



# Coffee tree rehabilitation and climate change adaptation



When Cyclone Seroja hit Timor-Leste on 4 April 2021, it devastated the small island nation and coffee farmers were among those affected. With a maximum wind speed of 130 km/h, the cyclone felled the coffee trees in its path, particularly the taller and older ones. A cyclone wreaking havoc in the country is a rare occurrence but likely to become more common, as climate change is expected to exacerbate extreme weather. Coffee is particularly vulnerable to global warming, as coffee trees grow best in cooler temperatures and as global temperatures gradually rise, the areas suitable for coffee farming are expected to decrease by up to 50 per cent by 2050.

As Timor-Leste's top agricultural export, coffee is an important commodity that provides livelihoods for 75,000 households. However, the Timorese crop has some of the lowest yields in the world, at an average 195 kg/ha of green beans, compared with the global average of 2,000 kg/ha. MDF has identified that productivity can be improved by rehabilitation, that is, by stumping and pruning trees. This practice will lead to more, higher quality cherries and shorter trees for easier, selective cherry picking.

Coffee tree rehabilitation has other benefits as well. It is a climate change adaptation measure for coffee farmers. Shorter trees are less vulnerable to strong winds and use water and sunlight more effectively. Coffee trees that are correctly stumped and pruned also provide space for intercropping with other trees that can act as windbreakers and protect the coffee trees from intense sunlight and high temperature. A crop that is more climate-adaptive and resilient will provide farmers with better yields, and more stable incomes.

MDF, working with industry partners, created Timor-Leste's first report on coffee rehabilitation, *Rehabilitation of Coffee Trees in Timor-Leste*. The report aggregates information on rehabilitation in the context of Timor-Leste and proposes best practices. It is a public document that all coffee stakeholders can access and use to make effective investments. Further information on the report can be found in the Coffee Market System section in this country chapter.

MDF's work in coffee rehabilitation includes supporting coffee businesses to establish nurseries to grow coffee seedlings, as well as non-coffee seedlings that can serve as intercropped trees. With MDF support, Café Brisa Serena, the country's first specialty coffee exporter, is expanding its rehabilitation work and plans to plant an additional 5,832 casuarina trees in early 2022, intercropped with its coffee trees. These trees are estimated to offset 243,194 tonnes of CO<sub>2</sub> and act as windbreakers and shade trees to reduce the impact of adverse weather on the coffee trees. Mara Mresa Café, another major specialty coffee exporter, is also considering implementing intercropping with MDF support.



