MUSIM MAS

MUSIM MAS-IFC
SMALLHOLDERS PROGRAM

www.musimmas.com

Why should we focus on independent smallholders?

Independent smallholders manage over 40% of Indonesia's old palm, at 4.2 million hectares[1]. By 2030, they are expected to manage 60%[2].

Despite their huge foothold, many experts have reported that smallholders' productivity rates vary as much as 45% below company production levels[3]. As they are not tied to any company, it can be difficult for smallholders to secure loans and are vulnerable to palm oil price shocks or economic stresses such as the recession accompanying COVID-19.

In addition, independent smallholders can be distant from supply chain pressures for sustainable regulations or certification schemes – which they can also opt to forego as they can choose which company to sell their crops to. Concurrently, smallholders are also community members who could be struggling with poverty, and sustainability might not be their top priority.

Our smallholders program

Following a diagnostic study[3] on smallholders in 2013 by the International Finance Corporation (IFC), a member of the World Bank, IFC and Musim Mas (MM) began to develop a smallholders program and piloted it on four of Musim Mas' mills. The program began progressively from 2015[4]. These mills were chosen because they source mainly from independent smallholders.

Together with IFC, we developed and implemented the program in North Sumatra (Rantauprapat) and Riau (Pelalawan, Rokan Hilir, and Rokan Hulu), Indonesia. As we found success in the pilot programs, Musim Mas developed and implemented a modified version of the pilot to our mills and supplier mills. More here.

The program with IFC sought to improve the livelihoods of smallholders by integrating them into sustainable palm oil supply chains. The integration would bring about not only financial value but also sustainable value, where their surrounding environment and community benefits.

[1] Chain Reaction Research. 2019. Future Smallholder Deforestation: Possible Palm Oil Risk. Extracted from: https://chainreactionresearch.com/report/future-smallholder-deforestation-possible-palm-oil-risk/

[2] Saragih, B. 2017. Oil Palm Smallholders in Indonesia: Origin, Development Strategy And Contribution To The National Economy. Palm Oil Agribusiness Srategic Policy Institute (PASPI). Extracted from: https://www.iopri.org/wp-content/uploads/2017/10/WPLACE-17-1.1.-OIL-PALM-SMALLHOLDER-Bungaran-Saragih.pdf

[3] Molenaar J.W., Persch-Orth, M., Lord, S., Taylor, C., Harms, J. 2013. Diagnostic study on Indonesian oil palm smallholders Developing a better understanding of their performance and potential. International Finance Corporation. Extracted from: https://www.rspo.org/file/Diagnostic_Study_on_Indonesian_Palm_Oil_Smallholders.pdf

[4] The program was first piloted in the Labuhanbatu district, North Sumatra province, in 2015 and then scaled up in three other districts in adjacent the province, Riau, in 2016.

Program curriculum

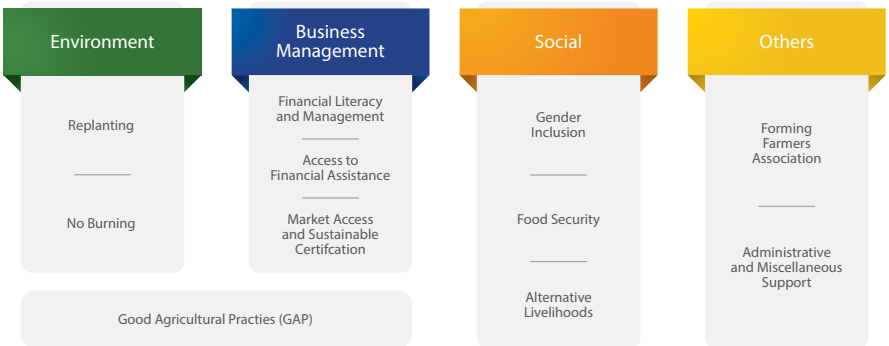
Musim Mas' approach to engaging the smallholders and curriculum has evolved as the MM-IFC program expanded, reflecting the issues that smallholders are interested in or face on the ground. For instance, Musim Mas is researching and developing an additional component on alternative livelihoods after assessing the financial difficulties smallholders face after replanting their oil palms because they may not have income in the two to three years before their young palms bear fruit.

Our modules mirror the RSPO's Principles and Criteria (P&C) as we prepare them for RSPO certification. Figure 1 categorizes the program modules within four pillars: Environment; Business management; Social; and Other issues that smallholders may face in their journey towards sustainable palm oil.

Musim Mas Manager of Independent Smallholders, Rudman Simanjuntak, conducts a smallholder training session.

Figure 1:

Modules in Musim Mas-IFC smallholders program



Environment

No burning

Open burning of waste is prohibited in Indonesia. We encourage smallholders to manage their waste creatively without burning, for example, upcycling fallen palm leaves as compost. We also ensure that smallholders are aware of the government's rules and regulations concerning burning and the dangers of fire.

Replanting

Smallholders are taught best management practices and fire-free techniques to replant their old oil palm. We also help link smallholders with their access to quality seedlings, finance for replanting, and financial planning during the two to three years before the young palms bear fruit (more under Business Management). We have assisted smallholders with the administration requirements to access the funding from the Government subsidy program by Palm Oil Plantation Fund Management Agency (BPDPKS).

Best management practices for replanting include using an excavator for felling and trunks to be cut into manageable size by chain saws.

Business management

To ensure that smallholders would continue with GAP or other sustainable practices, we encourage them to be self-sufficient and thrive as business owners, as aid may not always be sufficient, available, or accessible.

Financial literacy and management

Our program teaches smallholders financial literacy and management, such as keeping a logbook of profits and losses. This could help their credit scores when applying for bank loans and improve their financial management, especially when a large sum of money is needed, such as during replanting.

Financial logbooks are distributed to smallholders to encourage them to track their expenses and revenue.

Access to financial assistance

It is estimated that replanting costs amount to IDR 50-60 million (USD 3,400 – 4,100) per hectare[5], which could be challenging for smallholders without enough savings. The program helps smallholders access governmental subsidies for replanting, which includes advising them on the necessary paperwork and finding partnerships with financial institutions or banks. More here. This financial assistance encourages smallholders to adopt more sustainable methods of replanting and improves their productivity per hectare.

To celebrate the breakthrough in financial access for independent smallholders, Musim Mas held an inaugural replanting event on 16 May 2019 with a farmer association of independent smallholders, the Palm Oil Fund Management Agency (BPDPKS), the Indonesian government, BNI bank, and IFC.

[5] Nurfatriani F, Ramawati, Sari GK, Komarudin H. Optimization of Crude Palm Oil Fund to Support Smallholder Oil Palm Replanting in Reducing Deforestation in Indonesia. Sustainability. 2019; 11(18):4914. Extracted from: https://www.mdpi.com/2071-1050/11/18/4914

Case study:
Replanting financial assistance

Lagut removing weeds around his newly replanted oil palm on his farm.

Lagut is a smallholder who replanted his palms in 2019. He did not want to follow the footsteps of other smallholders who often used fire to clear their farms. However, his side business of running a fishing pond was not doing well. He worried about paying for new seedlings, renting the excavator, and a drop in his income before his palms bear fruit, as he did not want to compromise his family's standard of living.

Through the Musim Mas-IFC program, Lagut managed to receive replanting subsidies from the government. He also received advice on best management practices on how to replant and manage his seedlings to ensure productivity.

More on Lagut's story here.

We also encourage smallholders to explore ingenious means of financing that could be more accessible to them, such as *Arisan*. A microfinancing model, *Arisan* is commonly practiced in Indonesia as a form of rotating savings and credit system, usually informally among peers.

Case study:
Microfinancing through Arisan

The Treasurer of the farmers association (left photo) calculates the pool of money gathered from Arisan and hands it to Heddie (in blue) to purchase fertilizer.

During one of the training sessions on fertilizer management, Heddie Munthe, a smallholder from Rantau Prapat, realized that others in her farmers association faced similar financial difficulties regarding purchasing fertilizers. Their field assistant suggested practicing Arisan so that each farmer from the association can access to the microloan.

Here is how Arisan works: Every month, Heddi and the other farmers in her farmers association would gather in her house and pool together money. This pool of money serves as credit for one of the farmers from the association. It can be used to purchase fertilizer or for other purposes related to the smallholders program. The pool rotates within the farmers association until each farmer has received the credit.

More on Heddi's story here.

Market Access and Sustainable Certification

As our goal is to integrate smallholders into sustainable supply chains, we encourage smallholders to apply for sustainable certification, such as RSPO. The technical aspects of RSPO certification might not be a mammoth task as our GAP modules mirror RSPO's P&Cs.

However, other criteria, such as forming a farmers association and ensuring they do not disband, and setting up an internal control system, may be tricky (more under Social).

Our field assistants aid the smallholders in their process of applying for the certification, such as advising on administrative works, auditing processes, and helping to address gaps with RSPO's P&Cs.

Case study:
Musim Mas and IFC helped smallholders broker a deal with Unilever

Musim Mas and IFC organized a ceremony to celebrate the purchase of RSPO independent smallholder credits. It was held in Rantau Prapat, North Sumatra, Indonesia, where the farmers' association is located.

A farmers association has brokered a deal with Unilever in 2020 for the purchase of independent smallholders' RSPO credits. This farmers association was certified by RSPO in 2019 and is part of Musim Mas and IFC's smallholders program.

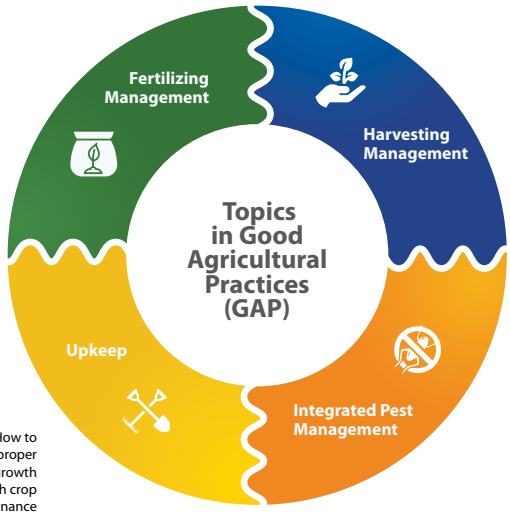
More here.

Good Agricultural Practices

As smallholders experience low productivity on their farm, we teach them the good agricultural practices (GAP) as we practice in our plantations. It consists of four main parts as illustrated in Figure 2. GAP helps farmers better manage their resources, be it financial or operational, and can have positive impacts on their surrounding environment.

Figure 2:

Topics in Good Agricultural Practices (GAP)



How to maximize yield with appropriate fertilizer inputs and best management practices. This can also include access to fertilizer suitable for the farmer's soil.

How and when to harvest oil palm such that the fresh fruit bunches (FFB) are of optimal quality.

How to encourage proper crop growth through crop maintenance practices such as weeding and pruning.

How to manage pests and reduce the number of pesticides used. Rather than merely eliminating pests, farmers and field assistants investigate environmental factors that affect the pest and its ability to thrive. Conditions unfavorable for the pest can be created. Techniques include biological control, use of beneficial plants, modification of cultural practices, and use of resistant varieties.

Case study:
Improving farm productivity to deter land expansion

Sakaria is glad he didn't expand his farm, as that would mean more upkeeping work and costs.

Sakaria Ginting is a smallholder in the Musim Mas and IFC program. Like many other smallholders, he learned how to plant oil palm from friends and neighbors, and might have received poor quality seeds. His palms were stunted, and he did not receive good harvests for years. He contemplated buying more land to plant more oil palm to earn more money.

"We could maximize our yield on our farm by implementing good agricultural practices…This learning made me reassess my strategy to buy more land. Instead, I focused more on maintaining the existing land that I currently have and maximize its land production," said Sakaria.

More on Ginting's story here.

GAP serves to keep smallholders invested in the program as they are usually interested in improving the productivity of their farms.

In addition, Musim Mas provides tailored agronomic advice to smallholders as each farm has different needs. Our field assistants visit each smallholder's farm to extract leaf and soil samples and send it to Musim Mas' Analytical and Quality Control Test Lab for analysis. Based on that data, farmers would receive

recommendations on the type and amount of fertilizer that is best suited for their farms.

Left: A spiral drill is used by field assistants to extract soil samples from farms.
Right: Field assistants bundle together leaflets from a palm leaf.

Field assistants would send soil and leaf samples to Musim Mas' Analytical and Quality Control Test Lab, based in Medan, for analysis.

We initiated a fertilizer distribution mechanism where field assistants facilitate the fertilizer purchasing process of farmers associations. The association informs field assistants of the fertilizer they wish to purchase, and field assistants connect them with an authentic source of fertilizer and accompany them to the store to buy it. This helps reduce occurrences of the purchase and use of counterfeit fertilizers and helps smallholders access quality fertilizer at reduced prices – issues common to smallholders[6].

[6] Daemeter. 2013. Fertilizer and Oil Palm in Indonesia. Extracted from: http://daemeter.org/new/uploads/20130905132708.Final_Fertiliser_and_independent_smallholders_in_Indonesia____Background_and_Challenges.pdf

Social

Gender Inclusion

Gender discrimination can impede the productivity of a farm and the progress of producing sustainable oil palm as rural women often experience systemic discrimination regarding access to resources such as agricultural training, seeds, and credit[7]. Such discrimination can contribute to greater gender inequality and imbalance.

Therefore, there is a need for gender sensitivity in developing and implementing the Musim Mas-IFC smallholders program and promote gender balance[8] and gender equity[9]. This includes distributing decision-making power among female and male farmers and involving both female and male farmers in training sessions on topics that could be viewed as feminine or masculine tasks.

Societal attitudes about the traditional domestic and reproductive role of women could contribute to discrimination against rural women and training attendance[10]. To challenge such attitudes, we recruited local female field assistants to reach out to smallholders and conduct training classes. Female representation in the field can affect not only how female farmers view themselves, but also how other farmers and actors in the supply chain view them. In 2020, 50% (four out of eight) of field assistants are female, and they reach out to both male and female smallholders.

Female field assistants in the IFC-MM program.

[7] Food and Agriculture Organization of the United Nations. 2009. Bridging the Gap. Extracted from: http://www.fao.org/3/a-i1243e.pdf
[8] Gender balance is referred to as the equal and active participation of both genders in areas of decision-making, access to and control over resources.
[9] Gender equity is referred to as the impartiality in the treatment of both genders in areas of rights, benefits, and opportunities.
[10] Food and Agriculture Organization of the United Nations. 2009. Bridging the Gap. Extracted from: http://www.fao.org/3/a-i1243e.pdf

To attract and retain female farmers in the program, we included topics reflecting their priorities and interests after gathering their feedback. We introduced modules on health and nutrition, first aid, and home gardening primarily for female farmers, although these classes were also open to male farmers. As many female farmers are also mothers, they sometimes skip classes because they are unable to arrange for childcare while they attend classes. As such, for low-risk classes that are held in safe indoor spaces, such as financial literacy classes, female farmers are encouraged to bring their children along if they are unable to arrange for childcare.

GAP classes on tasks that are usually viewed as feminine, such as fertilizing or pest control[11], or masculine tasks such as harvesting heavy FFBs, are taught to both female and male farmers. A class on gender and social issues was also conducted to promote awareness of unconscious biases and how female and male farmers can leverage their strengths to work towards producing sustainably on their farms. Other topics included how supporting women can further improve livelihoods in oil palm communities, human and labor rights, the risks of children working in a farm, and occupational health and safety.

Health and nutrition classes are often taught together with GAP classes to attract female farmers.

[11] Purwaningsih, Ayuwat D., Cadchumsang J. 2019. The Role of Women in Smallholder Plantations of Oil Palm. Extracted from: https://www.researchgate.net/publication/339887859_The_Role_of_Women_in_Smallholder_Plantations_of_Oil_Palm

Case study:
Women in decision-making roles in the male-dominated industry

Sri Rahayu is a smallholder farmer, who is also a homemaker, wife, and mother. Through the program, she learned how to manage her finances better. She was nominated as the Treasurer of her farmers association, despite having little formal education on finance prior to the program. Her duties include tracking, controlling, and making financial decisions for the farmers association.

"I feel that being the treasurer of the farmers association group makes me feel like I'm part of something bigger than myself," said Sri.

The Musim Mas-IFC program also encourages female farmers to form all-female farmers association if they prefer, which can also serve as a support group for women.

More on Sri's story here.

Food security and alternative livelihoods

While replanting subsidies may be available to smallholders, they may face a significant drop in income in the next two to three years as their new seedlings would not bear fruit during that period. Recognizing this problem, Musim Mas and IFC introduced a module on alternative livelihoods, such as growing vegetable gardens or rearing cattle. These can serve as both food and income sources. We also provide them with agronomic information and access to seeds when possible.

Others

Forming Farmers Associations

Musim Mas and IFC encourage smallholders to form farmers associations as many subsidies and certifications are not available to individual smallholders. Within the farmers association, a governance structure would have to be set up as per RSPO's P&Cs.

While grouping farmers sound simplistic, Indonesia has over 633 ethnic groups[12], 583 dialects, bears a history of civil conflict, and has nearly one million internally displaced Indonesians[13]. Grouping strangers into a farmer association requires much deliberation. You need the smallholders to not only trust you as a field assistant, but also each other to prevent the farmer association from disbanding and losing the certification.

In addition, farmers often hold multiple roles, such as a caregiver, owner of other small businesses, or perform other part-time work, making it difficult for them to commit to the smallholders program or maintain the farmers association.

Field assistant, Ana Simalango (in navy in the left photo), is invited to a farmers association's anniversary party. She previously encouraged them to get a group batik (Indonesia's traditional wear) as a way to bond as a group.

Cultural sensitivity is something Musim Mas and IFC integrated into the program's implementation strategy. Most of its field assistants are hired from the local area, as they are sensitive to cultural nuances, dynamics, and relate well with the locals. Farmers in the vicinity are deliberately grouped to reduce cultural shocks and field assistants are encouraged to boost association morale.

[12] Badan Pusat Statistik. N.D. Mengulik Data Suku di Indonesia. Extracted from: https://www.bps.go.id/news/2015/11/18/127/mengulik-data-suku-di-indonesia.html
[13] Reliefweb. 2000. Indonesia's Internal Displacement Crisis. Extracted from: https://reliefweb.int/report/indonesia/indonesias-internal-displacement-crisis

Case study:
Smallholders' attitudes towards lifelong learning

For some farmers, taking agricultural advice from field assistants half their age can be challenging, especially when they have decades of farming experience.

Sukiran, age 67, is a smallholder farmer who was recently certified by RSPO. He had a different mindset toward the program. "At first, I had doubts about this program. Then I thought, a big established company came all the way here to share their secrets with us – what could go wrong? Out of curiosity, I attended the class," Sukiran said.

"I used to apply whatever fertilizers were available in the market at affordable prices without understanding exactly the needs of my oil palms. Now, I plant oil palm using quality fertilizer and improved techniques I learned from the program."

Sukiran's harvest has significantly increased from 1.4 tons to 1.7 tons per hectare and is now one of the biggest advocates of our program.

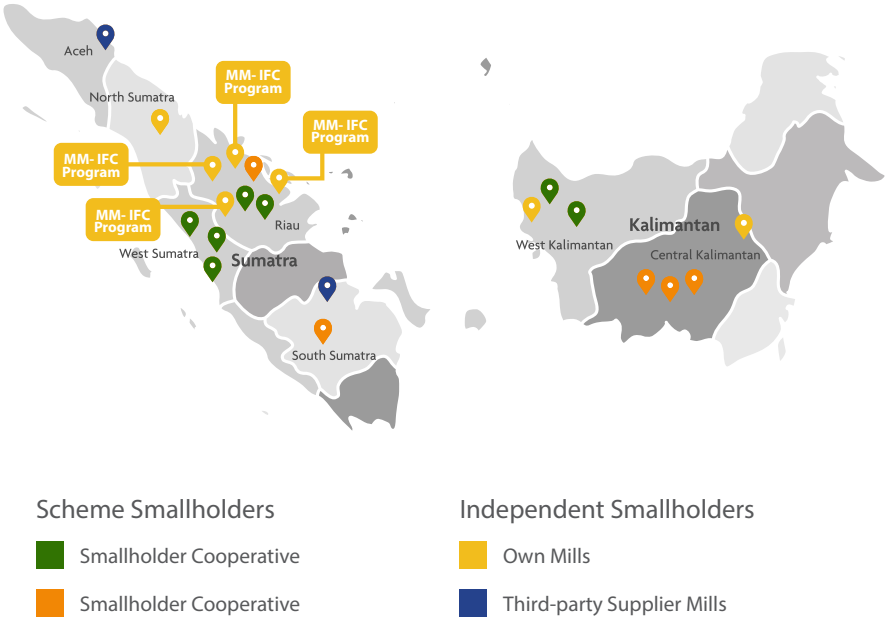
Read more about Sukiran's life of a farmer here, or watch this video.

Progress to Date

Since the start of the program in 2015, Musim Mas and IFC have engaged over 30,000 smallholders (See Table 1). The reach of this program makes it one of the biggest palm oil smallholders program in Indonesia. Figure 3 below illustrates the reach of the Musim Mas-IFC program.

Figure 3:

Locations of Musim Mas' smallholders programs. MM- IFC programs are indicated by the flag.



Smallholders Engaged

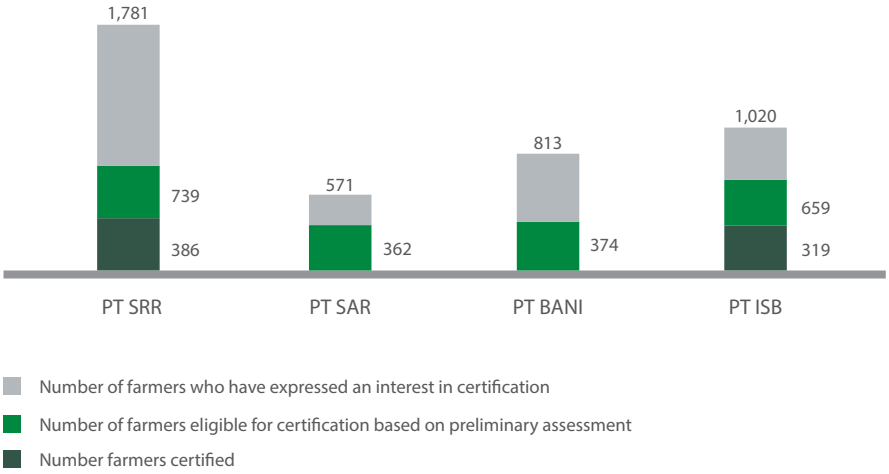
Table 1:

Number of smallholders trained in the Musim Mas-IFC program.

Data as of Sep 2020

	PT Siringo-ringo (SRR)	PT Sinar Agro Raya (SAR)	PT Bahana Nusa Interindo (BANI)	PT Indomakmur Sawit Berjaya (ISB)
Individual farmers	8,713	8,089	6,647	8,652
Female farmers	2,688	2,191	1,095	3,157
Hectares	15,499	20,358	16,942	15,972
No. of farmers groups	386	307	395	414

Certification



As of December 2020, 2,092 independent smallholders have been certified by RSPO. Musim Mas and IFC are helping other smallholders who wish to be certified with the RSPO auditing process. The program has helped independent smallholders sell RSPO Credits to Nestlé, Unilever, and PepsiCo.

Representatives of smallholder farmer associations receiving RSPO certificates at the launch of the RSPO Smallholder Academy at RT 17.

Conclusion:
Small Producers, Big Responsibility

As smallholders are projected to manage more oil palm land, it is crucial that they are producing oil palm sustainably. Our experience with smallholders taught us that they are interested in sustainability, but many lack the capacity to do so. What is needed is often a deeper dive into understanding why they are doing things a certain way, and creating an enabling environment for them to thrive. Musim Mas is exploring different collaborations with buyers, NGOs, and other actors to expand its smallholders program at a landscape level via a Smallholders Hub[14] approach.

Wider societal issues also present challenges to the progression of making sustainable palm oil the norm. A study estimates that 80% of Indonesia's farmers are aged 50 and above, and the average age of farmers is set to increase as the younger population leans towards non-agricultural sectors for better job security and higher income[15]. Greater investment in farmers and sustainable palm oil hold the potential to attract the younger population and improve the livelihoods of rural communities.

More on our smallholders program here.

[14] The Smallholder Hub is a platform where palm oil companies share their expertise and resources to train independent smallholders, regardless of whom they sell to, within a specific district. Agricultural officers stationed in villages will be taught GAP and other modules in our smallholders program, and in turn, they would train smallholders in their villages.

[15] Tempo.Co. 2014. Observer: 80% of Indonesian Farmers Aged 50 and Above. Extracted from: https://en.tempo.co/read/617936/observer-80-of-indonesian-farmers-aged-50-and-above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