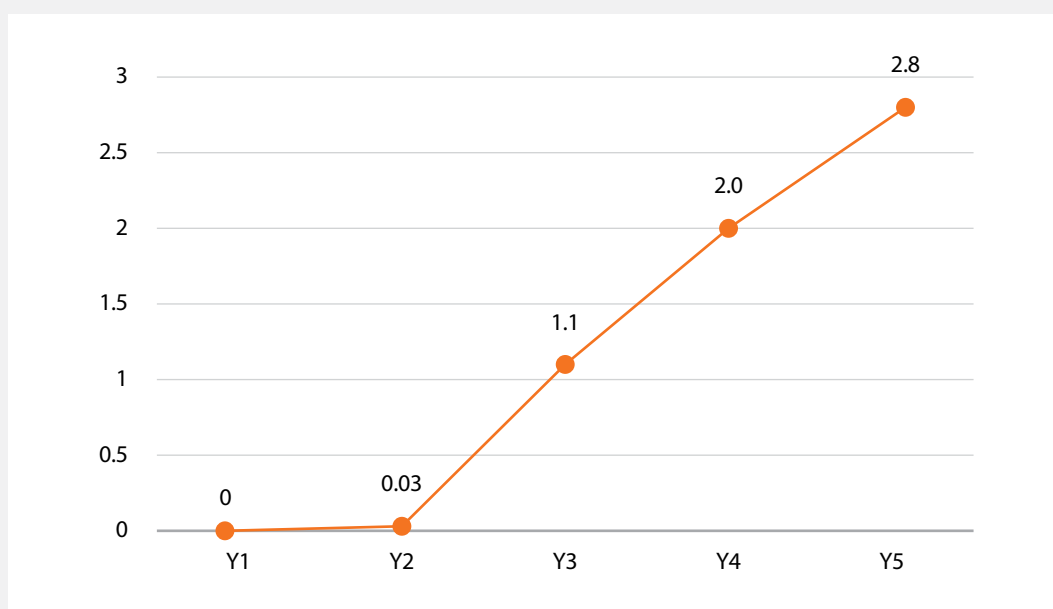
1. The commodity analysis needs to improve the details in the market map, incorporate the strengths and weaknesses of the market functions, and be isolated from the intervention idea/plan so that it helps to identify market constraints comprehensively.
2. The Intervention Steering Documents (ISDs), a results attribution tool recommended for iMSD projects, were useful in helping the project team manage interventions, but lacked uniformity and were not concise enough to help the project team monitor intervention progress efficiently.
3. The implementation of pilot activity, in this instance, the implementation of demo plots, requires more effective monitoring to ensure that the outcome demonstrates strong evidence for farmers to adopt the innovation being introduced.
4. The boundary between the 'push' (household-focused) and 'pull' (farmers' direct involvement in the markets) approaches is somewhat unclear, which led to difficulty in identifying whether an activity was part of one or the other.

EFFICIENCY

MORINGA's efficient utilisation of its budget to generate development benefits provides another business case that the two-pronged approach to market systems development (MSD) is more efficient than direct delivery only. Against the total project costs, investment per participating farm household improved (estimated at A\$303 in the previous years and standing at A\$237 per farm household at the time of the evaluation). This compares well with PRISMA²¹ with its investment per farm household of A\$241²² (with A\$77 million total

project cost, and outreach of 319,734 farm households), even though MORINGA was much smaller than PRISMA. Return on investment (ROI) also increased by project end to A\$2.80, up from A\$2.00 in the prior year, meaning that for every Australian dollar spent, MORINGA has generated A\$2.80 in increased income for farm households (Figure 3a). Against the total project spend of A\$2.3 million, MORINGA generated A\$6.3 million in increased net income for farm households, benefitting 35,667 individual farmers (Figure 3b).

Figure 3a. MORINGA ROI and investment per farm household against total project costs²³



There were, however, some areas of the project that needed to be managed more efficiently. One such area was project reporting which lacked efficiency due to incompatible reporting schedules between DFAT and Wahana Visi Indonesia. Other areas included the lengthy approval waiting times for proposed activities within the project, and the absence of any specialist in cross-cutting issues which compromised the inclusion and effectiveness of these issues when working with partners.

²¹ PRISMA is DFAT's iMSD flagship project in Indonesia.

²² DFAT (2019) Activity Completion Report. AIP-Rural.

²³ Values for 2022 or Year 5 are based on MORINGA's data as of February 2022. The values used in this figure pertain to total project costs.

Figure 3b. The costs and benefits of MORINGA

COSTS



Total Project Costs,
as per February 2022

AUD2.3M



Total number of
private partners,
as per January 2022

12



Total Co-investments,
as per February 2022

AUD5.8M



BENEFITS



Farm HH have access to
innovations, as per May 2022

15,646



Farm HH adopting the
innovations, as per May 2022

19,068



Total Net income
increase for farm HH,
as per February 2022

AUD6.3M



Small Enterprises'
increased turnover,
as per January 2022

AUD1.2M



Farm HH with increased
incomes, as per February 2022

9,640



Poor (income below \$1.25PPP/day)
Farm HH with increased incomes,
as per February 2022

1,350



Individual farmers with increased
income, as per February 2022

35,667



Poor (income below \$1.25PPP/day)
individual farmers with increased
income, as per February 2022

4,993



19,260
Men & boys



2,696
Men & boys



16,407
Women & girls



2,297
Women & girls



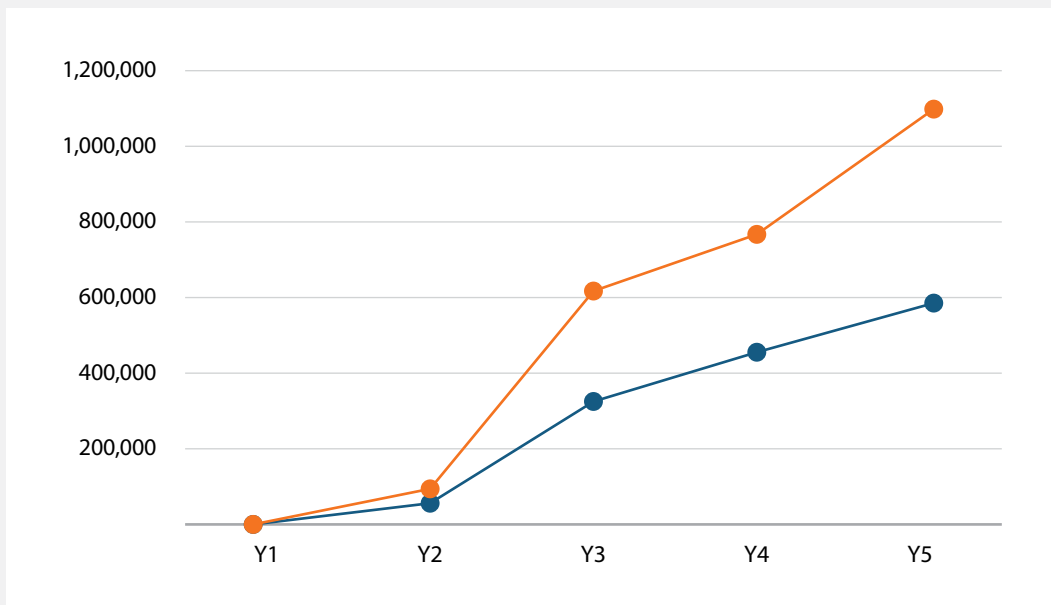
20% are persons
with disabilities,
as per February 2022

3,923

SUSTAINABILITY

The overall benefits of the project are likely to be sustainable although the level of business sustainability varies across interventions. Partners were committed to the continuation of the business models introduced through the collaboration, due to either the financial or non-financial incentives. This was demonstrated by the increased co-investments made by PSPs and ISPs, as well as by farmers to the MORINGA project, which indicates ongoing business sustainability (Figure 4).

Figure 4. Investment by PSPs and ISPs²⁴



Furthermore, the AAER (Adopt-Adapt-Expand-Respond) framework has been used to see how wide and deep the MORINGA project can make systemic change in the market system to ensure sustainability of the business model (Figure 5).²⁵



Mr. Irsad (Husband) and Mrs. Lisnawati (Wife) joined the Gender Inclusive Financial Literacy Training (GIFT) to better their skills on equitable financial decision making and income management.

²⁴ MORINGA data for VFM calculation, as per February 2022.

²⁵ Lomax, Jake, AAER Revisited: from systemic change narrative to systemic change analysis, Briefing Paper 6, September 2020; AAER: An adapted representation of Gisin et al – available at: [Veeda_Case-Study_Final-draft-290817_clean.pdf](https://www.veeda.org/veeda_case_study_final_draft_290817_clean.pdf) (springfieldcentre.com).

Figure 5. The use of Adopt-Adapt-Expand-Respond Framework in MORINGA Project

ADOPT Partner(s) take up a pro-poor change that is viable and has concrete plans to continue it in the future	Some partners remain in 'Adopt' stage, as they need to: <ul style="list-style-type: none"> • Re-arrange the incentive for ISPs and farmers (moringa seed) • Wait for market response (biofertilizer)
ADAPT Initial partner(s) 'invest' in the pro-poor change adopted, independently of support	<ul style="list-style-type: none"> • PT Timurasa has high motivation to continue the business model and expand their area. Export demand for pili nuts is growing and PT Timurasa is eager to fill the demand. PT Timurasa also has the motivation to engage with the local governments (Regional Development Planning Agency and District Agency for Natural Resources Conservation) to promote the value of pili nuts and help the tree conservation in Alor.
EXPAND Similar or competing players copy the pro-poor change or add diversity by offering variants of it	<ul style="list-style-type: none"> • PT Syngenta have assigned four staff to manage business operations in in Central Sulawesi and West Sulawesi. • PT Syngenta intended to involve Kelompok Wanita Tani (Women's Farmer Group) in the effort to expand their market
RESPOND The wider market system and players react to and accommodate the presence of the pro-poor change	As the maize hybrid seed market was expanding rapidly, some market actors entered Central Sulawesi to make a business in the input market or output market : <ul style="list-style-type: none"> • At the input market, PT Agri Makmur Pertiwi and PT Corteva Agriscience are the companies that compete with PT Syngenta in selling hybrid seeds. PT Saprotan started to sell commercial fertilizers in Central Sulawesi, triggered by the scarcity of subsidized fertilizers that are in high consumption among farmers. • At the output market, PT Havana Agrobisnis Utama and PT East Indonesia are involved as off-taker of farmers' yield.

The likelihood that farmers will continue to adopt innovations varied by intervention due to key influencing factors. Maize farmers were most likely to continue to use hybrid seed, as farmers continued to benefit from it and access to finance was available through ISPs. Pili nut farmers in pilot areas were also willing to continue to sell premium pili nuts since they were fairly satisfied with the price, and the ISP was committed to working with these farmers. However, the expansion of this business model to other areas will depend on the supply mapping and involvement of existing ISPs. On the other hand, Moringa seed farmers were less likely to continue the business model as they were not satisfied with the incentives, unless ISPs find farmers in new areas who are willing to accept their price offer. The adoption of innovations related to horticulture (drip irrigation) and paddy rice farmers (hybrid seed) will depend on the ROI of the first batch of adopters, as well as access to finance.

RELEVANCE AND CROSS-CUTTING ISSUES

Targeting poor farm households has become the focus of MORINGA and it is highly relevant to poverty alleviation in target provinces. MORINGA has contributed to poverty reduction by delivering innovations that are affordable for smallholder farmers in provinces with a high prevalence of people living with poverty. When farmers could not afford the innovation, MORINGA facilitated access to finance that reduced economic barriers to entry for adopting innovations. MORINGA also addressed gender equality by involving women in accessing skills, including training on financial literacy, and facilitating economic opportunities in rural areas where traditional gender norms persist. Regarding disability inclusion and

environmental protection, the project has not tackled these issues in a proactive way. There were farmers or household members with disability in almost all the interventions (making up 11% of participants that benefitted from the project). However, the participation of farmers with disability in capacity-building activities (promotional events or training), and in the markets, was relatively low, and the project design only included the minimum of requirements for participation (provision of interpreters for the deaf and hard of hearing). A far greater understanding of disability characteristics, constraints and opportunities specific to MORINGA's participant profiles (rural, poor, eastern Indonesia) is needed, as well

as far more robust methods for identifying people that fit this group. Likewise, the integration of environmental protection was limited to introducing farmers to the use of inorganic inputs with the introduction of biofertilizer and advice on appropriate use.

To enhance the integration of cross-cutting issues, MORINGA needs to strengthen the inclusiveness in the

COHERENCE

Internally, the project demonstrated coherence with many of Wahana Visi Indonesia's other programs and priorities, as well as covering the same target areas. The project's implementation was in compliance with the Project Design Document and the iMSD approach, and with 'right-sizing'²⁶ principle, primarily in its overall portfolio management.

Externally, MORINGA has also shown coherence with government policies and other stakeholder programs. The project contributes to local government policies by strengthening the target commodity (maize) in Central Sulawesi (considered one of the national maize barns),

'push' component of interventions, as well as facilitate more inclusiveness in partners' business operations. However, the realisation of this will largely depend on the project's prioritisation and/or depth of cross-cutting issue integration, for example, a strategic decision on whether such a project hires one specialist or more in cross-cutting issues, given the resources available to the project.

in North Moluccas by contributing to an increase in nutmeg exports, and East Nusa Tenggara by targeting the expansion of the moringa economy. MORINGA also complements other agricultural development programs delivered by the local government and/or other development agencies, such as agricultural development initiatives in NTT and Central Sulawesi, as well as helping to address the lack of agricultural development programs in North Moluccas. In Nusa Tenggara Timur, MORINGA and PRISMA both implement MSD projects but there is no overlap between the programs.²⁷



Crops like maize could be grown and harvested multiple times per year, so long as irrigation was available.

26 'Right-sizing' refers to the project being the right size to achieve what it was designed to achieve, i.e. it was not too big or too small that it became ineffective – rather the project's scope matched expectations.

27 PRISMA implements MSD by working alongside the private sector, whereas MORINGA implemented a hybrid inclusive MSD approach that consisted of an additional household pathway to ensure that poor farmers and vulnerable groups could make full use of private sector economic opportunities.

LESSONS LEARNED

MARKET SYSTEMS DEVELOPMENT

- MSD can work effectively in fragmented and isolated contexts although more effort is needed to convince private sector actors to intervene in these areas, including benefitting women and persons with disabilities.
- Managing expectations on the process and impact across interventions is required since different commodities have different market development stages and market potentials.
- The impact of an intervention in MSD is not prescribed, especially in challenging markets. Some interventions will be highly successful, others will have modest success, and others will fail.
- In relation to WEE, gender should be fully integrated into the business model to improve women's access, agency and economic advancement. This should start with the ISD. To better address barriers to women's agency (decision making, manageable workloads, well-being) and harmful social norms (equitable systems), the project could prioritise interventions to address these domains of WEE with a specific resource embedded in the project team.

PORTFOLIO AND PROJECT MANAGEMENT PROCESSES

- A rigorous market/commodity assessment is a prerequisite for the design phase of the intervention so that the market's constraints and potential are specified.
- To ensure the ownership of the ISD, the involvement of a field coordinator is needed to help the team monitor and make adjustments along the way.
- Prioritisation of cross-cutting issues needs to be clearly articulated and communicated to the project team to ensure a clearer communication on these issues to partners, while donors and implementers can consolidate internally to push in the same direction.
- Continued support and assistance for the MORINGA team from World Vision Australia has proved to be useful in ensuring effective implementation of the project. This can be facilitated by maintaining transparency and continuous improvement of both teams.
- Portfolio review is critical in addressing and resolving bottlenecks when they exist.

PROJECT IMPLEMENTATION

- An adaptive implementation helps an MSD project to design impactful interventions and respond to slow adoption by the private sector, ISPs, and farmers. There is the need to supplement the partner's responsibility temporarily when needed to ensure that the intervention runs smoothly.
- Finding the right partner with a common vision to provide innovation for farmers is challenging. Some partners have a strong commitment to continue their involvement in the scale-up strategy, but there are partners who are still in the piloting phase. Differences between partner willingness are common in the MSD approach.
- By being inclusive to women, the project has likely boosted the adoption rate of innovations. Intentionality in involving women to obtain access to information and training helps convince farm households to adopt innovation.
- GIFT training is successful in bringing additional skills in financial planning and partner relationships to households as well as bringing positive transformation to the financial institution partner (Kopdit Citra Hidup Tribuana). The credit union will adapt the GIFT training material into their marketing and promotion strategy. Scaling-up this model to the wider market is promising.

RECOMMENDATIONS



Overall

- Continue to work in fragmented, isolated markets to reach out to farmers who are often left behind by market systems, while realising it may potentially be a slow process with low impact in terms of numbers.
- Clarify the 'push' domain of the project design by clearly defining which components of interventions the project team can 'push' to reduce the likelihood of the project being involved directly in the market system.
- Strengthen the link between the 'pull' and 'push' approach in supporting each other to facilitate expected outcomes.



Program Design Phase

- Develop a rigorous sector selection and market assessment (including market map analysis, constraint analysis and supply-demand gap analysis) that also specifies the situation of women farmers, farmers with disabilities, and poor farmers. It should be a hands-on process that is completed before bringing the private sector partners into the intervention area.
- Programs should customise the scoring scale, selection criteria and weight scale according to the program's priority and focus. The basis of each scoring should depend on primary data from field/market assessment or the most recent secondary data from credible sources (e.g. recent BPS data of agriculture surveys).
- Define the level of cross-cutting interventions, prioritise them, and prepare their intervention design as well as staffing structure to avoid any missing steps during the implementation.
- Add a specialist in one or more cross-cutting interventions as needed, based on prioritisation. The specialist(s) must be hands-on, involved in the design, negotiation and implementation of cross-cutting interventions.
- Consolidate the objective and indicators of cross-cutting interventions internally to help define the strategies and tactics to instil cross-cutting issues in partners' business objectives and operations.
- Ensure the commitment of private sector partners on gender equality, disability and social inclusion (GEDSI) and WEE integration into their business operations by establishing a knowledge exchange forum with partners and presenting the evidence-based business case of GEDSI and WEE.
- Customise GIFT training to the specific farming and household context targeted by the project, and design follow-up activities that facilitate putting learning into practice, such as through linkages with financial service providers.



Implementation Phase

- Restructure the investment of the program, with a focus on improving partners' capacity and avoiding cost sharing on regular activities (seed samples, staff, etc.).
- Provide regular 'pause and reflect' time for all the implementation team; this is part of the utilisation of monitoring data to be integrated as part of an adaptive-management approach. This will lead to a more efficient model and reduce unnecessary spending and effort.
- Ensure regular reviews of the intervention/program can be done through self-assessment discussions or with additional quantitative measurement to help objectively assess the intervention progress.



Result Measurement

- MORINGA's ISD management is already in place but can be improved by providing a leaner, uniformed ISD template that captures the following key aspects:
 - o Intervention background (intervention details, partner details, geographical area, a short explanation of commodity and area selection, poverty rate of the selected areas)
 - o Business model and business calculation
 - o Measurement strategy: attribution method
 - o Result chain
 - o Measurement plan of intervention indicators
 - o Cross-cutting issues (gender analysis, analysis of persons with disabilities, environment analysis, and other relevant social inclusion)
 - o Projection and result
 - o Key performance indicator (KPI) summary
- Improve data management of evidence; evidence should be stored separately from ISD to avoid information fatigue in ISD. Evidence should be stored and labelled according to the result chain code and title.
- Consider collecting qualitative data on child well-being (CWB) to enrich quantitative data captured in the baseline or impact assessment survey, but only if the project develops a 'push' activity in the intervention of interest. Otherwise, existing CWB questions are sufficient as long as there is before-and-after data or a propensity score matching analysis is used to notice any difference in CWB resulting from the intervention.



Intervention-Specific

Maize

- Explore the possibility of assisting in the expansion of PT Syngenta's maize market if further assisted change is necessary. Otherwise, observe the expansion of the maize market if PT Syngenta can expand it without further assistance from the project.
- Present the business case of WEE to PT Syngenta and other maize PSPs to enhance women's participation in maize as ISPs and farmers, especially as agents of change, rather than merely as the target market of its product.
- Prepare the design of impact assessment to trace outreach that has resulted from 'adapt' and 'expand' so that MORINGA can capture the scale of such an impact.

Pili nut

- Facilitate PT Timurasa and the Regional Development Planning Agency in mapping out the growth potential of pili nut in Alor more comprehensively, including farmers producing pili nut and the existing ISP network in target areas.
- Capitalise on the existing ISP network in pili nut to accelerate intervention growth by facilitating connections with PT Timurasa to gauge their willingness to join the premium market.

Moringa seed

- Gauge farmers' willingness to continue to produce moringa seeds as required at the price currently offered. If farmers are reluctant to continue to adopt the business model, the most likely outcome is to drop the intervention.
- Explore possibilities related to increasing farmers' competitiveness against domestic competitors (farmers in other moringa-producing provinces) and global competitors (farmers in major moringa-producing countries).

Nutmeg and Horticulture

- Prioritise the adoption of biofertilizer usage among vegetable farmers since they are generally more responsive to inputs than nutmeg farmers,²⁸ if the market potential for vegetables is large enough.
- Work with partners to educate nutmeg farmers on the need to nurture their trees, if the team aims to push the growth of this subsector.

Horticulture (drip irrigation)

- Map out the market potential of drip irrigation in West Timor and credit unions that might be interested in supporting farmers in adopting the innovation while observing farmers' adoption in the pilot village.
- Prepare a rigorous impact assessment to adopters in the pilot village to strengthen the proof that drip irrigation increases farmers' yields given the same amount of cultivated land and input.

Paddy rice

- Monitor early adopters in this intervention and request assistance from PT BISI to ensure that they apply innovations properly to achieve a satisfying outcome. Concurrently, facilitate non-adopters to observe the process and results.

²⁸ As a forest plant, nutmeg is not nurtured by farmers, and therefore, farmers tend not to apply inputs regularly on nutmeg.



World Vision



Mariana took up the option of drip irrigation to become a demonstration farmer. The technique reduced costs and workload, enhanced yield and allowed crop diversity.

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