

Game changer: How intercropping native tree species supports environment and forest business

Viet Nam is striving towards becoming one of the world's leading timber production and processing centres. From 2010 to 2021 export turnover of timber and timber products has increased from \$3.4 billion to almost \$15 billion. While many forest owners still count on short-rotation Acacia plantations to generate income, more forest owners are slowly coming to the realisation that the produced low-quality timber that is mainly processed into wood chips is not as beneficial for their business as it could be. The production of high-quality, ideally native, timber that can be processed into sawlogs presents a better business decision in the long run. Moreover, sawlog timber forests support Viet Nam's environment by protecting the soil and preventing erosion. They are also better able to store carbon supporting the mitigation of climate change and towards Viet Nam in achieving its net zero greenhouse gas emission goal until 2050.



Forestry staff learn about thinning and pruning techniques at the Song Kon Forestry Company Ltd's demonstration plot containing a 5-year-old Acacia plantation. ©GIZ/Thanh Tin

In 2022, the Song Kon Forestry Company Ltd in Binh Dinh province, with support of the project "Upscaling of Sustainable Forest Management and Certification", decided to set up a demonstration plot. On the 2-hectare site that contained around 2,455 trees per hectare, sustainable forest management practices are showcased including the thinning of the existing Acacia plantation and the intercroping with native species.

The project provided support with labour cost, seedlings of native tree species and capacity development, including guidance on intercropping native tree species as well as thinning and pruning techniques to Song Kon Forestry Company Ltd. In late 2022, experts suggested to intercrop the high-quality native species Ironwood *(Erythrophleum fordii)* in the demonstration plot that so far only comprised Acacia trees. The experts also determined that one hectare of forest land should contain about 200 Ironwood trees and only 600 Acacia trees. The reduction of Acacia trees would allow for sufficient sun light to penetrate the forest canopy allowing the Ironwood trees to better grow. However, considering that the Acacia trees had been growing for 5 years, were almost ready for harvest and would bring in financial profits very soon, Song Kon Forestry Company Ltd decided that after initial thinning and pruning, they would keep a density of 800 Acacia trees per hectare on the demonstration plot for the time being.



Marking of trees for cutting before the thinning exercise. ©GIZ/Thanh Tin

A further assessment of the development of the demonstration plot took place in October 2023. As anticipated, the Ironwood was not growing well. The 800 Acacia trees per hectare were too many, not allowing enough light to reach the Ironwood trees and posing competition for nutrients in the soil among each other. In the meantime, the management board of Song Kon Forestry Company Ltd realised that in the long run good yields of high-quality timber are a more suitable business strategy as it would ultimately also increase profits. Consequently, Song Kon Forestry Company Ltd management board decided to carry out additional thinning and pruning to further reduce the density in the demonstration plot to 400 Acacia trees per hectare. They also ensure that the remaining trees would not be damaged. For that, they used the techniques that they had learned in early 2023. "This time the thinning is self-funded by the company to contribute to the implementation of the demonstration plot", said Mr Nguyen Dang Quang, Deputy Head of the Technical and Planning Unit of the Song Kon Forestry Company Ltd. With that, the company has reaffirmed its commitment and mobilised investment for its transition to more sustainable forest management. The project supported the measure with additional on-site technical guidance.

The guidance on thinning and pruning techniques given to Song Kon Forestry Company Ltd was also recorded. The developed instruction video can now be used by other forest owners.

Watch the video clip in Vietnamese language: (372) Hướng dẫn kỹ thuật tỉa thưa, tỉa cành trong sản xuất gỗ lớn - YouTube

Song Kon Forestry Company is one of the six forest owners in Quang Tri, Phu Yen, and Binh Dinh provinces that jointly pilot demonstration plots under the project "Upscaling of Sustainable Forest Management and Certification". The project is commissioned by the German Federal Ministry for Economic Cooperation and Development (BMZ), and jointly implemented by the Management Board of Forestry Projects under the Ministry of Agriculture and Rural Development (MARD), and GIZ

