



*Working Paper*

# Community Engagement in Mapping On-Farm Bamboo Resources in Ethiopia

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Ethiopian Forestry Development

### *International Bamboo and Rattan Organization 2025*

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The International Bamboo and Rattan Organization (INBAR) is an intergovernmental organization dedicated to promoting bamboo and rattan for sustainable development. For more information, please visit [www.inbar.int](http://www.inbar.int).

### **About this Working Paper**

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<https://www.inbar.int/project/ethiopia-bamboo-supply-chain-development/>

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Contents	
List of Tables .....	3
List of Figures .....	3
List of Acronyms .....	4
Executive Summary .....	5
1. Introduction.....	7
2. Objective of Mapping .....	9
3. Methodology .....	9
4. Approach to Community Engagement.....	10
5. Capacity Building .....	11
5.1 User-friendly INBAR MobileApp .....	11
5.2 Precautionary Measures .....	13
6. Resource Assessment - Homestead Farms.....	14
7. Impeding Factors .....	17
7.1 Quality Bamboo Poles .....	17
7.2 Tools and Equipment .....	18
7.3 Infrastructure Support .....	18
7.4 Market Linkages .....	18
7.5 Policy Support.....	19
8. Hula Bamboo Cooperative - A Caselet.....	19
9. Conclusion and Recommendations .....	21
References.....	22
Annexure I: Bamboo Assessment-Homestead Farms (Phase I)/October 2024.....	24
Annexure II: Bamboo Assessment-Homestead Farms (Phase II)/December 2024 .....	32

## List of Tables

Table 1 Mapping of on-farm bamboo resources in different project locations .....	15
Table 2 Key information gathered by CPSs during on-farm mapping .....	15
Table 3 Carbon stock potential of bamboo farms .....	17
Table 4 SWOT analysis results of the Hula Bamboo Cooperative members .....	19

## List of Figures

Figure 1 AECID project locations in Ethiopia.....	9
Figure 2 Demonstration of bamboo age marking to youth participants at an on-farm plantation. ....	10
Figure 3 Capacity building training for the on-farm mapping of bamboo community stewards.....	11
Figure 4 INBAR mobile app for mapping bamboo farms .....	11
Figure 5 Overview of the process of creating a new map object .....	12
Figure 6 Mobile app data template/boxes .....	12
Figure 7 “Finishing” and “Closing” of a mapping data entry .....	13
Figure 8 An overview of the process of collecting mapping data .....	14
Figure 9 Hands-on field training of CPSs for the mapping of on-farm bamboo plantations .....	14
Figure 10 Survey data collected in Ethiopia using the INBAR mobile app.....	16
Figure 11 Participatory SWOT analysis exercise for members of the cooperative .....	19

## List of Acronyms

AECID	The Spanish Agency for International Development Cooperation
CPS	Community participatory steward (CPS)
C	Carbon
ETB	Ethiopian Birr
EEFCCC	Ethiopian Environment Forest and Climate Change Commission
SME	Small and medium enterprises
EFD	Ethiopian Forestry Development
ETTE	Ethiopian Tourist Trading Enterprise
GDP	Gross domestic product
GIS	Geographic information system
INBAR	International Bamboo and Rattan Organization
Mg C	Mega gram of carbon
PRA	Participatory rural appraisal
PPP	Public-Private- Partnership
R&D	Research and development
ReMSEDA	Regional Micro Small Enterprise Development Agency
SWOT	Strengths, weaknesses, opportunities, and threats
TVET	Technical Vocational Education and Training
VCS	Voluntary certification scheme
USD	United States dollar

## Executive Summary

Based on the International Bamboo and Rattan Organization (INBAR) Tsinghua University bamboo resource assessment, Ethiopia hosts about 1.4 million ha of bamboo resources. This total does not account for bamboo growing in farmlands, as the geographic information system (GIS)/remote sensing-based bamboo resources using free satellite imagery (Landsat 7/8 – 30 M pixels) do not capture bamboo growing in small patches. Notably, bamboo growing on farms are mostly used for value addition and sustenance purposes. Hence, it is absolutely necessary to conduct the efficient mapping of on-farm resources to achieve sustainable management and the efficient usage and conservation of economic resources. This effort emphasizes local communities' participation to ensure accuracy, inclusivity, and long-term community engagement in the mapping of bamboo resources in homesteads and farm boundaries. Community participatory stewards (CPSs) were involved in mapping on-farm bamboo resources in AECID project locations throughout the Sidama Ethiopia Regional State and South Ethiopia Regional State through community participation; enhancing local sustainable bamboo resource management capabilities; integrating community knowledge with geospatial technologies for accurate mapping; and supporting policy development on established voluntary certification schemes (VCS) and decision-making for bamboo conservation and commercial use.

To accomplish the abovementioned goals, the methodology entails a participatory mapping approach that combines traditional knowledge with modern GIS through the use of the INBAR mobile app-based bamboo resource mapping. The process incorporates the following components: (1) engaging local communities, providing training in mapping techniques, implementing sustainable harvesting and management practices, and creating knowledge about the ecological and economic significance of bamboo and (2) data collection in the field, including the use of mobile GIS applications to collect field information. Geospatial analysis is the process of combining satellite imagery with field data to develop geographically comprehensive maps. This process involves cross-verifying data with experts and policymakers to ensure accuracy, credibility, and alignment with national resource management policies. Validation and stakeholder engagement are also a part of this process.

To establish community-led resource mapping, around 50 CPSs were selected and trained. Then, 917 smallholder farmers' homesteads and on-farm bamboo resources were mapped, accounting for 201.594 ha. Smallholder farmers own an average of 0.215 ha– 0.227 ha of bamboo plantation, with an average of 15000–17000 culms density per hectare in South Ethiopia Regional State and 16500–18000 culms density in Sidama Ethiopia Regional State. The mapping led to observations regarding the highland bamboo plantation in on-farm, including indigenous landraces, such as Lala and Lodo in the South Ethiopia Regional State, as well as those including other indigenous landraces, such as Hinkonokita, Misasho, and Gianticha in Hula and Arbeguna in Sidama Ethiopia Regional State. It is uncommon for women to participate in harvesting and management activities due to cultural constraints. For the most part, farmers have utilized agroforestry techniques in the cultivation of horticultural crops, such as ginger, lemon, and passion fruit. It was also estimated that the carbon stock in homestead bamboo in the region was approximately 1,112,361.50 Mg C of carbon of on-farm bamboo. Construction, fences, handicrafts (baskets), mats, and furniture are among the uses that can be realized through the utilization of this species.

In a nutshell, community participation in the mapping of bamboo resources in Ethiopia has been demonstrated to be an efficient method for the management of the sustainable resources of bamboo. This endeavor has been proven to strengthen conservation efforts, support local livelihoods, and contribute to Ethiopia's green economy strategy. This activity is accomplished through the integration of traditional knowledge with GIS technology. For bamboo resource management in Ethiopia to be successful in the long

run, consistent coordination among stakeholders and sustained support from policymakers are required. To achieve this goal, the following measures must be taken: (1) strengthen community participation through ongoing capability-building initiatives; (2) develop legal frameworks for bamboo resource tenure to incentivize conservation; (3) incorporate community-based bamboo mapping into national land-use planning; (4) promote value-chain development to enhance the economic benefits of bamboo cultivation; and (5) foster partnerships between government agencies, research institutions, and local communities to ensure sustainable bamboo resource management. In conclusion, the current mapping approach, which has been proven to be effective in bamboo sector development, has the potential to be replicated on a larger scale to encourage community ownership in the natural resource management sector.

## 1. Introduction

Ethiopia has enormous bamboo resources extending over 1.47 million ha, making it one of Africa's leading bamboo-producing nations. This sector contributes to the protection of the environment, the development of the local economy, and the improvement of rural livelihoods. Although a significant amount of attention has been paid to quantifying bamboo resources in forested areas and plantations, on-farm bamboo situated on agricultural lands, homesteads, and community spaces are not mapped due to the higher costs associated with acquiring high-resolution imagery. The accurate mapping of on-farm bamboo is necessary for the realization of sustainable management practices, further economic development, and the protection of the environment. Thus, within the context of sustainable management, conservation, and utilization of natural resources, the participation or engagement of the local community in the mapping process is essential. Most highland bamboo resources are grown on farms in small patches or as farm boundaries that are not captured by the spatial resolution of Landsat imagery (INBAR, 2018).

The community-based natural resource management model has many benefits, including its ability to give people in the community a sense of control and responsibility, which then leads to better success in protecting natural resources (Deodatus Rwekaza, 2024). Community engagement is essential for mapping on-farm bamboo resources, capturing traditional wisdom, and building ownership in the bamboo sector's development. The benefits of community participation include the following: the knowledge and experience of the community are maximized, local farmers and community members are highly familiar with the plantation areas, bamboo species diversity is recognized, and suitable management strategies are implemented. Modern, user-friendly technologies are known to enhance data gathering. Recent years have seen an increase in mapping accuracy to ground-level insights, augmenting not only satellite and GIS assessments but also sustainable management and harvesting techniques for bamboo resources. The involvement of farmers in the mapping of bamboo resources can support land use planning for equitable bamboo benefits (Braslow et al., 2016). Apart from the social and economic benefits, enhanced community participation also gives people a sense of ownership and responsibility in protecting and using bamboo in ways that do not harm the environment. Participatory mapping can also facilitate the identification of economic opportunities for bamboo-centric businesses and support value chains. Contemporary community engagement projects emphasize the active participation of citizens and members of the community to foster empowerment and skills development (Ohmer et al., 2019). Thus, policy decisions intended to integrate local communities into the management of natural resources must include community participation as an essential component.

In Ethiopia, as in other bamboo-growing countries, smallholder farmers derive three primary benefits from on-farm bamboo plantations and sustainable practices: (1) economic benefits, which include the diversification of income through the sale of bamboo poles, shoots, and value-added products; (2) environmental contributions, which include the stabilization of soil erosion, carbon sequestration, and ecological support; and (3) social benefits, which include the creation of livelihood and income through bamboo cultivation, harvesting, and primary processing, as well as an improvements in farmers' ability to provide for their food security.

In Ethiopia, two main dominant species of bamboo can be found: *Oldeania alpina* (commonly known as "highland bamboo") and *Oxytenanthera abyssinica* (commonly known as "lowland bamboo"). The highland bamboo species (*Oldeania alpina*) is found within the average elevation range of 1800–4000 m above mean

sea level, while the lowland bamboo species (*Oxytenanthera abyssinica*) is mostly found within the average elevation range of 400–1800 m above mean sea level. Lowland bamboo is widely distributed in the lowland areas of Ethiopia, particularly in the regions of Benishangul, Gumuz, and Gambela, as well as in parts of Sidama and South Ethiopia Regional States. Bamboo-based economic activities contribute an estimated ETB 56,250,000 (about USD 2.34 million) to Ethiopia’s gross domestic product (GDP), and nearly 750,000 people rely on bamboo-related activities (EEFCCC, 2017). The rapid assessment of the country’s bamboo value chain provides key insights into the current state of bamboo value chains in the Sidama Ethiopia Regional State and Southern Ethiopia Regional State, as well as their potential for growth through value chain upgrading, with a focus on enhanced participation in the circular economy (INBAR, 2024). The bamboo-based households, small and medium enterprises (SMEs), and related industries immensely contribute to Ethiopia’s local economic development. Furthermore, bamboo contributes significantly to soil conservation, carbon sequestration, ecological balance, and biodiversity enhancement in the country.

Despite the abovementioned benefits, limited information is available regarding on-farm bamboo resources and production. Accurate data on potential smallholder farmers, the level of bamboo planting, critical insights into bamboo farming methods, and engagement in supply chain networks are also missing. Due to the lack of resource data, Ethiopia’s bamboo industry is unable to integrate with smallholder farmers in supply chain, which, in turn, discourages prospective investors and impedes the establishment of SMEs in regions where resources are grown. Therefore, the mapping of homestead bamboo farms is essential for several reasons: providing essential data for the effective management, usage, volume of the resources and conservation of bamboo resources; facilitating the evaluation of the quality and quantity of these resources; and determining the willingness of farmers in bamboo plantations.

To improve the bamboo value chain, homestead bamboo farms must be mapped. The objective of such mapping is to improve existing product verticals, primary processing, market connections, and supply chain development. Through this initiative, bamboo can be further promoted as a sustainable option that may contribute to the progress of the local economy, the environmental conservation, and the improvement of the circular economy. Additionally, mapping can help identify the locations of bamboo cultivation areas and the volume of bamboo resources. Furthermore, mapping not only provides reliable information regarding the identification of mature culms that are ready for harvesting but also allows for the growth of younger culms, thus preventing overexploitation while simultaneously promoting regeneration. By creating a scientific mapping system for homestead bamboo farms, land use planning also becomes more effective, making it possible for bamboo production to be seamlessly integrated with other farming or forestry activities. For the reasons stated above, the mapping process will ultimately be beneficial to the development of the supply chain, as it will identify the location and quantity of accessible bamboo resources and create links with potential buyers.

The mapping of bamboo homestead farms also seeks to elucidate existing bamboo production, plantation areas, harvesting and management procedures, and current supply chains in the identified project regions. Such an undertaking will generate new opportunities to enhance the responsibilities of smallholder farmers and value chain participants in the development of the country’s bamboo sector. The AECID is supporting a project in Ethiopia aimed at developing its bamboo supply chain to improve the circular economy and strengthen climate change resistance. Since October 2022, INBAR has been executing the project in Ethiopia’s South Ethiopia Regional State, Sidama Ethiopia Regional State, and Addis Ababa.

The primary objective of the mapping project is to foster a circular economy and enhance Ethiopia's resilience to climate change by establishing a dependable bamboo supply chain in the country. The project specifically seeks to establish pro-poor and trustworthy bamboo-based supply chains together with technological and institutional advances that contribute to poverty alleviation and climate change mitigation in the country (Figure 1).

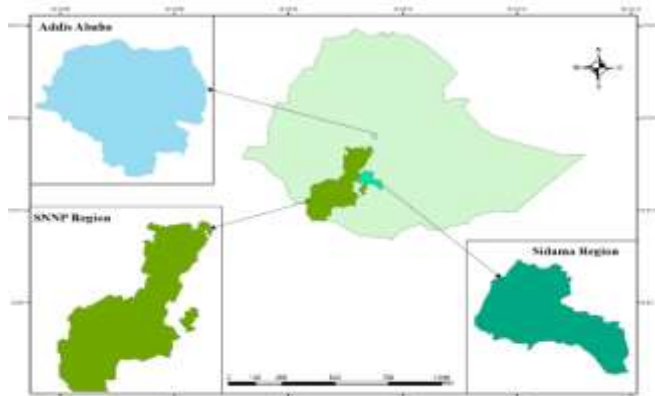


Figure 1 AECID project locations in Ethiopia

The project beneficiaries include smallholder farmers, participatory forest management groups (bamboo producers and harvesters), youth and women (supply chain operators), SMEs, and industries that would gain from dependable supplies of raw materials. The major geographical focus of Ethiopian on-farm bamboo assessment is centered on the southern highland bamboo-rich parts of the country (Obsa Oukula Obsa & Tajebu, 2015). The assessment of on-farm bamboo resources is being conducted in the Sidama Ethiopia Regional State and the South Ethiopia Regional State of Ethiopia under the AECID project.

## 2. Objective of Mapping

The primary aim of mapping on-farm bamboo resources is to establish linkages between SMEs and smallholder farmers. Moreover, involving communities in the mapping process serves as a basis for establishing bamboo resource management mechanisms. The mapping activity also aims to gain a thorough understanding of current bamboo resources in homestead farms within the project areas, including their availability and management practices. In addition, a database of bamboo-growing farmers was created to facilitate future interventions and strengthen supply chain,

## 3. Methodology

The inventory of homestead bamboo farms is conducted using INBAR's mobile app-based data-collecting technology. The procedure involves the identification and selection of local youth and frontline managers from the local line departments, in collaboration with district/woreda leaders and local bamboo cooperatives. The chosen community youth/adult leaders, referred to as community participatory stewards (CPSs), received comprehensive training and practical field demonstrations to acquaint them with the INBAR Bamboo Resource Mapping mobile app (using smart mobile phones). The training included field-level data collection, data synchronization to the database, and expertise in bamboo harvesting and management. The mapping also adopts the following procedures:

- Participatory mapping workshops: Workshops with local farmers, cooperatives, and other stakeholders are conducted to delineate existing on-farm bamboo resources via participatory INBAR mobile app technologies and field surveys.
- Capacity building and training: This involves educating community members on the significance of bamboo resource mapping, data-gathering methodologies, and sustainable management practices.
- Utilization of local institutions and indigenous knowledge: Engaging with local elders, agricultural extension agents, and community leaders to incorporate traditional knowledge into mapping initiatives.

- Crowdsourcing and mobile-based mapping: Using mobile applications and digital platforms to help local farmers record bamboo locations, growing conditions, and usage patterns.
- Community-driven surveys and monitoring: Forming community-based monitoring groups to conduct regular evaluations and revise bamboo resource inventories.

With the support of bamboo cooperative members, the trained CPSs undertake site visits to on-farms bamboo plantation. The areas restored with bamboo are delineated, and the attribute data, such as bamboo culms/poles specification, sustainable harvesting and management practices, and production and income derived from bamboo farms, are collected and uploaded to the online INBAR bamboo mapping database.

#### 4. Approach to Community Engagement

Community engagement is a purposeful endeavor designed to develop a significant partnership between organizations and the communities they serve. An organized methodology guarantees inclusivity, active engagement, and enduring influence. The fundamental tenets of community engagement encompass the following: inclusivity, which means ensuring that all community members, particularly marginalized groups, are represented in decision-making processes; transparency, which is the upholding of clear and candid information regarding objectives, procedures, and results; collaboration, which is the process of engaging with community stakeholders, including local leaders, organizations, and smallholder bamboo farmers; sustainability, which involves formulating initiatives that yield enduring positive effects on the community; and respect the cultural sensitivity, which entails acknowledging and appreciating the cultural, social, and economic contexts of the community. Notably, community participation is essential in any development



Figure 2 Demonstration of bamboo age marking to youth participants at an on-farm plantation.

program seeking to bring about sustainable community development in target communities (Schutte, 2016). A successful community involvement strategy is incorporated, which involves discussion, collaboration, and ongoing enhancement in mapping (Figure 2). Through the implementation of inclusive and sustainable methods, organizations can cultivate trust, foster positive changes, and generate enduring community impacts on socioeconomic growth.

## 5. Capacity Building

At the start of the mapping, the INBAR-AECID Bamboo Supply Chain Development Project team conducted hands-on INBAR Bamboo Survey App training for 50 local youth, CPSs, and the frontline managers of the Ethiopian Forestry Department in South Ethiopia Regional State and Sidama Ethiopia Regional State (Figure 3). The training equipped the participants with key skills in the features and functionalities of the mobile application, installation and setup, and user interface and navigation, as well as homestead bamboo farm data collection, validation of the collected survey data, and synchronization to the INBAR Bamboo Monitoring System (<https://bambooafrica.inbar.int/>).



Figure 3 Capacity building training for the on-farm mapping of bamboo community stewards

In addition, training on bamboo resource harvesting and sustainable management for better yield, including estimating resources at the community level, was provided. Involving the local youth in the mapping of bamboo farms is meant to develop community ownership and ensure the transfer of knowledge and technologies. This also helps young people, strengthens communities, and provides data to support bamboo farming and market information on existing resources.

### 5.1 User-friendly INBAR MobileApp

INBAR has developed a user-friendly mobile app for mapping bamboo plantations and conducting regular monitoring. The general workflow of the app includes: using the mobile client to collect field data, storing the collected data on an online database, and using a web-based interface for data visualization and analysis.

The mobile client or mobile app is compatible with Android version 5.0.0 and above and requires a device with a built-in camera and a global positioning system sensor. The app supports map files in MBTiles format. The stewards are responsible for installing the mobile app on their phones by opening the designed package file (\*.APK), which includes installation instructions. The web client requires an internet browser capable of supporting HTML and JavaScript. Upon the initial launch of the INBAR mobile app, the mobile client prompts the user to grant the app permission to access the device's storage and location. Once initiated, the mobile client displays three primary regions within its user interface: Sidebar A, Topbar B, and Bottom Controller Bar C (Figure 4).



Figure 4 INBAR mobile app for mapping bamboo farms

Furthermore, a functional window in the map mode of the INBAR mobile app consists of three primary sections: a map viewer, a survey entry properties section, and a data table.

Sidebar A contains the user information, including seven app functions: projection, which allows users to select an appropriate projected coordinate system; map settings, which allows users to import base maps from different sources and adjust the radius for the location circle; synchronize, which allows users to

synchronize the field results, including photos and data tables; logout, which allows users to log out; the description, which provides brief information; and exit, which closes the application.

Sidebar B contains three functions: the rotate map function, which adjusts the current map to the default north-up orientation; the select map-layer function, which enables users to show or hide map layers that have been imported into the mobile client; and the search function, which allows users to look up surveyed data using certain keywords.

Bottom Bar C includes the functionalities: display of GPS information, transferring of map elements and connection settings, adjustment of zoom levels, navigation to the current location, and creation of a new map object.

### Step 1: Creating a new map object

The INBAR mobile client is capable of supporting three types of survey data: point, polyline, and polygon. CPSs initiate a survey session by tapping and selecting the appropriate file type to map bamboo farms using the mobile app system (Figure 5). CPSs must collect coordinate points by moving along the designated path of the plantation, which allows the app to continuously track the coordinates and draw the corresponding shape on the viewer. In the case of polylines, the app calculates their approximate length by tracking the user's GPS location. In the case of polygons, the app automatically connects the first and last points of the path to complete the shape, after which it calculates the shape's area and perimeter.

### Step 2: Capturing photographs

During data collection/tracking, users are required to take photographs (a minimum of one and a maximum of four) of the survey area by tapping the camera button. This allows users to capture images. Then, users are prompted to tap the "Finish" button to proceed to the subsequent stage of the process. A confirmation window will appear beforehand. If no photos are taken, an alert will appear instead.

### Step 3: Completing the mapping form

The CPSs are required to complete the survey form and navigate between pages to modify the input as needed. The boxes already contain predefined entries that can be expeditiously selected from a drop-down menu. The CPSs can then review the photos and form input before completing a survey entry (Figure 6).



Figure 5 Overview of the process of creating a new map object



Figure 6 Mobile app data template/boxes

#### Step 4: Tapping on the “finish” button to save the form and closing an entry

CPSs can navigate between pages to modify their input (collected data) if necessary. Subsequently, the stewards have the option to review the photos and form input before completing a survey entry. To save and close the entry, they can simply tap on the “Finish” button (Figure 7).

#### Step 5: Editing the survey entry

The INBAR mobile app has a feature that allows the editing of survey entries. Once recorded, completed entries can be accessed by tapping the “Search” button. Points, lines, and polygons are displayed in blue, red, and green, respectively. The red cloud icon indicates that the entries are not synchronized with the online server. Tapping on an entry will reveal the map object on the viewer and open the “Edit” menu. Users can then rename, delete, or edit the survey form attached to each entry. Notably, the app does not offer an “Undo” function. Thus, users must exercise caution and deliberate thoroughly before making any modifications to an entry.



Figure 7 “Finishing” and “Closing” of a mapping data entry

#### Step 6: Synchronizing survey entries

Once recorded, the survey entries are stored on the mobile device but are not yet synchronized to the online monitoring system. To initiate the synchronization process, CPS must access the “Sync” function located in the sidebar, select the desired entries, and then initiate the synchronization process by tapping on the “Start Sync” button. At this point, it is important to note that once survey data are uploaded to the server, they become immutable and can no longer be altered. Furthermore, the synchronization process is often time consuming due to the size of the files, thus necessitating a stable internet connection. As such, it is recommended that users use a Wi-Fi connection or a strong internet source to complete this step.

#### Step 7: Exporting survey entries

The survey entries can also be exported to facilitate sharing among other devices. To do so, users must first tap “Export data” and then select the desired entries for exporting. The final product is a compressed (\*.zip) file stored in a device’s memory at /storage/emulated/0/AFICA\_BAMBOO/EXPORT/. Each compressed file contains one photo folder and one \*. geojson file for each map object type (point, line, and polygon).

#### Step 8: Terminating the mobile client

Upon completion of all survey entries, users can exit the application by selecting the “Exit” option located within the sidebar. A confirmation box will then appear to signify the termination of the app.

## 5.2 Precautionary Measures

Prior to using the INBAR mobile app for mapping bamboo farms, CPS must fulfill the following tasks:

- First, the equipment (i.e., the mobile handset) must be checked to ensure that it is in proper working condition. The battery, in particular, should be examined to determine whether it is sufficiently charged for a fieldwork session. Typically, a battery life of over 75% is sufficient for three hours of survey time.
- Second, the requisite applications must be installed and updated to their most recent versions. In the

event that outdated software or altered parameters are discovered, users must reinstall or reconfigure the application. Furthermore, users must turn off all applications prior to conducting the survey to ensure that no apps are running in the background during the survey.

- Third, stewards must download and use the mobile application “Open Camera,” which is available for free at the Google Play Store, as an alternative to the default application “Camera.” This alternative app allows users to store location settings that support the functionality of the INBAR Bamboo Survey (IBS) mobile client. Upon opening the application, users are instructed to tap “Setting,” select “Location Settings,” and check all boxes.
- Fourth, to ensure the proper functioning of a mobile device during fieldwork, users are advised to charge the device prior to each survey session and, if possible, to bring an external charger. When the mobile client is not in use, users are strongly recommended to exit the application completely. All survey data associated with a user account will be retained after use.
- Fifth, users must be aware that the data management and analysis component is an online platform that hosts all field survey entries collected by the IBS mobile client. The monitoring system enables users to explore the data visually and statistically. The web interface is organized into two tabs: Maps and Statistics.

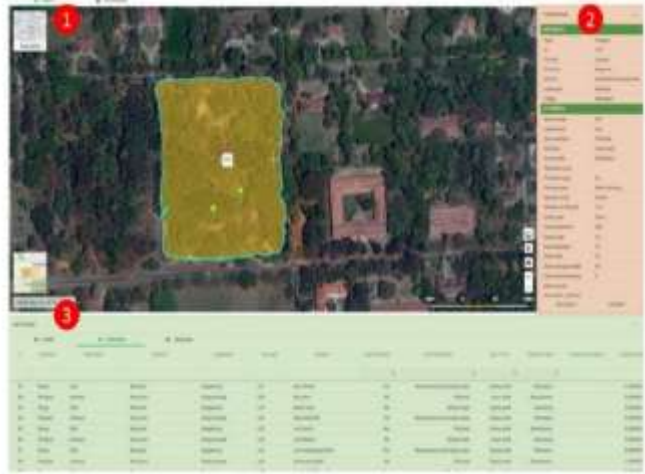


Figure 8 An overview of the process of collecting mapping data

The Maps mode presents survey data in a manner that is analogous to that of the mobile client, while facilitating more intuitive browsing of data. The interface is divided into three primary sections: Map viewer, survey object properties, and data table (Figure 8). Here, the location of the bamboo on the farm is shown and the required information includes: plantation area, culm diameter, plantation health, harvest and species.

## 6. Resource Assessment - Homestead Farms

CPSs are engaged to undertake on-farm bamboo resource assessment. Prior to field deployment, capacity building/training was conducted to familiarize them with the task (Figure 9). The focus of the capacity building included key components of the INBAR mobile app, its features and functionalities, installation and setup, user interface, navigation, farm measurement, and hands-on demonstration. Homestead bamboo farms in the Sidama Ethiopia Regional State and the South Ethiopia Regional State of Ethiopia, as illustrated in Table 1, were assessed. In particular, the on-farm bamboo resource inventory was conducted in nine districts/woredas (three in Sidama Ethiopia Regional State and five in South Ethiopia Regional State) by the CPSs. The study encompasses 917 smallholder farmers and 201.595 ha of bamboo-



Figure 9 Hands-on field training of CPSs for the mapping of on-farm bamboo plantations

based farms, as shown in Annexes III and IV, respectively. The collected on-farm survey data were uploaded to the INBAR bamboo resource inventory system. On average, the smallholder farmers possess 0.220 hectares of ha plantations, predominantly in the form of farm boundaries and homestead planting. Additionally, on average, 40% of households at the district/woreda level own bamboo plantations. The estimated bamboo resource will support the development of a multi-supply chain and strengthen the skills of supply chain actors in terms of bamboo resource management and harvesting practices, resulting in better yield and providing a demonstration to other bamboo farmers encouraged to adopt similar practices.

Table 1 Mapping of on-farm bamboo resources in different project locations

Sl. No	Mapping Location	Region	No of Smallholder Farmers	Area of Plantation (in ha)	Average Area of Plantation (in ha)
1	Hula	Sidama	377	128.67	0.341
2	Arbegona	Sidama	284	35.44	0.125
3	Melga	Sidama	68	10.71	0.158
4	Chencha	South	81	4.5	0.056
5	Dita	South	44	6.64	0.151
6	Kemba	South	45	4.93	0.110
7	Arbaminch	South	1	5.94	5.940
8	Bonke	South	17	4.76	0.280
	<b>Total</b>		<b>917</b>	<b>201.5947</b>	<b>0.220</b>

Source: Field data collected from October to November 2024.

Moreover, the collated data and responses yielded insights into the typical bamboo homestead farming systems prevalent in the selected regions. Data on species, size of plantation (ha), average number of culms (per hectare), current harvesting and management practices, utilization, agroforestry, and women's participation were collected by the CPSs (Table 2). As shown in the table, both regions predominantly plant highland bamboo (*Oldeania alpina*); the average numbers of culms/ha are approximately 15000–17000 in South Ethiopia Regional State and 16500–18000 in Sidama Ethiopia Regional State, respectively. The results also reveal that Sidama Ethiopia Regional State farmers are better able to manage the bamboo resources and have good links with buyers. In general, farmers do not harvest bamboo during the rainy season and use contract labor to harvest bamboo to be sold to buyers. Selective harvesting takes place throughout the year for both household and socio-cultural uses. The involvement of women in management and harvesting practices is negligible, whereas the involvement of women in value addition is more prominent in household enterprises. Bamboo farmers have an average of 0.220 ha of land for bamboo cultivation, mostly on degraded land and farm boundaries. Farmers located in the South Ethiopia Regional State and Sidama Ethiopia Regional State have average on-farm bamboo farms of about ~0.227 and ~0.215 ha, respectively.

Table 2 Key information gathered by CPSs during on-farm mapping

S. No.	Collection of key information	South Ethiopia Regional State	Sidama Regional State
1.	Type of bamboo species available on farms	Highland bamboo, including indigenous landraces called Lala and Lodo. The lowland bamboo is also available in Arbaminch.	Highland bamboo, including indigenous landraces called Hinkonokita, Misasho, and Gianticha, found in Hula and Arbeguna.

2.	Average culms (per ha)	15000–17000	16500–18000
3.	Harvesting and management practices	In general, farmers do not harvest bamboo during the rainy season and typically employ contract labor to harvest bamboo for sale to buyers. Selective harvesting takes place throughout the year for household and social uses.	In general, farmers do not harvest bamboo during the rainy season and typically employ contract labor to harvest bamboo for sale to buyers. Selective harvesting takes place throughout the year for household and social uses.
4.	Utility of the species	Construction, fencing, and handicrafts (baskets)	Construction, fencing, mats, furniture, and baskets.
5.	Involvement of women in harvesting and management practices	Women's participation in harvesting and management is low.	Women's participation in harvesting and management is low.
6.	Agroforestry	Farmers rarely engage in agroforestry.	Farmers practice agroforestry mainly in cultivating horticultural crops, such as lemon, passion fruit, and ginger.
8.	Average size of plantation (ha)	0.227 ha	0.215 ha

An analysis of the data and key information collected by CPSs indicates a need for actionable interventions, such as capacity building for bamboo farmers on best practices for bamboo cultivation, harvesting and postharvest processing; promoting the selective harvesting of mature bamboo culms to ensure sustainable regeneration; supporting local bamboo SMEs to scale up production and create a steady demand for bamboo poles; and promoting bamboo agroforestry systems that can enhance biodiversity, soil fertility, and overall farm productivity. Furthermore, bamboo resources on homestead farms in the Hula district of Sidama Ethiopia Regional State have significant potential for realizing carbon sequestration and mitigating climate change impacts. By promoting the sustainable cultivation and use of bamboo, significant environmental and economic benefits can be achieved in the region. The AECID project supports the trained CPSs' efforts to continue the assessment and regularly update the data uploaded onto the INBAR mobile client server system (Figure 10). The homestead bamboo plantations have the highest biomass storage due to the application of manure and natural fertilizer, regular harvesting and management of culms, and protection from illegal harvesting and grazing (Jember et al., 2023). In the future, the mapping of bamboo resources at the project sites will facilitate the establishment of a carbon financing project in the region, which can provide additional income to smallholder farmers.



Figure 10 Survey data collected in Ethiopia using the INBAR mobile app

## 6.1 Estimation of bamboo carbon stocks

The on-farm inventory of bamboo resources, coupled with 2022 census data and allometric equation development, has facilitated the estimation of the bamboo biomass and carbon stock across different districts in the selected regions in Ethiopia. Based on the 2022 Census data, an estimated 97104 farmers (40% of the total households) grow bamboo, and each bamboo-growing household hosts 0.220 ha of highland bamboo plantation. In total, an estimated 21362.809 ha of bamboo are grown in the seven districts. Furthermore, the biomass and carbon stock estimation (both above and below the ground), as well as allometric equation development using highland bamboo in Sidama Ethiopia Regional State, reveal a carbon stock of 52.07 Mg C/ha. With an estimated 21362.809 ha of bamboo-growing areas, these seven districts have a combined 1,112,361.50 Mg C of carbon of on-farm bamboo. Table 3 presents the details of the carbon stock in the seven districts of Ethiopia included in the study. The bamboo plantations have higher carbon sequestration potential values (Sirsat et al., 2021). Therefore, on-farm bamboo has enormous carbon stocks and can participate in the carbon market through promotion of the farmer groups or cooperative-based models.

Table 3 Carbon stock potential of bamboo farms

S. No.	District (Woreda)	Population (2022 Census)	No of Households	40% HHs with Bamboo Farms	Average Plantation (ha)	Bamboo Plantation (ha)	Carbon Stock (Mg C/ha-1)	Estimated carbon stock (Mg C)
1.	Chencha	163789	32758	13103	0.220	2882.6864	52.07	150101.4808
2.	Hula	176997	35399	14160	0.220	3115.1472	52.07	162205.7147
3.	Arbeguna	186021	37204	14882	0.220	3273.9696	52.07	170475.5971
4.	Malga	148377	29675	11870	0.220	2611.4352	52.07	135977.4309
5.	Dita	113404	22681	9072	0.220	1995.9104	52.07	103927.0545
6.	Kemba	209433	41887	16755	0.220	3686.0208	52.07	191931.1031
7.	Bonke	215775	43155	17262	0.220	3797.64	52.07	197743.1148
<b>Total</b>				<b>97104</b>	-	<b>21362.8096</b>		<b>1,112,361.50</b>

Source: Field survey, October to November 2024

## 7. Impeding Factors

Despite the aforementioned benefits, barriers remain when it comes to community engagement in mapping on-farm bamboo resources. One of the main problems encountered is the difficulty of accessing small patches of on-farm bamboo resources, which are typically located in homesteads, farm boundaries, or other hard-to-reach locations. Another problem has to do with the time-consuming and costly nature of conducting physical surveys. Furthermore, unclear land ownership in some on-farm bamboo plantation makes mapping difficult because communities or authorities may not allow access to certain areas for data collection.

### 7.1 Quality Bamboo Poles

The Sidama Ethiopia Regional State and South Ethiopia Regional State are home to plenty of highland bamboo resources. Bamboo poles are transported from this region to the cities of Addis Ababa and Hawassa. The main challenge faced by SMEs and industries is the lack of high-quality bamboo poles to produce high-quality bamboo products. Due to limited scientific knowledge on harvesting, beetles and insects often attack the immature poles that are harvested and delivered to traders and, eventually, to SMEs/industries. This infestation has a negative impact on the quality of the end-users of the bamboo products. To address these

gaps, robust multi-supply chains must be established in and around the bamboo-growing areas throughout the Sidama Ethiopia Regional State and the South Ethiopia Regional State, particularly, Chench, Hula, and Arbogona. There is also a need to raise awareness and build capacity among farmers and lead bamboo cooperative members on sustainable management and harvesting practices. Moreover, quantification or inventory of the bamboo-growing areas and bamboo stocks must be completed to create interest among the SMEs/industries and ensure much-needed bamboo materials for value addition. Apart from creating interest in introducing homestead farming, the agroforestry approach could be an additional source of income for farmers. Local bamboo markets must also be strengthened to support spaces for storage, grading, and treatment facilities dedicated to bamboo resources. Finally, local bamboo traders and prospective farmers must be trained in treatment and primary processing.

## 7.2 Tools and Equipment

Acquiring the necessary tools and equipment is a major challenge for SMEs and industries. Modernized tools, such as portable cross-cutters, knives, and splitters, are not readily available in the local market, particularly in Hawassa and Arbaminch. Local traders and shops selling tools and equipment are not aware of the maximum utility of bamboo tools and equipment. Thus, local traders' awareness must be raised and they must be encouraged to supply the much-needed tools in their shops. Moreover, local fabricators or blacksmiths should also be trained to produce the necessary tools locally. Doing so can reduce costs and heavy dependence on imported tools. Additionally, vocational and technical colleges should be involved in the design and manufacture of pro-poor bamboo tools and equipment within the value chains landscapes.

## 7.3 Infrastructure Support

Local kebeles and municipalities may provide land for cooperatives to develop their infrastructure. In addition, the Regional Micro and Small Enterprise Development Agency (ReMSEDA), in collaboration with the local kebeles and municipalities, should take the lead in allocating workspaces, including abandoned buildings or work sheds, to groups or individuals who decide to join the bamboo sector. In collaboration with financial institutions (Banks/MFIs), ReMSEDA and TVET will assist in developing business plans and providing business advice to facilitate bankable loans and grants for entrepreneurs. Medium and large-scale industries should also utilize spaces in the designated industrial parks for setting up business units and promoting public-private partnerships (PPP).

## 7.4 Market Linkages

The local market for Ethiopia's bamboo sector is largely underdeveloped and unorganized. In this regard, the sector's future development requires sustainable market pull and/or push during the initial periods. The inclusion of bamboo products in public procurement policies is a much-needed step that has not been given sufficient attention, which means it is currently a major gap that must be addressed. The Ethiopian Forestry Development (EFD; regional and national) can work closely with the government to develop policies that will push for the inclusion of bamboo products in public procurement systems. Such a move will encourage SMEs and industries to invest confidently in the bamboo sector and strengthen value chains. In addition, the Ethiopian Tourism and Trading Enterprise (ETTE) can take the lead in encouraging bamboo enterprises or household artisans to produce market-driven products, with the assurance of regular procurement and sales in ETTE's designated outlets. Such an initiative can help bridge marketing gaps and encourage more value chain actors to join the sector.

## 7.5 Policy Support

Ethiopia has a ten-year bamboo strategy and action plan. The EFD, particularly its Bamboo Unit, should work closely with the Regional Forestry Authority on land tenure and benefit sharing with the Participatory Forest Management Group. Furthermore, given that South Ethiopia Regional State and Sidama Ethiopia Regional State are newly formed states, intensive awareness and sensitization initiatives must be undertaken to develop the capacity of officials to implement the Bamboo Strategy and Action Plan on the ground, including strengthening regional multistakeholder platforms.

## 8. Hula Bamboo Cooperative - A Caselet

The Hula Bamboo Cooperative consists of 11 primary bamboo cooperatives with 780 (620M/160F) members from the Hula District, Sidama Regional State, Ethiopia. The cooperative was established in 2022, with the aims of facilitating bamboo marketing through value addition, obtaining necessary support from governmental and nongovernmental organizations involved in bamboo development, and boosting economic returns. The INBAR has been supporting the cooperative by providing technical training on sustainable bamboo harvesting and management, bamboo charcoal production, and production of bamboo mats. The INBAR project also supports the construction of bamboo depots and preservation and treatment facilities, as well as the provision of bamboo primary processing equipment and tools. The multifaceted bamboo-based livelihood development plan can be effectively monitored using remote sensing and GIS techniques due to its inherent advantages and scientific knowledge-based analysis (Goswami et al., 2010). Training on bamboo mapping and monitoring was also delivered to forestry experts in the Arbegona and Malaga districts.



Figure 11 Participatory SWOT analysis exercise for members of the cooperative

The strengths, weaknesses, opportunities, and threats (SWOT) analysis-based exercises were conducted with members of the Hula Bamboo Cooperative to devise a mechanism to strengthen cooperatives, boost their participation in on-farm bamboo mapping, improve production, and increase market access and economic returns (Figure 11). Afterwards, a thorough discussion was held with the cooperative members, and emphasis was placed on capitalizing the strength they have and overcoming their weaknesses in on-farm bamboo mapping and associated supply chain development. The SWOT analysis exercises were documented, with the results shown in Table 4.

Table 4 SWOT analysis results of the Hula Bamboo Cooperative members

Strengths	Weaknesses
<ul style="list-style-type: none"> <li>• Bamboo resources are available on farms and are owned by cooperative members.</li> <li>• The bamboo cooperative is active and plays a proactive role.</li> <li>• The demand for bamboo products is increasing as a result of their position as green products in national and global markets.</li> <li>• Federal and regional governments have</li> </ul>	<ul style="list-style-type: none"> <li>• Cooperative members have limited knowledge with regard to quality harvesting and primary processing.</li> <li>• The cooperative lacks contemporary tools and equipment for mapping and harvesting</li> <li>• Cooperative members are not informed</li> </ul>

established clear policies and plans for the development of the bamboo sector in the country.	about market demand and trends.
<b>Opportunities</b>	<b>Threats</b>
<ul style="list-style-type: none"> <li>• There is a growing demand for bamboo products.</li> <li>• There is potential for the production of value-added products, including bamboo shoots, charcoal, and mats.</li> <li>• The field of eco-tourism provides a valuable opportunity to showcase the potential of bamboo housing and value-added products as a means of fostering job creation and providing a stable livelihood.</li> </ul>	<ul style="list-style-type: none"> <li>• Participation in the on-farm mapping of bamboo may be influenced by local political dynamics.</li> <li>• The cooperative may encounter difficulties in obtaining planting materials due to the flowering of bamboo.</li> <li>• Fluctuations in bamboo prices may result in a decline in profitability for cooperatives and may harm their interest and willingness to continue plantation.</li> </ul>

Based on the SWOT exercises, a comprehensive action plan was prepared to address the identified issues of the cooperative. The results enable them to actively participate in on-farm bamboo mapping activities and streamline multiple supply chains to participate circular economic development.

- Organize regular capacity building training programs in collaboration with line departments or development partners; engage local master trainers to train cooperative members in bamboo cultivation, harvesting, management, and adoption of agroforestry; and conduct workshops on cooperative management, leadership development, governance, decision-making, and financial literacy for members of the bamboo farming community.
- Introduce efficient tools and technologies, such as the use of hand-operated motorize chainsaws; bundling and grading techniques in accordance with quality and standards of harvested bamboo poles for SMEs’ and industries requirements. Strengthen established primary bamboo processing facilities to generate regular incomes for the cooperative members.
- Optimize the existing multi-supply infrastructure of the cooperative for the production of furniture, handicrafts, bamboo mats, charcoal briquettes, and construction materials. Strengthen market linkages in collaboration with private business partners and local institutions, such as the TVET and ReMSEDA.
- Adopt a neighborhood approach to involve farmers in on-farm bamboo planning and management and to create awareness among farmers for participation.
- Transfer and share knowledge and pro-poor technologies among farmers and youth in the field of on-farm bamboo mapping and encourage active participation in multi-supply chains.

Moreover, cooperative members should develop a cadre of local youth with university degree holders who are engaged in mapping and assisting neighboring villages and other cooperatives in on-farm mapping and establishing market linkages. This group can also be tasked with coordinating with line departments to influence on-farm mapping and boost local economic development.

## 9. Conclusion and Recommendations

Ethiopia has considerable potential for bamboo cultivation due to its diverse agroecological zones and abundant natural bamboo resources. The country has one of the largest bamboo resources in Africa, strategically enabling it to utilize bamboo production for sustainable development. As SMEs, industries, and other entities that require high-end value addition, need high-quality and uniform bamboo resources, bamboo grown in households and smallholder farms holds significance, given that these bamboo resources are largely managed, unlike naturally growing bamboo. This also provides opportunities for smallholders and communities to derive regular income and jobs, enabling them to leverage the economic, environmental, and social benefits of bamboo.

However, mapping bamboo grown in smallholder farms, homesteads, and small patches is cumbersome, as this requires high-resolution images that are costly and may not be able to recognize bamboo plantation and/or smallholder farms. To overcome this limitation, a mobile app-based data collection system was envisaged and developed. The following recommendations are made based on the on-farm bamboo mapping findings:

- Community involvement in the mapping of on-farm bamboo resources in Ethiopia is essential for sustainable management, economic development, and environmental conservation. The country can enhance the use of its bamboo resources and ensure their long-term sustainability by integrating traditional knowledge with contemporary technology, thus fortifying stakeholder collaboration, and by tackling issues through targeted interventions.
- Policymakers, researchers, and development partners must prioritize participatory mapping methodologies to improve the efficacy of bamboo resource management nationwide. With the help of local youth and CPSs, mapping bamboo on farms in Ethiopia, where the current support is being carried out, is a test case for coming up with workable ways to create a nationwide on-farm bamboo resource database. One recommendation to strengthen on-farm bamboo resource data collection and management is to boost participatory mapping with the local community and key stakeholders to ensure large-scale data collection and maintain the quality of the collected data.
- A centralized, digitized database must be created for the storage and management of bamboo on-farm data at the regional level. The database can also be connected to the Ministry of Agriculture and the EFD.
- Bamboo mapping initiatives must be integrated with Ethiopia's Green Legacy Initiative and the National Forest Sector Development Program.

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### Annexure I: Bamboo Assessment-Homestead Farms (Phase I)/October 2024

Sl. No.	Name of Farmer	Gender	Kebele	Region	Bamboo Farm Size (ha)	Bamboo Species
1	Asnake Kebede	M	Boccesa	Sidama	0.407	<i>Oldeania alpina</i>
2	Shawula Shora	M	Boccesa	Sidama	0.076	<i>Oldeania alpina</i>
3	Argata Alake	M	Boccesa	Sidama	0.2627	<i>Oldeania alpina</i>
4	Almaze Kare	F	Boccesa	Sidama	0.0065	<i>Oldeania alpina</i>
5	Sitayehu Kebede	M	Boccesa	Sidama	0.0885	<i>Oldeania alpina</i>
6	Fayo Milko	F	Boccesa	Sidama	0.1331	<i>Oldeania alpina</i>
7	Melese Yo'ora	M	Boccesa	Sidama	0.366	<i>Oldeania alpina</i>
8	Mijo Maraso	M	Boccesa	Sidama	0.1323	<i>Oldeania alpina</i>
9	Adino Maraso	M	Boccesa	Sidama	0.0912	<i>Oldeania alpina</i>
10	Tesema Maraso	M	Boccesa	Sidama	0.106	<i>Oldeania alpina</i>
11	Abebe Argata	M	Boccesa	Sidama	7.2	<i>Oldeania alpina</i>
12	Bekele Kayeso	M	Boccesa	Sidama	0.2217	<i>Oldeania alpina</i>
13	Mitiku Yoko	M	Boccesa	Sidama	0.1186	<i>Oldeania alpina</i>
14	Dararo Bunka	F	Boccesa	Sidama	0.0359	<i>Oldeania alpina</i>
15	Yaae Lalima	M	Boccesa	Sidama	0.0401	<i>Oldeania alpina</i>
16	Yimune Endasha	M	Boccesa	Sidama	0.0566	<i>Oldeania alpina</i>
17	Bedilu Mangesha	M	Boccesa	Sidama	0.1172	<i>Oldeania alpina</i>
18	Leeges Lale	M	Boccesa	Sidama	0.1902	<i>Oldeania alpina</i>
19	Kifile Yunka	M	Boccesa	Sidama	0.0592	<i>Oldeania alpina</i>
20	Kamucho Dule	M	Boccesa	Sidama	0.2049	<i>Oldeania alpina</i>
21	Arfane Atara	F	Boccesa	Sidama	0.2602	<i>Oldeania alpina</i>
22	Tadelech Wome	F	Boccesa	Sidama	0.0129	<i>Oldeania alpina</i>

<b>Sl. No.</b>	<b>Name of Farmer</b>	<b>Gender</b>	<b>Kebele</b>	<b>Region</b>	<b>Bamboo Farm Size (ha)</b>	<b>Bamboo Species</b>
23	Qamiye Mache	M	Boccesa	Sidama	0.3387	<i>Oldeania alpina</i>
24	Tadese Mache	M	Boccesa	Sidama	0.5274	<i>Oldeania alpina</i>
25	Hamisale Dumo	F	Boccesa	Sidama	0.2224	<i>Oldeania alpina</i>
26	Kasahun Kamiso	M	Boccesa	Sidama	0.2274	<i>Oldeania alpina</i>
27	Dangura Maraso	M	Boccesa	Sidama	0.2697	<i>Oldeania alpina</i>
28	Hayle Maraso	M	Boccesa	Sidama	0.3597	<i>Oldeania alpina</i>
29	Sintayo Sia	M	Boccesa	Sidama	0.2861	<i>Oldeania alpina</i>
30	Legese Digasa	M	Boccesa	Sidama	0.1468	<i>Oldeania alpina</i>
31	Argata Alaka	M	Boccesa	Sidama	0.2600	<i>Oldeania alpina</i>
32	Asinake Kebede	M	Boccesa	Sidama	0.4070	<i>Oldeania alpina</i>
33	Melese Yora	M	Boccesa	Sidama	0.3660	<i>Oldeania alpina</i>
34	Fayo Milka	F	Boccesa	Sidama	0.1330	<i>Oldeania alpina</i>
35	Mejo Maraso	M	Boccesa	Sidama	0.1320	<i>Oldeania alpina</i>
36	Tesema Maraso	M	Boccesa	Sidama	0.1060	<i>Oldeania alpina</i>
37	Adeno Maraso	M	Boccesa	Sidama	0.0910	<i>Oldeania alpina</i>
38	Sentayo Kebede	M	Boccesa	Sidama	0.0880	<i>Oldeania alpina</i>
39	Shawula Shora	M	Boccesa	Sidama	0.0760	<i>Oldeania alpina</i>
40	Barasa Tunisisa	M	Chalbessa	Sidama	0.1535	<i>Oldeania alpina</i>
41	Almaze Eliyas	F	Chalbessa	Sidama	0.2729	<i>Oldeania alpina</i>
42	Alemayo Gota	M	Chalbessa	Sidama	0.1241	<i>Oldeania alpina</i>
43	Tefese Riqe	M	Chalbessa	Sidama	0.0894	<i>Oldeania alpina</i>
44	Qarre Dawaqo	M	Chalbessa	Sidama	0.1668	<i>Oldeania alpina</i>
45	Be'na Jile	M	Chalbessa	Sidama	0.6444	<i>Oldeania alpina</i>

<b>Sl. No.</b>	<b>Name of Farmer</b>	<b>Gender</b>	<b>Kebele</b>	<b>Region</b>	<b>Bamboo Farm Size (ha)</b>	<b>Bamboo Species</b>
46	Nado Yimanu	M	Chalbessa	Sidama	0.0978	<i>Oldeania alpina</i>
47	Tadese Jilo	M	Chalbessa	Sidama	0.0939	<i>Oldeania alpina</i>
48	Sintayo Ganburo	M	Chalbessa	Sidama	0.0978	<i>Oldeania alpina</i>
49	Gashura Wola	M	Chalbessa	Sidama	0.01447	<i>Oldeania alpina</i>
50	Asefa Amalo	M	Chalbessa	Sidama	0.25	<i>Oldeania alpina</i>
51	Gete Gergedo	F	Chalbessa	Sidama	0.1019	<i>Oldeania alpina</i>
52	Muete Yuura	M	Chalbessa	Sidama	0.25	<i>Oldeania alpina</i>
53	Fisiha Findiga	M	Chalbessa	Sidama	0.1017	<i>Oldeania alpina</i>
54	Mulu Lamiso	M	Chalbessa	Sidama	0.0740	<i>Oldeania alpina</i>
55	Asefa Alito	M	Chalbessa	Sidama	0.1641	<i>Oldeania alpina</i>
56	Guta Gale	M	Chalbessa	Sidama	0.2980	<i>Oldeania alpina</i>
57	Mamo Magane	M	Chalbessa	Sidama	0.25	<i>Oldeania alpina</i>
58	Sintayo Gebire	M	Chalbessa	Sidama	0.1799	<i>Oldeania alpina</i>
59	Gashura Wole	M	Chalbessa	Sidama	0.1861	<i>Oldeania alpina</i>
60	Maja Hamito	M	Chalbessa	Sidama	0.4014	<i>Oldeania alpina</i>
61	Kifile Tunsisa	M	Chalbessa	Sidama	0.3643	<i>Oldeania alpina</i>
62	Fidiga Alaka	M	Chalbessa	Sidama	0.1406	<i>Oldeania alpina</i>
63	Buna Guta	M	Chalbessa	Sidama	0.1756	<i>Oldeania alpina</i>
64	Marka Hameso	M	Chalbessa	Sidama	0.1845	<i>Oldeania alpina</i>
65	Hoshalo Fena	M	Chalbessa	Sidama	0.1845	<i>Oldeania alpina</i>
66	Muse Yute	M	Chalbessa	Sidama	0.1627	<i>Oldeania alpina</i>
67	Argats Mirdo	M	Chalbessa	Sidama	0.2173	<i>Oldeania alpina</i>
68	Salemon Maja	M	Chalbessa	Sidama	0.2536	<i>Oldeania alpina</i>

<b>Sl. No.</b>	<b>Name of Farmer</b>	<b>Gender</b>	<b>Kebele</b>	<b>Region</b>	<b>Bamboo Farm Size (ha)</b>	<b>Bamboo Species</b>
69	Shimala Maja	M	Chalbessa	Sidama	0.2375	<i>Oldeania alpina</i>
70	Kante Dawako	M	Chalbessa	Sidama	0.1623	<i>Oldeania alpina</i>
71	Beqala Nagashe	M	Odola	Sidama	0.0743	<i>Oldeania alpina</i>
72	Bote Bonoye	M	Odola	Sidama	0.1293	<i>Oldeania alpina</i>
73	Barassa Dimole	M	Odola	Sidama	0.1922	<i>Oldeania alpina</i>
74	Dangiso Yute	M	Odola	Sidama	0.0944	<i>Oldeania alpina</i>
75	Girma Haylu	M	Odola	Sidama	0.0400	<i>Oldeania alpina</i>
76	Kendoye Yute	M	Odola	Sidama	0.0294	<i>Oldeania alpina</i>
77	Degele Dawiso	M	Odola	Sidama	0.0756	<i>Oldeania alpina</i>
78	Beyene Negashe	M	Odola	Sidama	0.0743	<i>Oldeania alpina</i>
79	Shifera Kassa	M	Odola	Sidama	0.6278	<i>Oldeania alpina</i>
80	Zenawe Kassa	F	Odola	Sidama	0.1560	<i>Oldeania alpina</i>
81	Kamute Burqa	M	Odola	Sidama	0.1032	<i>Oldeania alpina</i>
82	Ishine Dobone	F	Odola	Sidama	0.0419	<i>Oldeania alpina</i>
83	Horo Gada	M	Odola	Sidama	0.1269	<i>Oldeania alpina</i>
84	Gizacho Girje	M	Odola	Sidama	0.0168	<i>Oldeania alpina</i>
85	Shone Gelelecha	M	Odola	Sidama	0.1546	<i>Oldeania alpina</i>
86	Melese Mengesha	M	Odola	Sidama	0.098	<i>Oldeania alpina</i>
87	Kassa Menesho	M	Odola	Sidama	0.0651	<i>Oldeania alpina</i>
88	Asefa Guuta	M	Odola	Sidama	0.0243	<i>Oldeania alpina</i>
89	Fune Senicho	M	Odola	Sidama	0.0821	<i>Oldeania alpina</i>
90	Tesema Guuta	M	Odola	Sidama	0.356	<i>Oldeania alpina</i>
91	Guyo Laalime	M	Odola	Sidama	0.1949	<i>Oldeania alpina</i>

<b>Sl. No.</b>	<b>Name of Farmer</b>	<b>Gender</b>	<b>Kebele</b>	<b>Region</b>	<b>Bamboo Farm Size (ha)</b>	<b>Bamboo Species</b>
92	Takile Gudura	M	Odola	Sidama	0.0863	<i>Oldeania alpina</i>
93	Fara Mirado	M	Odola	Sidama	0.1076	<i>Oldeania alpina</i>
94	Barasa Dimole	M	Odola	Sidama	0.1922	<i>Oldeania alpina</i>
95	Adise Lalima	M	Odola	Sidama	0.0915	<i>Oldeania alpina</i>
96	Sintayo Baja	M	Odola	Sidama	0.0427	<i>Oldeania alpina</i>
97	Beqala Baja	M	Odola	Sidama	0.0943	<i>Oldeania alpina</i>
98	Asafa Limasa	M	Odola	Sidama	0.0556	<i>Oldeania alpina</i>
99	Asefa Shibiru	M	Odola	Sidama	0.0880	<i>Oldeania alpina</i>
100	Indale Dewiso	M	Odola	Sidama	0.0313	<i>Oldeania alpina</i>
101	Bolka Abebe	M	Odola	Sidama	0.1587	<i>Oldeania alpina</i>
102	Mulatu Abebe	M	Odola	Sidama	0.1250	<i>Oldeania alpina</i>
103	Kendo Xafara	M	Odola	Sidama	0.3140	<i>Oldeania alpina</i>
104	Bukale Mandoye	M	Odola	Sidama	0.0928	<i>Oldeania alpina</i>
105	Harmato Yuma	M	Odola	Sidama	0.0920	<i>Oldeania alpina</i>
106	Shibru Banto	M	Odola	Sidama	0.1081	<i>Oldeania alpina</i>
107	Bote Bonoye	M	Odola	Sidama	0.1292	<i>Oldeania alpina</i>
108	Haqamo Ha'qelo	M	Odola	Sidama	0.0683	<i>Oldeania alpina</i>
109	Tamiru Shitaye	M	Odola	Sidama	0.0499	<i>Oldeania alpina</i>
110	Balacho Baqale	M	Odola	Sidama	0.0952	<i>Oldeania alpina</i>
111	Baayu Qoxa	M	Odola	Sidama	0.0559	<i>Oldeania alpina</i>
112	Muqura Mude	M	Odola	Sidama	0.1395	<i>Oldeania alpina</i>
113	Aklilu Gambura	M	Gase	Sidama	0.4750	<i>Oldeania alpina</i>
114	Zertitu Remito	F	Gase	Sidama	0.3103	<i>Oldeania alpina</i>

<b>Sl. No.</b>	<b>Name of Farmer</b>	<b>Gender</b>	<b>Kebele</b>	<b>Region</b>	<b>Bamboo Farm Size (ha)</b>	<b>Bamboo Species</b>
115	Birhanu Maniza	M	Gase	Sidama	0.0878	<i>Oldeania alpina</i>
116	Nura Dogiso	M	Gase	Sidama	0.0672	<i>Oldeania alpina</i>
117	Fune Duge	M	Gase	Sidama	0.4608	<i>Oldeania alpina</i>
118	Mekona Shabole	M	Gase	Sidama	0.2751	<i>Oldeania alpina</i>
119	Shiferaw Lankamo	M	Gase	Sidama	0.8193	<i>Oldeania alpina</i>
120	Argata Alawo	M	Gase	Sidama	0.0888	<i>Oldeania alpina</i>
121	Lamiso Gerje	M	Gase	Sidama	0.0820	<i>Oldeania alpina</i>
122	Tunora Dewiso	M	Gase	Sidama	0.1875	<i>Oldeania alpina</i>
123	Fanise Bushe	F	Gase	Sidama	0.0537	<i>Oldeania alpina</i>
124	Zegeya Yonka	M	Gase	Sidama	0.0815	<i>Oldeania alpina</i>
125	Abiraham Sintayo	M	Gase	Sidama	0.0362	<i>Oldeania alpina</i>
126	Shifara Simano	M	Gase	Sidama	0.078	<i>Oldeania alpina</i>
127	Legese Oka	M	Gase	Sidama	0.0476	<i>Oldeania alpina</i>
128	Wagiso Kawiso	M	Gase	Sidama	0.0982	<i>Oldeania alpina</i>
129	Worku Qeto	M	Gase	Sidama	0.1164	<i>Oldeania alpina</i>
130	Bekele Sirka	M	Gase	Sidama	0.0612	<i>Oldeania alpina</i>
131	Tibilete Kasa	F	Gase	Sidama	0.1805	<i>Oldeania alpina</i>
132	Debesa Bute	M	Gase	Sidama	0.3575	<i>Oldeania alpina</i>
133	Aragaw Goshu	M	Gase	Sidama	0.1386	<i>Oldeania alpina</i>
134	Dawana Oda	M	Gase	Sidama	0.2710	<i>Oldeania alpina</i>
135	Zenebeshi Hailu	F	Gase	Sidama	0.1425	<i>Oldeania alpina</i>
136	Adimas Wena	M	Gase	Sidama	0.0447	<i>Oldeania alpina</i>
137	Mogose Bogale	M	Gase	Sidama	0.0634	<i>Oldeania alpina</i>

<b>Sl. No.</b>	<b>Name of Farmer</b>	<b>Gender</b>	<b>Kebele</b>	<b>Region</b>	<b>Bamboo Farm Size (ha)</b>	<b>Bamboo Species</b>
138	Botola Bangasa	M	Gase	Sidama	0.0627	<i>Oldeania alpina</i>
139	Kebede Adama	M	Gase	Sidama	0.1096	<i>Oldeania alpina</i>
134	Legese Youka	M	Gase	Sidama	0.0805	<i>Oldeania alpina</i>
135	Girja Gesha	M	Gase	Sidama	0.1522	<i>Oldeania alpina</i>
136	Desha Banagasa	M	Gase	Sidama	0.6720	<i>Oldeania alpina</i>
137	Harka Feto	M	Gase	Sidama	0.1522	<i>Oldeania alpina</i>
138	Yonse Yoyoto	M	Gase	Sidama	0.1206	<i>Oldeania alpina</i>
139	Acharo Ceko	M	Gase	Sidama	0.0869	<i>Oldeania alpina</i>
140	Yosef Yoyoto	M	Gase	Sidama	0.1206	<i>Oldeania alpina</i>
141	Wicha Nine	M	Gase	Sidama	0.3101	<i>Oldeania alpina</i>
142	Horso Sanbato	M	Gase	Sidama	0.2599	<i>Oldeania alpina</i>
143	Harkamo Haxiso	M	Gase	Sidama	0.0472	<i>Oldeania alpina</i>
144	Kamiso Ariso	M	Gase	Sidama	0.1859	<i>Oldeania alpina</i>
145	Waqiso Kawiso	M	Gase	Sidama	0.1312	<i>Oldeania alpina</i>
146	Majoro Naol	M	Gase	Sidama	0.1360	<i>Oldeania alpina</i>
147	Bogale Gelecho	M	Gase	Sidama	0.0186	<i>Oldeania alpina</i>
148	Henaki Dubale	M	Witta bono	Sidama	0.1102	<i>Oldeania alpina</i>
149	Hagana Dugale	M	Witta bono	Sidama	0.0243	<i>Oldeania alpina</i>
150	Zarffu Magane	M	Witta bono	Sidama	0.1395	<i>Oldeania alpina</i>
151	Takilu Tegenyi	M	Witta bono	Sidama	0.0687	<i>Oldeania alpina</i>
152	Ditora Rikiba	M	Witta bono	Sidama	0.0287	<i>Oldeania alpina</i>
153	Shadele Tadele	M	Witta bono	Sidama	0.0903	<i>Oldeania alpina</i>
156	Getacheo Tadele	M	Witta bono	Sidama	0.040	<i>Oldeania alpina</i>

<b>Sl. No.</b>	<b>Name of Farmer</b>	<b>Gender</b>	<b>Kebele</b>	<b>Region</b>	<b>Bamboo Farm Size (ha)</b>	<b>Bamboo Species</b>
157	Gota Gabiso	M	Witta bono	Sidama	0.1807	<i>Oldeania alpina</i>
158	Gaye Adamu	M	Witta bono	Sidama	0.0835	<i>Oldeania alpina</i>
159	Teferi Tegenu	M	Witta bono	Sidama	0.0574	<i>Oldeania alpina</i>
160	Wute Hatiya	M	Witta bono	Sidama	0.0463	<i>Oldeania alpina</i>
161	Gelela Tula	M	Witta bono	Sidama	0.01675	<i>Oldeania alpina</i>
162	Zerihun Bekele	M	Witta bono	Sidama	0.0840	<i>Oldeania alpina</i>
163	Tana Tsegaye	M	Witta bono	Sidama	0.1185	<i>Oldeania alpina</i>
164	Bilawa Tuta	M	Witta bono	Sidama	0.5	<i>Oldeania alpina</i>
165	Hailu Amose	M	Witta bono	Sidama	0.0262	<i>Oldeania alpina</i>
166	Alemu Argata	M	Witta bono	Sidama	0.0009	<i>Oldeania alpina</i>
167	Ermiyasa Dawa	M	Witta bono	Sidama	0.0318	<i>Oldeania alpina</i>
168	Muka Fikadu	M	Witta bono	Sidama	0.25	<i>Oldeania alpina</i>
169	Dewiso Hula	M	Witta bono	Sidama	0.1000	<i>Oldeania alpina</i>
170	Ayalo Dewiso	M	Witta bono	Sidama	0.0772	<i>Oldeania alpina</i>
171	Adoni Asuro	M	Witta bono	Sidama	0.1629	<i>Oldeania alpina</i>
172	Alemu Argata	M	Witta bono	Sidama	0.0697	<i>Oldeania alpina</i>
173	Getu Mulugeta	M	Witta bono	Sidama	0.0640	<i>Oldeania alpina</i>
174	Tamene Dogiso	M	Witta bono	Sidama	0.0929	<i>Oldeania alpina</i>
175	Choke Hameso	M	Witta bono	Sidama	0.1412	<i>Oldeania alpina</i>
176	Shawula Nexa	M	Witta bono	Sidama	0.1148	<i>Oldeania alpina</i>
177	Tadese Boe	M	Witta bono	Sidama	0.115	<i>Oldeania alpina</i>
178	Tunsisa Gonsa	M	Witta bono	Sidama	0.0353	<i>Oldeania alpina</i>
179	Yura Bunara	M	Witta bono	Sidama	0.0290	<i>Oldeania alpina</i>

Sl. No.	Name of Farmer	Gender	Kebele	Region	Bamboo Farm Size (ha)	Bamboo Species
180	Melmela Fute	M	Witta bono	Sidama	0.1300	<i>Oldeania alpina</i>
181	Garje Tunsisa	M	Witta bono	Sidama	0.1599	<i>Oldeania alpina</i>
182	Getu Tunsisa	M	Witta bono	Sidama	0.1117	<i>Oldeania alpina</i>
183	Dubale Muche	M	Witta bono	Sidama	0.1078	<i>Oldeania alpina</i>
184	Furche Tumicha	M	Witta bono	Sidama	0.0713	<i>Oldeania alpina</i>
185	Bokola Baqa	M	Witta bono	Sidama	0.0870	<i>Oldeania alpina</i>
186	Biranu Boroda	M	Witta bono	Sidama	0.0342	<i>Oldeania alpina</i>
187	Shuna Done	M	Witta bono	Sidama	0.0321	<i>Oldeania alpina</i>
188	Wondimu Kanko	M	Chencha-Dorze	South	0.0617	<i>Oldeania alpina</i>
189	Dagne Desta	M	Chencha-Dorze	South	0.314	<i>Oldeania alpina</i>
190	Ketema Kuso	M	Chencha-Dorze	South	0.285	<i>Oldeania alpina</i>
191	Melkamu	M	Chencha-Dorze	South	0.230	<i>Oldeania alpina</i>
192	Teshome Mulu	M	Chencha-Dorze	South	0.214	<i>Oldeania alpina</i>
193	Abayneh Merga	M	Chencha-Dorze	South	0.318	<i>Oldeania alpina</i>
194	Solomon Asfaw	M	Chencha-Dorze	South	0.035	<i>Oldeania alpina</i>
195	Shewa Posha	M	Chencha-Dorze	South	0.296	<i>Oldeania alpina</i>
196	Oche Asfaw	M	Chencha-Dorze	South	0.231	<i>Oldeania alpina</i>
<b>Total Farmers 196</b>					<b>38.184</b>	

### Annexure II: Bamboo Assessment-Homestead Farms (Phase II)/December 2024

Sl.No.	Name of Farmer	Gender	Kebele	Region	Bamboo Farm Size (m <sup>2</sup> and ha)		Bamboo Species
					m <sup>2</sup>	ha	
1	Kimo Kia	M	Chelbesa	Sidama Ethiopia	5000	0.50	<i>Oldeania alpina</i>
2	Tuke Kiya	M	Chelbesa	Sidama Ethiopia	5000	0.50	<i>Oldeania alpina</i>
3	Asefa Nukora	M	Chelbesa	Sidama Ethiopia	2750	0.28	<i>Oldeania alpina</i>

4	Bunura Mirado	M	Chelbesa	Sidama Ethiopia	10000	1.00	<i>Oldeania alpina</i>
5	Nokora Roda	M	Chelbesa	Sidama Ethiopia	10000	1.00	<i>Oldeania alpina</i>
6	Faara Mirado	M	Chelbesa	Sidama Ethiopia	10000	1.00	<i>Oldeania alpina</i>
7	Shibiru Kemo	M	Chelbesa	Sidama Ethiopia	2500	0.25	<i>Oldeania alpina</i>
8	Marshe Kimo	M	Chelbesa	Sidama Ethiopia	7500	0.75	<i>Oldeania alpina</i>
9	Boniche Barsantos	M	Chelbesa	Sidama Ethiopia	3500	0.35	<i>Oldeania alpina</i>
10	Masa Hamiso	M	Chelbesa	Sidama Ethiopia	3500	0.35	<i>Oldeania alpina</i>
11	Banca Ichaloha	M	Chelbesa	Sidama Ethiopia	2750	0.28	<i>Oldeania alpina</i>
12	Selemon M.zafo	M	Chelbesa	Sidama Ethiopia	2500	0.25	<i>Oldeania alpina</i>
13	Hamsale Idire	M	Chelbesa	Sidama Ethiopia	2750	0.28	<i>Oldeania alpina</i>
14	Plex M. Selemon	M	Chelbesa	Sidama Ethiopia	3500	0.35	<i>Oldeania alpina</i>
15	Ifile Iya	M	Chelbesa	Sidama Ethiopia	2500	0.25	<i>Oldeania alpina</i>
16	Melse Mansora	M	Chelbesa	Sidama Ethiopia	2750	0.28	<i>Oldeania alpina</i>
17	Kedeche Poyo	M	Chelbesa	Sidama Ethiopia	2500	0.25	<i>Oldeania alpina</i>
18	Kyumu Kuntesa	M	Chelbesa	Sidama Ethiopia	2500	0.25	<i>Oldeania alpina</i>
19	Bifiru Barayu	M	Chelbesa	Sidama Ethiopia	7500	0.75	<i>Oldeania alpina</i>
20	Biru Ichaloha	M	Chelbesa	Sidama Ethiopia	2500	0.25	<i>Oldeania alpina</i>
21	Fenkeere Heliso	M	Chelbesa	Sidama Ethiopia	5000	0.50	<i>Oldeania alpina</i>
22	Bete Ichaloha	M	Chelbesa	Sidama Ethiopia	2500	0.25	<i>Oldeania alpina</i>
23	Bolka Abebe	M	O/kura	Sidama Ethiopia	7500	0.75	<i>Oldeania alpina</i>
24	Eshete Abebe	M	O/kura	Sidama Ethiopia	7500	0.75	<i>Oldeania alpina</i>
25	Bekele Lamiso	M	O/kura	Sidama Ethiopia	3500	0.35	<i>Oldeania alpina</i>
26	Dawene Kurse	M	O/kura	Sidama Ethiopia	2500	0.25	<i>Oldeania alpina</i>
27	Demewoz Dengene	M	O/kura	Sidama Ethiopia	3500	0.35	<i>Oldeania alpina</i>
28	Beyene Bete	M	Chalbesa	Sidama Ethiopia	2500	0.25	<i>Oldeania alpina</i>
29	None Godeno	M	Chalbesa	Sidama Ethiopia	3500	0.35	<i>Oldeania alpina</i>
30	Dassa Godeno	M	Chalbesa	Sidama Ethiopia	3500	0.35	<i>Oldeania alpina</i>
31	Tuke Tunsisa	M	Chalbesa	Sidama Ethiopia	2500	0.25	<i>Oldeania alpina</i>
32	Ejigu Bekele	M	Chalbesa	Sidama Ethiopia	2500	0.25	<i>Oldeania alpina</i>
33	Findiga Alaka	M	Chalbesa	Sidama Ethiopia	7500	0.75	<i>Oldeania alpina</i>
34	Mansura Yuka	M	Chalbesa	Sidama Ethiopia	2500	0.25	<i>Oldeania alpina</i>
35	Legesse Futero	M	Chalbesa	Sidama Ethiopia	2500	0.25	<i>Oldeania alpina</i>
36	Shimelis Shibiru	M	Chalbesa	Sidama Ethiopia	2500	0.25	<i>Oldeania alpina</i>
37	Girma Chuluka	M	Chalbesa	Sidama Ethiopia	3500	0.35	<i>Oldeania alpina</i>
38	Chuluka Ashango	M	Chalbesa	Sidama Ethiopia	7500	0.75	<i>Oldeania alpina</i>
39	Danbashu Godano	M	Chalbesa	Sidama Ethiopia	2500	0.25	<i>Oldeania alpina</i>
40	Yettero Yemone	M	Chalbesa	Sidama Ethiopia	3500	0.35	<i>Oldeania alpina</i>
41	Bena Ilo	M	Chalbesa	Sidama Ethiopia	7500	0.75	<i>Oldeania alpina</i>
42	Burtukan Bututo	F	Chalbesa	Sidama Ethiopia	10000	1.00	<i>Oldeania alpina</i>
43	Melese Chure	M	Chalbesa	Sidama Ethiopia	2500	0.25	<i>Oldeania alpina</i>
44	Sambota Sago	M	Chalbesa	Sidama Ethiopia	2500	0.25	<i>Oldeania alpina</i>

45	Kebede Soda	M	Chalbesa	Sidama Ethiopia	1500	0.15	<i>Oldeania alpina</i>
46	Alemu Funte	M	Wita Bona	Sidama Ethiopia	5000	0.50	<i>Oldeania alpina</i>
47	Chure Gega	M	Wita Bona	Sidama Ethiopia	3500	0.35	<i>Oldeania alpina</i>
48	Bunta Rudacha	M	Wita Bona	Sidama Ethiopia	2500	0.25	<i>Oldeania alpina</i>
49	Getachew Tuka	M	Wita Bona	Sidama Ethiopia	10000	1.00	<i>Oldeania alpina</i>
50	Abirham Bokola	M	Wita Bona	Sidama Ethiopia	2500	0.25	<i>Oldeania alpina</i>
51	Doyamo Wako	M	Wita Bona	Sidama Ethiopia	3500	0.35	<i>Oldeania alpina</i>
52	Endale Wako	M	Wita Bona	Sidama Ethiopia	1750	0.18	<i>Oldeania alpina</i>
53	Buna Burka	M	Wita Bona	Sidama Ethiopia	1250	0.13	<i>Oldeania alpina</i>
54	Melula Fute	M	Wita Bona	Sidama Ethiopia	1750	0.18	<i>Oldeania alpina</i>
55	Bekele Chonoka	M	Wita Bona	Sidama Ethiopia	2500	0.25	<i>Oldeania alpina</i>
56	Muma Tunsisa	M	Wita Bona	Sidama Ethiopia	5000	0.50	<i>Oldeania alpina</i>
57	Garisa Tunsisa	M	Wita Bona	Sidama Ethiopia	3500	0.35	<i>Oldeania alpina</i>
58	Tumicha Yunkura	M	Wita Bona	Sidama Ethiopia	2750	0.28	<i>Oldeania alpina</i>
59	Demewoze Tunicha	M	Wita Bona	Sidama Ethiopia	2500	0.25	<i>Oldeania alpina</i>
60	Betisha Beta	M	O/Kura	Sidama Ethiopia	2500	0.25	<i>Oldeania alpina</i>
61	Argata Alaka	M	Bochsa	Sidama Ethiopia	10000	1.00	<i>Oldeania alpina</i>
62	Almazi Kare	F	Bochsa	Sidama Ethiopia	10000	1.00	<i>Oldeania alpina</i>
63	Takawe Tsegaye	M	Bochsa	Sidama Ethiopia	10000	1.00	<i>Oldeania alpina</i>
64	Asinake Kebede	M	Bochsa	Sidama Ethiopia	5000	0.50	<i>Oldeania alpina</i>
65	Melese Yoora	M	Bochsa	Sidama Ethiopia	1420	0.14	<i>Oldeania alpina</i>
66	Hamaro Hamasha	M	Bochsa	Sidama Ethiopia	2500	0.25	<i>Oldeania alpina</i>
67	Kirba Kimo	M	Bochsa	Sidama Ethiopia	2400	0.24	<i>Oldeania alpina</i>
68	Bekele Tula	M	Bochsa	Sidama Ethiopia	5000	0.50	<i>Oldeania alpina</i>
69	Nigatu Wondimu	M	Bochsa	Sidama Ethiopia	3200	0.32	<i>Oldeania alpina</i>
70	Tesfa Kakawo	M	Bochsa	Sidama Ethiopia	2800	0.28	<i>Oldeania alpina</i>
71	Sheldano Yuto	M	Bochsa	Sidama Ethiopia	800	0.08	<i>Oldeania alpina</i>
72	Awori Lale	M	Bochsa	Sidama Ethiopia	2000	0.20	<i>Oldeania alpina</i>
73	Dayo Kumado	M	Bochsa	Sidama Ethiopia	2000	0.20	<i>Oldeania alpina</i>
74	Alamitu Hailom	M	Bochsa	Sidama Ethiopia	2500	0.25	<i>Oldeania alpina</i>
75	Atenew Arpeta	M	Bochsa	Sidama Ethiopia	5000	0.50	<i>Oldeania alpina</i>
76	Archelo Arpeta	M	Bochsa	Sidama Ethiopia	4500	0.45	<i>Oldeania alpina</i>
77	Swreze Adamu	M	Bochsa	Sidama Ethiopia	8000	0.80	<i>Oldeania alpina</i>
78	Tadesse Melka	M	Bochsa	Sidama Ethiopia	8000	0.80	<i>Oldeania alpina</i>
79	Hulu Helede	F	Bochsa	Sidama Ethiopia	1500	0.15	<i>Oldeania alpina</i>
80	Salito Jirisha	M	Bochsa	Sidama Ethiopia	7000	0.70	<i>Oldeania alpina</i>
81	Yebere Harso	M	Bochsa	Sidama Ethiopia	1600	0.16	<i>Oldeania alpina</i>
82	Degela Marso	M	Bochsa	Sidama Ethiopia	1500	0.15	<i>Oldeania alpina</i>
83	Dangura Maraso	M	Bochsa	Sidama Ethiopia	748	0.07	<i>Oldeania alpina</i>
84	Helero Harso	M	Bochsa	Sidama Ethiopia	600	0.06	<i>Oldeania alpina</i>
85	Meselella Mungiru	F	Bochsa	Sidama Ethiopia	4500	0.45	<i>Oldeania alpina</i>

86	Tadelechi Dido	F	Bochsa	Sidama Ethiopia	2800	0.28	<i>Oldeania alpina</i>
87	Hiziret Sileshi	F	Bochsa	Sidama Ethiopia	2000	0.20	<i>Oldeania alpina</i>
88	Hemundit Takuma	M	Bochsa	Sidama Ethiopia	2000	0.20	<i>Oldeania alpina</i>
89	Simun Tafirie	F	Bochsa	Sidama Ethiopia	1500	0.15	<i>Oldeania alpina</i>
90	Kasa Woyeda	M	Bochsa	Sidama Ethiopia	2400	0.24	<i>Oldeania alpina</i>
91	Terefe Damota	M	Bochsa	Sidama Ethiopia	2600	0.26	<i>Oldeania alpina</i>
92	Kendoye Yute	M	Bochsa	Sidama Ethiopia	5000	0.50	<i>Oldeania alpina</i>
93	Dangiso Yute	M	O/Kura	Sidama Ethiopia	3750	0.38	<i>Oldeania alpina</i>
94	Birukanu Hulatu	M	O/Kura	Sidama Ethiopia	1800	0.18	<i>Oldeania alpina</i>
95	Shamula Kendede	M	O/Kura	Sidama Ethiopia	2750	0.28	<i>Oldeania alpina</i>
96	Bevere Hmcland	M	O/Kura	Sidama Ethiopia	3500	0.35	<i>Oldeania alpina</i>
97	Intena Woylard	M	O/Kura	Sidama Ethiopia	3750	0.38	<i>Oldeania alpina</i>
98	Alote Wolhara	M	O/Kura	Sidama Ethiopia	1350	0.14	<i>Oldeania alpina</i>
99	Hamado Hermato	M	O/Kura	Sidama Ethiopia	5000	0.50	<i>Oldeania alpina</i>
100	Hamazo Hameko	M	O/Kura	Sidama Ethiopia	5000	0.50	<i>Oldeania alpina</i>
101	Shiburus Banto	M	O/Kura	Sidama Ethiopia	7500	0.75	<i>Oldeania alpina</i>
102	Lemadshibir	M	O/Kura	Sidama Ethiopia	7500	0.75	<i>Oldeania alpina</i>
103	Arestashilon	M	O/Kura	Sidama Ethiopia	3750	0.38	<i>Oldeania alpina</i>
104	Godena Gobona	M	O/Kura	Sidama Ethiopia	4750	0.48	<i>Oldeania alpina</i>
105	Grida Tolu	M	O/Kura	Sidama Ethiopia	4750	0.48	<i>Oldeania alpina</i>
106	Islake Dobano	M	O/Kura	Sidama Ethiopia	5000	0.50	<i>Oldeania alpina</i>
107	Gizawu Griye	M	O/Kura	Sidama Ethiopia	3750	0.38	<i>Oldeania alpina</i>
108	Note Godana	M	O/Kura	Sidama Ethiopia	2500	0.25	<i>Oldeania alpina</i>
109	Givasu Griye	M	O/Kura	Sidama Ethiopia	2500	0.25	<i>Oldeania alpina</i>
110	Guwie Beta	M	O/Kura	Sidama Ethiopia	7800	0.78	<i>Oldeania alpina</i>
111	Bole Beta	M	O/Kura	Sidama Ethiopia	1270	0.13	<i>Oldeania alpina</i>
112	Kedele Beta	M	O/Kura	Sidama Ethiopia	2500	0.25	<i>Oldeania alpina</i>
113	Asada Gura	M	O/Kura	Sidama Ethiopia	4500	0.45	<i>Oldeania alpina</i>
114	Fume Senichlo	M	O/Kura	Sidama Ethiopia	3700	0.37	<i>Oldeania alpina</i>
115	Guta Sofkore	M	O/Kura	Sidama Ethiopia	3750	0.38	<i>Oldeania alpina</i>
116	Sitota Girma	M	O/Kura	Sidama Ethiopia	2700	0.27	<i>Oldeania alpina</i>
117	Sharo Shistaye	M	O/Kura	Sidama Ethiopia	2500	0.25	<i>Oldeania alpina</i>
118	Gashura Galgalo	M	Chelbesa	Sidama Ethiopia	167	0.02	<i>Oldeania alpina</i>
119	Borsamo Buro	M	Chelbesa	Sidama Ethiopia	1006.3	0.10	<i>Oldeania alpina</i>
120	Karayu Kime	M	Chelbesa	Sidama Ethiopia	1479.8	0.15	<i>Oldeania alpina</i>
121	Shibiru Kimo	M	Chelbesa	Sidama Ethiopia	928	0.09	<i>Oldeania alpina</i>
122	Wako Ware	M	Ganjure Chicho	Sidama Ethiopia	2810.4	0.28	<i>Oldeania alpina</i>
123	Aboye Anga	M	Ganjure Chicho	Sidama Ethiopia	3563	0.36	<i>Oldeania alpina</i>
124	Hailu Hunsa	M	Ganjure Chicho	Sidama Ethiopia	1995.2	0.20	<i>Oldeania alpina</i>

125	Alemu Hunsa	M	Ganjure Chicho	Sidama Ethiopia	508.6	0.05	<i>Oldeania alpina</i>
126	Getahun Gilo	M	Ganjure Chicho	Sidama Ethiopia	1035.7	0.10	<i>Oldeania alpina</i>
127	Esrael Gilo	M	Ganjure Chicho	Sidama Ethiopia	2134.6	0.21	<i>Oldeania alpina</i>
128	Mengistu Sodo	M	Ganjure Chicho	Sidama Ethiopia	837.3	0.08	<i>Oldeania alpina</i>
129	Asfawu Boko	M	Ganjure Chicho	Sidama Ethiopia	319.4	0.03	<i>Oldeania alpina</i>
130	Bogale Boko	M	Ganjure Chicho	Sidama Ethiopia	1067	0.11	<i>Oldeania alpina</i>
131	Sallia Boko	M	Ganjure Chicho	Sidama Ethiopia	1374	0.14	<i>Oldeania alpina</i>
132	Asfawu Bakalo	M	Ganjure Chicho	Sidama Ethiopia	1166	0.12	<i>Oldeania alpina</i>
133	Eyasu Harka	M	Ganjure Chicho	Sidama Ethiopia	1812	0.18	<i>Oldeania alpina</i>
134	Markos Elias	M	Ganjure Chicho	Sidama Ethiopia	327.4	0.03	<i>Oldeania alpina</i>
135	Genene Galgalo	M	Ganjure Chicho	Sidama Ethiopia	1460.2	0.15	<i>Oldeania alpina</i>
136	Dubale Dulecha	M	Ganjure Chicho	Sidama Ethiopia	621.7	0.06	<i>Oldeania alpina</i>
137	Biru Dubale	M	Ganjure Chicho	Sidama Ethiopia	893.2	0.09	<i>Oldeania alpina</i>
138	Menge damota	M	Ganjure Chicho	Sidama Ethiopia	501.9	0.05	<i>Oldeania alpina</i>
139	Chucha Yunera	M	Ganjure Chicho	Sidama Ethiopia	1632.8	0.16	<i>Oldeania alpina</i>
140	Meta Tunsisa	M	Ganjure Chicho	Sidama Ethiopia	2437	0.24	<i>Oldeania alpina</i>
141	Digasa Tunsisa	M	Ganjure Chicho	Sidama Ethiopia	583.6	0.06	<i>Oldeania alpina</i>
142	Daniso Dawassa	M	Ganjure Chicho	Sidama Ethiopia	172	0.02	<i>Oldeania alpina</i>
143	Tadese Yote	M	Ganjure Chicho	Sidama Ethiopia	749	0.07	<i>Oldeania alpina</i>
144	Gota Sida	M	Ganjure Chicho	Sidama Ethiopia	1003.2	0.10	<i>Oldeania alpina</i>
145	Garamo Banisa	M	Ganjure Chicho	Sidama Ethiopia	407	0.04	<i>Oldeania alpina</i>
146	Mokona Banisa	M	Ganjure Chicho	Sidama Ethiopia	378	0.04	<i>Oldeania alpina</i>
147	Girma Bonka	M	Ganjure Chicho	Sidama Ethiopia	2127	0.21	<i>Oldeania alpina</i>
148	Butuna Banka	M	Ganjure Chicho	Sidama Ethiopia	1041	0.10	<i>Oldeania alpina</i>
149	Mange Damota	M	Ganjure Chicho	Sidama Ethiopia	1420.8	0.14	<i>Oldeania alpina</i>

150	Baniso Sida	M	Ganjure Chicho	Sidama Ethiopia	1208.9	0.12	<i>Oldeania alpina</i>
151	Dana Tusisa	M	Ganjure Chicho	Sidama Ethiopia	1347	0.13	<i>Oldeania alpina</i>
152	Yohanis Ganale	M	Ganjure Chicho	Sidama Ethiopia	1030.2	0.10	<i>Oldeania alpina</i>
153	Aschalo Burka	M	Wita Bona	Sidama Ethiopia	5000	0.50	<i>Oldeania alpina</i>
154	Tamiru Melula	M	Wita Bona	Sidama Ethiopia	3500	0.35	<i>Oldeania alpina</i>
155	Takilu Funte	M	Wita Bona	Sidama Ethiopia	10000	1.00	<i>Oldeania alpina</i>
156	Dubale Feto	M	Wita Bona	Sidama Ethiopia	5000	0.50	<i>Oldeania alpina</i>
157	Alemayo Melula	M	Wita Bona	Sidama Ethiopia	2500	0.25	<i>Oldeania alpina</i>
158	Dubale Mude	M	Wita Bona	Sidama Ethiopia	7500	0.75	<i>Oldeania alpina</i>
159	Adino Mekonin	M	Wita Bona	Sidama Ethiopia	2500	0.25	<i>Oldeania alpina</i>
160	Utura Dubale	M	Wita Bona	Sidama Ethiopia	2500	0.25	<i>Oldeania alpina</i>
161	Duguna Fute	M	Wita Bona	Sidama Ethiopia	7500	0.75	<i>Oldeania alpina</i>
162	Sileshi Mokonin	M	Wita Bona	Sidama Ethiopia	7500	0.75	<i>Oldeania alpina</i>
163	Zerihun Dubale	M	Wita Bona	Sidama Ethiopia	2500	0.25	<i>Oldeania alpina</i>
164	Mulugeta Maburate	M	Wita Bona	Sidama Ethiopia	5000	0.50	<i>Oldeania alpina</i>
165	Balaye Tunsisa	M	Wita Bona	Sidama Ethiopia	7500	0.75	<i>Oldeania alpina</i>
166	Hiche Buchache	M	Wita Bona	Sidama Ethiopia	3500	0.35	<i>Oldeania alpina</i>
167	Kasa Buchacha	M	Wita Bona	Sidama Ethiopia	1750	0.18	<i>Oldeania alpina</i>
168	Shalala Buchache	M	Wita Bona	Sidama Ethiopia	1750	0.18	<i>Oldeania alpina</i>
169	Tesfaye Tunsisa	M	Wita Bona	Sidama Ethiopia	1750	0.18	<i>Oldeania alpina</i>
170	Tura Tusisa	M	Wita Bona	Sidama Ethiopia	1750	0.18	<i>Oldeania alpina</i>
171	Tesema Dalacha	M	Wita Bona	Sidama Ethiopia	2000	0.20	<i>Oldeania alpina</i>
172	Getu Dalacha	M	Wita Bona	Sidama Ethiopia	1750	0.18	<i>Oldeania alpina</i>
173	Dambaru Dalacha	M	Wita Bona	Sidama Ethiopia	2500	0.25	<i>Oldeania alpina</i>
174	Zegeye Bokola	M	Wita Bona	Sidama Ethiopia	5000	0.50	<i>Oldeania alpina</i>
175	Samuel Shora	M	Wita Bona	Sidama Ethiopia	2500	0.25	<i>Oldeania alpina</i>
176	Ashenafi Yura	M	Wita Bona	Sidama Ethiopia	2500	0.25	<i>Oldeania alpina</i>
177	Tune Kunta	M	Wita Bona	Sidama Ethiopia	2500	0.25	<i>Oldeania alpina</i>
178	Asefa Bokola	M	Wita Bona	Sidama Ethiopia	5000	0.50	<i>Oldeania alpina</i>
179	Tumicha Bala	M	Wita Bona	Sidama Ethiopia	1750	0.18	<i>Oldeania alpina</i>
180	Wondimu Bokola	M	Wita Bona	Sidama Ethiopia	5000	0.50	<i>Oldeania alpina</i>
181	Legese Bokola	M	Wita Bona	Sidama Ethiopia	2500	0.25	<i>Oldeania alpina</i>
182	Garje Yetera	M	Wita Bona	Sidama Ethiopia	5000	0.50	<i>Oldeania alpina</i>
183	Kidane Kunta	M	Wita Bona	Sidama Ethiopia	1750	0.18	<i>Oldeania alpina</i>
184	Feo Yetera	M	Wita Bona	Sidama Ethiopia	2750	0.28	<i>Oldeania alpina</i>
185	Nuguse Yetera	M	Wita Bona	Sidama Ethiopia	5000	0.50	<i>Oldeania alpina</i>
186	Funute Dawe	M	Wita Bona	Sidama Ethiopia	1750	0.18	<i>Oldeania alpina</i>
187	Kunta Bala	M	Wita Bona	Sidama Ethiopia	2500	0.25	<i>Oldeania alpina</i>
188	Yetera Dawe	M	Wita Bona	Sidama Ethiopia	2500	0.25	<i>Oldeania alpina</i>

189	Solomon Yetera	M	Wita Bona	Sidama Ethiopia	2500	0.25	<i>Oldeania alpina</i>
190	Isayasi Funte	M	Wita Bona	Sidama Ethiopia	5000	0.50	<i>Oldeania alpina</i>
191	GeremuGega	M	Wita Bona	Sidama Ethiopia	5000	0.50	<i>Oldeania alpina</i>
192	Bekele Gega	M	Wita Bona	Sidama Ethiopia	5000	0.50	<i>Oldeania alpina</i>
193	Tadese Funte	M	Wita Bona	Sidama Ethiopia	3500	0.35	<i>Oldeania alpina</i>
194	Fikadu Kasa	M	Wita Bona	Sidama Ethiopia	2500	0.25	<i>Oldeania alpina</i>
195	Dawiso Hula	M	Wita Bona	Sidama Ethiopia	2500	0.25	<i>Oldeania alpina</i>
196	Legese Nadamo	M	Wita Bona	Sidama Ethiopia	3750	0.38	<i>Oldeania alpina</i>
197	Markosi Nadamo	M	Wita Bona	Sidama Ethiopia	2500	0.25	<i>Oldeania alpina</i>
198	Shawunde Legamo	M	Wita Bona	Sidama Ethiopia	1750	0.18	<i>Oldeania alpina</i>
199	Tafese Dado	M	Bochsa	Sidama Ethiopia	2500	0.25	<i>Oldeania alpina</i>
200	Bekele Bena	M	Bochsa	Sidama Ethiopia	7500	0.75	<i>Oldeania alpina</i>
201	Alemu Bena	M	Bochsa	Sidama Ethiopia	2500	0.25	<i>Oldeania alpina</i>
202	Sukare Bena	M	Bochsa	Sidama Ethiopia	7750	0.78	<i>Oldeania alpina</i>
203	Legese Jilo	M	Bochsa	Sidama Ethiopia	2000	0.20	<i>Oldeania alpina</i>
204	Mulugrta Kebede	M	Bochsa	Sidama Ethiopia	300	0.03	<i>Oldeania alpina</i>
205	Biranu Bekele	M	Bochsa	Sidama Ethiopia	200	0.02	<i>Oldeania alpina</i>
206	Beletu Biranu	F	Bochsa	Sidama Ethiopia	750	0.08	<i>Oldeania alpina</i>
207	Kababush Bekele	F	Bochsa	Sidama Ethiopia	400	0.04	<i>Oldeania alpina</i>
208	Gudara Rukiso	M	Bochsa	Sidama Ethiopia	2500	0.25	<i>Oldeania alpina</i>
209	Nuguse Gudura	M	Bochsa	Sidama Ethiopia	2500	0.25	<i>Oldeania alpina</i>
210	Tazara Damota	F	Bochsa	Sidama Ethiopia	2750	0.28	<i>Oldeania alpina</i>
211	Ayu Defela	F	Bochsa	Sidama Ethiopia	200	0.02	<i>Oldeania alpina</i>
212	Ikitu Legese	F	Bochsa	Sidama Ethiopia	1750	0.18	<i>Oldeania alpina</i>
213	Tunsisa Maraso	M	Bochsa	Sidama Ethiopia	4500	0.45	<i>Oldeania alpina</i>
214	Milon Tunsisa	M	Bochsa	Sidama Ethiopia	500	0.05	<i>Oldeania alpina</i>
215	Sinke Damota	M	Bochsa	Sidama Ethiopia	200	0.02	<i>Oldeania alpina</i>
216	Yumura Rukisa	M	Bochsa	Sidama Ethiopia	200	0.02	<i>Oldeania alpina</i>
217	Kifle Gudura	M	Bochsa	Sidama Ethiopia	935	0.09	<i>Oldeania alpina</i>
218	Shito Mesele	F	Bochsa	Sidama Ethiopia	100	0.01	<i>Oldeania alpina</i>
219	Meselech Kifle	F	Bochsa	Sidama Ethiopia	100	0.01	<i>Oldeania alpina</i>
220	Mitike Damota	M	Bochsa	Sidama Ethiopia	100	0.01	<i>Oldeania alpina</i>
221	Naga Damota	M	Bochsa	Sidama Ethiopia	7500	0.75	<i>Oldeania alpina</i>
222	Tasfaye Getachew	M	Bochsa	Sidama Ethiopia	2500	0.25	<i>Oldeania alpina</i>
223	Dafursa Rukisa	M	Bochsa	Sidama Ethiopia	2500	0.25	<i>Oldeania alpina</i>
224	Ayele Bukala	M	Bochsa	Sidama Ethiopia	1850	0.19	<i>Oldeania alpina</i>
225	Duguna Duge	M	Bochsa	Sidama Ethiopia	2500	0.25	<i>Oldeania alpina</i>
226	Hadara Hamiso	M	Bochsa	Sidama Ethiopia	7500	0.75	<i>Oldeania alpina</i>
227	Fara Mirado	M	Bochsa	Sidama Ethiopia	7500	0.75	<i>Oldeania alpina</i>
228	Garamba Hameso	M	O/Kura	Sidama Ethiopia	2500	0.25	<i>Oldeania alpina</i>
229	Basaya Wutare	M	O/Kura	Sidama Ethiopia	2750	0.28	<i>Oldeania alpina</i>

230	Odo Ware	M	O/Kura	Sidama Ethiopia	1750	0.18	<i>Oldeania alpina</i>
231	Gamada Bido	M	O/Kura	Sidama Ethiopia	2500	0.25	<i>Oldeania alpina</i>
232	Banata Bido	M	O/Kura	Sidama Ethiopia	2500	0.25	<i>Oldeania alpina</i>
233	Adugna Gamada	M	O/Kura	Sidama Ethiopia	3500	0.35	<i>Oldeania alpina</i>
234	Bido Oshoro	M	O/Kura	Sidama Ethiopia	2500	0.25	<i>Oldeania alpina</i>
235	Chuluke Galgalo	M	O/Kura	Sidama Ethiopia	3750	0.38	<i>Oldeania alpina</i>
236	Rowe Oshora	M	O/Kura	Sidama Ethiopia	2500	0.25	<i>Oldeania alpina</i>
237	Nagase Dukale	M	O/Kura	Sidama Ethiopia	3500	0.35	<i>Oldeania alpina</i>
238	Takile Gamada	M	O/Kura	Sidama Ethiopia	2750	0.28	<i>Oldeania alpina</i>
239	Lema Lagide	M	O/Kura	Sidama Ethiopia	7500	0.75	<i>Oldeania alpina</i>
240	Guyo Lalima	M	O/Kura	Sidama Ethiopia	2500	0.25	<i>Oldeania alpina</i>
241	Gunfaro Gudura	M	O/Kura	Sidama Ethiopia	4500	0.45	<i>Oldeania alpina</i>
242	Tariku Gudura	M	O/Kura	Sidama Ethiopia	3500	0.35	<i>Oldeania alpina</i>
243	Takile Gudura	M	O/Kura	Sidama Ethiopia	3500	0.35	<i>Oldeania alpina</i>
244	Barasa Dimole	M	O/Kura	Sidama Ethiopia	2750	0.28	<i>Oldeania alpina</i>
245	Garje Hamiso	M	O/Kura	Sidama Ethiopia	3500	0.35	<i>Oldeania alpina</i>
246	Honord Rike	M	Chalbesa	Sidama Ethiopia	2500	0.25	<i>Oldeania alpina</i>
247	Zenebe Bolka	M	Chalbesa	Sidama Ethiopia	2750	0.28	<i>Oldeania alpina</i>
248	Tarekegn Zenebe	M	Chalbesa	Sidama Ethiopia	1750	0.18	<i>Oldeania alpina</i>
249	Wonchamo Bete	M	Chalbesa	Sidama Ethiopia	3500	0.35	<i>Oldeania alpina</i>
250	Tasuka Galgalu	M	Chalbesa	Sidama Ethiopia	2750	0.28	<i>Oldeania alpina</i>
251	Fire Galgalu	M	Chalbesa	Sidama Ethiopia	1750	0.18	<i>Oldeania alpina</i>
252	Shodola Kakawo	M	Chalbesa	Sidama Ethiopia	2850	0.29	<i>Oldeania alpina</i>
253	Shabe Ichache	M	Chalbesa	Sidama Ethiopia	1850	0.19	<i>Oldeania alpina</i>
254	Aleazar Solomon	M	Chalbesa	Sidama Ethiopia	2250	0.23	<i>Oldeania alpina</i>
255	Yetera Rife	M	Chalbesa	Sidama Ethiopia	2150	0.22	<i>Oldeania alpina</i>
256	Beyene Bete	M	Chalbesa	Sidama Ethiopia	2000	0.20	<i>Oldeania alpina</i>
257	Buyana Fentere	M	Chalbesa	Sidama Ethiopia	2150	0.22	<i>Oldeania alpina</i>
258	Shale Hewiso	F	Chalbesa	Sidama Ethiopia	1750	0.18	<i>Oldeania alpina</i>
259	Kebede Doyo	M	Chalbesa	Sidama Ethiopia	2500	0.25	<i>Oldeania alpina</i>
260	Dangura Badiso	M	Chalbesa	Sidama Ethiopia	3150	0.32	<i>Oldeania alpina</i>
261	Melese Badiso	M	Chalbesa	Sidama Ethiopia	2500	0.25	<i>Oldeania alpina</i>
262	Tsige Fentere	M	Chalbesa	Sidama Ethiopia	3150	0.32	<i>Oldeania alpina</i>
263	Biru Idere	M	Chalbesa	Sidama Ethiopia	2750	0.28	<i>Oldeania alpina</i>
264	Abirham Kecho	M	G/Chicho	Sidama Ethiopia	3500	0.35	<i>Oldeania alpina</i>
265	Dukale Kecho	M	G/Chicho	Sidama Ethiopia	2750	0.28	<i>Oldeania alpina</i>
266	Fisa Dangura	M	G/Chicho	Sidama Ethiopia	2200	0.22	<i>Oldeania alpina</i>
267	Asefa Gabure	M	G/Chicho	Sidama Ethiopia	2850	0.29	<i>Oldeania alpina</i>
268	Chuto Chuluke	M	G/Chicho	Sidama Ethiopia	2750	0.28	<i>Oldeania alpina</i>
269	Kasa Kachara	M	G/Chicho	Sidama Ethiopia	3250	0.33	<i>Oldeania alpina</i>
270	Kassa G/Mariam	M	G/Chicho	Sidama Ethiopia	3200	0.32	<i>Oldeania alpina</i>

271	Shurubo Buchulo	M	G/Chicho	Sidama Ethiopia	2750	0.28	<i>Oldeania alpina</i>
272	Yohanis Kassa	M	G/Chicho	Sidama Ethiopia	1750	0.18	<i>Oldeania alpina</i>
273	Bayu Chuluke	M	G/Chicho	Sidama Ethiopia	3650	0.37	<i>Oldeania alpina</i>
274	Zegeye Bayu	M	G/Chicho	Sidama Ethiopia	2750	0.28	<i>Oldeania alpina</i>
275	Ayele Bayu	M	G/Chicho	Sidama Ethiopia	3250	0.33	<i>Oldeania alpina</i>
276	Bekele Bena	M	G/Chicho	Sidama Ethiopia	3650	0.37	<i>Oldeania alpina</i>
277	Kebede Kefuna	M	G/Chicho	Sidama Ethiopia	1750	0.18	<i>Oldeania alpina</i>
278	Ketema Bena	M	G/Chicho	Sidama Ethiopia	3250	0.33	<i>Oldeania alpina</i>
279	Muse Ketema	M	G/Chicho	Sidama Ethiopia	2500	0.25	<i>Oldeania alpina</i>
280	Biru Buchilo	M	G/Chicho	Sidama Ethiopia	3150	0.32	<i>Oldeania alpina</i>
281	Harka Mago	M	G/Chicho	Sidama Ethiopia	3350	0.34	<i>Oldeania alpina</i>
282	Burka Buchulo	M	G/Chicho	Sidama Ethiopia	2850	0.29	<i>Oldeania alpina</i>
283	Sintayehu Bayu	M	G/Chicho	Sidama Ethiopia	2350	0.24	<i>Oldeania alpina</i>
284	Tesema Sodo	M	G/Chicho	Sidama Ethiopia	1780	0.18	<i>Oldeania alpina</i>
285	Belaye Tesema	M	G/Chicho	Sidama Ethiopia	3350	0.34	<i>Oldeania alpina</i>
286	Matiwos Sodo	M	G/Chicho	Sidama Ethiopia	2150	0.22	<i>Oldeania alpina</i>
287	Mengesha Sodo	M	G/Chicho	Sidama Ethiopia	3500	0.35	<i>Oldeania alpina</i>
288	Adane Sodo	M	G/Chicho	Sidama Ethiopia	2750	0.28	<i>Oldeania alpina</i>
289	Degu Debebe	M	G/Chicho	Sidama Ethiopia	3500	0.35	<i>Oldeania alpina</i>
290	Memihiru Chucha	M	G/Chicho	Sidama Ethiopia	2850	0.29	<i>Oldeania alpina</i>
291	Chucha Yora	M	G/Chicho	Sidama Ethiopia	1850	0.19	<i>Oldeania alpina</i>
293	Dido Rike	Male	Chucho	Sidama Ethiopia	2474.64	0.25	<i>Oldeania alpina</i>
294	Elassi Arusa	Male	Chucho	Sidama Ethiopia	1455.83	0.15	<i>Oldeania alpina</i>
296	Boe Yuke	Male	Chucho	Sidama Ethiopia	777.96	0.08	<i>Oldeania alpina</i>
297	Balayine Banata	Male	Chucho	Sidama Ethiopia	859.62	0.09	<i>Oldeania alpina</i>
299	Asrat Baraso	Male	Chucho	Sidama Ethiopia	1002.08	0.10	<i>Oldeania alpina</i>
300	Mrkos Dikicha	Male	Chucho	Sidama Ethiopia	1559	0.16	<i>Oldeania alpina</i>
302	Mesele Markos	Male	Chucho	Sidama Ethiopia	964.01	0.10	<i>Oldeania alpina</i>
303	Hanka Rike	Male	Chucho	Sidama Ethiopia	4013.24	0.40	<i>Oldeania alpina</i>
305	Tesfaye Nare	Male	Chucho	Sidama Ethiopia	1441.92	0.14	<i>Oldeania alpina</i>
306	Shora Nare	Male	Chucho	Sidama Ethiopia	1660.92	0.17	<i>Oldeania alpina</i>
308	Tsegaye Sintayehu	Male	Chucho	Sidama Ethiopia	2329.55	0.23	<i>Oldeania alpina</i>
309	Hamanot Kanu	Male	Chucho	Sidama Ethiopia	489.37	0.05	<i>Oldeania alpina</i>
311	Zelalem Mekuria	Female	Chucho	Sidama Ethiopia	1663.36	0.17	<i>Oldeania alpina</i>
312	Birru Banora	Male	Chucho	Sidama Ethiopia	1524	0.15	<i>Oldeania alpina</i>
314	Adane Awaje	Male	Chucho	Sidama Ethiopia	844.29	0.08	<i>Oldeania alpina</i>
315	Butuna Bunjuga	Male	Chucho	Sidama Ethiopia	1922.52	0.19	<i>Oldeania alpina</i>
317	Hadona Fuko	Male	Chucho	Sidama Ethiopia	1843.92	0.18	<i>Oldeania alpina</i>
318	Woxe Argata	Male	Chucho	Sidama Ethiopia	759.55	0.08	<i>Oldeania alpina</i>
320	Qare Hosa	Male	Chucho	Sidama Ethiopia	1196.12	0.12	<i>Oldeania alpina</i>
321	Wono Argata	Male	Chucho	Sidama Ethiopia	982.45	0.10	<i>Oldeania alpina</i>

323	Legese Wako	Male	Chucho	Sidama Ethiopia	1261.28	0.13	<i>Oldeania alpina</i>
324	Wawe Wako	Male	Chucho	Sidama Ethiopia	1896.73	0.19	<i>Oldeania alpina</i>
326	Girma Unkurte	Male	Chucho	Sidama Ethiopia	1291.52	0.13	<i>Oldeania alpina</i>
327	Kebede Karte	Male	Chucho	Sidama Ethiopia	789.64	0.08	<i>Oldeania alpina</i>
329	Fanta Melese	Male	Chucho	Sidama Ethiopia	1136.53	0.11	<i>Oldeania alpina</i>
330	Dangiso Bue	Male	Chucho	Sidama Ethiopia	2370.07	0.24	<i>Oldeania alpina</i>
332	Manisa Yotola	Male	Chucho	Sidama Ethiopia	1411.57	0.14	<i>Oldeania alpina</i>
333	Abraham Kamiso	Male	Chucho	Sidama Ethiopia	939.41	0.09	<i>Oldeania alpina</i>
335	Kamiso Haylos	Male	Chucho	Sidama Ethiopia	1188.07	0.12	<i>Oldeania alpina</i>
336	Mekonia Sharo	Male	Chucho	Sidama Ethiopia	1936.53	0.19	<i>Oldeania alpina</i>
338	June Tucha	Male	Chucho	Sidama Ethiopia	763.19	0.08	<i>Oldeania alpina</i>
339	Asegid Abebayo	Male	Chucho	Sidama Ethiopia	1595.77	0.16	<i>Oldeania alpina</i>
341	Tselilu Abebayo	Male	Chucho	Sidama Ethiopia	3239.41	0.32	<i>Oldeania alpina</i>
342	Cheru Mude	Male	Chucho	Sidama Ethiopia	1135.88	0.11	<i>Oldeania alpina</i>
344	Aberash Debebe	Female	Chucho	Sidama Ethiopia	1531.92	0.15	<i>Oldeania alpina</i>
345	Dereje Debebe	Male	Chucho	Sidama Ethiopia	1798.39	0.18	<i>Oldeania alpina</i>
347	Teshome Tades	Female	Chucho	Sidama Ethiopia	2670.27	0.27	<i>Oldeania alpina</i>
348	Tarekegn Tades	Female	Chucho	Sidama Ethiopia	1526.44	0.15	<i>Oldeania alpina</i>
350	Gemeda Kare	Female	Chucho	Sidama Ethiopia	990.38	0.10	<i>Oldeania alpina</i>
351	Kewatto Kare	Female	Chucho	Sidama Ethiopia	734.34	0.07	<i>Oldeania alpina</i>
353	Aselefech Shifara	Female	Chucho	Sidama Ethiopia	835.04	0.08	<i>Oldeania alpina</i>
354	Ayele Sawola	Male	Chucho	Sidama Ethiopia	1344.04	0.13	<i>Oldeania alpina</i>
356	Awulachew Shitora	Male	Chucho	Sidama Ethiopia	760.13	0.08	<i>Oldeania alpina</i>
357	Wubishet Shitora	Male	Chucho	Sidama Ethiopia	867.58	0.09	<i>Oldeania alpina</i>
359	Arega Arse	Male	Chucho	Sidama Ethiopia	1571.81	0.16	<i>Oldeania alpina</i>
360	Marasa Kachara	Male	Chucho	Sidama Ethiopia	2797.4	0.28	<i>Oldeania alpina</i>
362	Magistu Mache	Male	Chucho	Sidama Ethiopia	1442.91	0.14	<i>Oldeania alpina</i>
363	Asefa Amache	Male	Chucho	Sidama Ethiopia	739.87	0.07	<i>Oldeania alpina</i>
365	Dafaru Boe	Male	Chucho	Sidama Ethiopia	2070.41	0.21	<i>Oldeania alpina</i>
366	Barasa Basha	Male	Chucho	Sidama Ethiopia	843.02	0.08	<i>Oldeania alpina</i>
368	Marasa Sherbo	Male	Chucho	Sidama Ethiopia	1004.5	0.10	<i>Oldeania alpina</i>
369	Lamiso Amache	Male	Chucho	Sidama Ethiopia	633.04	0.06	<i>Oldeania alpina</i>
371	Legese Arato	Male	Chucho	Sidama Ethiopia	1522.72	0.15	<i>Oldeania alpina</i>
372	Girma Hamo	M	Tora	Sidama Ethiopia	841	0.08	<i>Oldeania alpina</i>
374	Alemayo Wariyo	M	Tora	Sidama Ethiopia	597	0.06	<i>Oldeania alpina</i>
375	Shalano Barso	M	Tora	Sidama Ethiopia	255	0.03	<i>Oldeania alpina</i>
377	Tamirat Getu	M	Tora	Sidama Ethiopia	219	0.02	<i>Oldeania alpina</i>
378	Dona Bancha	M	Tora	Sidama Ethiopia	437	0.04	<i>Oldeania alpina</i>
380	Fue Dassa	M	Tora	Sidama Ethiopia	1188	0.12	<i>Oldeania alpina</i>
381	Jilo Kote	M	Tora	Sidama Ethiopia	914	0.09	<i>Oldeania alpina</i>
383	Bayana Gobil	M	Tora	Sidama Ethiopia	1107	0.11	<i>Oldeania alpina</i>

384	Magane Gerbo	M	Tora	Sidama Ethiopia	513	0.05	<i>Oldeania alpina</i>
386	Genene Muse	M	Tora	Sidama Ethiopia	1837	0.18	<i>Oldeania alpina</i>
387	Tagicho Wontasho	M	Tora	Sidama Ethiopia	771	0.08	<i>Oldeania alpina</i>
389	Legesse Gobena	M	Tora	Sidama Ethiopia	1199	0.12	<i>Oldeania alpina</i>
390	Tomas Gobena	M	Tora	Sidama Ethiopia	1060	0.11	<i>Oldeania alpina</i>
392	Bezabih Bekele	M	Tora	Sidama Ethiopia	704	0.07	<i>Oldeania alpina</i>
393	Bante Bekele	M	Tora	Sidama Ethiopia	569	0.06	<i>Oldeania alpina</i>
395	Beleya Badacha	M	Tora	Sidama Ethiopia	981	0.10	<i>Oldeania alpina</i>
396	Megene Lencho	M	Tora	Sidama Ethiopia	1941	0.19	<i>Oldeania alpina</i>
398	Asefa Badacha	M	Tora	Sidama Ethiopia	401	0.04	<i>Oldeania alpina</i>
399	Teshome Megene	M	Tora	Sidama Ethiopia	507	0.05	<i>Oldeania alpina</i>
401	Hanka Harka	M	Tora	Sidama Ethiopia	820	0.08	<i>Oldeania alpina</i>
402	Woshara Duge	M	Tora	Sidama Ethiopia	362	0.04	<i>Oldeania alpina</i>
404	Beyene Duge	M	Tora	Sidama Ethiopia	515	0.05	<i>Oldeania alpina</i>
405	Dotore Duge	M	Tora	Sidama Ethiopia	593	0.06	<i>Oldeania alpina</i>
407	Bekele Yua	M	Toga	Sidama Ethiopia	610	0.06	<i>Oldeania alpina</i>
408	Mashe Egata	M	Toga	Sidama Ethiopia	680	0.07	<i>Oldeania alpina</i>
410	Fure Dikale	M	Toga	Sidama Ethiopia	339	0.03	<i>Oldeania alpina</i>
411	Lalima Dasa	M	Toga	Sidama Ethiopia	648	0.07	<i>Oldeania alpina</i>
413	Demise Kanu	M	Toga	Sidama Ethiopia	634	0.06	<i>Oldeania alpina</i>
414	Dugaga Dumassa	M	Toga	Sidama Ethiopia	603	0.06	<i>Oldeania alpina</i>
416	Mengistu Yotore	M	Toga	Sidama Ethiopia	1504	0.15	<i>Oldeania alpina</i>
417	Mengesha Manisa	M	Toga	Sidama Ethiopia	1444	0.14	<i>Oldeania alpina</i>
419	Qare Qaneato	M	Toga	Sidama Ethiopia	340	0.03	<i>Oldeania alpina</i>
420	Yosef Daniel	M	Toga	Sidama Ethiopia	808	0.08	<i>Oldeania alpina</i>
422	Belayne Duge	M	Toga	Sidama Ethiopia	1053	0.11	<i>Oldeania alpina</i>
423	Gimbo Shito	M	Toga	Sidama Ethiopia	377	0.04	<i>Oldeania alpina</i>
425	Shakana Idaso	M	Toga	Sidama Ethiopia	227	0.02	<i>Oldeania alpina</i>
426	Melese Fiche	M	Toga	Sidama Ethiopia	793	0.08	<i>Oldeania alpina</i>
428	Shibiru Tole	M	Toga	Sidama Ethiopia	404	0.04	<i>Oldeania alpina</i>
429	Arse Bue	M	Toga	Sidama Ethiopia	1322	0.13	<i>Oldeania alpina</i>
431	Funate Haruya	M	Toga	Sidama Ethiopia	822	0.08	<i>Oldeania alpina</i>
432	Iyobi Haxiya	M	Toga	Sidama Ethiopia	1016	0.10	<i>Oldeania alpina</i>
434	Haroya Habe	M	Toga	Sidama Ethiopia	0	0.00	<i>Oldeania alpina</i>
435	Lame Kauto	M	Toga	Sidama Ethiopia	634	0.06	<i>Oldeania alpina</i>
437	Dameit Daka	M	Toga	Sidama Ethiopia	752	0.08	<i>Oldeania alpina</i>
438	Matewos Bukula	M	Toga	Sidama Ethiopia	238	0.02	<i>Oldeania alpina</i>
440	Wonara Waticha	M	Toga	Sidama Ethiopia	295	0.03	<i>Oldeania alpina</i>
441	Kukisa Sage	M	Toga	Sidama Ethiopia	1162	0.12	<i>Oldeania alpina</i>
443	Takilu Bolka	M	Toga	Sidama Ethiopia	752	0.08	<i>Oldeania alpina</i>
444	Tariku Shora	M	Chucho	Sidama Ethiopia	710	0.07	<i>Oldeania alpina</i>

446	Bukula Buche	M	Chucho	Sidama Ethiopia	740	0.07	<i>Oldeania alpina</i>
447	Daka Dafursa	M	Gute	Sidama Ethiopia	1080	0.11	<i>Oldeania alpina</i>
449	Dake Debesa	M	Gute	Sidama Ethiopia	390	0.04	<i>Oldeania alpina</i>
450	Daye Dafursa	M	Gute	Sidama Ethiopia	680	0.07	<i>Oldeania alpina</i>
452	Girma Hatiya	M	Gute	Sidama Ethiopia	600	0.06	<i>Oldeania alpina</i>
453	Argo Simano	M	Gute	Sidama Ethiopia	400	0.04	<i>Oldeania alpina</i>
455	Mokonin Gaga	M	Gute	Sidama Ethiopia	430	0.04	<i>Oldeania alpina</i>
456	Kayeso Chicho	M	Gute	Sidama Ethiopia	1340	0.13	<i>Oldeania alpina</i>
458	Hade Graga	M	Gute	Sidama Ethiopia	750	0.08	<i>Oldeania alpina</i>
459	Ina Graga	M	Gute	Sidama Ethiopia	2900	0.29	<i>Oldeania alpina</i>
461	Asefa Gaga	M	Gute	Sidama Ethiopia	1218.8	0.12	<i>Oldeania alpina</i>
462	Bela Eyob	M	Gute	Sidama Ethiopia	2400	0.24	<i>Oldeania alpina</i>
464	Ayele Alate	M	Gute	Sidama Ethiopia	510	0.05	<i>Oldeania alpina</i>
465	Kafale Shote	M	Gute	Sidama Ethiopia	760	0.08	<i>Oldeania alpina</i>
467	Melese Legide	M	Gute	Sidama Ethiopia	1500	0.15	<i>Oldeania alpina</i>
468	Digasa Dikale	M	Gute	Sidama Ethiopia	2500	0.25	<i>Oldeania alpina</i>
470	Kifle Kare	M	Gute	Sidama Ethiopia	450	0.05	<i>Oldeania alpina</i>
471	Gezany Hatiya	M	Gute	Sidama Ethiopia	610	0.06	<i>Oldeania alpina</i>
473	Burtukun Kebede	M	Gute	Sidama Ethiopia	1100	0.11	<i>Oldeania alpina</i>
474	Bezab Baraso	M	Gute	Sidama Ethiopia	912	0.09	<i>Oldeania alpina</i>
476	Dangiso Duge	M	Gute	Sidama Ethiopia	511.49	0.05	<i>Oldeania alpina</i>
477	Legese Legide	M	Gute	Sidama Ethiopia	865.17	0.09	<i>Oldeania alpina</i>
479	Bekele Kifle	M	Gute	Sidama Ethiopia	4874.14	0.49	<i>Oldeania alpina</i>
480	Adane Asefa	M	Gute	Sidama Ethiopia	1333	0.13	<i>Oldeania alpina</i>
482	Tesfaye W/Mariam	M	Gute	Sidama Ethiopia	1010	0.10	<i>Oldeania alpina</i>
483	Racho Wariyo	M	Gute	Sidama Ethiopia	8700	0.87	<i>Oldeania alpina</i>
485	Bonda Wariyo	M	Gute	Sidama Ethiopia	880	0.09	<i>Oldeania alpina</i>
486	Kebede Adisu	M	Gute	Sidama Ethiopia	270	0.03	<i>Oldeania alpina</i>
488	Tukula Tulo	M	Gute	Sidama Ethiopia	2470	0.25	<i>Oldeania alpina</i>
489	Buruk Tadale	M	Gute	Sidama Ethiopia	597.45	0.06	<i>Oldeania alpina</i>
491	Lashe Koroso	M	Gute	Sidama Ethiopia	2457.36	0.25	<i>Oldeania alpina</i>
492	Awate Awaje	M	Gute	Sidama Ethiopia	2530	0.25	<i>Oldeania alpina</i>
494	Owanto Kare	M	Gute	Sidama Ethiopia	1490.87	0.15	<i>Oldeania alpina</i>
495	Dumara Baraso	M	Gute	Sidama Ethiopia	783.51	0.08	<i>Oldeania alpina</i>
497	Bekele Legide	M	Gute	Sidama Ethiopia	1100	0.11	<i>Oldeania alpina</i>
498	Lema Tunsisa	M	Gowa	Sidama Ethiopia	240	0.02	<i>Oldeania alpina</i>
500	Tunsisa LegideWorku Burka	M	Gowa	Sidama Ethiopia	2180	0.22	<i>Oldeania alpina</i>
501	Worku Burka	M	Gowa	Sidama Ethiopia	580	0.06	<i>Oldeania alpina</i>
503	Kayeso Yigezu	M	Gowa	Sidama Ethiopia	1688	0.17	<i>Oldeania alpina</i>

504	Dawit Toe	M	Gowa	Sidama Ethiopia	1210	0.12	<i>Oldeania alpina</i>
506	Tamiru Kendoye	M	Gowa	Sidama Ethiopia	1030	0.10	<i>Oldeania alpina</i>
507	Elias Manisa	M	Gowa	Sidama Ethiopia	1550	0.16	<i>Oldeania alpina</i>
509	Wolde Birhanu	M	Gowa	Sidama Ethiopia	480	0.05	<i>Oldeania alpina</i>
510	Gatiso Boshela	M	Gowa	Sidama Ethiopia	400	0.04	<i>Oldeania alpina</i>
512	Buliye Erera	M	Gowa	Sidama Ethiopia	650	0.07	<i>Oldeania alpina</i>
513	Awate Amaje	M	Gowa	Sidama Ethiopia	1410	0.14	<i>Oldeania alpina</i>
515	Kinkino Yute	M	Gowa	Sidama Ethiopia	1300	0.13	<i>Oldeania alpina</i>
516	Artaso Baraso	F	Gowa	Sidama Ethiopia	814	0.08	<i>Oldeania alpina</i>
518	Dara Funte	M	Gowa	Sidama Ethiopia	908	0.09	<i>Oldeania alpina</i>
519	Milkiyas Hatiya	M	Gowa	Sidama Ethiopia	1140	0.11	<i>Oldeania alpina</i>
521	Manisa Kore	M	Gowa	Sidama Ethiopia	1360	0.14	<i>Oldeania alpina</i>
522	Kebede. Dumara	M	Hafurisa	Sidama Ethiopia	1395.55	0.14	<i>Oldeania alpina</i>
524	Dula. Dumara	M	Hafurisa	Sidama Ethiopia	3300.07	0.33	<i>Oldeania alpina</i>
525	Tegaye Bache	M	Hafurisa	Sidama Ethiopia	1059.08	0.11	<i>Oldeania alpina</i>
527	Yohanis Yotte	M	Hafurisa	Sidama Ethiopia	827.62	0.08	<i>Oldeania alpina</i>
528	Tafese Gobaro	M	Hafurisa	Sidama Ethiopia	1445.88	0.15	<i>Oldeania alpina</i>
530	Tmire Kwisso	M	Hafurisa	Sidama Ethiopia	1190.48	0.12	<i>Oldeania alpina</i>
531	Teshale Tunisisa	M	Hafurisa	Sidama Ethiopia	956.56	0.10	<i>Oldeania alpina</i>
533	Hailu Hameso	M	Hafurisa	Sidama Ethiopia	760.71	0.08	<i>Oldeania alpina</i>
534	Elala Hade	M	Hafurisa	Sidama Ethiopia	1359.93	0.14	<i>Oldeania alpina</i>
534	Asefa Wakayo	M	Hafurisa	Sidama Ethiopia	1812.44	0.18	<i>Oldeania alpina</i>
534	Alito Yuna	M	Hafurisa	Sidama Ethiopia	1885.5	0.19	<i>Oldeania alpina</i>
535	Wotate Rike	M	Hafurisa	Sidama Ethiopia	1242.67	0.12	<i>Oldeania alpina</i>
536	Lanse Hagaya	F	Hafurisa	Sidama Ethiopia	1110.67	0.11	<i>Oldeania alpina</i>
537	Fireheyiwot Fure	M	Hafurisa	Sidama Ethiopia	1073.83	0.11	<i>Oldeania alpina</i>
538	Betena Dassa	M	Hafurisa	Sidama Ethiopia	1272.75	0.13	<i>Oldeania alpina</i>
539	Atkiliti Shimelis	M	Hafurisa	Sidama Ethiopia	441.44	0.04	<i>Oldeania alpina</i>
540	Kasa Gobaro	M	Hafurisa	Sidama Ethiopia	935.07	0.09	<i>Oldeania alpina</i>
540	Hailu Sogge	M	Hafurisa	Sidama Ethiopia	2883.96	0.29	<i>Oldeania alpina</i>
541	Ayele Bekele	M	Hafurisa	Sidama Ethiopia	1656.47	0.17	<i>Oldeania alpina</i>
541	Belete Endayilalu	M	Hafurisa	Sidama Ethiopia	2819.9	0.28	<i>Oldeania alpina</i>
542	Tumato Botala	M	Hafurisa	Sidama Ethiopia	870.6	0.09	<i>Oldeania alpina</i>
542	Kebede Bache	M	Hafurisa	Sidama Ethiopia	1970.82	0.20	<i>Oldeania alpina</i>
543	Wolde Banata	M	Hafurisa	Sidama Ethiopia	1490.1	0.15	<i>Oldeania alpina</i>
543	Abirham Fura	M	Hafurise Nameto	Sidama Ethiopia	766.23	0.08	<i>Oldeania alpina</i>
544	Garo Harsiso	M	Hafurise Nameto	Sidama Ethiopia	872.46	0.09	<i>Oldeania alpina</i>

544	Tgicho Gare	M	Hafurise Nameto	Sidama Ethiopia	604.77	0.06	<i>Oldeania alpina</i>
545	Darimo Harsiso	M	Hafurise Nameto	Sidama Ethiopia	1831.44	0.18	<i>Oldeania alpina</i>
545	Girma Darimo	M	Hafurise Nameto	Sidama Ethiopia	505.92	0.05	<i>Oldeania alpina</i>
546	Getu Garo	M	Hafurise Nameto	Sidama Ethiopia	741.07	0.07	<i>Oldeania alpina</i>
546	Ashoka Lagoye	M	Hafurise Nameto	Sidama Ethiopia	2899.19	0.29	<i>Oldeania alpina</i>
547	Arega Wobisa	M	Hafurise Nameto	Sidama Ethiopia	1182.74	0.12	<i>Oldeania alpina</i>
547	Mateows Bukula	M	Hafurise Nameto	Sidama Ethiopia	1891.65	0.19	<i>Oldeania alpina</i>
548	Abirham Worasa	M	Hafurise Nameto	Sidama Ethiopia	1051.12	0.11	<i>Oldeania alpina</i>
548	Adane Yaye	M	Hafurise Nameto	Sidama Ethiopia	1244.52	0.12	<i>Oldeania alpina</i>
549	Samuel Agena	M	Hafurise Nameto	Sidama Ethiopia	1794.63	0.18	<i>Oldeania alpina</i>
549	Gishe Lagide	M	Hafurise Nameto	Sidama Ethiopia	1115.59	0.11	<i>Oldeania alpina</i>
550	Tuma Dumara	M	Hafurise Nameto	Sidama Ethiopia	854.65	0.09	<i>Oldeania alpina</i>
550	Worku Dumara	M	Hafurise Nameto	Sidama Ethiopia	944.9	0.09	<i>Oldeania alpina</i>
551	Dubale Nara	M	Hafurise Nameto	Sidama Ethiopia	914.11	0.09	<i>Oldeania alpina</i>
551	Dangite Mache	F	Hafurise Nameto	Sidama Ethiopia	965.16	0.10	<i>Oldeania alpina</i>
552	Nageso Tulu	M	Hafurise Nameto	Sidama Ethiopia	674.13	0.07	<i>Oldeania alpina</i>
552	Shifera Bama	M	Hafurise Nameto	Sidama Ethiopia	2182.04	0.22	<i>Oldeania alpina</i>
553	Dangite Tuane	F	Hafurise Nameto	Sidama Ethiopia	869.39	0.09	<i>Oldeania alpina</i>
553	Amalo Cheko	M	Hafurise Nameto	Sidama Ethiopia	1194.65	0.12	<i>Oldeania alpina</i>
554	Turu Garmamo	M	Hafurise Nameto	Sidama Ethiopia	3747.12	0.38	<i>Oldeania alpina</i>
554	Eshine Sole	M	Hafurise Nameto	Sidama Ethiopia	1681.7	0.17	<i>Oldeania alpina</i>
555	Abera Hanka	M	Hafurise Nameto	Sidama Ethiopia	1161.65	0.12	<i>Oldeania alpina</i>
555	Fane Dira	F	Hafurise Nameto	Sidama Ethiopia	1772.56	0.18	<i>Oldeania alpina</i>
556	Butena Kachera	M	Hafurise Nameto	Sidama Ethiopia	1478.47	0.15	<i>Oldeania alpina</i>
556	Kano Soka	M	Hafurise Nameto	Sidama Ethiopia	1006.53	0.10	<i>Oldeania alpina</i>

557	Bakale Hasena	F	Hafurise Nameto	Sidama Ethiopia	543.99	0.05	<i>Oldeania alpina</i>
557	Mokoya Teferi	F	Hafurise Nameto	Sidama Ethiopia	1302.25	0.13	<i>Oldeania alpina</i>
558	Wote Borojo	M	Hafurise Nameto	Sidama Ethiopia	1059.73	0.11	<i>Oldeania alpina</i>
558	Girma Tefera	M	Hafurise Nameto	Sidama Ethiopia	2016.98	0.20	<i>Oldeania alpina</i>
559	Gashahun Tefera	M	Hafurise Nameto	Sidama Ethiopia	1775.68	0.18	<i>Oldeania alpina</i>
559	Asefa Seyifu	M	Hafurise Nameto	Sidama Ethiopia	966.43	0.10	<i>Oldeania alpina</i>
560	Tefera Hordofa	M	Hafurise Nameto	Sidama Ethiopia	3089.01	0.31	<i>Oldeania alpina</i>
560	Girma Getu	M	Hafurise Nameto	Sidama Ethiopia	1506.13	0.15	<i>Oldeania alpina</i>
561	Abebe Solomon	M	Hafurise Nameto	Sidama Ethiopia	2750.71	0.28	<i>Oldeania alpina</i>
561	Getachew Kachare	M	Hafurise Nameto	Sidama Ethiopia	2321.53	0.23	<i>Oldeania alpina</i>
562	Teshome Negash	M	Hafurise Nameto	Sidama Ethiopia	1963.56	0.20	<i>Oldeania alpina</i>
562	Buche Dita	M	Hafurise Nameto	Sidama Ethiopia	1885.59	0.19	<i>Oldeania alpina</i>
563	Tadele Kebede	M	Hafurise Nameto	Sidama Ethiopia	1831.55	0.18	<i>Oldeania alpina</i>
563	Zerihun Sintayehu	M	Hafurise Nameto	Sidama Ethiopia	1355.08	0.14	<i>Oldeania alpina</i>
564	Kasu Getu	M	Hafurise Nameto	Sidama Ethiopia	2120.12	0.21	<i>Oldeania alpina</i>
564	Woshaya Worasa	M	Hafurise Nameto	Sidama Ethiopia	1584.71	0.16	<i>Oldeania alpina</i>
565	Kassa Wote	M	Hafurise Nameto	Sidama Ethiopia	1283.24	0.13	<i>Oldeania alpina</i>
565	Adane Kera	M	Hafurise Nameto	Sidama Ethiopia	2002.83	0.20	<i>Oldeania alpina</i>
566	Bogale Garamba	M	Hafurise Nameto	Sidama Ethiopia	1040.1	0.10	<i>Oldeania alpina</i>
566	Hade Graga	M	Hafurise Nameto	Sidama Ethiopia	7911.84	0.79	<i>Oldeania alpina</i>
567	Legese Woshara	M	Hafurise Nameto	Sidama Ethiopia	1891.01	0.19	<i>Oldeania alpina</i>
567	Yohanes Tekile	M	Hafurise Nameto	Sidama Ethiopia	2630.36	0.26	<i>Oldeania alpina</i>
568	Muliye Solomon	M	Hafurise Nameto	Sidama Ethiopia	2813.96	0.28	<i>Oldeania alpina</i>
568	Tamirat Legese	M	Toga	Sidama Ethiopia	1523	0.15	<i>Oldeania alpina</i>
569	Kifle Hatiya	M	Toga	Sidama Ethiopia	970	0.10	<i>Oldeania alpina</i>
569	Alemu Kifle	M	Toga	Sidama Ethiopia	817	0.08	<i>Oldeania alpina</i>

570	Legese Gameda	M	Toga	Sidama Ethiopia	910	0.09	<i>Oldeania alpina</i>
570	Dise Hatiya	M	Toga	Sidama Ethiopia	644	0.06	<i>Oldeania alpina</i>
571	Fisa Hatiya	M	Toga	Sidama Ethiopia	290	0.03	<i>Oldeania alpina</i>
571	Tadese Hatiya	M	Toga	Sidama Ethiopia	653	0.07	<i>Oldeania alpina</i>
572	Asefa Hoshe	M	Toga	Sidama Ethiopia	415	0.04	<i>Oldeania alpina</i>
572	Kebede Kayeso	M	Toga	Sidama Ethiopia	1107	0.11	<i>Oldeania alpina</i>
573	Ketema Kebede	M	Toga	Sidama Ethiopia	306	0.03	<i>Oldeania alpina</i>
573	Tadese Baraso	M	Toga	Sidama Ethiopia	308	0.03	<i>Oldeania alpina</i>
574	Hate Dashola	M	Toga	Sidama Ethiopia	408	0.04	<i>Oldeania alpina</i>
574	Bote Bugure	M	Toga	Sidama Ethiopia	716	0.07	<i>Oldeania alpina</i>
575	Teshome Bashaye	M	Toga	Sidama Ethiopia	617	0.06	<i>Oldeania alpina</i>
575	Gawure Hoshe	M	Toga	Sidama Ethiopia	617	0.06	<i>Oldeania alpina</i>
576	Engida Bashaye	M	Toga	Sidama Ethiopia	432	0.04	<i>Oldeania alpina</i>
576	Hanayu Shawula	M	Toga	Sidama Ethiopia	728	0.07	<i>Oldeania alpina</i>
577	Tunsisa Gameda	M	Toga	Sidama Ethiopia	509	0.05	<i>Oldeania alpina</i>
577	Oka Gameda	M	Toga	Sidama Ethiopia	520	0.05	<i>Oldeania alpina</i>
578	Toma Kashara	M	Toga	Sidama Ethiopia	2433	0.24	<i>Oldeania alpina</i>
578	Tagile Hillo	M	Toga	Sidama Ethiopia	685	0.07	<i>Oldeania alpina</i>
579	Wagilo Noshe	M	Toga	Sidama Ethiopia	493	0.05	<i>Oldeania alpina</i>
579	DidoDikale	M	Gowa	Sidama Ethiopia	674	0.07	<i>Oldeania alpina</i>
580	Biniyam Petiros	M	Gowa	Sidama Ethiopia	831.6	0.08	<i>Oldeania alpina</i>
580	Asefa Gebure	M	Gowa	Sidama Ethiopia	1670	0.17	<i>Oldeania alpina</i>
581	Shitara Shibiru	M	Gowa	Sidama Ethiopia	1083.5	0.11	<i>Oldeania alpina</i>
581	Tomas Yunte	M	Gowa	Sidama Ethiopia	1112	0.11	<i>Oldeania alpina</i>
582	Hankaro Hatiya	M	Gowa	Sidama Ethiopia	1065.96	0.11	<i>Oldeania alpina</i>
582	Ermiyas Bala	M	Gowa	Sidama Ethiopia	420	0.04	<i>Oldeania alpina</i>
583	Hasana Hamlso	M	Gowa	Sidama Ethiopia	932	0.09	<i>Oldeania alpina</i>
583	Tadesse Borche	M	Chucho	Sidama Ethiopia	990.39	0.10	<i>Oldeania alpina</i>
584	Garamba Borche	M	Chucho	Sidama Ethiopia	884.78	0.09	<i>Oldeania alpina</i>
584	Buna Dingato	M	Chucho	Sidama Ethiopia	1850	0.19	<i>Oldeania alpina</i>
585	Direso Dingato	M	Chucho	Sidama Ethiopia	2403.84	0.24	<i>Oldeania alpina</i>
585	Bue Borche	M	Chucho	Sidama Ethiopia	1216.35	0.12	<i>Oldeania alpina</i>
586	Tumato Tunsisa	M	Chucho	Sidama Ethiopia	1568.17	0.16	<i>Oldeania alpina</i>
586	Kebede Fure	M	Chucho	Sidama Ethiopia	886.02	0.09	<i>Oldeania alpina</i>
587	Fiche Banota	M	Chucho	Sidama Ethiopia	1348.37	0.14	<i>Oldeania alpina</i>
587	Magistu Mogasha	M	Chucho	Sidama Ethiopia	738.04	0.07	<i>Oldeania alpina</i>
588	Harka Mago	M	Chucho	Sidama Ethiopia	1909.07	0.19	<i>Oldeania alpina</i>
588	Hankako Harko	M	Chucho	Sidama Ethiopia	631.82	0.06	<i>Oldeania alpina</i>
589	Tesfaye Kare	M	Muchucho	Sidama Ethiopia	1029.71	0.10	<i>Oldeania alpina</i>
589	Kamiso Kare	M	Muchucho	Sidama Ethiopia	980.58	0.10	<i>Oldeania alpina</i>
590	Debo Gobaro	M	Muchucho	Sidama Ethiopia	1391.37	0.14	<i>Oldeania alpina</i>

590	Kebede Gobaro	M	Muchucho	Sidama Ethiopia	666.82	0.07	<i>Oldeania alpina</i>
591	Melaku Matiwos	M	Katana	Sidama Ethiopia	871.3	0.09	<i>Oldeania alpina</i>
591	Melese Matiwos	M	Katana	Sidama Ethiopia	897.09	0.09	<i>Oldeania alpina</i>
592	Kebede Wayu	M	Katana	Sidama Ethiopia	752.18	0.08	<i>Oldeania alpina</i>
592	Shibiru Banata	M	Katana	Sidama Ethiopia	777.35	0.08	<i>Oldeania alpina</i>
593	Magistu Guye	M	Katana	Sidama Ethiopia	484.46	0.05	<i>Oldeania alpina</i>
593	Kukusu Guye	M	Katana	Sidama Ethiopia	1143.93	0.11	<i>Oldeania alpina</i>
594	Jilo Chebo	M	Katana	Sidama Ethiopia	524.38	0.05	<i>Oldeania alpina</i>
594	Magesha Bunta	M	Katana	Sidama Ethiopia	1385.85	0.14	<i>Oldeania alpina</i>
595	Terche Chebo	M	Katana	Sidama Ethiopia	1247.08	0.13	<i>Oldeania alpina</i>
595	Imishu Ishine	M	Katana	Sidama Ethiopia	1294.95	0.13	<i>Oldeania alpina</i>
596	Indale Ishine	M	Katana	Sidama Ethiopia	853.48	0.09	<i>Oldeania alpina</i>
596	Dagaro Dotore	M	Gutle	Sidama Ethiopia	295	0.03	<i>Oldeania alpina</i>
597	Melaku Tura	M	Gutle	Sidama Ethiopia	1504	0.15	<i>Oldeania alpina</i>
597	Mulatu Abebe	M	Gutle	Sidama Ethiopia	1123	0.11	<i>Oldeania alpina</i>
598	Bunato Bunra	M	Gutle	Sidama Ethiopia	523	0.05	<i>Oldeania alpina</i>
598	Alaka Muse	M	Harumasa	Sidama Ethiopia	4667.8	0.47	<i>Oldeania alpina</i>
599	Ashile Darasa	M	Harumasa	Sidama Ethiopia	1810	0.18	<i>Oldeania alpina</i>
599	Tumicha Kayo	M	Harumasa	Sidama Ethiopia	929	0.09	<i>Oldeania alpina</i>
600	Hailu Haji	M	Harumasa	Sidama Ethiopia	1545.8	0.15	<i>Oldeania alpina</i>
600	Gabiso Dima	M	Elelu Cirsa	Sidama Ethiopia	3539	0.35	<i>Oldeania alpina</i>
601	Shambel Emara	M	Elelu Cirsa	Sidama Ethiopia	2948.5	0.29	<i>Oldeania alpina</i>
601	Gabela Emara	M	Elelu Cirsa	Sidama Ethiopia	2948.5	0.29	<i>Oldeania alpina</i>
602	Eshetu Edao	M	Elelu Cirsa	Sidama Ethiopia	1529.6	0.15	<i>Oldeania alpina</i>
602	Katala Ledamo	M	Elelu Cirsa	Sidama Ethiopia	1462.9	0.15	<i>Oldeania alpina</i>
603	Kachra Bona	M	Elelu Cirsa	Sidama Ethiopia	542.5	0.05	<i>Oldeania alpina</i>
603	Girma Lonu	M	Elelu Cirsa	Sidama Ethiopia	458.4	0.05	<i>Oldeania alpina</i>
604	Bullo Kiya	M	Harumasa	Sidama Ethiopia	1700	0.17	<i>Oldeania alpina</i>
604	Bura Bunasho	M	Harumasa	Sidama Ethiopia	3400	0.34	<i>Oldeania alpina</i>
605	Burka Gidesa	M	Harumasa	Sidama Ethiopia	1800	0.18	<i>Oldeania alpina</i>
605	Toshora Rike	M	Harumasa	Sidama Ethiopia	1200	0.12	<i>Oldeania alpina</i>
606	Milkias Kusu	M	Harumasa	Sidama Ethiopia	3100	0.31	<i>Oldeania alpina</i>
606	Kukilla Kusu	M	Harumasa	Sidama Ethiopia	3100	0.31	<i>Oldeania alpina</i>
607	Yonas Mote	M	Eleduchire	Sidama Ethiopia	8300	0.83	<i>Oldeania alpina</i>
607	Kumo Bonoya	M	Guguma	Sidama Ethiopia	1100	0.11	<i>Oldeania alpina</i>
608	Gishe Kumo	M	Guguma	Sidama Ethiopia	1400	0.14	<i>Oldeania alpina</i>
608	Gizaw Gishe	M	Gomosho	Sidama Ethiopia	1200	0.12	<i>Oldeania alpina</i>

609	Gishe Kumo	M	Gomosho	Sidama Ethiopia	800	0.08	<i>Oldeania alpina</i>
609	Girma Gishe	M	Gomosho	Sidama Ethiopia	1000	0.10	<i>Oldeania alpina</i>
610	Dopiso Doe	M	Gomosho	Sidama Ethiopia	370	0.04	<i>Oldeania alpina</i>
610	Dawit Dopiso	M	Gomosho	Sidama Ethiopia	700	0.07	<i>Oldeania alpina</i>
611	Ermias Kalaka	M	Gomosho	Sidama Ethiopia	700	0.07	<i>Oldeania alpina</i>
611	Kfale Qalicha	F	Gomosho	Sidama Ethiopia	800	0.08	<i>Oldeania alpina</i>
612	Leino Fiche	M	Denaklo Gushe	Sidama Ethiopia	850	0.09	<i>Oldeania alpina</i>
612	Edaso Yonka	M	Denaklo Gushe	Sidama Ethiopia	1050	0.11	<i>Oldeania alpina</i>
613	Hassen Doyamo	M	Denaklo Gushe	Sidama Ethiopia	400	0.04	<i>Oldeania alpina</i>
613	Hariso Kawoto	M	Denaklo Gushe	Sidama Ethiopia	1200	0.12	<i>Oldeania alpina</i>
614	Sirbamo Fara	M	Denaklo Gushe	Sidama Ethiopia	820	0.08	<i>Oldeania alpina</i>
614	Ganale Mude	M	Denaklo Gushe	Sidama Ethiopia	700	0.07	<i>Oldeania alpina</i>
615	Irasa Hirbato	M	Harumasa	Sidama Ethiopia	780	0.08	<i>Oldeania alpina</i>
615	Bullo Bonata	M	Harumasa	Sidama Ethiopia	1400	0.14	<i>Oldeania alpina</i>
616	Barara Kabata	M	Harumasa	Sidama Ethiopia	800	0.08	<i>Oldeania alpina</i>
616	Karoye Hade	F	Harumarsa	Sidama Ethiopia	1600	0.16	<i>Oldeania alpina</i>
617	Keyamo Kembu	M	Harumarsa	Sidama Ethiopia	700	0.07	<i>Oldeania alpina</i>
617	Cirfa Kawato	M	Harumarsa	Sidama Ethiopia	2500	0.25	<i>Oldeania alpina</i>
618	Sambato Dima	M	Elelu Cirisa	Sidama Ethiopia	2600	0.26	<i>Oldeania alpina</i>
618	Barara Emari	M	Elelu Cirisa	Sidama Ethiopia	1000	0.10	<i>Oldeania alpina</i>
619	Habitamu Gabela	M	Elelu Cirisa	Sidama Ethiopia	2200	0.22	<i>Oldeania alpina</i>
619	Lebemo Ledamo	M	Elelu Cirisa	Sidama Ethiopia	900	0.09	<i>Oldeania alpina</i>
620	Bakala Kebede	M	Abeke Torshe	Sidama Ethiopia	700	0.07	<i>Oldeania alpina</i>
620	Harmisa Sambato	M	Abeke Torshe	Sidama Ethiopia	600	0.06	<i>Oldeania alpina</i>
621	Bekele Hawiso	M	Abeke Torshe	Sidama Ethiopia	370	0.04	<i>Oldeania alpina</i>
621	Hailu Hayiso	M	Abeke Torshe	Sidama Ethiopia	270	0.03	<i>Oldeania alpina</i>
622	Kebede Kachara	M	Abeke Torshe	Sidama Ethiopia	100	0.01	<i>Oldeania alpina</i>
622	Harso Doba	M	abbakke xoorshe	Sidama Ethiopia	735.2	0.07	<i>Oldeania alpina</i>
623	Sarmisa Sambato	M	abbakke xoorshe	Sidama Ethiopia	1389.5	0.14	<i>Oldeania alpina</i>

623	Tashome Kia	M	abbakke xoorshe	Sidama Ethiopia	484.2	0.05	<i>Oldeania alpina</i>
624	Lema Lellimo	M	abbakke xoorshe	Sidama Ethiopia	106.2	0.01	<i>Oldeania alpina</i>
624	Tora Latamo	M	abbakke xoorshe	Sidama Ethiopia	942.1	0.09	<i>Oldeania alpina</i>
625	Eliyasi Kebede	M	abbakke xoorshe	Sidama Ethiopia	137.5	0.01	<i>Oldeania alpina</i>
625	Darmo Doe	M	abbakke xoorshe	Sidama Ethiopia	457.8	0.05	<i>Oldeania alpina</i>
626	Basha Bekele	M	Harso Marsa	Sidama Ethiopia	600	0.06	<i>Oldeania alpina</i>
626	Butte Bukeko	M	Harso Marsa	Sidama Ethiopia	1900	0.19	<i>Oldeania alpina</i>
627	Eyob Sado	M	Harso Marsa	Sidama Ethiopia	460	0.05	<i>Oldeania alpina</i>
627	Mengistu Ganama	M	Harso Marsa	Sidama Ethiopia	1500	0.15	<i>Oldeania alpina</i>
628	Shobe Ganama	M	Harso Marsa	Sidama Ethiopia	870	0.09	<i>Oldeania alpina</i>
628	Ashile Dikele	M	Harso Marsa	Sidama Ethiopia	1100	0.11	<i>Oldeania alpina</i>
629	Aliy Ganama	M	Harso Marsa	Sidama Ethiopia	1000	0.10	<i>Oldeania alpina</i>
629	Garede Ganama	M	Harso Marsa	Sidama Ethiopia	1000	0.10	<i>Oldeania alpina</i>
630	Bishan Bariso	M	Harso Marsa	Sidama Ethiopia	350	0.04	<i>Oldeania alpina</i>
630	Mesafint Bariso	M	Harso Marsa	Sidama Ethiopia	1000	0.10	<i>Oldeania alpina</i>
631	Birru Bushune	M	Harso Marsa	Sidama Ethiopia	900	0.09	<i>Oldeania alpina</i>
631	Kayamo Gebeyehu	M	Harso Marsa	Sidama Ethiopia	8700	0.87	<i>Oldeania alpina</i>
632	Genale Ganama	M	Harso Marsa	Sidama Ethiopia	8900	0.89	<i>Oldeania alpina</i>
632	Asefa Shamena	M	Lakana Moldo	South Ethiopia	1690	0.17	<i>Oldeania alpina</i>
633	Melesse Dorche	M	Lakana Moldo	South Ethiopia	13.1	0.00	<i>Oldeania alpina</i>
633	Yared Manaye	M	Lakana Moldo	South Ethiopia	472	0.05	<i>Oldeania alpina</i>
634	Golge Gobena	M	Lakana Moldo	South Ethiopia	123	0.01	<i>Oldeania alpina</i>
634	Golge Gobena	M	Lakana Moldo	South Ethiopia	51	0.01	<i>Oldeania alpina</i>
635	Elfinesh Gota	F	Lakana Moldo	South Ethiopia	223	0.02	<i>Oldeania alpina</i>
635	Guja Gumubo	M	Lakana Moldo	South Ethiopia	11	0.00	<i>Oldeania alpina</i>

636	Yirga Ishino	M	Lakana Moldo	South Ethiopia	22	0.00	<i>Oldeania alpina</i>
636	Guche Deda	M	Lakana Moldo	South Ethiopia	121	0.01	<i>Oldeania alpina</i>
637	Abaynesh Ameche	F	Lakana Moldo	South Ethiopia	257	0.03	<i>Oldeania alpina</i>
637	Tirunesh Anikla	F	Lakana Moldo	South Ethiopia	344	0.03	<i>Oldeania alpina</i>
638	Birtukan Beyene	F	Lakana Moldo	South Ethiopia	276	0.03	<i>Oldeania alpina</i>
638	Aslsatu Demise	M	Lakana Moldo	South Ethiopia	139	0.01	<i>Oldeania alpina</i>
639	Balcha Beyene	M	Lakana Moldo	South Ethiopia	205	0.02	<i>Oldeania alpina</i>
639	Guche Deda	M	Lakana Moldo	South Ethiopia	79	0.01	<i>Oldeania alpina</i>
640	Shengite Zanba	F	Lakana Moldo	South Ethiopia	481	0.05	<i>Oldeania alpina</i>
640	Bite Zewde	F	Lakana Moldo	South Ethiopia	296	0.03	<i>Oldeania alpina</i>
641	Atarke Ameche	F	Lakana Moldo	South Ethiopia	550	0.06	<i>Oldeania alpina</i>
641	Kassahun Solomon	M	Lakana Moldo	South Ethiopia	141	0.01	<i>Oldeania alpina</i>
642	Milish Aleta	M	Lakana Moldo	South Ethiopia	0	0.00	<i>Oldeania alpina</i>
642	Asnakech Guyis	F	Lakana Moldo	South Ethiopia	131	0.01	<i>Oldeania alpina</i>
643	Teshome Wonberu	M	Lakana Moldo	South Ethiopia	231	0.02	<i>Oldeania alpina</i>
643	Mitike Oyicha	F	Lakana Moldo	South Ethiopia	79	0.01	<i>Oldeania alpina</i>
644	Almaz Asfaw	F	Lakana Moldo	South Ethiopia	20	0.00	<i>Oldeania alpina</i>
644	Senbete Salile	F	Lakana Moldo	South Ethiopia	346	0.03	<i>Oldeania alpina</i>
645	Shage Shamena	F	Lakana Moldo	South Ethiopia	66	0.01	<i>Oldeania alpina</i>
645	Tewodiros Warsa	M	Lakana Moldo	South Ethiopia	33.8	0.00	<i>Oldeania alpina</i>
646	Mitiku Santa	M	Lakana Moldo	South Ethiopia	313	0.03	<i>Oldeania alpina</i>
646	Mitiku Santa	M	Lakana Moldo	South Ethiopia	9.9	0.00	<i>Oldeania alpina</i>
647	Wolde Koste	M	Lakana Moldo	South Ethiopia	205	0.02	<i>Oldeania alpina</i>
647	Lanta Shashego	M	Lakana Moldo	South Ethiopia	72	0.01	<i>Oldeania alpina</i>
648	Lanta Shashego	M	Lakana Moldo	South Ethiopia	94	0.01	<i>Oldeania alpina</i>

648	Zenebeche Demise	F	Lakana Moldo	South Ethiopia	2504	0.25	<i>Oldeania alpina</i>
649	Yilma Isheno	M	Lakana Moldo	South Ethiopia	591	0.06	<i>Oldeania alpina</i>
649	Kasahun Solomon	M	Lakana Moldo	South Ethiopia	1945	0.19	<i>Oldeania alpina</i>
650	Momole Mola	F	Lakana Moldo	South Ethiopia	1519	0.15	<i>Oldeania alpina</i>
650	Senbete Fasha	F	Lakana Moldo	South Ethiopia	1031	0.10	<i>Oldeania alpina</i>
651	Getachew Alemu	M	Lakana Moldo	South Ethiopia	1423	0.14	<i>Oldeania alpina</i>
651	Guma Gupale	M	Lakana Moldo	South Ethiopia	941	0.09	<i>Oldeania alpina</i>
652	Wolde Koste	M	Lakana Moldo	South Ethiopia	134	0.01	<i>Oldeania alpina</i>
652	Wolde Koste	M	Lakana Moldo	South Ethiopia	327	0.03	<i>Oldeania alpina</i>
653	Yohanes Tola	M	Lakana Moldo	South Ethiopia	212	0.02	<i>Oldeania alpina</i>
653	Aklilu Tola	M	Lakana Moldo	South Ethiopia	205	0.02	<i>Oldeania alpina</i>
654	Lakana Maldo	M	Lakana Moldo	South Ethiopia	995	0.10	<i>Oldeania alpina</i>
654	Jema Bota	M	Lakana Moldo	South Ethiopia	31	0.00	<i>Oldeania alpina</i>
655	Jema Bota	M	Lakana Moldo	South Ethiopia	399	0.04	<i>Oldeania alpina</i>
655	Mokonon Sofa	M	Lakana Moldo	South Ethiopia	188	0.02	<i>Oldeania alpina</i>
656	Zerihun Deda	M	Lakana Moldo	South Ethiopia	461	0.05	<i>Oldeania alpina</i>
656	Otero Ontenesh	M	Holo	South Ethiopia	1271	0.13	<i>Oldeania alpina</i>
657	Kire Zewde	F	Holo	South Ethiopia	150	0.02	<i>Oldeania alpina</i>
657	Sirak Shelo	M	Holo	South Ethiopia	332	0.03	<i>Oldeania alpina</i>
658	Kanko Kama	M	Holo	South Ethiopia	69	0.01	<i>Oldeania alpina</i>
658	Mokonon Berbere	M	Holo	South Ethiopia	130	0.01	<i>Oldeania alpina</i>
659	Otero Oteshe	M	Holo	South Ethiopia	88	0.01	<i>Oldeania alpina</i>
659	Adiye Ontesha	M	Holo	South Ethiopia	5	0.00	<i>Oldeania alpina</i>
660	Gashano Mulatu	M	Holo	South Ethiopia	258	0.03	<i>Oldeania alpina</i>
660	Kumaro Yilma	M	Holo	South Ethiopia	34	0.00	<i>Oldeania alpina</i>
661	Tezera Gigo	M	Holo	South Ethiopia	62	0.01	<i>Oldeania alpina</i>
661	Bekele Balguda	M	Holo	South Ethiopia	125	0.01	<i>Oldeania alpina</i>
662	Chubaro Mammo	M	Holo	South Ethiopia	201	0.02	<i>Oldeania alpina</i>
662	Mengistu Tsegaye	M	Holo	South Ethiopia	263	0.03	<i>Oldeania alpina</i>
663	Yilma Toga	M	Holo	South Ethiopia	110	0.01	<i>Oldeania alpina</i>
663	Yilma Toga	M	Holo	South Ethiopia	253	0.03	<i>Oldeania alpina</i>

664	Chubaro Mamo	M	Holo	South Ethiopia	11	0.00	<i>Oldeania alpina</i>
664	Chubaro Mamo	M	Holo	South Ethiopia	153	0.02	<i>Oldeania alpina</i>
665	Adagn Alta	M	Holo	South Ethiopia	55	0.01	<i>Oldeania alpina</i>
665	Gemechu Tesfaye	M	Holo	South Ethiopia	72	0.01	<i>Oldeania alpina</i>
666	Chubaro Tena	M	Holo	South Ethiopia	103	0.01	<i>Oldeania alpina</i>
666	Memiru Handiso	M	Holo	South Ethiopia	164	0.02	<i>Oldeania alpina</i>
667	Kire Zewude	M	Holo	South Ethiopia	39	0.00	<i>Oldeania alpina</i>
667	Ejgayehu Tona	F	Holo	South Ethiopia	353	0.04	<i>Oldeania alpina</i>
668	Azale Chora	F	Holo	South Ethiopia	231	0.02	<i>Oldeania alpina</i>
668	Zelege Gika	M	Zahia	South Ethiopia	6388	0.64	<i>Oldeania alpina</i>
669	Harso Haile	M	Zahia	South Ethiopia	486	0.05	<i>Oldeania alpina</i>
669	Kebede Woira	M	Zahia	South Ethiopia	1057	0.11	<i>Oldeania alpina</i>
670	Kanoko Kanise	M	Zahia	South Ethiopia	1337	0.13	<i>Oldeania alpina</i>
670	Abera Charga	M	Zahia	South Ethiopia	4500	0.45	<i>Oldeania alpina</i>
671	Chochu Zia	M	Zahia	South Ethiopia	9000	0.90	<i>Oldeania alpina</i>
671	Alula Adasho	M	Zahia	South Ethiopia	1398	0.14	<i>Oldeania alpina</i>
672	Bikosa Bitan	M	Zahia	South Ethiopia	1430	0.14	<i>Oldeania alpina</i>
672	Amare Mallo	M	Zahia	South Ethiopia	860	0.09	<i>Oldeania alpina</i>
673	Matios Marko	M	Zahia	South Ethiopia	750	0.08	<i>Oldeania alpina</i>
673	Kassa Kama	M	Zahia	South Ethiopia	540	0.05	<i>Oldeania alpina</i>
674	Sisay Abebe	M	Zahia	South Ethiopia	1380	0.14	<i>Oldeania alpina</i>
674	Simon	M	Zahia	South Ethiopia	1460	0.15	<i>Oldeania alpina</i>
675	Titimos Morlos	M	Zahia	South Ethiopia	540	0.05	<i>Oldeania alpina</i>
675	Alula Adasho	M	Zahia	South Ethiopia	430	0.04	<i>Oldeania alpina</i>
676	Guto Gudeta	M	Delbensa	South Ethiopia	1255	0.12	<i>Oldeania alpina</i>
676	Atumo Tulamo	M	Delbensa	South Ethiopia	350	0.03	<i>Oldeania alpina</i>
677	Samuel Gadana	M	Megesa bole	South Ethiopia	1035	0.10	<i>Oldeania alpina</i>
677	Shuta Sumbulo	M	Megesa bole	South Ethiopia	3246	0.32	<i>Oldeania alpina</i>
678	Ofa Omata	M	Delbensa	South Ethiopia	339	0.03	<i>Oldeania alpina</i>
678	Mesfin Wacha	M	Delbensa	South Ethiopia	820	0.08	<i>Oldeania alpina</i>
679	Gizachew Gissa	M	Lisha	South Ethiopia	1851	0.18	<i>Oldeania alpina</i>
679	Gizachew Gissa	M	Lisha	South Ethiopia	1291	0.13	<i>Oldeania alpina</i>
680	Gizachew Gissa	M	Lisha	South Ethiopia	527	0.05	<i>Oldeania alpina</i>
680	Tadese Kao	M	Lisha	South Ethiopia	6673	0.66	<i>Oldeania alpina</i>
681	Abesha Sago	M	Megesa bole	South Ethiopia	8493	0.84	<i>Oldeania alpina</i>
681	Guge Guito	M	Megesa bole	South Ethiopia	1499	0.15	<i>Oldeania alpina</i>
682	Manote Mekuria	M	Delbensa	South Ethiopia	3268	0.32	<i>Oldeania alpina</i>
682	Alemayehu Kansa	M	Zada Town	South Ethiopia	10	0.00	<i>Oldeania alpina</i>

683	Wantala Washa	M	Zada Town	South Ethiopia	314	0.03	<i>Oldeania alpina</i>
683	Abate Asane	M	Egersa Woqe	South Ethiopia	109	0.01	<i>Oldeania alpina</i>
684	Abate Asane	M	Egersa Woqe	South Ethiopia	124	0.01	<i>Oldeania alpina</i>
684	Gobeze Fazega	M	Egersa Woqe	South Ethiopia	204	0.02	<i>Oldeania alpina</i>
685	Make Boino	M	Giasa	South Ethiopia	87	0.01	<i>Oldeania alpina</i>
685	Makeso Maze	M	Giasa	South Ethiopia	442	0.04	<i>Oldeania alpina</i>
686	Samuel	M	Giasa	South Ethiopia	441	0.04	<i>Oldeania alpina</i>
686	Simo Belacha	M	Zisla	South Ethiopia	155	0.02	<i>Oldeania alpina</i>
687	Simo Belacha	M	Zisla	South Ethiopia	347	0.03	<i>Oldeania alpina</i>
687	Debebe Darado	M	Zisla	South Ethiopia	776	0.08	<i>Oldeania alpina</i>
688	Balado Bomba	M	Zisla	South Ethiopia	72	0.01	<i>Oldeania alpina</i>
688	Obo Tsana	M	Zisla	South Ethiopia	109	0.01	<i>Oldeania alpina</i>
689	Abebech Damala	F	Zisla	South Ethiopia	1082	0.11	<i>Oldeania alpina</i>
689	Teleke Desalng	M	Zisla	South Ethiopia	145	0.01	<i>Oldeania alpina</i>
690	Bogale Bone	M	Zisla	South Ethiopia	137	0.01	<i>Oldeania alpina</i>
690	Yewubdar Zegeye	F	Asa Merche	South Ethiopia	683	0.07	<i>Oldeania alpina</i>
691	Niguse Erko	M	Asa Merche	South Ethiopia	2584	0.26	<i>Oldeania alpina</i>
691	Hailu Amo	M	Asa Merche	South Ethiopia	4911	0.49	<i>Oldeania alpina</i>
692	Zelege Abebe	M	Asa Merche	South Ethiopia	684	0.07	<i>Oldeania alpina</i>
692	Kasha Manebo	M	Asa Merche	South Ethiopia	893	0.09	<i>Oldeania alpina</i>
693	Alamirew Tefardegn	M	Asa Merche	South Ethiopia	741	0.07	<i>Oldeania alpina</i>
693	Delma Encha	M	Asa Merche	South Ethiopia	895	0.09	<i>Oldeania alpina</i>
694	Toshosh Tolba	F	Asa Merche	South Ethiopia	1812	0.18	<i>Oldeania alpina</i>
694	Kunchure Ouina	M	Asa Merche	South Ethiopia	741	0.07	<i>Oldeania alpina</i>
695	Salile Shake	M	Asa Merche	South Ethiopia	207	0.02	<i>Oldeania alpina</i>
695	Elias Wolka	M	Asa Merche	South Ethiopia	1683	0.17	<i>Oldeania alpina</i>
696	Kuzaye Kuwa	M	Asa Merche	South Ethiopia	897	0.09	<i>Oldeania alpina</i>
696	Tulema Tuto	M	Asa Merche	South Ethiopia	376	0.04	<i>Oldeania alpina</i>
697	Destu Kuwa	M	Asa Merche	South Ethiopia	375	0.04	<i>Oldeania alpina</i>

697	Bata Badasa	M	Asa Merche	South Ethiopia	920	0.09	<i>Oldeania alpina</i>
698	Buayehu Bata	M	Asa Merche	South Ethiopia	658	0.07	<i>Oldeania alpina</i>
698	Bako Badasa	M	Asa Merche	South Ethiopia	2256	0.23	<i>Oldeania alpina</i>
699	Haneta Arka	M	Asa Merche	South Ethiopia	1413	0.14	<i>Oldeania alpina</i>
699	Habitamu Haneta	M	Asa Merche	South Ethiopia	692	0.07	<i>Oldeania alpina</i>
700	Batole Belay	M	Asa Merche	South Ethiopia	752	0.08	<i>Oldeania alpina</i>
700	Bontole Bote	M	Asa Merche	South Ethiopia	1547	0.15	<i>Oldeania alpina</i>
701	Ena Badasa	M	Asa Merche	South Ethiopia	424	0.04	<i>Oldeania alpina</i>
701	Danaka Dada	M	Asa Merche	South Ethiopia	277	0.03	<i>Oldeania alpina</i>
702	Kancho Kama	M	Asa	South Ethiopia	277	0.03	<i>Oldeania alpina</i>
702	Gimata Gimbare	M	Asa	South Ethiopia	277	0.03	<i>Oldeania alpina</i>
703	Katana Chelka	M	Asa	South Ethiopia	277	0.03	<i>Oldeania alpina</i>
703	Kassa Kaido	M	Boko	South Ethiopia	1254	0.13	<i>Oldeania alpina</i>
704	Sagale Sape	M	Boko	South Ethiopia	599	0.06	<i>Oldeania alpina</i>
704	Gitaida Gifole	M	Boko	South Ethiopia	365	0.04	<i>Oldeania alpina</i>
705	Kaleb Kamba	M	Boko	South Ethiopia	532	0.05	<i>Oldeania alpina</i>
705	Darsase Daizo	M	Boko	South Ethiopia	2995	0.30	<i>Oldeania alpina</i>
706	Konjo kaida	M	Boko	South Ethiopia	1232	0.12	<i>Oldeania alpina</i>
706	Gawade Gaisa	M	Boko	South Ethiopia	332	0.03	<i>Oldeania alpina</i>
707	Kakro Kadre	M	Boko	South Ethiopia	1471	0.15	<i>Oldeania alpina</i>
707	Teferi Ginbare	M	Boko	South Ethiopia	1209	0.12	<i>Oldeania alpina</i>
708	Outo Tsara	M	Boko	South Ethiopia	590	0.06	<i>Oldeania alpina</i>
708	Kankaro Encha	M	Boko	South Ethiopia	692	0.07	<i>Oldeania alpina</i>
709	Danael Goda	M	Boko	South Ethiopia	1469	0.15	<i>Oldeania alpina</i>
709	Hanena Durka	M	Boko	South Ethiopia	266	0.03	<i>Oldeania alpina</i>
710	Zkarias Hanena	M	Boko	South Ethiopia	1029	0.10	<i>Oldeania alpina</i>
710	Solomon Alula	M	Boko	South Ethiopia	1512	0.15	<i>Oldeania alpina</i>
711	Mubarek Solomon	M	Boko	South Ethiopia	522	0.05	<i>Oldeania alpina</i>
711	Danael Goda	M	Boko	South Ethiopia	4131	0.41	<i>Oldeania alpina</i>
712	Mesfin Malota	M	Boko	South Ethiopia	728	0.07	<i>Oldeania alpina</i>
712	Gatene Gajo	M	Boko	South Ethiopia	1135	0.11	<i>Oldeania alpina</i>
713	Ayelech Shalo	F	Genta	South Ethiopia	59406	5.94	<i>Oldeania alpina</i>
713	Ayeno Yeda	M	Gazeso	South Ethiopia	409	0.04	<i>Oldeania alpina</i>
714	Chencha	M	Gazeso	South Ethiopia	824	0.08	<i>Oldeania alpina</i>
714	Chocha P/Scoole	M	Cosha	South Ethiopia	14155	1.42	<i>Oldeania alpina</i>

715	Chocha P/Scoole	M	Cosha	South Ethiopia	2999	0.30	<i>Oldeania alpina</i>
715	Geragne Giya	M	Cosha	South Ethiopia	3290	0.33	<i>Oldeania alpina</i>
716	Baruda Bono	M	Cosha	South Ethiopia	435	0.04	<i>Oldeania alpina</i>
716	Antile Bonco	M	Cosha	South Ethiopia	1161	0.12	<i>Oldeania alpina</i>
717	Ayino Dola	M	Cosha	South Ethiopia	3562	0.36	<i>Oldeania alpina</i>
717	Ante Afo	M	Kuta	South Ethiopia	4694	0.47	<i>Oldeania alpina</i>
718	Gurisha Hambala	M	Kuta	South Ethiopia	2942	0.29	<i>Oldeania alpina</i>
718	Domba Dorcile	M	Kuta	South Ethiopia	1770	0.18	<i>Oldeania alpina</i>
719	Ayele Dumbara	M	Kuta	South Ethiopia	1127	0.11	<i>Oldeania alpina</i>
719	Kawo Shamena	M	Kuta	South Ethiopia	681	0.07	<i>Oldeania alpina</i>
720	Bale Daiko	M	Kuta	South Ethiopia	474	0.05	<i>Oldeania alpina</i>
720	Kawo Shamena	M	Kuta	South Ethiopia	806	0.08	<i>Oldeania alpina</i>
721	Geresu Wolde	M	Kuta	South Ethiopia	7000	0.70	<i>Oldeania alpina</i>
721	Deysha Pendo	M	Kuta	South Ethiopia	1175	0.12	<i>Oldeania alpina</i>
	<b>Total</b>					<b>163.70</b>	



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