

PRISMA Learning Series

August 2023

What we learned from working in Maize Madura



 Timeframe	: 2014 to Present	 % NAIC	: 401%
 Locations	: EJ (Madura)	 Co-investment	: IDR 3,021,403,700
 Total outreach	: 126,472	 Farmer investment	: IDR 93,276,699,071
 Total NAIC	: IDR 398,779,534,630	 Number of partners	: 5

This lessons learned paper is about maize Madura, a sector in which PRISMA has been instrumental in developing the commercial hybrid maize market despite market distortions caused by input subsidies.

Why Maize Madura?

PRISMA chose to work in the maize sector because maize is one of Indonesia's primary food crops. Nearly 20 million metric tonnes (MT) of maize are grown annually on three to four million hectares (ha) of farmland, and Indonesia's maize demand far exceeds the domestic supply. Demand is driven primarily by the livestock feed market, which absorbs around 70 percent of maize production.

The biggest contribution to maize production comes from the East Java province. The government has declared Madura, in particular Sumenep district, one of the maize-producing hubs of Indonesia. In Madura, there are more than 370,000

smallholder maize farmers, covering approximately 22 percent of the maize cultivation area in East Java. Madura is an island near the centre of maize demand in mainland East Java.

Madura is also close to the main market of agricultural input companies. While Madura offers potential for market expansion, maize has traditionally been a subsistence crop, with an average productivity of 1.3 MT/ha when PRISMA began in 2014. Utilisation of hybrid maize, along with the application of good agricultural practices (GAP), has the potential to improve productivity up to 6 MT/ha.

Constraints in market functions

Maize farmers in Madura lack access to commercial hybrid seeds. Smallholders also lack knowledge of good agricultural practices (GAP) associated with cultivating hybrid seeds. Although local governments have promoted hybrid seeds through subsidy programs, the adoption rate by farmers has been limited due to the low suitability of seed variety and, in some cases, the inferior quality of subsidised seeds.

The reason for the poor suitability or quality of seeds is that the government buys maize seeds at a set price through a contractor, meaning there is no incentive to prove suitability through demo plots or sell high-quality seeds to the government. The absence of extension services and delays in distribution have exacerbated this. Furthermore, subsidy planning has not been ideal, often resulting in high overlaps between subsidy recipients and existing commercial seed users. This is a disincentive for seed companies to expand into Madura.

These constraints create opportunities for PRISMA to engage in the following underperforming market functions:



HYBRID SEED PROMOTION

Improving access to suitable seeds and proper GAP application



POLICY ENGAGEMENT

Improving government program planning and implementation of seed subsidy program



History of PRISMA's engagement in Maize Madura

1

Phase 1 interventions

2014

PRISMA started working in maize Madura from the inception of its program in 2014. To improve maize productivity in Madura, PRISMA needed to convince seed companies that Madura had good market potential and that they should promote GAP when selling seeds. With the seed market in East Java mainland approaching saturation, some seed companies were looking to expand into new areas. However, in the past, large seed companies had already tried entering the Madura market with limited success. Although PRISMA had approached these large companies to discuss the potential for collaboration, only one of the smaller companies was initially interested in proceeding with a pilot. Before partnering with PRISMA in October 2014, the seed company was primarily supplying hybrid seeds to government projects across Indonesia and felt an urgency to expand its free market operations.

The pilot intervention with PRISMA's first partner started in 2014. PRISMA supported the company with marketing research, capacity development, and marketing strategies. While supporting the smaller company, PRISMA continued pursuing tier 1 companies and explored partnership opportunities with one of these. A tier 1 company had already assigned a marketing staff in Madura and was about to withdraw its operation due to limited success. However, with PRISMA's persuasion, all three tier 1 companies agreed to monitor PRISMA's pilot in Madura before agreeing to a partnership.

2016

At the beginning of 2016, PRISMA shared the success of its pilot with the tier 1 companies. While the companies were interested in re-entering Madura, they were concerned that the high overlap between the government's free seed recipients and free market customers would disrupt the growth of a commercial seed market. Hence, PRISMA needed to convince the local government to improve its seed subsidy system.

In April 2016, PRISMA created a public-private collaboration (PPC) with the district government of Sumenep and key seed producers to map and coordinate the distribution of hybrid seeds. By encouraging the government to distribute free maize seed in areas where commercial provision was absent, the goal was to minimise the overlap between the free seed program and areas where the commercial market worked well. The memorandum of understanding (MOU) for the PPC covered subsidy planning and the provision of GAP information through private and public extension, as well as additional components related to access to finance and off-taking.

In the second half of 2016, seeing the results from PRISMA's pilot and the PPC, 3 tier 1 maize seed producers partnered with PRISMA to promote hybrid seeds and disseminate information on GAP. PRISMA's support included conducting studies on the market opportunity, marketing strategies, and farmer behaviour/preferences; introducing women's inclusive marketing/women sales agents; developing curriculums for GAP; and even identifying farmers and influencers for field events. Insights from studies were used to advise seed companies on growth strategies and to develop more effective marketing strategies that considered the unique social and cultural dimensions of working in Madura.

2

Phase 2 interventions

2019

Phase 2 of PRISMA began in 2019. During this phase, PRISMA continued to partner with 2 of its tier 1 partner companies. Phase 2 interventions focused on getting partners to continue investing and expanding their market in 3 out of the four districts in Madura - Sumenep, Pamekasan, and Sampang. This involved:

- Showing partners the market opportunity to expand their business to new geographical areas within Madura Island,
- Providing insights on the market situation and how to target the right customers in Madura
- Redesigning marketing and promotional strategies to be more effective.

Partnership activities concluded in early 2020 because the tier 1 partners were in a good position to continue the business models independently. In the meantime, PRISMA is continuing to monitor the growth of the hybrid seed market in Madura.

Table 1: History of maize Madura interventions in PRISMA





What worked and what didn't?

The business model included crowding-in



Going beyond the subsidy market

Before PRISMA, there were only 2 seed companies active in Madura, and they were primarily supplying to the government free-seed program. PRISMA's partnerships have been instrumental in establishing a commercial market for hybrid maize seeds in Madura from 5.9 MT sold in 2014 to nearly 200 MT in 2021.



Reaching scale through crowding-in

There are now 8 seed companies selling high-yielding hybrid seed to the commercial market, 3 of which entered the market independently based on the success of PRISMA-supported partners. By the end of 2021, farmer productivity had increased from an average of 1.3MT/ha to 4.8MT/ha among hybrid seed users and around 126 thousand poor farming households were using hybrid seeds, achieving an increased household income of 401 per cent.

Around 30 per cent of farmers who used hybrid seeds from the government subsidy program indicated they planned to purchase hybrid seeds from the commercial market in the next season. Many of these farmers now see maize cultivation as a business opportunity rather than a mere source of food for their households.



Continued innovation allowed the model to grow



Diagnosing the systems is critical

A number of factors underpin PRISMA's successful engagement in the Madura maize sector:

- Good diagnostics around key constraints
- The ability to identify and attract progressive seed companies, particularly ones that could provide scale
- Strong networking with local government and communities, as well as the field staff and managers of partner organisations.

PRISMA's diagnosis to understand farmers' behaviour and resistance to change helped its pilot company access farmers with information.

The pilot project resulted in sales of 6MT of commercial hybrid seeds in the first year. These initial results were encouraging and were used by PRISMA to approach larger maize seed producers. The PPC, along with PRISMA's experience in introducing marketing innovations were effective in the Madurese context and were critical in getting other seed producers on board.



Breaking the stereotypes – small demo plots worked better than large

The innovative marketing models and activities increased farmer purchases of hybrid seed from the commercial market and their GAP application. This included breaking the common practice of seed companies and government extension to establish large demo plots of at least 1- 2ha, which had to be managed by agronomists. Instead, mini demo plots (ranging from 0.2ha to 50 m²) were introduced, which were closer to the size of farms in Madura. Key farmers could manage the small plots under the supervision of agronomists and extension workers, which led to greater influence among farmer groups.

Using smaller plots along main roads increased the visibility of the advantages of growing hybrid maize. The plots also provided farmers with firsthand experience that could be used to convince their peers. PRISMA introduced demo plot competitions and mobile selling units to Madura, as well as leveraged the influence of local social institutions and leaders (e.g. by having farmer meetings with the imam of the mosque).

Another breakthrough for PRISMA was a kiosk survey which demonstrated that many more retail outlets were selling hybrid maize than partners were aware of. Moreover, the sales of hybrid seeds were higher than what companies recorded. This was because kiosks often obtained seeds through distributors from the East Java mainland. The kiosk survey provided a more comprehensive snapshot of the existing market size and potential than what was available through partners' data.



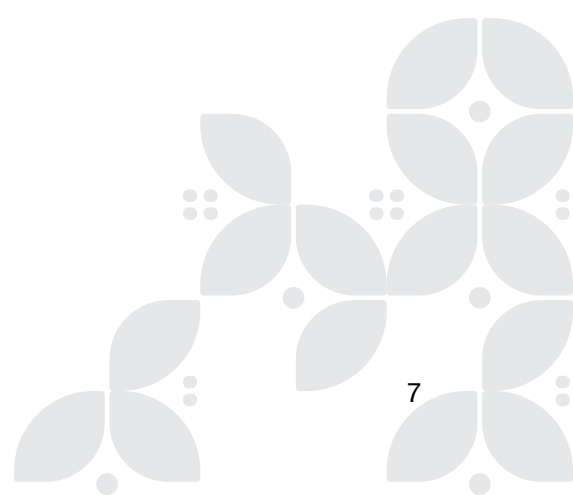
Leaving no one behind – using women sales agents to reach women farmers

The marketing innovations included a successful pilot on using women agents as a sales model. This model engaged women to promote good maize cultivation practices and increased women's awareness and brand loyalty to a particular company's hybrid seed products. This was particularly critical for female farmers or female farmer groups who prefer female agronomists to meet and receive information from. Although the women-inclusive marketing strategy has not reached scale, the partner expanded the approach to Central Java and NTT. More work is required to collect supporting data (including how activities translate into actual sales) to demonstrate a concrete business case for other companies. Still, the model has been used by several PRISMA partners in other sectors.



PPC had some shortcomings

The PPC reduced the overlap in Sumenep between the distribution area of subsidised seeds and the marketing area of commercial hybrid seeds from 90 percent in 2016 to 40 percent in 2017. In 2019, when the government's free seed subsidy to Sumenep increased by six-fold, the overlap only increased slightly to 53 percent. Despite the more targeted allocation of the government seed program, improved GAP provision, and replication of the model in the neighbouring district of Pamekasan, the PPC had a number of shortcomings and was not as effective as PRISMA had hoped.





Subsidy as a stimulus for behavior change

PRISMA wanted to use government subsidies as a stimulus to introduce farmers to the benefits of hybrid seeds. The idea was that subsidies would be time bound and that the government would shift its focus to new target areas after farmers had an initial exposure to the benefits and GAP around hybrid maize seeds. This would make it easier for the private sector to develop a commercial hybrid seed market, and the expectation was that the district government's overall seed subsidy would gradually reduce. However, since this idea was new to the government, the original MOU only specified that 30 per cent of government subsidy recipients would be from farmers who had never used hybrid maize. At the same time, the amount of free seed distribution has increased in certain years, resulting in the continued provision of seed subsidies in several free market areas.



Subsidy as a political tool

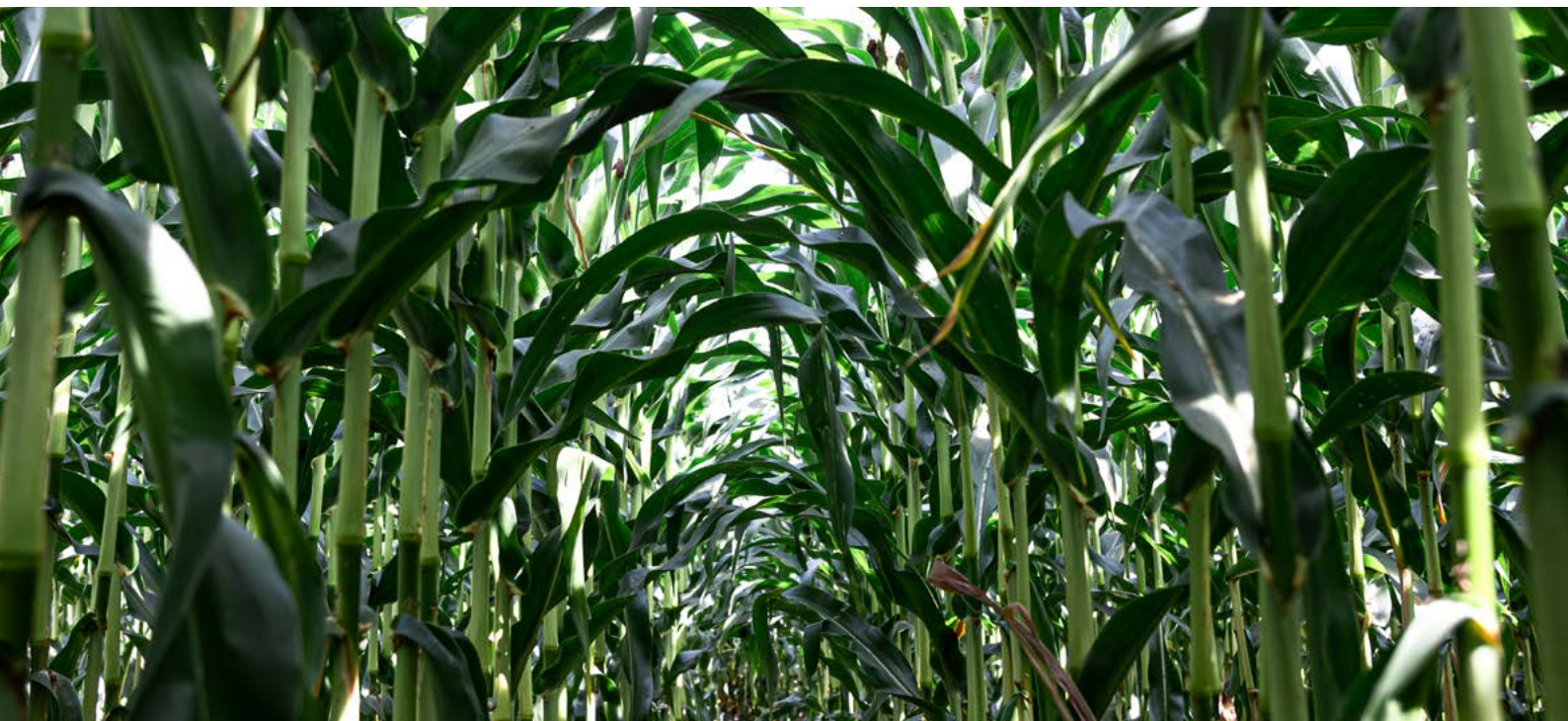
For elected representatives, there can be political pressures to spread benefits across more constituents. This can unintentionally impact commercial seed markets. Government incentives can also be misaligned since officials have targets based on production area and productivity. Given limited government budgets, officials will often procure lower-quality hybrid seeds in order to reach the targeted hectareage.

At the same time, targeting farmers who already have experience using hybrid seeds can make it easier to reach productivity targets. For smaller companies, the agreement for GAP provision under the MOU has been challenging since they have limited field staff and the government provides no additional funds to embed information on GAP.



PPC as a jack of all trades

Another weakness of the PPC in Sumenep was the inclusion of extraneous components around off-taking and access to finance. The Sumenep district government piloted a closed-loop maize business model with a hybrid seed company and a bank. However, the pilot was discontinued following price disagreements between the company and the maize farmers. At the same time, without proper preparations, the bank lacked the capacity to manage many additional accounts, and loans were mainly distributed towards the end of the maize season. Furthermore, farmers, who were accustomed to receiving handouts from the government, treated these loans as grants, and many of them did not repay the loans.



Key lessons

These are the key lessons that PRISMA learned from working in maize Madura:



More effective and wider uptake of public sector innovations requires engagement at the national level.

Working at the district level has limitations in terms of reaching scale and ensuring that public sector incentives are well-aligned across the district, provincial, and national levels. Alignment is necessary around commitment, subsidy budget, and targets at all levels. Without this alignment district level planning around subsidy allocations can easily be derailed if the district receives large influxes of subsidies from higher levels of government. At the same time, without a strong push and buy-in from the central government, innovations piloted at the district level won't necessarily be copied and scaled up by other districts or provinces.

MSD programs with a limited timeframe need to periodically assess the feasibility of changing public policy using indirect approaches, such as influencing the influencers. In the case of slow progress, programs would be better placed engaging multiple stakeholders and use change agents. Such approaches would include direct engagement with the policymakers. This would enable programs to garner greater support around a policy issue.



Government subsidies can be an entry point for developing a commercial market for seeds but can still pose a threat to commercial growth

Since subsidies distort the market and crowd out private sector involvement, subsidies are often viewed in a negative light by market systems programs, and the tendency is to avoid working in market functions or even sectors that are heavily subsidised.

However, subsidies in Indonesia are not going away, especially given the nation's long-term goal of food sovereignty and self-sufficiency and how successive governments have used agricultural input subsidies since the 1970s. Rather than ignore the subsidy program, PRISMA chose to use seed subsidies to stimulate the growth of a commercial market and engage the government in smart subsidy planning. This works well as long as seed subsidies are targeted and time bound. However, this has not always been the case, and uncertainty around the government's seed distribution policy remains a risk for the commercial hybrid seed market.



Demonstrating that government and private sector have a common vision is critical for a successful PPC, and a neutral facilitator can be key to bridging the views of both sides.

It is not always easy to convince the government and the private sector to come together and collaborate, especially since each side has preconceived notions about the other party. For example, the government may be critical of the private sector's profit-making orientation while the private sector may be reluctant to work with the government given its inherent bureaucracy.

To ensure a smooth collaboration, PRISMA conducted one-on-one meetings with each partner before bringing everyone around the table. Significant emphasis was placed on the common vision and interests of the parties. MSD implementers can be effective facilitators to broker PPCs because they can speak the 'language' of both actors.



Changes in partner leadership can often lead to changes in priorities and personnel. This can affect the direction, speed, and continuation of the partnership.

Many of PRISMA's partners in the maize sector had changes in leadership which affected the partnerships. One pulled out of the free market in 2017 due to leadership change but has since restarted in 2021 independently of PRISMA. Another company stopped its pilot early after a change of CEO and internal restructuring. It took nearly two years before the company restarted its activities with PRISMA. A third company changed country directors three times in a few years with resultant shifts in the structure and strategy. Eventually, this company pulled out of Madura altogether.

The role of MSD implementers is to take companies to more risky or difficult-to-penetrate areas, which they may not have considered without co-investments to buy down that risk. When companies have a strategic shift, these areas tend to make the first cut. This is why MSD programs cannot be complacent even after entering a partnership. It is important for programs to continually keep tabs on what is happening internally in partner organisations while also spreading the risk by diversifying and working with multiple partners.





About PRISMA

PRISMA is a **partnership between the Government of Indonesia and the Government of Australia** to increase the productivity and income of smallholder farmers. Increased productivity contributes to food security and builds farmer resilience to market and agricultural shocks, including climate change.

PRISMA supports its partners to adopt **inclusive business practices** through co-investment, market research, and tailored business advisory support. Better business practices increase the availability of products and services that improve farmer productivity and incomes.

PRISMA also works with the Government of Indonesia to create a better business-enabling environment. PRISMA supports policy change that makes it easier to do business and promotes collaboration with the private sector to respond to market shocks and smallholder farmers competitiveness.

PRISMA is supported by the Governments of Australia and Indonesia and implemented by Palladium, with Technical Assistance from Swisscontact, Zurich.

Find out more:

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