



2022 Plan Vivo Annual Report

KHASI HILLS COMMUNITY REDD+ PROJECT

Submitted by

**Ka Synjuk Ki Hima Arliang Wah Umiam
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Title of Project: Khasi Hills Community REDD+ Project

Annual Report Year: 2022

Summary of Project

| | |
|---------------------------------|-----------------------------------|
| Project overview | |
| Reporting period | 1 January 2022 – 31 December 2022 |
| Geographical areas | East Khasi Hills, India |
| Technical specifications in use | REDD+ and ANR |

| Project indicators | Historical (2012 - 2021) | Added / Issued this period (2022) | Total |
|---|--|---|--|
| No. of smallholder households with PES agreements | 0 | 0 | 0 |
| No. of community groups with PES agreements (where applicable) | 85 | 1 (village re-joined the Project) | 86 |
| Approximate number of households (or individuals) in these community groups | 7,262 households 38,375 individuals | 502 households 2,603 individuals | 7,764 households 40,978 individuals |
| Area under management (ha) where PES agreements are in place | 15,334 ha REDD 1,639.7 ha ANR | 108 ha REDD (Updated mapping) 11.3 ha ANR | 15,442 ha REDD 1651 ha ANR |
| Total PES payments made to participants (USD) | \$350,450.74 | \$122,533.14 | \$472,983.88 |
| Investment in forest conservation and management | \$253,894.85 | \$44,921.71 | \$298,816.56 |
| Total community benefit | \$604,345.59 | \$167,454.85 | \$771,800.44 |
| Total sum held in trust for future PES payments (USD) | \$290,994.22 | 0 | \$290,994.22 |
| Allocation to Plan Vivo buffer (tCO ₂) | 87,462 | 15,210 | 102,672 |
| Saleable emissions reductions achieved (tCO ₂) | 349,841 | 60,837 | 410,678 |
| Unsold stock at time of submission (PVC) | | | 0 |
| Plan Vivo Certificates (PVCs) issued to date | | | 349,841 |
| Plan Vivo Certificates requested for issuance | | | 60,837 |
| Plan Vivo Certificates available for future issuance | | | 0 |
| Total PVCs issued (including this report) | | | 410,678 |

PART A: PROJECT UPDATES

- The Project held an on-site third-party audit for verification of the REDD+ Project in the Khasi Hills area in October 2022. This included both field audits, video conferencing, as well as a thorough review of documents by the verification team. Following the audit, the team carried out a training on proper measurement of carbon plots as a refresher to the team who conduct the annual measurements. The verification audit also identified that the biomass calculations were very conservative, which led to the team revising the calculation methods in the PDD. The requests for future action include more information on the biodiversity sightings including locations and data of the camera traps. The Project was successfully verified by SCS Global Services in May 2023.
- The team has submitted Project Identification Notes (PINs) to Plan Vivo to develop REDD+ Project extension areas for communities in Ri-Bhoi District in Meghalaya and with the Kuki community in the state of Manipur. The team is discussing the option of developing a state-wide project for Meghalaya and a multi-district project in Manipur in order to include more villages throughout the Project period. At the time of review of this Annual Report, October 2023, the Kuki project in Manipur is on hold indefinitely and the Ri-Bhoi project will move forward as a separate project.
- The fuelwood reduction programme continued to reach Project families by distributing 470 LPG (Liquified Petroleum Gas) cookstoves and cylinders (domestic and commercial) and rice cookers to households and commercial kitchens throughout 2022. Distributing LPG cookstoves to those who provide daily meals to children significantly reduced the amount of firewood that had been used previously.
- The Project introduced training in sustainable agriculture including new crops such as buckwheat and button mushrooms. These products are both fast growing and can fetch a good rate in the market. This year training was organised for beneficiaries interested in food processing and preservation. Food processing provides additional income for producers, reduces waste, and can be used as part of the eco-tourism initiative by promoting local foods.

A1: Key events and impacts

1) Mitigating Forest Fires: The Project continued its community-based effort to control forest fires. Awareness raising and rapid mobilization to halt outbreaks has been extremely effective in reducing forest fires. In 2022, the team took a different approach to measuring the impact of fire. The team segregated the area of forest which was affected by fire from the grassland and scrubland that was affected by fire within the Project area. Under this scenario, the forest fire area was minimal and can be credited to the construction and maintenance of the fire lines which are built by community members around forested area. The Project is confident that due to its fire mitigation measures the overall impact fires may have had on carbon stocks compared to the baseline has been minimized due to the work of the communities and prompt emergency measures to contain fires.

2) Community Development Fund Programme: The annual Community Development Funds (CDFs) are one of the major benefits provided by the Project to the participating communities and households. In 2022, 6,891 families benefited from funding to 85 villages. Each community determines how the funds will be spent to benefit the most families and have the greatest impact. In 2022, the communities primarily selected public health improvement activities including safe drinking water systems and improved bathing and washing facilities. Others purchased equipment for community functions and renovated public buildings including schools. In 2022, the Community Development Fund programme budget was doubled from the previous year providing funds of over \$41,000 to Project communities. See Annex 1 for details. The Community Development Fund is one of the many different support mechanisms that sit under the overall Payments for Ecosystem Services (PES) to communities.

3) Eco-Tourism Infrastructure Programme: The state of Meghalaya and the Project area have seen a steady increase in tourism of both domestic and international travelers in the years prior to the Covid-19 Pandemic and once again following the lift of associated travel restrictions. The state government has provided many incentives and increased budget spending to improve tourism infrastructure in the state. This year the Eco-tourism Development Team held its first public festival in the village of Umsawmat based on a local delicacy (grass caterpillar). It provided a space to showcase the location and activities that can draw tourists who may be more interested in cultural awareness as well as trekking, eating local foods, and enjoying the natural environment. The team has mapped out destinations and worked with community members to provide homestays, guides, and facilities for tourists throughout the Project area. Communities undertook grants in 2022 for eco-tourism-based projects worth \$14,000 in order to continue to update and build facilities, maintain trekking paths, and begin new initiatives.

4) Reduced Fuelwood Programme: This programme, aimed at reducing the use of fuelwood, is a long-term strategy that has been modified throughout the years based on availability and beneficiary interest. However, the end goal remains to help transition families to more energy efficient methods of heating and cooking. The Project helps by working with local dealers to provide LPG cookstoves and cylinders or rice cookers to Project families. This year, the Project also introduced the distribution of commercial LPG to organizations such as the Integrated Child Development Service (ICDS) which provides meals for children. In some of the kitchens they have been able to completely stop using fuelwood, which previously amounted to 35 kg per day. The benefits include reduced pressure on local forests and forest habitat, improved air quality, and a 50% reduction in carbon emissions. The fuelwood alternatives also save families substantial time in the cutting and transport of firewood as well as reduced time spent preparing food. This incentive is especially popular among village families and has increased the recognition of the Federation's service to the communities.

5) Biodiversity Rehabilitation: The Project has updated its approach in biodiversity conservation to include camera traps in order to better understand which species are found in the Project area. Field staff and Youth Volunteers continue to record the location and provide photo documentation of rare and endangered flora and fauna throughout the Project area. The intervention encourages the inhabitants of the Project area to cease hunting threatened species and to protect the habitat in which they live. This year, the forestry team held a programme for Community Facilitators (CFs) and Youth Volunteers on conservation of biodiversity. The programme was presented by two resource persons from the Biodiversity Board of Meghalaya and was attended by 131 participants. Furthermore, a training programme was conducted on the installation of camera traps and their use in documenting biodiversity sightings. All of the Community Facilitators from the ten Hima attended the programme which was presented by the Wildlife Department. Field staff report increasing frequencies of sighting key species including leopard and civet cats, several bird species, and rare and endemic plant species. This is directly linked to the rehabilitation of forest habitat as well as the linking of forest fragments to create larger wildlife corridors. Those animals which were found injured or in danger were rescued and handed over to the Meghalaya Wildlife Department for rehabilitation and release. See Annex 2.

6) Self-help Groups and Farmer's Clubs: The Project is distributing vermicompost units and materials, temperate fruit tree saplings, mushroom spawn, piglets, and chicks through subsidies from the Synjuk and convergence with Government departments of Meghalaya and the Central Government, while also providing training programmes on proper nutrition, common diseases, and treatment. The beneficiaries are also visited to ensure the shed and feeding systems for the animals are in good condition both prior to distribution and during follow-up monitoring visits. Similarly, monitoring of all distributions is conducted by the Community Facilitators, Youth Volunteers, and the staff. Two-hundred and sixty SHGs have joined with the Project are continuously being supported and provided advice on building their capital assets to finance micro-loans to their members allowing a proliferation of small income generating businesses.

7) Fruit Tree Plantations: The Project has been working to meet the needs of the interested participants for horticulture by procuring tree saplings from ICAR (Indian Council of Agricultural Research) and the Horticulture and Agriculture Departments of the Government of Meghalaya to carry out a plantation programme. The Project distributed 500 fruit tree saplings to 49 interested beneficiaries in 2022. The types of fruit trees distributed included peach, chestnut, pear, plum, pomegranate, kiwi, and apple. This year training was conducted by the Meghalaya Department of Horticulture for CFs and Youth Volunteers on pruning of fruit trees in order to maximize the production of fruit and to keep the trees healthy. Fifty-two participants attending the training.

8) SHG Federation: In 2022, after several discussions and meetings on forming an SHG Federation, one Hima has decided to join their SHGs together. This will strengthen the bargaining power of the

SHGs, provide linkages to more market opportunities, and increase the loaning available to members. The SHG Federation also offers groups from different areas to meet on a regular basis to strategize, discuss benefits and challenges, and exchange ideas with one another. The Project is anticipating that other Hima may decide to create their own Federation of SHGs in the future.

9) Food Processing: In 2022, the socio-economic team initiated a three-day training conducted by the office of the Assistant Director of Horticulture for beneficiaries in food processing. This is a way to add value and shelf-life to existing goods that the beneficiaries are producing. For example, using the hygienic methods that they are taught, the beneficiaries can make excess produce into pickles and sauces. With the addition of marketing assistance, Project participants can increase their economic status.

10) Traditional Herbal Practitioners: The entire Project Team is involved in supporting traditional Khasi herbal practitioners by bringing together those interested to form a group and assist with tools, equipment, promotion, and resources. In 2022, the Forestry Team worked with communities to locate areas to build herbal gardens to ensure sustainable sources of the herbs that are needed in their line of work. The Eco-tourism Team is also working to incorporate the practice of traditional massage into tourism and trekking packages.

A2: Successes and challenges

Successes:

- The Project was able to provide several trainings this past year from experienced resource people from government departments and scientific institutions, which helps to bolster the investments in the resources that are distributed to community members. It also allows beneficiaries to develop their skills and increase their knowledge in order to perform their roles effectively.
- There were new alternative livelihood activities introduced this year including food processing, button mushroom cultivation, and pig breeding. These initiatives were launched following feedback from the SHGs and beneficiaries and based on their interests.
- The Project team has seen continuation of activities from beneficiaries which is helping them to improve their financial status and reduce their impact on the forest. For example, around 80% of beneficiaries have continued cultivating mushroom and are investing their income into purchasing inputs for increased production. Vermi-composting has also been a successful activity with low inputs and quick rewards. Besides selling the product, beneficiaries are also able to use the compost to increase production of their own crops.
- Project communities continue to be involved and take ownership of the Project. There is an increased interest in the Project and the team has been addressed by other communities who want to learn more and be a part of forest conservation and regeneration of forests.

Challenges:

- Climate change and inclement weather conditions continue to threaten Project participants' livelihoods and wellbeing. With colder, drier winters and longer, more intense monsoon seasons, livestock and bees are negatively affected. Furthermore, when natural disasters occur, the ability to procure materials for livelihood activities becomes challenging. For example, due to hail and windstorms rice straw which is used in mushroom cultivation and vermicomposting was difficult to obtain.
- Increased prices of goods posed another challenge for beneficiaries. For example, poultry rearing became more of a challenge due to the rise in price of the poultry feed. The price of refilling LPG cylinders is also expensive and the Project is working on investing in alternatives which are sustainable for long-term use by the beneficiaries.
- It has been difficult to continue to add areas for Assisted Natural Regeneration (ANR) every year as communities have set aside land for other purposes or may have already closed area off for ANR. The team continues to work with Headmen to make Village Management Plans which include ANR for future years.

A3: Project developments

During 2022 the updated Technical Specification (TS) and the Project Design Document (PDD) for the Khasi Hills Community REDD+ Project were accepted by Plan Vivo. The Project continues to work with The Landscapes and Livelihoods Group (TLLG), an Edinburgh-based company to develop the Project as it expands into other areas of Northeast India. In October 2022 a consultant from TLLG joined the team for three weeks to visit the Project areas and assist with procedures for stakeholder engagement, sociological and environmental risks assessments, and to better understand the theory of change. During this visit the team also started to collect data points on land cover classes to develop more accurate maps for the Project and reference areas.

In 2022, the Project increased its presence in the Eco-tourism sector. The team continues to develop tourism strategies which both showcase the natural beauty of the area while protecting the forests from deforestation by providing communities with alternative livelihoods such as guiding, homestays, local foods, etc.

A4: Future developments

The Project will continue to develop relationships with villages throughout Meghalaya in order to expand the Project area and to assist in implementing REDD+ activities there. The team is working on developing a project in Ri-Bhoi District, Meghalaya and is currently working on the PDD.

The socio-economic team is continuously implementing and monitoring income generating livelihood activities. They will continue to assess their future viability, adjust as needed, and provide training based on expert knowledge.

The Project is interested in conducting more research on water quality and how reducing deforestation is affecting water sources for those in the Project area. They are looking forward to working with hydrologists in this effort. See Annex 3 for 2022 monitoring results. Similarly, the team is working on developing methods to assess the Project’s effect on biodiversity in the Project area.

PART B: PROJECT ACTIVITIES

B1: Project activities generating Plan Vivo Certificates

Project activities to generate Plan Vivo certificates continued in 2022. An additional 11.26 hectares were taken up for advance closure and silvicultural treatment bringing the total ANR to 1,651 hectares. The most recent ANR forest plot monitoring has shown that these young regenerating forests were sequestering carbon at an annual rate of 1.40 tC/ha for open forests and 2.43 tC/ha for dense forests per year (Tables G8b and G8c, 2021 KHCRP Technical Specification V4.1). These rates show similarities with the range of rates seen in studies of similar open Chir pine forests in Nepal (Jina et al, 2008) (Shrestha, 2010).

Avoided forest degradation and deforestation (REDD+) in dense forests is succeeding through community fire control, reduced fuelwood consumption, and raising community awareness through the preparation of village forest plans and maps. Fire control efforts by communities in 2022, including the maintenance of 90 km of fire lines, limited the area of forested affected by fire to 6.2 hectares. This year, the Project team monitored both grassland and scrubland separately from the forested area while assessing fire damage. The fire lines are made to protect the forested area and they have been successful in that effort. The unforested area affected by fire in the Project area was measured at 42.6 hectares.

Table 1: Project activity summary

| Name of technical specification | Area (Ha) | No. Smallholder Households | No. Community Groups |
|--|------------------|-----------------------------------|-----------------------------|
| Advance Closure for ANR | 1651 | 4,333 | 48 |
| REDD+ | 15,442 | 7,764 | 86 |

Tables 2a and 2b: Area protected for natural regeneration and enrichment planting in 2022 and the first two implementation phases in hectares.

| Hima | ANR area added 2014 | ANR area added 2015 | ANR area added 2016 | ANR area added 2017 | ANR area added 2018 | ANR area added 2019 | ANR area added 2020 | ANR area added 2021 | ANR area added 2022 | Total ANR to date |
|--------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|-------------------|
| Mawphlang | 24 | 85.9 | 21.7 | 8.3 | 0 | 0 | 20 | 17.7 | 0 | 177.6 |
| Laitkroh | 6 | 40.9 | 29.9 | 0 | 100 | 0 | 11 | 0 | 0 | 187.8 |
| Nonglwai | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 |
| Lyngiong | 9.6 | 278.5 | 68 | 0 | 20 | 0 | 30 | 10.7 | 0 | 416.8 |
| Mylliem | 32.1 | 12 | 20.2 | 0 | 20 | 0 | 40 | 28 | 10 | 162.3 |
| Pamsangut | 7.3 | 21 | 115.4 | 0 | 0 | 0 | 15 | 0 | 0 | 158.7 |
| Nongkhlaw | 0 | 19 | 30.6 | 0 | 10 | 0 | 5 | 0 | 0 | 64.6 |
| Nongspung | 9 | 3.9 | 0 | 0 | 0 | 0 | 10 | 11.7 | 1.3 | 35.9 |
| Sohra | 19.7 | 18.6 | 200.9 | 0 | 20 | 19 | 20 | 0 | 0 | 298.2 |
| Mawbeh | 34.9 | 30.7 | 7.1 | 0 | 20 | 6 | 35 | 7.4 | 0 | 141.1 |
| Total | 150.6 | 510.5 | 493.8 | 8.3 | 190 | 25 | 186 | 75.5 | 11.3 | 1651 |

| ANR TREATMENT TYPE | IMPLEMENTATION PHASE 1 2012-2016 (ha) | IMPLEMENTATION PHASE 2 2017-2021 (ha) | IMPLEMENTATION PHASE 3 2022-2026 (ha) | TOTAL 2012-2021 (ha) |
|-----------------------|---------------------------------------|---------------------------------------|---------------------------------------|----------------------|
| ANR advance closure | 1154.9 | 484.8 | 11.3 | 1651.0 |
| Silviculture activity | 500 | 484.8 | 27.6 | 1012.4 |

B2: Project activities in addition to those generating Plan Vivo Certificates

The Project's strategy in generating additional social and economic benefits depends on the involvement of members of the 86 participating villages. In order to engage nearly 41,000 people scattered over 270 square kilometres, the Project has hired and trained a staff of community organizers. Table 3 illustrates the steady growth in staff over the past six years, with the number of female staff members increasing over the same period as well. Over 90 percent of the Project staff are members of the participating communities and include both men and women, young and old. The allocation of Project resources for socio-economic activities is guided by the input from the Project participants themselves.

The governance of the Federation or Synjuk that oversees the Project is comprised of the leaders of the ten participating Indigenous governments (*Hima*), representatives from the SHGs and FCs, and members of the staff including Youth Volunteers. This approach to bottom-up planning and local management allows the Project to be grounded in and owned by the participating communities

providing it with greater sustainability. The Project’s efforts to engage school students in conservation activities directly links these young Khasi youth to their traditional environmental values as well as motivates them to engage in ongoing and future forest and land stewardship projects.

Table 3: Project Staff Engaged in Community Development and Resource Management

| Year | Office Staff | Male Community Facilitators | Special Task Community Facilitators | Assistant Community Facilitators | Female Community Facilitators | Male Local Youth Volunteer | Female Local Youth Volunteer | Total |
|------|--------------|-----------------------------|-------------------------------------|----------------------------------|-------------------------------|----------------------------|------------------------------|-------|
| 2016 | 9 | 5 | 1 | 0 | 0 | 62 | 0 | 77 |
| 2017 | 12 | 6 | 1 | 3 | 4 | 62 | 62 | 150 |
| 2018 | 8 | 5 | 1 | 4 | 6 | 62 | 62 | 148 |
| 2019 | 14 | 9 | 0 | 6 | 10 | 62 | 62 | 163 |
| 2020 | 15 | 9 | 0 | 6 | 10 | 62 | 62 | 164 |
| 2021 | 19 | 9 | 0 | 8 | 10 | 85 | 85 | 216 |
| 2022 | 19 | 9 | 0 | 8 | 10 | 86 | 86 | 218 |

- Training Programmes:** An important component of the Project strategy is capacity building. The team conducted a series of vocational training sessions on vermicomposting, buckwheat cultivation, temperate tree pruning, pig breeding, button mushroom cultivation, food processing, tour guiding, photography, camera trap placement and monitoring, tree plantation, carbon plot monitoring, scrubland plot making, and nursery management to both refresh knowledge of those who were already involved in the Project and to orient those who are new to the Project activities. Orientation sessions were also conducted for CFs and Youth Volunteers as well as SHGs.

PART C: PLAN VIVO CERTIFICATE ISSUANCE SUBMISSION

C1: Contractual statement

The Federation (Synjuk) has signed PES (Payment for Ecological Services) agreements with 86 participating villages in the Project area.

Table 4: Statement of tCO₂ reductions available for issuance as Plan Vivo Certificates based on activity for reporting period 1/22 – 12/22

| Total area (ha) | Tech. Spec | Saleable ERs available (tCO ₂) available from previous periods. | Total ER's (tCO ₂) achieved this period (2022) | % Buffer | No. of PVCs allocated to buffer from ER's (2022) | Saleable ERs available (2022) | Issuance request (PVCs) Vintage | ER's (tCO ₂) available for future issuances |
|-----------------|------------|---|--|-----------|--|-------------------------------|---------------------------------|---|
| 15,442 | REDD+ | 0 | 71,000 | 20 | 14,200 | 56,800 | 56,800 | 0 |
| 1,651 | ANR | 0 | 5,047 | 20 | 1,010 | 4,037 | 4,037 | 0 |
| Total | | 0 | 76,047 | 20 | 15,210 | 60,837 | 60,837 | 0 |

C2: Allocation of issuance request

Table 5: Allocation of issuance request

| Buyer name/ Unsold Stock | No. PVCs transacted | Registry ID (if available) or Project ID if destined for Unsold Stock | Tech spec(s) associated with issuance |
|-------------------------------------|---------------------|---|---------------------------------------|
| Khasi Hills Community REDD+ Project | 60,837 | 10300000000432 | REDD+/ANR |
| TOTAL | 60,837 | | |

C3: Data to support issuance request

See monitoring results Annex 4. During 2022, plots were monitored and carbon was calculated as per the Technical Specifications in the Project Design Document V4.0-4.1:

A biomass expansion factor (BEF) was applied to convert stem biomass estimates to estimates of whole tree biomass was applied. Biomass expansion factors recommended by Brown (1997) were applied:

- When inventoried biomass was >190 t/ha a BEF of 1.74 was applied;
- When inventories biomass as <190t/ha a $BEF = EXP(3.213-0.506*LN(BV))$, was applied where BV=inventoried volume;
- For plots dominated by pines a BEF of 1.3 was applied.

In the past this procedure had not been consistent, and a more conservative approach was being used where a BEF of 1.3 was applied for all open forest plots. Due to this discrepancy, the Project has recalculated the previous years using this consistent method in order to compare figures.

PART D: SALES OF PLAN VIVO CERTIFICATES

Table 6: Sales for the reporting period 01/22 – 12/22

| Vintage | Sale Date (M/D/Y) | Buyer | No of PVCs | Price per PVC (\$)* | Total sale amount (\$)* | % Sale received by participants |
|-----------------------|-------------------|--------------|------------|---------------------|-------------------------|---------------------------------|
| 2021 | 04/25/2022 | Zero Mission | 25,000 | | | 80 |
| Total for 2022 | | | 25,000 | | | |

*Pricing reported for internal monitoring purposes only.

See Annex 6 for the historical sales data.

PART E: MONITORING RESULTS

The Project monitors the impact of activities, which directly benefit forest ecology. The key indicators fall into two categories: 1) forest conservation linked to REDD+, and 2) forest growth linked to ANR. Forest fire control is critical to both strategies as fires destroy older growth and dense forests, while restricting regeneration in developing forests. These targets are from the revised monitoring framework found in the Technical Specification (V4.0-4.1) Table K1a which were revised during in 2021 and reviewed throughout the Project monitoring period based on realistic assumptions and reflective of the past monitoring results.

The monitoring targets for socio-economic activity is divided into two sections, 1) benefit sharing and participation and 2) institutional capacity. The baseline and monitoring targets for socio-economic monitoring from Table K2 in the Technical Specifications (V4.0-4.1) were revised in 2021.

Table 7: Monitoring targets

| Activity | Activity Indicator (measured annually) | Means of Assessment | Annual Targets | | | |
|----------------------------|--|---------------------|----------------|-------------------------|----------------------------|---------------|
| | | | Full Target | Full Target Achievement | Partial Target Achievement | Missed Target |
| Forestry Indicators | | | | | | |

| | | | | | | |
|-----------------------------------|---|--|--------------|-----------------|---------|----------|
| Fire control | Length of fire lines constructed by <i>Hima</i> | The project team keeps records of km of fire line reported annually by the CF of each <i>Hima</i> and is included in the annual report. | > 60 km | 89.65 | | |
| Forest restoration | Number of hectares with ANR Advance Closure Treatment | CFs collect data from village members and Youth Volunteers who record data from the field using GPS units. The results are published in the annual report. | 50 ha | | | 11.26 ha |
| | Number of hectares with ANR Silvicultural Treatment | CFs collect data from village members and Youth Volunteers who record data from the field using GPS units. The results are published in the annual report. | 50 ha | | 27.6 Ha | |
| Fuelwood saving devices | Number of fuelwoods saving units installed (LPG, rice cookers, etc.) | Data is collected by the CFs and the project team throughout the year and analyzed at year's end for inclusion in the annual report. | >150 units | 470 units | | |
| Charcoal making | Number of households who have been involved in charcoal making who are now involved in alternative activities | Data is collected by the CFs and the project team throughout the year and analyzed at year's end for inclusion in the annual report. | >5% | | 1.8 % | |
| Socio-economic Indicators | | | | | | |
| Benefit sharing and participation | Number of villages with Community Development Funds (CDFs) | The data is collected by the CFs from the village leaders and members to gain their input and is analyzed by the project team to identify any problems and implications for the coming year's grant program. The findings are included in the annual report. | >70 villages | 85 villages | | |
| | Number of families accessing CDFs | The data is collected by the CFs from the village leaders | >2000 HH | 6891 households | | |

| | | | | | | |
|--|---|---|---------------|--------------|-----|--|
| | | and members to gain their input and is analyzed by the project team to identify any problems and implications for the coming year's grant program. The findings are included in the annual report. | | | | |
| Institutional capacity | Number of trainings programs | This data is collected by the project team throughout the year and is analyzed at year's end by the team to determine if capacity is improving. The quantitative data is supplemented by case studies and in-depth interviews. The data is reported in the annual report to Plan Vivo and other stakeholder institutions. | 10 programs | 10 programs | | |
| | Percentage of participants who take up an activity after receiving training (within 1 year) | This data is collected by the CFs and project team throughout the year and is analyzed at the year's end by the team to determine if the training is beneficial. The data is reported in the annual report to Plan Vivo. | >50% | | 30% | |
| | Number of families participating in Income Generating Activities | Data is collected by CFs from village leaders and members and is analyzed by the project team. The findings are included in the annual report. | >200 families | 260 families | | |
| Environmental and Biodiversity Indicators | | | | | | |
| Biodiversity | Number of biodiversity surveys conducted by CFs and Youth Volunteers | The CFs and Youth Volunteers record any observations on biodiversity record sheets. Information recorded includes the name of the species observed, time and place, GPS location, evidence of its presence (scat, fur, animal or bird, call, etc.), and the | >2 surveys | 6 | | |

| | | | | | | |
|-----------|--|---|-----------------------|--|--|---|
| | | condition of the location. The record is presented and reviewed by the project team at the end of the year. | | | | |
| Quarrying | Number of reports and lobby advocacy meetings/reports held | The data is collected by the CF and reported to the project team which analyses the data and includes it in the annual report and shares it with the <i>Hima</i> leadership and village councils. | 2 reports or meetings | | | 0 |

Although the targets for forest restoration were not met this year for the number of hectares that were added to ANR and part of silvicultural activities, the Project continues to work with communities to increase the amount of land that is set aside for regeneration and will commit to including more land for ANR to meet the five-year target of 250 hectares which is included in the PDD. The success of ANR within the Project continues to be monitored carefully and the team is looking forward to analysing which activities are making the most impact in the communities.

New monitoring targets were set within the updated PDD for the monitoring period 2022-2026 for charcoal production. The team has monitored charcoal production in the past, however, the new annual target was only partially met. It is difficult to monitor realistic changes in households involved in charcoal making as there are a number of factors involved including location, number of people in the household depending on the income, the number of months a household might be involved in the activity, and the type of forest that is used for such purposes. The team is actively working with communities to introduce alternative livelihoods which would decrease the need to use the forest for charcoal making.

During 2022, the CFs and team were unable to achieve the targets for meetings and reports on quarrying. This continues to be a challenge as quarries are often on private land, but the Project is dedicated to reaching the targets in the upcoming years in order to reduce quarry activity in the Project area.

PART F: IMPACTS

F1: Evidence of outcomes

The Project has demonstrated a variety of impacts that are directly or indirectly linked to Project activities. Information and other evidence that document these outcomes are included in the Annex.

Forest cover and conditions are improving throughout the 23,500-hectare Project within the Umiam Watershed as community awareness has heightened village forest protection activities. This, in turn, has resulted in improving hydrological function with increased stream and spring flow through the dry season. Biodiversity of flora and fauna appears to be strong (as represented by the number of sightings of rare species), though the team is unable to provide conclusive evidence of any increase in biodiversity at this point given the data. Now that data is being collected through camera traps, the team can use the information as a baseline for continued monitoring at precise locations.

The area of forest impacted by fire was heavily reduced in 2022 as forests were protected by community driven action of fire lines, pre-controlled burning, and the use of fire watchers who quickly notify the community to keep existing fires from spreading. The Project has also assisted in household transition from fuelwood to alternative energy sources by distributing LPG cooktops and cylinders to a total of 2,537 beneficiaries throughout the Project years, including 220 units in 2022. The Project also distributed 250 rice cookers to households in 2022.

Co-benefits reflecting the Sustainable Development Goals can also be seen as household incomes increase due to Project supported entrepreneurial and innovative farming systems including organic agriculture. The use of Community Development Funds by participating villages to improve village forests in 85 communities in 2022 demonstrates that the Project is having an impact on improving environmental conditions. More than 7,764 households have benefited from access to the mature forest for fuelwood, support for livelihood, support for the poor families, and as a watershed source for drinking water. An important impact from the Project is the increasing participation rates and interest of the approximately 41,000 people in the watershed. From the outset, the Khasi Hills Community REDD+ Project was ambitious in taking on 62 communities with a population of 25,000. The continued success of the Project is reflected in its steady growth of villages and as neighbouring communities request to be included in the forest conservation and restoration activities. The Project has been contacted by other tribal communities, governments, and NGOs in India in the past few years, further demonstrating its impact as a model for a successful approach to village resource management.

An additional Project impact has been the adoption of Project innovations by the World Bank funded Meghalaya Community Watershed Project that draws on the Khasi Hills experience. The Project is thereby shaping national and state-level policy regarding how communities can be empowered to address climate change through REDD+ and afforestation and reforestation projects.

PART G: PAYMENTS FOR ECOSYSTEM SERVICES

G1: Summary of Community Development Funds by year

Payments for Ecosystem Services (PES) include all socio-economic activities, restoration, and environmental services. The breakdown for these funds can be found in Part I, Table 9. The primary mode of PES distribution is through the annual Community Development Funds (CDF) Programme. In 2022, the Project was able to distribute the highest payments to date to Project participants. Payments were made to assist 6,891 households in 85 villages (the 86th village was re-added after CDF had been distributed), see Annex 1, Table 1 for detailed information. Distributions through this mechanism are summarized in Table 8 below:

Table 8: Summary of payments made and held in trust

| Reporting year | | Total previous payments (previous reporting periods) \$ | Total ongoing payments (in this reporting period) \$ | Total payments made (2+3) \$ | Total payments held in trust \$ | Total payments withheld \$ |
|-----------------|-----------------------------|---|--|------------------------------|---------------------------------|----------------------------|
| 01/2022-12/2022 | Community Development Funds | 146,052.72 | 41,077.14 | 187,129.86 | 0 | 0 |
| | Small Livelihood Grants | 18,842.07 | 37,892.00 | 56,734.07 | 0 | 0 |
| 01/2021-12/2021 | Community Development Funds | 128,909.86 | 17,142.86 | 146,052.72 | 857.14 | 0 |
| | Small Livelihood Grants | 11,373.97 | 7,468.10 | 18,842.07 | 0 | 0 |
| 01/2020-12/2020 | Community Development Funds | 100,219.61 | 28,690.25 | 128,909.86 | 2,357.00 | 0 |
| | Small Livelihood Grants | 10,152.33 | 1,221.64 | 11,373.97 | 0 | 0 |
| 01/2019-12/2019 | Community Development Funds | 83,108.21 | 17,111.40 | 100,219.61 | 14,307.69 | 692.31 |
| | Small Livelihood Grants | 9,344.33 | 808.00 | 10,152.33 | 1,769.00 | 0 |
| 01/2018-12/2018 | Community Development Funds | 68,584.41 | 14,523.80 | 83,108.21 | 0 | 952.38 |
| | Small Livelihood Grants | 8,559.33 | 785.00 | 9,344.33 | 0 | 0 |
| | | 48,822.41 | 19,762.00 | 68,584.41 | 1,563.00 | 1,563.00 |

| | | | | | | |
|-----------------|-----------------------------|-----------|-------------------|-----------|-----------|---|
| 01/2017-12/2017 | Community Development Funds | | | | | |
| | Small Livelihood Grants | 6,541.33 | 2,018.00 | 8,559.33 | 0 | 0 |
| 01/2016-12/2016 | Community Development Funds | 30,720.41 | 18,102.00 | 48,822.41 | 19,200.00 | 0 |
| | Small Livelihood Grants | 3,782.33 | 2,759.00 | 6,541.33 | 0 | 0 |
| 01/2015-12/2015 | Community Development Funds | 12,750.00 | 17,970.41 | 30,720.41 | 0 | 0 |
| | Small Livelihood Grants | 1,658.33 | 2,124.00 | 3,782.33 | 0 | 0 |
| 01/2014-12/2014 | Community Development Funds | 0 | 12,750.00 | 12,750.00 | 0 | 0 |
| | Small Livelihood Grants | 0 | 1,658.33 | 1,658.33 | 0 | 0 |
| TOTAL | | | 243,863.93 | | | |

Please note that this is only comparing Community Development Funds and Small Livelihood Grants throughout the years. The Community Benefit extends to other services which are summarised in Table 9.

PART H: ON-GOING PARTICIPATION

H1: Project Potential

The Project leaders are meeting with village leaders in neighbouring Ri-Bhoi District, adjacent villages to the Project area and in Manipur to assess potential interest in expanding the Project into their areas.

H2: Community Participation

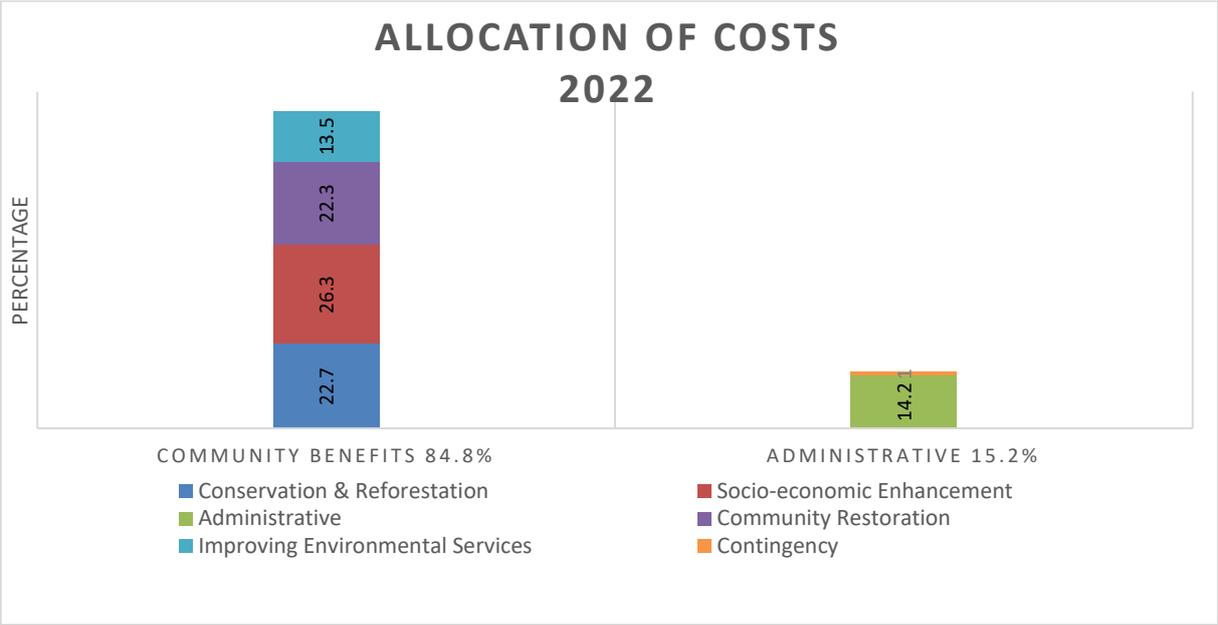
The Project strategy is based on the intensive participation of the communities. During 2022, the team prepared for the five-year verification and field audit of the Project. Due to this, the Community Facilitators worked closely with both the team and the community members to ensure all activities were taking place and that beneficiaries were available and prepared for meeting with the audit team. Additionally, the Project employed 218 individuals drawn from the participating villages, an increase from 77 staff in 2016. The Project strategy relies on local people to both manage and implement the

Project to strengthen the sense of ownership, utilize local knowledge regarding development priorities and environmental problems, and to reduce overhead costs. The Project has emphasized the involvement of women and youth in order to create an age and gender balance that reflects the larger community, while drawing on the experience and authority of traditional leaders.

PART I: PROJECT OPERATING COSTS

Table 9: Allocation of costs 2022

| COMMUNITY BENEFITS | INR | USD | % |
|--|-------------------|-------------------|--------------|
| Conservation & Reforestation | | | |
| Conservation & Reforestation: LPG Distribution, plantation, training, silviculture, site selection, capacity building | 3,144,520 | 44,921.71 | 22.7% |
| PES Payments | | | |
| Socio-economic enhancement: Temperate fruit trees, livestock, vermi-composting, mushroom cultivation, SHGs, LWCs, FCs, training, Community Development Fund, Special Village Grant, solar streetlights, income generating activities | 3,631,820 | 51,883.14 | 26.3% |
| Assist community with restoration: CFs, Training, Tree Adoption Programme, Fireline | 3,082,700 | 44,038.57 | 22.3% |
| Improving Environmental Services: Eco-tourism grants, Biodiversity monitoring, Advocacy and Networking | 1,862,800 | 26,611.43 | 13.5% |
| Total | 11,721,840 | 167,454.85 | 84.8% |
| ADMINISTRATIVE OVERHEADS | INR | USD | % |
| Administrative | 1,963,920 | 28,056.00 | 14.2% |
| Contingency | 145,000 | 2,071.43 | 1.0% |
| Total | 2,108,920 | 30,127.43 | 15.2% |
| TOTAL COSTS | 13,830,760 | 197,582.28 | 100% |



See Annex 1, Table 2 for a complete list of community benefits provided by the Project.

ANNEX

Annex 1: Community impacts

Table 1: Community Development Funds provided to 85 participating villages in 2022.

| Community Development Funds for the year 2022 | | | | |
|---|-------------------|--|----------------------|-----------------------|
| Sl. No | Village | Activity | Number of Households | Benefitted Households |
| 1 | Mawkohmon | Repairing and painting Dorbar Hall. | 223 | 223 |
| 2 | Mission | Repairing toilet and water tank at Dorbar Hall. | 85 | 85 |
| 3 | Ladumrisain | Repairing 12 solar streetlights and 4 signboards. | 135 | 135 |
| 4 | Nongrum | Purchasing of speaker wire and installation of speaker, making of wooden podium and making of signboard. | 145 | 145 |
| 5 | Dongiewrim | Making gate and construction canal at Pungum Palong | 196 | 196 |
| 6 | Lyngkien Sunei | Buying village materials. | 99 | 99 |
| 8 | Umyrniut | Buying village materials. | 102 | 102 |
| 8 | Mawmyrsiang | Buying P.A. system | 80 | 80 |
| 9 | Lyngkien Ramklang | Buying village materials. | 126 | 126 |
| 10 | Kyiem | Renovation of drinking well at Ummawiong. | 131 | 131 |
| 11 | Wahrahaw | Purchasing plastic chairs | 86 | 86 |
| 12 | Ur Ur | Construction of toilet at Community Hall | 110 | 110 |
| 13 | Wahumlawbah | Purchasing village materials. | 100 | 100 |
| 14 | Laitmawpen | Purchasing village materials. | 65 | 65 |
| 15 | Lawshlem | Purchasing plastic chairs. | 48 | 48 |
| 16 | Kyndonglaimaw bah | Purchasing plastic chairs and one table. | 50 | 50 |
| 17 | Phaniewlah Neng | Restoring agricultural land from MB road to Laitsynning. | 84 | 84 |
| 18 | Phaniewlah Rum | Construction of washing place at Mawlyngru. | 110 | 110 |
| 19 | Umkaber | Construction of two railings at the washing place at Mawlariang and Khlemman. | 81 | 81 |
| 20 | Nongthymmai Rum | Construction of washing place. | 53 | 53 |
| 21 | Lyngdoh Phanblang | Construction of water pond at Perstew. | 112 | 112 |

| | | | | |
|----|-----------------|--|-----|-----|
| 22 | Perkseh | Construction roof top of washing place. | 78 | 30 |
| 23 | Laitsohphlang | Purchasing plastic chairs. | 38 | 38 |
| 24 | Mawponghong | Construction of water pond. | 103 | 103 |
| 25 | Umsawmat | Construction washing place at Tihjaud | 129 | 129 |
| 26 | Laitmawhing | Construction of two dustbin at Lailad. | 64 | 64 |
| 27 | Thainthynroh | Fencing drinking well at Donglum. | 225 | 20 |
| 28 | Nonglwai | Buying plastic chairs | 207 | 207 |
| 29 | Laitsohum | Purchasing cooking materials and plastic chairs. | 70 | 70 |
| 30 | Kukon | Construction of washing place at Wah Hima Kukon. | 22 | 22 |
| 31 | Mawlum Tyrsad | Continuation of roof top of washing place at Thwei Sohphareng. | 102 | 102 |
| 32 | Kyrphei | Making drawer and benches. | 169 | 169 |
| 33 | Umlangmar M | Buying plastic chairs. | 85 | 85 |
| 34 | Mawspang | Construction of water pond. | 27 | 27 |
| 35 | Nongmadan | Construction of washing place | 131 | 131 |
| 36 | Pamsanggut | Construction of place to perform rituals (Duwan Knia shnong) | 50 | 50 |
| 37 | Mawsawrit | Construction of washing place. | 65 | 65 |
| 38 | Nongwah | Purchasing water tank & pipe at the toilet of Children Park at Nongwah | 147 | 147 |
| 39 | Remdong | Construction of washing place | 30 | 30 |
| 40 | Tyrsad Umkseh | Repairing office of Dorbar Shnong | 200 | 200 |
| 41 | Mawliehpoh | Buying village materials. | 68 | 68 |
| 42 | Mawrohroh | Construction of steps at Dorbar Hall. | 66 | 66 |
| 43 | Umlangmar(N) | Construction of toilet at Dorbar hall. | 33 | 33 |
| 44 | Lawkhla Mawlong | Purchasing drawer for the Community Hall. | 44 | 44 |
| 45 | Lawkhla | Construction of washing place | 72 | 40 |
| 46 | Laitniangtlong | Construction of drinking well at Pdeng Shnong | 52 | 52 |
| 47 | Wahrisain | Buying village materials. | 32 | 32 |
| 48 | Mawsadang | Making of tables and chairs at Dorbar Hall. | 121 | 121 |
| 49 | Niamsang | Construction of footpath. | 41 | 41 |
| 50 | Pyndenumbri | Buying PA system. | 40 | 40 |
| 51 | Mawbeh | Construction of toilet at Lumsder Mawbeh. | 144 | 144 |
| 52 | Laitsohma | Construction of toilet at the Community Hall | 38 | 38 |
| 53 | Steplakrai | Construction of toilet at Seng Khasi School Steplakrai. | 41 | 41 |
| 54 | Mawkalang | Construction of pond at Lynti Sohra | 22 | 22 |
| 55 | Wahstew | Construction of waiting shed at Wahstew | 54 | 54 |

| | | | | |
|----|-------------------|--|-----|-----|
| 56 | Laitthemlangсах | Continuation of viewpoint at Lum Thwei U Ren | 21 | 21 |
| 57 | Laitumiong | Construction of washing place. | 13 | 13 |
| 58 | Synrangshohnoh | Continuation of bus shed at Wahnamlang. | 42 | 42 |
| 59 | Jathang | Purchase of water tank, drawer, bench and tarp. | 48 | 48 |
| 60 | Mawstep | Construction of washing place at Madan Pyrdong. | 53 | 14 |
| 61 | Rngidiengsai | Repair washing place at Wah Thoh Syntai Rngidiengsai. | 15 | 10 |
| 62 | Pylda | Construction of washing place at Wahthem Sohshur Pylda. | 63 | 35 |
| 63 | Dympep | Silviculture at Law Adong at riat U Nok U Sain Wah Sohra Dympep. | 76 | 76 |
| 64 | Laitsohpliah | Construction of washing place at Wah -U-Se. | 88 | 25 |
| 65 | Umdiengpoh | Construction of canal at Pynsumkulai. | 88 | 88 |
| 66 | Mawkma | Construction of drinking well at Persohriew Mawkma | 268 | 15 |
| 67 | Laitlyndop | Buying water pipe. | 154 | 154 |
| 68 | Lad-Mawphlang | Repairing washing place at Wahkhlaw Lad Mawphlang | 104 | 90 |
| 69 | Mawmihthied | Construction of washing at Riat Thapbalieh. | 139 | 125 |
| 70 | Mawbri | Construction of two dustbins at Lumsohpen and Mawshongthaid | 30 | 30 |
| 71 | Sohrarim | Repair water pond at Wahmawbah Sohrarim. | 138 | 138 |
| 72 | Lumkyntung | Purchasing village materials. | 76 | 76 |
| 73 | Umtynnggar | Repair Aganwadi centre | 89 | 89 |
| 74 | Shankhla | Construction of washing place at Phud Shyngiar | 22 | 22 |
| 75 | Lyngkienshih | Construction of drinking well. | 56 | 56 |
| 76 | Kynton Syrwa | Construction of washing place at Myrthoh Kynton Syrwa. | 56 | 56 |
| 77 | Mynsain | Construction of washing place at Umsawlia | 87 | 87 |
| 78 | Nongthymmai Pdeng | Renovation of washing platform at Nongthymmai Pdeng. | 27 | 27 |
| 79 | Lummawkong | Buying village materials. | 91 | 91 |
| 80 | Kyrdemkhla | Purchasing village materials. | 106 | 106 |
| 81 | Diengkynthong | Purchasing village materials and repair of washing place | 88 | 88 |
| 82 | Mawjriong | Buying P.A. System | 126 | 126 |
| 83 | Mawmyrsiang | Construction of washing place | 129 | 60 |

| | | | | |
|----|------------|---|------|------|
| 84 | Tiewlieh | Construction of drinking well at Wah Umsuh. | 131 | 131 |
| 85 | Laitkynsew | Construction of public toilet at Law Adong | 206 | 206 |
| | | | 7661 | 6891 |

Those villages in which less than 100% of the households were beneficiaries of the CDF is due to the location of the project which was given in the plan of the village. The households may have benefitted from past funds or may benefit from funds in the future based on the village plan presented.

Table 2: Structure of Community Benefits

| Community Benefits | | |
|------------------------------|---|-------------------------------------|
| Conservation & Reforestation | | LPG Distribution |
| | | Plantation |
| | | Training |
| | | Silviculture |
| | | Site selection |
| | | Capacity building |
| PES | Socio-economic Enhancement | Vermi-composting |
| | | Temperate fruit trees |
| | | Shade nets |
| | | Livestock |
| | | Mushroom cultivation |
| | | SHGs/Farmers Clubs |
| | | Income Generating Activities |
| | | Training |
| | | LWC |
| | | Community Development Funds |
| | | Special Village Grants |
| | | Rain harvesting |
| | | Solar streetlights |
| | | Assist Communities with Restoration |
| | Tree adoption programme | |
| | Community Facilitators | |
| | Youth Volunteers | |
| | Training | |
| | Forest Conservation Extension Programme | |
| | Improve Environmental Services | Eco-tourism Grants |
| | | Advocacy and networking |
| | | Biodiversity documentation |

Annex 2: Conservation monitoring results

The biodiversity survey provides a record of sightings of flora and fauna in the Project area. The survey is kept by the Community Facilitators (CFs) to the best of their capability through the inputs of the Youth Volunteers and resident villagers. All sightings are documented with photos and GPS coordinates.

This year, through convergence with the Meghalaya Department of Wildlife, the Project added camera traps to get a better sense of which fauna are present without disturbing their habitats. Four camera traps were purchased by the Project and nine were provided by the Wildlife Department. Each camera trap remains in place for approximately one month before the data is collected and it is moved to another location. Overall, the Project has gathered data from 52 locations in 2022.

| Sightings by Community | Village | Action Taken |
|--|-----------------------|--|
| Nightjar bird | Nongwah | Rehabilitated |
| Leopard prints (spotted twice) | Lum Kyrphei | None |
| Leopard cubs | Mawrathud | Rehabilitated |
| Tern bird | Mawlum Tyrsad | Rehabilitated |
| Slaty-legged crane bird | Mawrohroh | Rehabilitated |
| Hooded pitta bird | Mawkoma | Rehabilitated |
| Hare | Phanniewlahneng | Rehabilitated |
| Nepenthes khasiana | Umsawmat | Protected |
| Deer faeces | Hima Myllem | None |
| Unidentified bird | Nongwah | Rehabilitated |
| Ground orchid (possibly <i>Spathoglottis</i>) | Mawbeh | None |
| Blue whistling thrush bird | Mawmyrsiang | Rehabilitated |
| Ferret badger | Umlangmar Myllem | Wildlife Dept. contacted, but animal died before treatment |
| Civet cat faeces | Mawlangrain Umlangmar | None |
| Owl | Mawlum Tyrsad | Rehabilitated |
| Oriental day owl | Laiphew Diengngan | Rehabilitated |
| Leopard cubs | Lawkhla Mawlong | Rehabilitated |
| | | |
| Sightings by Camera Trap | | Number of Sightings |
| Civet cat | | 7 |
| Chipmunk | | 5 |
| Pheasant | | 11 |
| Bird | | 7 |
| Yellow-throated Marten | | 4 |
| Squirrel | | 8 |
| Deer | | 7 |
| Porcupine | | 1 |
| Leopard cat | | 3 |

Annex 3: 2022 water quality monitoring results

| SL.NO | HIMA | VILLAGE | LOCATION | CONSTRUCTED BY | HOUSEHOLD BENEFITTED | PHYSIOGRAPHICAL FEATURE AND TYPE OF TREES | FINDINGS | REMARKS |
|-------|-----------|----------------|---------------------------|----------------|---|---|--|---|
| 1 | Nongkhlaw | Sohrarim | Wah Mawsapiur | MGNREGS | 20 | Open Forest with loamy and clay soil, the soil is mostly moist. Trees consisting of <i>Castanopsis hystrix</i> , <i>Castanopsis indica</i> , <i>Ex bucklandia populnia</i> , <i>Schima khasiana</i> , <i>Myrica esculenta</i> , <i>Lithocarpus fenestrata</i> , <i>Elaeocarpus lanceifolius</i> . | There is regular availability of water in the area. The water sample collected have been taken for tested and found traces of <i>E.coli</i> which might indicates the fecal contamination. The water is unfit to drink and to be consumed after boiling. | Silviculture to be done in the area. |
| 2 | Mawbeh | Laitthemlangah | Wahpham | | | | There is regular availability of water in the area. The water sample collected have been taken for tested and found to be slightly acidic. | It is advised to boil the water before consumption. |
| 3 | Sohra | Lad Mawphlang | Wahmawbor | Community | Whole village (Occasionally when there is shortage of water during winters) | Soil type is loamy and clay soil with mostly <i>Castanopsis indica</i> and <i>Myrica sp.</i> growing in the area. | There is regular availability of water in the area. The water sample collected have been taken for tested and found traces of <i>E.coli</i> . The water is unfit to drink and to be consumed after boiling. | |
| 4 | Laitkroh | Mawmyrsiang | Wahsohkrit (Private land) | Open Well | 30 | Soil type is sandy and loamy with majority of <i>Cryptomeria japonica</i> and | Desiltation of the water pond is needed to improve the quality of the water. The | Restoration and improvement |

| | | | | | | | | |
|---|------------|---------------|------------------|---------------------------------|---|---|---|---|
| | | | | | | some of <i>Pinus kesiya</i> , <i>Engelhardtia spicata</i> , <i>Quercus grafitii</i> , <i>Alnus nepalensis</i> , <i>Rhododendron arboretum</i> , <i>Myrica sp.</i> , <i>Pyrus communis</i> . | water is unfit to drink and to be consumed after boiling. | of the pond is needed. |
| 5 | Nonglwai | Nonglwai | Kyndong Waharkum | Special Grant funded by Synjuk. | 52 | The soil is slightly moist and heavy soil with small clay particles. The tree species growing in the area are <i>Pinus kesiya</i> , <i>Quercus grafitii</i> , <i>Ex bucklandia populnia</i> , <i>Quercus fenestrata</i> , <i>Castanopsis hystrix</i> , <i>Betula alnoidus</i> . | There is regular availability of water in the area. The water sample collected have been taken for tested and found traces of <i>E.coli</i> . The water is unfit to drink and to be consumed after boiling. | |
| 6 | Pamsanngut | Tyrsad Umkseh | Tyrsad Umkseh | MGNREGS | 60 (Occasionally) | Mostly bamboo shoots | The shed is situated in the vicinity of the village. All the activity within the watershed somehow affects the watershed's natural resources and water quality which make the water unfit to drink. | It is advised to boil water before consumption. |
| 7 | Lyngiong | Perkseh | Perkseh | MGNREGS | 30 (Regularly) 60 to 70 (Occasionally) | The type of soil is shallow to dense to loamy soil and tree species grown in the area are <i>Quercus fenestrata</i> , <i>Pinus kesiya</i> , <i>Pyrus Persia</i> , <i>Docynia indica</i> , <i>Camilia kesiwall</i> , <i>Corot hichanu</i> , <i>Myrica</i> | There is regular availability of water in the area. The water sample collected have been taken for tested and found to be unfit for consumption and to be consumed after boiling. | |

| | | | | | | | |
|----|-----------|-------------|-------------|---|----|---|--|
| | | | | | | <i>esculenta, Symplocus cynansis.</i> | |
| 8 | Mawphlang | Ladumrisain | Pung Shipai | MGNREGS and repaired by Synjuk through CDG. | 30 | The soil type has poor well-drained soil with soil type of sandy to clay soil. <i>Quercus fenestrata, Pinus kesiya, Rhododendron arboretum, Alnus nepalensis</i> Dieng Lasyrngieng are the tree species that grows in the area. | There is regular availability of water in the area. The water sample collected have been taken for tested and found traces of <i>E.coli</i> which might indicates the fecal contamination. The water is unfit to drink and to be consumed after boiling. |
| 9 | Nongspung | Mawsadang | | Community | 7 | The soil type has poor well-drained soil with soil type of sandy to clay soil. <i>Quercus fenestrata, Castanopsis indica, Myrica sp., Quercus grafitii, Jalaba</i> | There is regular availability of water in the area. The water sample collected have been taken for tested and found to be slightly acidic. |
| 10 | Mylliem | Kyrphei | | | | | There is regular availability of water in the area. The water sample collected have been taken for tested and found traces of <i>E. coli</i> which might indicates the faecal contamination. The water is unfit to drink and to be consumed after boiling. |

Annex 4: REDD+ and ANR carbon monitoring results for issuance request

Tables 1 and 2 show the carbon stock in the open and dense REDD+ forest inventory plots that are monitored annually. The 2022 sample includes 52 randomly selected open forest plots and 62 dense forest plots. Tables 3 and 4 show the average growth in the 32 randomly selected ANR plots.

Table 1: REDD+ Open Forest plot carbon stock for 2018-2022 in tC per hectare

| Plot No. | 2018 Open (tC/ha) | 2019 Open (tC/ha) | 2020 Open (tC/ha) | 2021 Open (tC/ha) | 2022 Open (tC/ha) |
|----------|-------------------|-------------------|-------------------|-------------------|-------------------|
| 1 | 10.431 | 11.082 | 14.675 | 15.184 | - |
| 2 | | | | | |
| 3 | 10.376 | 10.811 | 11.792 | | - |
| 4 | | | | | |
| 5 | 51.528 | 52.937 | 55.434 | 64.639 | 48.886 |
| 6 | 58.284 | 60.640 | 63.844 | 69.406 | 61.517 |
| 7 | 50.376 | 51.470 | 53.659 | 54.161 | 55.401 |
| 8 | 41.056 | 41.630 | 42.699 | 43.576 | 67.925 |
| 9 | 57.157 | 58.538 | 60.427 | 62.039 | 66.797 |
| 10 | 12.256 | 12.380 | 13.009 | 13.316 | 13.749 |
| 11 | 57.625 | 58.400 | 61.445 | 66.477 | 66.625 |
| 12 | 46.443 | 47.536 | 49.244 | 50.132 | 78.087 |
| 13 | 60.522 | 61.356 | 62.180 | | - |
| 14 | | | | | |
| 15 | 52.907 | 54.669 | 59.321 | 62.714 | 62.474 |
| 16 | 50.806 | 51.683 | 51.187 | 54.775 | - |
| 17 | 42.298 | 43.363 | 44.400 | | - |
| 18 | 11.067 | 11.946 | 13.494 | | - |
| 19 | 45.693 | 46.640 | 49.229 | 50.496 | 53.916 |
| 20 | 56.120 | 57.240 | 57.296 | 58.162 | 58.846 |
| 21 | 54.080 | 54.961 | 57.316 | 59.522 | 62.426 |
| 22 | 6.328 | 6.697 | 6.824 | 7.816 | 8.752 |
| 23 | 49.801 | 50.933 | 52.545 | 54.968 | 61.119 |
| 24 | 39.901 | 40.852 | 43.310 | 46.559 | 54.446 |
| 25 | 14.190 | 15.392 | 17.218 | | 22.369 |
| 26 | 7.080 | 7.117 | 7.506 | 8.934 | 9.974 |
| 27 | | | | | - |
| 28 | | | | | |
| 29 | 44.095 | 45.209 | 47.676 | 48.964 | 43.684 |
| 30 | 2.697 | 2.818 | 3.126 | | - |
| 31 | 11.409 | 11.761 | 12.755 | | - |
| 32 | 4.930 | 5.208 | 5.903 | | - |
| 33 | 9.402 | 9.799 | 10.606 | | - |
| 34 | 13.262 | 13.790 | 15.316 | | - |

| | | | | | |
|-------------------------|---------------|---------------|---------------|---------------|---------------|
| 35 | 12.045 | 12.513 | 17.372 | 21.521 | 22.043 |
| 36 | 39.674 | 40.733 | 50.405 | 55.954 | 55.787 |
| 37 | 28.555 | 29.915 | 42.439 | 46.206 | 47.811 |
| 38 | 61.114 | 61.772 | 65.298 | 67.131 | 67.513 |
| 39 | 5.146 | 5.416 | 7.062 | 6.658 | 7.891 |
| 40 | | | | | |
| 41 | 9.798 | 10.380 | 10.862 | | - |
| 42 | | | | 54.336 | 54.336 |
| 43 | | | | 4.271 | 3.786 |
| 44 | | | | 28.479 | 28.919 |
| 45 | | | | 4.340 | 5.448 |
| 46 | | | | 40.112 | 41.676 |
| 47 | | | | 57.803 | 59.800 |
| 48 | | | | 7.455 | 9.597 |
| 49 | | | | 19.083 | 19.238 |
| 50 | | | | 51.003 | 48.253 |
| 51 | | | | 12.328 | 12.901 |
| 52 | | | | 46.066 | 32.443 |
| 53 | | | | 14.656 | 25.812 |
| 54 | | | | 30.659 | 29.699 |
| 55 | | | | 57.250 | 58.791 |
| 56 | | | | 82.718 | 85.869 |
| 57 | | | | 74.811 | 83.016 |
| 58 | | | | 39.027 | 37.150 |
| 59 | | | | 105.839 | 107.062 |
| 60 | | | | 36.056 | 35.458 |
| 61 | | | | 26.392 | 27.746 |
| 62 | | | | 115.137 | 109.040 |
| 63 | | | | 27.248 | 27.844 |
| 64 | | | | 17.611 | 19.409 |
| 65 | | | | 15.835 | 15.543 |
| 66 | | | | | 85.848 |
| 67 | | | | | 32.599 |
| 68 | | | | | 10.698 |
| 69 | | | | | 13.878 |
| 70 | | | | | 11.440 |
| 71 | | | | | 24.971 |
| Total | | | | | |
| Mean (tC/ha) | 32.242 | 33.070 | 35.339 | 42.871 | 42.835 |
| Std Dev | 21.18 | 21.52 | 22.10 | 25.851 | 26.746 |

Table 2: REDD+ Dense Forest plot carbon stock for 2018-2022 in tC per hectare

| Plot No. | 2018 Dense tC/ha | 2019 Dense tC/ha | 2020 Dense tC/ha | 2021 Dense tC/ha | 2022 Dense tC/ha |
|-----------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| 101 | 80.325 | 80.985 | 83.182 | | 93.034 |
| 102 | 31.213 | 31.459 | 32.681 | | - |
| 103 | 76.865 | 77.484 | 80.270 | 84.752 | 87.600 |
| 104 | 124.088 | 125.809 | 127.939 | | - |
| 105 | 126.880 | 127.612 | 134.450 | | - |
| 106 | 107.716 | 108.900 | 116.454 | 118.657 | 115.926 |
| 107 | - | - | - | - | - |
| 108 | 59.287 | 60.275 | 64.065 | | - |
| 109 | 64.394 | 65.880 | 68.613 | 69.787 | 74.225 |
| 110 | 69.885 | 70.559 | 72.530 | | - |
| 111 | 134.670 | 135.783 | 136.040 | 140.674 | 139.048 |
| 112 | 66.460 | 67.997 | 70.189 | 73.113 | 64.121 |
| 113 | 69.431 | 71.135 | 74.565 | 73.853 | 79.494 |
| 114 | 108.484 | 109.505 | 109.794 | | - |
| 115 | 126.821 | 128.046 | 125.905 | 149.640 | 149.084 |
| 116 | 24.291 | 25.536 | 27.949 | | - |
| 117 | 65.045 | 66.852 | 70.752 | 71.426 | 69.753 |
| 118 | 31.032 | 31.891 | 38.161 | 38.801 | 46.005 |
| 119 | 46.033 | 46.888 | 49.071 | | - |
| 120 | 15.000 | 15.948 | 23.819 | 19.845 | 35.921 |
| 121 | 21.905 | 22.490 | 26.971 | 27.873 | 33.410 |
| 122 | 112.210 | 113.317 | 120.472 | 126.460 | 116.606 |
| 123 | 154.102 | 154.570 | 157.695 | 151.452 | - |
| 124 | 34.115 | 34.730 | 50.545 | | - |
| 125 | 102.083 | 103.825 | 109.872 | 116.311 | 108.673 |
| 126 | 172.541 | 173.502 | 179.370 | 175.197 | 168.932 |
| 127 | | | | | |
| 128 | 92.193 | 93.786 | 94.979 | 97.589 | 91.499 |
| 129 | 148.434 | 150.010 | 153.051 | 158.217 | 145.875 |
| 130 | 91.101 | 93.090 | 102.234 | 105.235 | 106.255 |
| 131 | 88.367 | 91.141 | 95.420 | 99.271 | 96.955 |
| 132 | 121.011 | 123.165 | 127.935 | 131.288 | 136.632 |
| 133 | 117.292 | 119.090 | 123.191 | 123.597 | 124.434 |
| 134 | | | | | |
| 135 | 170.654 | 172.473 | 176.031 | 188.412 | 195.793 |
| 136 | | | | | |
| 137 | 145.216 | 146.128 | 150.960 | 156.040 | 150.085 |
| 138 | 124.594 | 125.461 | 137.148 | 133.250 | 134.961 |
| 139 | 156.411 | 157.098 | 166.716 | 173.031 | 158.987 |
| 140 | 103.224 | 104.827 | 108.055 | | - |

| | | | | | |
|-----|---------|---------|---------|---------|---------|
| 141 | 135.743 | 138.119 | 143.498 | 144.879 | 149.056 |
| 142 | 109.681 | 111.129 | 114.709 | 116.883 | 111.990 |
| 143 | 54.220 | 56.521 | | | - |
| 144 | 56.369 | 57.846 | 67.427 | 69.500 | 71.519 |
| 145 | 93.365 | 94.583 | 97.214 | 101.978 | 98.885 |
| 146 | 65.209 | 66.850 | 70.546 | 71.907 | - |
| 147 | 23.793 | 24.510 | 26.871 | 28.090 | 28.780 |
| 148 | 79.937 | 81.157 | 86.251 | 87.735 | 89.568 |
| 149 | 72.047 | 72.944 | 67.464 | 68.532 | - |
| 150 | 31.002 | 32.266 | | | - |
| 151 | | | | | |
| 152 | | | | | |
| 153 | | | | | |
| 154 | 49.982 | 51.915 | 56.161 | 56.769 | 54.824 |
| 155 | | | | | |
| 156 | 83.728 | 84.970 | 92.687 | 94.670 | 88.529 |
| 157 | 79.755 | 80.668 | 81.962 | 87.266 | 85.650 |
| 158 | 16.108 | 16.443 | 17.636 | | - |
| 159 | | | | | |
| 160 | 29.877 | 30.824 | 40.263 | 42.922 | 45.884 |
| 161 | 15.228 | 15.407 | 17.884 | 19.512 | 19.765 |
| 162 | 75.201 | 76.691 | 76.893 | 79.963 | 81.086 |
| 163 | 95.980 | 98.265 | 101.835 | | - |
| 164 | 84.412 | 86.612 | 90.981 | 89.470 | 84.567 |
| 165 | 132.488 | 134.253 | 137.800 | 145.306 | 138.613 |
| 166 | | | | 36.555 | 37.414 |
| 167 | | | | 105.999 | 102.864 |
| 168 | | | | 63.516 | 62.540 |
| 169 | | | | 20.963 | - |
| 170 | | | | 114.042 | 119.362 |
| 171 | | | | 16.46 | 20.410 |
| 172 | | | | 23.924 | 26.209 |
| 173 | | | | 139.490 | 140.707 |
| 174 | | | | 117.508 | 116.021 |
| 175 | | | | 115.400 | 115.916 |
| 176 | | | | 103.994 | 103.424 |
| 177 | | | | 123.609 | 123.104 |
| 178 | | | | 107.059 | 112.753 |
| 179 | | | | 114.525 | 113.957 |
| 180 | | | | 24.427 | 23.191 |
| 181 | | | | 120.227 | 122.797 |
| 182 | | | | 56.450 | 52.164 |
| 183 | | | | 144.502 | 145.684 |
| 184 | | | | 112.881 | 115.526 |

| | | | | | |
|---------------------|---------------|---------------|---------------|----------------|---------------|
| 185 | | | | 72.505 | 73.962 |
| 186 | | | | 49.549 | 47.884 |
| 187 | | | | 140.529 | 152.574 |
| 188 | | | | | 25.802 |
| 189 | | | | | 49.385 |
| Total | | | | | |
| Mean (tC/ha) | 85.134 | 86.415 | 92.133 | 95.7666 | 94.769 |
| Std Dev. | 42.63 | 42.80 | 42.88 | 44.185 | 42.711 |

Table 3: ANR open forest plot carbon stock for 2016-2022 in tC per hectare

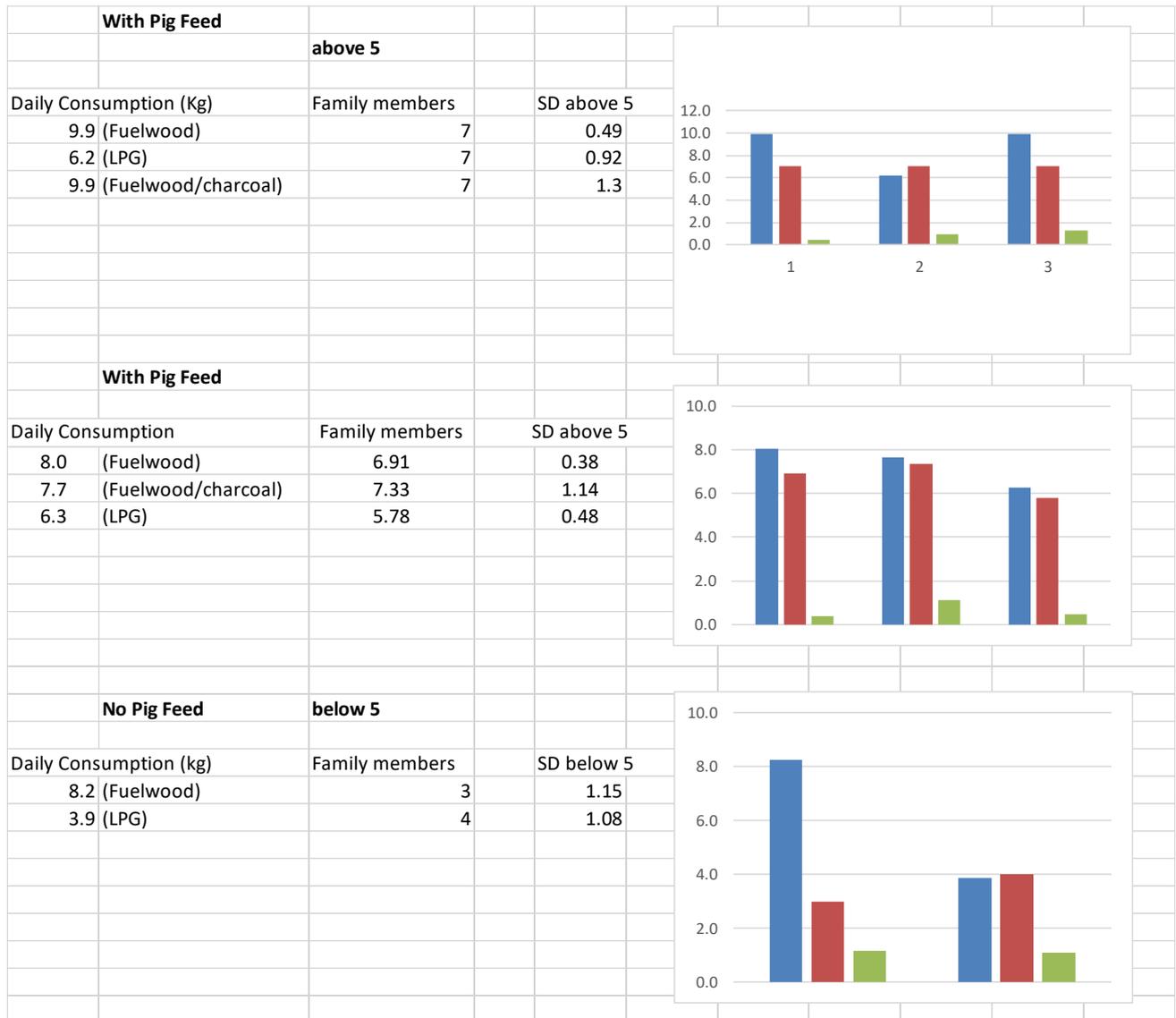
| Open Forest ANR Sample Plots | | Biomass (tc/ha) | | | | | | | |
|------------------------------|---|-----------------|------|------|------|------|------|-------------|------|
| Plot No. | ANR Site | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | Beta |
| 4 | Law Shlem | 0.0 | 0.0 | 13.9 | 14.4 | 17.9 | 21.3 | 16.6 | 2.8 |
| 28 | Phodumdewsaw, Hima Pamsangut | 0.0 | 0.0 | 5.5 | 6.0 | 8.4 | 10.2 | 10.1 | 2.1 |
| 27 | Lawsubah, Pamsangut | 0.0 | 0.0 | 61.9 | 63.1 | 69.5 | 0.0 | 0.0 | 4.4 |
| 2 | Lum U Mong, Laitkroh | 0.0 | 0.0 | 2.0 | 2.2 | 2.6 | 3.8 | 4.1 | 1.1 |
| 14 | Sohrarim, Lumnonglum | 0.0 | 0.0 | 55.4 | 56.2 | 58.4 | 56.7 | 58.9 | 2.2 |
| S | Lawsubah | 0.0 | 18.9 | 0.0 | 20.6 | 0.0 | 22.8 | 0.0 | 1.0 |
| S | Kyiem | 0.0 | 11.4 | 0.0 | 13.7 | 0.0 | 15.6 | 0.0 | 1.1 |
| S | Lummawtong | 0.0 | 37.8 | 0.0 | 43.3 | 0.0 | 48.5 | 0.0 | 2.7 |
| S | Lumphari | 0.0 | 16.0 | 0.0 | 20.6 | 0.0 | 35.3 | 0.0 | 5.3 |
| S | Lumpolum | 0.0 | 1.8 | 0.0 | 2.0 | 0.0 | 2.2 | 0.0 | 0.1 |
| O_ANR | Jathang Lum Riatsawlia = Law Khliehriat Sawlia, Community Forest, Sohra Syiemship | 20.6 | 0.0 | 0.0 | 0.0 | 0.0 | 48.8 | 50.4 | 6.8 |
| O_ANR | Phudlawkhla | 2.0 | 0.0 | 0.0 | 0.0 | 0.0 | 17.2 | 19.6 | 4.0 |
| 40 | Lumdiengsai, Laitkroh | 3.4 | 0.0 | 7.4 | 7.7 | 9.1 | 10.1 | 10.0 | 1.5 |
| O_ANR | Laitmawhing | 16.2 | 0.0 | 0.0 | 0.0 | 0.0 | 69.8 | 66.2 | 11.8 |
| O_ANR | Lummawmarok | 1.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 0 | Themlumkhwai Laitsohpliah, Sohra Syiemship | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 71.8 | 70.2 | -3.2 |
| 0 | Lum Pyllun community Forest, Jathang, Sohra Syiemship | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 38.1 | 35.9 | -4.5 |
| 0 | Law Phudumblang Kyrphei, Myllem Syiemship | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 37.0 | 37.4 | 0.8 |
| 0 | Lumhati, Mawkalang, Mawbeh Sirdarship | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 5.1 | 7.7 | 5.2 |
| | | | | | | | | AVERAGE GRC | 2.5 |
| | | | | | | | | LOWER 90% C | 1.4 |

Table 4: ANR Dense forest plot carbon stock for 2016-2022 in tC per hectare

| Dense Forest ANR Sample Plots | | | | | | | | | |
|-------------------------------|---------------------------------------|-----------------|-------|-------|-------|-------|-------|-------------|------|
| Plot No. | ANR Site | Biomass (tc/ha) | | | | | | | Beta |
| | | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | |
| 151 | Kseh Myllem, Nonglwai | 0.0 | 0.0 | 90.9 | 92.3 | 97.4 | 100.1 | 102.2 | 5.0 |
| 134 | Lumphudumsim, Nonglwai | 0.0 | 0.0 | 101.1 | 103.0 | 112.4 | 110.5 | 113.9 | 6.1 |
| 155 | Lumwaharkum, Hima Nonglwai | 0.0 | 0.0 | 27.3 | 28.2 | 27.2 | 29.9 | 38.3 | 11.6 |
| 159 | Wah Mawlong, Laitumiong, Mawbeh | 0.0 | 0.0 | 67.1 | 68.3 | 71.8 | 79.1 | 120.8 | 0.0 |
| 127 | Khlaw Rani, Pamsangut | 0.0 | 0.0 | 136.5 | 137.8 | 143.4 | 149.5 | 141.9 | 4.8 |
| S | Mawlangrain | 0.0 | 56.1 | 0.0 | 58.6 | 0.0 | 62.6 | 0.0 | 1.6 |
| S | Umkaber | 0.0 | 53.9 | 0.0 | 55.3 | 0.0 | 57.2 | 0.0 | 0.8 |
| S | Lumlaitlyding | 0.0 | 94.8 | 0.0 | 98.0 | 0.0 | 101.7 | 0.0 | 1.7 |
| S | Laitthemlangсах | 0.0 | 109.2 | 0.0 | 118.1 | 0.0 | 123.6 | 0.0 | 3.7 |
| O_ANR | Phanniewlahneng = Umlangnei, Lyngiong | 89.3 | 0.0 | 0.0 | 0.0 | 0.0 | 93.7 | 94.8 | 1.2 |
| 152 | Lumkyndong Kmie Brial, Mawphlang | 0.0 | 0.0 | 31.9 | 33.4 | 36.3 | 39.9 | 42.7 | 4.9 |
| 136 | Wahthymmei Esdiwot, Nongspung | 0.0 | 0.0 | 121.3 | 123.4 | 126.8 | 132.6 | 132.9 | 5.2 |
| 153 | Imsotti, Nongspung | 0.0 | 0.0 | 124.1 | 125.5 | 128.0 | 140.8 | 140.8 | 8.9 |
| | | | | | | | | AVERAGE GRC | 4.6 |
| | | | | | | | | LOWER 90% C | 2.4 |

Annex 5: Fuelwood reduction analysis

Fuel usage surveys were conducted with 250 families in the Project area to determine the benefit of LPG distribution to communities dependent on wood and charcoal for fuel.



Annex 6: Historic sales data

| Vintage | Sale Date (M/D/Y) | Buyer | No of PVCs | Price per PVC (\$)* | Total sale amount (\$)* | % Sale received by participants |
|---------|-------------------|--------------------|------------|---------------------|-------------------------|---------------------------------|
| 2012 | 06/15/2013 | Zeromission | 2,463 | | | 70 |
| 2012 | 07/31/2013 | C-Level | 200 | | | 60 |
| 2012 | 08/09/2013 | Bioclimate | 1,306 | | | 60 |
| 2012 | 09/02/2013 | CeramicaSantogosti | 1,225 | | | 60 |
| 2012 | 09/25/2013 | Zeromission | 501 | | | 60 |
| 2012 | 04/30/2014 | Zeromission | 4,474 | | | 70 |
| 2012 | 06/10/2014 | COTAP | 283 | | | 60 |
| 2012 | 07/15/2014 | CeramicaSantogosti | 360 | | | 60 |
| 2012 | 05/15/2014 | C-Level | 200 | | | 60 |
| 2012 | 03/16/2015 | COTAP | 674 | | | 60 |
| 2012 | 06/12/2015 | CeramicaSantogosti | 340 | | | 60 |
| 2012 | 06/15/2015 | C-Level | 500 | | | 60 |
| 2012 | 07/03/2015 | Zeromission | 251 | | | 60 |
| 2012 | 07/11/2016 | ShaikaRakshi | 1 | | | (this was a test) |
| 2014 | 11/04/2015 | COTAP | 269 | | | 60 |
| 2014 | 10/15/2015 | Zeromission | 15,000 | | | 70 |
| 2014 | 12/10/2015 | WeForest | 2,132 | | | 70 |
| 2014 | 03/02/2016 | Zeromission | 6,500 | | | 70 |
| 2014 | 06/09/2016 | CeramicaSantogosti | 350 | | | 60 |
| 2014 | 09/14/2016 | COTAP | 660 | | | 60 |
| 2015 | 07/08/2016 | WeForest | 2,102 | | | 70 |
| 2015 | 11/24/2016 | WeForest | 2,075 | | | 70 |
| 2015 | 11/10/2016 | Anima Impreza | 20 | | | 60 |
| 2015 | 12/06/2016 | Zeromission | 8,099 | | | 70 |
| 2015 | 05/05/2017 | Zeromission | 9,727 | | | 70 |
| 2015 | 06/02/2017 | C-Level | 850 | | | 60 |
| 2016 | 09/13/2017 | COTAP | 1,467 | | | 70 |
| 2016 | 10/25/2017 | Zeromission | 250 | | | 60 |
| 2016 | 12/27/2017 | Zeromission | 9,718 | | | 70 |
| 2016 | 03/09/2018 | WeForest | 1,876 | | | 70 |
| 2016 | 05/14/2018 | Zero Mission | 300 | | | 60 |
| 2016 | 07/21/2018 | Zero mission | 10,530 | | | 70 |
| 2016 | 09/01/2018 | COTAP | 1,912 | | | 70 |
| 2016 | 11/28/2018 | Zero Mission | 5,700 | | | 70 |
| 2016 | 12/31/2018 | Zero Mission | 403 | | | 60 |
| 2016 | 03/31/2019 | Zero Mission | 600 | | | 60 |
| 2016 | 04/30/2019 | Zero Mission | 1,500 | | | 60 |
| 2012 | 05/13/2019 | COTAP | 1,644 | | | 70 |
| 2014 | 05/12/2019 | COTAP | 573 | | | 60 |
| 2016 | 06/14/2019 | Weforest | 2,565 | | | 70 |
| 2016 | 08/16/2019 | Zero Mission | 5,500 | | | 70 |

| | | | | | | |
|------------------------------|------------|--------------------|----------------|--|--|-------|
| 2016 | 09/03/2019 | Zero Mission | 5,146 | | | 70 |
| 2016 | 09/30/2019 | Zero Mission | 530 | | | 60 |
| 2018 | 10/31/2019 | Zero Mission | 10,000 | | | 70 |
| 2016 | 01/13/2020 | COTAP | 5,299 | | | 70 |
| 2016 | 03/31/2020 | Zero Mission | 5,000 | | | 70 |
| 2016 | 05/26/2020 | Climate Seed | 1,000 | | | 60 |
| 2019 | 07/02/2020 | Zero Mission | 7,001 | | | 70 |
| 2012-2016 | 06/02/2020 | Lund Fund | 24,000 | | | 70 |
| 2012-2016 | 06/02/2020 | Lund Fund | 22,000 | | | 30** |
| 2012-2016 | 06/02/2020 | Lund Fund | 22,000 | | | 70 |
| 2017 | 06/18/2020 | C-Level | 2,000 | | | 70 |
| 2019 | 06/18/2020 | C-Level | ***1,000 | | | 60 |
| 2017 | 07/08/2020 | We Forest | 2,475 | | | 70 |
| 2018 | 07/30/2020 | Zero Mission | 5,313 | | | 70 |
| 2019 | 08/28/2020 | Zero Mission | 5,738 | | | 70 |
| 2018 | 09/22/2020 | Zero Mission | 2,565 | | | 70 |
| 2019 | 12/08/2020 | Zero Mission | 20,000 | | | 70 |
| 2017 | 01/06/2021 | Climate Seed | 537 | | | 60 |
| 2019 | 03/24/2021 | Climate Seed | 1,000 | | | 60 |
| 2017 | 04/29/2021 | Climate Seed | 318 | | | 60 |
| 2020 | 07/14/2021 | Climate Seed | 8,000 | | | 70 |
| 2020 | 08/26/2021 | Zero Mission | 20,000 | | | 70 |
| 2019 | 08/27/2021 | COTAP | 30 | | | 60 |
| 2017 | 08/27/2021 | COTAP | 2,699 | | | 70 |
| 2019 | 08/27/2021 | COTAP | 1,000 | | | 70 |
| 2020 | 10/10/2021 | Carbon Partnership | 3,000 | | | 70 |
| 2018 | 11/01/2021 | Zero Mission | 20,282 | | | 80 |
| 2017 | 11/01/2021 | Zero Mission | 19,718 | | | 60 |
| 2020 | 11/19/2021 | C-Level | 2,000 | | | 0**** |
| 2021 | 04/25/2022 | Zero Mission | 25,000 | | | 80 |
| Total Sales 2012-2022 | | | 349,214 | | | |

*Pricing reported for internal monitoring purposes only

**70% of this sale was used for Issuance, Verification, and to pay for technical consultation at TLLG

***This amount was corrected from previous annual reports from 2,000 to 1,000

****100% of this sale was used for technical consultation at TLLG