





MONTHLY REPORT

Month Covered in this Report: August 2017 (Period: 1st – 31st August 2017)

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evaluation of SLM options to achieve land

degradation neutrality in Tunisia".

A. OVERVIEW OF THE OBJECTIVES COMPLETED FOR LAST MONTH

This writing material reports the main tasks accomplished during the period $1^{st} - 31^{st}$ August 2017 in the context of the project "Impact evaluation of SLM options to achieve land degradation neutrality in Tunisia". It is articulated around three main points: (1) accomplished tasks during the month, (2) the challenges associated with the tasks accomplishment, and (3) narrative and lessons learned. For this month of August, the objectives were the following:

- follow up for the improvement of the GeOC system (continue the revisions in close collaboration with GIS developer (Mr Jim Jaspe) and submit the SLM data to the GeOC system, in case the performance level of the tool is sufficiently advanced.
- Finalise the draft 1 of the working paper on "Land Cover Change Impacts on Landscape Diversity across Different Socio-Agro-Ecological Contexts in Tunisia (Northern Africa)".
- Finalise the Excel SLM database by extracting the Raster data using GIS tool.
- Perform continuous review of the datasets submitted by the national consultants in Tunisia, in order to consolidate and document the SLM database for the project.

B. DETAILS OF THE ACCOMPLISHED TASKS DURING THE MONTH

B1. Follow up of GeOC improvement and the SLM data submission

In collaboration with other team members, this task aimed at ensuring that the WebGIS and SLM web form function are sufficiently integrated and work properly. This task required several checks of the GeOC system. Detected issues and suggestions for solving them were constantly reported to the IT and GIS Developers in order to improve the GeOC functioning. Fundamentally, some of the issues reported to GIS developer were addressed in line with the list of concerns reported to him. Currently, the basic GeOC-WebGIS is functioning enough but some concerns remain regarding the statistical section of the tool. With regard to this section, it was suggested to revise its components and functionalities, but the GIS developer considered them as part of enhancement, and thus require much more time to implement them. It is therefore expected some further works regarding this section to be definitively implemented and make the full WebGIS ready for usage.

B2. Working paper writing

The working paper with the running title "Land Cover Change Impacts on Landscape Diversity across Different Socio-Agro-Ecological Contexts in Tunisia (Northern Africa)" was initiated since July and is deemed to be a research manuscript targeting the "Journal of Arid Environments". Unfortunately, no progress was done with regard to its writing as other tasks were prioritised. The status of the working paper remain unchanged as reported last month (August). More focus will be given to its development and might be finalised during September, if no much unplanned priority tasks emerge during this time window.

Nevertheless, a technical document describing all the GeOC integrated WebGIS database, has been considerably improved. This <u>document</u> that aims to be a quick supporting material to the future WebGIS users, has been produced based on extensive literature review and provides some insights to possible context definition and usage based on each raster data or a combination of rasters. As mentioned in the previous report, the most important aspects detailed in this documents (brief description/definition of the data, main/primary data source, global map of the patterns of the variable, the value range (for continuous variables) or categories/classes (for non continuous variables), the importance/relevance of the data in the context of GeOC, and the function used to retrieve each variable to the corresponding appropriate box in the SLM Web form). Fundamentally, the description of each raster and their implication for context analysis were furtherly enriched based on literature review. This first version of the document is needs a review from supervisors in order to finalize the document.

B3. Raster data retrieval from GIS database to SLM attributes

Previously initiated last month, this task aimed at remedying the delay due to the ongoing fixation of the WebGIS and SLM Web form and preparing data towards the impact assessment. Last month, 04 SLM OxC were reported with their raster attributes defining the "Contexts/Drivers" and "Impacts/Outcomes". During this month of August, no progress was made regarding this task. This is due to the differences that exist between the mapping approaches used for producing the SLM data consistently provided by the consultants from Tunisia. To harmonize the database prior to any data extraction and attributes consolidation, focus was given to the review of the SLM data produced by the Tunisian consultants. As the cut-off date for the contract with Tunisian Consultants is early September (08 September 2017), it is expected that the SLM database (from the Tunisian consultants and the Junior Cartographer) will be effectively harmonized during this month of September, allowing by the same time the data extraction and analysis for the impact assessment of the SLM options.

B4. Review of the SLM data from national consultants from Tunisia

The review of the SLM data (filled Excel SLM OxC forms + KMZ/KML files) produced by the national consultants in Tunisia was progressively performed as they were received. In total, eleven (11) SLM practices were reviewed from the Consultant working on the study site of Zaghouan (Centre-North of Tunisia). These data include the following: "Dam", "Gabion threshold", "Gully restoration", "Hill lake", "Manual bench terraces", "Mechanical bench terraces", "Planting of forage species", "Rangeland improvement", "Reforestation", "Semi-circular bunds", and "Stone bund terraces". The consultant from the site of Medenine (Southern Tunisia) produced seven (07) SLM practices during August. These include: "Jessours", "Tabias", "Cisterns", "Recharge check dam", "Recharge wells", "Flood spreading", and "Contour ridge". This data set was reviewed and feedbacks were sent to the consultants for improvement. During early September, it is expected some new data as well as the revised data.

B5. Other activities: unplanned package performed during the month

Revising the SLM OxC template in line with the SLM Web form

Following the team discussions and based on some suggestions from the IT developer, the SLM OxC template is being revised to fit the "Export" functionality being implemented on the SLM web form. The revisions were performed in close collaboration with the other project team members and resulted in the writing of terms of reference that need to be gradually checked with the IT developers. Each part of the <u>version 3</u> of the SLM OxC template has been modified and further modifications are expected. This

revised SLM OxC v3 was shared to the national consultants in Tunisia for their usage. It is important to highlight that modifications need to be reflected in the data from the consultants in Tunisia, since the version 3 was the one submitted to them for their usage.

• Content design for GeOC webpage

In order to provide a visibility to the GeOC system, a webpage is being developed Accordingly, the contents of the webpage were written and discussed by the project team. This document describes the 7 main components (menus) of the webpage: "Home", "GeOC WebGIS", WebGIS-integrated SLM Options", "GeOC Common Use Cases", "Publications & Resources", "Projects & Partners" and "Contacts". Each menu is described in terms of purposes and functionalities (information structure and contents). Sample interfaces, if important to allow understanding, were provided in the GeOC webpage design document. This document is served as term of reference to IT Developers.

C. ASSOCIATED CHALLENGES

The accomplishment of the objectives for this month of August was confronted to some challenges and constraints that hampered the progress as wished:

- Challenges are related to the finalisation of the GeOC tool (both WebGIS and SLM form). This situation hampers the final SLM OxC form in which SLM data should be migrated and finally stored/delivered. This situation will cause future time-related challenges regarding the data loading in the GeOC system.
- The SLM database consolidation is being affected by the differences in the mapping approaches used by the Tunisian consultants (site-level mapping) and the Junior cartographer of the project (field-level mapping). This causes a challenge related to data harmonisation for further usages.
- The overall delay in perfoming the tasks at different levels, especially the GeOC tool, is affecting the progress of the planned activities and delivery of the products.

D. NARRATIVE & LESSONS LEARNED

Fundamentally, even though there is nothing important to write in this section (see previous section for details), it is obvious to mention that during August 2017, the planned tasks were partially accomplishment and has contributed slightly to the pace of the project achievement. Continuously performed with the mutual support between the project team, little progress has been accomplished, but more remains to be done towards. From this work, lessons are always learned and need to be capitalized for future achievement. The most salient learned lesson is related to the accomplishment of the

projected activities. More than the half of the projected objectives has not been achieved because they are fundamentally dependent to the performance of the GeOC system, which still needs improvement.

E. OBJECTIVES PROJECTED FOR NEXT MONTH

Since there are still unaccomplished objectives for this month of July, the will rescheduled for August with the hope that they will be accomplished. In addition, new tasks are planned for this new month, making the portfolio of tasks/objectives as follow:

- Finalise the review of datasets from national consultants in Tunisia, in order to consolidate and document the SLM database for the project.
- Migrate SLM data from the old version to the updated version 3 of the SLM form and submit these data to the GeOC system.
- Harmonise the different SLM data (from Consultants and project cartographer) for raster data extraction necessary for the impact assessment.
- Continue writing the working paper.

LIST OF ANNEXES (See attachments)

- Annex 1. Standardised SLM OxC Excel Template Version 3 English.
- Annex 2. Draft working paper on "Land Cover Change Impacts on Landscape Diversity across Different Socio-Agro-Ecological Contexts in Tunisia (Northern Africa)"
- Annex 3. Draft technical document describing the GeOC WebGIS data domain.
- Annex 4. Document describing the GeOC webpage features