

Managing Protected Areas in Multi-functional Landscapes

Supporting the implementation of the Kunming-Montreal Global Biodiversity Framework

 Reconnect





1. Introduction

Human activities have caused biodiversity to decline at an alarming rate in recent decades, with land and sea use changes, overexploitation of natural resources, pollution, invasive alien species and climate change as the main drivers (IPBES, 2019). The resulting numbers speak for themselves: 75% of the Earth's surface has been significantly altered, global wildlife populations have declined by 69% in the last fifty years, and pollution is threatening all ecosystems, for instance, 90% of ocean species that were assessed are adversely affected by plastic pollution (Tekman et al., 2022; WWF, 2022).

To address the triple planetary crisis, and to put nature on a path to recovery, governments adopted the Kunming-Montreal Global Biodiversity Framework (GBF) in December 2022. Amongst the several provisions of the document, Target 3 calls for the protection and effective conservation of at least 30% of the planet by 2030, while Target 1 calls for all areas to be under participatory, integrated and biodiversity inclusive spatial planning and/or effective management processes (CBD, 2022).

Protected areas have become the cornerstone for biodiversity conservation worldwide. They need to protect key habitats and species, and simultaneously support natural processes across various landscapes. However, with humans present and invested in most land- and seascapes, protected areas need to be compatible with many different circumstances and surroundings (Hughes & Grumbine, 2023; IPBES, 2019). Here is where RECONNECT can contribute with key insights and support the implementation of the Global Biodiversity Framework.





1.1. Introduction to RECONNECT

In order to preserve our natural environment, biodiversity conservation must be anchored in local realities. This means that measures taken to support biodiversity must adequately consider people's interests, competing land uses, management practices, other sectors, as well as the historical and cultural features of landscapes – matters that are commonly overlooked in contemporary biodiversity conservation.

RECONNECT focuses on the social-ecological relations between protected areas and the larger landscapes that they are embedded in. The project explores various connections – ecological, social, institutional – to understand how protected areas relate to the 'outside' world. With this holistic take, the project goes beyond the conventional approach to biodiversity conservation and contributes to better coherence in discussions and decisions about the management of landscapes.

RECONNECT gives special attention to boundaries, as they are often part of struggles and conflicts due to the different meanings they create, reflect or imply. In this sense, boundaries can also reveal where and how there is potential to reconnect people and natural environments, governments and citizens, urban communities and rural communities, and biodiversity conservation and other competing uses of land.

Through a combined analysis of different governance modes of protected areas, various forms of interconnections, and the diversity of values and practices connecting people and place, RECONNECT provides valuable insights on how to manage protected areas in multi-functional landscapes.

RECONNECT is 4-year long project (2023-2026) that is sponsored by Biodiversa+ and the EU, with a budget of approximately 1,4 million Euro's. The project spans across four different case studies, namely Stockholm (Sweden), Göttingen (Germany), Grenoble (France), and Cape Town (South Africa).

The partners of RECONNECT are: Stockholm University, IUCN European Regional Office, French National Centre for Scientific Research, University of Helsinki, University of Göttingen, University of Western Cape, University of Cape Town.

STOCKHOLM
SWEDEN

GÖTTINGEN
GERMANY

GRENOBLE
FRANCE

CAPE TOWN
SOUTH AFRICA



2. The Kunming-Montreal Global Biodiversity Framework

2.1. General Overview

Although RECONNECT has bearing on the targets of the Kunming-Montreal Global Biodiversity Framework in general, this policy brief explores how it contributes to target 1 and 3 specifically. The Global Biodiversity Framework is a multilateral agreement and, as such, its impact depends largely on the way it is implemented (Tugendhat & Ferrari, 2023). RECONNECT could support the translation of this agreement into regional and local realities through analysing and mapping key institutional, ecological, and social aspects and their interactions, and combining them into a comprehensive approach to biodiversity conservation in the landscapes they are embedded in. For the successful implementation of the Global Biodiversity Framework, both benefits for biodiversity and people and their interconnections will need to be considered and actively managed within mixed and sometimes contested landscapes.

2.2. Key targets for RECONNECT

In order to preserve our natural environment, biodiversity conservation must be RECONNECT centres its work around protected areas (Target 3) but extends its scope to a comprehensive approach where biodiversity conservation is integrated across a wide diversity of landscapes and contexts (Target 1). In the section below, key elements have been highlighted where RECONNECT contributes to the implementation of the Global Biodiversity Framework:

Target 1: “Ensure that all areas are under participatory, integrated and biodiversity inclusive spatial planning and/or effective management processes addressing land- and sea-use change, to bring the loss of areas of high biodiversity importance, including ecosystems of high ecological integrity, close to zero by 2030, while respecting the rights of indigenous peoples and local communities.” (CBD, 2022).

RECONNECT contributes to this target as it proposes re-thinking connectivity as a cross-cutting lens for the analysis of landscape dynamics. The project adopts a holistic approach that interlinks nature, humans and institutions beyond protected areas to contribute to a coherent understanding of the landscapes itself, and an integrative approach to biodiversity conservation overall. RECONNECT combines an analysis of individual perspectives and institutions to identify opportunities and constraints for local communities to be involved in making decisions about use of land.



Target 3: “Ensure and enable that by 2030 at least 30 per cent of terrestrial and inland water areas, and of marine and coastal areas, especially areas of particular importance for biodiversity and ecosystem functions and services, are effectively conserved and managed through ecologically representative, well-connected and equitably governed systems of protected areas and other effective area-based conservation measures, recognizing indigenous and traditional territories, where applicable, and integrated into wider landscapes, seascapes and the ocean, while ensuring that any sustainable use, where appropriate in such areas, is fully consistent with conservation outcomes, recognizing and respecting the rights of indigenous peoples and local communities, including over their traditional territories.” (CBD, 2022).

RECONNECT contributes to this target by analysing the spatial and institutional design of landscapes, to enhance the biodiversity of species, which includes their varying ability to move between protected areas through the managed matrix, and for the simultaneous delivery of multiple benefits to people. In particular, the project analyses where new protection and restoration of natural and semi-natural ecosystems should be placed in landscapes to best accommodate multiple benefits to biodiversity and ecosystem services. RECONNECT also reveals different relations to landscapes and thus informs the different perspectives that need to be represented in equitable governance processes.



3. Link to the four case studies

With the Global Biodiversity Framework in mind, an interconnected network of protected areas that covers key biodiversity areas will have to be fully integrated in already existing landscapes. This can only be done with appropriate governance systems in place, and a good understanding of how the landscape functions. The work of RECONNECT spans across four case studies which are located in Göttingen (Germany), Grenoble (France), Cape Town (South Africa), and Stockholm (Sweden). Each case study has its own context and specificities that contribute to an overall understanding of social-ecological dynamics in multi-actor and multi-functional landscapes, and their implications for biodiversity conservation.

3.1. Stockholm

Even in geographically small areas, actions regarding biodiversity can be fragmented and strictly follow administrative boundaries. A lack of communication and collaboration between different administrative areas such as cities and municipalities, manifested in insufficient information flows, differing political realities and low resources for dialogue, hinder effective management of protected areas that expand over the borders of these different administrative areas. This leads to diverse priorities, strategies and possibilities to work with biodiversity and ensure ecological connectivity in urban multifunctional landscapes. The protected areas are also embedded in mixed use landscapes with many different actors and organizations actively involved in shaping the landscape, all with their own targets, goals and modes of working.

The Stockholm case links to Target 1 of the Global Biodiversity Framework by developing and testing deliberative spaces for collaboration for the management of protected areas through a geodesign process (workshops facilitated with the aid of maps), and by adding understanding on how these areas are managed in the contexts of multiple values, organisational mandates and objectives, and land use pressures. These actions support participatory and inclusive spatial planning and can increase social connections between diverse organizations enabling better informed management of shared green and protected areas.



3.2. Göttingen

Besides ecological fragmentation, social fragmentations in the form of contestation and conflicts are well-known challenges for effective protected area governance. Lack of acceptance and political ownership, fragmented ownership and users' rights, siloed policy and planning processes are some examples. Local actions to counteract these challenges until now mostly target management and planning levels and it is difficult to address deeper leverage points on the ground, such as values. The Göttingen case study addresses Target 1 of the Kunming-Montreal Global Biodiversity Framework by analyzing the multiple values and connections between people and protected areas.

We explore the emotional, material, physical, philosophical, cognitive, cultural and institutional connections of residents, land users and land managers towards local protected landscapes. Based on interviews we describe narratives of connection that reach beyond classical conservation issues or conflicting interests and broaden the view on protected areas to encompass learning, social relationships, regional identity, responsibility, sustainable food production, resilient social structures, cultural heritage and the like.

The awareness of this diversity of connections can help set up new alliances for biodiversity protection in and around protected areas. It informs discussions on how to design and manage protected areas that are supportive of diverse human-nature and social connections and increase their social benefits and inclusivity.



3.3. Grenoble

The Grenoble case study specifically addresses GBF Target 3 by analysing the spatial design of landscapes for biodiversity of species with varying ability to move between protected areas through the managed matrix, and for the simultaneous delivery of multiple services. In particular, we analyse where new protection and restoration of natural and semi-natural ecosystems should be placed for these multiple benefits to biodiversity and diverse land management objectives.



A fragmented landscape is an obstacle for Target 3 because it hinders the movement of many species between protected areas, and also between managed areas that benefit from biodiversity for social, cultural and economic objectives for example through pollination, biocontrol of crop pests and weeds or the presence of culturally important species. A fragmented landscape also limits ecological flows of matter (water, nutrients, sediments...) and energy, which can impede ecosystem services like the provision of water or energy. However, some fragmentation is beneficial for some key regulating functions like the control of erosion or of water quality when small fragments of semi-natural vegetation intercept water, sediments, nutrients or pollutants, or provide physical protection from wind or shading for humans, livestock and wild species.

Our restoration scenarios will support the regional land use strategy for meeting GBF Target 3. Our work with regional government institutions ensures our results are integrated into the metropolitan biodiversity strategy, the update of the regional land use plan, the regional climate change adaptation strategy and the scaling up of nature-based solutions (including a large tree planting programme).



3.4. Cape Town

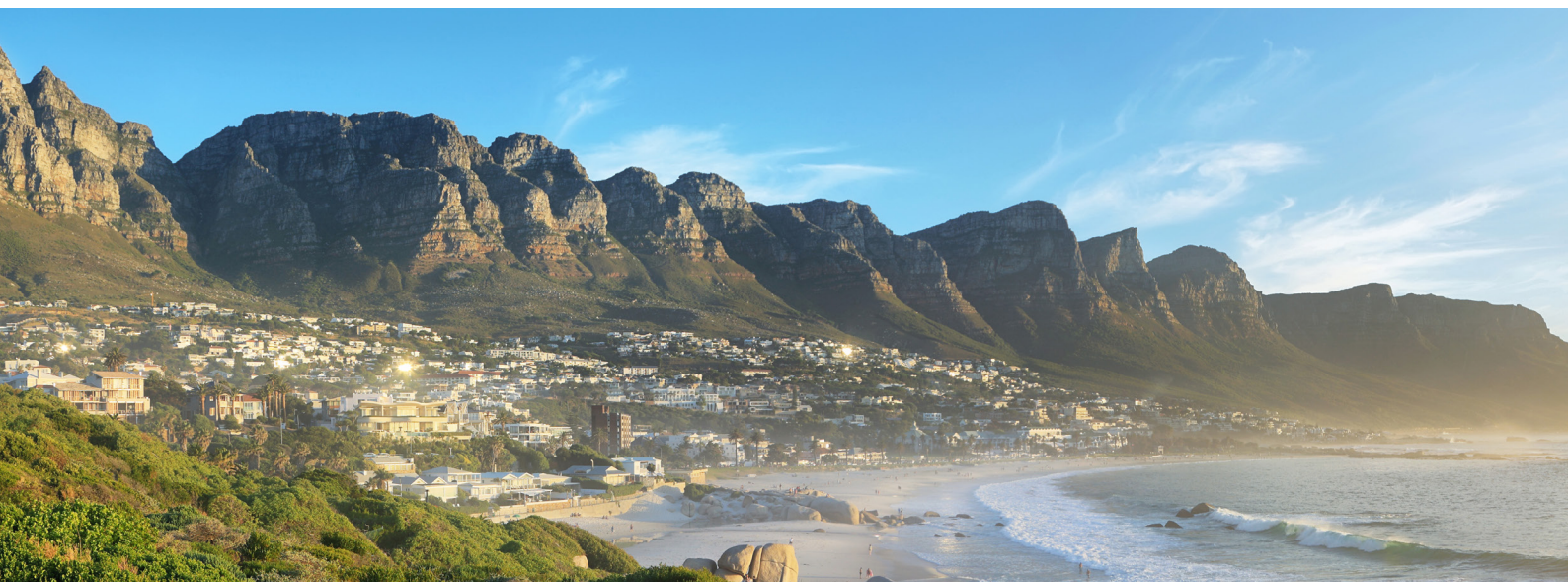
The City of Cape Town and its immediate surrounding landscapes are home to a remarkably diverse flora with significant levels of endemism, which, when combined with the development pressure associated with the City, make the region a biodiversity hotspot. The apartheid planning form, a form that dictated separate and inequitable development along racial lines, has an enduring legacy in all South African landscapes. Meeting conservation agenda's and targets can be seen as counter to attending to often more pressing development agendas, and issues of social justice and redress. A landscape approach, that works beyond the individual patch, and one that actively seeks to connect people and reduce the barriers and boundaries between conservation entities, is seen as a useful approach in these historically complex landscapes.

The Cape Town case study addresses Target 1 of the Kunming-Montreal Global Biodiversity Framework by taking a close look at the notion of participatory governance and management for more effective conservation. In addressing this Target, we adopt



a multi-functional landscape lens and explore how wider landscape planning can be effectively used to address development and biodiversity agendas in a manner that is conflict-averse. Especially land ownership structures and power relations are important in understanding the emergence of collective responses to the effects of climate change and related environmental crises and possibilities for reconnection where there have been social and ecological rifts. This approach is taken up in relation to a local Biosphere Reserve, as well as the City's conservation plans, which are informed by Target 3.

The case of the City of Cape Town is somewhat different to the European project partners given that this is a city based in the Global South, one that is framed by weak governance, poverty and fiscal constraints. It is anticipated that there will be opportunities for joint learnings, across all the partners, where different circumstances will provide unique insights to connectivity for improved conservation across our socially, historically, and biologically diverse landscapes.



4. The way forward

Ahead of COP 16 of the Convention on Biological Diversity in October 2024, each Party is required to submit a revised National Biodiversity Strategies and Action Plan (NBSAP). These NBSAP describe how each Party intends to align efforts toward the GBF's targets, including their own national targets for implementation. COP16 will be the moment to maintain the Framework's momentum, as well as to ensure that we move from agreement to action and get properly aligned with its 2050 vision of 'living in harmony with nature'.

RECONNECT spans two continents and therefore allows to investigate different policy processes, which in turn allow the project to gain a better understanding of the opportunities and challenges that implementation of international strategies has on the ground.



4.1. Policy Developments in the EU and South-Africa

The European Union published in 2020 its EU Biodiversity Strategy to 2030, a key pillar of the EU Green Deal initiative. Although it was released before the GBF, the document is, on purpose, well aligned with the overall goals of the Kunming-Montreal Global Biodiversity Framework. Two important commitments stemming from this strategy are the protection of 30% of EU land and sea and the restoration of 20% of EU territory by 2030. To support this, the EU also published criteria and guidance for the designation of protected areas in 2022. The EU is set to publish a progress report on the EU Biodiversity Strategy and its current alignment with the Global Biodiversity Framework as part of the 8th Environmental Action Programme mid-term review in the first part of 2024. Accompanied by a Biodiversity Dashboard and Action Tracker of the progress of the EU on the Global Biodiversity Framework, this will serve as their new NBSAP ahead of COP 16 (European Commission, n.d.).

Similarly, as one of the most biodiversity rich areas in the world, South Africa also has an extensive policy framework in place to conserve its biodiversity. The country's current NBSAP (2015-2025) together with the National Biodiversity Assessment (2011), form the basis for the National Biodiversity Framework, which is updated every 5 years (SANBI, n.d.). The country released a new 10-year Strategy for Advancing Natural Capital Accounting in 2021, which provides data on natural resources and their benefits to inform the country's decision-making (Statistics South Africa, 2021). South Africa also recently updated its 'White Paper on the Conservation and Sustainable Use of South Africa's Biological Diversity' in 2023, which is a broad policy document that is to serve an integrated and holistic approach to biodiversity conservation (DFFE, 2023).

4.2. Recommendations for the upcoming NBSAPs

Historically, global biodiversity targets have not been met, including the previous Aichi targets that were agreed by the CBD Parties in 2010 (Kumar, 2020). One universal underlying reason that was identified was the lack of strong effective implementation on national level. Ultimately, the success of the Global Biodiversity Framework will depend on how far biodiversity is mainstreamed in our lives, if our inter-relationships with the environment are re-established and a firm foundation for implementation is in place, including top-down and bottom-up mechanisms at all scales (Friedman et al., 2022).

As portrayed by the case studies, RECONNECT provides a comprehensive approach to biodiversity conservation that adopts a social-ecological lens which considers the various (inter-)connectivities in landscapes. In this context, key considerations for the implementation of target 1 and 3 of the Global Biodiversity Framework could include:

Using Social-ecological mapping to understand which activities are best suited for different areas.

The mapping of key ecological and social aspects in the landscape, across different land uses, and their interconnectivity provides the necessary context for the development of regional and local strategies on biodiversity conservation to inform Parties' NBSAPs on Target 1 and 3. RECONNECT's approach to mapping social-ecological boundaries and tensions will help understand which activities should take place where, to maximize benefits for both biodiversity and people, and to improve interconnection and overcome fragmentation.



Embracing a diversity of connections to enhance participatory and inclusive management.

An integrated approach must address trade-offs and harmonise ecological conservation with improving people's lives in a variety of landscapes, from rural agricultural landscapes to urbanised areas, and in the global north and south alike. The inclusion of a diversity of connections to nature in decision-making supports improved social connections, mutual understanding and a common language. Respectively, these connections can support new alliances for nature, building bridges between nature conservation and different parts of society, local context and the economy, to thrive together in harmony.

Understanding conservation success in relation to the governance system in place.

Successful implementation of biodiversity conservation measures relies strongly on the effectiveness of the governance system in place. By analysing what institutional arrangements support conservation success in a variety of international and regional contexts, RECONNECT helps to explore new modes of governance that are ecologically, socially and 'cross-relationally' informed. Including identifying clear mechanisms for participatory and inclusive decision-making and coordination, and the integration of a coherent policy framework, which in turn reduces sectoral silos effects and strengthens synergies.

Actively managing connections between protected areas and surrounding landscapes.

The world is undergoing rapid change, and understanding how protected areas are interconnected with their surroundings also draws attention to the need to adapt to changing circumstances. Attention to different connections and boundaries allows a way to actively work with flows, exchange and place relations. Depending on circumstances, protected areas and the actors around them need to be better able to adjust and shift to different modes of being more or less connected. Ecologically, socially and institutionally.

Providing concrete examples of the implementation of the GBF in local realities.

For biodiversity conservation to work in landscapes with multiple actors and multiple functions, conservation measures should be properly adapted to the regional and local circumstances in which they are implemented. Through its varied case studies, RECONNECT will provide best practices and lessons learned on how to best integrate biodiversity conservation in different existing landscapes. This can help the implementation of the relevant policies and legislative provisions in general, but specifically in the areas where the project is operating, namely the EU (EU Biodiversity Strategy 2030 and protected areas pledges) and South-Africa (National Biodiversity Framework). Here, the results from the project will be used to provide targeted recommendations specific to this context.

RECONNECT will assess the strengths and limitations of a social-ecological approach to connectivity and connectedness in multifunctional landscapes for biodiversity conservation for the next two years, providing various tools, perspectives, and methods to support the implementation of the GBF and move ahead with biodiversity conservation.



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