Two years report

Environmental Services Project

National Forest Inventory Capacity Building, Albania

ESP-CS-QCBS-01

December 31, 2018

Acronyms used in the report

ANFI	Albanian National Forest Inventory
ANFICB	Albanian National Forest Inventory Capacity Building project
ESP	Environmental Services Project
FSF	Faculty of Forest Sciences, Tirana
MTE	Ministry of Tourism and Environment
NAPA	National Agency of Protected Areas (Albanian acronym AKZM)
NEA	National Environmental Agency
NFI	National Forest Inventory
QA	Quality Analysis
SFA	Swedish Forest Agency
SLU	Swedish University of Agricultural Sciences

List of content

1. Introduction

2. Activities and outcomes

3. Work planning and upcoming activities

4. Challenges and risks

Annexes

1. Terms of Reference for 7th experience sharing meeting, incl. training workshop
2. Minutes of training workshop on data analysis and generation of result tables (NEA)
3. Progress reports for ANFI 2018 (NEA)
    a. Status of the Albanian National Forest and Pasture Inventory in Nov 2018 (ppt).
    b. Quality of field measurements.
    c. Format of preliminary result tables to be presented during 2nd National workshop.
    d. Implementation of communication strategy.
    e. The use of Open Foris Collect in Albanian National Forest and Pasture Inventory (ppt).
    f. Some comments on IT system development and management of the ANFI data base.
4.   a. Updated proposed work plan for NFICB – status of outputs and deliverables
    b. Work plan (outline) for ANFICB, year 2019

1. Introduction

On September 27, 2016 an agreement on specified consultants' services was made between the Albanian Ministry of Environment, Client (Now Ministry of Tourism and Environment MTE) and a Swedish consortium consisting of the Swedish University of Agricultural Sciences and the Swedish Forest Agency (SLU/SFA, Consultant). The agreement concerns domestic capacity building for the Albanian National Forest and Pastures Inventory, ANFI, and covers a 3 years period (October 2016 - September 2019). The ANFI Capacity Building (ANFICB) is a subproject within an Environmental Services Project at the MTE.

Following a national inception workshop in November 2016 an "inception report" of the project was prepared. It emphasized the roles of SLU/SFA in capacity building and facilitation and the role of Albanian side to implement the work. It also included a proposed work plan for the project, a suggested organization of staff at the National Environmental Agency (NEA) and its partners required to implement the ANFI and a broad assessment of information needs for the ANFI 2018.

The project implementation commenced in February 2017 with a start-up workshop for parties involved. It was followed by planning and preparations by NEA (under SLU/SFA guidance) of a Pilot Survey including a set of training courses for NEA core team, NAPA field staff. It involved experts and facilitators from the Faculty of Forest Sciences, Tirana, and SLU/SFA.

The Pilot Survey was successfully completed during 2017 but some challenges for the project became apparent. The major ones were (1) the delay of the IT system development causing delays in project implementation, (2) the delivery of remote sensing data and (3) the sustainable staff capacity development having roots in the organizational set-up and perception of ANFI as a recurrent but non-continuous activity.

During the first part of 2018 the work of the ANFICB Project accelerated towards the start of ANFI. In the First National Seminar in March 2018, the agreed design and methodology for ANFI 2018-19 was presented and a long-term strategy for the ANFI was elaborated and proposed. For the purpose of sustainably maintaining capacity and organization the long-term strategy proposed re-inventory of the sample clusters on a five years cycle (20% annually) following the first inventory round during 2018-19. In April 2018 the IT system development could start and the agreed Open Foris data collection system, OF Collect, be introduced in time for the field work.

Through June–October 2018 some 543 sample clusters were inventoried by 6 trained field teams from NAPA while Quality Assessment was carried out by NEA on a subsample of 58 clusters. During a training workshop for NEA staff in November 2018 (Annexes 1 and 2) the quality of field data was analyzed and discussed and the processing of inventory results was introduced.

This two-year report", summarizes the progress of the project since June 2018 and the status of the project in December 2018.

2. Summary of project status and performances

i. In June 2018 the implementation of ANFI 2018 field work was ready to start following nearly 18 months of capacity building and planning and preparations.

ii. Out of totally 1100 clusters that had been geographically defined and *pre-evaluated* by NEA staff using remote sensing data, a representative subsample of 543 field clusters (T700 subsample) were scheduled to be inventoried during 2018.

iii. Further, out of the 543 field clusters (T700) a subsample of at least 10% of the clusters were to be revisited soon after the first inventory and subject to quality assessment. The objective and strategy for selecting quality assessment clusters was elaborated at the start of the field work.

iv. In August 2018 a first quality analysis (QA) was made by SLU based on data so far collected. It concluded that the work was in progress and that no systematic errors were detected. Some question marks raised on the procedures of the QA team were satisfactorily explained by NEA.

v. By end of October 2018 the inventory of all 543 field clusters and 58 quality assessment clusters had been completed according to plan (Annex 3a)

vi. A final analysis of the data quality of the ANFI 2018 (T700) was conducted jointly by NEA and SLU in connection with the training workshop in November (Annex 3b).

vii. A set of result tables (format) was proposed by NEA to be processed as preliminary results based on T700 data. Accordingly the first preliminary ANFI results were generated and discussed as a training exercise during the workshop in November. They will be further analyzed by NEA before being presented at the Second National Seminar in February 2019 (Annex 3c)

viii. A communication strategy/plan was launched in May 2018. A series of articles in various social and other media has introduced ANFI to stakeholders and the public. During field work period major focus has been on the internal communication among various parts of ANFI (e.g. field teams, QA team, office management) and with external people met by the field staff (Annex 3d)

ix. The introduction of *Open Foris Collect* in combination with field tablets in the inventory has worked well as concerns the capacity of field staff to use the software and the transfer of data to the server with the assistance of the Albanian IT consultant and the IT officer of NEA (and some feedback provided by LUKE)[1]. However, the hardware (field tablets) have mal-functioned from time to time and caused delays and stress among the field teams (Annex 3e)

x. The development of *software for data analysis and result generation* has been started. Two approaches are being introduced – a simpler Excel based approach, which can be applied initially and a more sophisticated approach developed for use in the final data processing 2019.

xi. The specific ANFI needs of the continuous service of a data base manager has been emphasized and discussed within the program and among concerned organizations. The shortage of such capacity at NEA is a major concern for the sustainability of the ANFI process (Annex 3f)

xii. The ANFICB is contracted to be phased out by 30 September 2019. The planning of the final year, including national seminars, T1100 field work, data analysis, communication, discussion of the use of the results and how a sustainable project outcome can be achieved has been revisited in this report.

---

[1] Finnish sub-consultant LUKE was engaged during April-October 2018 for supporting the introduction of Open Foris Collect and related data server installation in Albania.

3. Work planning and upcoming activities

The final year of the ANFICB project stretches from October 2018 – September 2019. The activity is broadly in line with the time schedule outlined in the inception report (and in its table D1) which was prepared at the start of the ANFICB project. For example by November 2018 the ANFI field work (T700) had been completed and data analysis could start. A deviation from the inception report is that additional field work (T1100) has been agreed upon for achieving the desired precision in the estimates, and that development of the IT system is a bit behind schedule as a result of previous difficulties to recruit IT staff at NEA. In addition, some activities related to use of remote sensing data for mapping have not been started so far as a result of the difficulties to release LIDAR data (and it will not be possible to complete the latter within the time frame of the 3 years project).

The planning of the third (final) year of the project was discussed among SLU and NEA during the workshop in November 2018 (Annex 4b). Among key activities planned for the final project year are three (3) bilateral capacity building exercises/national seminars (scheduled November 2018 (completed), February 2019 and September 2019), some three months of ANFI field work on T1100 clusters (April - July 2019), analysis of ANFI T700 data (November 2018 - March 2019) and T1100 data (August - September 2019), dissemination and communication of results (March 2019 and beyond) and preparation of final conclusions and report.

One activity defined in the original project plan - the production of land and forest cover maps in scale 1:100 000 is not included in the current plan for 2019. It has not been possible to start it so far because of the lack of access to remote sensing (LIDAR) data. Such maps are not needed for ANFI directly, but with access to LIDAR data and combined with the new ANFI data (and with available staff to do it) it could be relevant for producing base forest maps for management planning. In that case it would require additional time beyond the current project, though. A potential training activity for starting such activity has been indicated in the work plan.

Additionally, the IT system development for data analysis and result preparation is still in process and will require additional work and capacity building by SLUSFA/NEA during 2018/19. For allowing NEA to start working on the data analysis and result generation during the time of IT system development, a hands-on Excel based approach has been introduced at NEA. A benefit of using this method initially is that it enables good insight in the data processing and the statistics behind it.

4. Challenges and risks

The final year of the ANFI project will indeed be intensive. Based on positive experiences in 2018 it should, however, be possible to complete the field data collection (T1100) by end of July 2019 provided work can start at the end of April (which is an earlier start than previous years) and with the same number of teams and amount of resources as previous year.

A critical part will be the orderly data analysis and processing of the final results (to be presented and communicated by NEA in the final Third National Seminar scheduled for the end of September 2019). That work cannot be started until August 2019, when field work has been finalized, which

leaves very short time for completion and it is questionable if it is realistic or recommendable to aim at that (a slightly more balanced optional work plan has also been indicated in the work plan). The currently adopted approach is to prepare the above work and build local capacity based on the T700 data base, so that much of the final results will be a repetition of the T700 work but using the new extended T1100 field data base. Completion of the project is not only producing inventory figures, though. Therefore a more balanced phase-out, allowing some more time for conclusive discussions and follow-up works would be desirable.

Another critical issue is the communication of results with stakeholders. To address the needs for explaining and discussing inventory figures, the presentation of some preliminary results during the Second National Seminar would be used. However, sincere conclusive discussions related to results, policy implications and aspects related to the future ANFI strategies may not be possible until final results are in place.

A third critical issue will be the capacity and confidence building at NEA linked to the analysis and presentation of final results, and questions and requests for additional information which may arise from that.

Having said that, it is understood that we need to distinguish between technically completing the ANFI 2018-19 inventory and a balanced (sustainable) phasing-out of the capacity building project. It is expected that a first preliminary version of the final project report could be ready in September 2019 while a final and complete version would require some additional time.

When writing this report a re-organization of the Forestry administration with establishment of a forest agency has been proposed and discussed. It is not clear if and how it would impact the pace in the completion of ANFI 2018-19.

During the second year we have seen impressive progress and commitment by NEA and its local partners in the implementation of ANFI. Still a number of issues remain a mentioned in this report. We hope NEA and its partners will be given a good opportunity to complete the project orderly for establishing a sustainable forest inventory and monitoring system in Albania.