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IUCN World Commission on Protected Areas Transboundary Conservation Specialist Group / Connectivity Conservation Specialist Group

Practitioner Survey Technical Report

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Cover Photo: Vicuñas, Reserva de Producción de Fauna Chimborazo, Ecuador © Gabriel Oppler
Executive Summary

Demographics of Respondents and Initiatives

- Large-landscape initiatives (LLI) are fairly young. Nearly 65% of the LLI are fewer than 15 years old.
- Participants working on large-landscape conservation are from many regions of the world. About 25% of respondents are from the North America and Caribbean region. Close to 19% of respondents work on initiatives in Africa, while 15% work in the South and East Asia region.
- Terrestrial ecosystems currently represent the majority of large-landscape conservation. Approximately 90% of initiatives are focused on the terrestrial realm, followed by 34% in freshwater and 23% in marine.
- Mammals and birds are the main taxonomic groups of interest to these LLI. 64% of initiatives focus on mammalian carnivores and 63% on non-mammalian carnivores. 55% of initiatives also prioritize bird species. Only 30% of initiatives focus on amphibians.
- 66% of respondents have used some sort of resource or publication published by IUCN; the most popular publication identified was ‘Transboundary conservation: a systematic and integrated approach’ (2015).

Community Involvement

- Many respondents (85%) work with local communities in some capacity. A majority of respondents report working with local communities several times a month (28%) or several times a year (27%).
- 27% of initiatives report indigenous communities infrequently involved (several times a year). Indigenous communities are also occasionally involved (several times a month) in 19% of respondents’ initiatives and involved (several times a week) in 18% of initiatives.
- Communities involved mainly have the role of consultation (75%) and decision-making influence (58%).
- Respondents view better management (78%) and promoting cooperation (75%) as the main motivations for working with local communities.
Success

- Respondents provided 84 individual definitions of success in our open-ended question. 50% of these definitions related to ecological/conservation priorities and policy. 37% of respondents gave definitions of success that highlighted human-environment co-existence and socio-ecological priorities.
- Protecting biodiversity is the most commonly cited (92%) outcome of initiatives. 83% of respondents also view partnership and collaboration among actors as major outcomes of their initiatives.
- Protected biodiversity (82%) and partnership/collaboration (67%) are also the top two outcomes that were viewed as long-term successes.

Challenges

- Lack of funding is seen as the biggest challenge to success (65% of initiatives), followed by lack of coordination among actors (44%).
- Climate change is the biggest perceived threat with a mean ranking of 3.8 on 5-point scale. Loss of cultural and historic character is seen as the least pressing threat, with concern over the threat averaging 2.6 out of 5.

Collaboration and Governance

- Respondents indicated political commitment for initiatives from local (64%), subnational (64%), and national (65%) governments. Only 30% of respondents claim their LLI have international support.

Funding

- Approximately 67% of initiatives have annual operating budgets of $500,000 USD or less.
- 30% of initiatives have secured just 0-25% of their ideal budget, while 27% of initiatives have 76-100% of their total budget secured.

Group Membership

- Of respondents in WCPA Specialist Groups, 89% of responses indicated the network of peers as a main benefit of their membership.
- This network of peers (39%) provides the most support for respondents’ initiatives.
Background

The International Union for the Conservation of Nature (IUCN) is the world’s authority on nature conservation and sustainable use of natural resources. The IUCN is composed of over 1,300 members, including governments and civil society organizations, a Secretariat of over 900 staff, and 15,000 experts distributed across six Commissions. The World Commission on Protected Areas (WCPA) is a network charged with advancing the science, policy, and management of protected areas and other area-based conservation measures. To support this mission, and further develop a global network of expertise and resources, the WCPA has guided the creation of several specialist groups dedicated to the various elements of effective protected area management. This study focuses on the Transboundary Conservation Specialist Group (TCSG) and the Connectivity Conservation Specialist Group (CCSG) under the WCPA. Both of these Specialist Groups work to advance large-landscape conservation; their membership includes some overlap. While the CCSG operates across all geographic scales, the TCSG focuses specifically on transnational cooperation. Both groups provide resources in support of transboundary initiatives, and strongly influence the policy and practice of connectivity and transboundary conservation.

The TCSG was launched in 2009 as a formal means to provide support for transboundary conservation practitioners and their associated initiatives. Its mission is to encourage transboundary conservation and promote peaceful cooperation through the development of resources and in fulfillment of the Durban Action Plan and the Convention on Biological Diversity Program of Work on Protected Areas. The TCSG has over 270 members who represent 83 different countries. In 2015, the TCSG published ‘Transboundary Conservation: A Systematic and Integrated Approach’ to share and advance global best practices in transboundary conservation, and further enhance knowledge and capacity building for transboundary work. Learn more at: www.iucn.org/commissions/world-commission-protected-areas/our-work/transboundary-conservation

Founded in 2016, the CCSG is a global network of experts working to advance connectivity conservation across large land- and seascapes. The CCSG has a total membership over 900, with about 500 members actively contributing to the group’s initiatives. Members represent 119 different countries, with the largest representations from North America (32%) and Europe (17%), in addition to 14% from Asia, 13% from South America, 12% from Oceania, and 11% from Africa. The network seeks to develop and share best practices that advance connectivity conservation as a primary means of protecting biodiversity and facilitating climate change adaptation. CCSG members intend to enhance the conservation value of protective areas through the identification and effective management of ecological corridors and ecological networks. The CCSG also includes a Transport Working Group whose mission is to mitigate the impacts of transportation infrastructure on ecological connectivity, and a Marine Connectivity Working Group concerned with introducing connectivity conservation into the effective management of marine and coastal ecosystems. Learn more at: www.iucn.org/wcpa-connectivity and www.conservationcorridor.org/ccsg.
**Study Objectives**

This study aimed to strengthen planning, governance, and outcomes of large-landscape conservation by analyzing international networks of LLI. The research questions for this project were:

1. Who is involved in the different stages of large-landscape conservation governance?
2. Once initiatives are established, how do LLI operate and align with IUCN guidelines?
3. How do those involved in large-landscape conservation define “success”? What factors influence the initiatives’ success?
4. How do LLI impact local communities? How does community involvement affect governance and implementation at the local scale?

The objectives of this survey were to 1) evaluate the current state of the field of large-landscape conservation, while 2) better understanding the perspectives that practitioners have on specific topics including conservation success, challenges, and community involvement.

**Methods**

To gain a better understanding large-landscape conservation within international networks, the study consisted of an electronic survey administered to members of the TCSG and CCSG. Specialist Group Chairs and their staff assisted in developing survey questions and organized survey distribution to their membership, communicating via email and the online collaboration platform Basecamp.

This survey covered several thematic areas identified in ‘Transboundary conservation: a systematic and integrated approach’ (Vasilijević et al., 2015), including governance mechanisms, planning processes, and the engagement of communities. Participants were asked to convey their opinions on elements that define successful conservation, as well as the factors that enable effective local community involvement. Question format included multiple choice, check all that apply, and a few open-ended questions that were qualitatively coded to sort participant responses. This study built off of a previous survey conducted with the Network for Landscape Conservation, which investigated similar research questions through a strictly North American lens.\(^1\)\(^2\) The present study evaluated international networks to understand global perspectives and comparisons between LLI across spatial and temporal scales.

As a note, the figures included in this report are color-coded. Blue figures are for introduction and general questions for respondents and their initiatives. Green figures focus more on local community involvement, and orange figures are for questions that examine collaboration and governance of initiatives.

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\(^2\) Thomsen, J.M. & Caplow, S. (2016). Defining success over time for Large Landscape Conservation Organizations. Journal of Environmental Planning and Management. 60(7), 1153-1172
Survey Sample

The survey was open from 12 August 2019 to 30 September 2019. Reminders were sent out to the IUCN groups twice after the initial distribution of the survey. The survey sample included 141 total responses from the two specialist groups. There were 92 total responses from members of the Connectivity Conservation Specialist Group, 16 responses from members of the Transboundary Conservation Specialist Group, and 30 responses coming from respondents who were members of both groups. The Transboundary Specialist Group had a 16.67% response rate while the Connectivity Specialist Group had a 17.94% response rate.

Survey Implications

This study provides an international assessment of the large-landscape conservation field. The findings provide insights into ways in which practitioners can better communicate and make use IUCN resources to help ensure equity through community involvement, benefits for locals, and success of large-landscape and transboundary initiatives. The information provided in this report can help to guide the IUCN WCPA Transboundary and Connectivity Specialist Groups in directing resources for LLI and its future engagement with members. We encourage consistent outreach and dialogue around the findings of this study in hopes that this research can improve the fields of large-landscape and transboundary conservation.
Demographics of Respondents and Initiatives

Majority of respondents (65%) were members of the Connectivity Conservation Specialist Group. LLI are fairly young. About 42% are 5-15 years old.
LLI are active all over the world, with 25% of respondents being from North America.

Note: An error by the research team led to the IUCN Region of East Europe, North and Central Asia to be displayed as East Europe, North and Central Europe. All figures in this report will follow what respondents saw as region options. Respondents had the ability to go back and change their response region if they did not see the correct countries displayed, so we do not think it played a significant role in data collection on regional locations.

<table>
<thead>
<tr>
<th>IUCN Region</th>
<th>Number of Respondents</th>
<th>Number of Initiatives</th>
<th>Number of Countries with initiatives</th>
<th>Percentage of countries in region</th>
</tr>
</thead>
<tbody>
<tr>
<td>Africa</td>
<td>24</td>
<td>85</td>
<td>29</td>
<td>53.7%</td>
</tr>
<tr>
<td>Meso and South America</td>
<td>11</td>
<td>25</td>
<td>13</td>
<td>65%</td>
</tr>
<tr>
<td>North America and the Caribbean</td>
<td>32</td>
<td>47</td>
<td>6</td>
<td>40%</td>
</tr>
<tr>
<td>South and East Asia</td>
<td>20</td>
<td>36</td>
<td>17</td>
<td>73.9%</td>
</tr>
<tr>
<td>West Asia (Middle East)</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>14.3%</td>
</tr>
<tr>
<td>Oceania</td>
<td>6</td>
<td>7</td>
<td>2</td>
<td>12.5%</td>
</tr>
<tr>
<td>East Europe, North and Central Europe</td>
<td>13</td>
<td>77</td>
<td>25</td>
<td>83.3%</td>
</tr>
<tr>
<td>West Europe</td>
<td>10</td>
<td>62</td>
<td>24</td>
<td>88.9%</td>
</tr>
</tbody>
</table>
Map 1. The number of respondents from each region

Map 2. The percentage of countries represented in each region
Map 3. The number of LLI by country
62% of respondents had ecological connectivity explicitly mentioned in national or subnational legislation or policy.

Note: This question was only asked to the Connectivity Conservation Specialist Group.

91% of initiatives had identified spatially explicit areas that are important for ecological connectivity.
66% of respondents have used some sort of resource or publication provided by the IUCN, the most popular being *Transboundary Conservation* (2015).

There are many different types of plans used for LLI, with 68% of initiatives using protected area management plans.
The focus of large-landscape work is often terrestrial. 90% of initiatives are focused on terrestrial realms followed by 34% on freshwater and 23% on marine realms.

Mammalian carnivores (64%), non-carnivore mammals (64%) and birds (55%) are the main species targeted by large-landscape conservation.
Community Involvement

Local communities are most often involved occasionally (several times a month) and infrequently (several times a year), while indigenous communities are most often infrequently involved in initiatives.
The main motivations for working with communities include better overall management (79%) and promoting cooperation (76%).

Communities mainly have the role of consultation (75%) in initiatives.
80% of those who worked with indigenous-owned lands report protection of biodiversity as a successful outcome, compared to 37% of those who did not work with indigenous lands.

70% of those who involved tourist operators selected economic development as an outcome, compared to 20% of those who did not involve tourist operators. A similar trend was seen for the private sector.
44% of those who worked with lands owned by indigenous people had indigenous communities involved (several times a week).

There seems to be a relationship between some successes and initiatives that had communities involved (every week). For example, over 30% of initiatives that had successes in climate change mitigation had communities involved (every week).
Success

Participants wrote varying definitions for an open-ended question on large-landscape conservation success. Definitions were qualitatively coded into categories. Exactly 50% of definitions focused on ecological conservation. The two categories with the highest number of responses were further coded into sub-codes or sub-themes.

<table>
<thead>
<tr>
<th>Categories of Success</th>
<th>Count and Percent</th>
<th>Sub-Categories</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ecological Conservation Priorities and Policy</td>
<td>42</td>
<td>Connectivity networks, landscape and corridors</td>
<td>19.1%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Prevent degradation and development</td>
<td>11.9%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Effective and adaptive management</td>
<td>7.1%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Conservation areas and plans</td>
<td>7.1%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Stewardship of biodiversity and processes</td>
<td>19.1%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Species-specific focus and longevity</td>
<td>19.1%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Policy and jurisdictional goals</td>
<td>11.9%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Movement of genes and species</td>
<td>7.1%</td>
</tr>
<tr>
<td>Human-Environment Co-Existence and Socio-Ecological Priorities</td>
<td>31</td>
<td>Sustainability and sustainable use</td>
<td>24.1%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Co-existence of nature and people</td>
<td>34.5%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Collaborative partnerships and engagement</td>
<td>13.8%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Community engagement, livelihoods, and ownership</td>
<td>19.4%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Implementation and management</td>
<td>13.8%</td>
</tr>
<tr>
<td>Collaboration, Cooperation and Shared Visions</td>
<td>11</td>
<td></td>
<td>13.1%</td>
</tr>
<tr>
<td>Total</td>
<td>84</td>
<td></td>
<td>100.0%</td>
</tr>
</tbody>
</table>
There are many factors that are considered contributions to initiative success. The most common responses are funding (68%) and community management and involvement (66%).

Approximately 89% of initiatives are focused on biodiversity and connectivity/corridors, while 85% focus on connectivity and corridors. The least frequent focus is cultural and historic resources.
Protecting biodiversity and development of partnerships were the most common outcomes, long-term successes (5+ years), and factors important for the evaluation of LLI.
Initiatives that were co-managed with local communities experienced higher rates of long-term successes.
Challenges

Lack of funding (65%) is seen as the biggest challenge to success. Climate change is the biggest perceived threat with a mean response of 3.84 on a scale of 5.
Collaboration and Governance

There is high political commitment for initiatives on all levels, with the exception of international support in only 30% of initiatives.

Government protected areas (82%) are the most common type of land associated with LLI followed by government multiple use areas (66%).
A variety of mechanisms were used when establishing LLI. Around 39% of initiatives used non-binding agreements, while 34% utilized regional frameworks.

The most commonly used tools identified and implemented for initiatives included outreach and education and conservation management activities. The greatest implementation gaps pertain to regulatory and financial incentive tools.
North American and the Caribbean respondents reported the highest rates of use for most planning tools.
Quantitative data on species (81%) and expert opinion (76%) are the most common types of data used in planning connectivity initiatives. Although various data is widely used across regions, those who used expert opinion, connectivity models, and quantitative data were most often from North America.

<table>
<thead>
<tr>
<th>Data Type</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quantitative data on species habitat/ ecological conditions</td>
<td>80.7%</td>
</tr>
<tr>
<td>Expert opinion</td>
<td>75.9%</td>
</tr>
<tr>
<td>Quantitative data on species movements</td>
<td>65.1%</td>
</tr>
<tr>
<td>Information from local communities</td>
<td>56.4%</td>
</tr>
<tr>
<td>Traditional Ecological Knowledge</td>
<td>38.6%</td>
</tr>
<tr>
<td>Outputs from connectivity models</td>
<td>37.3%</td>
</tr>
</tbody>
</table>

![Bar chart showing data types and regional usage](chart.png)
Funding

Approximately 67% of initiatives have annual operating budgets of $500,000 USD or less. Initiatives have varying percentages of the required budget for success already secured. Nearly 30% of initiatives had 0-25% of their budgets obtained, while 27% had 76-100% obtained.
The main strategies to secure long-term funding for initiatives are applying for grants (66%) and having a diversity of funders (52%).
Specialist Group Benefits

Membership of the specialist groups provides benefits for individuals and their initiatives. Benefits were perceived to be greater for individuals than for initiatives as a whole.