REVIEW FORM

- Reviewer´s name: **ALFRED DE JAGER**

- **DOCUMENT TYPE:**

I. General document	II. Standard	III. Procedure	IV. Methodology	V. Support
			✓	

(Select the type of document with "✓")

- **DOCUMENT NAME: IV.4. aOCP METHODOLOGY FOR WATER RESTORATION V1.0**

- Version: **V1.0**

COMMENTS:

No.	Section	Comment	aOCP answer
1	"This methodology is applicable under the following conditions: a) The type of Project is: […] "	The are quite some issues in this document. Every project type requires other measures and will deliver other outputs. A forest in the first 20 years will rather consume water. Silvopastural management requires precise control of the freedom of animals to roam or not to roam. The assessment is to be done on measures taken and persistence of them.	We consider parameters that can be cost-effectively assessed for different project types and are reproducible with a moderate level of technical capacity/skills. This approach provides information of sufficient quality to assess project impacts, issue credits and finance projects, while promoting the inclusion of local people to carry out monitoring and/or verification. The limitation of roaming may deter potential project proponents from participation in the aOCP. Instead we promote the use of protectors for the planted trees, which allow the continuation of use for roaming, this approach is more

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			compatible with previous socioeconomic activities.
2	"d) The Project area has not been degraded, deforested or burned in the last 24 months;"	I would rather see this as a plus, later you open up on it.	This is a controversial topic, since allowing it might foster deforestation by relieving public opinion with the fundament that even if a terrain is deforested, a restoration project will arrive to "fix" the damages. Consideration on accidental versus intentional degradation of the ecosystem should be taken into account.
3	"TABLE 2. PARAMETERS OF THE METHODOLOGY […] Erosion"	Compaction, loss of structure of the Soil, e.g. this is a type of soil erosion occurring in flatlands due to heavy machines or agricultural practises using too much pesticides or accessing the land in wet periods. It is the main reason we loose fertile ground.	Projects are expected to improve their practices in a way the impact will be prevented, reduced, restored and compensated. This is part of the Project validation prior to registration in aOCP.
4	"The project proponent must show that the region has not been deforested in the previous 24 months by an analysis of satellite imagery."	There are many types of deforestation, most of the time you get a degraded forest for local people cutting wood. Typical full acre logging is quite rare.	The causes and severity of degradation vary from one land to another. Clear-cutting is common in France, for instance, and careful consideration should be given to whether restoration and crediting will encourage more of this practice.
5	"A current aerial photograph of the project site and one from two years ago that fulfill the same requirements for resolution and coverage	I can have a full coverage of invasive species damaging the ecosystem, specify rather the variation in species, the presence of	For water credits, the focus is on improvement of land cover and practices and the effects on soil erosivity and water infiltration. The characteristics of the Project area are

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	must be used for this purpose."	exotics and the plan on what to do about it.	assessed and compared against eligibility criteria to decide if the Project can or cannot participate in the aOCP.
6	"With both satellite images, a supervised classification should be performed to obtain the spectral signature and identify the trajectory of the forest cover. This will determine that the vegetation has not undergone changes due to deforestation in the period analyzed."	it gives a first indication	The paragraph has been updated to read: This gives an indication that the vegetation has not undergone changes due to deforestation in the period analyzed.
7	"The area identified with deforestation should be digitized and located using polygons to estimate the area affected, and depending on the eligibility criteria, these area should be excluded from the Project area."	Depends, you might want to reforest as quick as possible to avoid erosion.	We look at how to intervene without encouraging deforestation. We consider the time reasonable to define that credits are not a driver for further anthropogenic degradation.
8	"The justification according to the Guidelines for the determination of baselines for the measure is that the amount of water supplied to the network by the project activity would be greater after generating it, due to the addition of new works or actions	Water does not go to the drainage network if done well, it should seep into the soil and recharge groundwater bodies.	"caudal ecológico" , estamos calculando las propiedades hidráulicas . el diferencial de escurrimiento máximo instantáneo, metros cúbicos/seg This is why we monitor soil hydraulic properties, as proxy of infiltration

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	generation sources to the water network."		
9	"V. QUANTIFICATION […] And after the first year of the project's life, the calculation must be carried out again."	too short and dependent on the anti-erosion measurements taken, also the 'random' weather is not taken into account, and this will determine mostly what you measure.	The average maximum instantaneous runoff model is based on climatic normals. Which allows to exclude other parameters and account only for the effect of the works done. In the field, the Manning's coefficient is obtained by the state and development of the works. Change with time in Manning's coefficient will reflect changes in erosion and infiltration, independent of yearly precipitation, temperature, etc.
10	"Rusle is a "lumped" parameter model that estimates the sediment yield of catchments for a single rainfall event. It uses a runoff factor to replace the USLE storm energy factor."	These formula's depend mainly on rainfall intensity, slope and soil type, parameters you are not quantifying, so you cannot explain the phenomena you measure.	The influence of land use and management is often parameterised in the cover-management factor (C-factor). The C-factor is among the five factors that are used to estimate the risk of soil erosion within the Universal Soil Loss Equation (USLE) and its revised version, the RUSLE. The C-factor is perhaps the most important factor with regard to policy and land use decisions, as it represents conditions that can be most easily managed to reduce erosion. In RUSLE, the C-factor accounts for how land cover, crops and crop management cause soil loss to vary from those losses occurring in bare fallow areas (Kinnell, 2010).

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11	"V.2. RUSLE […] K: soil erodibility base on texture and SOM contents (clay and silt contents important); ranges from 0-1. K value increases with lower clay and SOM values, high silt."	How are you make this inventory? Slopes make up a 'catena', course texture on top and fine in the valley	There are raster layers available for all Europe for the calculation of RUSLE. Each pixel represents the spatial variation of soil texture (for the K-factor). These are provided by the by the JOINT RESEARCH CENTRE - EUROPEAN SOIL DATA CENTRE (ESDAC).
12	"V.2. RUSLE […] P: practices to reduce erosion. From 0-1, according to erosion management. examples: application/spreading of mulch."	Mulching is fine as long as you understand where the mulch is coming from, you might dislocate the problem.	This shall be explained in the PSF and is assessed prior project registration.
13	"VI.1. TEMPORALITY. TABLE 5. SCHEDULE OF ACTIVITIES"	Better is to focus on techniques that make a long term impact, 1 year is insignificant and too much dependent on causality. There is literature on with measurements can be taken, these can be inventorised and proposed with a kind of 'point' system. For example if you protect with a stone wall you get 3 points and with a vetiver-like grass on a slope with 5 points (more resilient). Also soil erosion is a very local problem and soils have high variability so you need to be very flexible.	The methodology for water infiltration we apply relies on vegetation, bare soil and impervious cover, soil texture, rainfall and evapotranspiration. These allows for an objective quantitative measurement, at the same time it standardizes the assessment. For soil erosion assessment, the conservation practices or P-factor values are already published in scientific papers, from which we take the reference depending on the type of soil work implemented.

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14	"VII. SECTORAL SCOPE APPLICABLE TO AOCP VALIDATOR/VERIFIER"	The current method relies on modelled quantifications applicable for a whole catchment. For just some fields these methods are not applicable. You have to revert to implementation of specific landuse practises and be less ambitions of quantifications.	Quantification at microbasin level is necessary in order to compare with the counterfactual area and to have a vision of the ecological dynamics beyond the project location. It also allows the methodology to be applied similarly for all the assessed project independently of their location or characteristics.
15	"FIGURE 1. AOCP CERTIFIED VERIFIERS COMPETENCES[…] Knowledge o f SDG criteria and dono harm criteria"	These are long term processes, the SDGs require speed, 2030	Each SDG has quantitative indicators that are used to assess the impact of a project. We only accept those that can be measured at project scale.

DATE:

*the reviewer sent his comments via email on 25/02/2023 without using the recommended format, the comments and aOCP's answers were latter gathered in this document by the aOCP operations team.

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Reviewer´s name(s) and signature(s)