Improving the livelihoods of smallholder farmers, Indonesia
Located on the equator with a subtropical climate, regular rainfall pattern, and volcanic soils, Indonesia is an ideal place for growing tea. The first tea seeds to reach the islands arrived in 1684, courtesy of a German named Andreas Cleyer. In 1878 the first Assam tea seeds were imported from Sri Lanka and planted at Gambung, West Java. The tea industry developed steadily and in 1910 clones from Assam were established in North Sumatra and plantations expanded across the island and into Java, which now accounts for 78% of production. In 1958, tea estates owned by the Dutch and British were acquired by the Indonesian government.

The industry now consists of state-owned companies, private estates, and smallholders. The trend over the last decade has been for conversion of some tea plantation areas to other crops, making the smallholder sector, which now accounts for almost half the land under tea production, increasingly important for the future. However, productivity differences remain stark, with smallholder yields per hectare only one-third of that produced by plantations.

The ETP has been working in Indonesia for many years and was concerned that low productivity and quality of smallholder tea was reducing farmer livelihoods, their ability to meet international standards, and making it difficult for their tea to enter or remain in export supply chains. So we were delighted to be able to join forces with IDH - The Sustainable Trade Initiative, and two large Indonesian producers, PT. KaBePe Chakra1 and PT. Perkebunan Nusantar VI, to carry out a three-year project to raise smallholder plot productivity, leaf quality, and access to international markets.

Initial needs assessments highlighted a range of barriers relating to the condition of tea bushes and their husbandry, including old stock, insufficient plants per hectare, lack of understanding of good agricultural and plucking techniques, and low application of agricultural inputs such as fertilisers. These barriers were exacerbated by the poor organisation of farmer groups, insufficient capacity within co-operatives to work effectively with farmers and factories, and poor access to credit.

The Ethical Tea Partnership is a membership organisation of tea companies committed to improving the lives of tea workers and their environment. Indonesia is an important source of tea for many ETP members. The ETP therefore works with interested companies to identify supply chains where there is potential for increased supply from smallholders if productivity, quality, and management of environmental and social issues can be improved.

IDH - The Sustainable Trade Initiative, convenes coalitions of front running companies, civil society organisations, and governments to transform markets towards sustainable production and consumption worldwide in order to contribute to Millennium Development Goals 1 (poverty reduction), 7 (safeguarding the environment), and 8 (fair and transparent trade). The ETP is a member of the IDH Tea Program, and the project with Indonesian smallholders is one of a number of collaborative projects that the ETP and IDH co-ordinate.

1 For the purpose of this publication PT. KaBePe Chakra is abbreviated to Chakra

Improving the livelihoods of smallholder farmers, Indonesia
Chakra is one of the largest private tea producers in Indonesia, with eight estates in West Java and Sumatra, and factories that produce both black and green tea. Chakra's CEO, Rachmat Badruddin is a strong believer in the need to strengthen the smallholder sector, which he is taking forward both within his company and through his positions as Chairman of the Indonesian Tea Board, and Chairman of the Food and Agriculture Organization’s Working Group on smallholders.

Our work with Chakra focused on smallholder farmers in West Java. The key needs were to improve the productivity and consistency of green leaf production. While support for improved husbandry was required, a significant focus of the project was to build the capacity of the farmers’ organisation so that it could better support farmers. This was critical to the on-going co-ordination of the training and micro-credit schemes required to enable farmers to improve their use of fertilisers and invest in their farms.

The Rabobank Foundation joined the project and provided capacity strengthening support to Kotera Asri Wangi (KAW) co-operative so that KAW was better able to provide training, agronomical technical assistance, and support their members to improve farming practices and meet certification criteria. They also worked with KAW to empower their members by supporting their access to a long-term credit facility.

"Farmers, agro-extension services, producers, and Rabobank Foundation all worked together to maximise the effect of the project. We expect that through our joint interventions farmers will earn a higher income, improve their livelihood, and the producer can ensure a supply of quality tea.” Pak Stephen Widjaja, Rabobank Foundation.

Following the capacity-building of the co-operative, farmers received training in key aspects of good tea husbandry. Pak Odih, an agronomist and technical expert from the Indonesian Research of Tea and Chincona helped farmers understand when and how to prune for best effect, and demonstrated pruning techniques that develop more resilient plants with increased plucking points.

Demonstration plots were developed so that farmers could see the results of the improved plucking and pruning regime and local mentors supported lead farmers to spread good practice throughout the group.

The mentoring from Chakra was also essential to the success of the work. Strong engagement between the processing factory and farmers led to changes in the pricing structure to reward farmers for good quality tea, which ultimately means good practices are more likely to endure.

As Pak² Rachmat from Chakra explains, ‘It is not right for a few in the tea industry to soar like eagles, we need to bring the smallholders to the same level of height and distribute profits more evenly.’

Yana, Factory Manager for Chakra, can see the changes that the project has brought about, ‘Before this project the farmers were in an uncertain condition. Now they have confidence.’

² Pak in Bahasa means ‘Mr’ and it is usually used in the country to show respect
Spreading good practice

Demonstration plots were crucial in helping farmers to see the potential and getting them to commit to change. The next challenge was to ensure that they continued to apply the adapted pruning and plucking techniques consistently and were applying fertilisers at the right time. Farmer mentors played an important role in supporting this process and inspirational lead farmers were the critical factor in spreading good practice.

“I was born in Pangalangan and I love it here. If the programme can help farmers grow then I am happy. With different ways of doing things we can help the economy grow. To help farmers make changes it is important that they trust me like a friend, so when I first started the role we didn’t talk about tea, we talked about all sorts of other things like movies and politics, until we had a good relationship.

There are many types of farmers here with different characters, different motivations, different ways of thinking. It is motivation that it so important. You need someone who is open-minded and willing to try new approaches. Once we had some examples it was much easier. The demonstration plots were really helpful, farmers could see the improvements. We brought a group of farmers over from a different area, they were very surprised and interested, and now they are doing it themselves. Farmer-to-farmer learning can be very successful.”

Budi Herayandi, Field Coordinator YPLK3

Pak Wawan is one of the lead farmers and he has had such an increase in productivity, doubling his yields, that he received the Governors Medal for his achievements. He is now hosting an endless succession of visitors from Indonesia and beyond who want to learn more about how he has done it.

While Pak Wawan’s productivity has doubled using the new husbandry techniques in the last two years, his income has more than doubled, as the quality of his tea has also improved meaning he gets higher prices for it. This was achieved mainly through plucking a smaller proportion of new growth – an approach which remains strange for many farmers in this area who are used to plucking as much as possible to maximise their volumes.

In another area, Pak Haji One⁴, an indefatigable 70 year old, showed the greatest productivity improvement, demonstrating that it is an open mind and willingness to adopt improved techniques that makes the difference.

Pak Haji One grew vegetables for 30 years before moving to tea and owns enough land to hire workers. Having that bit more income and experience of other crops seems to have moved him to try approaches that other farmers would perceive to be risky or challenging. These include the consistent application of adapted pruning and plucking techniques, and a two to three month initial period when farmers should refrain from plucking. Convincing farmers to adopt such methods can be challenging when incomes are low and tea has been chosen to provide a regular monthly income. This is why demonstration plots with their bigger yields as a result of good practice farming are so important.

Haji One has been sharing his knowledge and experience, emphasising how maintaining 5 leaves on each tea bush after the first pruning helps the plants become stronger and more productive and explaining how he has seen a reduction in the need for chemicals.

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⁴ One is pronounced ‘O-nay’
PT. Perkebunan Nusantara VI (Persero)/PTPN VI, is a state owned company that manages a production area of 105,762 hectares (42,740 hectares of government land and 63,021 hectares of smallholder land) across 2 provinces, growing tea and palm oil. It has two tea factories, five palm oil factories, and three rubber factories.

PTPN VI has supported tea smallholders since the 1980s, when they started a special selling mark called ‘Gunung Talang’ for their leaf sold at the tea auction. The name translates as Talang Mountain and refers to the active volcano that looms above their plots.

Danau Kembar and Gunung Talang factories have been processing green leaves from smallholders for the last 20 years. Currently there are ten smallholder groups supplying leaf to the Danau Kembar factory, accounting for 50% of its production. Each group has a leader who collects fresh leaf from their members, weighs it in the field, and organises its transportation to the factory. The factory pays KUD Manunggal Cooperative for the leaf, and each group leader is responsible for distributing the money to individual farmers. Since August 2012 the price paid by the Jakarta auction has been improving.

The project’s work with PTPN VI covers all aspects of strengthening smallholder livelihoods. Training and support on good agricultural practices and environmental and social standards are provided. Some of the key reasons for low productivity and livelihoods in this area were the poor plant stock and low bush density, so a core element of the project was to develop a nursery to supply 500,000 new, high quality tea plants to farmers. As part of the nursery initiative, the project team collaborated with the local co-operative and worked with a microfinance specialist to develop a revolving funding mechanism, which is providing farmers with access to credit to purchase the plants at a subsidised rate. The funds from the repayments will enable additional farmer needs to be met in the future.

Asrul has been a tea farmer since 1988 when PTPN VI began empowering farmers to plant tea. For Asrul, tea is a good crop because “you only need to plant it once and it will sustain you for decades.” Asrul is a smallholder group leader for Sector C, which has 15 members covering 22.5 hectares. His 1.5 hectare plot has sustained his family and enabled him to support his three children through school and university. Now he enjoys playing with his 3 grandchildren.

As part of the project he has been trained on good agricultural practice techniques, and now his group is buying 10,000 plants from the nursery for infilling. Asrul explains that, “The revolving fund scheme is perfect for the group as now Sector C is able to put money aside to compact the road used to transport the fresh leaves to the factory, which had previously been damaged by extensive rain.”
In 2009 I accompanied Nelia Latief, ETP Regional Manager for Indonesia, to West Sumatra to assess the needs of the smallholders supplying leaf to Danau Kembar Estate. Before I joined the ETP as Regional Manager for Sri Lanka I had a long career as a tea planter in Sri Lanka, Rwanda, and Indonesia, so this was an exciting opportunity for me to apply my technical tea planting knowledge.

The need to increase support for smallholders was immediately evident on my visit. A combination of droughts, bush fires, and poor agricultural practices had reduced the density of smallholder tea bushes to less than 25 percent of what could be expected. The factory was also operating below capacity, emphasising how it would be mutually beneficial to increase smallholder leaf production. As farmers needed to fill their vacant plots, but had no way of obtaining plants, we began the daunting process of creating a nursery capable of raising 500,000 vegetatively propagated (VP) plants.

A supervisory board was formed consisting of personnel from Danau Kembar Estate, Jambi Office, Manunggal Cooperative, smallholder representatives, and the ETP. Its role was to meet quarterly to monitor and report on the progress of the project.

The first challenge was selecting an appropriate site. A tea nursery requires an open area, protection from strong winds, farmer accessibility, a perennial supply of water, and close proximity to the source of soil collection and mother bushes. After much deliberation we finally located an ideal site of approximately 0.8 hectares.

To supply the 500,000 cuttings we selected a Sri Lankan cultivar TRI 2025 for the mother bushes as it was the best variety on the estate.

Developing a functional nursery from a state of scrub jungle proved to be a major undertaking. Pipes were laid for irrigation, and Mano Naibaho, Tea Nursery Coordinator, and Assistant Manager Abdul Rachman supervised the labour-intensive process of collecting soil and sieving it into filling bags.

The whole site was fenced in and sheltered with a bamboo roof, and nursery beds were demarcated in a north-south direction to maximise natural light. While the nursery beds were being prepared the mother bushes were kept healthy and free of weeds. Demonstrating good practice, the top shoot was removed 10 days before harvesting the cuttings to arrest apical dominance.

To accommodate for potential losses, 550,000 cuttings from the mother bushes were planted into the polybags of soil and a ground plan of 254 polytunnels was implemented to make monitoring and supervision more effective. Plant inventories and casualty rates were recorded each month. Close monitoring of the cuttings under the polytunnels reflected very satisfactory progress.
In the interim, our Regional Manager Nelia supervised lead farmer training and worked with the partners to organise credit facilities and prepare the farmers to receive and care for the plants.

After 6 months the plants were resized in the nursery beds and started being periodically exposed to the elements. The plants also benefitted from regular ground and foliar fertilisation and fungicide spraying to prevent blister blight and other diseases.

Plant growth continued progressing well and we stayed on track to deliver the first lot of plants to the field by March 2013. When March finally arrived it was clear that the raising of 500,000 thousand VP tea plants in the nursery was a resounding success.

The ETP’s Executive Director Sarah Roberts was present to formally hand over the first plant to a smallholder farmer, marking the successful culmination of the first stage of raising and delivering VP tea nursery plants to smallholder farmers in Gunung Talang.

“I have managed innumerable tea nursery projects in my plantation career spanning over 40 years.

This was certainly the most challenging and it gives me the greatest satisfaction to see its successful completion. After the challenges of administration and bureaucracy were resolved, the keys to the success of this programme were excellent soil availability, good planting material, and the weather being conducive to growth.

I also give my tribute to the Late Pak Batubara who was the driving force behind the success of this project. He in turn selected very capable and responsible staff for the nursery in the assistant manager and supervisor roles who responded very favourably.”

Dushy Perera, ETP Regional Manager, Sri Lanka, Technical Advisor to Project
Reflections on the project

The tea nursery project is a good trigger for smallholders to increase bush density and productivity. PTPN VI and Danau Kembar welcome more public partnership projects to increase the livelihood of smallholders in the area. Pak Amrin Duha, Estate Manager Danau Kembar, PTPN VI

It’s a new thing for this area and it’s been very positive. It’s the first project that I have been involved in that has been 100% successful. More green leaf will come to our factory and that will reduce our costs and improve our income. We have all had lots of homework to do to make it successful, and Miss Nelia has played an especially key role in our involvement. Pak Edi Wardiman, Head of Marketing, and Tea Improvement Project Liaison Officer, PTPN VI

We have done partnership projects before on palm oil but this is a first on tea. The issues are similar. The connection with farmer groups and the role of the co-operative are both very important. The involvement of the district administration is also key as it ensures long term sustainability. Pak Torang Tampubolon, Partnership PTPN VI, Head of Department

This was the first time that I have been directly responsible for a tea nursery project and I am grateful to the late Pak Batubara, who gave me the responsibility and the constant guidance to overcome all challenges and ensure success. Preparing the nursery site, which was in shrub jungle on uneven terrain, and the access and collection of top soil and subsoil were my primary challenges. I have visited the nursery every single day for the last year and I am happy and proud to see the 500,000 VP plants in a vigorous state of growth today. Pak Abdul Rahman Darma Putra, Assistant Manager of Nursery Project

This is my third tea nursery project and certainly the best results came out from this project. The selection of the correct clone TRI 2025 from Sri Lanka was one of the reasons for this success. I have spent many hours every day at this site and I talk to the VP plants daily. I will personally ensure that all these plants will be distributed to the deserving smallholder growers from door to door. Arlin Naibahoo, Mandor (Nursery Supervisor)

Ibu Fariah has worked at Danau Kembar estate for 26 years as a tea plucker and has been part of the nursery work team for a year.

I grade the plants into A category and B category and do weeding and moss removal so that fertilisers can be easily absorbed and we can keep the plants healthy. I like the change from plucking and the routines we need to follow here. Ibu Fariah, nursery worker, Danau Kembar Tea Estate

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On 9 March 2013 the project partners were honoured to be invited to the residence of the District Leader of Solok, Dr Syamsu Rahim.

This project is one that is close to my heart, since Solok has long been a region where much of the land is used for tea cultivation but where the industry is facing a number of challenges including conversion to other cash crops and low productivity by smallholders. The district administration is very impressed with the results achieved so far and will support the long-term sustainability of the project by ensuring that smallholders receive new tea plants and the support they need to ensure that the plants are well maintained and thrive in the future.

District Leader of Solok, Dr Syamsu Rahim

In 2012, Seb Michaelis, Tea Buyer for Tata Global Beverages visited smallholders attached to the Danau Kembar Estate, Sumatra. During his trip he gave insight into what tea companies look for when buying tea, which was highly valued by the smallholders who had never met an international tea buyer before.

When I visited I saw the new tea bushes, which were almost ready to be distributed to the smallholder farmers to increase bush density, ultimately helping them to produce more tea and securing higher incomes.

Another aim of the project was to educate farmers on good agricultural practices. Using the lead farmer model, the project team selected the area’s most successful farmers and gave them additional training on good practice farming. In turn, these farmers would then spread this knowledge among their peers. On my visit it was already evident that one group of farmers had improved their farming practices, and the next step was to ensure that all farmers in the factory’s catchment adopt these methods. Overall, both aspects of the project show real promise for delivering more and better tea.

Seb Michaelis, Tea Buyer, Tata Global Beverages

The project with the ETP in Indonesia has brought many learnings to IDH that are exemplary for projects with smallholders all over the world.

We went in there thinking certification could be achieved within a couple of years. However in depth smallholder needs assessments showed other interventions should be executed first. The tea nursery intervention was something we were not familiar with at the start of the project, but it proved key to the success of the project.

Jordy van Honk, Senior Program Manager for Tea, IDH

The ETP has been aware for many years that although smallholder tea covers more land than the private and state owned plantations, they have lower productivity and livelihoods are poor. We were really pleased to be able to begin working intensively with smallholders to find ways to help them address their productivity challenges and improve their livelihoods.

After three years of project implementation, I have seen magnificent changes and improvements on the ground. What has made me most proud is seeing happy, committed farmers whose changed practices have not only enabled them to double their productivity but also farm in a more environmentally sustainable manner.

Another important factor is how the public-private partnership project has been implemented successfully on the ground after overcoming many risks and challenges.

Nelia Latief, ETP Regional Manager Indonesia and Project Leader