WeForest
Making Earth Cooler

Mt. Mulanje
Malawi

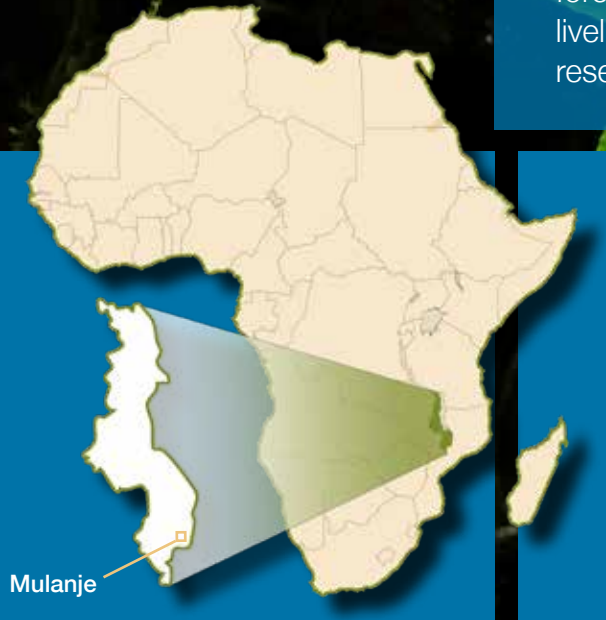
Mid-year report 2020

Restoring forest to protect water and biodiversity

A third of Malawi – 3.4 million hectares – used to be covered by forest. Today, 65% has been cleared, a tenth of that in the last decade alone.

While the 65,800 ha Mount Mulanje forest reserve is officially protected, it has been severely degraded by the harvesting of wood and a lack of investment. A healthy forest is essential for the water supply of the surrounding villages and for local agriculture. It's also home to the Mulanje Cedar tree and the Mulanje chameleon, which can't be found anywhere else in the world.

So this forest can be called a 'reserve' again, our project – a collaboration with the Mulanje Mountain Conservation Trust, the Forest Department and 10 local community nurseries – will restore areas of both montane and miombo forest and provide jobs in the tree nurseries, honey sector and sustainable livelihood schemes for many of the thousands of families living around the reserve.



Our goals in Mulanje during 2020:

Establish
90 ha
of community-managed forest

Raise
200,000
cedar and pine seedlings

Provide support to
5 beekeeping clubs

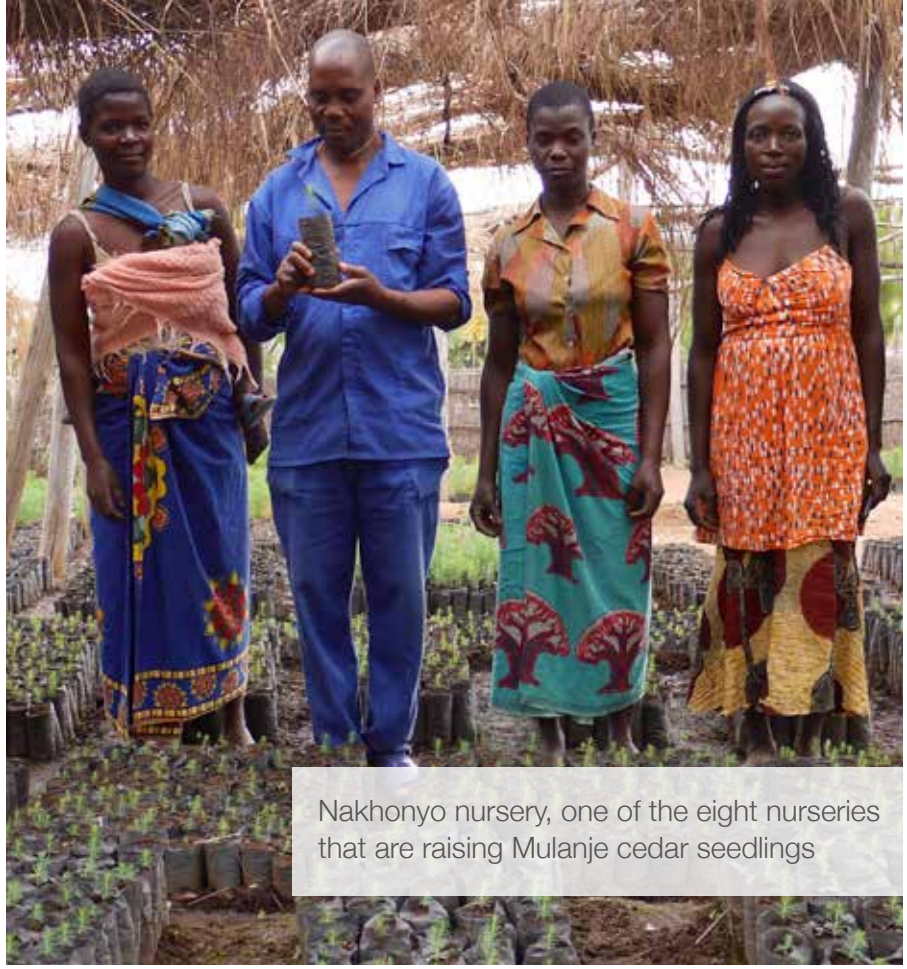
Engage
10 schools in our Tree Planting and Environmental Education programme

What's new in Mulanje?

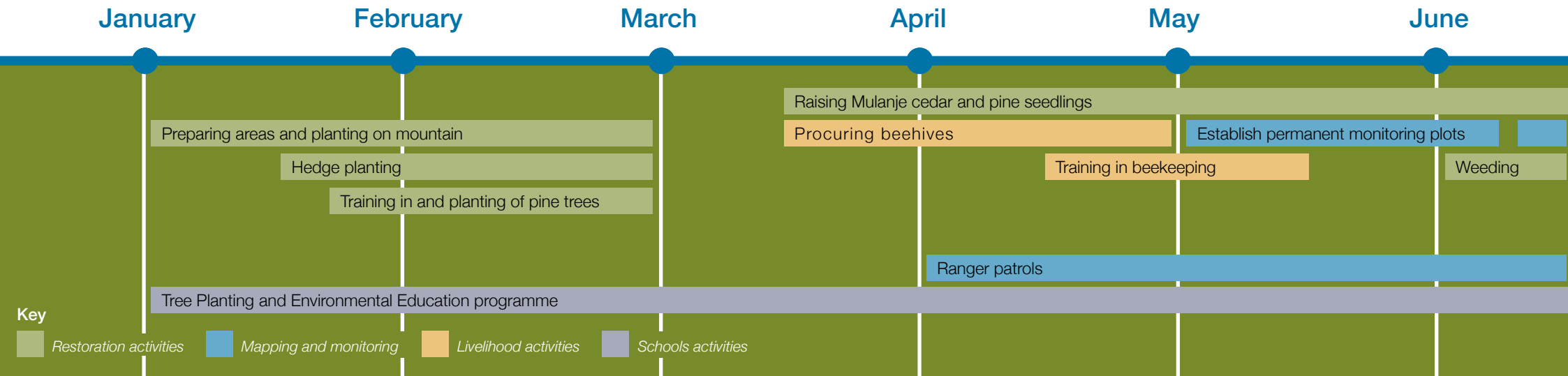
Recent highlights from the field

Restoring the unique **Mulanje cedar** (*Widdringtonia whytei*) forest on the mountain is one of the main aims of the project. In 2020, 140,000 cedar seedlings are being raised in local nurseries at the bottom of the mountain. After about nine months, they're transported by foot onto the plateau and planted out at the start of the rainy season in late November. All being well, the seedlings will have established themselves in time for the short but intense dry season.

By May 2020, eight community-managed nurseries had raised around **45,000 seedlings** of this endemic species, the national tree of Malawi. Germination rates have been good in most of the nurseries (see the back page for information on the challenges of raising successful cedar trees). Seedling collection and germination carries on alongside intensive field monitoring so we can meet the 2020 target.



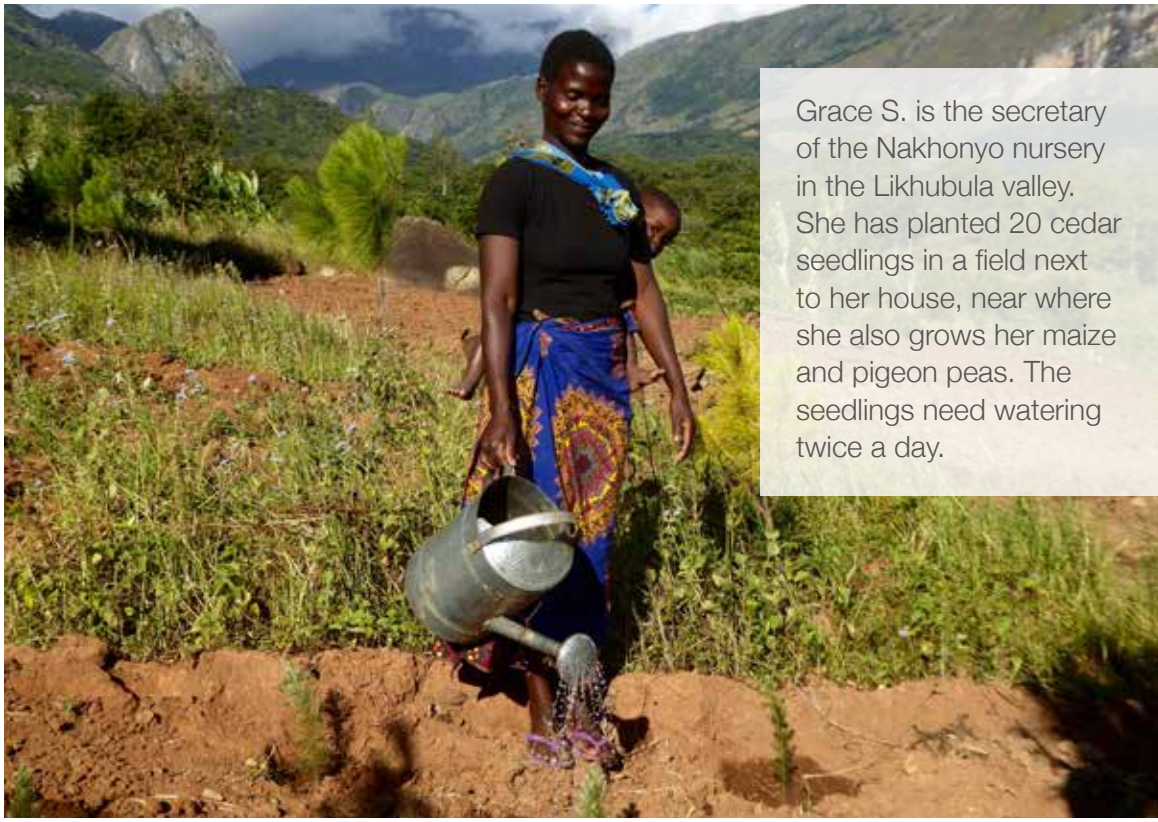
Nakhonyo nursery, one of the eight nurseries that are raising Mulanje cedar seedlings



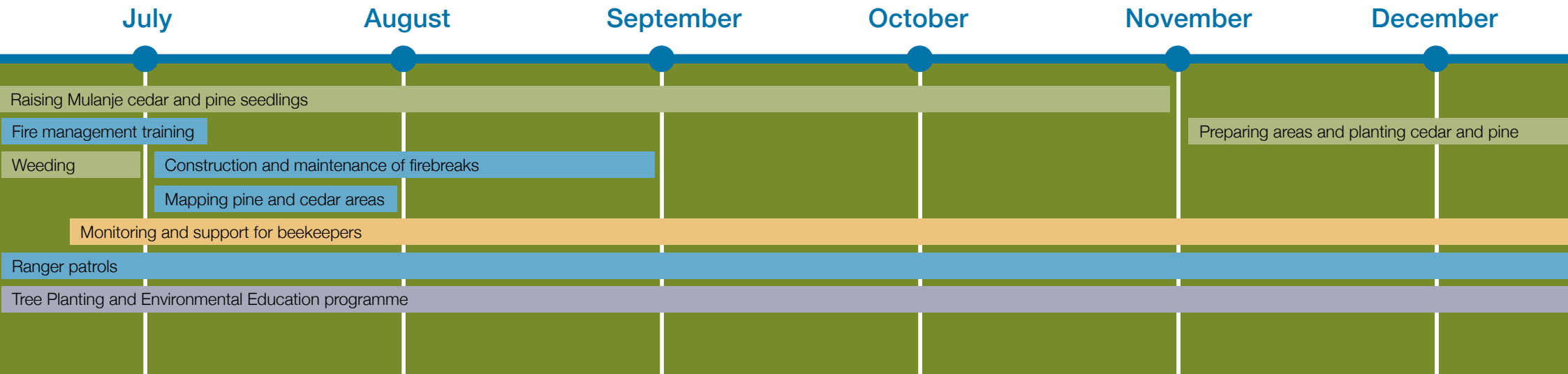
As well as being used to re-plant areas of cloud forest on top of the mountain, the cedar seedlings are being grown as **hedges around homesteads**. This approach helps restore this slow-growing species in a way that allows them to be protected against livestock and theft. It's hoped that the trimmings will be a sustainable source of cedar oil for export.

Since the start of the year, 30,000 cedar seedlings have been planted for hedges, and 10,000 on the mountain plateau at Lichenya. In April, a tremendous survival rate of 98.9% was found for those planted as hedges.

COVID-2019 meant that planned lectures on environmental education at the 10 participating schools had to be postponed, as the government closed the schools indefinitely. The meetings to prepare for the beekeeping activities were also delayed. All such meetings now have to follow the guidelines provided by the Ministry of Health, such as a maximum of 50 people per gathering.



Grace S. is the secretary of the Nakhonyo nursery in the Likhubula valley. She has planted 20 cedar seedlings in a field next to her house, near where she also grows her maize and pigeon peas. The seedlings need watering twice a day.



What's next?

- We aim to have the 350 beehives distributed soon, along with the necessary training in apiary practice and management.
- Intensive field support and monitoring in the cedar and pine seedlings nurseries during this critical growing period.
- Monitoring visits on the progress of cedar hedges with independent farmers and pine trees planted by the Sukambidzi Association Trust.
- When the schools re-open, we will resume our visits each term to check the trees and provide environmental education classes.
- We'll facilitate the establishment and maintenance of 53km of firebreaks on the mountainside.
- Planting the remaining 100,000 cedar seedlings (pictured right) will begin in November to coincide with the start of the rainy season.

A progress report covering the project's full year is published every February.

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.

Stay up-to-date with our interactive Malawi Mulanje map.

Check out the great new photos in our **Malawi Mulanje album** on Flickr!

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