PRIORITIZING NATURE IN ECUADOR

2ND WORKSHOP REPORT

September 18 and 24, 2024

UN environment programme

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UNDP

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Feedback session (Jamboard)

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Workshop recording Day 1 and Day 2 (English)

ACRONYMS

ACUS	Conservation and Sustainable Use Area
APH	Water protection areas
BVP	Protective forests and vegetation
CC	Connectivity corridors
CI	Conservation International
CO	Country Office
CONFENIAE	Confederation of Indigenous Nationalities of the Amazon
CONGOPE	Consortium of Autonomous Provincial Governments of
DAPOFC	Directorate of Protected Areas and Other Forms of Conservation
DBI	Dirección de Biodiversidad
DCI	Directorate of International Cooperation
DEIAHTE	Directorate of Environmental and Water Education and Information for Ecological Transition
ELSA	Essential Life Support Areas
GADs	Decentralized Autonomous Governments
GBF	Global Biodiversity Framework
GIS	Geographic information system
GIZ	German Agency for International Cooperation
Ha	Hectare
INABIO	National Institute of Biodiversity

IT	Indigenous territories
KBA	Key Biodiversity Areas
KM	Kunming-Montreal
MAATE	Ministry of Environment, Water and Ecological Transition Ecuador
NBSAP	National Biodiversity Strategy and Action Plan
NGO	Non-governmental organization
OMECs	Other effective area-based conservation measures
PA	Protected area
SNAP	National System of Protected Areas
UNDP	United Nations Development Programme
WCS	Wildlife Conservation Society
WWF	World Wide Fund for Nature

SUMMARY

On September 18 and 24, 2024, the Ministry of Environment, Water and Ecological Transition (MAATE), the United Nations Development Program (UNDP) Country Office (CO) in Ecuador, and the UNDP Global Nature for Development Program, with the support of the *Bezos Earth Fund*, convened more than 40 experts for the second workshop of the "Prioritizing Nature Project in Ecuador".

The workshop was held in a hybrid format: national participants met face-to-face in Quito, while the Global Support team joined remotely. It was divided into two sessions: the first session presented the progress of the project implementation, briefly introduced the prioritization webtool for Ecuador, and engaged all participants in the data weighting exercise, providing input on the quality and relative importance of each data set used in the analysis.

A week later, the second workshop session presented the initial results of the prioritization maps for Ecuador based on the weighting results of the first session, and offered a platform for participants to discuss and identify trade-offs to produce further iterations.

The workshop also provided an opportunity to get feedback on the functionalities and scope of the web-based prioritization tool for Ecuador, identify basic applications of the maps, and understand what strategic alliances are needed to implement the project's products.

OBJECTIVES OF THE WORKSHOP

- Present the progress of the project’s implementation.
- Introduce the prioritization webtool
- Review the biodiversity, climate change, and human well-being data layers and weigh each input data layer.
- Co-create, review, and analyze the initial results of the opportunity maps for Ecuador.

PARTICIPATION OF EXPERTS IN THE WORKSHOP

The second workshop brought together more than 40 experts from the Ministry of Environment, Water, and Ecological Transition of Ecuador (MAATE), from different areas: the Directorate of International Cooperation (DCI), the Directorate of Protected Areas and Other Forms of Conservation (DAPOFC), the Directorate of Biodiversity, the Directorate of Environmental and Water Education and Information for Ecological Transition (DEIAHTE), and the Forestry Directorate. These participants brought diverse knowledge and perspectives to the workshop discussions, contributing significantly to developing the prioritization maps for Ecuador.

In addition, other key actors who previously took part in the different virtual Working Groups on (1) Science and Data and (2) Public Policies, carried out within the framework of the Prioritizing Nature Project from May to August, also attended this second workshop, including World Wildlife Fund (WWF), German Technical Cooperation (GIZ), National Institute of Biodiversity (INABIO), Conservation International Ecuador (CI-Ecuador), Birdlife International, Confederation of Indigenous Nationalities of the Amazon (CONFENIAE), Re:Wild, universities, and consultants. Several of these experts are involved in developing the updated National Biodiversity Strategy and Action Plan (NBSAP).

DAY 1: JOINT CREATION AND REVIEW OF THEMATIC MAPS

During the first day of work, participants learned about the functionalities of the prioritization webtool for Ecuador. They reviewed the national input layers (on biodiversity, climate change and human well-being), and assigned a weight to each of them. The full list of data used and their scores for the analysis can be found here.

SESSION 1: PROGRESS TO DATE OF THE "PRIORITIZING NATURE PROJECT IN ECUADOR”

María Verónica Córdova, National Consultant for UNDP's Global Program on Nature for Development, facilitated the workshop with the support of Casandra Llosa, Stakeholder Engagement Analyst. The workshop's first session opened with welcoming remarks by Arturo Mora, BIOFIN National Coordinator, UNDP Country Office (CO) in Ecuador, and Victor Viteri, Analyst, International Cooperation Directorate of MAATE.

Opening remarks - Arturo Mora. Biofin Coordinator, UNDP CO Ecuador

Arturo Mora welcomed all participants on behalf of the Resident Representative, Inka Matilda, and UNDP CO environment division. He highlighted the work of UNDP in Ecuador, providing technical support to MAATE with this project with the development and co-creation of thematic maps for Ecuador, focused on supporting the country in its efforts to achieve the Kunming-Montreal Global Biodiversity Framework (KMGBF)’s Target 3. He highlighted the effort and commitment of MAATE to update Ecuador’s NBSAP in a timely manner, and invited all participants to contribute during the working sessions, also complemented by UNDP Early Action Support project-supported activities.

Opening remarks - Víctor Viteri. Directorate of International Cooperation, MAATE

Victor Viteri highlighted and thanked the collaborative work that the project is fostering and the importance of coordination with MAATE, with special regards to the workshop's participants. He also indicated that MAATE is committed to working on KMGBF Target 3, and is already undertaking efforts to strengthen the management of protected areas and increase climate finance.

He concluded by thanking UNDP for its support in this process, which contributes to MAATE's leadership at the national level.

Figure 1: Group photo of the in-person group, Quito - Ecuador.

Project progress - Víctor Viteri. International Cooperation Directorate, MAATE

Victor Viteri started by recounting UNDP's support with the Project “Mapping Hope in Ecuador” (also known as the ELSA - “Essential Life Support Areas” project) in 2020, which was implemented in Ecuador, Colombia, and Peru, as well as 10 other pilot countries. He indicated that the Directorate for International Cooperation is the focal point for the current Prioritizing Nature project, which began in 2023. The Directorate coordinates internally with the technical focal points of MAATE: Directorate of Forestry, DAPOFC, and Directorate of Biodiversity. The project was implemented through working groups’ sessions for science and data and for public policies, in which the necessary inputs were gathered from key stakeholders to focus the project analysis, based on the national context and needs. The following figure summarizes the work to date:

Figure 2: Summary of the progress of the Prioritizing Nature project in Ecuador

He closed his remarks by thanking the project for its support and input supporting the NBSAP update process, also led by MAATE.

SESSION 2: INTRODUCTION TO THE WEBTOOL

Presentation and demonstration of the webtool - Dr. Oscar Venter. Scientific Leader, UNDP

Context

Dr. Venter came back on the working group sessions held in the previous months, during which feedback and guidelines were received to create and calibrate the webtool, by providing input on national data, zoning and relevant definitions. He recognized that Ecuador is a unique example in its efforts to replace the global information layers with all national data layers, which will positively impact the products' results.

During this first session, Dr. Venter briefly introduced the webtool to visualize how the weighted data are used in the tool and the analysis. Then, in the subsequent session, the opportunity maps for Ecuador will be co-created. He indicated that the group would first focus on weighting each input dataset.

Objectives of the GBF supported by Planning for Nature

Dr. Venter emphasized that the spatial data considered for the webtool and the spatial planning analysis go beyond KMGBF Target 3; rather, it contributes to a set of KMGBF Targets, detailed below:

Target 1: Plan and manage all areas to reduce biodiversity loss

The project supports this objective by focusing on developing a spatial plan that integrates biodiversity in a participatory manner. Dr. Venter also highlighted that the analysis includes high ecological integrity data, which is important for area prioritization analysis.

Target 2: Restore 30% of degraded ecosystems

The second target is a key planning tool to identify locations where the 30% target of degraded areas can be achieved, maximizing the benefits of restoration and improving connectivity.

Target 3: Conserve 30% of land, water, and sea

This target presents a key focus of the tool being developed, and many of the national data collected reflect different elements linked to this target, as it will be detailed in the following session of the workshop.

Target 4: Halt species extinction, protect genetic diversity, and manage human-wildlife conflicts

This target, one of the critical and important ones, too rarely discussed, proposes urgent management actions to stop the spread of endangered species. For this, the study has national spatial data within the tool that reflects the values of this target.

Target 7: Reduce pollution to levels that are not harmful to biodiversity

This critical target has implications for both biodiversity and human health, and the spatial data from the spatial analysis proposed under this project allows us to reflect these values and plan the route to this KMGBF target.

Target 8: Minimize the effects of climate change on biodiversity and increase resilience

This includes mitigation, adaptation, and disaster reduction, and much data reflects these values at the national level and is integrated into the prioritizing webtool.

Target 9: Manage wild species sustainably for the benefit of people

The target reflects wildlife management and sustainable use, also reflected in the national data and the proposed spatial planning exercise.

Target 10: Improve biodiversity and sustainability in agriculture, aquaculture, fisheries and forestry

This target emphasizes the importance of national spatial data that reflects these sectors' sustainable use and management.

Target 11: Restore, maintain, and enhance nature's contribution to people

Finally, this target relates to mapping data to restore and enhance nature's contribution to people, with an emphasis on ecosystem services and functions such as clean air and water, and climate regulation. The spatial planning exercise being developed will support this.

Afterward, Dr. Venter explained the sessions' process, starting with the weighting of each of the data layers and then co-creating the opportunity maps for Ecuador.

Presentation and demonstration of the webtool

Dr. Venter presented the general functionalities of the webtool developed for Ecuador. This webtool allows for a prioritization analysis and running scenarios in real-time.

This webtool displays the collected data layers, which for Ecuador are 26 data sets:

Figure 2: Data layers for Ecuador

	Data	Issue	Weight	Public policy commitment
1	Native forest	Biodiversity	1.00	1
2	Mangroves	Biodiversity	1.00	11
3	Moors	Biodiversity	1.00	3
4	Threat to the ecosystem (plant communities)	Biodiversity	1.00	3
5	Priority and agreed lands for forest restoration	Biodiversity	1.00	2
6	Forest capacity for land use protection	Biodiversity	1.00	3
7	Priority biodiversity areas	Biodiversity	1.00	3
8	ACB	Biodiversity	1.00	3
9	Conservation gaps	Biodiversity	1.00	3
10	Bird species richness	Biodiversity	1.00	4
11	Connectivity of vegetation communities	Biodiversity	1.00	2
12	Vulnerable agricultural frontier	Biodiversity	1.00	10
13	Intangible zone of Galapagos	Biodiversity	1.00	3
14	Galapagos Conservation Area	Biodiversity	1.00	3
15	Carbon deficit - NCS for restoration	Climate change mitigation	1.00	8
16	Soil organic carbon	Climate change mitigation	1.00	8
17	Susceptibility to desertification	Climate change mitigation	1.00	8
18	Susceptibility to flooding	Climate change mitigation	1.00	8
19	Susceptibility to forest fires	Climate change mitigation	1.00	8
20	Susceptibility to drought	Climate change mitigation	1.00	8
21	Susceptibility to mass movement	Climate change mitigation	1.00	8
22	Source of hydrocarbon pollution	Human well-being	1.00	7
23	Land use capacity - forest production	Human well-being	1.00	10
24	Indigenous territories	Human well-being	1.00	9
25	Coastal region	Human well-being	1.00	7
26	Galapagos Sustainable Use Zone	Human well-being	1.00	10

The webtool creates both "opportunity maps" and "action maps" based on (1) input data layers (each of which serves as a planning feature) and (2) stakeholder guidance on the relative importance of each piece of data.

The webtool identifies each dataset as related to one of three themes: biodiversity, climate change adaptation and mitigation, or human well-being. Based on this differentiation, the

webtool offers the option of creating "opportunity maps," known as "heat maps" by GIS experts, highlighting potential areas of importance for each theme individually. For example, a "biodiversity opportunity map" would show the country's most important areas for biodiversity. The webtool also offers the option to create a "prioritization opportunity map" that identifies Ecuador's areas for protection, management, and restoration within the KMGBF. Venter illustrated in the tool how different data weightings influence the final map.

Summary of discussions:

- It is important to clarify the webtool's scope of work, and emphasize that it uses information previously produced and shared by other institutions.
- The webtool does not make ecological models to generate projections or scenarios. Still, it does try to obtain the best available national data on climate change, biodiversity and sustainable development (susceptibility to floods, droughts, etc.).
- The participants mentioned that the data layer used for the initial analysis corresponds to the “official Indigenous territories with titles" in Ecuador. However, it was recognized that most of the Indigenous territories are not titled as such. It should be recognized that the webtool takes into account only the titled Indigenous territories. In addition, it was mentioned that Ecuador has no official governmental data layer, and NGOs operating in the Indigenous territories created the layer presented here.
- The webtool offers the possibility to modify the spatial analysis in the future, leading to new iterations of the opportunity maps. Capacity-building activities focusing on the use of the tool will be offered early 2025, and will detail how to update layers of information and other input data.

SESSION 3: WEIGHTING OF DATA LAYERS

Expert Review and Stakeholder Weighting: Biodiversity Datasets - Dr. Oscar Venter, Science Leader, and Di Zhang, Spatial Planning Specialist, UNDP

Data groups and topics

Di Zhang, Spatial Planning and Biodiversity Expert, UNDP Global Programme on Nature for Development, presented the datasets used during the Prioritizing Nature project. The first group of data presented consisted of:

Figure 3: Data groups and themes

Groups	**Main theme**
Base map	National boundary Planning units
Features	Biodiversity Climate change adaptation and mitigation Human well-being
Zones	Protect, manage, restore
Locking options	National protected areas, National System of Protected Areas (SNAP), restoration areas, potential OMEC, degraded areas of the SNAP for restoration.

Base map: the analysis is performed nationally, which is why the national boundary layer is used. Regarding the planning units, Di explained that the resolution is 600m, and each planning unit can be selected independently.

Features: these are data that describe the spatial distribution of planning features and are important for implementing Targets 1, 2, 3 to 11.

Zones: these zones are restrictions for the analysis, so only those actions are selected to protect, manage, and restore the defined areas.

Lock-in options are those important areas that must be fully captured in the analysis.

During the inception workshop and past meetings, the data layers to be included or updated to guide the analysis toward the KMGBF targets were compiled and reviewed with the stakeholders. The following figure shows the data layers: in blue, the data updated to their most recent version; in yellow, the new data added to the analysis.

Figure 4: Spatial data for prioritization

Tema	Name
Biodiversity	Native forest
	Mangroves
	Paramos
	Ecosystem (Vegetation communities) threat
	Vegetation communities connectivity
	Forest restoration priority and agreement lands
	Capacity of land use- protection forest
	Priority biodiversity areas
	KBAs
	Conservation gaps
	Birds species richness
	Vulnerable agricultural friontier
	Galapagos intangible zone
	Galapagos conservation zone
Climate change adaptation and mitigation	Carbon deficit - NCS for restoration

	Soil organic carbon
	Susceptibility to desertification
	Susceptibility to flood
	Susceptibility to forest fires
	Susceptibility to drought
	Susceptibility to mass movement
Human well-being	Source of hydrocarbon contamination
	Capacity of land use- production forest
	Indigenous territories
	Coastal region
	Galapagos sustainable use zone
Lock-in	Protected Areas (not optional)
	Restoration areas (not optional)
	Potential OECMs (Protect block)
	SNAP degraded areas for restoration (Restore block)
Zones	Protect
	Restore
	Manage

26 layers have been selected as planning features for analysis in Ecuador. The features should represent the spatial distribution of all important elements or targets of the KMGBF to be considered in a planning scenario. There may be multiple features that respond to one target, such as species conservation. Similarly, one feature could benefit multiple targets, such as important ecosystems like mangrove and paramos.

To help the prioritization webtool select areas from among 26 different features, stakeholders were invited to add their opinions and recommendations on which features should primarily be considered for the analysis.

Explanation of the exercise

The activity invited participants to work together to (1) review in detail the input data selected for the spatial analysis and (2) establish the weighting parameters for each planning element. The scoring was based on two criteria: one as a "stakeholder" and one as an "expert." As a "stakeholder," participants evaluated the relative importance of each input data; as an "expert," participants gave their level of confidence in each input data. Finally, both values combined contribute to the final weight given to each data layer. The scoring of the criteria was proposed with the following ranges:

Importance 0-10

- 0 = Should not be used at all.
- 1 = This layer is not essential.
- 5 = Medium importance.
- 10= The most important layers.

Confidence 0 /0.5/1

- 0 = Not trusted, not used.
- 0.5 = Uncertain, use with caution.
- 1 = Acceptable confidence level

In terms of importance, the weight of a layer is relative to the other layers. In terms of confidence, the value is 0 (no confidence); 0.5 (uncertain or partial confidence) or 1 (acceptable confidence). In other words, there is no "high confidence".

After the presentation and explanation of each data layer, the participants entered their respective weights in an interactive online sheet for each of the 26 input data layers. Here is the

result of the exercise, which provided the key parameters for the prioritization analysis in Ecuador.

During this exercise, participants also provided feedback on the datasets used to inform future analysis iterations.

Summary of the discussions:

- The participants discussed if the planning unit size (600m) is too large for a small country like Ecuador; the global science team explained the difference of resolution of the prioritization map, which is the planning unit to help make conservation/restoration/management decisions on the ground, and the resolution of input data used to create the prioritization map. The size of the planning unit is a balance of management efficiency, connectivity and the use of the online webtool. The input data used are mostly national data with fine resolution, and the data does not lose information when processed into planning unit size.
- On the lock-in options, the participants were interested in knowing which areas were within lock-in. The lock-in areas include SNAP, and national restoration areas, and optionally, the participants can choose if to lock-in potential OECMs identified nationally, see section1 for the list of potential OECMs. If lock-in potential OECMs, the tool will identify additional valuable areas for protect/restore/manage.
- The "lock-in" option is a concept used in Systematic Conservation Planning (SCP) and ensures that the analysis will fully include the lock-in areas within the prioritization mapping. The tool will look for potential expansion of the area and reduce the gaps in the action maps.
- Regarding the importance and confidence weighting of the planning features, it was noted that in the case of historical data, uncertainty increases and can be weighted in the confidence of the data, as it is not as accurate. This aspect is essential, as it highlights the importance of updating several national datasets that are important but outdated.
- Threats in areas like the Amazon should be addressed promptly, for example, by identifying threats from roads, illegal mining, formal and informal mining, oil blocks, or deforestation.
- The weighting of the Prioritizing Nature project exercise is another way to emphasize important planning features
- For layers previously created with weighting exercises (e.g., conservation gaps), the redundancy of using the data for the same exercise was discussed. In this regard, it was explained that this exercise is another weighting exercise that does not alter the result.

DAY 2: JOINT CREATION AND REVIEW OF OPPORTUNITY MAPS

During the second day of work, the participants continued co-creating the prioritization maps for Ecuador. They began with a review of the objectives of day one and day two, reviewed the opportunity maps prepared with their weightings, created the action map, and discussed the first results obtained from the analysis. The session ended with the second iteration of the map for Ecuador and an interactive session to gather input from key stakeholders on the tool's functionality, potential basic applications, and strategic alliances necessary for using the maps at the national level.

SESSION 1: CO-CREATION OF THE MAPS FOR ECUADOR

Review of day one and day two workshop objectives - Dr. Oscar Venter. Scientific Leader, UNDP

Dr. Venter began this session by summarizing the work done over the past few months with the working groups focusing science and data, and public policy, as well as the results from the productive weighting session held the previous week. Considering the participants' input, Dr. Venter and the team reviewed the data and inputs; this would be the basis for creating the

opportunity maps, reviewing them, and reiterating them. He reflected on the actions that will be prioritized in the analysis for Ecuador:

Protection: protected areas and other area-based measures. These actions are derived from KMGBF Target 3, equivalent to 30% of the national territory. Potential areas are all those where the human footprint is less than 7.

The lock-in or blocked areas for protection management include the areas of the National System of Protected Areas (SNAP) and other potential OECM areas, which are:

- Biosphere reserves
- Buffer zones
- Connectivity corridors
- RAMSAR Wetlands
- State forest heritage
- Water Protection Areas (HPAs)
- Conservation and Sustainable Use Areas (ACUS)
- Socio Bosque Program Conservation Areas
- Forests and protective vegetation (BVP)
- Intangible zones Tagaeri - Taromenane
- Sustainable use and mangrove stewardship agreements

Management: sustainable management techniques for forests and other ecosystems used for subsistence and food security. This can be sustainable management practices for forests or forestry that increase soil organic matter or reduce erosion and increase habitat structure (e.g., soil cultivation that may be favorable). This action contributes to KMGBF Target 1. Regarding the percentage, based on stakeholder feedback, 10% is estimated for this action. It is proposed in places with human footprint values greater than three and places indicated by the mining cadastre and oil blocks.

Restoration: This is considered active or passive restoration of forest cover and other ecosystems, and is aligned with KMGBF Target 3. This action seeks to increase vegetation's structure, habitat, and biomass, especially in currently degraded areas, reducing vulnerability to natural disasters and climate change. Based on the national map, the objective is to map areas with human footprint values greater than three and areas of mining cadastre and oil blocks. The target for this action is 10% of the national territory.

Lock-ins or areas blocked for this action are SNAP and the areas under restoration of the 2023 MAATE. Optional lock-in options include the potential OECMs and the degraded areas for restoration within SNAP. National stakeholders can select areas to lock-in in the online mapping tool developed for this project.

Dr. Venter then focused on the prioritization tool, which uses systematic conservation planning (SCP). The problem solved with the analysis is based on identifying where, in Ecuador, ecological protection, management, and restoration could create the best outcomes and maximize benefits for nature, biodiversity, climate, and human well-being to achieve sustainable development Targets.

Summary of discussions:

- Participants commented that Ecuador is still defining the concept of "degradation". Therefore, this issue should be considered in the maps presented in the analysis.

Co-creation of opportunity maps for Ecuador - Dr. Oscar Venter. Scientific Leader, UNDP

From the participants' ratings, the science team developed the average weighting for each data layer in the three themes: biodiversity, climate change, and human well-being (Figure 5). Dr. Venter presented the results of the combined weighting (importance and confidence) and highlighted that, overall, the importance rating was high, but the confidence rating was low.

He noted that the highest weights given by national stakeholders are planning features such as forests, mangroves, and paramos, followed by KBAs, vulnerable agricultural frontier, Galapagos intangible zone, and Galapagos conservation zone. On the other hand, the lowest weight values were given to vegetation community connectivity data. The average weighting of all data is in the range of 5, and the biodiversity dataset is at 6.23, which is higher than the overall average of the climate change dataset (4.63) and human well-being (4).

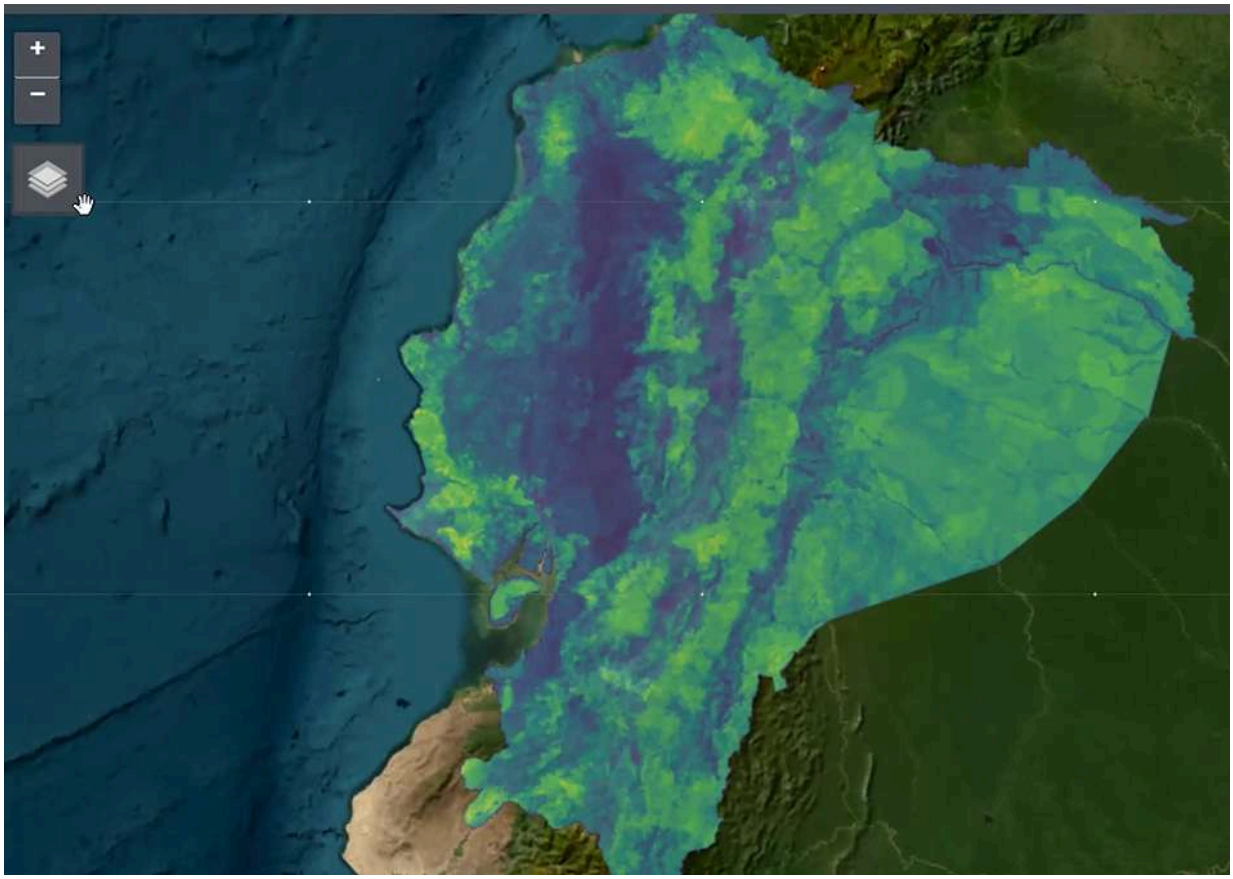
Average stakeholder weights for all data included in the analysis:

ID	Dato	Peso combinado	Tema	Media
1	Bosque nativo	9,83	Biodiversidad	6,23
2	Manglares	8,29	Biodiversidad	
3	Paramos	8,45	Biodiversidad	
4	Amenaza para el ecosistema (comunidades vegetales)	4,58	Biodiversidad	
5	Conectividad de las comunidades de vegetación	3,66	Biodiversidad	
6	Tierras prioritarias y bajo acuerdo de restauración forestal	5,82	Biodiversidad	
7	Capacidad de uso de la tierra - bosque de protección	4,49	Biodiversidad	
8	Áreas prioritarias de biodiversidad	5,33	Biodiversidad	
9	KBAs	7,18	Biodiversidad	
10	Brechas de conservación	4,16	Biodiversidad	
11	Riqueza de especies de aves	3,55	Biodiversidad	
12	Frontera agrícola vulnerable	7,13	Biodiversidad	
13	Zona intangible de Galápagos	7,15	Biodiversidad	
14	Zona de conservación de Galápagos	7,57	Biodiversidad	
15	Déficit de carbono - NCS para la restauración	3,92	Cambio climático	4,63
16	Carbono orgánico del suelo	5,61	Cambio climático	
17	Susceptibilidad a la desertificación	4,89	Cambio climático	
18	Susceptibilidad a las inundaciones	4,18	Cambio climático	
19	Susceptibilidad a los incendios forestales	5,17	Cambio climático	
20	Susceptibilidad a la sequía	5,28	Cambio climático	
21	Susceptibilidad a los movimientos en masa	3,35	Cambio climático	
22	Fuente de contaminación por hidrocarburos	4,15	Bienestar humano	4,00
23	Capacidad de uso de la tierra - producción forestal	3,22	Bienestar humano	
24	Territorios indígenas	3,02	Bienestar humano	
25	Región costera	4,48	Bienestar humano	
26	Zona de uso sostenible de Galápagos	5,14	Bienestar humano	
	Media	**5,37**		

Dr. Venter then input the weighted data in the webtool and produced a first set of heat maps that allow participants to visualize the distribution of environmental values, noting that the areas with yellow color indicated greater importance (Figure 6.). The map presented continental Ecuador and the Galapagos Islands, resulting in a high value in the coastal areas, the Western and Eastern Andes flank, and the Amazon, all important in biodiversity. Dr. Venter proceeded to zoom into specific areas impacted by infrastructures or roads, and zones with important agricultural activities. Additionally, Dr. Venter overlayed the SNAP with the heatmap, showing

that the existing national protected areas are overlapping with areas with high value on the heatmap, thus indicating the SNAP are placed in highly important biodiversity areas in Ecuador.

Figure 6. An initial heat map for Ecuador was created during the workshop.



Summary of discussions:

- The participants mentioned the importance of maps to identify what is happening in the country's highlands, paramos, and high basins, and called each other to think of actions to combat the country's energy crisis.
- In addition, participants identified important areas for conservation, which were reflected in the map as areas of high value for prioritizing actions.

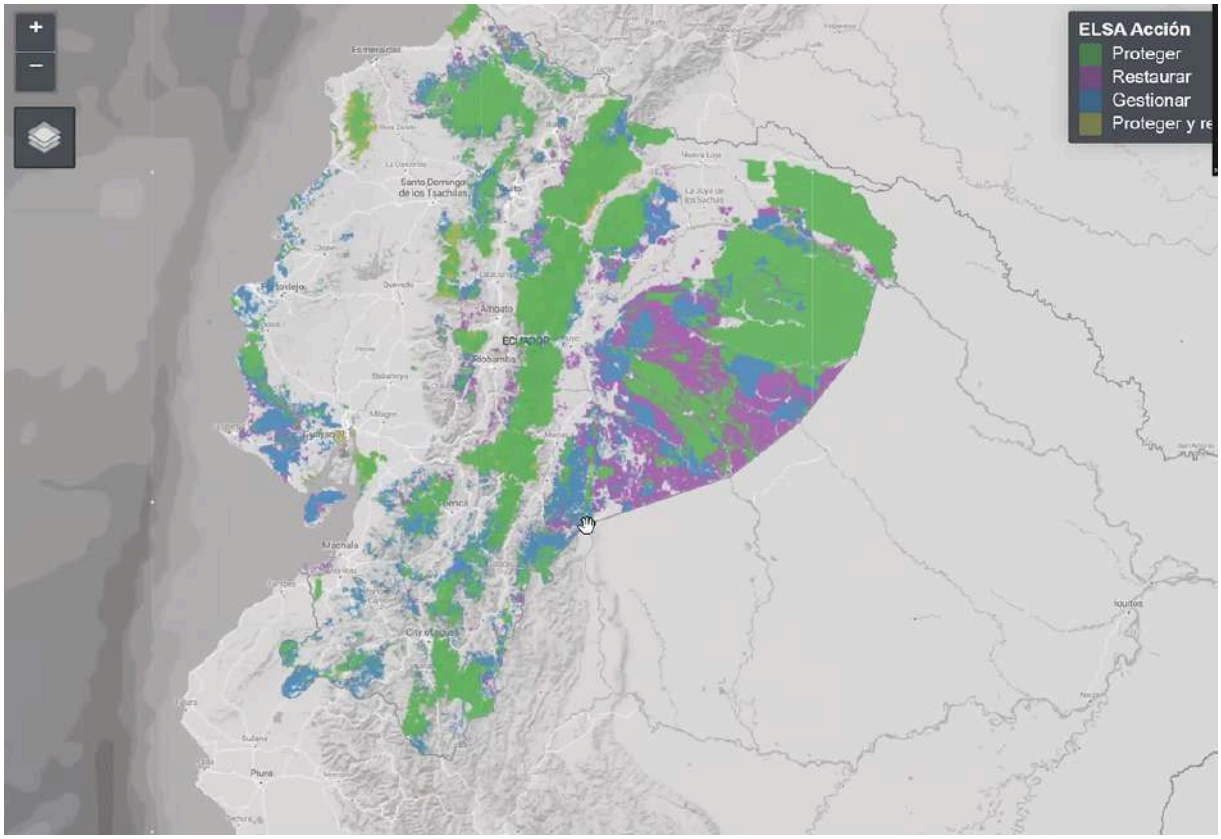
Co-creation of opportunity maps for Ecuador - Dr. Oscar Venter. Scientific Leader, UNDP

After reviewing the results of the weighting exercise and the resulting heat map, Venter led a second interactive session with participants to co-create the opportunity map for Ecuador - the map that will show where protection, restoration, and sustainable management actions that maximize benefits should occur. The webtool allows for the inclusion of lock-in options such as potential OECMs, SNAP layers, degraded areas within SNAP, and national restoration areas, allowing for the creation of different scenarios for the country.

The actions represented in the prioritization map were based on the objectives set during the previous sessions: protect 30% of the national territory, restore 8.99% of the national territory, and sustainably manage 10%. The creation of the opportunity map was based on the same weightings used to create the heat map. During this session, participants had the opportunity to review the results and determine if any weightings needed to be adjusted to achieve the desired results.

After this, Dr. Venter ran the open source prioritization webtool, producing the following map:

Figure 7. Prioritization map for Ecuador.



Each of the actions represented on the map was explained: protection, restoration, sustainable management, and the overlapping lock-in areas for both protection and restoration.

Summary of discussions:

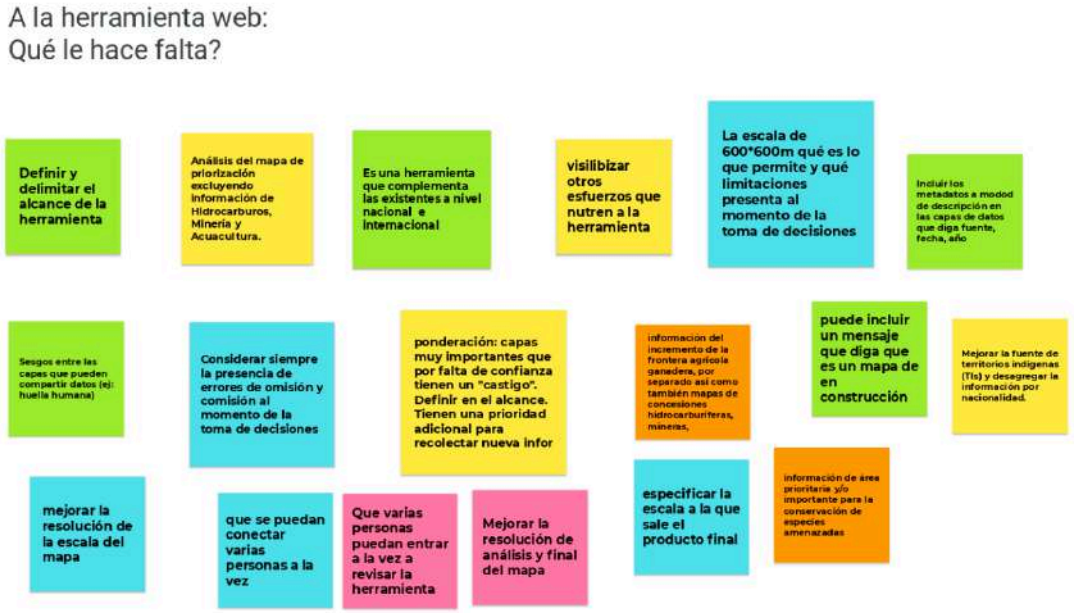
- Discussions focused on the option to lock-in mining concessions and oil blocks. In Ecuador, it is not possible to create new protected areas within the SNAP where there are pre-existing rights (mining or oil blocks). In this regard, the participants suggested keeping the initial analysis with the "best case scenario" and then including different maps with the information layers of hydrocarbon activities in the scenarios.
- The layer of mining concessions and oil blocks was obtained through MAATE, since the competent entity updates it every three or four months. It should be noted that this layer has variable information, and there are cases where there are mining concessions that never operate, and others that have expired.

- The importance of this specific layer was discussed, as it is a determining factor in the creation or expansion of a new SNAP protected area; internal coordination among the Directorates for the proper management of this information is already happening.
- The results were expanded in the mangrove area of the Gulf of Guayaquil, and it was found that the scale does not allow planning for issues such as shrimp ponds and coordination between the ministries of environment and aquaculture, since it requires a much finer scale.
- The Indigenous territories identified are unofficial data by a governmental entity, since such information does not yet exist for Ecuador. This issue is due to conflicts in territories with Indigenous nationalities, and is represented by the low level of confidence given by the participants. However, it is interesting to see how the opportunity map does identify actions in areas with Indigenous Peoples.
- It would be interesting to know which nationalities are identified as priority action zones at the policy implementation tool level. For example, it would be interesting to know if the Achuar, Kichwa, Waorani and part of the Shuar territories have prioritized areas for action.

Feedback session. Casandra Llosa, UNDP

Following the webtool exercise, the initial results, and following discussions about the generated opportunity maps, participants engaged in a discussion and provided feedback on the following questions:

About the webtool:



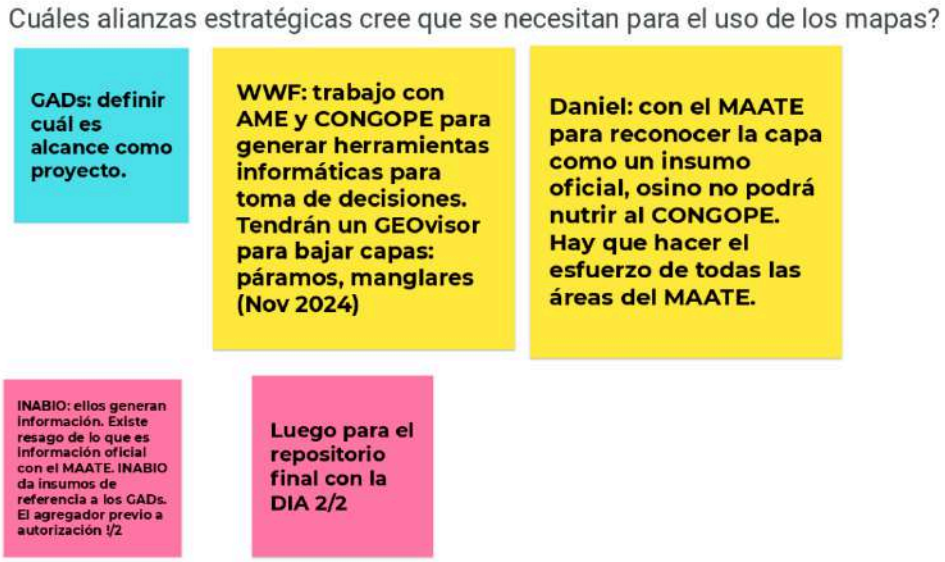
- Define and delimit the scope of the tool.
- Analysis of the prioritization map excluding information on hydrocarbons, mining and aquaculture.
- It is a tool that complements those already existing at the national level.
- What does the 600 meters x 600 meters scale allow, and what limitations does it present at the time of making decisions?
- Include metadata as a description in the data layers stating source, date, and year.
- Biases between layers that may share data (e.g., human footprint).
- Always consider the presence of errors of omission and commission when making decisions.
- Weighting: very important layers that have a “penalty” and lower value due to lack of confidence, as these data are currently outdated (participants emphasize the urgent need to update them - which is out of scope for this specific project). Define in the scope of the webtool that there is an additional priority and national need to update existing data or collect new information.
- Information on the increase of the agricultural and livestock frontier, separately, as well as maps of hydrocarbon and mining concessions.
- You can include a message that this is a map under construction.
- Improve the source of Indigenous territories (ITs) and disaggregate the information by nationality.

- Improve the resolution of the map scale.
- Several people can connect at the same time.
- Specify the scale at which the final product is delivered.
- Information on priority and/or important areas for the conservation of threatened species.

About the analysis:

- For DAPOFC, identify areas that can be conserved within the National System of Protected Areas (SNAP) or as OMEC or Connectivity Corridors (CC).
- Once the scope is defined, as a policy it is quite complex. As a basic application: have general indicator of where I start and why.
- The scope of the tool and its potential should be reviewed first. As a basic application: a baseline indication.
- To identify and/or follow up on the implementation of prevention, control, mitigation and compensation measures for impacts affecting wildlife.
- To the GADs: in their territorial organization with a vision of prioritization.

About the partnerships:



- GADs: define the scope as a project.
- WWF: work with AME and CONGOPE to generate computer tools for decision making. They will have a GEOvisor to download layers: moorlands, mangroves, others.
- With MAATE to recognize the layer as an official input, otherwise it will never be able to nourish CONGOPE. It is necessary to make an effort in all areas of MAATE.
- INABIO: they generally provide the information. There is a risk of what is official information with the MAATE and INABIO of reference inputs in the GADs. The aggregator prior to authorization and then for the final repository with the Directorate of Environmental and Water Education and Information for Ecological Transition (DEIAHTE).

Next steps. María Verónica Córdova, UNDP

María Verónica reflected on the next steps of the project for Ecuador and thanked the support provided in this project, particularly from MAATE and the different divisions that have supported the process during the first nine months of joint work. Among the next activities, the global science team will finalize the opportunity map. A technical meeting will be held to review the final map. This will be accompanied by the preparation of final documents and reports on the final analysis and maps, as well as a short summary document for decision makers, and a user's guide for the webtool. Training and capacity building activities will be developed with and for key national stakeholders.

Finally, she congratulated and thanked everyone for their active participation during the sessions of this second workshop.

CONCLUSION OF THE WORKSHOP AND ACKNOWLEDGEMENTS

Arturo Mora, from BIOFIN Ecuador, gave brief concluding remarks and emphasized that partnerships are key for the proper use of the maps. In this sense, the collaborative work led by MAATE to update the NBSAP is key and it is a task for all present to include these important inputs of high impact for the country. A combination of efforts has allowed to carry out the second workshop of the Prioritizing Nature project in Ecuador. The UNDP Nature for Development Programme team expressed its deep gratitude to the following people and to all the participants of this workshop:

- To the UNDP Country Office in Ecuador, for its leadership of the project. Thanks, in particular, to Monica Andrade, who has provided valuable guidance in the development and implementation of this project in Ecuador; to Mario Rodas and Arturo Mora, for their guidance and daily support; and to the highest level in the UNDP CO, for the support provided - thanks to Inka Mattilda, Resident Representative in Ecuador.

- To MAATE, for providing valuable guidance and leadership to develop and implement this project in Ecuador, and for daily support to make this workshop a reality. Special thanks to Mirelli Velasquez and Victor Viteri.
- To the MAATE technical specialists, especially Holger Zambrano, Daniel Borja, Ángel Onofa, Cristhian Acurio, Danny Guarderas, Ximena Herrera, Lenin Beltrán, Miguel Cazares, Karen Rodríguez.
- To the representatives of other initiatives that participated in this second workshop, in particular GIZ, Re:Wild, WWF, WCS.
- To UNEP-WCMC for their important support.

- To Jamison Ervin, manager of UNDP Global Programme on Nature for Development, for creating this vision and inspiring us to explore how it could serve Ecuador, along with Marion Marigo and Annie Virnig.
- To the lead scientist, Oscar Venter, and spatial experts Scott Atkinson, Di Zhang and Leticia Cardozo, who will support this work in the future.
- To María Veronica Cordova, Partnership Specialist and UNDP National Consultant for Ecuador, who facilitated the session with Casandra Llosa of UNDP, and to Lilianza Corzo for technical support during the workshop.
- To Carmelo Vásquez and Flor Tebano, the interpreters.
- To all the participants for sharing their time and knowledge to shape the project and adapt it to Ecuador's needs.