

INDIA

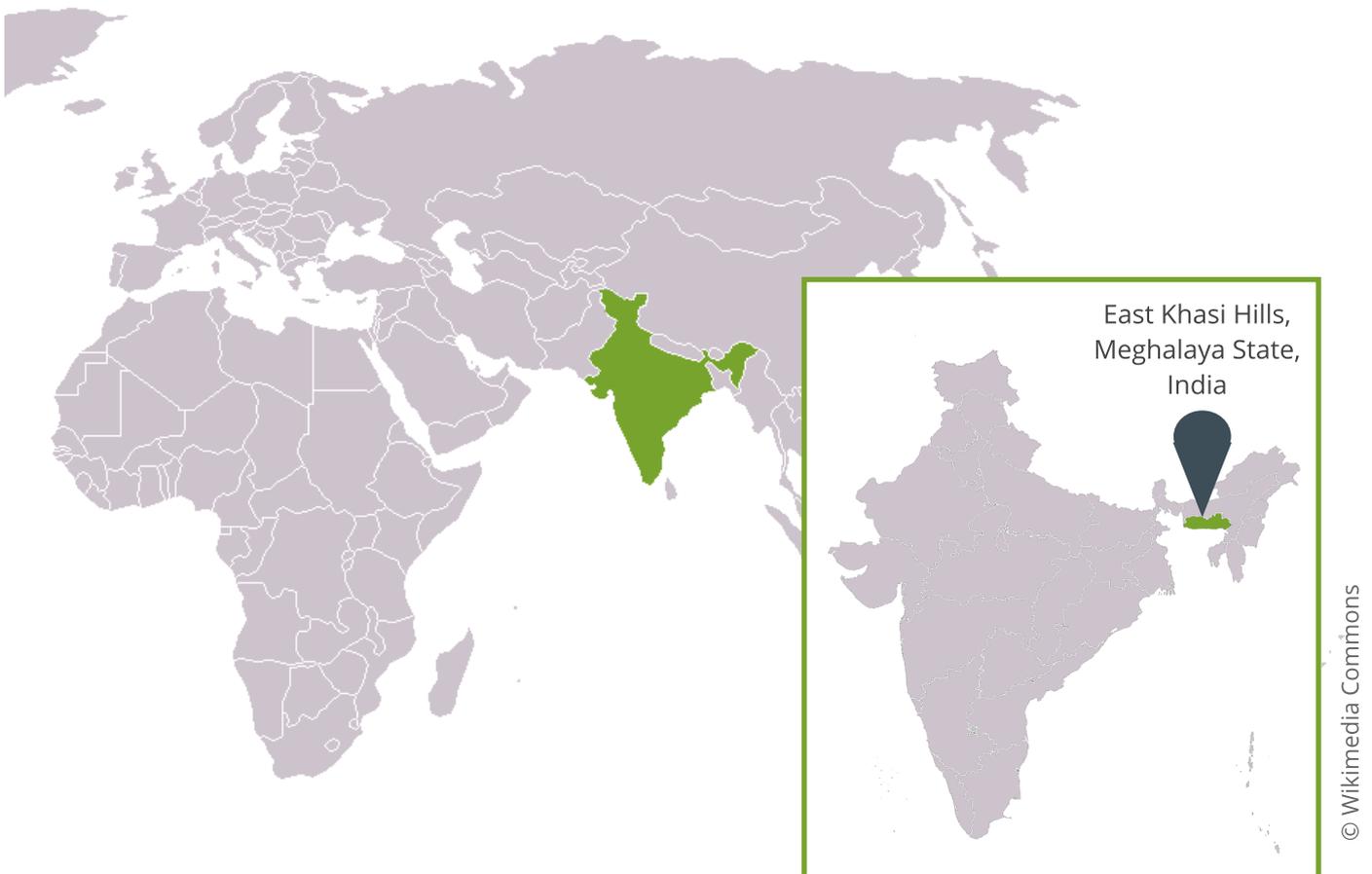
KHASI HILLS

NOVEMBER 2017



THE PROJECT

Planting trees and restoring forests only make sense if you can ensure the trees will thrive in the long term: for that you need the local communities to see more value in standing trees than in felled forests. In the Khasi Hills, WeForest partners with a federation of 10 indigenous governments and 62 Khasi villages to restore areas of forest through assisted natural regeneration (ANR) with enrichment planting. Communities are empowered and run the nurseries to provide the seedlings. The project also tackles the drivers of deforestation (charcoal production, grazing and forest fires): fuel efficient cooking sets for households are being provided over the project lifetime reducing the pressure on the forests.



IMPACT FOR PEOPLE, PLANET AND CLIMATE

The data collected is based on various audits we perform during the year:

- Forestry audits: 1 x per year monitoring of 10 plots according to Shannon Index and annual control of all home-based nurseries
- Socio Economic audit: 1 x per year grading of all SHG and Farmers' Clubs
- Financial audit: annually by third party Joshi via Rilum Foundation
- Carbon audit: of adjacent Plan Vivo carbon project by 3rd Party every 5 years



LANDSCAPE TRANSFORMATION

Trees financed¹: 1,457,750

Hectares directly restored: 2 000 ha

Total area positively impacted: 3 000 ha

Methodologies used:

Assisted natural regeneration: ANR is a method that enhances the natural processes of forest restoration, encouraging the natural establishment and subsequent growth of indigenous forest trees, while preventing any factors that might harm them.

Enrichment planting: Is the planting of trees to increase the density of existing tree species or to increase specific tree species' richness by adding selected species to a degraded forest; often used as part of ANR.



BIODIVERSITY CONSERVATION

Over 40 tree species planted across intervention site, representing the original diversity of this area.

6 seed traps set-up in different zones to collect seeds of tree species that are not available anymore in the forest. Collecting seeds allows us to grow indigenous tree species and spread biodiversity.

Measuring vegetation biodiversity (the higher the number, the higher the actual diversity). WeForest plots vary between **Shannon biodiversity index of 0.93 and 3.34**, which indicates that some plots have been less disturbed than in the past and had more time for regeneration. In the sites which measured 0,93 more enrichment planting, removing of dominant species and focus on species diversification will be needed to enhance diversity.



CARBON SINK

In East Khasi Hills, the total above ground biomass is estimated to average 169.9 tons of CO₂ per hectare (above ground carbon) over a period of 20 years tree growth.

The trees planted to date will eventually after 20 years have stored **339,800 ton CO₂** or an equivalent of **annual carbon footprint of 33 400 Europeans**.²



COMMUNITY ENGAGEMENT

Direct project beneficiaries: 4.161

1607 directly engaged (including Self Help groups, farmers' clubs).

58 Self-Help Groups with an average of 12 members, running socio-economic activities, in order to reduce the need for firewood and reduce the needs for deforestation.

5 farmer's clubs with an average of 30 members, focusing on agricultural activities and serve as a common economic unit for the community in the future.

163 employees and volunteers hired from the local community.

ACTIVITIES AND RESULTS

SUPPORTING FARMERS

- Training programmes on livestock management** (piggery and poultry)
 2 courses were conducted with various Self-Help Groups and farmers clubs during end of May 2017.
- Seedbeds and nurseries**
 125 nursery units (seedbed) in 35 nurseries (unit holding 600 trees) set up
- Efficient cooking stoves**
 370 efficient stoves distributed: 233 rice; cookers 299 and smokeless chula.
- Exploring new socio-economic activities for the villagers**
 Bamboo was suggested, which is indigenous in the project area. The Synjuk sent therefore two individual villagers from Umsawmat to a training on Bamboo handicrafts. They will need to receive tools for manufacturing, also a bamboo strategy will need to be included in project design.
- Global warming is already visible also in the Khasi Hills**
 This is impacting local temperatures and reducing crop production. In two Himas, WeForest distributed 1 shade nets each to Self-Help Groups to protect the crops from high temperatures and improve the farmers' yields. Based on the outcome, we could decide to expand.
- Fruit trees as a new income source**
 In June 2017, 600 peach tree saplings were distributed SHG members for their own farms. With just one basket of peaches worth 300 INR, nearly an equivalent of one day's wage, the sale of peaches will provide the members with a valuable source of additional income and demonstrating the value of fruit trees.



Setting up seed traps



Distribution of peach tree saplings

COMBINING SCIENCE AND LOCAL KNOWLEDGE

- A knowledge register**
 One of the objectives of this project is to empower indigenous communities to take care of their forests in the long term. To identify the knowledge gaps, the team conducted a survey and compiled a knowledge register in 57 villages. This is a database for each village which records the demography, income, population distribution, economic activities, population, village profile, records of the government, social and welfare facilities available in the village, forest resources, types of forest, biodiversity. This Village Knowledge Register gets updated once bi-annually with significant changes in the village. This is an essential tool for identifying, designing and implementation of economic activities.

- **Leveraging existing local organisations**

The farmers clubs and SHG model being an empowerment model offers the community a greater scope for building their leadership skills and usher in a new era of engendering the community. It builds social capital within the communities and helps in asset building. To monitor performance, the socio economic team started to survey 160 members of the Self-Help Groups (SHG) and Farmers' clubs. It was found that most group members have developed good coordination and teamwork processes and overall performance of the activities rated well. However four farmers clubs and 11 SHGs out of 58 were not performing adequately and need to be closely monitored and trained.



Self-Help Group "Lein tre" in Mawteng village



Consortium of Khasi Hills community leaders

W O M E N E M P O W E R M E N T

- **Giving women responsibilities**

The Khasi form a matrilineal society, where all the resources get inherited via the youngest daughter. However, women are still rarely represented in political decision-making. Our project empowers women by developing their leadership skills. To do so, this year the federation of 10 indigenous governments appointed 10 women Community facilitators and 62 female youth volunteers, next to the 10 male CFs, 5 assistant CFs and male 62 Youth Volunteers.

- **75% of the groups are run by women**

Since May 2017, 9 new woman-led Self-Help Groups were created, reaching a total of 59 Self-Help Groups. Out of these, 75% are led by women.



Woman planting in tree nursery in Hima Mawphlang



Female community facilitators in office

UNDERSTANDING PAST AND INTENDED FUTURE USAGE OF THE PROJECT AREA

- **Land-use survey**

In August 2017, the forestry team along with the WeForest Project Coordinator visited 18 villages to survey 43 polygons across the 10 Himas where the project takes place. With a questionnaire, the team inquired about the use of land in the polygons³ over the past 30 years. Most of the participants in the survey were the village headmen, executive members of the village authorities, the elders of the village and landowners of plots of private land. The team found that there were different land use patterns across the different Himas and compiled all findings for future use in developing guidelines.

In some areas, limited harvesting of wood will be allowed in the future. To manage the cutting of trees, the Dhorbar will be handing out permits and charge fines up to 6 000 RS to villagers that cut trees without the permit.



Farmers participating in a survey on land use patterns

EXPANDING TO RHIBHOI, NORTH KHASI HILLS

- **New area to include agroforestry in the future**

In In 2017, the project activities expanded to Ri Bhoi District, in response to the high interests of communities from that area to join the project. The Climate there varies from tropical climate in the areas bordering the state of Assam to temperate climate adjoining the East Khasi Hills District. This allows to grow different species than in the east Khasi Hills and allows in the future to potentially even include agroforestry such as pineapple, jackfruit etc. This will, according to the socio economic survey bring great benefits for the local population.

- **Also an endangered area**

In the Ri Bhoi District, deforestation is serious threat due to the pressure from timber, firewood and Jhum cultivation.

- **Also working with men's groups**

Among the beneficiaries in the Rhi Bhoi district is an existing male Self-Help Group called Lein Tre, which translates to Rise to Work. In addition to their usual livelihood and farming activities, they now work together on developing a tree nursery that will provide saplings for the new planting area near Mawtneng village.



Degraded landscapes in Hima Myllem, Rhi Bhoi District

PROJECT CHRONOLOGY

- 2014 On-site carbon measurements following REDD+ and Plan Vivo methodologies
- Partnered with Ka Synjuk Ki Hima Arliang Wah Umiam Mawphlang Welfare
- 2015 Project includes strategy on alternative use of charcoal
- 2017 United Nations Food and Agriculture Organization (FAO) & WeForest partnership: Water Capacity Building Workshop seeking to support the community to build their understanding of forest-water relationships in East Khasi Hills
- Expansion strategy started for North (Rhi Bhoi) and West Khasi regions

BENEFICIARY STORY: JUNITA, LEADER OF A WOMEN SELF-HELP GROUP

Junita N. is a community facilitator and chairperson in Laitkroh. Under her leadership, the Self-Help Group started poultry rearing activities, cultivation of green chili, capsicum as well as the newly introduced shade nets to protect crops. She organizes monthly meetings and helps with record keeping. Since May 2017, Junita is also helping the community to look for ways to boost their income. As she is also experienced making clothes and embroidery, her wish is to include such a component in the project activities in the future.

"I believe that what we have to do first is make people aware of the importance of conserving our forests and water."



FOOTNOTES

- 1 Includes 416 500 trees financed in 2014, 516 500 trees financed in 2015, 316 000 trees financed in 2016 and 416 000 trees financed in 2017 (still ongoing).
- 2 Assuming the average annual carbon footprint of one European is an equivalent of 10 tons of CO₂.
- 3 Units of land marked out by GPS points.

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 must peak 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