Sustainable Agriculture
for Forest Ecosystems

Finding balance between Farmer‘s Needs and Forest Protection in Indonesia

Trip 10/2025, Nyani Quarmyne/GIZ

Chapter 1
Natural Rubber in Lampung

A view from the Wan Abdul Rachman Forest Park in Lampung, southern Sumatra, Indonesia.
According to Sumisno, head of the Wanakarya Farmers' Association, many areas that are now part of the forest park have in the past been used for agriculture and completely deforested. When the forest park was established in 1998, the farmers and the Department of Forestry began working together to find a balance between conservation and farmers' needs. The area is now classified as a "social forestry" zone, in which the community may farm in agroforests and harvest non-timber forest products under agroforestry, such as natural rubber, cocoa, or coffee, but may not cut trees or cause further deforestation.



Thanks to the reforestation work, water sources that were running dry due to deforestation of the slopes now serve farming communities as well as the nearby city of Bandar Lampung. Beyond the Reserve, smoke haze from burning rice stubble shrouds the mountain's lower slopes.

Yarmiatun preparing to depart her home in Bogorejo in Lampung, Indonesia, for her and her husband’s nearby rubber farm.

[Note: Some Indonesians go by a single name.]



She says they have approximately one hectare of land planted with 500 rubber trees, and 400 coffee trees on a further half acre. Their income is split roughly 50/50 between the two crops.



Yarmiatun in a shaft of sunlight on her and her husband’s rubber farm near Bogorejo in Lampung, Indonesia.

Yarmiatun taps the rubber trees daily. During productive seasons, she and her husband can collect around 100 kg of cup lump rubber in approximately four days.



Yarmiatun in a shaft of sunlight on her and her husband’s rubber farm.



Yarmiatun tapping a rubber tree on her and her husband’s farm.



A drop of latex falling from a spigot on a rubber tree.



Yarmiatun and her husband Mulyono on their rubber farm.





Mulyono collecting cup lumps on he and his wife Yarmiatun’s rubber farm.







Mulyono delivering a 48kg sack of cup lumps from he and his wife Yarmiatun’s rubber farm to the premises of Wahyudin, a buyer, in Bogorejo.





Yuswanto having a cigarette before leaving his home in Bogorejo, Lampung.



Yuswanto tapping a rubber tree on his farm in the Wan Abdul Rachman Forest Park.



Warto* using a cup fashioned from a leaf to taste honey from a stingless bee hive being opened by Sumisno (bottom), head of the Wanakarya Farmers' Association, on Yuswanto's (left) rubber agroforest in the Wan Abdul Rachman Forest Park near Bogorejo.



Maulana Ade Ahmadi on a rubber farm in the Wan Abdul Rachman Forest Park, he is working for Olam Agri to support traceability mapping of farmers.



Roni weighing cup lumps brought to a rubber buying station by Yuswanto (right).



An operator using an Olam app to record a purchase from Yuswanto (not pictured)



Rubber cup lumps drying in the sun at a rubber buying station.



An older rubber tree in the Wan Abdul Rachman Forest Park near Bogorejo, Lampung, Indonesia.



An abandoned section of a rubber plantation, most likely due to low productivity, that has been set aside to recover. Locals use the overgrown vegetation as livestock fodder.



Suhado on his way home with livestock fodder from an abandoned area of a government cocoa plantation in Bogorejo, Lampung, Indonesia. In the background a rubber plantation can be seen, with the Wan Abdul Rachman Forest Park beyond.



Chapter 2
Cocoa Farming in Central Sulawesi



Cocoa farmer Luther Bongga watering cocoa seedlings early in the morning at his home in the village of Salutome, Central Sulawesi, Indonesia.

Evangelin Bongga, daughter of cocoa farmer Luther Bongga, doing her daughter Katrin Apriani’s hair as she gets ready for school.





Luther Bongga, a cocoa farmer, helping his grandson Liam across a bridge to the family's cocoa farm. The two are followed by his wife Masua (rear) and assistants, carrying food and water and other supplies for the day.

The boy spent the morning playing.



Luther Bongga at his farm in the Sigi Regency in Central Sulawesi, Indonesia. He says his income is split roughly 50/50 between cocoa, seen in the foreground; and durian, seen at left, upper edge and rear of image.

Freshly-harvested cocoa pods at Luther Bongga’s farm near the village of Winatu, Central Sulawesi, Indonesia. Bongga has 0,6ha planted mainly with cocoa, but also with durian, banana, avocado and langsat. He cleared the land in 1997, with no further deforestation since. Farm earnings, split roughly equally between cocoa and durian, support his family. He also runs a small rice milling business, with proceeds going to extended family obligations and his granddaughter’s education. He previously owned additional land but divided it amongst his children. Bongga participates in the Cocoa Life programme, a Mondelēz International initiative, the stated aim of which is to “make cocoa sourcing more sustainable in key cocoa-producing countries.” His land has been mapped under the programme.











Fander of Guan Chong Berhad amidst cocoa trees while demonstrating an app used to map farmer’s lands, amongst other features. Mondelēz and Guan Chong Berhard teamed together with SAFE to support farmers with traceability and good agricultural practices.

The Mondelēz Cocoa Life programme is supported by the GIZ SAFE-Project.



With the mapping and polygons of the farm of Luther Bongga, traceability of the cocoa and thus compliancy with international market requirements is ensured.





Luther Bongga planting a seedling – one of several fruit and other tree seedlings he planted – on his farm near the village of Winatu.



Agung Montolalu taking freshly-harvested cocoa beans from Luther Bongga's farm across a stream and up to the road near the village of Winatu.



Virgo Gerosi, operator of a cocoa nursery in the village of Salutome, Central Sulawesi, Indonesia.

He is demonstrating how budwood is grafted onto a seedling to produce a hybrid in a cocoa nursery.











Made Wirawan of Guan Chong Berhad in a cocoa grove in the village of Salutome.



Faizal Syahrir at Cocoa Life Buying Station. Tomua, Central Sulawesi, Indonesia.



Imran Fakhroni, Cocoa Life Program Manager at Mondelēz International, in a cocoa grove in the village of Salutome, Central Sulawesi, Indonesia. The Cocoa Life programme is a Mondelēz International initiative, the stated aim of which is to “make cocoa sourcing more sustainable in key cocoa-producing countries.”

Luther Bongga spreading out cocoa beans to dry across the street from his home.







Nirma, owner of a Cocoa Life buying station in the village of Tomua, Central Sulawesi. The business consists of a warehouse where cocoa is stored (with EUDR-compliant cocoa being kept separate from cocoa of a less clear status), and a general store where farmers have the option of making purchases on credit against future cocoa earnings. The Cocoa Life programme is an initiative of Mondelēz International, the stated aim of which is to “make cocoa sourcing more sustainable in key cocoa-producing countries.” Participating farmers receive a small per-kilogram premium when they sell through the programme.

Cocoa farmer Steven with Nirma, the owner, as cocoa he brought in is weighed at a Cocoa Life buying station.





Demsil Manitu, a cocoa farmer, with a sack of cocoa he brought in at a Cocoa Life buying station.



Cash in the hands of cocoa farmer Demsil Manitu at a Cocoa Life buying station.



EUDR-compliant cocoa (right) is kept separate from cocoa of a less clear status at a Cocoa Life buying station.





Cocoa beans drying in the sun at a Cocoa Life buying station

Village Savings and Loans Association (VSLA) in the village of Tompi Bugis, Central Sulawesi.

Such groups allow members to pool their savings, and provide members with credit from their collective balance. This provides members with financial stability and a safety net and means, for example, that they can purchase inputs for their cocoa farms when prices are favourable, rather than on the basis of when they have cash to hand.



Cash is counted in front of other members at a demonstration meeting of a women-only Village Savings and Loans Association (VSLA) in the village of Tompi Bugis.

The group’s cashbox has three locks, keys to which are kept by three different members, and for the sake of transparency all transactions are conducted and recorded in front of the group.





Ite Nuria poses for a portrait after a demonstration meeting of a women-only Village Savings and Loans Association (VSLA).

At age 56, she is the head of the VSLA group, her role is to organize and lead the discussion, a cocoa farmer herself, widowed, sees the weather changes as an obstacle: “When one wants to fertilize, there is no rain, no absorption” She recognizes the importance of the forests: “Forests are the lungs of the worlds, some of our trees are are considered sacred, holy”
When asked what she would people around the world to know about their lives she answered:
“I want to be trained so I can grow my life and have a better life, the price of the cocoa should be stabilized”



Jumsia poses for a portrait after a demonstration meeting of a women-only Village Savings and Loans Association (VSLA).

An elementary school teacher, 43, she is one of the notetakers for the financial report, she has three sons. When the group started in April 2025, she says the minds were opened to financial literacy, to save the money, when the prices are high, when prices go down, separate the money for education and cocoa farms, to invest and for emergency founds.



Siska poses for a portrait after a demonstration meeting of a women-only Village Savings and Loans Association (VSLA).

Siska, 29, works in the village office, her family has a 1 ha cocoa farm, she helps her parents with drying the cocoa and selling it at the buying station:
“The farm belongs to the men, the tree belongs to the men, the cocoa belongs to the men, but the dried cocoa belongs to the women”
She notices the seeds of the cocoa getting smaller, and lower prices and hopes to get access to better seedlings and training.



Hanawia Attung poses for a portrait after a demonstration meeting of a women-only Village Savings and Loans Association (VSLA) in the village of Tompi Bugis.

She (61) is one of the 3 key keepers, widowed, with 2 adult children, manages the farm and household on her own, the cocoa farming supports her children getting a good education, one of her sons goes to college in Java.
Her parents were already cocoa farmers, she is very proud to be a cocoa farmer: “I can see and enjoy the results”

When asked about challenges, she sees the volatile price (last year one could sell a kg of cocoa for 200 k rupiah, now it is around 70k rupiah), she hopes the prizes can be stabilized.
She is grateful that there are many organizations supporting communities in Central Sulawesi, that give her motivation.



Ratih, a member of a women’s village savings and loans association (VSLA), posing for a portrait.

She is a housekeeper, with 5 children, almost grandchildren, helps on the farm, on Sundays.
She echoes the saying: “The farm belongs to the men, the tree belongs to the men, the cocoa belongs to the men, but the dried cocoa belongs to the women”
The obstacles she sees are dying seedlings and challenges in the weather, too much rainy season

When asked what she wants people to know: “To all men: work hard to make the women happy”



A semi-natural forest landscape in Nupa Bomba, Central Sulawesi, Indonesia.



A semi-natural forest landscape in Nupa Bomba, Central Sulawesi, Indonesia.





A view over the Tokala mountain range in Central Sulawesi, Indonesia.

A rainbow over rice fields and degraded forested slopes in Tompi Bugis, Central Sulawesi, Indonesia.



Thank you

