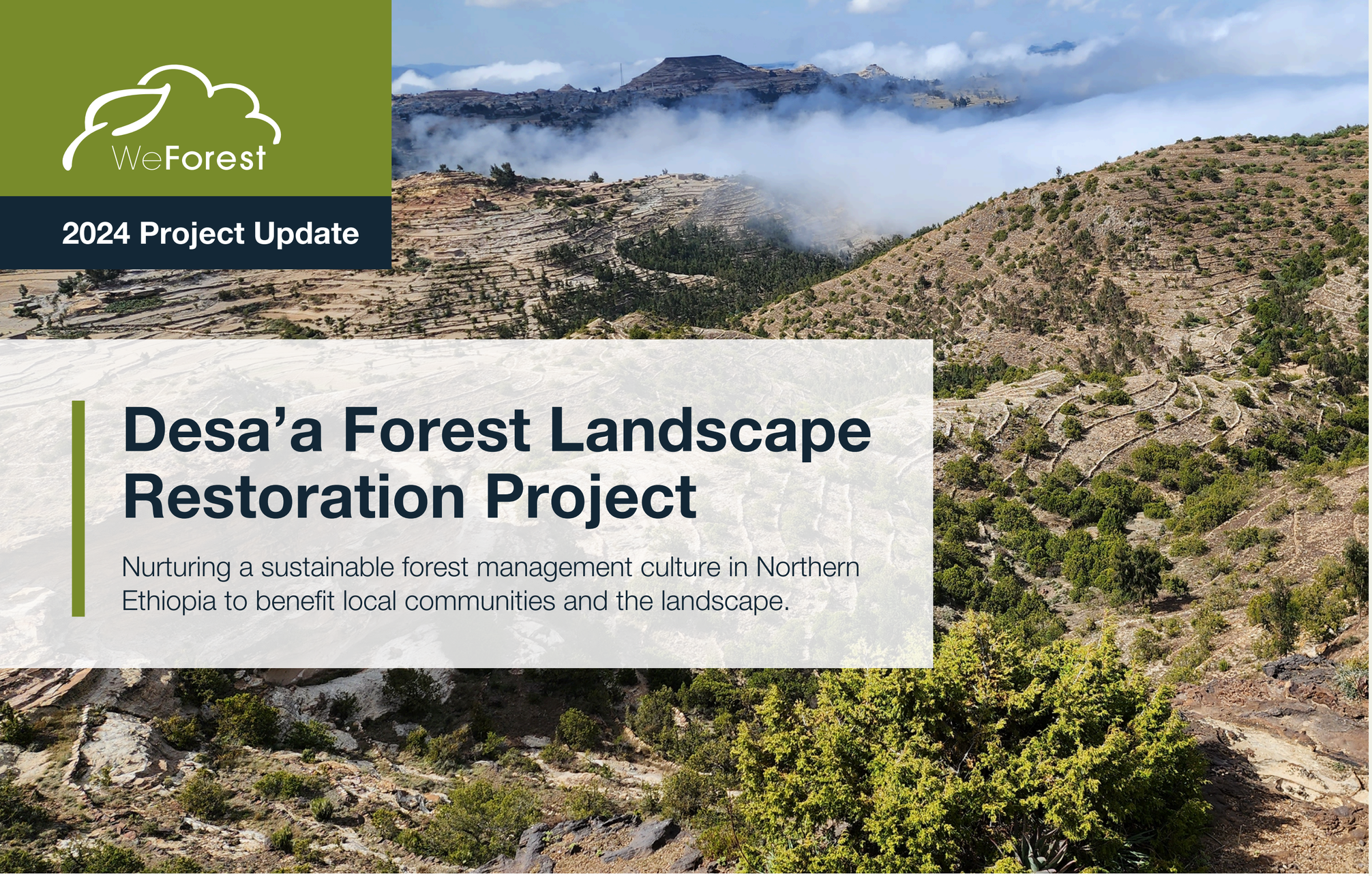
WeForest

2024 Project Update



Desa’a Forest Landscape Restoration Project

Nurturing a sustainable forest management culture in Northern Ethiopia to benefit local communities and the landscape.

Tigray, Ethiopia
Great Green Wall

Timeline:
2018 - 2030

Targeted ecosystem: **Dry Afromontane Forest**
Biodiversity hotspot: **Eastern Afromontane**

KBA KEY BIODIVERSITY AREAS

Desa’a Forest #6236

Project management and M&E team

Main implementing partner:
WeForest Ethiopia

Dr Aklilu Negussie Mekuria
Ethiopia Director

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See the full team at:
www.weforest.org/about-us/#our-team

Project story

In the Horn of Africa, the Desa'a Forest is on the frontlines of climate change as a critical buffer against desertification and drought. Spanning an area the size of London, Desa'a has long sustained biodiversity, regulated water cycles, and anchored soil. But in just 50 years, over **70% of its tree cover has disappeared**, accelerating droughts, food insecurity, and land degradation.

Knowing that the forest can't disappear, communities are restoring it. The key lies in more than just planting trees—it requires rebuilding the entire system that sustains life, from healthy soils and clean water to green livelihoods and strong governance.

The WeForest Desa'a Project is designed to turn a cycle of loss into a cycle of renewal, where restoration, sustainable livelihoods, and community-led governance feed into one another, strengthening the entire landscape.

Key challenges in the landscape

Desertification and climate stress
Rising temperatures, erratic rainfall, and prolonged droughts accelerate forest loss and reduce water availability.

Population growth and land pressure
Expanding agricultural land and overgrazing reduce forest cover and deplete soil health.

Deforestation and resource extraction
Fuelwood collection and uncontrolled land conversion degrade the landscape.

Soil erosion and declining agricultural yields
Reduced tree cover weakens soil stability, lowering farm productivity and increasing food insecurity.

Biodiversity loss
Native species, including Juniperus procera and Dracaena ombet, are disappearing, further weakening ecosystem resilience.

Our integrated approach

Conserving and Restoring the Forest

- Assisted Natural Regeneration (ANR) and targeted tree planting to restore degraded land.
- 1.2 million+ seedlings produced annually across seven nurseries.
- 13,000+ soil and water conservation structures, stabilizing the landscape and improving water retention.

Improving Forest Governance and Stewardship

- Community-led forest management bylaws and natural resource committees.
- Training and deployment of forest guards to ensure long-term protection.
- Formal land-use agreements balancing conservation and sustainable resource use.

Strengthening Forest-Friendly Livelihoods

- Agroforestry and fodder production to reduce pressure on forest resources.
- Beekeeping, poultry, and sheep programs for alternative incomes.
- 5,000+ energy-efficient cookstoves, cutting fuelwood consumption by 30%.

A long-term vision

Climate

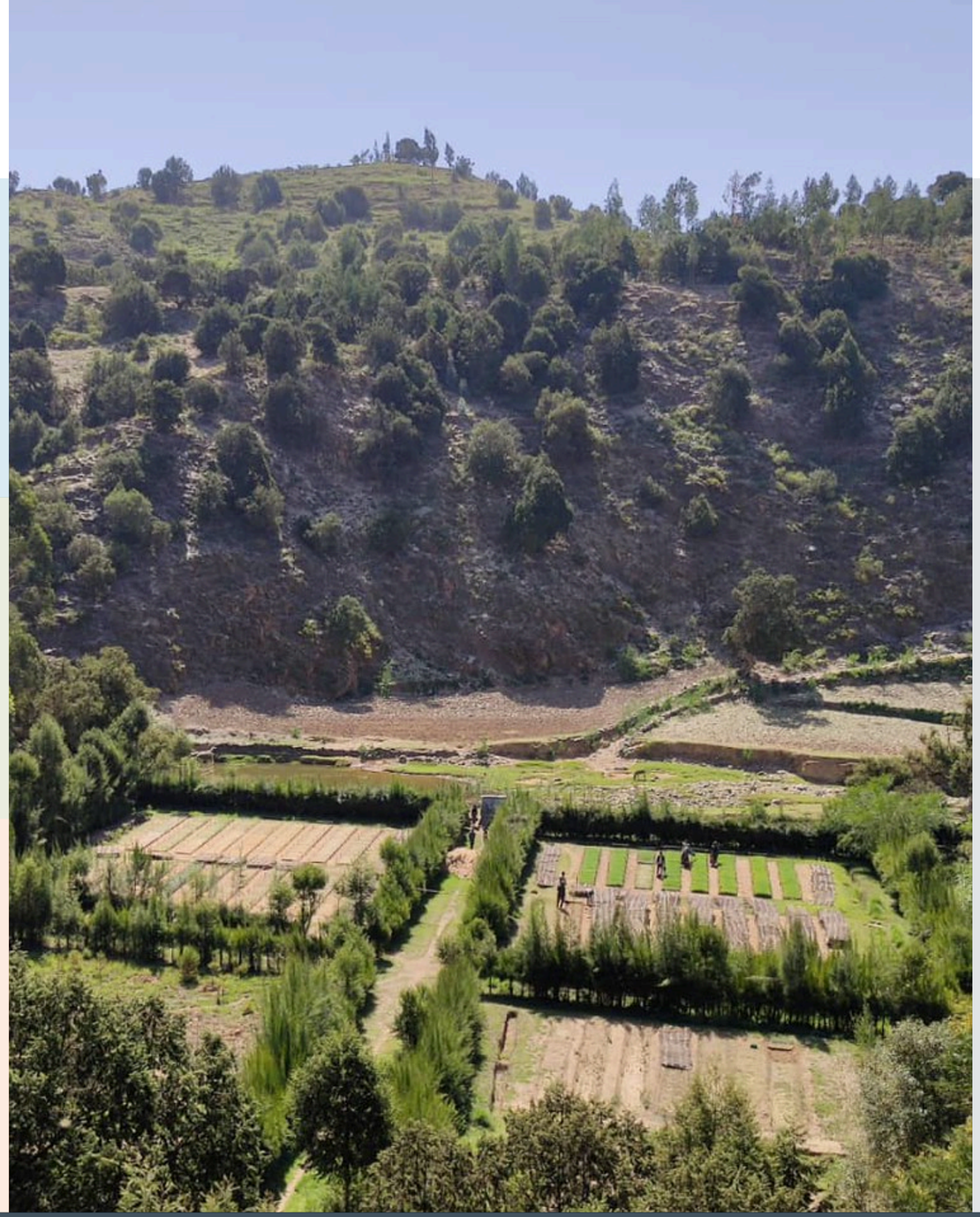
The restoration of Desa'a will contribute to both mitigation and adaptation: increasing tree cover to sequester carbon while improving water retention and soil stability to help communities adapt to droughts and erratic weather.

Nature

Restoring Desa'a will protect biodiversity and secure critical ecosystem services like water and soil health. Improved land management will enhance habitat resilience, ensuring the forest continues to sustain both people and wildlife.

People

Strengthened governance and forest-friendly livelihoods will ensure communities see the forest as an asset - one that provides resources while being sustainably managed. By integrating agroforestry, beekeeping, and fuel-efficient technologies, the project reduces deforestation-driven income reliance while securing long-term economic stability.



Outcomes

By integrating these interventions, the project will:

- Restore **40,000 hectares**, increasing forest cover and ecological resilience.
- Strengthen community **governance**, securing long-term conservation efforts.
- Improve livelihoods for **23,000+** households, reducing reliance on forest extraction.
- Enhance **water and soil** retention, supporting communities and agriculture.
- Protect **biodiversity**, restoring habitats for key native species.
- The **long-term** impact of our work will benefit people, nature and climate.

Theory of Change

Existing problems in the landscape

- Yield reductions
- Biodiversity loss
- Food insecurity
- Soil erosion
- Land degradation
- Climate change
- Weak governance structures
- Unsustainable resource extraction
- Deforestation

Risks

- Desertification
- Drought
- Famine
- Resources conflict

WeForest Interventions

Improved forest governance and stewardship

- Improving local forest management structures & regulations
- Improving forest law enforcement

→ Improved management of natural resources and forest governance

Restoring and conserving at-risk forests

- Assisted Natural Regeneration
- Tree planting
- Tree nurseries
- Soil and water conservation
- Fire breaks
- Water availability

→ 38,000 hectares conserved and restored

Introducing forest-friendly livelihoods and behaviours

- Beekeeping
- Agroforestry
- Cookstoves
- Poultry
- Sheep
- Solar lamps

→ Improved resilience of 23,000 households in 20 local communities

Long term impact

Climate

Stored and sequested carbon

Nature

Thriving biodiversity and intact ecosystems

People

Sustainable and resilient communities

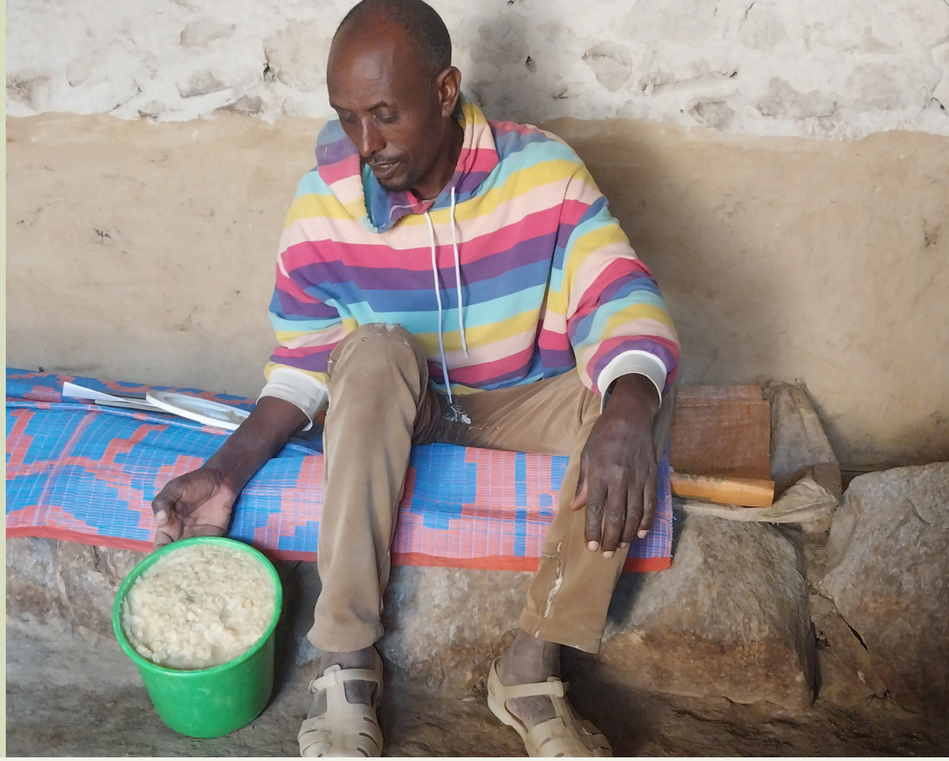
2024 Major Achievements

- Awarded Ecosystem Restoration Standard (ERS) verification by Preferred by Nature, demonstrating the high standard of Forest and Landscape Restoration to which the project adheres.

- Midline project evaluation showed that the project's interventions over the last five years has resulted in increased above-ground carbon stock by 15% and woody plant species richness by 20% at the degraded buffer zones. It also showed that the project played a key role in enhancing the livelihood and resilience of local communities in times of conflict by supporting over 23,000 households with agricultural inputs such as improved cereal seeds.

- Since 2018, 54% of the beneficiaries who were living in poverty at the project's inception have risen above the international poverty line, earning a daily income of over 2.15 USD.

"This support has been invaluable, and I am now able to take care of my family without the burden of selling off my agricultural assets"



Case study

In 2020, Atsbha Kahsay, from Felegewoyni, received three bee colonies and attended a five-day training beekeeping workshop. After three harvesting seasons, Mr. Atsbha has sold 84 kg of honey, and shared an additional 17 kg with his eight-person household, providing a welcome source of nutrition and income.

Thanks to his training, Mr. Atsbha was also able to produce two new bee colonies, one of which he sold. Mr. Atsbha used the income generated from his beekeeping activities for food, repaying loans, and supporting religious activities in his community.

Mr. Atsbha continues to care for his four colonies, through practices including planting bee-friendly flora, conducting hive inspections and comb replacements, protecting hives from predators and providing supplementary honey syrup during periods of flora shortage.

2024 activity update

Improved forest governance and stewardship

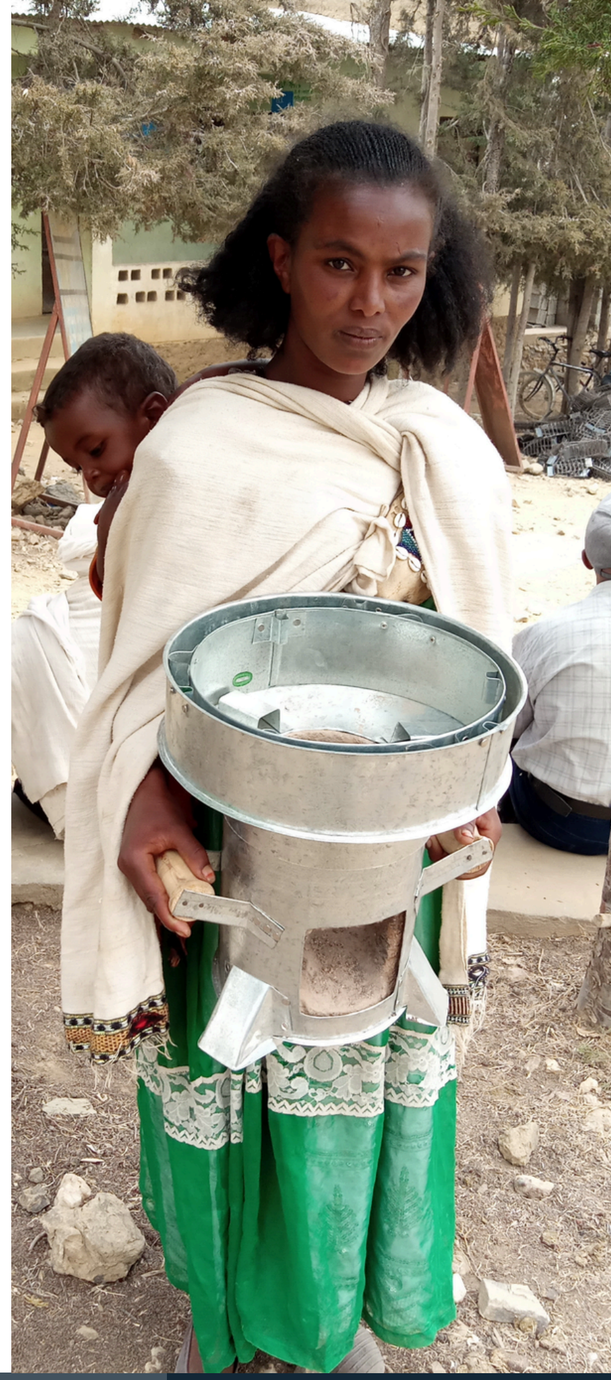
- **Ongoing consultation** took place on evaluation and planning took place with local communities - including administrations, experts, forest guards and community representatives.

Restoring and conserving at-risk forests

- **4585 hectares** of tree planting and conservation.
- **425,420 seedlings** of seven native tree species were planted in restoration areas.
- Other restoration activities included post-plantation and silvicultural management activities including watering, pruning and weeding to help tree growth. The pruned by-products could then be used as firewood.
- **5 nursery sites** technically and materially supported.
- Continued cooperation with **Tigray Bureau** of Agriculture and Natural Resources to construct soil and water harvesting structures (loose stone check dam, gabion check dams, plantations of grass and other native species, micro basin pits, deep trenches and water harvesting pond).
- **30** Permanent Monitoring Plots installed to monitor future forest restoration progress.

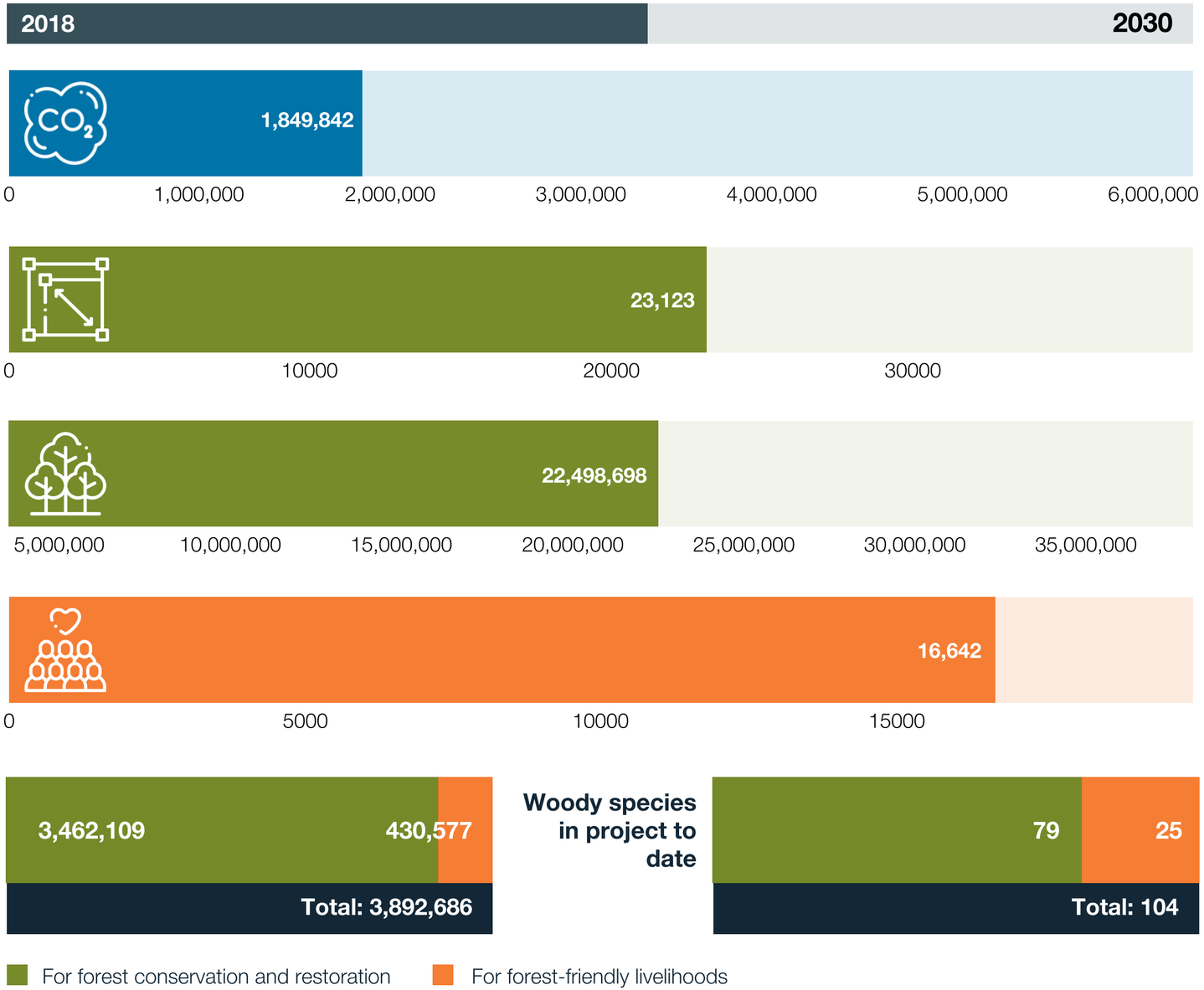
Introducing forest-friendly livelihoods

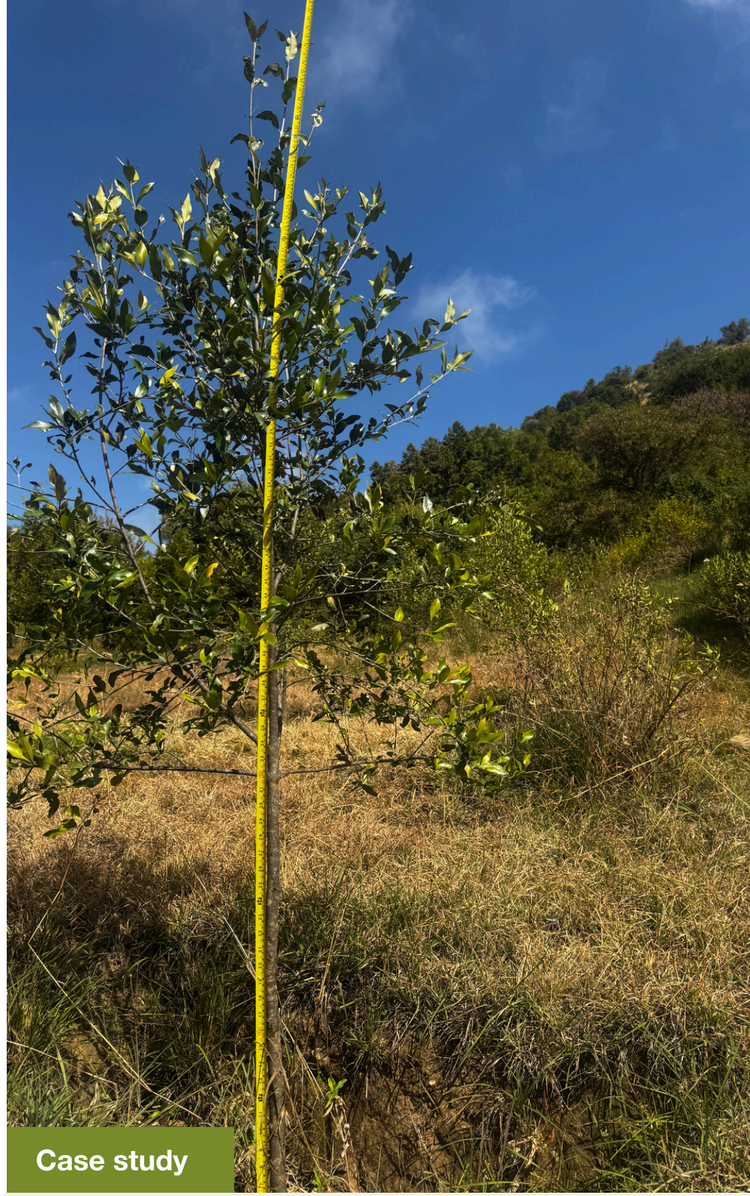
- **63,531 seedlings** of 11 multipurpose tree species were planted for agroforestry purposes.
- **1022 apple seedlings** were provided for 146 households.
- Grass from the restored areas was harvested across 7 villages and used for fodder.
- **1561 households** were supported through livelihood improvement measures: 120 beekeeping, 235 livestock, 959 tree crops, 250 cook stoves, 250 solar lamps) across eight villages.
- Before beekeeping, sheep and poultry packages were provided, three days' skill development training were given to **370 beneficiaries**, of which 254 were women.



Progress tracker

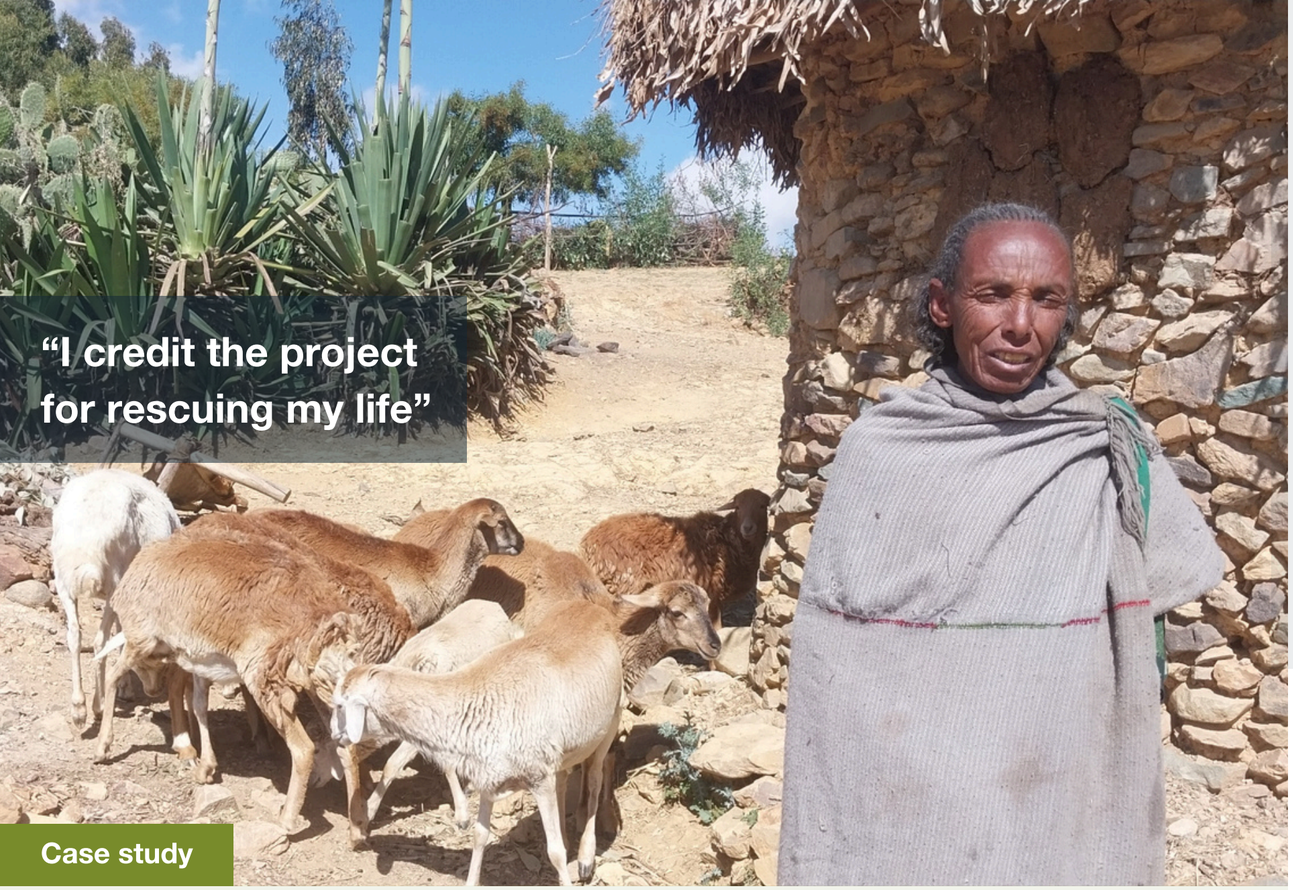
See end of report for our progress tracking methodology





Case study

A wild olive tree (Olea europaea cuspidata) planted by WeForest in Reba catchment, Kalamin in 2019 shows exemplary growth in both height and trunk diameter.



Case study

Meazu Gebrehans, 55, from Felegeweyni Village in the Desa’a project area, received poultry in 2020 and sheep in 2021 from WeForest. Since then, she has sold over 1000 eggs per year, and five rams, helping her overcome the challenges posed by the war and drought in Tigray. The income raised was used to pay for household essentials, such as food, clothes and seeds, and allowed Meazu to provide loans to her neighbours, helping them in times of need.

Meazu says “I credit the project for rescuing my life, especially during the blockade, as it provided me with a reliable source of income and a sense of security.” Meazu is continuing her sheep husbandry, and currently five of her nine ewes are pregnant. She plans to sell the lambs to buy a dairy cow.

2024 Challenges

Although most ‘normal’ activities resumed in 2024, the region is still recovering from the Tigray war and blockade, which affected the landscape at many levels - from basic government services to accessing markets. In Desa’a, with credit to the commitment of all stakeholders, communities were incredibly resilient, the planted trees showed high survival rate (Over 90%) and the project withstood the crisis.

As a result of funding obstacles caused by the 2020-22 war and ongoing carbon negotiations, the project’s 2024 targets had to be scaled back. These obstacles are in stark contrast to the growing demand for sustainable livelihoods in the Desa'a area driven by the war and an unprecedented drought in 2023.

Looking ahead to 2025

The Desa’a project will continue into 2025, with priorities including:

- Amending and developing local bylaws for two new villages
- Undertaking active planting on 2835 hectares of the core and buffer zone of the Desa’a forest
- Producing up to 500,000 seedlings from five native species for 2025 planting period
- Engaging 2900 local households on alternative income generating activities and alternative energy schemes; providing both training and input.
- Installing a range of soil and water conservation and harvesting structures over 2835 hectares in Desa’a forest landscape.
- Delivering local institution capacity building and research mainly on the forest-water nexus and tree management

Supporters & Partners

2024 project partners

Tigray Bureau of Agriculture and Natural Resources supported the project by providing technical support, monitoring, supervision, evaluation of progress, community mobilisation, permission facilitation and provision, and technical training for nursery workers.

District and sub-district governing bodies supported the project by mobilising communities, and conducting performance evaluation and follow-on activities.

Mekelle University provided technical assistance to the project.

Tigray Agricultural Research Institute provide technical support.

With thanks to our supporters in 2024, including:

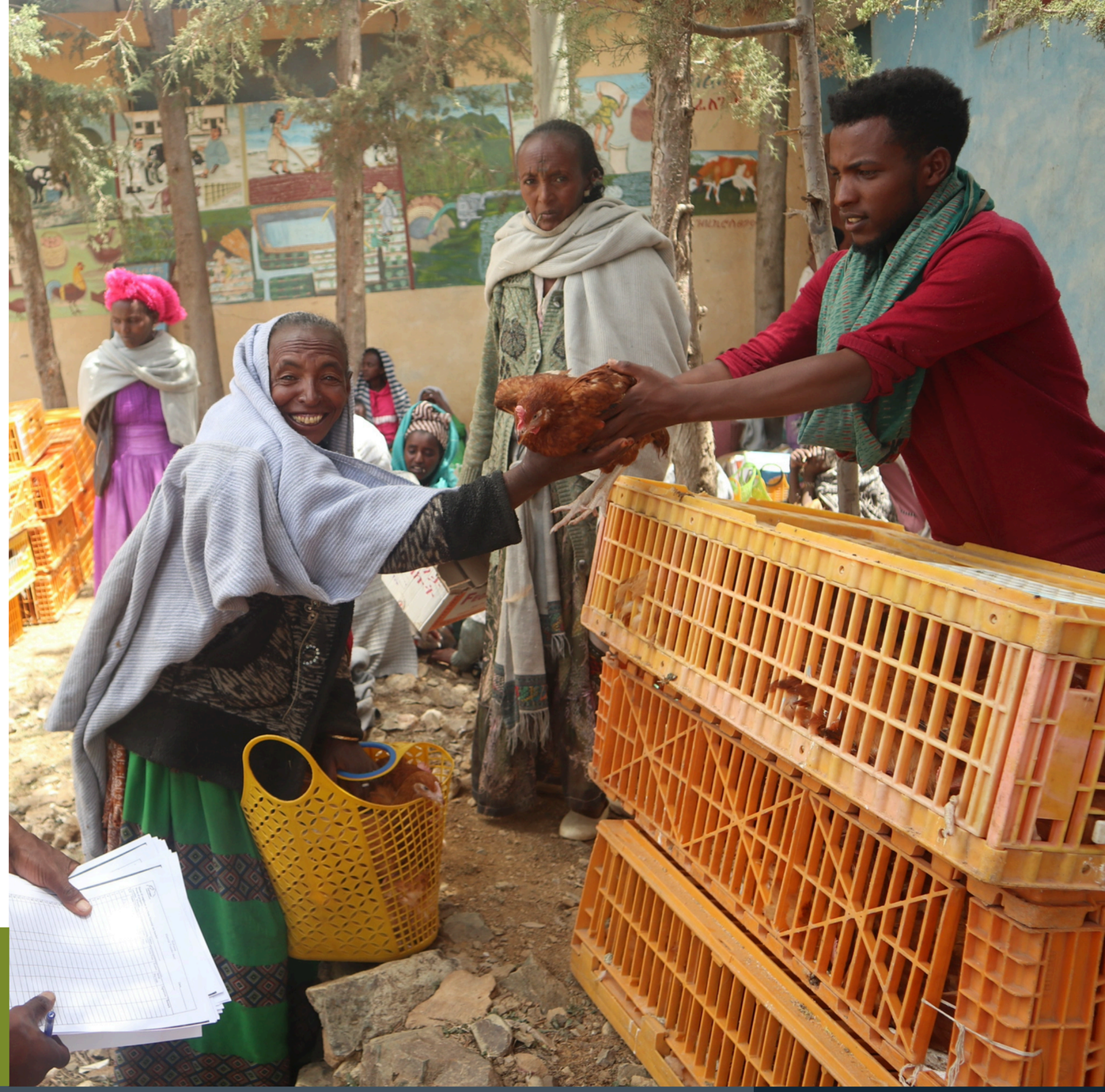
ucb

Atlas Copco

brabantia

dioraphte

KU LEUVEN



Contact us

Visti **www.weforest.org** or for more information or email: **contact@weforest.org**

How we measure and forecast our impact

Baseline

For the sake of simplicity, the progress bars in this report show a baseline of zero. This represents the concept that the area covered by WeForest forest and landscape restoration (FLR) activities was zero; thus the associated trees conserved and restored, carbon stored and households impacted through WeForest intervention were also zero.

In reality, when a WeForest project begins, our Monitoring, Evaluation and Learning team undertakes a detailed survey on forest structure and regeneration through establishing Permanent Monitoring Plots, and conducts an extensive questionnaire on livelihoods, to establish meaningful baseline values. You can read more about our full MEL activities here.

Hectares planted, conserved and restored

Progress up to 2024

Verifiable cumulative total since the project began of all mapped intervention sites, also known as polygons, of:

1) Conservation forest areas, such as forest reserves

2) Restoration forest areas, such as Assisted Natural Regeneration and planting areas

3) Agroforestry areas on community/farm land

End of Project Target

Target number based on the potential area of land able to be conserved, restored and planted in the project area under the known and expected conditions at project start. However, it is subject to change based on unforeseen opportunities or challenges that may arise.

Anticipated tons of CO2 to be sequestered through project activities

Progress up to 2024

Extrapolated tons of CO2 calculated from the measured areas of different types of land use (for example forest or agroforestry) under “Hectares of forest planted, conserved and restored” to date, and the average amount of projected long-term CO2 per hectare provided from literature review for each land use type in their locations. Although totalled, please note the methodology for calculating these CO2 projections is specific to land-use type, and span a period corresponding to the expected time taken for the trees to reach maturity, which varies between locations.

End of Project Target

As above, but using the target (and not current) number of hectares planted, restored and conserved and their respective area totals as a parameter for calculations. As this parameter is subject to change, the associated CO2 target may also change over time.

Number of trees conserved and restored*

Progress up to 2024
Extrapolated number of trees calculated from the measured areas of different land use types (for example conservation areas, restoration areas or agroforestry) under “Hectares planted, conserved and restored” to date, and the average tree densities observed for each land-use type when mature, known through our MEL activities or scientific literature.

End of Project Target
As above, but using the target (and not current) number of “Hectares of forest planted, restored and conserved” and their respective area totals as a parameter for calculations. As this parameter is subject to change, the associated trees conserved and restored target may also change over time.

*Estimations based on average numbers per hectare

Trees planted to date (2024)

Total
Actual counted number of planted seedlings and saplings of woody (tree and shrub) species in the project to date.

Trees planted for forest-friendly livelihoods and behaviors
Only woody species directly planted for livelihood improvement. This also includes woody fruit, fodder & timber trees, and woody cash crops, exclusively planted on community or farm land.

Trees planted for forest conservation and restoration
Only woody species that were directly planted for ecological reasons, aiding restoration of the natural forest ecosystem.

Woody species in project to date (2024)

Total
Actual observed number of woody (tree and shrub) species:

- Regenerating in the conservation/restoration zones (i.e. in the Permanent Monitoring Plots) and
- Planted, either for restoration or livelihood improvement
- Growing as mature trees in the conservation/restoration zones (i.e. in the permanent monitoring plots).
- Please note, these numbers are not exhaustive and the true species richness is likely to be higher.

Tree species for forest-friendly livelihoods and behaviors
Only woody species directly planted for livelihood improvement. This also includes woody fruit, fodder and timber trees, and woody cash crops, exclusively planted on community or farm land.

Tree species for forest conservation and restoration
The woody species observed in the project area that are not used for livelihood improvement purposes. Where species are used for both livelihood improvement and restoration (which is sometimes the case, as we use native species as much as possible), they have been counted under ‘forest-friendly livelihoods and behaviors’.

Mammal and bird species sighted to date

Numbers are included where we have a good level of biological monitoring, for example using camera traps or audio devices - please note that numbers are unlikely to capture the full species richness of the project area and that the absence of reporting does not imply the absence of species.

Other notes

WeForest works in close cooperation with local partner organisations, institutions, community-based organizations and local people. Therefore, our impact can never be fully separated from the work of our partners. WeForest acknowledges that the presented impact numbers cannot be solely attributed to our work, but is also supported through the hard work contributed by all our local partners.

Terminology

Conservation
Where native forest canopy cover is still intact, we focus on protecting the forest from any threats and disturbances, such as overgrazing, unsustainable wood extraction and fire.

Restoration
Assisted Natural Regeneration (ANR): Where there is reduced forest cover but high potential for natural regeneration, we aim to accelerate natural recovery, typically through preventing soil degradation, reducing competition with weeds, and protecting young trees.

Tree planting
Where there is reduced forest cover and little regeneration potential, we actively plant native trees at a density that corresponds with the regeneration potential.

Agroforestry and tree crops
Where agricultural landscapes exist, WeForest promotes the planting of trees for livelihood improvement. These trees can be used either for direct consumption or sale (fruits, timber, fuelwood) or to support other crops or livestock (agroforestry). Native tree species are prioritized but, where necessary, non-native species may be used.