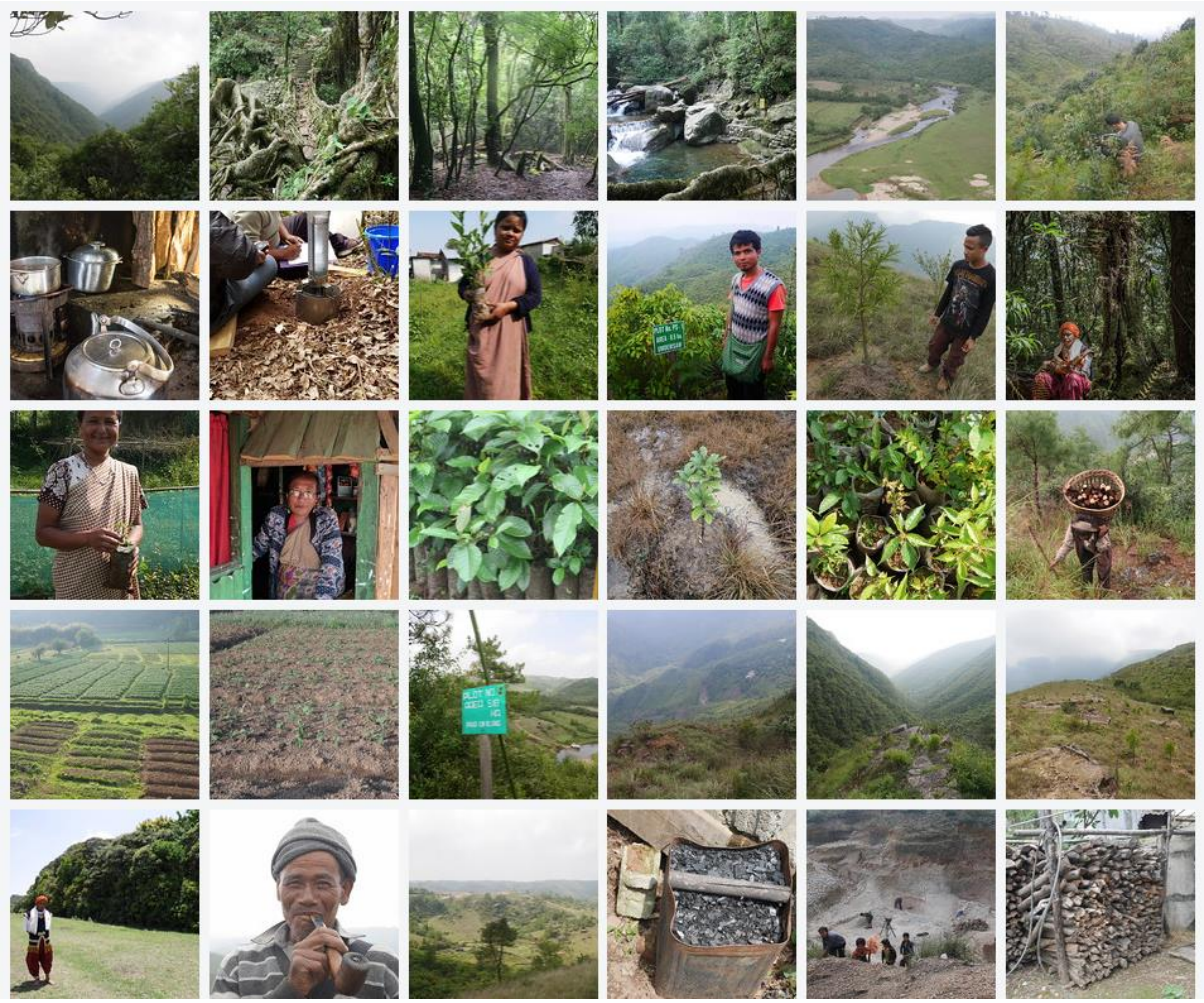
India Khasi Hills

Supporting Khasi communities to regenerate their forest

Annual Update 2019



The Khasi hills are inhabited by the Khasi people, an indigenous ethnic group who are traditionally forest-dependent and use the native cloud forest for shelter, firewood, medicine, food, and even spiritual traditions.

Unfortunately, the area is now at risk as the forest is being cleared for charcoal production, stone quarrying, timber and animal grazing by the Khasi. As 90% of their households are below the poverty level, they need other and more sustainable ways of income.

In the Khasi Hills, WeForest partners with non-profit organization (Ka Synjuk Ki Hima Arliang Wah Umiam Mawphlang Welfare Society) representing 11 indigenous Khasi governments. In return for establishing restoration sites on their land, the communities are supported to establish forest-friendly initiatives such as ecotourism initiatives, animal husbandry, food establishments and tree nurseries. The communities have set up nurseries to provide the seedlings and formed groups of community volunteers planting seedlings and tending the forests.

Your support for the Khasi Hills is contributing to:

Landscape transformation

- 300ha were brought under conservation management in 2019, bringing the overall total to 2,800ha – an area equivalent to 3,360 football pitches!
- **Assisted Natural Regeneration (ANR**) accelerated the natural recovery of degraded forest areas. Sites that show natural regeneration potential are protected and young trees that emerge/sprout after disturbances such as fire or cattle grazing are allowed to grow. Enrichment planting is used

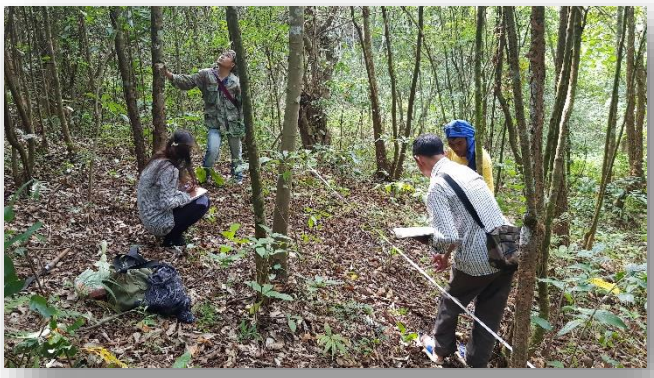
to increase the density of existing tree species or to introduce specific species that are missing in the ecosystem or at unusually low density.

Community Engagement

- 75 villages are currently engaged in this project which intends to break the vicious circle of poverty leading to forest degradation.

Carbon sequestration

- Over the next 20 years we expect to have sequestered around 476,000 tCO_2 through the areas under restoration to date, assuming disasters such as droughts or fires do not impact the sites.



Measuring biomass growth in a restoration plot established in 2018 to monitor tree growth. Results will be reported in 2020.

Biodiversity

- The region is classified as a global biodiversity hot spot under the Eastern Himalayan Endemic Bird Area. With such high rainfall it's home to a wide range of amphibians some of which are endemic like the endangered Khasi Hill toad and the critically threatened Shillong bush frog. In 2019, 45 tree species were planted across the restoration sites. This contributes improving biodiversity since different animals rely on different trees to be present. Examples of the tree species include the ***Ilex khasiana:*** endemic to the Khasi Hills and critically endangered as its natural habitat has declined in extent and quality, the ***Quercus glauca:*** also known as the ring-cupped oak, its acorns are edible, and it is used locally for fuel, fodder and as a medicine for dysentery and ***Cinnamomum camphera:*** a vulnerable evergreen tree commonly known as camphor laurel and used as a source of leaf oil and natural linalool.

Thank you for all your support!

46 people attended a training on organic agriculture in August 2019. Increases in harvests will improve income and reduce pressure on forests.

2019 At a Glance

Helping saplings find the light

Restoration plots need to be weeded, thinned and pruned so that emerging saplings find light to grow! Good forest housekeeping is key to success and each village takes a different approach. Some villages pay daily wages for the work and in others a family member takes part on a voluntary basis. In one village approximately 100 people were taking part in a one-day maintenance event!

Maintenance activities (also called silvicultural practices) will help trees to grow faster.

Firebreaks to manage fire risks

The construction of firebreaks means removing vegetation so fire cannot spread across the 'gap'.

As we reported last year, a large forest fire in Lumniewkor affected several thousand saplings and trees that are now being restored. These wildfires are an ever-present threat to regeneration. To reduce the risks of fire we create natural breaks that can stop or slow down potential fires. The firebreaks are needed on all fire-prone project sites – in 6 months alone 5 km were created! Late in 2019, two villages - Mawkma and Phanniewlahrum - created firelines around their restoration sites.

New skills, new income

In exchange for maintaining restoration sites, members of Self-Help Groups and Farmers Clubs are provided with the means to develop a forest-friendly income. They receive chickens, piglets or seedlings as well as training and support. Trainings to support these new skills were held throughout 2019. During the first half of the year, five trainings were held for beekeeping, vermicompost and mushroom cultivation and form part of the annual trainings for individuals across the 11 local governments. During August, a further 3 training sessions were held and attended by 96 people who learned tools and techniques for organic farming and

A training session in September 2019

floriculture, food processing, beekeeping and nursery management in both theory and practical sessions. Participants are eager to learn new practices to improve cultivation and improve their income.

A challenging future for farmers groups

Our last report identified the longer-term challenges for farmers clubs, and this remains true. While there were 76 Self Help Groups in 2019 entirely run by women, only 2 farmers clubs were in operation compared to 5 in the previous year. While the SHGs are performing largely satisfactorily, the farmer clubs are in long term decline. They have a lack of government support and less financial support by the National Bank for Agriculture and Rural Development. The farmers that were previously part of a Farmer Club remain supported by the project as individuals or as part of Self-Help Groups.

A farmer prepares the ground for planting saplings

Transitioning to better cookstoves

One of our intentions was to focus on supporting improved cookstoves to reduce charcoal use in the community. However, with the power cuts and high electricity costs, electric stoves do not always work in this area and solar is not an option since cooking is done mostly in the evening and, even if it were daytime, the Khasi Hills are the rainiest place and so covered with cloud!! The government in India has provided subsidised LPG (liquid petroleum gas) cookstoves and, while not the ultimate solution, they have benefits for the local communities in reducing pressure on the forest and do not produce smoke – this is particularly beneficial for women who are always the victims of smoke-related illnesses due to cooking on charcoal and firewood.

Water infiltration provides an indication of forest health

The field team collecting water infiltration data

Infiltration is the measurement of water intake by the soil and we measure it to check the quality of the forest. It can tell us what stage of restoration the forest has reached and the quality of the landscape, as well as potential future water availability. The forestry team and community facilitators have collected data and will seek expert advice for interpreting the results during 2020.

Stories from the Field

Mrs Ribanta Khasin is 26 and a member of the Myntoilang Self Help Group. In 2017, the group agreed to begin pig farming. She says this has made a big difference in income; the sale of pigs last year earned the equivalent of €600 EUR in total, higher than the average annual income of one household. Her plan is to breed pigs and through the trainings she has seen the potential for pig manure to fertilise her crops instead of buying chemical fertilisers. She says she has noticed a change since the project began "in our village we see that the volume of the forest has been increasing and excessive cutting down of trees has been decreasing". She says the project "taught us a lot on how to save the environment, the flora and fauna as well as the water sources".

Mrs Khasain is 32 and an active member of one of the Self-Help Groups that meet once a week and has been participating since 2012. She says that since the project began the group has learned how to conserve the forest, reduce forest fires and regenerate the forest through tree planting. "Compared to these past years, the forest has become much more dense and healthy as it has supported a large number of animal and plant species and it has improved the availability and quality of water." She also believes that the activities have helped group members to be more independent through support they have received on livestock rearing and mushroom cultivation.

Coming up in 2020

- Fruit tree distribution to Self Help Groups and Farmer Clubs to provide fruits for home consumption or sale and to support improved nutrition.
- The distribution of piglets to 10 Self Help Groups in Ribhoi and 6 in East Khasi.
- Vegetation monitoring across 30 existing transects will take place and new transects will be established for more recent restoration sites.
- A monitoring survey across selected sites will also measure survival rates of plantings.

- Fireline maintenance takes place from December to February in the Khasi Hills and February to March in the Ribhoi area.
- Mapping of new sites for future restoration.
- School tree adoption program is planned to spread awareness to school students. For three years a student takes care of the tree they planted until it is well established.

For more information

https://www.weforest.org/project/india-khasi-hills

For more high-quality photos from India

https://www.flickr.com/gp/144808182@N03/Yk6b67