**Subject:** Data collection report

**Project:** Developing rural pathways to community resilience and ecosystem restoration (EC3/DARWIN)

**Activity 2.5: Field and spectral data collection for inventory and condition assessment**

**Background**

As planned Swansea University was in charge of conducting Boswellia trees field and spectral data collection to oversee the condition and health of the trees. However, due to the security condition of the project intervention areas, this activity would have not been conducted as planned by the Swansea University and the scheduled initially designed. Considering the existing situation of the project intervention areas, TREE AID Ethiopia handle the activity by the experts settled in the project area.

**Awareness training and technical support**

Before full-scale inventory was carried out with the poly pen, technical training on how to use the device during the data collection, how to upload the collected data and the way the device should be handled was given to monitoring and evaluation officer of TREEAID country office and project coordinator of SUNARMA Metema through the program manager of TREEAID Ethiopia. Whilst the activity was performed, frequent technical support from Swansea University and TREEAID Ethiopia country office was delivered until the collected data uploaded to the system designed for this purpose.

**Main activities performed**

Initially it was planned to collect Boswellia tree data’s in five tapping research sites (Gundo, Delello, Agamwuha and Lemlem terara), and it was made possible in four of the sites except for Delello site. This is due to the fact that reaching the site was impossible due to the existing security problem prevailing in the area.

In the other four tapping research sites, the data collection has been taken place as per the plan. In these sites totally eighteen (80) Boswellia and 16 other tree species data were collected using two devices. For the sack of measuring of trees, leaves from each trees were taken in three positions i.e. top, middle and bottom. Whilst the data collection was conducted Boswellia trees selected for this purpose was from trees used for both traditional and Indian techniques however other trees selected for the inventory was based on the dominancy of the species found around each tapping site. Totally, 576 measurement done from 288 leaves, from 96 trees, 3 different heights of each tree, using 2 poly pen devices, and 4 types of trees. Details of the data collected is summarised in the following table.

**Table 1: summary of data collected**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Site** | **Tapping Tool** | **No. of trees** | **No. of leaves** | **No of Measurment** | **Tree species** |
| Das Gundo | Traditional | 10 | 30 | 60 | Boswellia papyriferra |
|  | Indian | 10 | 30 | 60 | Boswellia papyriferra |
|  | Others | 4 | 12 | 24 | Terminalia laxiflora |
| Agamwuha | Traditional | 10 | 30 | 60 | Boswellia papyriferra |
|  | Indian | 10 | 30 | 60 | Boswellia papyriferra |
|  | Others | 4 | 12 | 24 | Pterocarpus Lucen |
| Lemlem terara\_1 | Traditional | 10 | 30 | 60 | Boswellia papyriferra |
|  | Indian | 10 | 30 | 60 | Boswellia papyriferra |
|  | Others | 4 | 12 | 24 | Stercullia stigera |
| Lemlem terara\_2 | Traditional | 10 | 30 | 60 | Boswellia papyriferra |
|  | Indian | 10 | 30 | 60 | Boswellia papyriferra |
|  | Others | 4 | 12 | 24 | Stercullia stigera |
| **Total** |  | **96** | **288** | **576** |  |

We replaced few initially sampled Boswellia trees with other trees because of falling down or dried out. Totally, 4 sampled Boswellia trees replaced from 2 sites and 3 are from Das Gundo and 1 from Agam Wuha site. Table 2 shows replacements

**Table 2: Replaced sampled trees**

|  |  |  |  |
| --- | --- | --- | --- |
| **Site** | **Tapping Tool** | **Replaced tree no.** | **Replaced by** |
| Agamwuha | Traditional | AW-1-T-12 | AW-1-T-13 |
| Das Gundo | Indian | DG-1-I-21 | DG-1-I-22 |
|  | Indian | DG-1-I-27 | DG-1-I-28 |
|  | Indian | DG-1-I-30 | DG-1-I-20 |

**Photographs**

Besides, to the data collection tasks pictures of the trees and scenes of the forest and this time around is the best time as all the shaded tree leaves emerged.



