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Convention on
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OCTOBER 8TH, 2020

WePlan – Forests: A decision support tool for the spatial planning and implementation of tropical forest ecosystem restoration

REPORT ON THE TRAINING WEBINAR SERIES

RECIPIENT:
SECRETARIAT OF THE CONVENTION
ON BIOLOGICAL DIVERSITY

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Background

The series of webinars on *"WePlan – Forests: A decision support tool for the spatial planning and implementation of tropical forest ecosystem restoration"* is the product of a partnership between the International Institute for Sustainability and the Secretariat of the Convention on Biological Diversity, with the support of the European Commission and the Korea Forest Service of the Republic of Korea through its Forest Ecosystem Restoration Initiative (FERI). The decision support tool (DST) will use analytical approaches and best available data to support countries as they set or revise national and sub-national targets on forest ecosystem restoration and plan their implementation. The series of webinars, in turn, aims to introduce the DST to potential users, promoting the uptake of the knowledge necessary to understand, use and apply the DST and its results for decision support by stakeholders. The webinars are also intended to collect feedback from attendees that will help tailor the tool and its user interface to maximize usability.

First session: October 6th and 7th, 2020:

Foundations of systematic spatial planning and spatial restoration optimisation

The first webinar session took place on the Zoom platform at two separate times: at 10:30 am Brazilian time (GMT-3; or 08:30 Mexico City; 09:30 am Montreal; 3:30 pm Paris; 4:30 pm Nairobi) and at 2:00 pm Sydney time (GMT+11; or 07:00 am Moscow; 09:30 am New Delhi; 12:00 pm Beijing; 1:00 pm Seoul; 04:00 pm Auckland). A total of **113 people** from **46 countries** in all five continents attended the session (**Figure 1**). Attendants were representatives of several organizations including local, national and international not-for-profit and civil society organizations, universities, research institutes, international cooperation commissions, government agencies, private companies, and others (**Figure 2**). The annex at the end of this document presents a full list of countries and respective number of attendees.

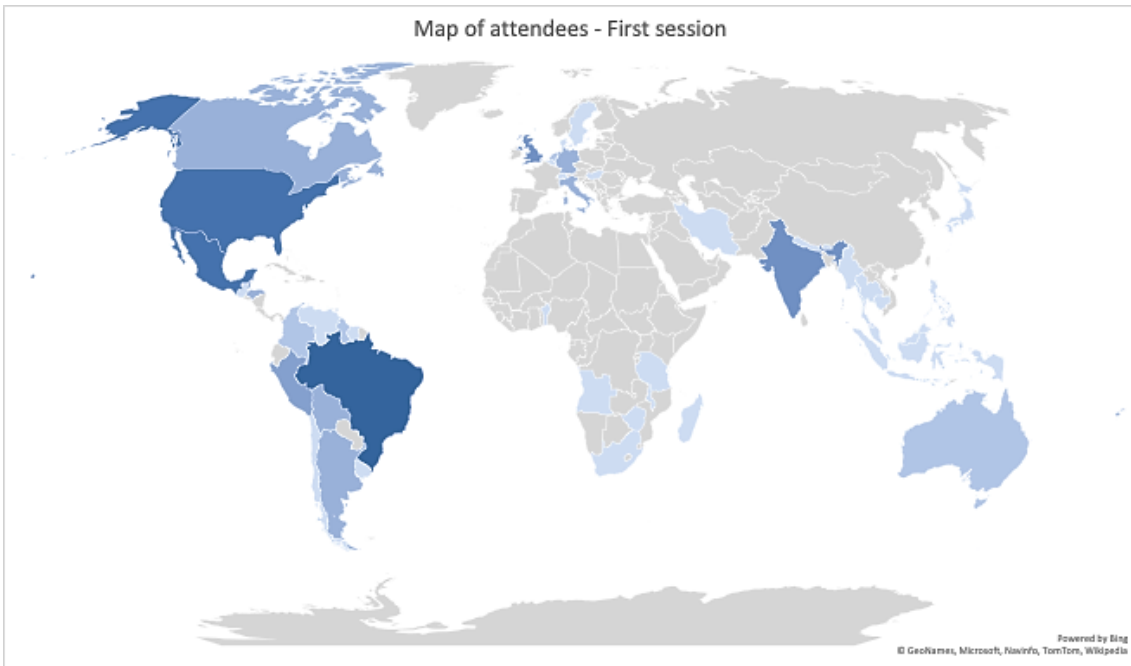


Figure 1: Map representing the countries of origin of the attendees of the first webinar of the series on WePlan – Forests. Darker shades of blue indicate higher number of attendants. Grey indicates no attendants from the country.

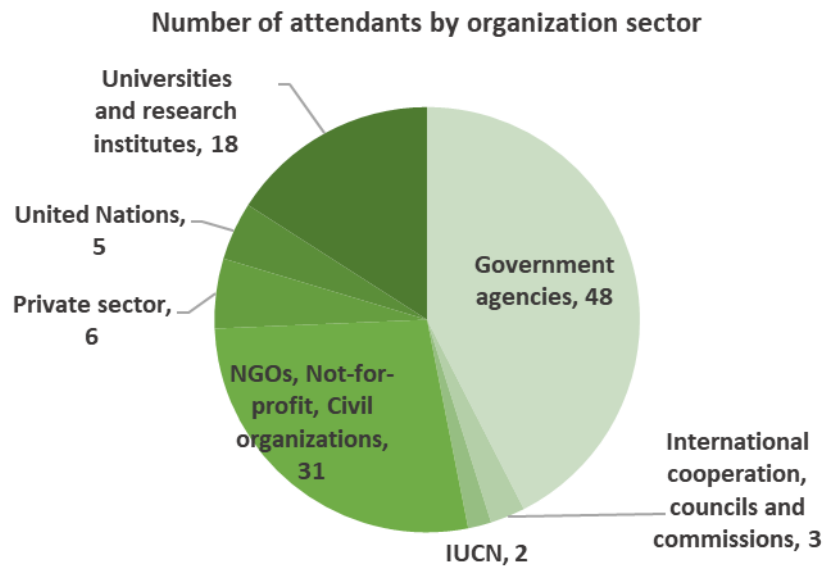


Figure 2: Distribution of attendees by type of organization. Most attendees were representatives of governmental agencies (ca. 42%)

The session program was divided as follows: introductory messages from project partners of 5 minutes each, three presentations introducing the topic of the session, a discussion session, and a live poll (**Table 1**).

Table 1: Program for the first session of the series of training webinars for WePlan – Forests decision support tool. Times, shown in the first column, are in Brazilian standard time (GMT-3).

Webinar 1 - Foundations of systematic spatial planning and spatial restoration optimisation		
Time	Topic	Speaker
10h30 – 10h35	Welcome and introduction to the session	Blaise Bodin (CBD)
10h35 – 10h40	Message from the CBD Secretariat	Lisa Janishevski
10h40 – 10h45	Message from the European Union	Karin Zaunberger
10h45 – 10h50	Message from the Center for International Forestry Research	Manuel Guariguata
10h50 – 11h00	Introduction to IIS, the Decision Support Platform, aim and structure of the webinars	Renato Crouzeilles (IIS AU)
11h00 – 11h20	Introduction to systematic spatial planning and spatial restoration optimisation	Invited speaker: Morena Mills (Imperial College London)
11h20 – 11h40	Spatial optimisation planning: a case study in the Brazilian Atlantic Forest and relevance to the setting of restoration targets	Bernardo Strassburg (IIS Rio)
11h40 – 12h05	Discussion	Moderator: Blaise Bodin (CBD)
12h05 – 12h25	Live Poll	Renato Crouzeilles (IIS AU)
12h25 – 12h30	Preview of next seminar	Blaise Bodin (CBD)

Q&A

Participants were allowed to ask questions using the Question and Answer (Q&A) tool available on the Zoom platform or by raising their hand to ask live questions during the discussion panel. A total of 36 questions were raised and answered, either live or in writing, during the sessions. Below is a list of 18 questions and respective answers. The questions are not as phrased during the sessions, but grouped in simpler, comprehensive questions for clarity and concision.

1. When is the next webinar session and do I need to register?

The next session will be on October 21st (10:30-12:30 AM Brasília) or October 22st (1:00-3:00 AM Brasília) If you have already registered using the form provided, you do not need to register again. A reminder will be sent to you before the session, with the link to join.

2. Will the presentations be available for later consultation?

Yes, all sessions are recorded and will be made freely available soon after the session. The links to the material (videos, Q&A, presentations and report) will be sent to all attendees and be on the IIS-AU website: <https://www.iis-au.org>.

3. Where can I find information about the *WePlan – Forests* decision support platform?

All information can be found at the IIS-AU website, on the page: <https://www.iis-au.org/projects/decision-support-tool-for-the-spatial-planning-and-implementation-of-tropical-forest-ecosystem-restoration/>. About the webinars, you can find specifically at: <https://www.iis-au.org/news/events-webinars/>. The website will be updated with new material every time it is made available, including the recordings of the webinar sessions and the reports on them.

4. When and where can I access *WePlan – Forests*? Is it free?

The *WePlan – Forests* decision support platform is not yet available, as it is under development. A beta version is expected to be released in December 2020 and will be free. The webinars are meant to help tailor the platform to user needs and make it user-friendly.

5. Who is *WePlan – Forests* designed for and who can use it?

The platform is designed for multi-criteria spatial optimisation planning for forest ecosystems. This can help countries to formulate more ambitious, realistic and specific forest ecosystem restoration plans and targets within their global commitments. *WePlan – Forests* is for the use of any who might need an easy, user-friendly tool to support spatial optimisation planning within tropical and subtropical forest ecosystems at the country level. This includes but is not limited to all country Parties to the CBD and its representatives, government environmental agencies and councils, academics, NGOs, and companies that are looking to plan their conservation practices (for instance, offsetting impacts).

6. What type of Decision Support Platform is *WePlan – Forests*?

WePlan – Forests builds on state-of-the-art spatial databases (for biodiversity conservation, climate change mitigation, potential for natural regeneration, establishment cost and opportunity cost of the land) and a cutting-edge spatial optimisation framework for forest ecosystem restoration. Our spatial optimisation framework is based on linear programming, which can perform at least 30% better than alternative optimisation methods.

7. What is the scale and grain size of the data used to generate the results in *WePlan – Forests*?

There are various datasets that go into the decision support tool, with resolutions varying from 30m to a few kilometres. The first version of the decision support

tool we release online will cover tropical forest ecosystems at a global level, at 1km² resolution.

8. What kind of data goes into *WePlan – Forests*? Is the data collected remotely or physically?

Our decision support platform synthesises both top-down remotely sensed data (for example land use and cover), as well as bottom up collected data (such as opportunity cost of the land and plot level carbon sequestration data). Input data include species distribution modelling (and species extinction curve), the potential for aboveground carbon sequestration (based on predictive models), the potential for natural forest regeneration (based on predictive models), establishment cost (the cost of the restoration for tree planting and natural regeneration), and opportunity cost of the land use (for agriculture and pasture lands).

9. Is social and cultural data taken into account in *WePlan – Forests*, and if so, how? How do you deal with the fact that most socioeconomic data are given in political units at broad scales?

We use a set of socioeconomic measures as input data for the models on potential for natural regeneration, establishment cost and opportunity cost of the land use. We do not have social benefit as a quantifiable outcome of restoration at this point, but we plan on including it in the future. Cultural aspects are harder to measure and are not included so far.

10. How does *WePlan – Forests* deal with biodiversity and measures number of avoided extinctions? Why are edge effects relevant?

The platform uses species distribution models to quantify what is the original distribution of the species and what is the current distribution. Current distribution is derived from original distribution after overlapping with what habitat is left for the species. Species are considered most at risk when there has been a large reduction in the distribution, and those are the species and areas that the tool will aim to protect to avoid extinctions. The tool will also consider the complementarity or redundancy, that is, it will look to protect the most species by prioritising areas with different species present (complementary). Edges of forests are often subject to more intense impact than the interiors, harbouring less rare, disturbance sensitive species. For this reason, reducing edge effects is usually a strategy of spatial planning tools to protect biodiversity. However, our platform currently does not take into account forest degradation and edge effects.

11. The first step when using *WePlan – Forests* is indicating the percentage of area to be restored. What if the user does not know?

In this case, the user can simulate situations with different percentages of area restored and compare the benefits of each possibility. From that, it is possible to define a target percentage based on the costs and benefits expected. For instance, the user might have the goal to save 30% of species from extinction and find out how much area has to be restored to achieve that goal.

12. In spatial planning for restoration, what is factored in when setting the targets for biodiversity conservation?

This depends on what the objectives of the restoration activity are. If the main objective is to promote biodiversity, then you would focus on restoring areas for wildlife. However, if climate change mitigation (carbon sequestration) is your main objective, then perhaps you would set targets based only on area. These are two commonly conflicting objectives.

13. Is *WePlan - Forests* open source? How much can the user alter and edit to the platform to personalize experience and potentially improve prioritisation, for instance, by adding information such as Key Biodiversity Areas and ongoing initiatives for conservation?

The platform is not open source at this point, and the beta version expected to be released in December will include only pre-defined variables for restoration benefits and costs. In the future, as we progress, the platform will allow users to upload and include a wider variety of data, to account for local variations. Other data might also be included in later versions according to user demands.

14. At what point is a forest considered restored?

It is not the purpose of the platform to monitor restoration, only to plan it. Hence, it does not quantify how much restoration occurred.

15. How are community participation and on-the-ground validation included in spatial planning for restoration?

Community participation is a key part of the spatial planning for restoration. How much community participation is included depends on several factors, including the scale of the project and the budget. We do not undertake the restoration actions themselves; *WePlan - Forests* is used to inform spatial planning, but all actions will usually be taken with impact assessments, and with the support of local communities. That is also the case for ground-truthing the results obtained from the platform. However, much of the data used as input in the platform is ground-truthed.

16. How is the representativeness of the different features considered ensured in spatial planning?

For instance, you can use the information for the species available, and habitat and ecosystem information. The rule is that you use the best information possible. Further, what is going into the planning depends on the decision of the planners involved, but there are limitations, particularly base on the spatial data that is available. That constraint can be minimised by making sure that when you assess the results of your decision planning platform, you have a comprehensive, complex view of the world.

17. Are techniques to accelerate restoration and their costs considered in spatial planning for restoration?

WePlan - Forests does not consider methods for accelerating growth. On the other hand, our platform takes into account the potential for natural forest regeneration, which can significantly reduce restoration costs. So, when you try

to minimise the establishment cost of restoration, you are taking into account the potential for natural regeneration.

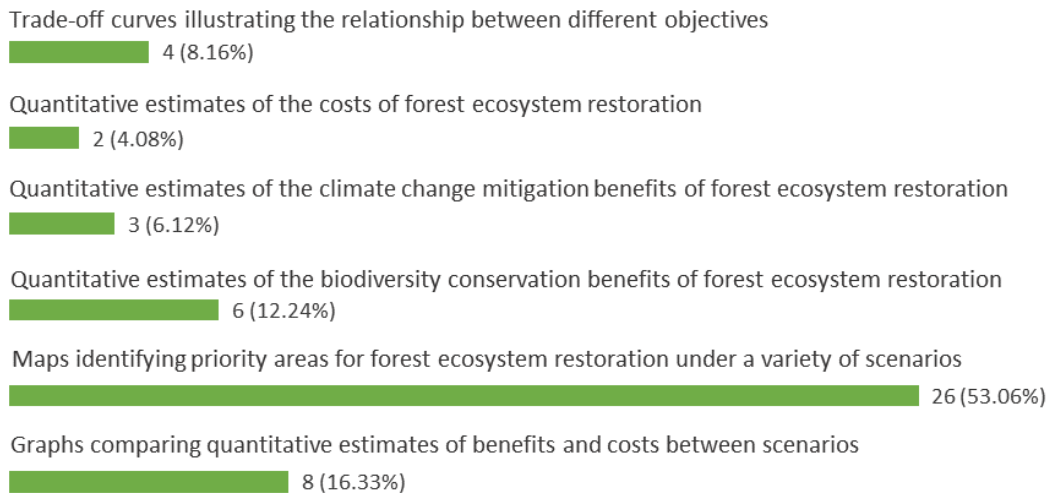
18. At what scale is spatial planning for restoration useful?

The purpose of using systematic spatial planning for restoration is to improve when, where and how restoration is carried out. As budgets/cost/resources are usually limited it is important to make these decisions as efficiently and effectively as possible. On a small farm, for instance, a systematic planning analysis might not be necessary. However, on a broader scale project, planning can help save a lot of money and greatly enhance success.

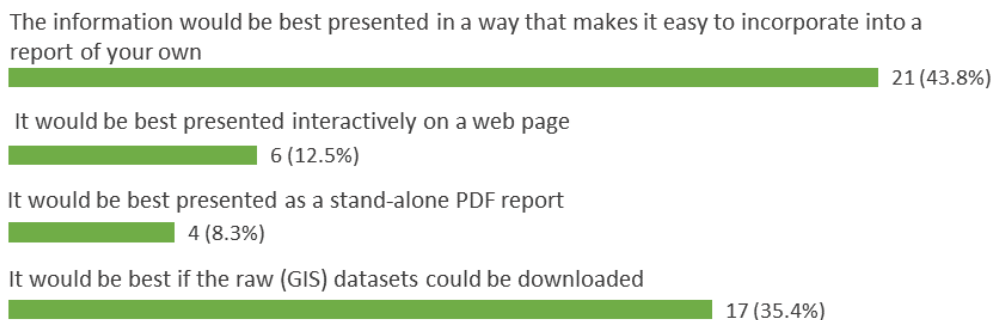
Live Poll

A live poll was conducted at the end of the sessions consisting of five questions designed to understand the needs of potential users of the DST to best adjust the system to their demands. The questions were read and explained by a team member, after which participants were given about a minute to answer. Immediately after, the results of each question were shared and discussed before moving on to the next. The results of the polls are presented in detail below.

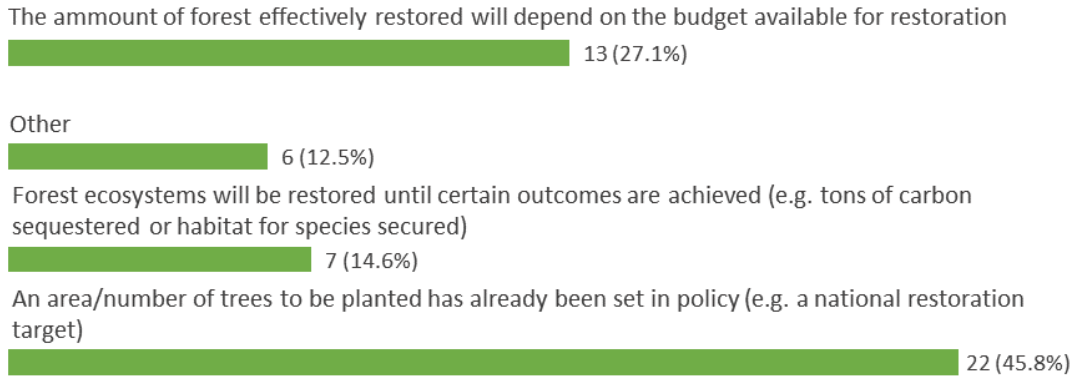
1. What information would be most relevant to your decision-making process on forest ecosystem restoration?



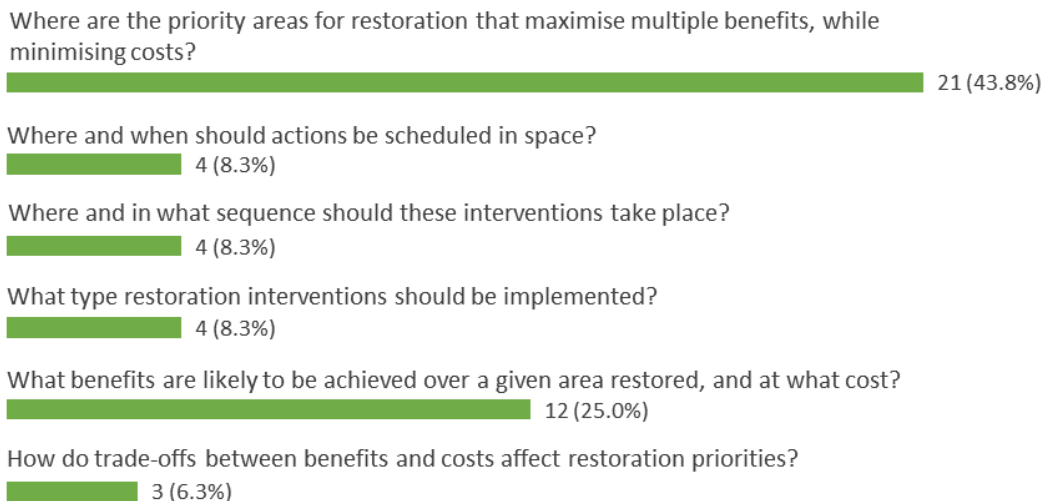
2. What is the best format for delivering outputs to your country or organisation, and how is the information likely to be used?



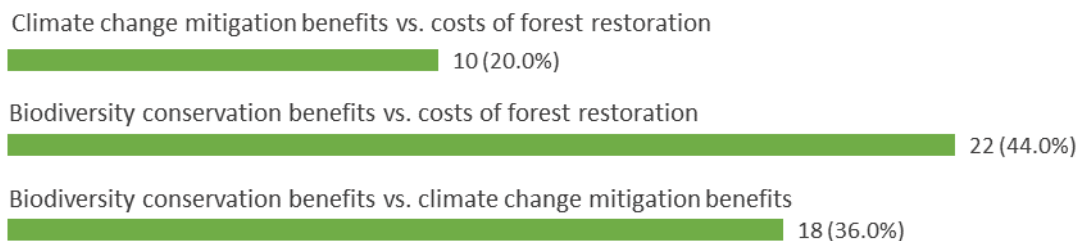
3. When planning forest restoration activities, how would your government or organisation determine how much should be restored?



4. Which of the following questions is most relevant to the decision-making process on forest ecosystem restoration in your country/organization?



5. Which trade-off curve is most relevant to your decision-making process on forest ecosystem restoration?



Conclusion

To achieve the goal of the series of webinars to prepare stakeholders for using the WePlan - Forests decision support platform and improve the interface to integrate user demands, webinars must have high attendance, participation, and good feedback. In the first two sessions, participation and engagement were significant across sectors and countries. By making these results available, we expect to improve the understanding of participants and non-participants and provide additional material on the platform. All material will be free to access on the webinar series webpage: <https://www.iis-au.org/news/events-webinars/>, and more information on the project can be found at <https://www.iis-au.org/projects/decision-support-tool-for-the-spatial-planning-and-implementation-of-tropical-forest-ecosystem-restoration>.

Annex

Full list of countries with representatives attending the first session of the series of webinars on *WePlan – Forests: A decision support tool for the spatial planning and implementation of tropical forest ecosystem restoration*, with the respective number of attendees.

Continent	Country	Number of attendees
Africa		7
	Angola	1
	Benin	1
	Madagascar	1
	Malawi	1
	South Africa	1
	Tanzania	1
	Zimbabwe	1
Asia		23
	Bhutan	1
	Cambodia	1
	India	5
	Indonesia	1
	Iran	1
	Japan	1
	Malaysia	1
	Myanmar	1
	Nepal	1
	Philippines	1
	Singapore	8
	Thailand	1
Central America		11
	Antigua and Barbuda	1
	Belize	3
	Guatemala	1
	Honduras	3
	St. Kitts and Nevis	1
	Trinidad and Tobago	2
North America		17
	Canada	3
	Mexico	7
	USA	7
South America		30
	Argentina	3
	Bolivia	3

	Brazil	12
	Chile	1
	Colombia	2
	Guyana	2
	Peru	4
	Suriname	1
	Uruguay	1
	Venezuela	1
Europe		20
	Belgium	1
	Bulgary	2
	Denmark	1
	Germany	3
	Hungary	1
	Italy	3
	Netherlands	2
	Sweden	1
	Switzerland	1
	United Kingdom	5
Oceania		5
	Australia	2
	Fiji	3
Total		113