

Mt. Mulanje Malawi

Mid-year report 2021

Restoring forest to protect water and biodiversity

The increasing population around the 65 800 ha Mount Mulanje Forest Reserve means that communities collect more firewood, degrading the forest.

This collaboration between WeForest, the Mulanje Mountain Conservation Trust (MMCT), the Forest Department and local nurseries restores both montane and miombo forest, replenishing the iconic Mulanje cedar (*Widdringtonia whytei*) population and protecting the habitat of the endemic Mulanje pygmy chameleon. The project provides jobs in the tree nurseries and in sustainable livelihood schemes such as honey production.

Our 2020-2021 planting target was met at the end of the rainy season in April, by which time 132 590 tree seedlings – two-thirds of them cedar and the remaining third suitable companion species – had been transported up to the Mount Mulanje plateau for planting.



**During 2021
in Mount
Mulanje:**

235 ha
of miombo forest,
representing over
235 550 trees,
is on track to be under
restoration, exceeding our
original goal of 211 ha

120 000
indigenous seedlings,
including at least 60 000
cedars, will be raised to
begin planting at the end
of 2021

What's new in Mulanje?

Recent highlights from the field

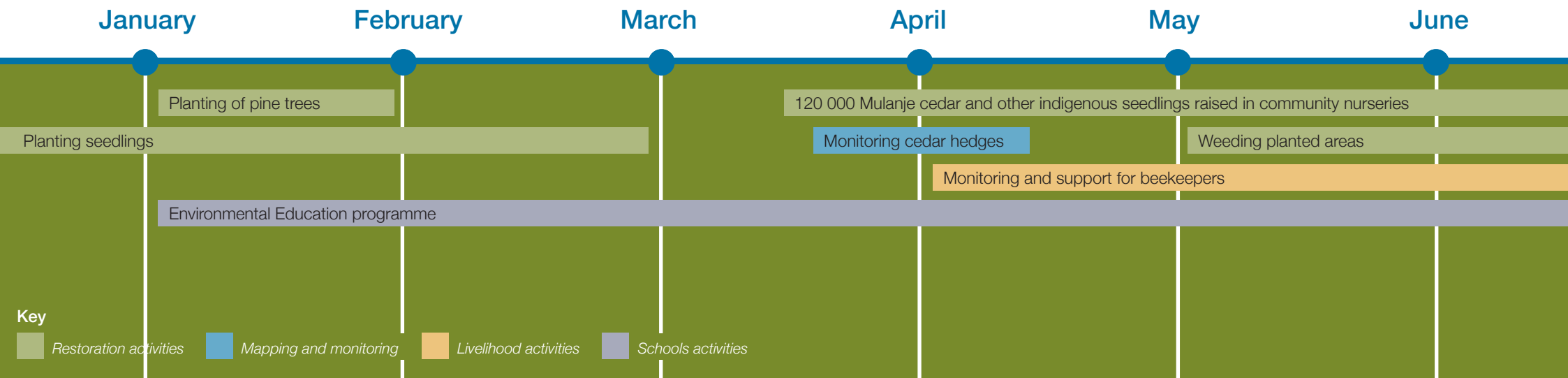
As 2021 began, the 2020-2021 planting season was still ongoing. Our target for planting was 140 000 seedlings; in fact, this was exceeded, as 10 000 cedars were planted earlier in 2020 and another 79 127 in 2021, plus 53 463 seedlings of companion species, mostly *Podocarpus*.

The seedlings – aged between 6 months and a year old – were transported from the tree nurseries to collection points at the base of the mountain before being carried up to temporary nurseries. Six planting sites in the afro-montane forests on top of Mount Mulanje – Sombani, Thuchira, Madzeka, Lichenya, Mikwasala and Chambe – had already been prepared in advance so that the seedlings could be planted.

It's not only cedars and their companion species that are the focus in our Mulanje project. In February and March, we organised and supported the planting of around 85 000 pines by Sukambizi Association Trust (SAT), a local organisation of small-scale tea farmers who wanted more trees in their agricultural landscapes. We'll be able to monitor the pine trees over time,



At least 550 people were involved in the whole planting process, with supervisors from the Department of Forestry and the local community's tree nursery groups.



Key
■ Restoration activities ■ Mapping and monitoring ■ Livelihood activities ■ Schools activities

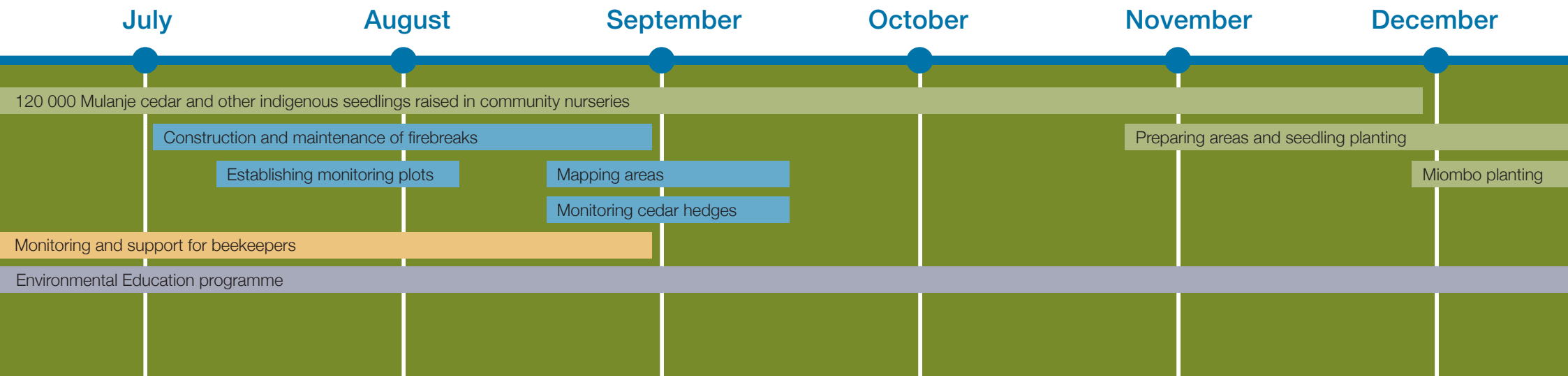


The construction of firebreaks after planting is critical, as fire is a real risk here. WeForest supports our partner MMCT in establishing and maintaining around 115km of firebreaks annually on the mountain.

as SAT has shared the planting locations and the details of the farmers taking care of them.

Restoring miombo forest on the eastern slopes is taking place in a new collaboration with Cedar Energy, a local hydropower company. This joint initiative, which started in March, aims to restore an additional 24 hectares of the encroached woodlands in the lower catchment of the Muloza river, resulting in healthy miombo woodlands. These will ensure steady water supply, both for the communities to grow crops and for Cedar Energy to electrify Malawi.

In March, a on-site nursery was set up in Muloza, and three women have been employed to take the lead the programme for the area. In April, nursery staff spent three days with representatives from the Forest Research Institute of Malawi to prepare: identifying the prominent tree species in the area, establishing which seeds and wildings to collect and when, and deciding on the best methods to grow each species.





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What's next?

- We are on track to reach our final aim of raising 120 000 native seedlings by the end of 2021. Seed sowing starts in April so that the seedlings can be planted out from November onwards.
- An initial analysis of propagation rates for each companion species is expected in September.
- Now that the project's schools programme can start up again after COVID, 8–10 new schools will be involved in environmental education workshops and fruit tree planting.
- Miombo forest restoration: Community members will join the law enforcement patrols of the project's co-management blocks, which are currently being carried out by the Department of Forestry and local group Galamukani, in order to integrate them into the process. A solid strategy for law enforcement in these blocks will soon be finalised.

Stay up-to-date with our new-look **Mount Mulanje map**, and check out the great new photos in **Flickr!**

How do we know our restored forests are growing and making an impact?

Cedars grow from cones produced on mature trees, but even mature trees don't cone consistently every year, so seed collection is unpredictable and sometimes impossible. There are currently two sites in Malawi with stands of mature cone-producing cedars suitable for seed collection. Germination from cedar cones is also affected by soil type and condition, watering regime and even the depth at which the seeds are sown.

Once germination has occurred, the handling of the seedlings during transplanting, as well as the depth and size of the planting pits, can all affect the sensitive seedlings. Growing cedar on top of Mulanje poses additional challenges: fire and frost. Continuous maintenance on the mountain to maintain fire breaks and carry out weeding and companion planting to offer protection is crucial for the survival of the growing seedlings.

WeForest is partnering with the Mulanje Mountain Conservation Trust, the Forestry Research Institute of Malawi and Botanical Gardens Conservation International on a research programme on cedar propagation. Together with a team of ecologists and plant specialists from around the world, we have devised an extensive, controlled trial to test the variables that influence cedar survival. As this research goes on, we use the results to inform the sowing and planting strategies in the nurseries and on the mountain.

Please visit our **Why and How** webpage for more information.

