Policy Brief

Towards an Inclusive Global Biodiversity Framework

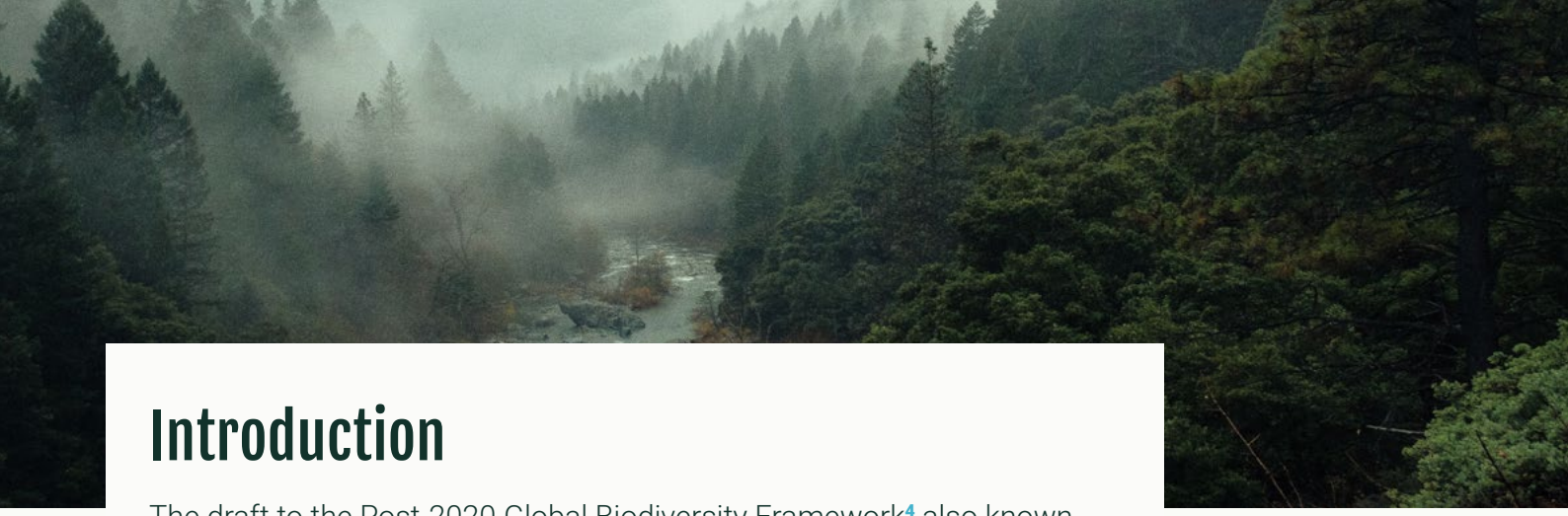
ENVISION

Fall 2020

Executive Summary

In 2020, the world failed to meet a single target to stop environmental degradation and the destruction of wildlife. Protected areas (PAs) such as national parks and natural reserves are critical for conserving biodiversity, in particular for threatened species, habitats and ecosystems, from the local to the regional level, and provide multiple ecosystem services that enhance human wellbeing. However, conservation efforts in many PAs often lack effective management plans. A unifying challenge for PAs management is the need to extend and broaden the stewardship of PAs, by including the diverse visions of stakeholders and engaging nearby communities.

This briefing shows how the inclusive conservation approach can accommodate and balance different visions for PA management, a crucial step towards achieving socially relevant, and environmentally sustainable outcomes in PAs. Inclusive approaches to conservation planning are also key for the implementation of the Post-2020 Global Biodiversity Framework and other frameworks such as the EU Biodiversity Strategy for 2030. We conclude that future actions to improve the management of PAs - in the EU, the US and globally- would benefit from considering and promoting inclusive conservation as management approach.



Introduction

The draft to the Post-2020 Global Biodiversity Framework[4] also known as zero draft recognizes that "outreach, awareness and uptake of the post-2020 global biodiversity framework by all stakeholders is essential to effective implementation". The Framework is based on a so-called "theory of change", which acknowledges for its implementation the need for appropriate recognition of gender equality, women's empowerment, youth, gender-responsive approaches and the full and effective participation of indigenous peoples and local communities[4]. In fact, "the participation of all relevant stakeholders, non-governmental organizations, youth, civil society, local and subnational authorities, the private sector, academia and scientific institutions through a whole-of-society approach and through inclusive and representative multi-stakeholder and multisectoral platforms [4] 'is one of the enabling conditions required for the achievement of the 2030 Action Targets.[4]

The inclusive conservation approach enhances stakeholders' engagement in PA management with the goal to enhance the acceptance and implementation of conservation measures. In order to ensure the achievement of the 2050 global goals [4], we all need to be part of the effort: ownership of these goals by all stakeholders is indeed crucial. The inclusive conservation approach can contribute to several targets of the post-2020 Global Biodiversity Framework, especially to Target 2: "By 2030, protect and conserve through well connected and effective system of protected areas and other effective area-based conservation measures at least 30 per cent of the planet with the focus on areas particularly important for biodiversity". [4]

Research within the ENVISION project supports the development of an inclusive approach to the management of protected areas, known as inclusive conservation, with the aim of improving biodiversity and human well-being. Inclusive conservation is an approach for accommodating and balancing different stakeholder visions for protected area management to achieve socially relevant, and environmentally sustainable outcomes in protected areas. It has the potential to integrate multiple visions for growth, development and the conservation of protected areas. A cornerstone of inclusive conservation is the application of multiple methods that function to expand the space for engagement and dialogue across the various stakeholders of a protected area, such as recreational users, local residents, local businesses, land managers, farmers, researchers and local governments.[1–3]

By extending and broadening the stewardship of PAs, the inclusive conservation approach can be helpful in support of finding a balance between the conservation of biodiversity and providing the basis for the social and economic development of local residents. To find this balance is certainly the main focus of the inclusive conservation tools explored within the ENVISION project, but they can also contribute to the achievement of other 2050 biodiversity targets (as noted in the Zero Order Draft[4]), including:

- **Target 12**

  By 2030, increase by [X] benefits shared for the conservation and sustainable use of biodiversity through ensuring access to and the fair and equitable sharing of benefits arising from utilization of genetic resources and associated traditional knowledge. [4]

  Inclusive conservation, by engaging with local communities, can support the development of benefit-sharing models striving to achieve a transparent and efficient governance.

- **Target 15**

  By 2030, eliminate unsustainable consumption patterns, ensuring people everywhere understand and appreciate the value of biodiversity, and thus make responsible choices commensurate with 2050 biodiversity vision, taking into account individual and national cultural and socioeconomic conditions. [4]

  The participatory planning approach that the ENVISION project proposes creates space for dialogue and helps the local communities to develop their advocacy capacity in decision-making processes. This dialog can also be used to engage in local communities and promote behaviours to eliminate unsustainable consumption patterns, as well as create an understanding and appreciation biodiversity.

- **Target 20**

  By 2030, ensure equitable participation in decision-making related to biodiversity and ensure rights over relevant resources of indigenous peoples and local communities, women and girls as well as youth, in accordance with national circumstances. [4]

  This is an obvious target where inclusive conservation tools can make a difference: an equitable approach is at the heart of inclusive conservation.

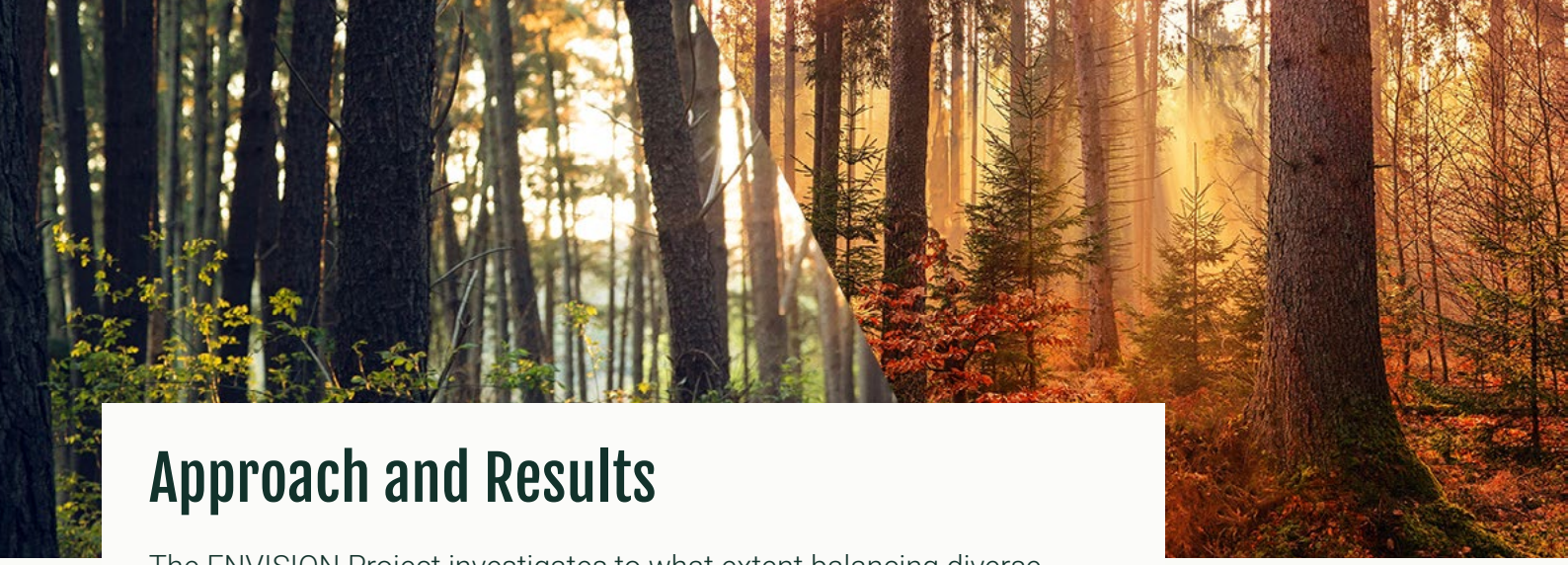
Policy developments in the EU and in the US

On the 20th of May 2020, after several delays due to the outbreak of the COVID-19 pandemic, the European Commission finally unveiled the long-awaited EU Biodiversity Strategy for 2030[5]. The strategy "aims to put Europe's biodiversity on a path to recovery by 2030 with benefits for people, the climate and the planet". This is the chance for Europe to make things better in the future and to learn from past unsuccessful action. In the European Union, as well as globally, the 2010 biodiversity target of achieving a significant reduction in the current rate of biodiversity loss has not been reached [6]; it is also now clear that the 2020 target will not be reached either [7]. The main causes of the EU's failure to halt biodiversity loss have remained the same for many years, including poor implementation of nature legislation, lack of resources, lack of ownership and mainstreaming among other sectors and policies are just the tip of the iceberg.

The new EU Biodiversity Strategy for 2030[5] calls for "at least 30% of the land and 30% of the sea to be protected in the EU" (an increase in protected area of 4% for land and 19% for seas areas compared to today). Very importantly, the Strategy commits to effectively manage all protected areas, defining clear conservation objectives and measures, and monitoring them appropriately. For the success of these commitments, the European Commission recognises the need to "ensure social justice, fairness and inclusiveness" during the implementation process at national level. Inclusiveness is a crucial principle when it comes to the effective management of protected areas. The EU's ambitious strategy has been well received by the environmental community: in order to learn from and recover from the COVID-19 crisis, biodiversity and the European Green Deal must be the cornerstone of the EU's recovery plan to ensure a healthy, prosperous and sustainable society [8].

The new strategy aspires to help Europe to establish itself as an ambitious leader in the global arena during the preparations for the future Global Biodiversity Framework. Actually, the Strategy states that "an inclusive approach with the participation of all stakeholders, including women, youth, civil society, local authorities, the private sector, academia and scientific institutions"[5] should be guaranteed in the upcoming Global Biodiversity Framework. This Framework will be approved during the 15th Conference of the Parties to the CBD (CBD COP15), which has been postponed until 2021[9], as a result of the COVID-19 pandemic.

Although the United States has not ratified the CBD, there are also interesting developments in the country. Each of the 50 US state governments as well as the federal government have laws and the authority to protect and enhance biological diversity. Community conservation programs, managed at different levels of the government, have been developed to resolve disputes in local communities over use of natural resources. Inclusive conservation can help inform these programs. The Federal Government recently signed the Great American Outdoors Act. The investment under this Act, mentioned as the most significant conservation bill in a generation, will permanently finance the Land and Water Conservation Fund (LWCF) at US $900 million per year, and providing $9.5 billion over five years ($1.9 billion annually), to address a maintenance backlog in American national parks. Lack of consistent funding for park infrastructure and maintenance has been a problem for decades. Similarly, the Act solves the long-standing problem of inconsistent funding for the LWCF. It will provide permanent funds for the LWCF to carry out its mission of providing Americans access to public lands, protecting habitat and strengthening communities through conservation and outdoor recreation. States and communities will now have more funds to use inclusive conservation techniques to achieve the LWCF mission.



Approach and Results

The ENVISION Project investigates to what extent balancing diverse stakeholder visions is possible, and how can strategies based on collectively defined visions be translated into sustainable protected area management at multiple scales. Different inclusive approaches being explored in ENVISION include assessing multiple visions for protected area management, considering their consequences collectively, defining new visions, and exploring power relations and different governance models. The overall aim of ENVISION is to inform biodiversity and protected area management policy, particularly with regard to inclusivity, participatory approaches and stakeholder engagement.

In partnership with local residents, protected area managers, local businesses, local governments and landowners, the ENVISION project explores multiple visions for protected area management in four protected areas on two continents: in the United States (Denali National Park, Alaska) and Europe (Västra Harg Nature Reserve in Östergötland, Sweden; Sierra de Guadarrama National Park, Spain; Kromme Rijn and Utrechtse Heuvelrug National Park in The Netherlands).

> Some first results emerging from these case studies, as well as key challenges and approaches to address them are presented in the following pages.

Framing inclusive conservation – Scientific and local ecological knowledge, shaping perceptions toward protected areas and related ecosystem services: Sierra de Guadarrama National Park (SGNP, Spain)

Most protected areas are managed based on objectives related to scientific ecological knowledge of species and ecosystems. However, a core principle of sustainability science is that understanding and including local ecological knowledge, perceptions of ecosystem service provision and landscape vulnerability will improve sustainability and resilience of social-ecological systems. The ENVISION project takes up these premises in the context of protected areas to provide insight on the effectiveness of nature protection goals, particularly in highly human-influenced landscapes.

A face-to-face survey was conducted with local residents in the Sierra de Guadarrama protected areas, Spain. Bi- and multi-variate analysis have been used, including path modelling and ordination to test our hypotheses. It was found that local and scientific knowledge, held by survey participants, mediated the relationship between perceptions of ecosystem service supply, landscape change, human-nature relationships, and impacts (Figure 1).

Also, local and scientific knowledge (together classified as ecological knowledge systems), were highly correlated and predicted resident´s perceptions of regulating services and biodiversity, water-related ecosystem services, landscape change, impacts of outdoors activities, and human-nature relationships. Engagement with nature, socio-demographics, trip characteristics, and a rural–urban gradient explained a high degree of variation in ecological knowledge.

Three bundles of perceived ecosystem services and impacts, in relation to ecological knowledge, emerged as social representation on how residents relate to, understand, and perceive landscapes [10]. These results suggest that local and scientific knowledge of protected areas and their management are closely associated with each other. Given these associations, inclusive conservation approaches need to move beyond distinguishing between visions based on knowledge systems. Rather, inclusive conservation involves managing for the couplings between resident's characteristics, ecological knowledge and perceptions of ecosystem services and impacts on the landscape.

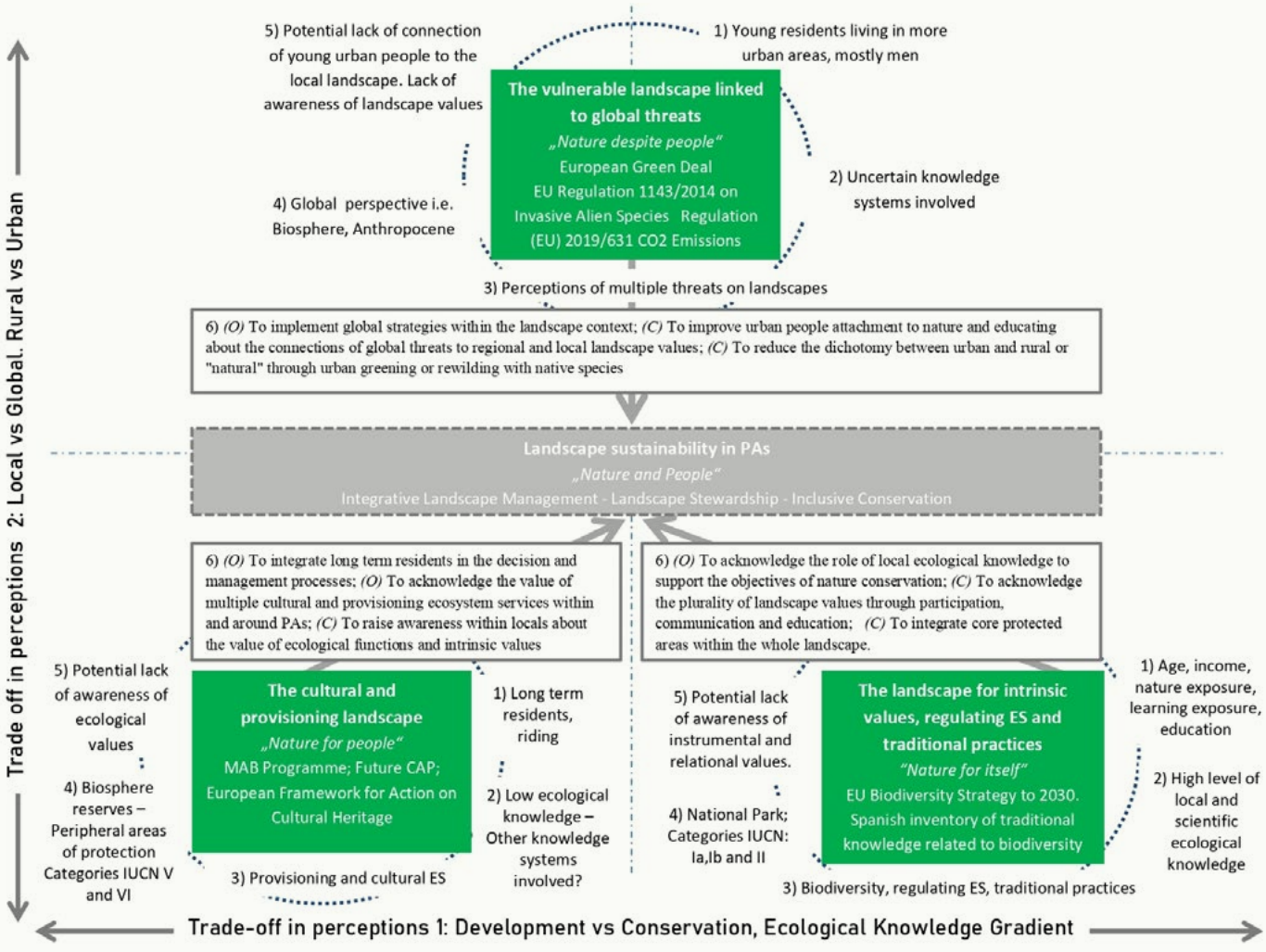


Figure 1: The figure represents a conceptual model showing three visions about the landscapes of Sierra de Guadarrama (Spain) that emerged in our findings. These visions are explained by (1) resident's characteristics, (2) ecological knowledge and (3) perceptions of ecosystem services and impacts on the landscape. Further, (4) potential local PAs related to the resulting visions are shown, (5) potential challenges associated with trade-offs in perception and (6) implications for management are highlighted. Every vision is related to major nature conservation strategies identify by Mace (2014)[11] (e.g. Nature for itself). These visions also link to major international and regional policies or strategies in environmental protection, nature conservation or rural development. (O) Opportunity; (C) Challenge [10]

Unravelling responsibilities and power relations to rethink conservation governance: Sierra de Guadarrama National Park (SGNP, Spain)

In Sierra de Guadarrama National Park (SGNP, Spain), two regional state administrations share the legal authority in conservation decisions. The area is heavily used for recreation activities and encompasses a variety of local stakeholders engaged in extensive livestock farming and environmental conservation. The multiple and sometimes competing uses create tensions around how the national park should be governed. By unravelling the parks' governance arrangements at both formal and informal levels and disentangling responsibilities and power relations across stakeholders, our study aims to improve our understanding of how stakeholders' participation in decision-making is shaped and can be enhanced.

One of the objectives of the study is to examine formal and informal governance arrangements in terms of stakeholders' responsibility (shared vs. concentrated) and influence (equal vs. unequal) in conservation governance in SGNP in order to understand how participation is delineated by conservation authorities and illuminate what measures are suited for inclusive engagement. Seventy-six semi-structured interviews and field observations were conducted with local stakeholders (state and non-state actors), and Park policy documents were reviewed and analyzed. By focusing on responsibility and influence, four types of arrangements have been found that characterize governance of SGNP—cooperative, consultative, informative, and prescriptive—and identified the mutually supportive role formal and informal mechanisms play in shaping participation (Figure 2).

Stakeholders' responsibility and influence are argued to be key analytical axes to delineate participatory mechanisms in order to identify challenges and opportunities for more inclusive conservation (Figure 2). [17] In order to be able to enhance stakeholder participation for sustainable PA management outcomes, inclusive conservation approaches must be based on the understanding of the mechanisms through which decisions are actually being made in terms of shared responsibility and power-relations among stakeholders.

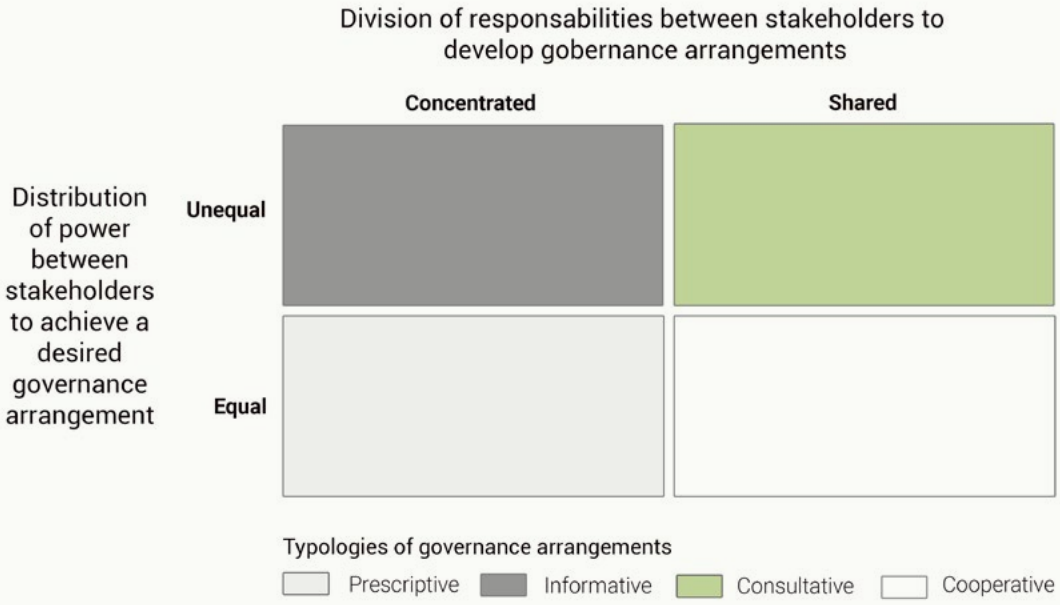


Figure 2: Analytical framework to classify governance arrangements in SGNP by typologies of governance arrangements (prescriptive, informative, consultative and cooperative) according to degree of stakeholder responsibility (i.e. the division of responsibilities between stakeholders to develop governance arrangements) and influence (i.e. the division of responsibilities between stakeholders to achieve a desired governance arrangement); (adapted from López-Rodríguez et al. 2020)[12]

Considering multiple visions for protected area management and assessing the consequences of each vision: THE Utrechtse Heuvelrug NATIONAL PARK and Kromme Rijn (THE Netherlands)

The Kromme Rijn region and Utrechtse Heuvelrug National Park, a peri-urban landscape near Utrecht, is a multi-functional area with several protected areas of different sizes and designation lodged in-between agricultural production and residential areas. Nature conservation in such multi-functional landscapes needs to be balanced with other interests, and demands of a diverse set of stakeholders need to be taken into account, which represents a major challenge. Understanding values, perceptions and visions of various stakeholders is the first step in an inclusive conservation approach to inform management decision-making.

The objective of this case study is to elicit the diversity of visions stakeholders have for the area, as well as to visualize the spatial manifestations of the consequences of those visions. A series of interviews with stakeholders (incl. local residents) were conducted, using a narrative approach (called **STREAMLINE**) together with components from participatory mapping techniques. Participants were asked about which landscape functions they value in this landscape and to draw on a map which areas they believe should be multifunctional (i.e. providing several functions). Further, the awareness among stakeholders of competing interests was assessed, as well as their future visions for the landscape.

The study revealed several distinct clusters of visions such as (A) an inclusive cultural landscape for sustainable living, (B) a productivity-oriented landscape, (C) a peri-urban landscape of convenience, (D) an environmentally-friendly landscape (see **Deliverable 2.1** for more details on elicited visions) with different implications on which areas of the landscape is seen as multifunctional by the respective groups (Figure 4).

The study also uncovered that policy makers can build their strategies of PA management in the area on a great potential of already existing stakeholder awareness of a range (potential) competing interests in the landscape (see Figure 3).

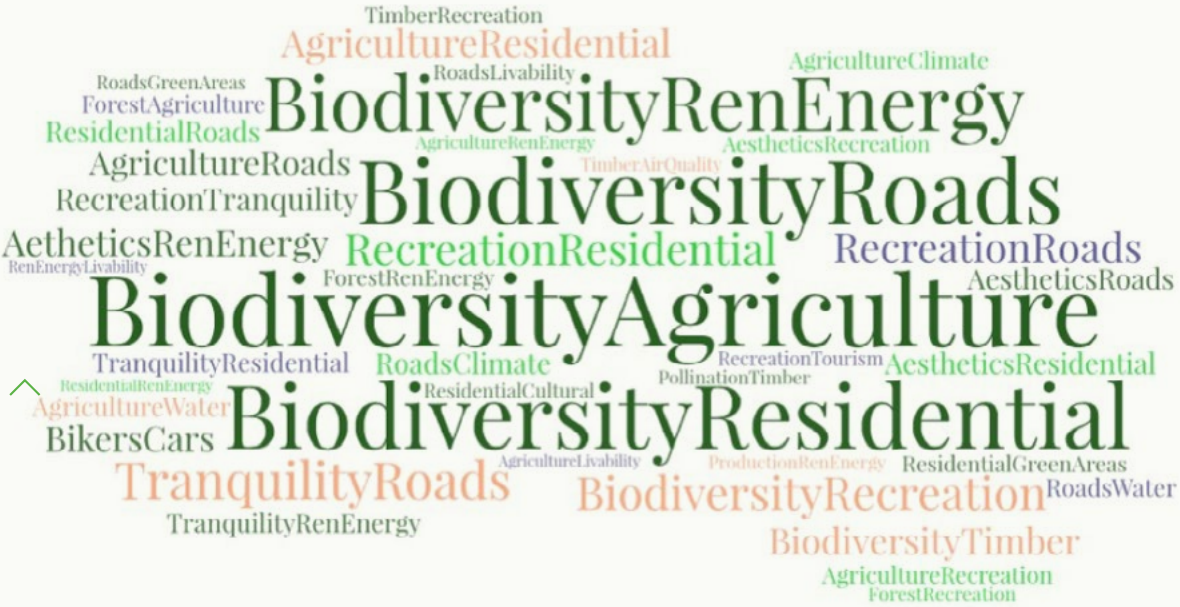


Figure 3: A "wordle" of pairs of conflicting interests named by participants (e.g., "BiodiversiyRenEnergy" – biodiversity vs renewable energy). The size of each word combination reflects the relative frequency with which it's been named.

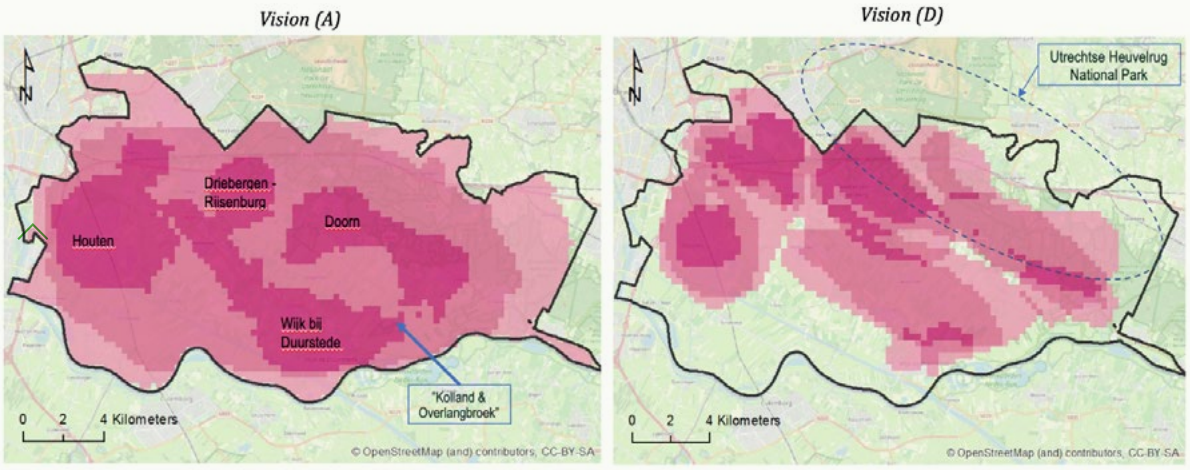


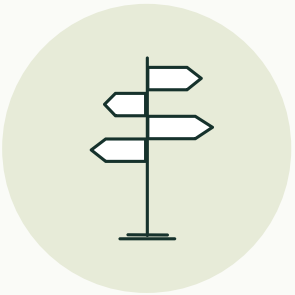
Figure 4: Proportion of respondents marking the area as multifunctional for groups of stakeholders representing two visions: (A) Inclusive cultural landscape for sustainable living, and (D) Environmentally-friendly landscape. Darker shades of pink indicate higher proportion of participants seeing that cell as multifunctional.

Assessing uncertainty and building resilience: Västra Hargs Lövskogar nature reserve and Mjölby Municipality, Sweden

Västra Hargs Lövskogar is a nature reserve embedded in the overall landscape governance of Östergötland County, Sweden. The area presents a mosaic of oak woodlands, mixed forests and open fields defined by more or less conspicuous edges and boundaries that simultaneously separate and connect different parts of the landscape, interests and activities.

Targeted management objectives have short and long term implications for alternative interests and neighboring land parcels. The collective capacity to assess these interdependencies and to form and revise long term strategies for handling emergent challenges and pressures is key to inclusive conservation of complex landscapes. The objective of the study is to explore how multiple parallel management strategies may coexist, complement or replace each other. Especially, at what points should strategies be evaluated and reconsidered? Which future uncertainties could give reason for such adjustments and what would it require from the actors involved.

A participation based iterative research design has been used to explore a novel approach to building resilience, focusing on how interdependencies and scale effects of different existing and possible management strategies shape the option space available to actors engaged in landscape governance. Focal points are actors, actions and outcomes, embedded in different interests and different drivers of change.



Multiple strategies already exist, pursuing different objectives or working in parallel towards the same goals. They tend to be topic specific and are not fully aware of their interdependences.

The strategies are, however, interconnected in several ways, from the actors who would need to be involved to the actions they imply and the direct and indirect implications they have for the ecological character and social values of the larger landscape. To ensure more resilient land sharing, policies have to be flexible enough to accommodate and coordinate multiple (often collective) strategies grounded in different objectives, rights and mandates.

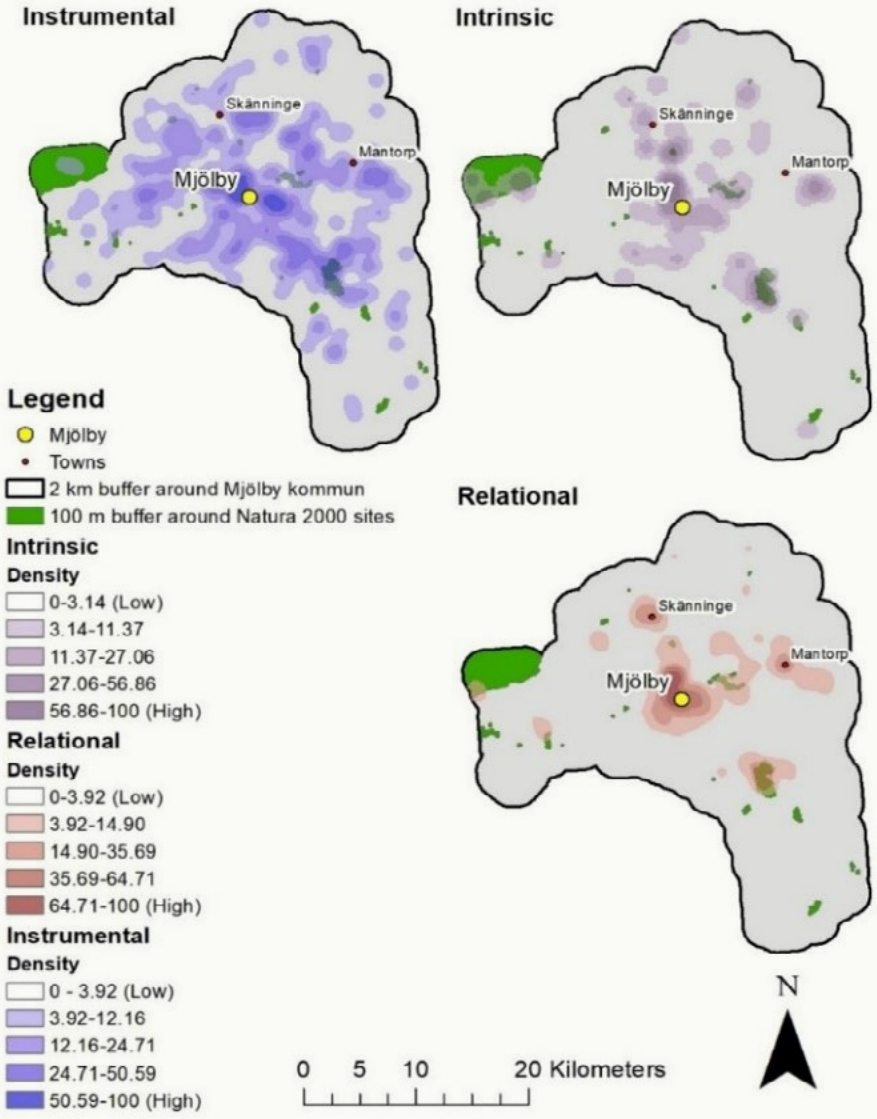


Figure 5: Landscape values in Mjölby municipality resulting from a Participatory GIS survey. The spatial maps depict the occurrence and density of three major value types in the landscape: instrumental, relating to human use; intrinsic, referring to the inherent value of nature and the landscape, and relational, deriving from people's relationships with the landscape and each other.[13]

Drivers and consequences of landscape change in a social-ecological system: Denali National Park, Alaska, United States

The research was conducted with six communities in the Denali region of Interior Alaska, which is characterized by charismatic wildlife and large tracts of public land within boreal forests and tundra. Local residents engage in (non)consumptive recreation in ecologically intact landscapes. Mass tourism from the cruise ship industry also plays an important role in supporting the local economy. Management of public lands is steeped in a contentious history that calls for inclusive conservation tools to support place-based management of Alaskan protected areas and nearby communities.

This study advanced knowledge of how residents in communities surrounding Denali National Park and Preserve and Denali State Park characterized the region as a social-ecological system. Drawing from resilience theory, we identified social-ecological features of the region, including drivers of change, to understand and more equitably represent the competing interests of residents. Through participatory methods, this research is also identifying pathways to mitigate and adapt to multi-lateral policy tensions across diverse local communities at a regional scale.

The objectives of this research were two-fold. First, residents' perceptions of the Denali social-ecological system were characterized by asking residents to develop "fuzzy" cognitive maps. Secondly, the structural patterns of these maps were compared across communities within the Denali region to understand how residents perceived the causes and consequences of landscape change.

Fifty-one fuzzy cognitive maps were generated in 2019-2020 during focus groups (n = 37) and semi-structured interviews (n = 14). To answer our operative question, "how do local community members characterize Denali as a social-ecological system?" residents were engaged in a two-step mapping exercise whereby relevant social-ecological features of the region were identified and then drawn by participants in an interconnected network.

Results showed a complex representation of social-ecological features at a regional scale, and distinguishable patterns for each community were observed. The region was predominantly characterized by tourism, sense of community, subsistence, and wilderness. Climate change and large-scale development were the primary drivers of change. Additionally, multiple land uses in the region (e.g., natural resource extraction, land ownership, public land management agencies) were of concern given their external influence on features that were vulnerable to change, including rural lifestyles, recreation, and healthy ecosystems.

A deeper understanding of how residents characterize social-ecological systems surrounding protected areas, particularly drivers of change and more vulnerable features of that system, is invaluable for developing strategies that address stakeholder concerns. Management agencies can identify actions that alter system resilience according to the socio-economic, socio-cultural, and ecological features identified in this research. Specifically, it should be noted that tourism is fundamentally important for maintaining the structure and function of this social-ecological system, as is the protection of Wilderness experiences, strong social cohesion, and subsistence use lifestyles. The two primary drivers of change identified in this study – climate change and large scale development – should also receive attention because they threaten the ability of residents to maintain the identity of the Denali region.

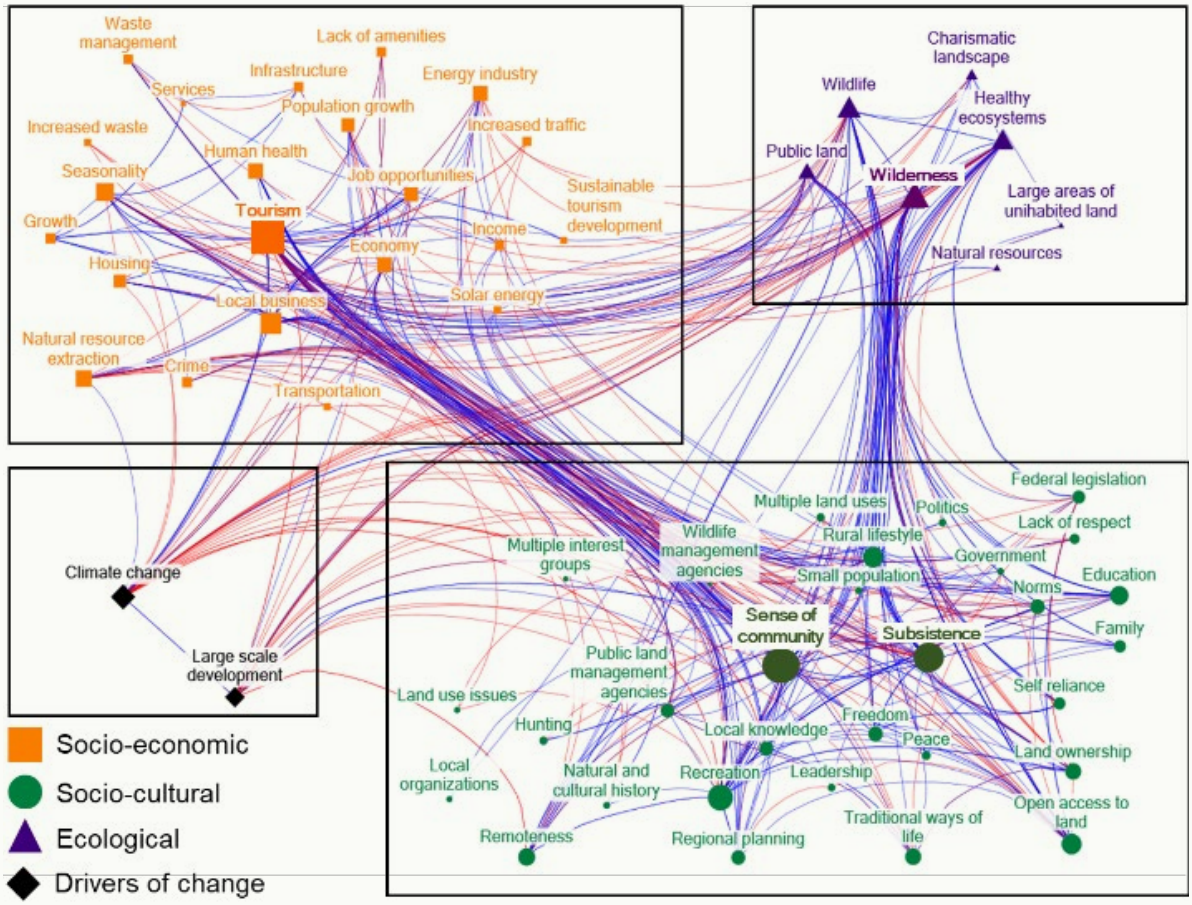


Figure 6: Results from 38 aggregated fuzzy cognitive maps produced by residents from the Denali region, AK. The mapped features spanned socio-economic, socio-cultural, and ecological dimensions of resilience theory, as well as key drivers of change. The lines connecting all features show negative relationships in red and positive relationships in blue. The size of the nodes illustrate the relative importance of each feature in characterizing the region. The four most features considered most central to the system (i.e., tourism, wilderness, subsistence, and sense of community) are bolded.

Concluding remarks

The recently published Global Biodiversity Outlook 5[7] has served as the "final report" for the Aichi Biodiversity Targets established in 2010, as most of these targets were due by the end of this year. It concludes that none of the twenty targets can be considered completed and only six are "partially achieved" (Targets 9, 11, 16, 17, 19 and 20)[7]. It is thereby clear that the last UN decade on biodiversity has failed to reach its goals.

There are multiple reasons why the Aichi targets failed and did not halt biodiversity loss. One universal underlying cause was the lack of a strong effective implementation. In fact, implementation is the weakest point of the CBD. Under the Convention, countries can establish their own plans (the National Biodiversity Strategies and Action Plans-**NBSAPs**) for implementation and set their own national targets. When evaluating the outcomes, the CBD determined [7] that the majority of the national targets were poorly aligned with the Aichi targets in terms of scope and ambition. Bases on this conclusion, the next CBD COP15 has to ensure that the post-2020 global biodiversity framework does not end up repeating the shortcomings of this past decade. The Post-2020 Biodiversity Framework thus emphasizes the need to create enabling conditions for equitable participation and rights, and unleash values of responsibility to effect new social norms for sustainability. Undertaking action-oriented research to inform how protected areas governance can be enhanced through social engagement is crucial to address this policy-relevant challenge.

In Europe, the final assessment of the EU Biodiversity strategy to 2020 has yet to be concluded. According to the midterm assessment, the targets to protect the environment were making some progress, but at insufficient rate. The results from the Fitness Check of the Nature Directives in 2016 concluded that "the full achievement of the objectives of the Nature Directives will depend on substantial improvement in their implementation in close partnership with local authorities and different stakeholders in the Member States [14].

Similarly, in the US landscape, concerns have been raised about the lack of stakeholder representation in federal land management policies.[15] Variation in governance across communities may be attributed to the different interactions between residents and natural resource management agencies over the past 50 years.[16] The tensions between residents and agencies such as those in the Denali region could be alleviated through greater clarity in communication. Inclusive conservation tools can help resolve conflicts involving the federal Endangered Species Act, and state laws protecting threatened and endangered species, thus reducing the need for litigation and the courts to address these issues. Inclusive conservation approaches would also benefit state and local governments engaged in creating conservation corridors that permit species to migrate safely in naturally vegetated corridors.

In this context, the inclusive conservation approach represents a helpful tool in the implementation of both the Post-2020 Global Biodiversity Framework and the EU Biodiversity Strategy for 2030:

- Following ENVISION's approach of inclusive conservation, decision-makers would have knowledge of the diversity of visions for protected areas and landscapes around them. When attempting to balance different interests, it is important to understand and recognize visions of different groups of stakeholders.

- Diverging attitudes and priorities towards the conservation and use of landscapes, including ecosystem services, can lead to tensions and conflicts. Understanding and accounting for the causes underpinning these tensions, including ecological knowledge systems and resident´s profiles, can improve conservation management strategies, social-ecological resilience and landscape sustainability in protected areas.

- Better articulation and alignment of strategies, including recognition of alternatives, will strengthen the collective capacity to navigate multiple management strategies based on principles of inclusive conservation.

- The Post-2020 Global Biodiversity Framework should embrace all voices: local communities, governments, businesses, NGOs and society at large should not only be invited to the debate, but their explicit contributions towards the global goals should be incentivized. In this context, inclusive conservation provides helpful tools.

- Inclusive conservation tools can help to have better conservation outcomes also in Other Effective Area-Based Conservation Measures (OECMs): these are in fact complementary to protected areas, and their effective management will contribute to the achievement of Target 2 of the Post – 2020 Global Biodiversity Framework.

- Inclusive conservation can be a powerful tool to support policy makers in better understanding stakeholders' participation in conservation governance and monitor participatory practices in order to promote policy changes or management interventions towards more inclusive conservation approaches.

'Inclusive conservation' helps to enhance the ownership of conservation goals among stakeholders, supporting the achievement of biodiversity targets. Future actions to improve the management of protected areas -in the EU, the US and globally- would benefit from considering and promoting inclusive conservation for the management of protected areas.

Future research will continue to assess the strengths and limitations of inclusive conservation, including possibilities for identifying and managing trade-offs and conflicts between different PA management interests. For more information about the ENVISION project with periodic updates on news and project outputs please visit our website: https://inclusive-conservation.org/

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ENVISION

ENVISION is a 3-year research project funded through the 2017-2018 Belmont Forum and BiodivERsA joint call under the BiodivScen ERA-Net COFUND programme.

DOI: 10.5281/zenodo.4304086

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