INDIA

SUPPORTING KHASI COMMUNITIES TO REGENERATE THEIR FOREST

May 2017 Report

HECTARES FINANCED	TREES FINANCED	TONS CO_2 SEQUESTERED[1]	BENEFICIARIES
1,500	1,249,500	254,850	1,607

A total of 1,249,500 trees have been financed thanks to the support of donors and sponsors

THE PROJECT

Northeast India is home to Meghalaya state, the "wettest place on earth". Here, in the East Khasi Hills, WeForest partners with a federation of 10 indigenous governments and 62 Khasi villages to restore areas of forest through assisted natural regeneration and enrichment planting. Communities are empowered to take ownership of their natural capital and restore the degraded forest areas. Nurseries run by villagers provide the trees for enrichment planting and link community development directly to forest restoration. The project also tackles the drivers of deforestation directly, including charcoal production, grazing and forest fires. Through self-help groups and farmer's clubs, villagers are empowered in sustainable entrepreneurship and economic development. To avoid further deforestation, the project is installing fuel-efficient cooking stoves and rice cookers for 3,500 households in the project area. As a result of this activity, pollution and fuelwood consumption and the forest can be protected and restored.

KEY DETAILS:

Location: East Khasi Hills, Meghalaya State

GPS: 25°24'20.08"N; 91°39'28.45"E

Restoration approach: Assisted natural regeneration[2] and enrichment planting[3]

Partners: Ka Synjuk Ki Hima Arliang Wah Umiam Mawphlang Welfare Society (KSKHAWUMWS)

[1] In East Khasi Hills the total above-ground biomass is estimated to average 169.9 tons of CO_2 per hectare over a period of 20 years. This carbon figure is based on on-site measurements in 2014 according to methodology as compliant with REDD+ standards and carbon certified by Plan Vivo (Source: 2015 Plan Vivo Annual Report Khasi Hills Redd + Project)

[2] ANR is a method that enhances the natural processes of forest restoration, focusing on encouraging the natural establishment and subsequent growth of indigenous forest trees, while preventing any factors that might harm them

[3] Enrichment planting is the planting of trees to increase the population density of existing tree species or to increase tree species richness by adding tree species to degraded forest; often used as part of assisted natural regeneration schemes

PLANTING UPDATE

KEY PLANTING FACTS

- 1750 hectares under restoration
- 133 nursery units
- >40 species across intervention area
- Main tree species: *Alnus nepalensis, Castanopsis indica, Exbucklandia populnea, Myrica esculenta, Pinus kesiya, Prunus nepalensis, Schima khasiana*

This reporting period, 250 additional hectares began restoration. The team has also been focusing on identifying potential expansion areas. WeForest and its partner have plans to expand the project area and include some himas (villages) in the north-west Khasi Hills and identified new areas totaling 250 ha during a field visit in March 2017. During this reporting period, the restoration plots from 2014-2016 were monitored to measure their progress. Between 2014 and 2017, the average tree grew by 63% in height, from 2.06 meters to 3.36 m. Average diameter of the tree at breast height (DBH) grew from 2.54 cm in 2014 to 5.83 cm in 2017, an increase of 128%. Across the restoration sites, the overall survival rate in 2016 was 70.2%. With the assistance of the community facilitators and youth volunteers, the forestry team have also been focusing on strengthening the monitoring and evaluation process and improving the operation of the home-based nurseries.

NOVEMBER - APRIL 2017:

- Additional 250 ha under restoration
- Additional 250 ha identified in a new area
- Monitoring of nursery units and restoration plots
- Average tree growth of 63% in height and 128% in DBH

Figure 1. Hima Phodsohsat before restoration in 2014

Figure 2. Hima Phodsohsat after restoration in 2017

PLANTING UPDATE

Three monitoring visits were carried out to assess the management and success of the project's nursery units. Results showed higher survival rates from trees planted from home-based nurseries compared with trees transplanted directly from the forest. Results also showed the importance of increasing species diversity at the nurseries and improving access to water. The lack of water availability hampered some of the nurseries, which had to close down as a result. It was decided that the sites with survival rates below our target value of 80% will be replanted and that the federation will organize additional capacity building workshops and support to empower the local nursery managers.

Figure 3. Home based nursery in Hima Mawbeh run by Tanbor and his wife

Figure 4. Home based nursery in Hima Sohra

SOCIO-ECONOMIC UPDATE

KEY SOCIO-ECONOMIC FACTS:

- 1607 people directly engaged
- 68 self-help groups
- 10 farmer's clubs
- 90 employees and volunteers

During this reporting period, the socio-economic team focused on monitoring and training the individual participants, self-help groups and farmer's clubs. Monitoring of the 68 self-help groups showed that piggery and poultry activities remain the most preferred livelihood activities, but groups are increasingly signing up for nursery development as well as other activities such as tailoring. To finance those, the groups are receiving support, equipment and internal loaning support from the federation. The team ranked the self-help groups' loaning capacity into grades A, B or C, based on a questionnaire that evaluated the performance of the group. The questionnaire evaluated the size of the group, decision making processes, the group's internal loaning scheme and maintenance of records. More than 90% of all SHGs in 2016 were grading A, which is the highest grade possible.

NOVEMBER - APRIL 2017:

- Interviews of 200 households using rice cookers and 50 households using smokeless cookers
- Fuelwood and charcoal consumption was reduced to an average of 200-300kg per month per household

Figure 5. Piggery in Senglang SHG, Hima Sohra

Figure 6. Farmer's club in Perkseh village where 2,400 trees are raised at a time

ENERGY TRANSITION

The use and efficiency of the energy efficient cooking stoves and rice cookers were monitored. To promote a transition towards sustainable energy use, WeForest and the federation have been distributing electric rice cookers and smokeless chulas (cookers) to forest dependent families to reduce the use of fuelwood. The socio-economic team, together with community facilitators and youth volunteers, interviewed 200 households using rice cookers and 50 households using the smokeless chulas. In a family of five members, an average of about 600-750 kg of both fuelwood and charcoal are being used for cooking and heating monthly. Since the launch of the scheme, fuelwood and charcoal consumption has been reduced to 200-300kg per month on average.

PARTICIPATORY RURAL APPRAISAL AND RESOURCE MAPPING

A Participatory Rural Appraisal (PRA) and Resource Mapping session was conducted in April in seven villages in Hima Myriaw and two villages in Hima Mylliem in the North Khasi Hills. The project is in the process of identifying possible expansion areas and this approach ensures that local knowledge and needs are incorporated into the planning and management of the restoration activities. We conducted questionnaires to gather information on the needs and preferences of the local communities and the current management of their natural resources. Three maps from each village were created that show resource data, livelihood (socio-economic) information and land coverage.

Figure 7. Participatory mapping example

WATER SCIENCE FOR THE CLOUDS

In April 2017, WeForest, in collaboration with FAO's Forest and Water Programme, organized a Forest-Water Capacity Building workshop in Shillong, Meghalaya. Held over a week, the workshop strengthened the Federation's capacity on forest-water interactions for improved decision-making and natural resource management. The federation identified forest-water priorities for the East Khasi Hills: the implementation of forest restoration to improve water availability during the drier months. Four rainfall data collection stations were installed and the team was trained in recording top-soil water infiltration. The workshop informs FAO's Forest and Water five-year action plan and supporting Weforest's work on forest-water-climate nexus.

Figure 8. Forest-Water capacity workshop in Shillong


Figure 9. Stream in Hima Mylliem

PRESENTING THE WEFOREST MAPS

With WeForest's growing planting portfolio, managing and processing planting site polygons from different projects had become a complex task. The data collected by the project teams have to be processed in multiple steps using GIS software (QGIS) that involves a high level of manual work. With our partner, Open Forests we have been establishing a Forest Information System (FIS) that is bringing efficient project management for the WeForest project portfolio. Our aim is to bring our sponsors and donors as close as possible to our project sites and communicate transparently on the progress.

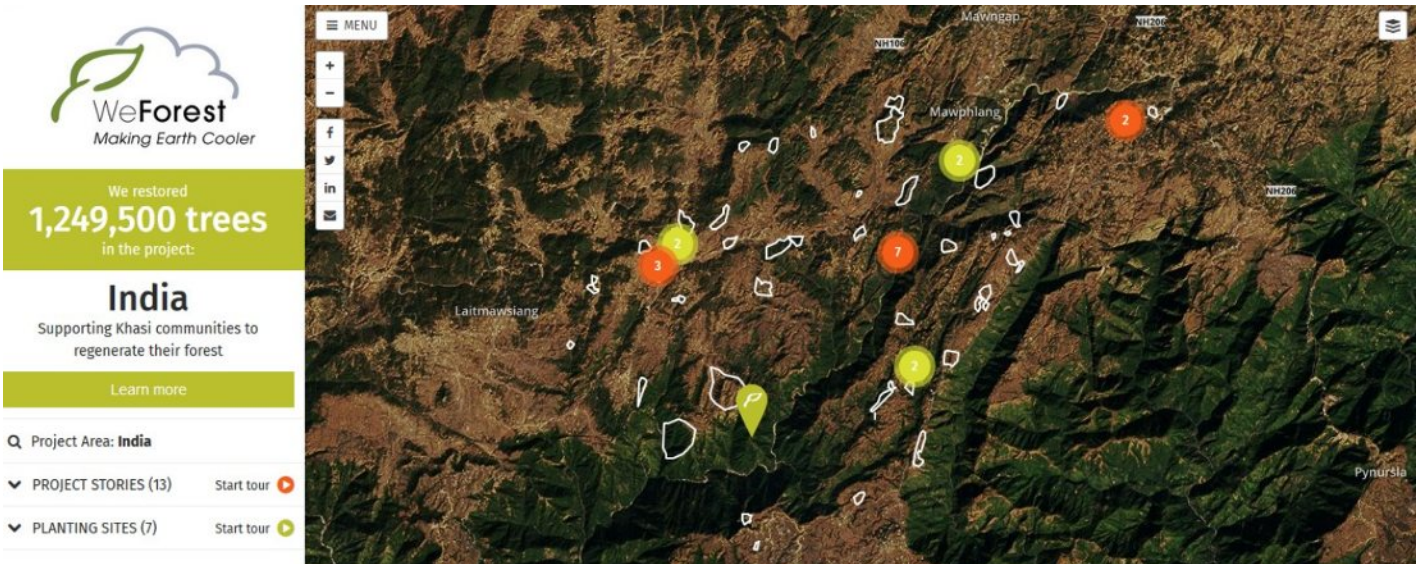

Figure 10. WeForest map of India

WeForest
Making Earth Cooler

THANK YOU