

INDIA

Khasi Hills

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Sacred Groves in the Khasi Hills

Photo: WeForest

In the Khasi Hills, WeForest partners with a federation of 11 indigenous governments and 75 Khasi villages to restore areas of the forest. The communities have set up nurseries to provide the seedlings and formed groups of community volunteers planting the seedlings and tending the forests.

Next to this, the project focusses on alternative livelihood activities to bring the communities away from forest harming activities such as mining, excessive grazing and vegetation clearance for agriculture. To further reduce the pressure on the forests, fuel efficient cooking sets are provided to households over the project lifetime.



Photo: WeForest

SCIENCE-BASED MEASUREMENTS AND VERIFICATION

Forestry survey: December 2018

Socio-economic survey: September 2018

Carbon measurements: Estimates data taken from the adjacent Plan Vivo project in 2018.
Next estimates are planned for 2023

LANDSCAPE TRANSFORMATION

Trees funded: 2,332,400

Hectares directly restored: 2,800 ha

Methodologies used:

Assisted natural regeneration (ANR):

As trees can spontaneously sprout from fire, cattle and/or other types of disturbance, some sites show remnant trees and natural regeneration. Our team protects these sites using ANR methods.

Enrichment planting:

Planting tree seedlings to increase the density of existing tree species or to introduce specific tree species which are missing in the ecosystem or at unusually low density.

Quality over quantity

The 36 nurseries that WeForest is working with currently supply the seedlings for the Enrichment planting method. 70% of these nurseries are home-based, the other 30% are around Self Help Group yards.

In the past many nurseries suffered from frost, drought and a lack of water. Therefore we have decreased their number, in order to make room for less (in number) but larger and more efficient nurseries.



A traditional beehive in use, © WeForest

BIODIVERSITY CONSERVATION

Over 43 tree species are planted across the ANR sites.

This diversity contributes to the restoration of the original forest diversity of this area and include the endangered tree species such as the Ilex khasain, quercus gluaca and cinnamomum camphera.



The Ranamawphlangensis frog, © WeForest

CARBON SINK

With the total amount of trees planted we are expecting to reach 476.000 tons of CO₂ in 20 years of tree growth, which translates into 170 tonnes per ha.



COMMUNITY ENGAGEMENT

144 households have increased their income by at least 30%.

Furthermore have 8,249 people been impacted through our project activities, such as the training events held in the past half year.

Annual trainings

In 2019, five trainings were held for beekeeping, vermicompost and mushroom cultivation and form part of the annual trainings of individuals across 11 local governments. In these wider trainings, topics discussed are handicrafts (bamboo crafting), pig rearing, fruit tree planting and beekeeping.

Trust in the Self-Help Groups

Currently there are 128 Self-Help Groups (SHG) (compared to 107 last year) and 4 farmer clubs (compared to 5 last year) in the area.

These are voluntary associations focussing on livelihood activities (self-help groups) and agriculture (farmer clubs). The majority of the groups are only run by women from the poorest villages of the region and they are investing 5% of their annual income into group activities.

The federation provides them with in kind donations such as chicken, piglets or seedlings. Each group has a treasurer taking care of the finances and the group members are able to take loans from the group. Annually the federation checks how good the groups are functioning and grade them. When achieving good grades, the local communities may cooperate with the government to receive additional funding once they have received good grades by the federation.

It has been shown that the local communities put high trust in the SHG set up and therefore their long-term continuity is safeguarded.



A beehive box in use © WeForest

A small decline in farmers clubs

Due to a lack of government support and less financial support by the National Bank for Agriculture and Rural Development (NABARD) there has been a small decline in the existence of farmers clubs.

SHORT STORIES FROM THE FIELD

Wildfire as the ever present enemy

This year, a large forest fire in Lumbiewhkor affected several thousand saplings and 5.226 trees.

Other than refinancing these losses out of our tree guarantee fund (which is foreseen for such cases) WeForest is now constructing a fireline construction of 5km (adding up to the 320,8 already existing kilometers since 2014) by cutting and weeding shrubs in all fire-prone project sites to protect these ANR plots. As many as 50 people have been joining in this.

Furthermore we are focussing on replanting with the broad leaf species of *Castanopsis*, *Quercus*, *Symplocos*, *Pinus*, *Alnus*, *Lithocarpus*, *Myrica*.

A community driven project

Though women in the Khasi tribes have the right to manage and own resources, due to the matrilineal society, the political power remains solely with the men in the community. WeForest encourages women to participate in the local parliament meetings and hires them actively. For example, at least 30% of the team of community volunteers established by the participating villages has to be women. Furthermore do we include youth volunteers by annually training them (for which they receive a per diem compensation) on the collection of rainfall data, silviculture, laying of forest plots, monitoring.



Standing in front of a shade net, a practice to retrieve better agricultural results © WeForest

Pickling Pears

The native specie of Soh Shur (*Pyrus pashia*), or the Wild Himalayan pear, grows on a tall, thorny, open-headed tree, up to 10 meters tall, with hard, dark brown to black bark. The wild trees generally live for about 20 years and their white-colored flowers have 1-7 cm-long petals with oval-shaped fruit.

Not only is the Wild Himalayan pear smaller and more brownish of color than cultivated pear varieties, it actually tastes quite sour. It is therefore that in northeastern India they are used to make pickles. Lately, they are becoming more popular to use as a rootstock to graft other tree varieties.

In the past, Soh Shur was found in abundance in the forests, but the introduction of grafting techniques means that this tree has become overexploited for use as rootstock in grafting more productive, commercial fruit varieties.

With overharvesting of young trees for this purpose, the wild pears have become more rare, and there are fewer trees reaching maturity for fruit production and reproductive purposes. If the Soh Shur is lost, transformed products made from the fruit, such as the locally made pickles, will be lost as well.



The fruit of the Soh Shur tree, © WeForest

Restoring forests to preserve valuable cultural practices

For many indigenous communities in the world, forests are much more than just trees: they store souls and spirits and are of great cultural and religious value. In India there are over 100.000 of these sacred forests, mostly existing of forest fragments in agricultural landscapes, where community members are actively involved in their protection and management, providing important refuges for conservation of biological diversity, including medicinal plants.

Sacred groves

A great example is our project in the Khasi Hills, where the local Khasi tribes have long established traditions of forest conservation and legal rights for natural resource management. They have been preserving this forest for thousands of years, and believe it belong to the local deity Labasa, who protects this forest and their community from anything bad happening to them. It is therefore entirely forbidden to hunt, cut trees or take anything from out of the forest.

While these rules have made sacred forests, or groves, successful conservation areas, current threats to other forest areas are numerous. Practices ranging from the use of timber and other forest products to clearing for agriculture and charcoal making, stone quarrying and grazing or general changes in cultural traditions means that the loss of forest cover in the Khasi Hills District has been dramatic, averaging 5.6% per year from 2000 to 2005.

The Khasi-Hills

Therefore, WeForest supports members of self-help groups and farmer's clubs in the Khasi Hills with activities such as training and financial support to pursue ecotourism initiatives, animal husbandry, food establishments and tree nurseries. Doing so, we work closely together with our project partner Bah Tambor Lyngdoh, the head and secretary of the community-led Ka Synjuk Ki Hima Arliang Wah Umiam Mawphlang Welfare Society (the "Federation"). Through this partnership we specifically work to address the extreme poverty facing rural families, through new income generating activities and training and providing women with in-kind sponsorships such as piglets or chicken.



The Dieng sohshur fruit tree

© WeForest

UPCOMING 6 MONTHS

- Monitoring the Forest Structure and Regeneration Transects on all new polygons
- Securing the 2019 Restoration Polygons in the area of Mawphlang, East Khasi Hills
- Every alternate year we are monitoring 10 plots according to Shannon Index
- Purchase of 100 bamboo stools from the communities as part of the bamboo strategy
- Adding more species to attract endangered animal species, such as the pyrus trees
- Developing a mushroom cultivation and herbal garden strategy for the khasi hills.
- Implementing 10 beehives in east khasi hills and prepare expansion strategy in 2020.
- Grading of SHG and farmer clubs.

WeForest is an international non-profit that specializes in mobilizing companies to restore the World's forests and embark their stakeholders into a long-term journey towards environmental sustainability.

In order to achieve the objectives of the Paris Climate Agreement, we need to start decreasing our global emissions by 2020 and achieve carbon neutrality by the second half of this century. While reducing carbon emissions is critical, research suggests that even if carbon dioxide emissions came to a sudden halt, the carbon dioxide already in the Earth's atmosphere could continue to warm our planet for hundreds of years. The challenge is to reduce future carbon emissions and actively remove the excess carbon from our atmosphere.

Forests are known as the best technology for that: they are an amazing carbon sink.

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THANK YOU

