Annual Report

EthioTrees – Tembien Project

February 2017 – February 2018

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Submitted by: EthioTrees vzw

Date of submission: 16 - 04 – 2018

Summary

Project overview	
Reporting period	1st of Feb 2017 – 31st of Jan 2018
Geographical areas	Dogua Tembien (Tembien Highlands), Tigray Region, Ethiopia
Technical specifications in use	See approved PDD EthioTrees

Project indicators	Historical	Added/ Issued this period (2017-2018)	Total
No. smallholder households with PES agreements	N/A	0	0
No. community groups with PES agreements (where applicable) by Feb 2018	3	3	6
Approximate number of households (or individuals) in these community groups	950	400	1350
Area under management (ha) where PES agreements are in place	541	185	726
Total PES payments made to participants (USD)	N/A *	-	-
Total sum held in trust for future PES payments (USD)	N/A	-	-
Allocation to Plan Vivo buffer (tCO_2)	664	799	1463
Saleable emissions reductions achieved (tCO_2) (88% of the estimated total project Carbon Benefits per year)	4,873	5,856	10,729
Unsold Stock at time of Submission (PVC)			
Vintage 2016-2017			4,873
Plan Vivo Certificates (PVCs) issued to date			**4,873**
Plan Vivo Certificates requested for issuance (Feb 2017 - Feb 2018 Vintage)			**5,856**
Plan Vivo Certificates available for future issuance			**0**
Total PVCs issued (including this report)			**10,729**

* The 1st annual report was only handed in 2 months ago and therefore no sales have been made yet.

Part A: Project updates

A1 Key events

- Formation of the associations in the three newly added exclosures was completed at the earliest phase of the vintage period, i.e. by February 2017. The three new exclosures are: Afedena, May Huwo, May Genet. Collection of baseline data was finished at these 3 exclosures by February 2017 (see Annex 2)
- Several trainings have been organised over the reporting period: 1 training per exclosure (n = 6) was organized, including the already existing and newly added exclosures. Training focussed either on environmental management of the exclosure, or on the valorization of the non-timber forest products derived from these exclosures. Environmental investments (percolation ponds, planting) were made.
- The aromatic oil distillation centre was expanded with one additional distillation unit. The center is located in Hagere Selam, as a central point where all villages will supply to. To date, the distillation process is still experimental, so no large-scale production takes place (yet).
- Start of the scientific VLIR-South Initiative between Ghent University (Belgium) and Mekelle University (Ethiopia) in January 2018. The aim of this 2-year SI project is to estimate the valorization potential of ecosystem services from exclosures in the Tembien Highlands. The project will analyse different ecosystem services and estimate their potential for involvement in the Plan Vivo scheme. The project will also investigate whether sustainable essential oil production can increase the cash income of landless farmers. In so doing, the project will (i) give scope for future valorization of ecosystem services in larger parts of north Ethiopia (thus outreaching to include other potential exclosures), and (ii) enhance the capacity of the Departments at Mekelle University (Business, Environmental Management and Chemistry), including their capacity to conduct participatory action research.
- In its long-term strategy, EthioTrees aims to restore exclosures in two altitudinal belts of Dogua Tembien Highland - an upper belt in the May Zegzeg catchment (draining towards Geba, where roughly 15 smaller exclosures are located) and a lower belt (steep slopes towards Geba, where roughly 5 larger exclosures are located) - following best practices in forest landscape restoration, with the aim to support woodland restoration, improve ecosystem services and community resilience.
- EthioTrees cooperated with the Springer (publishing house) initiative to develop a “tourist” GeoGuide for the Tembien Highlands. The GeoGuide series publishes travel guide type

short monographs focused on areas and regions of geo-morphological and geological importance including Geoparks, National Parks, World Heritage areas and Geosites. The GeoGuide of Dogua Tembien is to be published later in 2018.

A2 Successes and challenges

- Main successes included the collection of all required baseline data in the new exclosures (see Annex 2), the organisation of trainings, and the accomplishment of the formation of the associations in the new exclosures.
- Main challenges included the creation of awareness of environmental degradation and management by the local population, and the lack of information and investment for proper management of the exclosures.
- Trainings and group discussions have taken place. The main focus of these discussions was the protection of the exclosures (keeping out the grazing) and on management of the exclosures (seedling planting and seedling irrigation, and soil and water conservation (percolation ponds, soil bunds and trenches)). Site-specific trainings were also organized, concerning improved market access for incense at incense-producing exclosures and management of bee hives at honey-producing exclosures.

A3 Project developments

Below, we give an overview of the project developments that have affected the governance, operations, contractual relationships or legal basis of the project:

- Expansion of the aromatic oil distillation center in Hagere Selam. The distillation focuses on extraction of aromatic oil from *Boswellia papyrifera* (the dominant frankincense tree of Tigray) resins and remains in an experimental phase.
- PES-agreements, also supported by the *tabia* administrations, have been made (see Annex 3).
- Formations of the associations were formalized. Examples of certificates of registration are available upon request.
- There are no relevant updates to the project documentation.

A4 Future Developments

- EthioTrees expanded the number of project exclosures with three new sites by January 2017. These include May Genet, May Huwo and Afedena. The baseline data, plan vivos and credit estimates of these sites are provided in Annex 2. Plan Vivo Certificates for these sites are requested for issuance *ex post* using this annual report of the period February 2017 – February 2018.
- Further activities this year have included trainings, seedling planting and seedling irrigation, and the installation of soil and water conservation structures such as percolation ponds, trenches and soil bunds. This applies to the already existing exclosures and the newly added exclosures.
- The baseline data of the exclosures added to the project in 2018 will be provided after the results of the soil analysis are available. Plan Vivo Certificates for these sites will be requested for issuance *ex post* using the annual report of the period February 2018 – February 2019.

Part B: Project activities

B1 Project activities generating Plan Vivo Certificates

- We list the technical specifications being used in the project, the area covered and participants using these in table 3 below. We only include those areas where PES agreements have been signed.

Table 3: Project activity summary

Name of technical specification	Area (Ha)	No smallholder households	No Community Groups
Ecosystem Restoration in the Tembien Highlands	726 ha	1350	6

- EthioTrees has expanded the number of exclosures with three new sites by January 2017. These included May Genet, May Huwo and Afedena. The three exclosures comply with the following criteria:

  1. These 3 project sites are located on limestone lithology;
  2. Soils of these project sites are dominated by Leptosols, Regosols, and Cambisols and not by Vertisols;
  3. Sites are located between 12–15° N latitude and 36° 30'–40° 30' E longitude;
  4. All sites have tropical semi-arid climate;
  5. The altitude of the project sites varies between 1500 and 3000 m asl;
  6. Grass harvesting (using a cut and carry system) is permitted in accordance with the PES agreement;
  7. The exclosures are located on former degraded rangelands or wastelands and not on former croplands or important grazing lands;
  8. There is a set of clear rules (village by-laws) to ensure that the local population can receive ecosystem services of non-forest timber products (honey from bee hives);
  9. There was willingness to establish a formal association of landless farmers;
  10. To avoid increased grazing pressure elsewhere in the village, there is clear effort by the local population to encourage livestock feeding in the stable.

B2 Project activities in addition to those generating Plan Vivo Certificates

- The project expanded the aromatic oil distillation center in Hagere Selam with one unit. Besides, trainings were performed to support non-timber forest production, including incense production in Adi Lehtsi and honey production in Meam Atali. In May Huwo, the construction of a permanent pond for drinking water near the limestone cave was discussed. In May Genet, the potential of combined irrigation and conservation agriculture in the valley downslope of the exclosure was discussed. In Adi Lehtsi, the training focused on the linkages with market access in Mekelle (merchants) and discussions focused on the possibility to rent or build a new storage house.

Part C: Plan Vivo Certificate issuance submission

C1 Contractual statement

- This issuance is based on signed PES agreements with participants complying with all the minimum requirements stated in these agreements (see Annex 3).

C2(b) Issuance request for projects where issuance is made on the basis of ongoing activities on land already managed by the project (calculated *ex-post*)

Table 5: Statement of tCO2 reductions available for issuance as Plan Vivo Certificates based on activity for reporting period February 2017 – February 2018.

Area ID	Total area (ha)	Tech. Spec	Saleable ER's (tCO_2) available from previous periods*	Total ER's (tCO_2) achieved this period**	% Buffer	No. of PVCs allocated to buffer from ER's achieved this period	Saleable ER's (tCO_2) from this period	Issuance request (PVCs)	ER's (tCO_2) available for future issuances
Adi Lehtsi	*412*	*Ecosystem restoration*	0	4536	*12*	544	3992	3992	-
Gidme Gestet	*46*	*Ecosystem restoration*	0	270	*12*	32	238	238	-
Meam Atali	*83*	*Ecosystem restoration*	0	731	*12*	88	643	643	-
May Getnet	*51*	*Ecosystem restoration*	0	281	*12*	34	247	247	-
May Hibo	*53*	*Ecosystem restoration*	0	272	*12*	33	239	239	-
Afedena	*81*	*Ecosystem restoration*	0	565	*12*	68	497	497	-
TOTAL	**726**			**6,655**	**12**	**799**	**5,856**	**5,856**	**-**

C3 Allocation of issuance request

Table 6: Allocation of issuance request

Buyer name/ Unsold Stock	No. PVCs transacted	Registry ID (if available) or Project ID if destined for Unsold Stock	Tech spec(s) associated with issuance
Ethiotrees	*5,856*	*104000000014099*	*Ecosystem Restoration*
TOTAL	**5,856**	*104000000014099*	*Ecosystem Restoration*

C4 Data to support issuance request

- We provide the monitoring data for areas of land and participants which support our issuance request in Annex 1.

Part D: Sales of Plan Vivo Certificates

D1: Sales of Plan Vivo Certificates

- There are no sales of Plan Vivo Certificates to date (nor forward sold certificates for current issuance request).

Part E: Monitoring results

E1: Ecosystem services monitoring

- We provide annual monitoring results that support the request for new issuances in Annex 1.
- We also provide annual monitoring results for all participants/areas where Plan Vivo Certificates have been issued before in Annex 1.
- All monitoring targets were achieved.
- No corrective actions needed to be agreed with participants during this reporting period.

E2: Maintaining commitments

- As no participants have resigned or been removed from the project, or had Plan Vivo Certificates allocated against their activities, we do not provide a table with their details in Annex 3.

E3: Socioeconomic monitoring

- We provide the results of monitoring of socioeconomic impacts (survey) every 5 years after baselining (impact indicators). Nevertheless, on a yearly basis, the project monitors its activities (yearly activity-based indicators).

These activities include in this reporting period the organization of 6 training sessions at

the different sites. The project expanded the aromatic oil distillation center in Hagere Selam and improved the distillation/extraction yield. The general aim is to valorize the frankincense production in the region and upgrade the value chain.

The restoration project has also clear benefits for the wider communities living around the project exclosures (estimation is 1350 households). The most important factors include reduction of erosion and gullying, conservation of soil nutrients and groundwater. For instance, forest restoration will locally benefit water availability for the upslope communities. Overall, we expect a net gain in (ground)water availability, also for the upslope communities. For instance, in the village of Adi Lehtsi, the walking distance to drinking water during the driest months of the year (i.e. downslope to the Geba river) is at least 4 hours. Establishing ponds is starting to benefit this upslope community. In May Huwo, the construction of a permanent pond for drinking water near the limestone cave was discussed. In May Genet, the potential of combined irrigation and conservation agriculture in the valley downslope of the exclosure was discussed. Most probably, the required investments for these activities will be made in 2018.

E4: Environmental and biodiversity monitoring

- The South Initiative of Mekelle and Ghent University aims to expand the existing monitoring program that is successfully applied to the 6 exclosures towards > 2000 hectares (12 exclosures), in order to achieve (statistically) meaningful monitoring data distributed across the Tembien Highlands. The used monitoring activities are already tested within the 6 exclosures, but a dataset of >15 exclosures will allow comparisons and seek relations between different environmental-explaining factors. Based on the work load and budget, we are confident that it is workable to collect all information on the 12 new exclosures within the two years of the South Initiative (2018 and 2019).

- Besides biomass and soil carbon estimations, the South Initiative will also include monitoring of hydrology and hydrogeology. Downslope of percolation ponds, the project aims to monitor spring activity (as a proxy for groundwater discharge) and catchment discharge. Therefore, at the outlet of different catchments to the Geba River, water discharge of the outlet will be measured once per month. Over a distance of 3 m, channel width (in m), depth (in m) and water speed (m/s) will be measured. Water speed can be assessed by measuring the travel time of a floating object over a 3 m transect. There should be three sequential measurements over which the mean is calculated. Discharge

data are corrected for precipitation (based on the corresponding data of the Hagere Selam meteorological station).

- Based on correlations between soil carbon, above-ground biomass and explaining factors (topography, geomorphology, human activity), the Initiative will create a map of carbon storage potential in the Tembien Highlands. Based on the datasets and the participatory "plan vivo" maps, different scenarios of long-term carbon sequestration will be developed.

- The Initiative will be further examining hydrodistillation activities. Moens (2016) described the hydrodistillation of Boswellia papyrifera frankincense resin by using a modified Clevenger steam distillation apparatus, followed by chromatography. The distillation yield can be calculated as the weight of the aromatic oil that is obtained, divided by the weight of the resins that is used during the distillation process. The Initiative aims to experiment with different distillation set-ups at the Chemistry Department of Mekelle University to enhance the quantity (yield) and quality (chromatography) of the incense oil. Chromatography should be performed on the samples to identify the abundances of the different (organic-) chemical components of the oil. Results of the analysis will be used to expand the distillation innovation center in Hagere Selam and organise different trainings on aromatic oil distillation.

- The research results will be produced by six MSc candidates from Mekelle University and two MSc candidates from Ghent University (separate funding). A research assistant will permanently assist them with monitoring activities in the field. The Initiative will also provide two training sessions on environmental economics and GIS at Mekelle University. The necessary equipment and specialised software and licences will be purchased for use within and beyond the Initiative period. Dissemination of the results and developments is planned in four joint meetings/training days between EthioTrees, Mekelle University researchers and local communities.

No other changes to the monitoring plans or protocols of the project need to be reported in the updates section of this report.

Part F: Impacts

F1: Evidence of outcomes

- We report research outcomes, patterns or trends from ongoing monitoring or other information which supports the impacts – socio-economic, environmental or cultural – which the project has had every 5 years after baselining. In annex 7, we provide a short description of activities with photographs. Up to date, no scientific publications resulting from the project are available yet.

Part G: Payments for Ecosystem Services

G1: Summary of PES by year

- No payments were made to date. There is no participants' failure to achieve monitoring targets. This is because the first annual report was just submitted 3 months ago and no sales have taken place since.

- There are no funds being held by the project coordinator at reporting period end and there are no withheld payments at reporting period end.

- All payments will be made in line with the terms of PES agreements signed.

Part H: Ongoing participation

H1: Recruitment

- EthioTrees recruited three new associations in December 2017. All sites comply with the eligibility criteria set out in the PDD. The baseline data of the exclosures added to the project in 2018 will be provided after the results of the soil analysis are available.

H2: Project Potential

- No participant or area under management is on the project's 'waiting list' i.e. where a PES

agreement is not yet signed but a *plan vivo* is in use.

H3: Community participation

- We briefly report on the community meetings held throughout the reporting period and attach the pictures of these to annex 7.

Part I: Project operating costs

I1: Allocation of costs

- We completed the table below summarizing project costs during the reporting period and the sources of income used to meet these costs. The costs were fully covered using private donations and limited subsidies.

Table 10: Allocation of costs

Expense	Narrative	Amount (if possible in USD$)	Contribution from sale of PVCs	Contribution from other sources
Investments	Costs for soil and water investments, planting	8,500	0	100%
Functioning	Materials, paper, equipment, transport costs	4,200	0	100%
Personnel	Wages for project coordinator and distillation expert	5,600	0	100%

Annexes

Annex 1. Monitoring results that supports the issuance request

Carbon estimation of the issuance period (see PDD)

Total Carbon Benefits = "Total Carbon" x "Area" x "Molar Conversion Factor" (see PDD)

TCB (Adi Lehtsi) = 3.0 x 412 ha x 3.67 = 4,536 tCO_2 per year

TCB (Gidmi Gestet) = 1.6 x 46 ha x 3.67 = 270 tCO_2 per year

TCB (Meam Atali) = 2.4 x 83 ha x 3.67 = 731 tCO_2 per year

TCB (May Getnet) = 1.5 x 51 ha x 3.67 = 281 tCO2 per year

TCB (May Hibo) = 1.4 x 53 ha x 3.67 = 272 tCO2 per year

TCB (Afedena) = 1.9 x 81 ha x 3.67 = 565 tCO2 per year

Total Carbon Benefits of the Project = 6,655 tCO_2 / year (excluding 12% risk buffer & leakage)

Ecosystem Services Monitoring

Activity	**Activity Indicator (measure annually)**	**Annual Targets**			**Results**
		Full Target Achievement	**Partial Target Achievement**	**Missed Target**	
Restoration activities	Area of each exclosure undergoing active restoration activities	>10%	=10%	<10%	Meam Atali >10% Gidmi Gestet >10% Adi Lehtsi >10% May Getnet >10% May Hibo >10% Afedena >10% → *Guarding and restoration*

					activities were covering all areas
Tree Planting	Number of seedlings	4000 seedlings	3000-4000	<4000 seedlings	*→ 12150 seedlings were planted in total, across all 6 exclosures*
	Survival Rate	>30%	25-30	<30%	*→ Preliminary survival rate is 69% across all 6 exclosures. Please note that a recounting will take place in summer 2018.*

Socioeconomic Monitoring

Activity	**Activity Indicator (measure annually)**	**Annual Targets**			**Results**
		Full Target Achievement	**Partial Target Achievement**	**Missed Target**	
Capacity-Building	Number of organized trainings for landless farmers (M/V) per year per exclosure	1		0	*Meam Atali = 1* *Gidmi Gestet = 1* *Adi Lehtsi = 1* *May Getnet = 1* *May Hibo = 1* *Afedena = 1*
	Participants from more vulnerable groups (women, youth, elderly people)	>25%		<25%	*Meam Atali ≈ 35%* *Gidmi Gestet ≈ 30%* *Adi Lehtsi ≈ 40%* *May Getnet ≈ 55%* *May Hibo ≈ 60%* *Afedena ≈ 50%*
Availability	Beneficiaries	>3	<3	<1	*In all 6*

of grass fodder	of grass fodder per exclosure				*exclosures: cut-and-carry system implemented*
Countering displaced grazing	Number of observations of displaced grazing mentioned during the yearly meeting of association, other NTFP users and the village council	<2	2	>2	*Meam Atali = 1* *Gidmi Gestet = 0* *Adi Lehtsi = 0* *May Getnet = 0* *May Hibo = 0* *Afedena = 0*
Countering timber harvesting on public lands	Number of observations of timber harvesting on public lands mentioned during the yearly meeting of association, other NTFP users and the village council	<2	2	>2	*Meam Atali = 1* *Gidmi Gestet = 0* *Adi Lehtsi = 0* *May Getnet = 0* *May Hibo = 0* *Afedena = 0*

Environmental Monitoring

Activity	**Activity Indicator (measure annually)**	**Annual Targets**			**Result and mitigating actions**
		Full Target Achievement	**Partial Target Achievement**	**Missed Target**	
Water Management	Number of Percolation Ponds per exclosure	2	<2	<1	*Meam Atali = 2* *Gidmi Gestet = 2* *Adi Lehtsi = 2* *May Getnet = 2* *May Hibo = 2* *Afedena = 2*

Annex 2. Baseline data

Annex 2 Baseline data

Here we add the baseline data, plan vivos and credit estimation for the three new sites: May Huwo, May Genet and Afedena. We follow the same methodology and table formats as described in the approved PDD.

Soil and biomass data

	Table G6: Summarized results of the vegetation survey								
Area	Compart-ment	Average circum-ference (cm)	Average diameter (cm)	St. dev. of diameter (cm)	Average crown diameter (cm)	Aver. height (cm)	Aver. number of trees per plot	Carbon content per compar-tment (ton C / ha)	Carbon content all comp (ton C /ha)
May Getnet	A (20x20 m)								2,68
	B (10x10 m)	7,89	2,51	1,25	90,27	191,11	17,43	1,49	
	C (5x5 m)	4,97	1,58	0,83	61,76	108,12	9,53	1,19	
May Hibo	A (20x20 m)	43,38	13,09	5,91	303,84	398,74	3,6	3,64	8,15
	B (10x10 m)	10,49	3,34	1,90	121,08	212,20	21,6	4,07	
	C (5x5 m)	4,55	1,42	0,70	51,57	107,02	4,6	0,44	
Afedena	A (20x20 m)								5,10
	B (10x10 m)	16,18	5,15	1,55	166,16	182,92	8,7	3,87	
	C (5x5 m)	6,55	2,08	1,09	78,49	87,41	5,2	1,23	

Carbon benefit calculation

TCB = (TCclimax – TICS) / 20

This yields:
TCB (May Getnet) = (TCclimax – TICS) / 20 = (102.5 – 71.9) / 20 = 1.5 tC/ha/yr
TCB (May Hibo) = (TCclimax – TICS) / 20 = (102.5 – 75.2) / 20 = 1.4 tC/ha
TCB (Afedena) = (TCclimax – TICS) / 20 = (102.5 – 64.3) / 20 = 1.9 tC/ha.

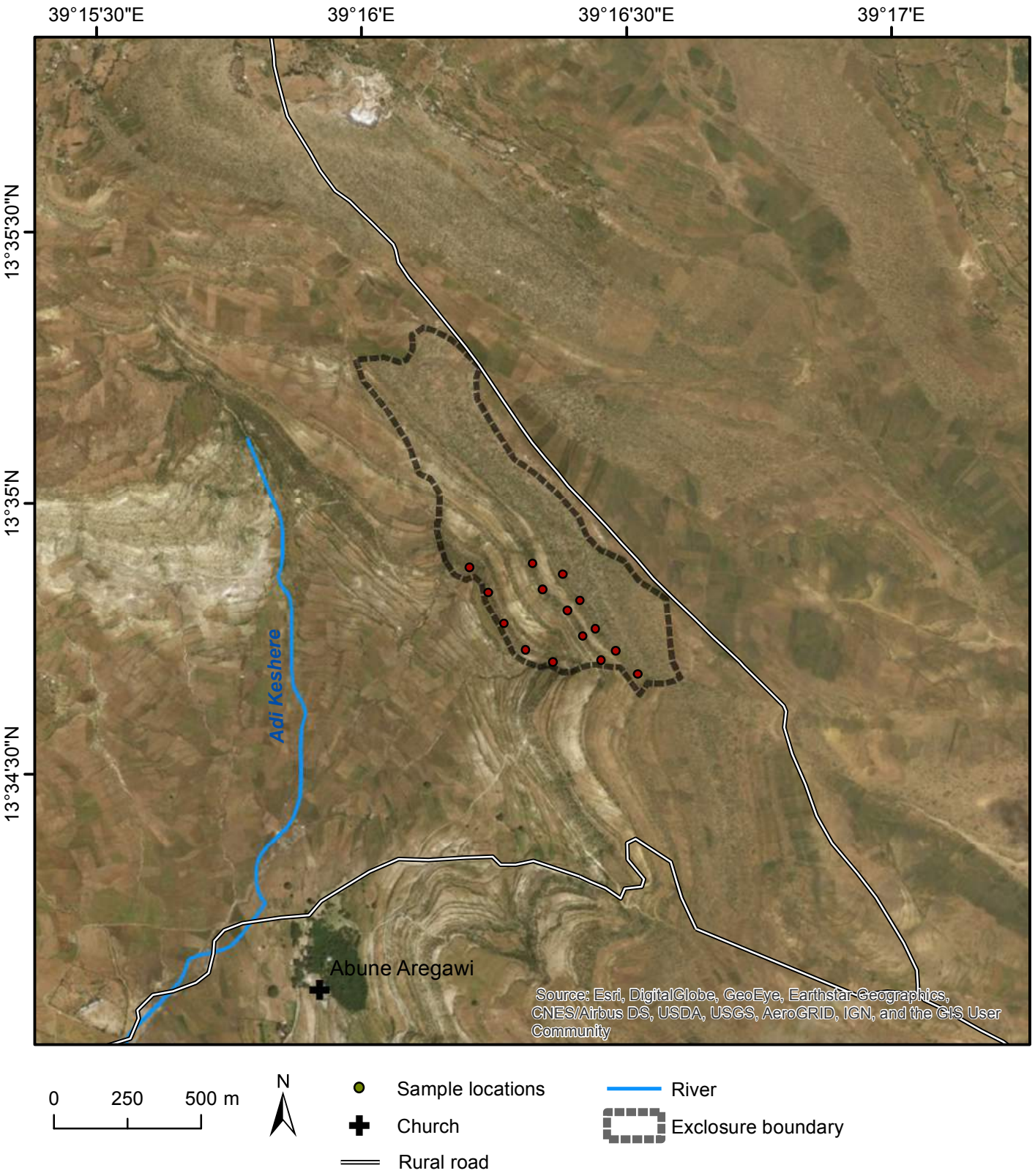
Summary

By taking into account the area of each exclosure (May Getnet = 51 ha; May hibo = 53 ha; Afedena = 81 ha) and the project period (20 years), as well as the molar conversion factor of 3.67 (Mekuria et al., 2011), we calculated the total benefits for all project areas combined. tCO2 per year..

TCB (May Getnet) = 1.5 x 51 ha x 3.67 = 281 tCO2 per year
TCB (May hibo) = 1.4 x 53 x 3.67 = 272 tCO2 per year
TCB (Afedena) = 1.9 x 81 x 3.67 = 565 tCO2 per year
Total Carbon Benefits of the added sites = 1,118 tCO2 per year

Plan vivos and maps

May Genet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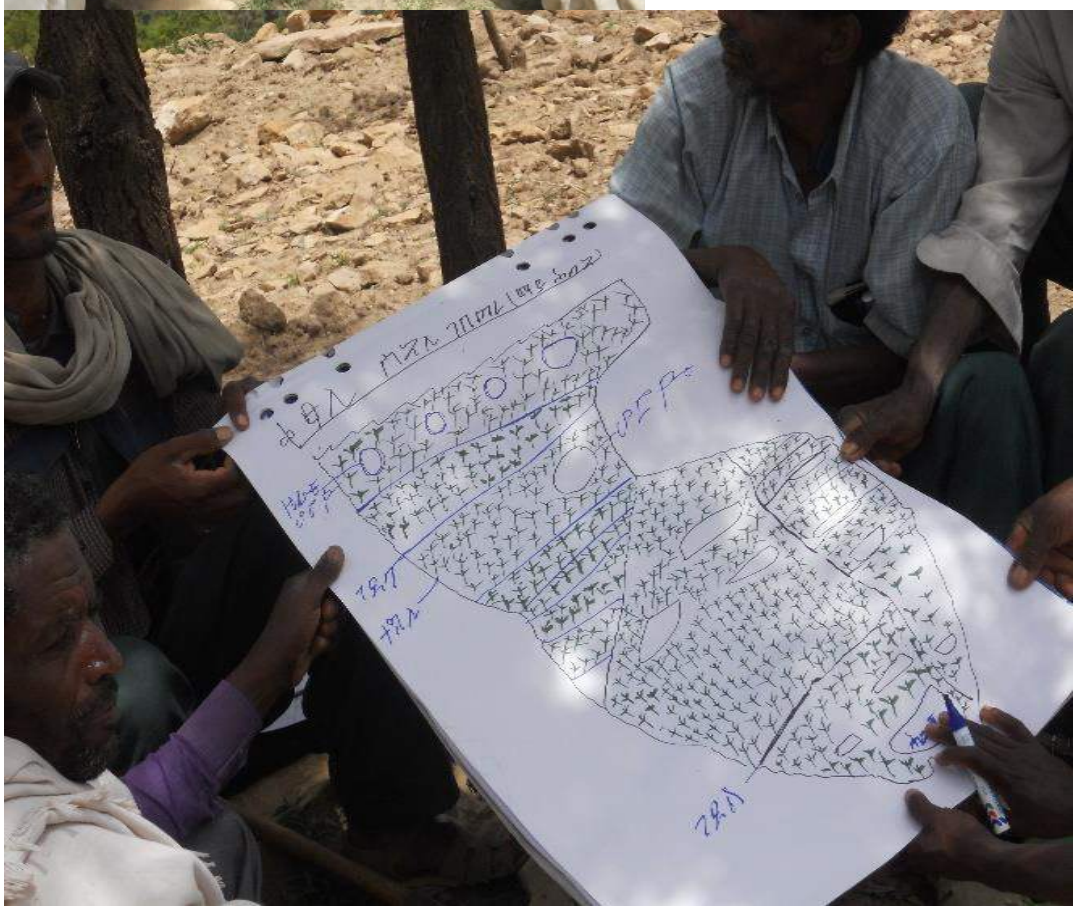
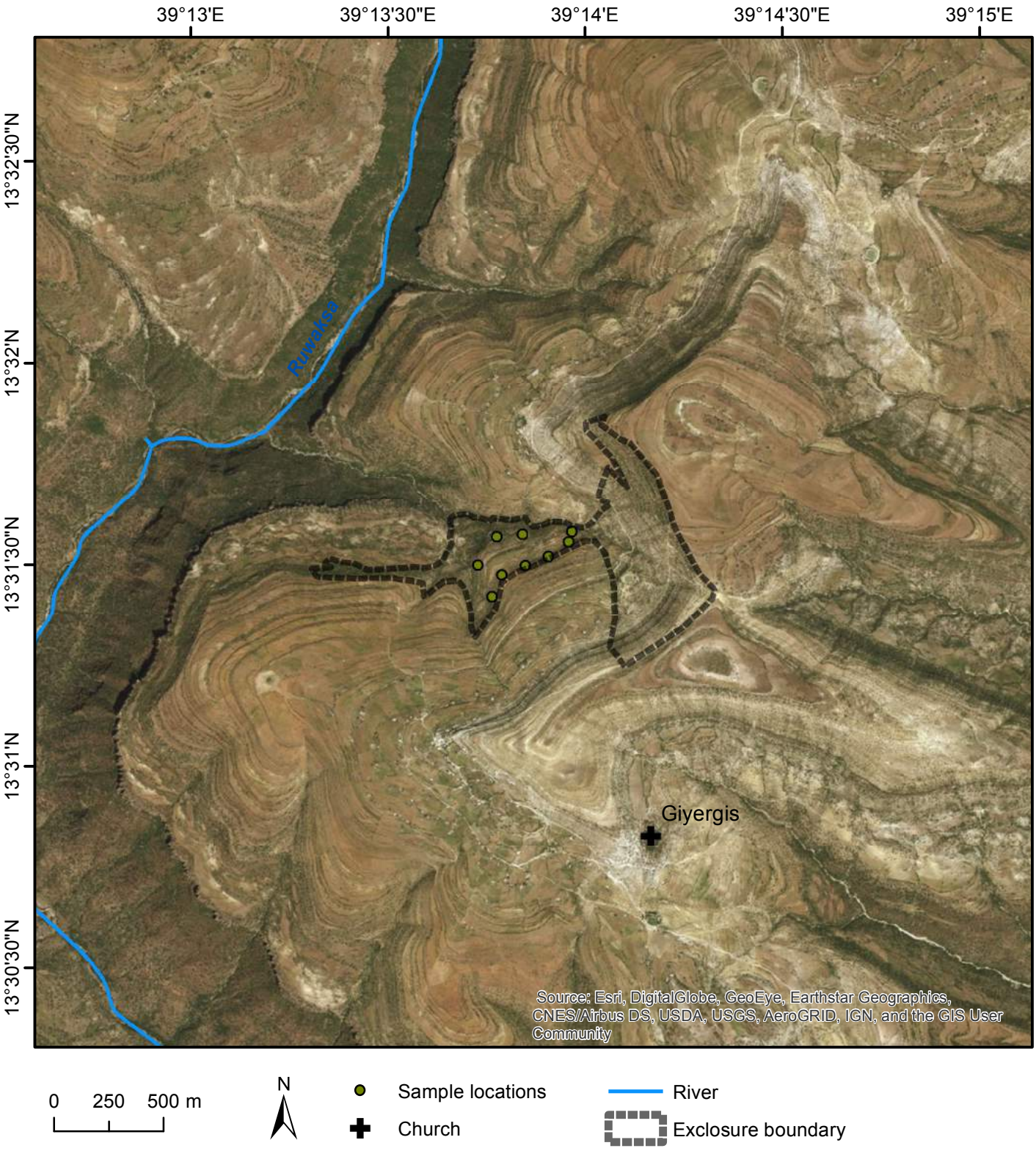
Adi Keshere
Abune Aregawi
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community
0
250
500 m
N
Sample locations
Church
Rural road
River
Exclosure boundary

May Huwo

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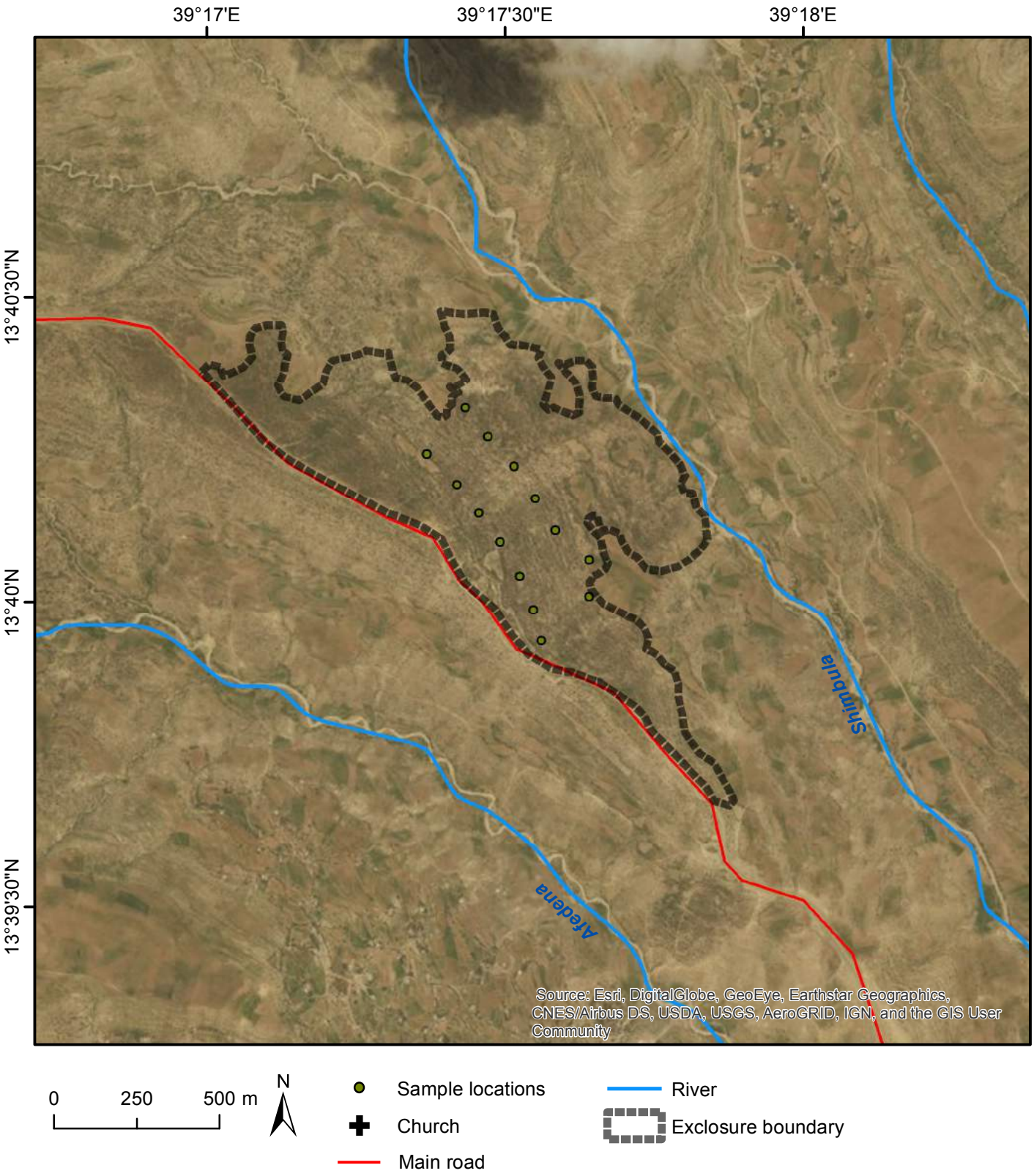
Ruvaltsa
Giyergis
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community
0 250 500 m
N
Sample locations
Church
River
Exclosure boundary

Afedena


39°17'E
39°17'30"E
39°18'E
13°40'30"N
13°40'N
13°39'30"N
Shimbuia
Atedena
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community
0
250
500 m
N
Sample locations
Church
Main road
River
Exclosure boundary

Annex 3. PES-agreements

Available upon request

Annex 4. Community meeting records (summary)

4.1 Meetings of *etan* members committees

Training sessions were organized in May 2017 for 27 members for several *etan* (incense) cooperatives. The participants included 13 members from Amanit (Adi Lehtsi village); 8 participants from Endasilasie Kebele and 6 from Walta Kebelle cooperatives. The number of participants depends on the size of the association and the availability of the participants. A rotational system is employed, so that each member attends a training at some point over time. The sessions basically focused on management of the *Boswellia papyrifera*, collection, quality control, separation techniques and the functioning of the EthioTrees ecosystem restoration association.

Discussions turned towards strengthening the links between the member associations and with other cooperatives; and how to handle their business (financial aspects). The trainings were integrated with the Agriculture Office NRM and Cooperative Department.

4.2 Meetings at the May Genet exclosure

Meetings were organized in June 2017 for 11 committee members and basically focused on management of the exclosure. The functioning of the EthioTrees ecosystem restoration association was discussed. Later on, the discussions turned towards the potential of combined irrigation and conservation agriculture in the valley downslope of the exclosure.

Figure 4.a: Discussions at May Genet

4.3 Meetings at the May Huwo and Gidmi Gestet exclosures

At the end of June 2017, meetings were organized with 8 committee members and basically focused on management of the exclosure of May Huwo. A similar meeting was organized at the Gidmi Gestet exclosure (which is quite nearby). The functioning of the EthioTrees ecosystem restoration association was discussed. In May Huwo, the construction of a permanent pond for drinking water near the limestone cave was discussed.

Figure 4.b: Discussions at May Huwo

4.4 Meetings at the Afedena exclosure

In July 2017, meetings were organized with 8 committee members and basically focused on management of the exclosure. The functioning of the EthioTrees ecosystem restoration association was discussed. Specifically, the high need for soil and water conservation near the road were discussed.

Figure 4.c: Discussions at Afedena

Figure 4.d: Meeting with landless farmers on how to excavate the percolation ponds in the exclosure

4.5 Meetings at the Meam Atali exclosure

Meetings focusing on awareness creation were organized on 29/07/2017 and 24/09/2017. Discussions related to one observation of entering animals and cutting of trees on the site. Members raised different issues on how to keep the exclosure well and an association rule & regulation bylaw was developed. At the same time, it was discussed how to select the landless farmers to participate in the exclosure percolation ponds work.

Figure 4.e: Discussions at Meam Atali

4.6 Yearly general meeting of EthioTrees association

The yearly general meeting of EthioTrees associated members was organized on 31/10/2017, focusing on yearly implemented activities, on the project strengths and weaknesses, on good experiences and on effective budget expenses. It was discussed how to support landless farmers who live together but do not form legal associations.

Figure 4.f: Yearly general meeting of EthioTrees association

Figure 4.g: Some additional photographs of exclosure meetings