

## Final Project Narrative Report

Reporting Period: from **04.2025** to **11.2025**

<p style="text-align: center;"><b>Project Title &amp; Number</b></p> <ul style="list-style-type: none"> <li>Project Title: <b>Scaling up connectivity in the Trifinio-Fraternidad Transboundary Biosphere Reserve</b></li> <li>MPTF Office Project ID:<sup>2</sup> <b>00141099</b></li> </ul>	<p style="text-align: center;"><b>Country, Locality(s), Priority Area(s) / Strategic Results<sup>1</sup></b></p> <p><i>(if applicable)</i> Country/Region</p> <ul style="list-style-type: none"> <li><b>Global and Interregional (El Salvador, Guatemala, Honduras)</b></li> </ul>
<p style="text-align: center;"><b>Participating Organization(s)</b></p> <ul style="list-style-type: none"> <li><b>United Nations Educational, Scientific and Cultural Organization (UNESCO)</b></li> </ul>	<p style="text-align: center;"><i>Priority area/ strategic results</i></p>
<p style="text-align: center;"><b>Programme/Project Cost (US\$)</b></p> <p>Total approved budget as per project document: <b>300,000</b></p> <p>MPTF /JP Contribution<sup>3</sup>:</p> <ul style="list-style-type: none"> <li><i>by Agency (if applicable)</i> Agency Contribution</li> <li><i>by Agency (if applicable)</i></li> </ul> <p>Government Contribution <i>(if applicable)</i></p> <p style="text-align: right;"><b>30,000</b></p> <p>Other Contributions (donors) <i>(if applicable)</i></p> <p style="text-align: right;"><b>Spanish National Parks Autonomous Agency (OAPN)</b></p> <p><b>TOTAL: 330,000</b></p>	<p style="text-align: center;"><b>Implementing Partners</b></p> <ul style="list-style-type: none"> <li><b>Trinational Commission for the Plan Trifinio (CTPT)</b></li> <li><b>UNESCO Chair on Observation and Education of World Heritage and Biosphere Reserves (Heidelberg University of Education)</b></li> <li><b>Center for Large Landscape Conservation (CLLC)</b></li> </ul>
<p style="text-align: center;"><b>Project Duration</b></p> <p>Overall Duration <i>(months)</i> <b>8 months</b> Start Date<sup>4</sup> <i>(dd.mm.yyyy)</i> <b>02 April 2025</b></p> <p>Original End Date<sup>5</sup> <i>(dd.mm.yyyy)</i> <b>30 November 2025</b> Actual End date<sup>6</sup> <i>(dd.mm.yyyy)</i> <b>30 November 2025</b></p> <p>Have agency(ies) operationally closed the Programme in its(their) system? Yes No <input checked="" type="checkbox"/> <input type="checkbox"/></p> <p>Expected Financial Closure date<sup>7</sup>: <b>31 December 2025</b></p>	

<sup>1</sup> Strategic Results, as formulated in the Strategic UN Planning Framework (e.g. UNDAF) or project document;

<sup>2</sup> The MPTF Office Project ID/Reference Number is on the project's factsheet page on the [MPTF Office GATEWAY](#).

<sup>3</sup> The MPTF/JP Contribution is the amount transferred to the Participating UN Organizations.

<sup>4</sup> Date of the first transfer of the funds from the MPTF Office as Administrative Agent (available on the [Gateway](#)).

<sup>5</sup> As per approval of the original project document by the relevant decision-making body/Steering Committee.

<sup>6</sup> If there has been an extension, then the approved end date should be reflected. The end date is the same as the operational closure date which is when all activities must be completed. As per the MOU, agencies are to notify the MPTF Office when a programme completes its operational activities. Please see [MPTF Office Closure Guidelines](#).

<sup>7</sup> Financial Closure requires the return of unspent balances and submission of the [Certified Final Financial Statement and Report](#).

### Project Assessment/Review/Mid-Term Eval.

Evaluation Completed

Yes  No Date: (N/A since project less than a year)

Evaluation Report - Attached

Yes  No Date: dd.mm.yyyy

### Report Submitted By

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## FINAL PROJECT REPORT FORMAT

### EXECUTIVE SUMMARY

The catalytic project “*Scaling up Connectivity in the Trifinio-Fraternidad Transboundary Biosphere Reserve*” successfully strengthened the scientific, institutional and social foundation for ecological connectivity across one of Central America’s most strategic transboundary landscapes. Implemented over an eight-month period (April to November 2025), the project combined high-resolution geospatial analysis, participatory planning and multi-level governance processes to generate new structural ecological corridors maps for the Trifinio-Fraternidad Transboundary Biosphere Reserve (TFTBR) and its surroundings, across El Salvador, Guatemala and Honduras.

The project’s major achievement lies in the **development of a comprehensive set of decision-support products to guide ecological connectivity planning and implementation** in the TFTBR. These include: (1) **a series of spatially explicit maps presenting multiple ecological corridor scenarios** (including structural connectivity models, landscape permeability analyses and stakeholder-informed corridors), enabling the identification of priority corridors, restoration areas and critical fragmentation zones; (2) **a set of connectivity indicators and analytical metrics to assess the ecological integrity and condition of corridors** (e.g. habitat quality, fragmentation, and pressure from infrastructure), supporting evidence-based prioritization and monitoring ; and (3) **an integrated planning framework** combining a **corridor prioritization framework** and methodology based on jointly defined factors, and a **multi-level financing approach to guide the implementation of targeted conservation and restoration actions**. In addition, a 2025 high-resolution land-use and land-cover map was developed and a ground truthing campaign was carried out to guide future functional connectivity efforts once species movement data becomes more widely available. Together, these products provide a robust and operational foundation to advance landscape connectivity in the Trifinio-Fraternidad region.

Beyond these technical outputs, **the project generated broader engagement and institutional impacts**. Through an inclusive and participatory process involving more than **200 stakeholders through eight (8) different workshops** across local, national and transboundary levels, the project fostered a shared vision for ecological connectivity grounded in both scientific analysis and local knowledge, including through the participation of the Chortí People in Guatemala. Participants co-defined focal species for connectivity, reviewed corridor scenarios, and identified priorities and concrete actions for restoration and sustainable land management, strengthening ownership and legitimacy of the results. The project strengthened institutional coordination for connectivity planning across the three countries, notably thanks to the coordination role of the Trinational Commission for the Plan Trifinio (CTPT) and national authorities, and led to the signing of a Memorandum of Understanding (MoU) between UNESCO and the CTPT to advance the implementation of the TFTBR 2025–2035 Management Plan, including connectivity planning and the enhanced role of Indigenous Peoples and local communities in governance.

The project directly contributed to the Kunming Biodiversity Fund (KBF) priorities by strengthening resource mobilization through the development of a multi-level financing framework for connectivity (Focus Area 2), and by enhancing technical and institutional capacities through the provision of data, tools and methodologies directly usable by decision-makers (Focus Area 3) enabling immediate action for ecosystem restoration and sustainable corridor management. In doing so, it supported the implementation of the Kunming–Montreal Global Biodiversity Framework (KM-GBF), particularly Target 2 on ecosystem restoration and Target 3 on well-connected conservation areas, while also reinforcing coordinated, science-based and inclusive biodiversity governance across the trinational landscape.

## I. Purpose

The “Scaling Up Connectivity in the Trifinio-Fraternidad Transboundary Biosphere Reserve” project aimed to **strengthen ecological connectivity across El Salvador, Guatemala, and Honduras to address habitat and forest fragmentation**. Working with biosphere reserve managers, scientists, national authorities, scientists, and local communities and stakeholders, its objective was to map ecological corridors, deliver a baseline connectivity assessment, and identify restoration and land-use options structured into a long-term financing plan. The project drew on and contributed to support the 2025-2035 TFTBR Management Plan, by reviewing existing landscape connectivity experiences and gathering the building blocks of connectivity planning.

The project objectives were fourfold and all related to KM-GBF targets:

- **Landscape connectivity effectiveness assessment (baseline):** mapping and assessment of existing ecological corridors within and outside protected areas, assessing current performance of their key functions (connectedness, ecological processes, species protection and circulation, and resilience) using ecological, social, and economic data (KM-GBF Target 3);
- **Identification of knowledge gaps and lessons learned:** review of past local experiences and international cooperation of landscape restoration projects through the organization of technical workshops to identify missing data, tools, and capacity-building needs for inclusive and participatory planning of ecological corridors associated with socio-economic opportunities (KM-GBF Target 20);
- **Mapping of landscape connectivity opportunities:** geospatial and socio-economic analysis of ecological corridor design options with the development of different landscape connectivity scenarios (i.e. pathways), including feasibility analysis, fit with existing territorial management documents, transparent decision criteria, preliminary monitoring indicators, and gender-sensitive inclusiveness targets to provide a basis for prioritization by local stakeholders (KM-GBF Target 2);
- **Development of a strategic, transboundary, and multi-level funding plan:** inclusive and participatory workshops involving the three countries of the TFTBR to (1) identify short- and long-term funding needs, sources, grant applications, and cooperation opportunities at all governance levels (local, national, international) to implement the activities listed under each landscape connectivity scenarios, as well as define responsibilities for each local stakeholders for securing funding; and (2) prioritize scenarios based on a multi-criteria framework that explicitly includes socio-economic factors in addition to ecological variables, and fit with local and regional land-use planning (KM-GBF Target 2).

The expected outcomes were structured in three parts:

- **Outcome 1:** An updated baseline assessment of ecological corridors and landscape connectivity is made available for the TFTBR.
  - A shared, evidence-based baseline on connectivity (maps, indicators, and analyses) to support decision-making, as well as identification of stakeholder-informed corridors
  - Identification of key knowledge gaps and capacity needs for improved connectivity planning.

- **Outcome 2:** The TFTBR develops a comprehensive strategy and funding plan to implement landscape connectivity-related KM-GBF Target 2 and 3.
  - Development of connectivity scenarios to prioritize and a shared strategic vision across the three countries.
  - Establishment of a transboundary financing and implementation framework to operationalize connectivity actions.
- **Outcome 3:** Local stakeholders are informed and are included in landscape connectivity decisions (CEPA).
  - Increased awareness and meaningful participation of local stakeholders in connectivity planning.
  - Integration of local knowledge and perspectives, strengthening ownership and long-term sustainability.

## II. Assessment of Programme Results

The project set out to improve ecological connectivity planning in the Trifinio-Fraternidad Transboundary Biosphere Reserve (TFTBR), harmonizing fragmented data and isolated initiatives toward a shared, science-based and participatory framework for action. Over eight months, it successfully delivered this shift across its three outcomes.

### Outcome-level assessment

#### **Outcome 1 – An updated baseline assessment of ecological corridors and landscape connectivity is made available for the TFTBR**

At the start of the project, connectivity knowledge in the TFTBR was fragmented, outdated, or unevenly distributed and shared across countries and institutions. Through interviews with national authorities and a diversity stakeholders, the project was able to identify past and recent connectivity experiences which were not all known and shared among stakeholders, especially with the Trinational Commission for the Trifinio Plan (CTPT) in charge of the management of the TFTBR.

The main takeaways of the data assessment were that:

- There are currently no land-use land cover (LULC) maps harmonized across the three countries, and LULC maps are outdated in El Salvador and Guatemala (with over five to ten years old) while a recent update was just made in Honduras in 2024. All have different land-use categories which make their compatibility and harmonization a challenge.
- A recent 2024 LULC map with harmonized land classes was developed by CATIE<sup>8</sup> in the context of the “[Resilient and Biodiverse Landscapes of Northern Mesoamerica](#)” project (2022-2029) hereafter “BLF<sup>9</sup> project”) for the entire Trifinio region (about 90% of which overlap with the TFTBR), but was still unreleased at the time of the closing of this project and not widely known among stakeholders. In addition, the limitation of its scope to the Trifinio region prevents mapping corridors extending out of the TFTBR to other protected areas or biosphere reserves.
- Fragmented approaches and methodologies to landscape connectivity have been applied to the region: (1) El Salvador recently (in 2024-2025) conducted an ad hoc connectivity modelling at the MARN<sup>10</sup>,

<sup>8</sup> Centro Agronómico Tropical de Investigación y Enseñanza

<sup>9</sup> Biodiverse Landscape Fund

<sup>10</sup> El Salvador’s Ministry of Environment and Natural Resources

but without yet implementing it or releasing it publicly; (2) Honduras recently benefitted from an IUCN connectivity modelling project called [CONECTA+](#) (2018-2026) but not yet communicated to or implemented at the biosphere reserve level; (3) Guatemala's ecological corridor maps date back to the end of the 2000s, and were made at a resolution that did not allow planning at a finer scale than the biosphere reserves themselves (i.e. the corridor width is almost the size of the biosphere reserves);

- There is currently nearly no species movement data available in the Trifinio area, currently preventing any solid functional connectivity mapping. Species tracking is only emerging now for selected species thanks to the work implemented by the World Conservation Society (WCS) in the context of the BLF project.
- Socio-economic data is available and collected by the TFTBR but limited at the municipal scale and not at higher resolution. There is no recent census data (most population information are projections from past censuses) but an important socio-economic assessment of the Trifinio Region (90% of which overlap with the TFTBR) was recently conducted with the 2021 master plans for the rural and urban areas ("Plan Maestro") efforts.

To address these weaknesses, the project implemented developed a new high-resolution land-use and land-cover map, providing an update land-cover map (2025) of the TFTBR and its surroundings and serving as updated bases for the stakeholder workshop discussions on corridors. In addition, national stakeholder workshops helped identify focal species to guide connectivity analysis and produced stakeholder-informed maps of corridors describing both biological and socio-economic aspects.



(1) Participants to the national workshops  
(Plan Trifinio - Dirección de Comunicaciones & UNESCO)

The structural connectivity modelling produced six corridor scenarios and identified key connectivity bottlenecks across the TFTBR landscape, thanks also to the development of "performance" indicators that measure connectivity and habitat fragmentation. The scenarios considered a high number of landscape pressures and constraints on species movement via the Human Modification Index (HMI)<sup>11</sup> (synthesizing many physical and socio-economic factors) as well as elevation. Two broad modelling least-cost path approaches were used: (1) least cost corridors between "cores" of protected areas and preserve natural vegetation patches (e.g. core areas of the TFTBR); (2) a permeability approach to identify multi-directional movements of species. These scenarios varying by elevation and corridor width were presented to the local stakeholders and a structural corridor map served as a basis for the project's trinational and MAB Youth workshops.



(2) Participants to the trinational workshop  
(Plan Trifinio - Dirección de Comunicaciones)

<sup>11</sup> Theobald, D. M., Oakleaf, J. R., Moncrieff, G., Voigt, M., Kiesecker, J., & Kennedy, C. M. (2025). Global extent and change in human modification of terrestrial ecosystems from 1990 to 2022. *Scientific Data*, 12(1), 606.

Importantly, the strength of the project was to propose a standardized and replicable methodology about how connectivity is defined and assessed. Developing and sharing openly reproducible (via making scripts available) corridor maps and indicators, and hosting the data within the biosphere reserve, will lower future costs and ensure that local institutions can continue updating and using the data independently from UNESCO. As a result, decision-makers, practitioners and communities now rely on a shared baseline and common language on connectivity, replacing previously disconnected datasets and approaches. This represents a fundamental shift in the technical capacity and coherence of connectivity planning in the TFTBR.

### **Outcome 2 – The TFTBR develops a comprehensive strategy and funding plan to implement landscape connectivity-related KM-GBF Targets 2 and 3**

Building on this shared evidence base, the project supported stakeholders in moving from analysis to joint decision-making and strategic alignment. The project promoted a two-step, bottom-up process. First national and local stakeholder workshops helped maximizing the participation of local communities and actor in the identification of ecological connectivity priorities and focal species (See Outcome 1). These workshops helped creating a common understanding about ecological connectivity and a dialogue between scientific and Indigenous and Local Knowledge (ILK). Second, the trinational workshop and the MAB Youth workshop provided the opportunity to stakeholders to jointly review connectivity scenarios, discuss trade-offs, and co-develop a transparent corridor prioritization framework balancing a set of values, pressures and opportunities factors. These results, combined with stakeholder inputs, fed into the outline of a transboundary, multi-level funding framework. Participants helped identify priority actions, potential financing sources and institutional responsibilities, while mapping their own contributions in the process, especially for youth.

This process not only gather over two hundred (200) participants over eight months, with over 30% of women participation, it also marked an important shift: connectivity planning evolved from a purely technical exercise into a multi-actor, multi-criteria decision-making process, grounded in both science and local realities. As a result, the TFTBR now has not only a clearer vision of where connectivity efforts should be focused, but also how these efforts can realistically be implemented and financed, directly contributing to KM-GBF Targets 2 (restoration) and 3 (connected conservation areas).

### **Outcome 3 – Local stakeholders are informed and are included in landscape connectivity decisions (Communication, Education and Public Awareness – CEPA)**

A key barrier to previous connectivity mapping initiatives in the region had been the limited inclusion of local actors. The project addressed this by placing participation and awareness at the centre of its approach. Through national and local community workshops, a trinational workshop and a youth-specific workshop, the project created spaces where local stakeholders - including Indigenous Peoples (specifically the Chortí People in Guatemala) and Local Communities, could actively shape connectivity planning in a gender-balanced way (over 30% of the participants were women). Participatory mapping exercises allowed communities to identify corridors, threats and opportunities based on their own knowledge and practices, which were then integrated into the technical analyses. This process led to a notable shift from consultation to co-creation. Local actors were not only informed but became contributors to corridor design and prioritization, increasing the legitimacy and relevance of the results.

In parallel, communication materials and outreach activities helped translate technical concepts into accessible messages, fostering broader awareness of ecological connectivity and its links to livelihoods and sustainable development. Communication activities were carried out in collaboration with a communications company to develop an educational leaflet, social media videos, and a poster aimed at promoting awareness of ecological connectivity in local schools and media, through the CTPT. In addition, a more comprehensive institutional

video was also developed to provide an overview of the project. Articles on the project were also published on the UNESCO website and on *Ladera Sur*, a digital platform specialized in environmental communication and outreach. Finally, dissemination of project's early results at the World Congress of Biosphere Reserve in September 2025 helped strengthen global visibility and enhance collaboration opportunities.

## **Output-level report**

### **Output 1.1. Landscape connectivity effectiveness assessment (baseline)**

- A high-resolution (10 m) 2025 land-use and land-cover map was produced for the TFTBR and surrounding areas using Sentinel-2 imagery to provide a robust foundation for connectivity (structural and functional) baselines, analyses and indicators. Importantly, the classification script will be made openly available to local actors for future map updates, which will significantly lower the costs and provide equality of opportunities for any further mapping and connectivity analysis initiative, in line with UNESCO Recommendation on Open Science.
- A trinational ground-truthing campaign verified over 900 points, ensuring the reliability of land use and land cover data for planning and decision-making, exceeding the quality of previous land-use mapping efforts for the Trifinio area (e.g., CATIE 2024 land-use and land-cover map, unreleased, and with less than 200 truthing points).
- A set of performance indicators on landscape connectivity and corridors key functions at multiple spatial scales was produced to support monitoring and future planning, including making scripts available for further and subsequent reproduction by local actors. Indicators include protected area network connectivity (ProNet), habitat quality (e.g., percent natural cover), linear infrastructure pressure and other connectivity-related metrics.

### **Output 1.2. Integration of knowledge gaps and lessons learned into planning**

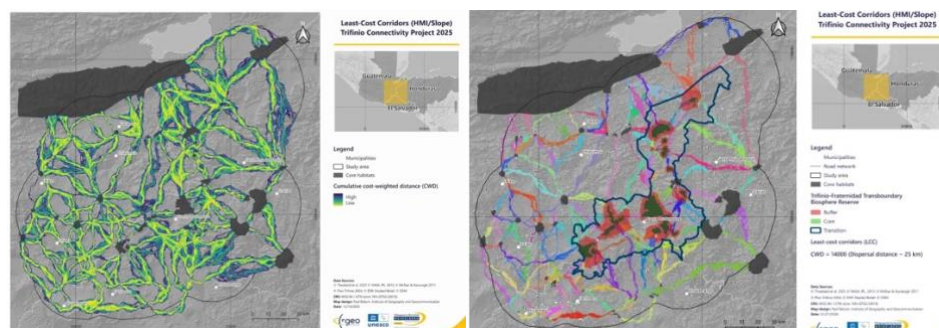
- Previous corridor maps dating from the late 2000s early 2010s were identified and past ecological landscape experiences were reviewed with key government stakeholders. In addition, the project helped identified and share knowledge regarding recent and partial corridor mapping initiatives (e.g. CONECTA+ project in Honduras, or ad hoc ecological corridor mapping in El Salvador's Ministry of Environment) that used different methodologies than this project.
- Existing conservation corridors were identified in two ways: (1) through a structural connectivity mapping exercise using LinkageMapper and integrating elevation data to better approximate movement constraints on terrestrial species; (2) through the generation of participatory spatial connectivity maps where participants identified the species movements and paths, reflecting socio-economic, ecological, and cultural landscape values important to local stakeholders. These maps were further refined with the three local community-based workshops organized as part of Outcome 3.

### **Output 2.1. Mapping of landscape connectivity opportunities and scenarios**

- Geospatial and socio-economic analyses of corridor design options were conducted to design multiple landscape connectivity scenarios integrating ecological, institutional and livelihood considerations. Socio-economic dimensions were accounted for in two ways: (1) Reviewing the available geospatial socio-economic information (economic, education, employment, and health indicators), only mapped

at the municipal unit; (2) integrating local stakeholders' inputs regarding socio-economic dimensions of corridors during the project workshops. The socio-economic dimensions of ecological corridor options were also integrated to the corridor prioritization framework co-constructed during the trinational connectivity workshop (See below).

- Six (6) structural connectivity models and corridor maps (i.e., scenarios) were developed using LinkageMapper and Omniscape, identifying priority corridors, landscape permeability, and critical pinch points where connectivity is constrained, considering different corridor width and elevation. The mapped corridors expand well-beyond the biosphere reserve boundaries to connect with surrounding protected areas and biosphere reserves and integrate a series of human landscape modification constraints (Human Modification Index).



(3) Map of structural corridors (in green blue gradient on the left-side picture and in colors on the right-side picture) linking the core areas (in dark green) of the TFTBR and nearby protected areas, as described by the LinkageMapper modelling.

- Due to the extremely limited availability of species-specific movement data, a full functional connectivity analysis was not feasible; however, the structural connectivity assessment represents a major advance and provides a robust scientific foundation for future functional connectivity analyses as biodiversity monitoring capacities are strengthened in a next project phase. Yet, the project allowed to define in a participatory way the focal species of particular importance to local communities (see list above under Outcome 1), list species movement experts for each of them, and explore synergies with other organizations and projects to further advance functional analysis.

## Output 2.2. Development of a strategic, transboundary, and multi-level funding plan

- One (1) trinational connectivity workshop (November 2025) convened over 100 participants from the three countries over 2 days. In a first phase (Day 1), participants jointly reviewed participatory and scientific connectivity maps, and co-constructed a transparent, multi-criteria corridor prioritization framework for corridor scenarios. This framework includes 23 criteria integrating ecological value, socio-economic benefits, governance feasibility and alignment with territorial and land-use planning instruments. On a second phase (day 2), participants identified concrete actions to be integrated into a multi-level funding plan, providing approximate locations of potential interventions across a range of activity categories.
- A preliminary funding framework was outlined through stakeholder consultations and donor identification, highlighting potential financing needs and cooperation opportunities at transboundary and multi-level scales.

## Output 3.1. Community engagement and education

- Three local community-based workshops (October 2025) were organized in areas adjacent to priority corridors engaging over 100 participants and strengthening the participation of Indigenous Peoples and Local Communities (IPLCs), including the Chortí People in Guatemala. These workshops validated and refined corridor concepts through participatory mapping, integrated local land-use practices and livelihood.
- A Trinational MAB Youth workshop engaged over 30 young participants in connectivity planning, biodiversity conservation. The workshop helped strengthen the identification of sustainable development actions that can be implemented in corridors and specifically by youth.



(4) Participants of the MAB Youth workshop (UNESCO)

- An educational leaflet was produced to support awareness-raising, environmental education, long-term engagement among communities, youth and decision-makers for ecological connectivity and the biosphere reserve.
- A multimedia campaign using social media, photos and video content, and a project infographic poster were created both to promote the KBF project in the Trifinio-Fraternidad Transboundary Biosphere Reserve and the theme of biosphere reserve for Central America and ecological connectivity. The project was also featured on the UNESCO website and on *Ladera Sur*, a digital platform specialized in environmental communication and outreach.



(5) Educational and communications products for the project (from left to right: (1) project institutional video; (2) project poster; (3) education leaflet (UNESCO))

### Output 3.2 Stakeholder collaboration and policy integration

- The key relevant environmental authorities of the three countries were fully engaged and updated throughout the project. In addition of bilateral meetings with government authorities, other multilateral agencies and local organizations and NGOs, all national and local stakeholders were invited to participate to the workshops organized during the project.
- The project gained global visibility and recognition through its participation in the session “*SI Kunming Biodiversity Fund supporting the achievement of the Global Biodiversity Framework 30×30 Target*” at the World Congress of Biosphere Reserves in September 2025, where project participants were invited by the KBF to present early results, fostering international exchange and strengthening dialogue with governments, NGOs and multilateral partners.

## Qualitative assessment

Overall, the project achieved a high level of effectiveness and strategic relevance, successfully delivering on its objectives within a short timeframe. Beyond its immediate results, the project established a shared scientific, institutional and social foundation for scaling up ecological connectivity in the TFTBR.

A defining feature of the project was the **strength of its partnerships**. UNESCO was able to coordinate, facilitate and integrate knowledge across the three participating countries and relevant stakeholders. **Over 200 stakeholders (including over 30% of women participants) across the three countries were engaged** through national, community-level and trilateral workshops, including local authorities, reserve committees, NGOs, Indigenous Peoples and Local Communities, women's networks and youth. The Trilateral Commission for the Trifinio Plan demonstrated exceptional initiative by proposing to elevate local information meetings into three fully fledged, community-based connectivity workshops, replicating the methodology applied during the first three national workshops. This proactive approach went beyond the project's initial scope and contributed to stronger local ownership, specifically by engaging the Chortí Indigenous People in Guatemala.



(6) Mr. Timoteo Valdez, a representative of the Chortí People speaks at the Trilateral Connectivity Workshop (Plan Trifinio - Dirección de comunicaciones)

The project allowed to **create a common knowledge-based and a community of practice around ecological connectivity**, connecting organizations that previously worked on the ecological connectivity theme in relative isolation from one another. UNESCO's coordination helped to identify key ecological datasets, land-use map updates and past connectivity projects that were often ignored from or not yet accessible to other partners, or for which institutional memory was not kept from one administration to the other (e.g. CONECTA+ project in Honduras, or ad hoc ecological corridor mapping in El Salvador's Ministry of the Environment and Natural Resources - MARN). Technical partners such as the Center for Large Landscape Conservation (CLLC) and academic institutions ensured the scientific robustness of the data.

The project also triggered cross-cutting benefits and concrete follow-up opportunities, including potential expansion of biosphere reserves and interest in mobilizing additional international funding:

- El Salvador indicated its intention to start exploring the possibility of extending the Salvadoran component of the Trifinio-Fraternidad Biosphere Reserve to include the Protected Natural Area of La Montañona following corridors mapped by this project and to improve ecological connectivity. The country also expressed its intention to mobilize additional sources of funding to the KBF, including the Global Biodiversity Framework Fund (GBFF).
- Importantly, the project had a catalytic effect. It contributed to mobilizing additional funding with 30,000 EUR from Spain's OAPN for pilot restoration actions in the mapped corridors.
- UNESCO and the Trilateral Commission for the Trifinio Plan (CTPT) formalized cooperation through a Memorandum of Understanding (MoU) to support the TFTBR implementation of its management plan, ecological corridors, and strengthen the integration of IPLC in its governance.

In this sense, the project helped create a shared understanding of connectivity planning across the three countries, positioning the TFTBR for a next phase of implementation with well-planned restoration actions. The project also paved the way to move toward functional connectivity analysis, improved biodiversity monitoring and on-the-ground ecological restoration and nature-based solutions that support ecological connectivity and the sustainable livelihoods of local stakeholders, advancing the Target 2 and 3 of the KMGBF, of “well-connected protected areas.”

## Donor Visibility



Workshop banners and materials (1. National workshop banner; 2. Trinational workshop banner; 3. Trinational workshop tee-shirt)



Publications and communication (1. Education leaflet; 2. Project poster; 3. Project video)

## ii) Indicator Based Performance Assessment:

Using the **Project Results Framework from the Project Document / AWP**s - provide details of the achievement of indicators at both the output and outcome level in the table below. Where it has not been possible to collect data on indicators, clear explanation should be given explaining why.

	<b><u>Achieved</u> Indicator Targets</b>	<b>Reasons for Variance with Planned Target (if any)</b>	<b>Source of Verification</b>
<b>Outcome 1<sup>12</sup></b> <b>Indicator:</b> Shared and validated baseline on ecological connectivity by stakeholders <b>Baseline:</b> Fragmented and outdated data; no shared baseline <b>Planned Target:</b> Harmonized baseline produced and shared	Structural ecological corridors mapped and indicators produced	None	Workshop reports, datasets
<b>Output 1.1</b> <b>Indicator 1.1.1.:</b> Baseline mapping and indicators produced <b>Baseline:</b> No recent harmonized baseline <b>Planned Target:</b> Indicators developed	LULC map and connectivity indicators developed	None	Technical reports, datasets
<b>Output 1.2</b> <b>Indicator 1.2.1:</b> Past corridor initiatives reviewed and available data is reviewed <b>Baseline:</b> no recent corridor data <b>Planned Target:</b> Exhaustive review of existing corridors maps and connectivity-related data	Past corridor initiatives and available data is reviewed	Review is more complete than expected due to the identification of additional corridor mapping initiatives not widely shared	Workshop reports, datasets
<b>Outcome 2</b> <b>Indicator:</b> Connectivity scenarios and funding framework developed <b>Baseline:</b> No shared strategy or prioritization framework <b>Planned Target:</b> Scenarios, prioritization framework and funding plan developed	Map of structural corridors associated with identified actions that can be funded	Functional connectivity not technically feasible due to lack of species data	Technical outputs; workshop report
<b>Output 2.1.</b> <b>Indicator:</b> Connectivity scenarios developed <b>Baseline:</b> No connectivity scenarios available <b>Planned Target:</b> Multiple scenarios integrating ecological and socio-economic data	At least 6 connectivity scenarios produced	Functional connectivity not in scope	Datasets

<sup>12</sup> Note: Outcomes, outputs, indicators and targets should be as **outlines in the Project Document** so that you report on your **actual achievements against planned targets**. Add rows as required for Outcome 2, 3 etc.

<p><b>Output 2.1.</b>  <b>Indicator:</b> Prioritization framework and funding plan developed  <b>Baseline:</b> No coordinated transboundary funding approach  <b>Planned Target:</b> Participatory prioritization and funding roadmap</p>	<p>Multi-level funding plan elaborated with the participation of 50 stakeholders and 25 youth participants</p>	<p>Participation exceeded expectation with over 100 participants and over 30 youth representatives</p> <p>Funding plan remains preliminary</p>	<p>Technical outputs; workshop report</p>
<p><b>Outcome 3</b>  <b>Indicator:</b> Stakeholder participation and inclusion in planning  <b>Baseline:</b> Limited stakeholder engagement  <b>Planned Target:</b> Inclusive participation across countries</p>	<p>At least 100 local stakeholders participants</p>	<p>Participation exceeded expectations with over 200 participants engaged</p>	<p>Workshop reports</p>
<p><b>Output 3.1.</b>  <b>Indicator:</b> Community engagement and awareness activities implemented  <b>Baseline:</b> Limited structured engagement  <b>Planned Target:</b> Workshops, youth engagement</p>	<p>Organization of three (3) information meetings</p>	<p>Meetings exceeded expectations as they were transformed by local partner into community-based workshops</p>	<p>Workshop reports</p>
<p><b>Output 3.2.</b>  <b>Indicator:</b> Education materials are available to inform about connectivity in biosphere reserve  <b>Baseline:</b> No material available  <b>Planned Target:</b> Communication tools delivered</p>	<p>Development of one education material and one information leaflet</p>	<p>None</p>	<p>Publication</p>

### iii) Evaluation, Best Practices and Lessons Learned

#### Evaluation and use of assessments

No formal independent final evaluation was conducted due to the short duration of the project (8 months). However, continuous technical validation and stakeholder feedback served as embedded evaluation mechanisms throughout implementation. These included geospatial ground-truthing campaign for the LULC map and structured feedback from national, community and trinational workshops. Regular coordination with technical partners and the Trinational Commission for the Plan Trifinio (CTPT) ensured that outputs remained aligned with user needs and policy frameworks. A key finding from these processes is that combining scientific analysis with participatory validation significantly strengthens both the credibility and usability of results.

#### Challenges, risks and mitigation measures

The project faced several constraints typical of short-term, multi-country initiatives.

- Limited availability of species movement data prevented full functional connectivity analysis. This was mitigated by focusing on robust structural modelling, identifying focal species, and laying the groundwork for future monitoring.
- Data fragmentation and institutional silos also posed challenges. These were addressed by actively compiling and sharing datasets and fostering collaboration among institutions, resulting in a shared knowledge base.
- The short implementation timeframe constrained the depth of analysis but was mitigated through strong coordination, standardized methodologies and effective support from the CTPT.
- Risks related to limited stakeholder engagement did not materialize. On the contrary, participation exceeded expectations, with local partners expanding engagement processes and strengthening ownership.

Overall, these challenges did not compromise results and, in some cases, led to stronger outcomes in coordination and participation.

#### Lessons learned and best practices

- **Addressing data fragmentation and institutional memory is a priority:** A major constraint is not only the lack of data, but also its dispersion across institutions and the loss of institutional memory. Improving data sharing mechanisms and coordination - potentially through regional bodies such as SICA - is essential to support coherent and sustained connectivity planning.
- **Open science and participation must be combined to guarantee ownership and sustainability:** Integrating geospatial analysis with local knowledge, and sharing data, tools and scripts, enables continuity beyond the project. It also facilitates the integration of results into ongoing initiatives and supports fundraising efforts by local partners. The project further highlighted the need for sustained investment in biodiversity monitoring and species data, as well as longer-term support to move from planning to implementation.
- **Strong coordination mechanisms are critical for transboundary initiatives:** The role of the Trinational Commission for the Plan Trifinio (CTPT) was essential in ensuring effective collaboration across the three countries, bridging institutions and facilitating stakeholder engagement at multiple levels.

- **Short-term projects should focus on building foundations rather than completeness:** Investing in shared data, partnerships and governance frameworks creates the necessary conditions for future implementation and scaling, even when time and resources are limited.
- **Strengthening partnerships with academic institutions is key for long-term continuity:** Connectivity initiatives should include a strong university outreach and coalition-building component to ensure that technical work, data updates and capacity-building efforts continue beyond the project's lifetime.

#### iv) A Specific Story (Optional)

***Problem / Challenge faced:*** Describe the specific problem or challenge faced by the subject of your story (this could be a problem experienced by an individual, community or government).

At the outset, limited funding meant that community engagement was expected to remain relatively light, raising the risk that connectivity planning would be driven primarily by technical analyses, with insufficient inclusion of local and Indigenous perspectives.

***Programme Interventions:*** How was the problem or challenge addressed through the Programme interventions?

Faced with this constraint, the Trinational Commission for the Plan Trifinio (CTPT) chose to go beyond the initial plan. Instead of holding simple information meetings, it transformed them into fully participatory workshops, replicating the same methodology used by the project during at in national-level workshops, showing full appropriation by local partners of the project. This shift created space for Indigenous Peoples and Local Communities, particularly the Chortí in Guatemala, to actively engage, map their territories, and discuss connectivity in relation to their livelihoods and cultural practices.

***Result (if applicable):*** Describe the observable **change** that occurred so far as a result of the Programme interventions. For example, how did community lives change or how was the government better able to deal with the initial problem?

What began as a technical exercise evolved into a shared process shaped by local actors. Communities not only validated corridor maps but enriched them with knowledge that had not been captured in scientific and geospatial data. In doing so, they also reframed the concept itself, suggesting the term “biocultural corridors” to better reflect the links between ecosystems, culture and ways of life. This marked a clear shift from consultation to genuine ownership of the project’s objectives.

***Lessons Learned:*** What did you (and/or other partners) learn from this situation that has helped inform and/or improve Programme (or other) interventions?

This experience shows that even with limited resources, adaptive implementation and trust in local partners can significantly deepen participation. It also highlights that meaningful engagement allows communities not only to contribute to planning, but to reshape its vision, making it more relevant, legitimate and sustainable.