

Minutes of the online meeting

The Economics of Ecosystem Restoration (TEER): presenting the data collection framework on costs

Wednesday, 22 April 2020, 16h00-18h00 Rome time

Introduction

On 14 February 2020, the first version of the TEER template for data collection was shared with partners to receive their comments. More than one-hundred suggestions were received from eleven organizations, including comments on how to better select, define and organize the variables to be considered in the questionnaire.

Following this first round of comments, a revised version (V2) of the template for data collection has been produced together with an excel spreadsheet with an interface to guide the respondent on how to complete the various sections of the questionnaire.

The objectives of the online meeting were to:

- present the V2 of the template for data collection and the interface for the respondent and collect comments from partners;
- present the next phase of testing the V2 on already ongoing/recently closed projects in the field;
- discuss further actions needed and the participation of partners.

Agenda

16h00 - 16h15 Participants join the call, welcome and technical instructions (moderator: V. Garavaglia, FAO)

16h15 - 16h20 Tour de table of participants (moderator: V. Garavaglia, FAO)

16h20 - 16h30 Previous steps under this initiative and objectives of the online meeting (V. Garavaglia, FAO)

16h30 - 16h50 Presentation of the V2 of the data collection framework (B. Bodin, FAO)

16h45 – 17h15 Discussion with participants on V2 (moderator: V. Garavaglia, FAO)

17h15 – 17h25 Next steps and test of the V2 on ongoing/recently closed projects on the ground (V. Garavaglia, FAO)

17h25 – 17h50 Discussion on next steps (moderator: V. Garavaglia, FAO)

17h50 – 17h55 Any other business (moderator: V. Garavaglia, FAO)

17h55-18h00 Conclusions and closure (C. Besacier, FAO)

Recording available [here](#), password 8a.!*zES

Participants:

	Name and surname	Organization
1	Alexandre, Nikola	Conservation International
2	Besacier, Christophe	Food and Agriculture Organization of the United Nations (FAO)
3	Bodin, Blaise	Food and Agriculture Organization of the United Nations (FAO) – Convention on Biological Diversity (CBD)
4	Boscolo, Marco	Food and Agriculture Organization of the United Nations (FAO)
5	Buchanan, Lindsay	USDA Forest Service
6	Chazdon, Robin	University of Connecticut
7	Cohen, Rachel	WeForest
8	Crouzeilles, Renato	International Institute for Sustainability (IIS)
9	De Ridder, Benjamin	Food and Agriculture Organization of the United Nations (FAO)
10	Ding, Helen	World Resources Institute (WRI)
11	Garavaglia, Valentina	Food and Agriculture Organization of the United Nations (FAO)
12	Gheysens, Jonathan	UNEP - UN Environment Programme
13	Gotor, Elisabetta	Bioversity International
14	Hancock, Boze	The Nature Conservancy
15	Harrison, Rhett	World Agroforestry Centre
16	Iweins, Mathilde	Food and Agriculture Organization of the United Nations (FAO)
17	Janishevski, Lisa	Convention on Biological Diversity (CBD)
18	Kettle, Christopher	Bioversity International
19	Kozicka, Marta	Bioversity International
20	Lahann, Petra	GIZ - African Union Development Agency (AUDA-NEPAD)
21	Marchetta, Caterina	Food and Agriculture Organization of the United Nations (FAO)
22	Nef, Danny	Bioversity International
23	Parfondry, Marc	Food and Agriculture Organization of the United Nations (FAO)
24	Pingault, Nathanael	Center for International Forestry Research (CIFOR)
25	Raes, Leander	International Union for Conservation of Nature (IUCN)
26	Roscioli, Federico	Bioversity International
27	Stolle, Fred	World Resources Institute (WRI)
28	Thomas, Evert	Bioversity International
29	Tymus, Julio	The Nature Conservancy
30	Vincent, Jeff	Duke University
31	Wilson, Sarah	Conservation International
32	Zganjar, Chris	The Nature Conservancy
33	Zhao, Kaiqi	Food and Agriculture Organization of the United Nations (FAO)

Following a summary of the origin of TEER and past activities, a detailed presentation of V2 of the data collection framework was provided. Comments made by partners were addressed by the speakers and are here below grouped into three categories:

- **Comments clarified and resolved**
- **Comments to be addressed in the short term**

- **Comments that need an active contribution from partners**

plus

- **Responses that require or required an action are highlighted in blue.**

Comments clarified and resolved

- **Management cost:** a lot of costs on paid labor are just management costs, that should be collected though the questionnaire.
 - ✓ Considering the importance to distinguish paid labor doing activities on the field from managing, the cost module of the template distinguishes between paid labour at the intervention unit level (for labour linked to activities on the ground) and project level (for management-type labour).
- **Opportunity costs:** how are they included in this framework? It is relevant to projects as well as to private landowners.
 - ✓ Regarding opportunity costs, as we are for now looking at this from the standpoint of financial flows, we would record it in case there are any payments done to compensate landowners for income foregone because of the interventions. This aspect may be looked at in more detail as part of a future module on benefits.
- **Drivers of degradation:** there is very little in the questionnaire on the drivers of degradation occurring in the first place the project is trying to reverse. The long-term cost will go beyond the initial phase of doing the actual initial restoration interventions, so it would be interesting to know for each project to what extent they know the costs per year of protecting those restoration interventions.
 - ✓ Questions on drivers and level of degradation are included in the “IU” tab of the template. Questions on the project objectives included in the “general information” tab may also help clarify this point.
- **Terms and conditions:** the sheet on terms and conditions should be deleted, because this needs more discussion and agreement between parties and, in any case, it is not needed for a pilot test.
 - ✓ **This was put together based on other terms and conditions that are already existed in some questionnaires and initiatives, and it can be removed from the form during the piloting phase. This will be discussed with partners for agreement.**

Comments to be addressed in the short term

- **Activities:** we may get more valid spatial interpolations and extrapolations if we’re extrapolating activities such as land preparation, planting, and so forth, as oppose to labor which can spread across a bunch of different activities.
 - ✓ Land preparation, planting, and fertilization are interventions included in the list of the biophysical interventions. **More guidance has been included in V2.1 so the respondents can describe the interventions chronologically.**
- **Hiring of contractors:** when doing a restoration project, a contractor may need to be hired to do some physical work and this will represent a substantial component of initial cost in many cases.
 - ✓ This kind of activities could be recorded in the questionnaire, under the category of paid labor. **We’ve explored the possibility of adding a separate category of contractors, but**

concluded that it would present a risk that a lot of expenses on consumables and labour get lumped together. We will include further guidance requiring the respondent to break up as much as possible the cost of external contracts between labour (which should include any type of contractual relationship) and consumables (to the extent they can deduce it from the bill).

- **Physical characteristics:** in addition to slope which you asked about, there are some other characters very important for influencing the process of revegetation as well as cost and benefit. One would be aspect which you didn't ask about. In general, a DEM (digital elevation model) is not going to give us good enough information on aspect whether the site is north, south, east, or west sloping. **Soil:** some questions about general characteristics of soil like sandy, loamy, and clayey etc. could be integrated.
 - ✓ Ideally this kind of information would be automatically derived from existing databases, based on project location. The test phase for this function will help see to what degree this is efficient or whether some other variables should be reintroduced in the form. A question on soil types has been added to the new version V2.1.
- **Analysis.** It seems the current questionnaire is aiming at a financial analysis as there is a category for paid labor but not for unpaid labor. A lot of labor's being provided in-kind and that's a substantial cost in economic terms.
 - ✓ As for the financial versus economic analysis and for the concern over unpaid labor, unpaid labor will be reintegrated by asking basic questions about how many people are involved and for how long in each of the units, so that how much of in-kind contribution plays a role.
- **Amount of labor:** everything is organized per hectare, which is one way to standardize, but it would also be interesting to know what the cost of labor and how much labor is it's used to prepare a hectare of land. Some sites require a lot more labor to prepare than another and therefore we can understand some of the differences in costs per hectare if we understand the differences in the demands on labor or on other types of capital costs that might be required. There might be one way of cleaning some other units of the costs that the project is incurring.
 - ✓ In the cost module the number of labors for all the intervention units every year is asked, and that could break down amongst each intervention unit. The cost of labor and the number of people could be related to interventions in each of the units. We have also broken down the question on the number of staff for each of the intervention units. In addition, lines of the cost modules related to specific intervention units now appear only if that intervention unit has been listed in the 'General' tab. That way the number of visible cells is much reduced for projects that may have only 1 or 2 intervention units.

Comments that need an active contribution from partners

- **Cost categories:**
 - some partners suggest the categories used are not the ones that are typically used in forestry when costs on reforestation or afforestation are recorded, where we typically split things between initial cost or investment cost that happened in first two years and then recurring cost (e.g. some protection might be provided after trees are planted). Those kinds of categories are

very useful for doing both of the financial and economic analysis because we have a sense of the timing which we'll need to account for if anybody wants to know what the investment cost is, so maybe you can ask for more information on the timing and also the activities such as land prep, planting, and fertilization.

- Cost categories are oversimplified.
 - ✓ On the cost categories between initial costs and recurring costs, the aim is not to address only projects that are doing planting, but any type of interventions that would happen on a piece of land to improve its ecological integrity would be addressed. It is difficult to use unified categories to measure the costs due to the variety of interventions, and thus expenditure categories are set up, that any project will have in their financial reports. It was preferred not to ask the respondents to list each of the things they did on the ground and how much did it cost, because it would be difficult to be entered in the database in a consistent way and to be able to compare. In the user interface, in the cost module, it allows you to apportion costs in that intervention unit between different interventions more specifically, so we could look at the costs more specifically as well.
 - ✓ We welcome alternative proposals for how to structure the cost data collection. These proposals would have to be in the same format at the current questionnaire and could be included as an alternative 'Tier' in the template. The pilot phase would then serve to determine to what extent each tier is deemed practical/doable by the respondents.
- **Typology of interventions:**
 - Suggestion for a better definition on enabling and biophysical interventions or a different way of characterizing these two types of activities.
 - The current typology of restoration interventions seems far too complicated. It will not be easy to deal with that complexity when filling the form or when compiling and analyzing the data at a later stage. This typology should be sensibly simplified, providing only broad categories of restoration interventions (more precise description of the actual intervention can still be shared in the cells devoted in the template to additional comments). That would help analyze treatment and classification of different projects and also help do a compared analysis of project cost in similar situations.
 - ✓ It may be better to ask respondents as specifically as possible, as it will be needed to classify things in database at a higher level. In a test run that was done, the project manager was able to locate interventions that were implemented in the project from that list and he suggested to include more fields because he could have had more interventions. Still, we agree that the "enabling" category is misleading since land preparation (now under biophysical) could also be construed as enabling, so we adjusted the name of the categories to the full IPBES descriptors "ENABLING AND INSTRUMENTAL RESPONSES" and "DIRECT BIOPHYSICAL RESPONSES".
- **Selecting the projects:** how projects will be selected to test the V2 of the framework?
 - ✓ The test phase will be as wide as possible, because information from varied projects of different scales will help understand what can be obtained in terms of economies of scale. Hopefully the template is flexible enough to accommodate different projects. The project tested in Peru is about 80 000 USD and it was quite well adapted. Partners will be asked to provide information on the progress status of the projects (ongoing, just

closed) and this would help choose projects where costs and also benefits (maybe in a second phase) will be tested.

- **Private effort toward restoration:** It seems that the current questionnaire will leave out private effort toward restoration, at least restoration broadly defined. The conversion of agricultural land to forest is not being covered but there is a lot of private land where it is happening. Financial institutions like pension funds have invested a hundred billion dollars in forest land around the world covering 20-30 million hectares. On the smaller side, the smallholders in China, India and Vietnam have planted millions of hectares in last 10-20 years, often non-native species, but in some cases, native species. It seems like those more spontaneous market-driven efforts are not being captured in the questionnaire.
 - ✓ It is not certain that we currently have a clear path to reach out to these types of restoration interventions. However, if an institution is trying to incentivize landowners to restore the land, then hopefully that institution would have the capacity and motivation to fill out the form on behalf of the landowners. **The current version of the template could also be adapted slightly by tweaking some of the questions to better fit with the reality of these restoration efforts. If a partner would like to do that, we are happy to share an unlocked version of the template that can be used as a basis.**
- **Pairing with other initiatives:** consider pairing with other initiatives to use the database of projects to select ones for follow-up or for more detailed case studies that would also provide a lot of insights regarding outcomes and benefits within a context of each of the project's objectives.
 - ✓ We are trying to be as inclusive as possible, and we hope that our partners could disseminate the form with the projects they have. After sending out the first version of the questionnaire, we also asked people to start reporting some projects they thought could be tested, we did not get many responses maybe because it looked confusing at that time. **With this clearer user interface, we hope that we could have more volunteers from partner organizations. We will also have to see what are the most engaged projects and partners that we can have regular follow-up with after a while. In the first pilot phase however, we are aiming to target 5-10 projects in total for feedback on the form rather than actual data collection. It would be best if those projects were from a variety of partners.**
- **Benefits:** What is the plan for the benefits collection? If we ask respondent to do significant effort filling in this form, it may not be easy to go back to the same people and to ask them to spend another day filling out the benefits form, because project managers can be changed.
 - ✓ We are looking for help from our partners to step in and take the lead on the work package on developing the framework for data collection on benefits.
 - ✓ Assessing benefits will be probably easier on already advanced projects or projects recently closed. So, the selection process for the testing phase will consider the progress status of the projects. An option will be to use those projects to test the framework in a second phase, when the questionnaire on benefits will be refined.
- **Marine habitat restoration:** are you interested in marine habitat restoration, habitats such as shellfish, reefs, coral reefs, mangroves, and sea grass?
 - ✓ So far, the TEER is focusing on terrestrial ecosystems. But help from partners to refine the questionnaire for, for example, mangroves would be welcome.

- ✓ If there are any partners that are willing to develop something that would be applicable for marine systems, it will be very welcome.
- **Genetic resources:** It's great to see how the criteria for seeds selection is included. This is opportunity to feed in a little bit more on that in terms of addressing the costs of integrating genetic diversity. Bioversity International is developing an analysis showing there is a real no brainer to invest in genetic resources effectively, because the costs of failing to do that are far greater. It's important to have that built in the questionnaire to demonstrate its messaging, because awareness raising is the most important point.
 - This is something to be integrated if Bioversity International have a set of questions that would like to add to the question on seeds and seeds provision. One aspect not covered in the form so far is the evaluation of the success of the intervention. If we are asking about genetic diversity and additional costs related to that, we are hoping to compare that to the eventual success of the intervention.
- The Secretariat of the Convention on Biological Diversity (SCBD) can request the 12 Forest Ecosystem Restoration Initiative recipient projects to complete the TEER framework to contribute to the test. Also, as suggestion, the projects on the PANORAMA database include project contacts which is very useful for follow up - projects with restoration components could be directly contacted to see if they may complete the TEER.

Next steps

- In the first pilot phase however, we are aiming to target 5-10 projects in total, for feedback on the form rather than actual data collection. It would be best if those projects were from a variety of partners. Please let us know if a project you fund and/or manage could be used to pilot the form (estimated time half to 1 day of work from a project manager).
- Support will be provided to the respondents as needed, including through a potential online workshop or guidance video to explain how to navigate the questionnaire.
- The work on refining the data collection framework on benefits will be launched as soon as possible.
- The following ideas have been raised during the presentation of the V2 for further improvement and development of the template. We welcome partners who would like to take the lead on these ideas, and would be happy to coordinate with them on their integration:
 - More detailed tier for data collection on costs, with further categories of expenditure
 - Declination of the questionnaire for marine ecosystem restoration
 - Declination of the questionnaire for private/bottom up restoration efforts
 - Set of questions on genetic considerations in the design of interventions.