Mainstreaming behaviour change in biodiversity conservation

Needs, barriers and ways forward

Diogo Veríssimo, Edgar Ribeiro, Laura Perry, Noëlle Wyman Roth and Yuri Ribeiro

IUCN SSC CEC BEHAVIOUR CHANGE TASK FORCE

SSC Species Survival Commission

CEC Commission on Education and Communication

BEHAVIOUR CHANGE TASK FORCE

Zoomarine Algarve

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Foreword

At its core, conservation is an exercise in human persuasion. Whether we are encouraging companies to adopt sustainable practices, convincing policymakers to implement greener policies, or inspiring individuals to make conscious choices in their daily lives, the success of conservation efforts depends on how effectively we can influence behaviour.

Biodiversity is an essential element for the web of life, yet it faces unprecedented challenges, largely driven by human actions. Addressing these challenges requires us to focus on what needs to change as well as on how to inspire people to make these changes. Behaviour change is a powerful tool in biodiversity conservation. It goes beyond raising awareness to addressing the drivers of harmful actions, motivating shifts in how individuals, communities, and institutions interact with the natural world. Yet, despite its immense potential, behaviour change is still not a mainstream approach in conservation.

This document serves as a roadmap to address that gap. It is the result of collaboration, research, and reflection, aimed at identifying the needs and priorities for embedding behaviour change into conservation practice. From designing effective interventions to building capacity within the conservation sector, this work outlines a vision for what is needed to move forward.

Conservation resources - whether financial, human, or technical - are limited. We must ensure that every action we take delivers meaningful outcomes. To do so, we need robust evidence, strategic prioritisation, and collaboration across sectors. Behaviour change offers an avenue to maximise impact by addressing the root causes of biodiversity loss rather than merely treating its symptoms.

This document also brings hope. It presents a shared vision of what is possible when behaviour change becomes an integral part of conservation efforts. By aligning our actions with the best available knowledge from behavioural science, we can design interventions that truly work. Moreover, by fostering partnerships with other fields, from anthropology to marketing, we can unlock innovative approaches that push conservation boundaries.

I hope this report inspires you, whether you are a policymaker, practitioner, academic, or funder, to see behaviour change as an essential part of conservation. More importantly, I hope it encourages you to join us in building the systems, tools, and networks needed to make this vision a reality.

Thank you to everyone who contributed to this report. Your work demonstrates the power of collaboration and the shared commitment to creating a future where biodiversity thrives. Together, we can transform the way we conserve, ensuring that human behaviour aligns with the needs of the planet.

Sincerely,

Diogo Veríssimo
Chair of the IUCN SSC CEC Behaviour Task Force

Executive summary

The IUCN SSC CEC Behaviour Change Task Force conducted this needs assessment to understand the barriers and opportunities for mainstreaming behaviour change in biodiversity conservation within the IUCN network and beyond, thereby contributing to global nature conservation efforts.

The methodology of this needs assessment was based on a qualitative research approach, employing semi-structured interviews to identify barriers and needs in conservation behavioural sciences. Over a six-month period (January to July 2024), 71 participants were recruited from two main sources: IUCN Commission Networks (Species Survival Commission and Commission on Education and Communication) and key informant recommendations provided by the IUCN Behaviour Change Task Force. To ensure a broad representation of views, the purposive sampling strategy considered geographic diversity, gender balance, and varied sector backgrounds. Interview transcripts underwent a rigorous thematic analysis, using an iterative approach to refine and categorize the key themes, ensuring that both findings and recommendations are well-informed.

Respondents acknowledged the importance of Conservation Behaviour Change in modern conservation efforts, highlighting its growing relevance. Their contributions led to the identification of two major clusters of findings: one centred on “What is holding back conservation behaviour change?” and another on “What is needed to promote behaviour change adoption?” These clusters can be interpreted as barriers to, and needs for, the mainstreaming of behaviour change.

The main barriers identified included an important gap between theoretical knowledge and the practical application of behaviour change strategies, resource constraints, institutional resistance to the social sciences, social and economic pressures, and a predominance of informal training among conservationists rather than formal training. These challenges are further exacerbated by limited access to behavioural science expertise, making them difficult to address.

To promote the adoption of behaviour change, participants highlighted the need for sustainable financial support, strategic collaborations, practical and accessible tools for implementing behaviour change, capacity-building opportunities, expert support, and centralised, curated, and easily accessible information hubs.

To address these needs, the IUCN Behaviour Change Task Force must prioritise the development of tailored, accessible resources and capacity-building opportunities to bridge knowledge gaps. These efforts will support conservationists in designing interventions informed by a robust understanding of human behaviour. While some core insights and recommendations extend beyond the scope and capacity of the Task Force, they may prove valuable to other organisations that share the same vision and objectives of promoting conservation behaviour change.

Acknowledgements

The authors gratefully acknowledge the invaluable contributions of the 71 volunteers who, through their participation in the interviews, provided the foundational information that supports this report and offers strategic insight into the future of conservation behaviour change.

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Lastly, we thank Jon Paul Rodriguez (Commission Chair of the IUCN SSC) and Sean Southey (Commission Chair of the IUCN CEC) for their support in the creation of this cross-commission Task Force, a recognition of the relevance and transdisciplinary nature of conservation behaviour change.

Any errors or omissions are the responsibility of the authors and editors.

How to read this document

Overview

This document presents the findings of a comprehensive needs assessment conducted by the IUCN SSC CEC Behaviour Change Task Force. It is designed to provide a structured understanding of the challenges, opportunities, and actionable recommendations for integrating behavioural sciences into conservation strategies.

The report aims to serve as both a diagnostic tool and a roadmap for advancing the application of behavioural sciences in conservation efforts.

The report is divided into the following key sections:

Purpose and background - outlines the rationale for conducting the needs assessment, highlighting the importance of behaviour change in addressing conservation challenges and bridging gaps between theory and practice.

Sample - explains the research design, participant selection, and analytical methods used to identify barriers and needs.

Findings and analysis – "What is holding back conservation behaviour change?" and "Foundations for broadening behaviour change adoption". The results are presented in thematic categories, such as barriers to implementing behaviour change and the respondents' needs to overcome these hurdles. Each theme is supported by insights from interviews and contextualised with respondents' quotes.

Recommendations – actionable guidance to address the identified gaps and barriers to mainstreaming conservation behaviour change.

What role for the Behaviour Change Task Force? – a roadmap for the IUCN Behaviour Change Task Force to address the recommendations.

Conclusions - The final section synthesises the findings and discusses their broader implications for the conservation community, including strategic positioning and opportunities.

Methods - Details of the study design, including the qualitative analysis methods and the participant selection process

How to read this document

Tips for reading

Cross-references: Use cross-references to explore detailed examples or related findings, which can enhance your understanding of the context.

Focus areas - Use the table of contents or section headers to identify areas of interest or relevance to your work.

Key findings - Throughout the results, Key Findings boxes highlight the most important takeaways from the analysis, chosen for their representativeness and ability to illustrate chapter concepts effectively. Selections were based on insight, clarity, and relevance rather than frequency alone, with some reflecting common views and others exemplifying critical insight into conservation behaviour change.

Box # - Key finding
Highlights and important takeaways from the analysis!

Section summaries - At the end of each section, a Section Summary compiles in a condensed and comprehensive text the major topics covered in the section.

Box # - Section # summary
Overview of main section topics

Glossary

Academic - An individual, researcher, or scholar affiliated with a university or research institution, engaged in research, teaching, and scholarly activities.

Behaviour change - The intentional transformation of human actions through interventions that address psychological, social, and environmental factors, while acknowledging the structural and contextual influences on behaviour (United Nations, 2023).

Behaviour change intervention - A systematic process of understanding and xinfluencing human actions through evidence-based approaches targeting the psychological, social, and environmental determinants of behaviour.

Behaviour change expert - A professional with specialised knowledge in designing, implementing, and evaluating interventions aimed at understanding and modifying human behaviour through interdisciplinary approaches.

Behavioural science - refers to an evidence-based understanding of how people behave, make decisions and respond to programmes, policies, and incentives. It uses rigorous methods to provide an understanding of impact and of what interventions work. The practice includes, for example, presenting choices to help people achieve their aims and make informed decisions; and reducing friction that separates people from something that they want (UN Secretary-General's Guidance on Behavioural Science.Pdf, n.d.).

Conservationist - A professional dedicated to the protection, conservation, and sustainable management of natural environments, biodiversity, and ecological systems through research, policy, education, or direct action.

Conservation behaviour change - The modification of individual or group behaviours to support biodiversity conservation and the sustainable use of natural resources, often achieved through community engagement and culturally relevant strategies.

Community - A group of people with diverse characteristics who are linked by social ties, share common perspectives, and engage in joint action in geographical locations or settings (MacQueen et al., 2001).

Formal training - formal educational or certification in behaviour change or a related field, from an academic institution.

Informal training - non-certified learning in behaviour change or related fields through self-directed study, practical experience, or non-academic workshops.

Practitioner - A professional who applies theoretical knowledge and evidence-based practices directly in practical settings, focusing on implementing interventions and solving real-world problems.

Purposive sampling - A non-random sampling method used to deliberately select participants, cases, or data sources based on specific characteristics, criteria, or contexts relevant to the research question. This approach ensures the collection of rich, meaningful, and relevant data.

Thematic analysis - A qualitative research method for identifying, analysing, and reporting patterns (themes) within data, enabling researchers to interpret and make sense of complex qualitative information systematically.

Acronyms

IUCN - International Union for Conservation of Nature

IUCN CEC - IUCN Commission on Education and Communication

IUCN SSC - IUCN Species Survival Commission

NGO - non-governmental organisation

1 Purpose and background

Image: Arifur Rahman Tushar / Pixabay / CC0

1 Purpose and background

Behaviour change has emerged as a critical tool in nature conservation, recognising that human actions are both a primary driver of environmental degradation and a key to its protection (IPBES, 2019). However, despite its significance, behaviour change remains underutilised in conservation science (Veríssimo et al., 2024). This represents a missed opportunity to address complex environmental challenges by understanding and influencing human behaviour to develop effective interventions (Veríssimo, 2013). Such efforts can mitigate threats to biodiversity and foster pro-environmental behaviours at both individual and societal levels.

Traditionally, conservation efforts have prioritised ecological interventions, often neglecting the pivotal role of human decision-making processes (Mascia et al., 2003). This approach fails to address the root causes of environmental threats, such as habitat loss, species decline, and climate change. By integrating behavioural science principles into conservation strategies, conservationists can design more nuanced and impactful interventions that target the human behaviours driving unsustainable practices.

The framing of this needs assessment is grounded on the cross-commission nature of the Task Force, by addressing the strategic visions of the IUCN Species Survival Commission (SSC) and the IUCN Commission on Education and Communication (CEC).

The development and structure of this needs assessment is directly aligned with SSC Species Conservation Cycle (Assess-Plan-Act-Network-Communicate), Figure 1, therefore addressing all the dimensions of this framework. It also aims to bridge critical gaps in conservation practice, addressing the CEC Mission to produce:

Figure 1 - Species conservation cycle. Source: IUCN SSC

> *"creative, innovative, participatory, responsive, and effective communication and education, as tools to effect positive social and behaviour change for the well-being of people and planet" - IUCN CEC Mission*

This comprehensive needs assessment is essential for developing effective resources in the field of behaviour change. Conducting a needs assessment helps to:

- Identify knowledge gaps among conservationists regarding behaviour change principles and strategies.
- Reveal specific challenges faced in implementing behaviour change approaches in real-world conservation scenarios.
- Ensure that new resources address critical needs while avoiding duplication of existing information.
- Provide insights into the conservation community's current understanding of human decision-making processes.
- Guide the creation of practical tools that can be readily integrated into existing conservation strategies.

1 Purpose and background

- Align resource development with the actual needs, maximising the potential impact on conservation outcomes.
- Establish a baseline for measuring the effectiveness of future interventions and resources. By undertaking this needs assessment, the Task Force will be better able to create resources that benefit the entire conservation community. This large-scale, pioneering effort will systematically evaluate current behaviour change strategies within biodiversity conservation, informing robust strategic planning.

The needs assessment is also critical for positioning the Task Force within IUCN and the broader global conservation landscape. By evaluating the current state of behaviour change application in conservation, the assessment identifies existing initiatives, resources, and efforts by other institutions or groups. This ensures work is not duplicated and helps carve out a unique niche for the Task Force. The focus of the needs assessment is on addressing gaps or underserved areas, establishing the Task Force as a valuable and complementary player in the wider conservation movement.

Box 1 - IUCN SSC CEC Behaviour Change Task Force key objectives (2021-2025)

- Carry out a consultation across SSC, CEC and other relevant stakeholders to identify barriers to the use of behavioural change science in conservation science, alongside what support would be most valuable.
- Map out the institutional landscape of other groups also working in behavioural science and sustainability to maximise synergies.
- Produce and publish guidelines for high quality behavioural interventions in the context of biodiversity conservation.
- Develop freely accessible training materials and modules that can help build capacity across IUCN and more broadly in the biodiversity conservation space, most likely through an online platform.
- Produce an authoritative review of knowledge in the field to be published Open Access in the journal Annual Reviews.

Source: IUCN SSC CEC Behaviour Change Task Force website (www.conservationbehaviourchange.org/what-we-do)

These objectives will reinforce the Task Force's relevance to both IUCN's mission and global conservation efforts. This strategic positioning will help the Task Force become a recognised authority on behaviour change, fostering collaborations and partnerships while maintaining a distinct identity with unique contributions to the field.

2 Sample

Image: Diogo Veríssimo

2 Sample

Respondents for this needs assessment were selected through purposive sampling. Initial invitations to participate were distributed through three main groups:

* Key Informants identified as pertinent to conservation behaviour change or with expertise in relevant fields such as social marketing, consultancy, and institutional leadership.

The sampling strategy aimed to capture diverse perspectives across different types of conservation organisations, geographic regions, and roles within the conservation sector. This maximum variation approach enabled the research team to gather insights from individuals who could provide rich, experience-based information about the challenges and needs related to behaviour change in conservation contexts.

During the recruitment phase of the needs assessment, a total of 105 invitations were sent to identified participants. From this outreach, 71 individuals agreed to participate in the interview process. The sample participation by the respondent group is presented in table 1.

Table 1 - Breakdown of interview participation by respondent group (total numbers, n=71)

Respondent Group	Invitations for Interviews	Interviews	No Reply
CEC	40	25	15
SSC	30	18	12
Key Informants	35	28	7
TOTAL	**105**	**71**	**34**

Source: Authors

2 Sample

2.1. Respondent demographics

The study sample exhibits diversity across three key demographic dimensions:

1. Gender: Provides perspectives from both male and female participants on the research subjects
2. Expertise Type: Includes insights from both academics and practitioners, ensuring a complementary mix of theoretical knowledge and practical field experience. Academics contributed research-based perspectives while practitioners offered insights from direct implementation experiences.
3. Geographic Distribution: Reflects the study's global perspective, allowing for insights across different socio-economic contexts, cultural backgrounds, and conservation challenges specific to various regions. This global representation was particularly important to understand the varied contexts in which conservation behaviour change initiatives operate.

The analysis of the sample demographics, according to the previous categories, reveals:

- A balanced gender representation, helping to capture potentially different approaches and challenges experienced across genders.
- A predominance of practitioners over academics, providing strong representation of practical implementation challenges and practical needs, but also that reflect the nature of the IUCN network, where there're more practitioners than academics.
- A slightly higher representation from the Global South compared to the Global North, with Asia and Europe being the most represented regions. This distribution helps capture perspectives from regions with high biodiversity and often more challenging conservation contexts.

For a detailed breakdown of demographic information per group, please refer to the table 2:

Table 2 - Breakdown of respondent demographics (total numbers, n=71)

Group	Gender		Expertise Type		Interviews	
	M	F	Academic	Practitioner	Global North	Global South
CEC	12	13	3	22	7	18
SSC	10	8	4	14	11	7
Key Informants	11	17	7	21	16	12
TOTAL	**33**	**38**	**14**	**57**	**34**	**37**

Source: Authors

2 Sample

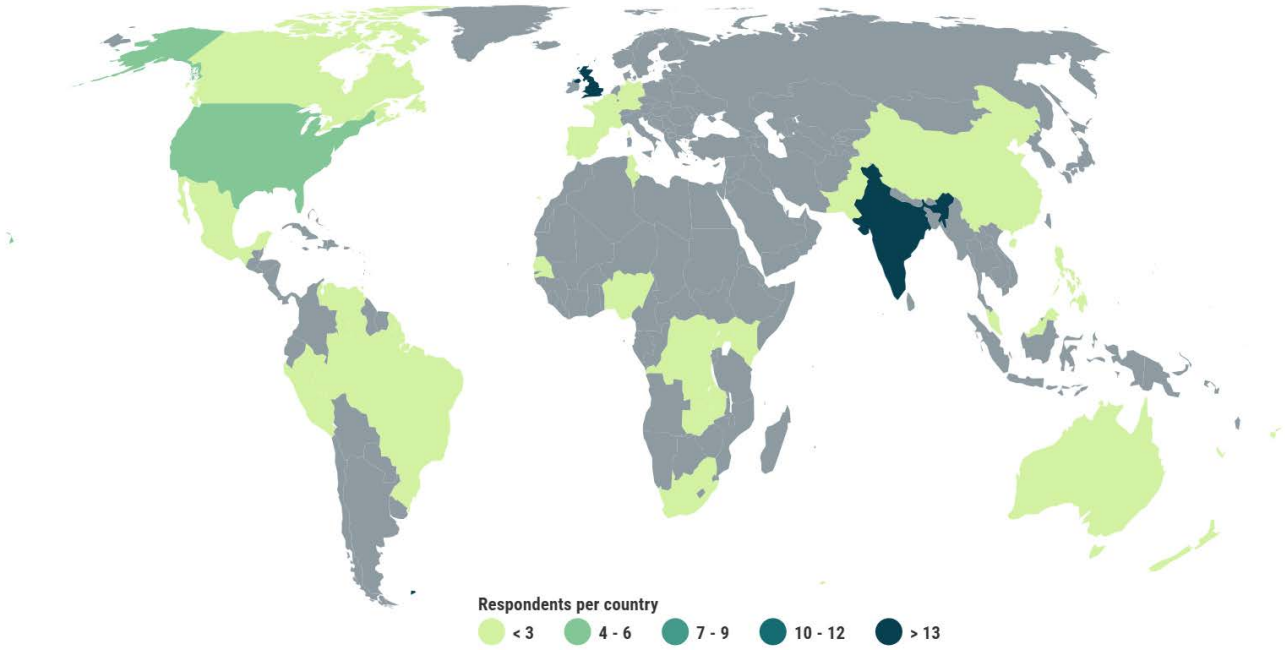

Figure 2 - Heatmap of the global distribution of respondents per country. Source: Authors

2.2. Interview and data analysis process overview

This needs assessment employed a qualitative research approach, using semi-structured interviews to gather insights and thematic analysis to identify barriers and needs in the use of conservation behavioural sciences. The semi-structured format allowed for consistent coverage of key topics while providing flexibility to explore the unique perspectives and experiences of each respondent. For a detailed explanation of the interview and data analysis methods, please refer to section 7. Methods.

3 Needs assessment results

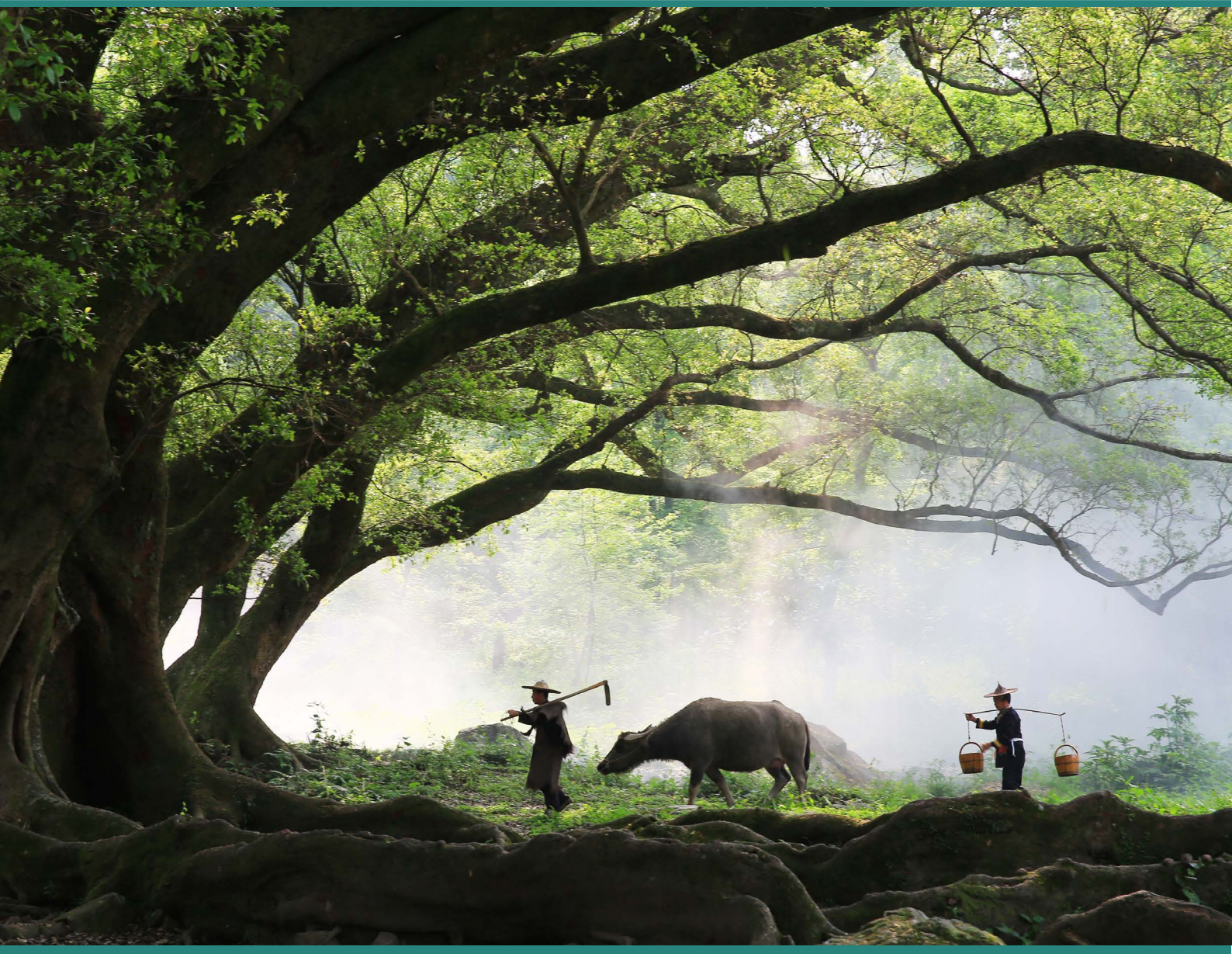

Image: anfangzhan / Pixabay / CC0

3 Needs assessment results

This section presents the main findings from the thematic analysis of respondents' interviews. It begins by offering insights into the current landscape of behavioural sciences in nature conservation.

The analysis then delves into two main themes: what is holding back conservation behaviour change and what is needed to promote wider adoption of behaviour change approaches in nature conservation. The barriers and needs are presented based on the frequency of themes identified across interview transcripts, reflecting how often each theme was mentioned by respondents. This approach highlighted the most frequently mentioned challenges and opportunities within behaviour change, providing an overview of themes that emerged across the respondents' contributions. The frequency of the themes on this report, may not always be representative of the importance in the field - an analytical consideration worth noting. These findings nevertheless offer valuable insights that will guide future efforts in integrating behavioural sciences more effectively into conservation practices. The themes and patterns identified represent respondents' collective emphasis rather than an objective hierarchy of significance.

Figure 3 - Word cloud of the results topics. Source: Authors

3.1. Conservation behaviour change landscape

Respondents broadly recognized the term "behaviour change", with a vast majority of participants in the study demonstrating awareness of the topic, regardless of their background or level of engagement. This high level of awareness may be a result of sampling bias; those with a pre-existing interest in behaviour change were more likely to respond.

This widespread familiarity among respondents underscores the growing importance of behaviour change in modern conservation efforts. This aligns with a broader recognition of social sciences' value in conservation as a respondent highlighted: "*there's consensus now, broad agreement that the social sciences are an important part of conservation research and practice*" (Female, Key Informant, Global North, Practitioner). As behaviour change approaches represent a key application of social sciences in conservation, this growing consensus creates a supportive foundation for its implementation.

While a majority of participants reported using behavioural sciences principles or concepts in their work, the data revealed two main barriers to effective behaviour change implementation. First, projects or

interventions are often mislabelled as behaviour change when they do not qualify as such. Second, there are significant knowledge gaps regarding the application of behaviour change principles and methods.

Box 2 - Key finding

There are substantial disparities between awareness of behavioural sciences and expertise in designing behaviour change interventions, with most practitioners acquiring knowledge through diverse pathways such as organisational experience, hands-on learning, or self-directed study, rather than through formal education or structured training in behavioural sciences.

Respondents described that the primary source of their expertise on behaviour change was derived from organisational experiences rather than structured training. Most users rely on informal training through experience within their organisations, with a smaller percentage having received formal training, and an even smaller group engaging in informal training. This reliance on organisational knowledge over formal education suggested that despite the topic's recognition and perceived value, there is a notable shortfall in structured learning opportunities and professional development in behavioural sciences applied to conservation.

Interestingly, respondents noted that many organisations working on environmental issues have incorporated aspects of behaviour change indirectly into their workshops and outreach efforts, even when behaviour change is not their explicit focus. This indicated that behaviour change principles are often implemented in an empirical manner, even when not formally recognized as such, as a practitioner explained how this can happen at the organisational level: *"We are not directly focused on behaviour change, but in all our workshops and teaching, we emphasise the behaviours and habits people need to adopt for nature conservation"* (Female, CEC, Global South, Practitioner).

Formal training (formal educational or certification in behaviour change or a related field) was identified as the secondary source knowledge among participants, this is exemplified by a practitioner who stated: *"I'm extremely familiar with conservation behaviour change. I have two degrees in science and social science, which gave me the tools to understand how people shift their behaviours"* (Female, SSC, Global North, Practitioner).

Informal training was the least frequently mentioned theme regarding familiarisation and background on behavioural sciences, with less than a quarter of the respondents discussing it. A practitioner provided the following example to illustrate how informal training occurs:

> We're starting to include human dimensions into our work. But it's slow and it's, definitely, not given as training. The only training that was given about human behaviour was stuff like verbal judo: how to de-escalate a situation when someone's being aggressive towards you. But not in terms of how to engage people in a meaningful way. (Female, CEC, Global North, Practitioner).

Respondents identified different pathways for gaining behaviour change expertise. Those with academic backgrounds often become familiar with behaviour change through their work or studies, particularly

individuals with a blend of scientific and social science education, as exemplified by a practitioner that described their experience: *"I'm extremely familiar. I actually spent 10 years as an ecologist before I moved into learning sciences. So, I have two degrees in science and a degree in social science"* (Female, SSC, Global North, Practitioner).

For some respondents in the Global South, informal training through practical experience served as the primary method of learning about behaviour change, rather than formal education. Conservationists reported learning by doing, especially when they previously lacked direct exposure to behaviour change frameworks. As one key respondent explained, *"So in my case, our teams in Central and South-Eastern Africa were never in contact with behaviour change or social marketing. And they are now well-trained in this approach. And it was because they learned by doing"* (Female, Key Informant, Global South, Practitioner). This hands-on approach was often complemented by self-directed learning, as illustrated by a practitioner: *"Behavioural change as an isolated part, I have read some books. I have done some courses as well, but the conservation part, I'm just exploring it, for almost a year now"* (Male, CEC, Global South, Practitioner).

Respondents not currently using behavioural sciences reported having a general awareness of the discipline but acknowledged it remains underutilized in their projects. This underutilization was often attributed to gaps in capacity and resources, underscoring the importance of tailored support and training to integrate behavioural science effectively into conservation efforts. One practitioner highlighted this gap, stating: *"Honestly, no. I have never received training in this area. But it is also welcome, because it is also time to change"* (Male, CEC, Global South, Practitioner).

The transformative potential of behavioural sciences, when properly understood and applied, was emphasised by another practitioner:

It's all about education. I went to this education meeting and that one was actually on behaviour change, and there was somebody in the U.S. that had been working on it, was just like for me it's just like life changing. It's like, yes, this is what we need it's not just education, education isn't enough, we need this, and I found it incredibly inspiring (Female, SSC, Global North, Practitioner).

This practitioner's experience highlighted the shift in perspective that can occur when conservation professionals are exposed to conservation behaviour concepts, underscoring the importance of education and training in this field.

3.1.1 How is conservation behaviour change implemented?

Box 3 - Key finding

Many respondents reported implementing behaviour change in projects, emphasising its importance from the outset; however, knowledge gaps in implementation methods may limit its effectiveness.

About half of respondents gave examples of implementing behaviour change strategies in their work. This finding suggests there exists a substantial body of practical experience among respondents in applying behavioural science principles to conservation efforts. A key informant highlighted the

importance of planning for including behavioural science from the beginning of a project/program: *"So you can't just design this beautiful program and decide, right, I'm going to put behavioural science in it. It has to be fully integrated from the start of the project"* (Female, Key Informant, Global South, Practitioner)

Some of these applications, however, lack sound methodology and proper evaluation tools. As one key informant noted: *"the biggest skills gap is tied in with assessment, monitoring, evaluation"* (Female, Key Informant, Global North, Practitioner). This gap between implementation and rigorous assessment can potentially limit the effectiveness of these efforts and makes it difficult to evaluate the overall landscape.

In other cases, incorrect terminology is used when referring to behaviour change, and many conservationists apply behaviour change principles intuitively rather than systematically. This is illustrated by the following example, where a practitioner refers to the application of a behaviour change technique intuitively rather than grounding it in sound methodological approaches and terminology *"population must change its behaviour regarding this subject or this island. We are doing this without realising the subject of this, what is it called? Segmentation?"* (Female, CEC, Global South, Practitioner).

The data highlighted important challenges, particularly regarding project autonomy. Decision power over projects emerged as a notable concern, with only about a quarter of respondents having that ability to say *"yes, definitely I have a say about how they should proceed"* (Female, SSC, Global South, Practitioner). This indicates that limitations in project autonomy or authority may be a key factor in the effective integration of behaviour change components. The lack of decision-making power can constrain project managers ability to adapt and implement behaviour change effectively, potentially reducing the impact of the initiatives. This challenge may be particularly acute in larger organisations or in projects with multiple stakeholders, where decision-making processes can be more complex and time-consuming.

Box 4 - Key finding

Major obstacles to behaviour change implementation encompassed decision-making power, access to expertise, and rigorous application of behavioural science principles.

Another limiting factor is the availability of behavioural science experts, or information on how to access them, who can help support the design, implementation and evaluation of behaviour change projects. Expert support plays a crucial role in these initiatives and can help mitigate the lack of capacity of individuals and organisations. Just a small portion of respondents referenced the involvement of behavioural science experts, that in some cases is temporary, as shared by a practitioner:

> Even if we were connected to consultant groups that can put campaigns together, because it's on a consulting or a service level, like I pay for a service, right? They come on board for six months to help us put together a campaign. But then we are tasked with carrying it on after that with no expertise (Female, SSC, Global North, Practitioner).

Only a handful of respondents reported having access to specialised knowledge inputs. This limited representation underscored the importance of increasing expert availability to support the application of behavioural science in conservation. These findings suggested that behavioural science experts could provide valuable insights into human decision-making processes, help design more effective interventions, and ensure projects were grounded in established theoretical frameworks. Their

involvement could significantly enhance the quality and potential impact of initiatives. As one respondent emphasised: *"I think that has been one of the important things that I've learned that they can make a vast difference"* (Female, SSC, Global South, Practitioner).

Interestingly, the absence of expert support is mentioned less frequently, suggesting that while lack of expertise is a concern, it may not be as prevalent as other challenges. This could potentially indicate that other pathways are being explored to mitigate this barrier. The expertise gap might be addressed through various means, as a practitioner shared their experience: *"It's not only a matter of information, it's a matter of linking different tools from ecology, sociology, and other disciplines. It's like a mental framework that you need to be aware of"* (Female, Key Informant, Global South, Practitioner). This quote also highlighted that this approach may carry risks in terms of the quality and effectiveness of implementations, and further research may be needed to understand the outcomes of projects with and without expert support.

In conclusion, while there was substantial interest and activity in incorporating behaviour change into conservation projects among respondents, several challenges remain. These limited formal training and knowledge gaps in behavioural sciences, lack of rigorous methodology and evaluation tools, constrains in decision-making power and insufficient access to behavioural sciences expertise. Addressing these challenges could potentially enhance the effectiveness and impact of behaviour change initiatives in conservation efforts.

Box 5 - Section 3.1. summary

There is a growing recognition among conservationists of the importance of behaviour change, but a notable gap between awareness and expertise in this field.

Most respondents access knowledge through informal training pathways like organisational experience and self-study rather than formal education or training. This highlights a notable shortfall in structured learning opportunities and professional development in behavioural sciences within the conservation sector. While some with academic backgrounds gain familiarity through their work or studies, many others, especially in the Global South, learn primarily through practical experience. This disparity underscored the need for more targeted support and tailored training to better integrate behavioural science into conservation practices.

Respondents recognized the importance of incorporating behaviour change strategies, but effective implementation is often hindered by challenges like limited decision-making power, insufficient access to behavioural science expertise, and a lack of rigorous application of behavioural science principles.

About half of the respondents reported implementing behaviour change, there are notable gaps in methodology and evaluation tools, with some applying principles intuitively rather than systematically. These factors collectively limit the potential effectiveness of behavioural initiatives in conservation, highlighting the need for more integrated, long-term approaches and better access to specialised behavioural science knowledge.

3.2. What is holding back conservation behaviour change?

The identification and analysis of barriers to a broader and scientifically sound adoption of behaviour change were central to this needs assessment. The barriers' theme emerged as the most prominent based on its frequency in participants' responses in the thematic analysis. This prominence underscores the critical challenges facing the integration of behavioural sciences into the conservation field. Three sub-categories of barriers demonstrated particularly high prevalence: Knowledge gaps and mislabelling, Social and economic barriers and Institutional and organisational barriers. These barriers, affecting more than half of cases, highlighted fundamental challenges in understanding, contextual factors, and structural issues within organisations.

3.2.1. Knowledge gaps and mislabelling

Knowledge gaps and mislabelling of behavioural interventions were the most commonly identified barriers, indicating a widespread lack of understanding or misapplication of behavioural science principles in conservation efforts. The high frequency suggests the pervasive impact these barriers have on the conservation field.

Box 6 - Key finding

Conservation efforts are often hampered by a narrow range of expertise among practitioners, particularly in the absence of social science and communication experts, leading to a limited understanding of human behaviour and potential inefficiencies in conservation initiatives.

Conservation efforts are often hampered by a narrow range of expertise among practitioners or the ability to access experts, as was referred to in section 3.1.1. How is conservation behaviour change implemented?. Many conservation groups primarily consist of individuals with backgrounds in biology and related areas. This limited diversity in professional backgrounds results in an important knowledge gap, as these teams lack the diverse skills and insights necessary to address and incorporate behaviour change effectively. A respondent illustrated this situation: *"Most of the groups come from biological or law enforcement or economic backgrounds, and that's a small group. We don't have the skills; we don't have the insights"* (Male, SSC, Global South, Practitioner).

The reported absence or ability to access experts from fields such as social sciences, education, psychology, or communications can lead to a one-dimensional approach to conservation, or one-dimensional behavioural interventions, potentially overlooking crucial human behavioural aspects that are essential for successful initiatives.

A respondent also raised concerns about people trying to implement behaviour change strategies *"without the knowledge, the background, and the expertise"* (Male, CEC, Global North, Practitioner). This fundamental gap in understanding concepts and theories, can lead to misguided efforts, ineffective strategies, and potentially harmful outcomes. It underscores the need for comprehensive training opportunities, to ensure that all conservationists have access to solid foundations in conservation principles and practices.

3 Needs assessment results

The lack of awareness regarding available tools and resources was expressed by a respondent from the Global South: *"No idea. Don't know what the tools are"* (Male, SSC, Global South, Practitioner). This can severely limit the effectiveness of conservation efforts, as practitioners may be unaware of techniques, concepts or methodologies that could significantly enhance their work. This unawareness may stem from inadequate information sharing, limited access to resources, or insufficient training opportunities, particularly in Global South regions where access to these conservation tools and knowledge may be more restricted, as further explored on section 3.2.6. Training, 3.2.7. Lack of expert support and 3.2.12. Lack of recognition.

One practitioner highlighted capacity issues within organisations, where long-term employees in conservation institutions may lack the necessary capabilities and confidence to effectively design, implement, monitor, and evaluate behaviour change campaigns or projects: *"So I do think that the capacity, well capabilities and confidence of our people who work in zoos and aquariums today are not fit for addressing, designing, implementing, monitoring, evaluating, changing campaigns, change like projects"* (Female, Key Informant, Global North, Practitioner).

Box 7 - Key finding

Conservationists often misunderstand their own learning needs, leading to ineffective capacity-building efforts due to a misalignment between perceived and actual training requirements.

The misalignment between what conservationists think they need to learn and what they need to learn, also surfaced as a knowledge gap, as illustrated by the following quote from one respondent, who also referred to the inclination for stakeholders to request training in familiar areas, rather than focus on the need for more fundamental shifts in approach:

> Many times, you have to put your own hat on what the community needs to learn about behaviour change, that they themselves may not know. Because if you ask them, as that entrepreneur said, if I had asked consumers in 1984 what they want in terms of computing, they would have said, "I want a faster typewriter, not a desktop computer" (Male, Key Informant, Global North, Academic).

This misalignment can lead to ineffective capacity-building efforts that fail to address the root causes of conservation challenges, emphasising the importance of expert-guided training programmes.

The lack of recognition of the human dimension of many of the conservation challenges was also a common trend among the identified gaps. Nevertheless, conservationists revealed a growing awareness of its relevance to conservation, particularly in the context of human-wildlife conflict, a respondent explained that *"we're finally kind of starting to realise that the human side of human-wildlife conflict is really missing. And we're starting to try and include human dimensions into our work"* (Female, CEC, Global North, Practitioner). This recognition sustains an emerging positive shift, in acknowledging that conservation success often hinges on understanding and addressing human behaviours, attitudes, and needs. However, this recognition is relatively recent and there is still significant progress to be made to fully integrate human dimensions into conservation work.

3 Needs assessment results

Box 8 - Key finding

Many conservationists mislabel their activities as behaviour change, without employing structured approaches to measure behavioural outcomes.

Many respondent practitioners often mislabelled their activities as behaviour change. This frequently occurs with sensitization actions or public engagement efforts, where respondents said they believed their actions will inspire behaviour change, despite not employing the structured approach typically associated with behaviour change interventions. These findings reflect a conceptual misunderstanding rather than a sampling issue. While respondents self-identified as implementing behaviour change, a closer analysis revealed that many lacked clear understanding of behaviour science frameworks and were applying concepts intuitively without structured processes, including proper evaluation methods. The following example from a practitioner illustrates this dual challenge:

> It's very difficult for me to measure to which extent it changes behaviour when I tell my story, when I show my images, when people listen to my story or read my story. I cannot really measure that, right? But I am assured that I inspire a lot of people, and people are all aware, sometimes in the beginning especially, now to a lesser extent (Male, CEC, Global North, Practitioner).

This quote illustrates both mislabelling of activities as behaviour change and the challenge conservationists face in measuring the results of their actions. The practitioner shows confidence in the impact on its audience behaviour, while simultaneously acknowledging the lack of proper evaluation process. This highlights how these two issues are often interconnected - the absence of structured behaviour change approaches typically includes a lack of robust measurement and evaluation of behavioural outcomes.

Another type of mislabelling emerged from the thematic analysis, which contrasts with the previously described assumptions. In this case, some conservationists are applying behavioural science principles without realizing they're doing so. As one respondent shared: *"we have been doing this before, but we didn't know it had a name or this particular framework"* (Female, Key Informant, Global South, Practitioner).

The inconsistent use of terminology across different contexts was another identified gap: *"I think the word advocacy gets well, it tends to use that and advocacy at the government level but it's, we probably call it something else, grass roots level of rural communities in South Asia or wherever"* (Male, SSC, Global North, Practitioner). This practitioner quote underscored the variability in how different activities are labelled and conceptualised across various contexts and levels of intervention.

Overall, while conservationists often undertake valuable environmental education or engagement work, the relationship between these efforts and measurable behaviour change is complex. To maximise impact, there is a need for greater methodological rigour and for activities to be developed within robust behavioural frameworks that demonstrate how initiatives, such as education and engagement, contribute to desired outcomes. This includes adopting structured approaches to planning, implementation, and evaluation.

3.2.2. Social and economic barriers

Social and economic barriers emerged as a prominent theme as more than half of the participants mentioned these challenges. These factors may play a crucial role in the success of behavioural interventions. Their effectiveness can be greatly affected by complex societal and economic factors. Cultural norms and resistance to changes in societal structures often hinder the adoption of new behaviours, making it challenging for individuals to maintain long-term change (Alós-Ferrer et al., 2016).

Economic pressures, such as limited alternative income opportunities, may compel communities to persist in unsustainable or environmentally damaging practices. Addressing these challenges requires the careful prioritisation of behaviour change efforts and consideration of diverse bodies of literature ("pools of research") that account for different socioeconomic and cultural contexts. This ensures interventions are appropriate for specific communities rather than applying a one-size-fits-all approach, as illustrated by the following practitioner quote:

> Because behavioural change for somebody who's middle-class white privilege is very different for somebody who is like racialized, marginalised in all sorts of ways and potentially, poor. Like it's going to be different because there are social factors that are influencing that. And so, I just heavily encourage the community to identify sort of pools of research. So, they're intentional and don't miss whole areas of research (Female, CEC, Global North, Practitioner).

Box 9 - Key finding

There is a complex interplay between economic pressures and behaviour change. Communities may continue environmentally damaging practices due to limited alternative income opportunities or cultural norms.

Economic incentives can also hinder behaviour change interventions. Another practitioner made a special reference to how this topic should be addressed, emphasizing that interventions should focus on transforming mindsets and values rather than relying on economic approaches:

> I'm less and less convinced by the role economics and even economic incentives play in changing behaviour. (...) what I've been concluding in the last decade is that really the activities are happening because they are stuck in a system that is all about economic growth, extraction, etc., and we're never going to put in place the incentives to really change behaviour. So, what we need to be looking at is mindsets and value shifts (Male, Key Informant, Global North, Practitioner).

Changing societal structures, such as shifts in cultural norms, can create resistance to new behaviours or make it difficult for individuals to maintain long-term changes. Additionally, economic pressures can force people to continue engaging in activities that may be harmful or unsustainable. One practitioner emphasised this point by stating that *"poverty is one of the main things, because most of my conservation projects are based with local communities and when I see they don't change, they say it's because of the condition they are in (...)"* (Female, CEC, Global South, Practitioner).

3 Needs assessment results

In the contexts of political and governance instability, long-term planning and commitment to behaviour change initiatives become even more challenging as shifting priorities and inconsistent policies discourage sustained efforts. Acknowledging this complexity, an academic pointed out that *"in two years' time most of the people you train will probably then be in a different department entirely"* (Female, Key Informant, Global North, Academic).

Another respondent further explored the impact that political shifts can have on scientists and on the way state dependent organisations can communicate:

> (...) some of that terminology shying away from social science, was back from when we had a conservative government in for about, I can't remember if it was two or three terms. But anyway, now it was a while ago, like 10 plus years ago. And they were really tough. They muzzled scientists and everything (Female, CEC, Global North, Practitioner).

These factors create important hurdles for the effective implementation that can be amplified if scaling efforts don't take social factors into consideration. A respondent expressed their concerns regarding this issue: *"you don't need to scale; that's not a thing I'm ever going to support, because scaling implies that we have the same answer in different locations, and that's simply ridiculous. We're all really unique in different contexts"* (Female, CEC, Global North, Practitioner).

3.2.3. Institutional and organisational barriers

Box 10 - Key finding

Institutional and organisational barriers, such as conflicting approaches or poorly coordinated interventions, can undermine efforts.

The data demonstrated how institutional and organisational barriers can significantly undermine conservation efforts. A clear example of this was illustrated by a respondent who described how conflicting approaches from different NGOs created confusion within communities:

> We had NGOs working at odds against each other and the poor people in the middle were really getting confused. So, aligning messaging and behavioural change methods, when you've got each NGO and all saying, well, our tool's the best we need to do it this way. We've got funding to develop behavioural change, and you need to follow it this way. And then the next week, they've got another workshop with the same community and another group going, no, it's this way. So, synergy on our side as conservationists would make sense (Female, SSC, Global North, Practitioner).

Mentioned in half of the interviews, the institutional and organisational barrier's theme was the third most represented among barriers to behaviour change. These structural issues stemmed from organisational lack of awareness of the potential benefits of behavioural interventions or resistance to change, as a respondent expressed *"the idea of behaviour change or behaviour change communications is not yet accepted at the system level, or the organisation level or the department level"* (Female, Key Informant, Global North, Practitioner). The same participant further elaborated on how capacity building at the individual level sometimes fails to impact the organisations, because *"usually one lone individual who has an interest, managed to persuade its organisation enough to get into a training. But then they're sort of in a bubble in their world and it doesn't really get applied very much"* (Female, Key Informant, Global North, Practitioner).

Box 11 - Key finding

Conflicting institutional priorities, combined with limited financial and human resources, hinder the integration of behavioural sciences in conservation.

Conflicting priorities within institutions, where behaviour change initiatives may be seen as less urgent than other pressing concerns, were also noted by a respondent who shared: *"when you think about conservation in zoos, in general, they're not really kind of affording that kind of attention and resources in that space. And so, I do think one of the big issues and the barriers is ourselves"* (Female, Key Informant, Global North, Practitioner).

This challenge of conflicting priorities is closely tied to resource limitations, both financial and human, which further exacerbates barriers to integrating behavioural sciences. As organisations struggle to invest in developing partnerships or building the necessary capacity for behaviour change programmes, the

shortage of skilled personnel who understand the nuances of cross-sector collaboration and behaviour change methodologies creates additional hurdles.

Organisations need to recognize behaviour change and open positions for professionals with backgrounds in social sciences. These professionals are *"ready to put these skills into action and they can't find jobs. And that's because those titles don't exist or you have to sneak it into a communications outreach role or have to sneak into a social marketing role or a social media role"* (Female, Key Informant, Global North, Practitioner). As respondents discussed, there are notable structural challenges within conservation organisations that hinder the integration of behavioural sciences.

Respondents also addressed difficulties in the integration of academics in the organisation's activities, due to lack of understanding how each actor operates. A practitioner gave an example that supports this finding:

> A university professor said: "Why have you not got positions looking at conservation social science? Why are you not doing this? Because they had no idea in terms of how our budgets work, how our resource flows happen, how the other things that we must do, that pull our focus" (Female, Key Informant, Global North, Practitioner).

Five additional sub-themes where prevalent in the sample, ranging around one third of the sample. Financial constraints, resistance to social sciences, training, lack of expert support and time limitations. These barriers point to resource limitations, disciplinary resistance, and operational challenges in implementing behaviour change approaches.

3.2.4. Financial constraints

Box 12 - Key finding

Financial constraints systematically undermine organisational capacity, disproportionately affecting smaller and nonprofit entities by restricting their ability to design, implement, and sustain comprehensive behaviour change projects.

Financial constraints can have a major impact on the implementation and sustainability of behaviour change initiatives, affecting organisations globally. Two themes related to this topic emerged from the analysis: funding, which was mentioned by a substantial number of participants, and cost, discussed by a smaller subset of respondents. Due to their intrinsically connected nature, this chapter consolidates the analysis of funding and cost under the unified topic of *Financial constraints*. Therefore, it's possible to provide a more holistic understanding of how economic factors influence the development, execution, and sustainability of behaviour change initiatives.

Box 13 - Key finding

Financial constraints hinder the adoption of behavioural science, limiting access to training, networking opportunities, and information resources, particularly for individuals from marginalised groups and regions.

The importance of financial issues lies in their pervasive nature, as they can exacerbate many of the other barriers discussed in this report or even serve as their root cause. One of the connections between costs and funding was mentioned by a practitioner, where the availability of training options in non-English languages is limited by the cost of translations: *"certainly our webinars were all held in English. That might be a challenge. But, in order for us to make the investment, to create different languages, different language versions, we need to know that there is a constituency out there"* (Female, SSC, Global North, Practitioner).

Another practitioner emphasised the broader implications in the African context, particularly how language barriers, limit professional development and equal participation, where training opportunities are more scarce and should be available in local languages, advocating for *"more training opportunities in the Francophone languages as well as the Anglophone languages (...) to minimise barriers to participating in training and social science initiative events with lower fees or free attendance to these things"* (Female, Key Informant, Global North, Practitioner).

Environmental nonprofits particularly struggle with financial constraints, as their external funding sources critically determine their operational capabilities (i.e., ability to develop projects, hire, train, and maintain staff). A respondent articulated this challenge: "*if you want to increase more manpower to reach out to a wider community or wider reach, definitely funding is the most important thing. That is nowadays, it's how things are working for funding"* (Female, CEC, Global South, Academic).

The magnitude of these constraints becomes stark for smaller organisations attempting to implement behaviour change strategies. One participant explained: *"you will need resources to be able to employ*

the approaches. It's not easy to apply behaviour change. It's quite costly, and not many organisations have the ability to dedicate resources" (Male, Key Informant, Global South, Practitioner). He continued, by focusing on the magnitude of the impact of funding constraints in smaller organisations: *"that becomes an issue if you're a small organisation, and you don't have any resources, enough to actually design or even implement or sustain the behaviour change projects"* (Male, Key Informant, Global South, Practitioner).

Financial barriers extend beyond project funding, significantly limiting participation of conservationists in critical knowledge-sharing spaces. One practitioner stated that international meetings and conferences are often inaccessible to those with limited financial resources: *"only people with money show up at international meetings. So, you're missing a whole ton of people"* (Female, CEC, Global North, Practitioner). This economic filtering creates a skewed representation that fails to capture the diverse perspectives essential to effective behaviour change initiatives.

Box 14 - Key finding

Current funding structures in the conservation space are misaligned with the intrinsic nature of behaviour change initiatives.

The current funding model presents fundamental challenges to behaviour change work among conservation practitioners. These kinds of interventions inherently require extended timelines, but funding structures typically demand rapid, measurable outcomes. A practitioner highlighted this disconnect: *"funders want behavioural change, but I know it's not that fast, depending on what you want to change. And saying, well in a three-year period, you should expect this. And in a five-year period, but ultimately, it's a 10-year period"* (Female, SSC, Global North, Practitioner).

Respondents also shared their views on the current funding structure, which has a strong emphasis on quick, measurable results; this often fails to accommodate the gradual, nuanced progress characteristic of behaviour change initiatives. A practitioner explained that *"there's sort of larger challenges with philanthropy and the way that funding opportunities are structured, that does not lend itself well to behaviour change work, in the sense that oftentimes in proposals you're asked to have very specific metrics and indicators"* (Female, Key Informant, Global North, Practitioner).

This misalignment between funder expectations and behaviour change timelines, cost, structural funding issues, and challenges in sustaining projects beyond initial funding create major obstacles to both project initiation and long-term evaluation. Ultimately, this may undermine the effectiveness of conservation efforts. One respondent explained that *"because the funds are too small. It may not allow us to do bigger projects. We may need more funds to expand the contact and work on other communities"* (Female, CEC, Global South, Practitioner).

Funding availability is further complicated by national political dynamics. As one participant noted: *"if you get a more conservative government, then you don't get very much funding. And when you have a more liberal government, you get more funding"* (Female, CEC, Global North, Practitioner).

Respondents also highlighted the funders' perspective on funding barriers. They emphasised the need for funders to be more engaged with grantees and ensure continuous funding to allow for project

continuity. One practitioner shared that funding organisations *"need to be signposting better to our grantees, that they should be coming back to us. To try and access additional funding so that there's no pauses"* (Male, Key Informant, Global North, Practitioner).

Participants also explored funders' concerns regarding project sustainability, calling for proper planning that should go beyond the initial funding cycle. A respondent shared their experience on funding boards: *"One of the questions I used to ask was: after the money runs out for that project, what measures have you got to sustain the sustainability of the project, beyond the funding?"* (Female, CEC, Global South, Practitioner).

3.2.5. Challenges to social science adoption

The thematic analysis revealed that resistance to social sciences is a prominent barrier for behaviour change adoption at individual and organizational levels. This theme was present on over a third of the interviews, with various sub-themes being identified, a finding that highlighted the hurdles for integration of social sciences into the conservation space.

Box 15 - Key finding

Conservation's traditional focus on species and ecosystems entrenches the divide, making it challenging to embrace newer, human-centric approaches

The most prevalent reasons respondents identified stemmed from *"some epistemological tension between the different fields of conservation, and social sciences"* (Male, Key Informant, Global North, Practitioner), but also from cultural silos, and historical biases between conservation and social sciences. Another respondent supported this view: *"Conservationists resist behavioural science. There's your old-time conservation thinking. And when you say we have to use behaviour change, they just put up walls"* (Female, Key Informant, Global South, Practitioner). Respondents also said that reputational concerns could be the origin of resistance to behavioural sciences as *"many people in biological and physical sciences see the social sciences as soft. Why would I want to lower the reputation and capacity of my work by including a social science component? That's unfortunately a real perception"* (Female, CEC, Global North, Practitioner).

Box 16 - Key finding

The way behavioural sciences are presented to conservationists can impact their acceptance.

Although conservationists might view social science approaches as misaligned with their disciplinary norms, leading to scepticism or dismissal, the social science camp has work to do to facilitate the adoption of these tools. Another respondent supported this approach, stating that social scientists within their *"own practices, we need to understand that there will be people that will be resistant to wanting to use behavioural models"* and *"in order for something to change, somebody's behaviour has to change. It's not going to happen otherwise"* (Female, Key Informant, Global South, Practitioner).

Respondents also identified how behavioural sciences are framed to conservationists as a possible barrier to adoption. One respondent shared his view on how social scientists should approach framing for broader engagement and buy-in from conservationists: *"if you framed it as, how to make a bigger impact in the conservation that you do or how to measure that impact in terms of monitoring and evaluation, those kinds of things. Framing it would be the key thing"* (Female, SSC, Global South, Practitioner).

Social background can also create resistance to social sciences within the conservation space, even when conservation and social scientists work together. A practitioner shared their experience in an African context, where *"all is overlaid with human need. And the top-down colonial approach to conservation that has kind of happened in many countries, including in Africa, where conservation is*

seen as a negative" (Female, SSC, Global South, Practitioner). The respondent then further reinforced the deeply rooted resistance to behavioural sciences in this specific setting, by adding: *"on top of that, the idea of behaviour change being seen as a negative. And what gives you the right to tell me I must change my behaviour?"* (Female, SSC, Global South, Practitioner).

Another relevant factor identified was the organisational internal barriers that hamper the integration of social sciences with conservation. This can start with the lack of recruitment positions for social scientists. A respondent explained: *"you never see an advertisement or anybody send you anything saying we want, we are looking for a behaviour change specialist"* (Female, SSC, Global South, Practitioner). Many organisations lack formal support for social sciences, as previously shown on section 3.2.3. Institutional and organisational barriers, that can leave practitioners isolated in their efforts.

In a more specific context, a respondent illustrated the difficulty of including behavioural sciences in the zoological context: *"I think modern zoo directors, modern leadership, modern conversations about what are we doing, what's it all for? Have kind of gone into that space. I still think there's a lot of people who wrestle with, no, no, I'm here to care for my animals"* (Female, Key Informant, Global South, Practitioner).

Box 17 - Key finding

Ethical concerns regarding behavioural science can have a major influence on its acceptance, emphasising the need to debunk existing misconceptions.

Some respondents expressed concerns about the potential ethical implications of behavioural science, particularly around perceived manipulation. This unease may contribute to resistance and scepticism toward behaviour change approaches. One respondent emphasised the importance of dispelling these misconceptions: *"Behavioural science is not about manipulating somebody's behaviour. And that's something that has to be dispelled very quickly, (...) and there's a very fine ethical line that you walk as a behavioural practitioner or a behavioural scientist"* (Female, Key Informant, Global South Practitioner).

3.2.6. Training

Box 18 - Key finding

Training opportunities in behaviour change are limited, and available programmes often lack practical applicability.

About one third of the respondents mentioned gaps in training, support and learning opportunities regarding behaviour change. In some regional contexts these opportunities seem scarcer as a respondent stated: *"There are many books about behaviour change, but it's different if you get the opportunity to be trained. So, I think globally the opportunities, especially for people in this part of the world, in Asia, are very limited*" (Male, Key Informant, Global South, Practitioner).

When available, according to some respondents, the quality and relevance of the training opportunities doesn't fulfil their needs: they are either too theoretical or lack practical applicability, as respondents shared: *"they're so theoretical that the people have come back going, it was just too technical. It wasn't practical"* (Female, Key Informant, Global North, Practitioner). Other respondent added that after the initial training it would be beneficial to have some level of support, to sustain the capacity building: *"I think it's one thing to build capacity, but if someone from your team could become like a counsellor or a guide"* (Female, SSC, Global North, Practitioner).

The importance of having properly trained individuals as decision makers was also mentioned: *"a lot of people with this country's very peculiar history come out of relatively unskilled or very newly trained backgrounds. And were in positions where they were making decisions that they weren't technically qualified to do"* (Male, SSC, Global South, Practitioner).

Moreover, some respondents were concerned about *"asking staff members to wear too many hats"* (Female, Key Informant, Global North, Practitioner), when trying to promote capacity building around behavioural sciences.

3.2.7. Lack of expert support

The lack of dedicated behaviour change experts within conservation teams also emerged as a notable barrier, which was mentioned by roughly one third of the respondents. Expert support was already mentioned, in the previous section, 3.2.6. Training, as an important feature to allow for a sustained continuity of the programs and support individuals in their development

Box 19 - Key finding

The lack of access to dedicated behaviour change experts seriously compromises the ability of conservationists to adopt behavioural sciences into conservation.

The lack of experts on social sciences, and/or the knowledge to access them, to support conservation efforts was mentioned by respondents from across the globe. However, there are regions where our respondents reported that the access to conservationists' experience is more difficult, especially in the Global South. As a practitioner suggested *"there isn't an extensive body of knowledge in conservation in Africa on how to do behaviour change work"* (Female, Key Informant, Global South, Practitioner).

The lack of support can push conservationists to use trial and error approaches, therefore consuming valuable resources that could have otherwise been optimised to implement more effective initiatives. A respondent described: *"We've been doing our campaign for seven years and I'm sure if this information had been available, the first three years would have been a lot less challenging, because we were literally learning everything as we went, there was nobody else to learn from"* (Female, Key Informant, Global South, Practitioner).

These insights underscored the importance of having dedicated behaviour change experts, particularly in regions where such expertise is scarce. It also highlighted the need for improved knowledge sharing and collaboration platforms to support conservationists in implementing behavioural interventions.

3.2.8. Time

All the previous barriers to behaviour change can also have a serious implication on a very important resource: time. Time constraints collectively impact the effectiveness, depth, and sustainability of behaviour change efforts. They can lead to rushed implementations, unrealistic expectations, and challenges in demonstrating long-term impacts within the project cycles and funding timelines.

Box 20 - Key finding

Behaviour change initiatives are frequently undermined by unrealistic time constraints imposed by short project cycles and funding timelines, preventing the long-term engagement needed for lasting impact.

Behaviour change requires substantial time to develop and become sustained. The inherent nature of behaviour change was highlighted by respondents, particularly regarding its long-term development. One respondent emphasised time as a crucial resource needed for behaviour change to occur, permeate target groups, and foster broader societal changes: *"They run the campaign and then in a year the campaign's over but no one actually knows what happens after that and we all know behaviour change doesn't happen overnight over a year it's a long-term thing"* (Female, SSC, Global North, Practitioner). This vision was also shared by another respondent, who reinforced how inappropriate timeframes can hamper project success: *"I think the time of a project is sometimes short. It cannot give us much time to consolidate the result. It's like we have started gaining some positive change and then now it stops"* (Female, SSC, Global South, Academic).

Respondents also referred to time constraints linked to funding cycles and donor expectations, as well as the lack of scientific guidelines to help donors better understand the need for longer timeframes:

> Because some projects promise behavioural change, which would never happen in the time period. And if a group of experts in a group like this would come up with a paper recommending these are measurable or achievable in different time frames, that would be so valuable to so many funders (Female, SSC, Global North, Practitioner).

Staffing challenges were also mentioned in connection with the time factor. Many conservation professionals and volunteers have limited time to dedicate to behaviour change initiatives due to full-time jobs or other commitments, voluntary nature of their involvement in conservation work, or multiple responsibilities within their roles. Two respondents supported this view: *"the organisation members, group members, are volunteers, and volunteers tend to want to do things they find interesting"* (Male, SSC, Global South, Practitioner) and *"not only that, I'm not employed independently, so my time detracts from my earning time, and I don't know how many of my colleagues are in that pool. These things have consequences"* (Male, SSC, Global South, Practitioner).

3 Needs assessment results

While the previously discussed themes emerged as the most prevalent barriers in this needs assessment, several other challenges, although less frequently mentioned (only a fifth to a tenth of the sample), also warrant attention due to their potential impact on behaviour change efforts. These less prominent themes still provide valuable insights into the complex landscape of barriers faced by practitioners and academics in the field. The barriers explored in this section include language barriers, staff-related issues, communication challenges, lack of recognition, and cost constraints.

3.2.9. Language

Language barriers can have a key impact on behaviour change initiatives, affecting access to opportunities, inclusivity in training, local engagement, communication effectiveness, and project costs (has previous explored on section 3.2.4. Financial constraints. This section explores how these barriers influence behaviour change efforts and highlights respondents' experiences to provide insight into overcoming linguistic challenges in conservation.

Box 21 - Key finding

Language barriers can create major obstacles to accessing conservation resources, funding, and training opportunities

Language barriers can have a major impact in access to conservation resources and opportunities. One respondent shared how language can compromise the ability to access funding, fellowships, and training opportunities, particularly when proficiency in English is a prerequisite: *"Language for me is the main barrier, and the cost is a consequence of the language. If you can communicate in English, you have more options to apply for fellowships, grants, and then you resolve the problem of money"* (Female, Key Informant, Global South, Practitioner). Another practitioner further extended that concern to the limited availability of translated training materials, that can restrict non-English speakers from fully participating in conservation training, by stating:

> There might be people who would like that kind of training but aren't confident enough in English to be able to take that training. So that might be a possibility, and we do have a lot of our materials translated into different languages, but I don't think that we have our online training materials translated (Female, SSC, Global North, Practitioner).

The technical dimension of language in conservation behaviour change was also highlighted by respondents. One respondent expressed its concern that the use of overly technical or scientific language often prevents the broader public from engaging with conservation messages: *"We already had to convert the scientific results and reports into something really from the marketing world, explaining different words, explaining it in a different way. Otherwise, our public will never engage with the results of what we're doing."* (Male, CEC, Global North, Practitioner).

Respondents also raised concerns regarding language-related costs, such as hiring bilingual staff or translating materials, creating financial challenges for conservation projects. Such financial constraints often limit the capacity to fully implement inclusive, multilingual communication strategies in conservation campaigns, as a practitioner mentioned:

> And a lot of the NGO's are regional NGO's, they don't necessarily speak English as a first language. So there are all these language challenges, also cultural challenges within our region. So quite often we stop at education or awareness raising just because it's an easier campaign to run. And only a few ventured into something that's more of behaviour change, because they have the resources or the finances, to go in and start some of those campaigns (Female, SSC, Global North, Practitioner).

3.2.10. Staff

Issues related to understaffing, high workload, high turnover, and the lack of long-term support for teams were mentioned by participants. Since staff are at the core of behaviour change interventions, issues surrounding this topic may have a very disruptive effect. One respondent described the challenges of staff turnover, *"unfortunately once we came around to implementing, my core team had moved on. They have lives, they need to pay the bills. So, then I had to reboot again and hire new staff"* (Male, SSC, Global South, Practitioner).

Box 22 - Key finding

Staff turnover and understaffing create important disruptions to behaviour change initiatives.

Another practitioner illustrated how problematic it can be to have a small team without diverse skills. They explained: *"Even though our team is multidisciplinary because we have communicators, educators, ecologists, and we have hired a sociologist and anthropologist, it has been very difficult for the team to be updated with all the tools, concepts, and so on"* (Female, SSC, Global South, Practitioner).

Staff issues were also often linked with capacity issues, leaving teams without the ability to learn and integrate behavioural science approaches effectively. These findings highlighted the persistent challenges in staffing and capacity building within behaviour change interventions, emphasising the need for sustainable strategies to recruit, train, and retain skilled personnel for long-term program success.

3.2.11. Communication

Box 23 - Key finding

Conservation work's siloed nature and communication barriers between different communities can create major obstacles to effective behaviour change initiatives.

Communication lies at the heart of effective behaviour change, and respondents referred to a myriad of challenges in this crucial process. The siloed nature of conservation work was a key concern, impeding knowledge sharing and collaboration between different organisations working on similar conservation projects, leading to duplication of efforts and missed opportunities for collaboration. According to one respondent: *"conservation can be quite siloed in general, but behaviour change, the little behaviour change work that seems to be happening seems to be incredibly siloed. Maybe there's just a lack of awareness that there are other people doing what you're doing"* (Female, Key Informant, Global South, Practitioner).

Miscommunication and misunderstanding often arise from the inability to effectively convey messages. These issues can stem from various factors, including differences between academics, practitioners, and communities. Each of these groups approaches problems and communicates solutions in distinct ways, which can lead to a disconnect in understanding, collaboration, and acceptance of conservation initiatives. A practitioner highlighted these challenges:

> I think that we've got the challenges of conservationists themselves. One set of challenges is the conservationists and trying to support conservationists to understand the importance of social science. Then the next group we've got that's a problem is the social scientists themselves and their desire to create a whole new language, world, everything out of social science that is often exclusionary to both communities and to scientists. Social scientists often have to really think about how they communicate their work and to be very practical in it and to meet people where they are, not where they might like them to be (Female, Key Informant, Global South, Practitioner).

The language and concepts of behaviour change can also be a barrier to its understanding and implementation. There is often a disconnect between scientific information and effective communication needed to engage audiences. On the scientist side, a practitioner suggested that: *"sometimes scientists are bad at this, where we kind of come off as pretentious or we don't really think that people would be able to understand the "why" of things"* (Female, CEC, Global North, Practitioner).

Participants also referred to concerns regarding the target audience's perspectives, particularly in understanding what conservationists are communicating. The complexity of behavioural science concepts can be overwhelming, making it challenging for audiences to grasp and apply them effectively. One practitioner shared: *"it's really hard to simplify into something that's useful for most folks because there's like hundreds of them and each one is like so much nuance and research and literature behind it"* (Female, Key Informant, Global North, Practitioner).

3.2.12. Lack of recognition

Box 24 - Key finding

Behaviour change initiatives can suffer from poor recognition and visibility, particularly those from the Global South, due to insufficient documentation or oversaturation of projects.

The lack of recognition for behaviour change initiatives represented a noteworthy barrier to progress in the field, according to a smaller subset of respondents that referred to this topic during the interviews. Many conservationists find their efforts confined to small, localised circles despite their potential for broader impact. The lack of visibility is often exacerbated by socioeconomic factors, as projects from the Global South tend to receive less recognition compared to those from the Global North. According to a practitioner:

> The Global South is extremely humble about what they do. We don't shout it from the rafters and make a big noise about it. It's very evident. I have to dig very hard to find a Global South example, when I'm looking for a research paper, when I'm trying to do some work (Female, Key Informant, Global South, Practitioner).

This invisibility is often perpetuated by insufficient documentation and knowledge sharing. The lack of proper documentation creates a cycle where valuable experiences and insights remain hidden from the wider conservation community, impacting the recognition of important initiatives. As one respondent explained: *"I think it must be the same with behaviour change stuff as well. With all this capacity building, people must know a lot about behaviour change. But my guess is, as you say, it often isn't documented. But they know it"* (Male, SSC, Global North, Practitioner).

The challenge of gaining recognition is further complicated by the saturation of projects in some regions, where competition among different organisations is intense. This oversaturation can make it difficult even for innovative and robust initiatives, to stand out and gain visibility. One respondent expressed this concern:

> We have too many projects at the same time. And for our community and for the people that we are working on conservation programs, sometimes we have to fight to demonstrate that our projects are for real, that we have the organisation's support, that this is monitored with reporting in real time KPIs. And it's super difficult to show and demonstrate to the society what projects are good and which ones are bad (Male, CEC, Global North, Practitioner).

Another factor that undermines the recognition and credibility of conservation efforts, according to the respondents, is the disconnect between grassroots initiatives and high-level platforms. A practitioner shared:

> Because we promote individualism and exceptionalism, then what happens is people get up on stages, they lose root in the work. Because they lose those roots, they now can't talk to the spaces, and they lose credibility. Because there's a certain credibility with grass roots work that if you're not doing it, people are like: who are you? I don't even know who you are,

> you know? And so, you can't just dive into a space and say, there's just a certain humility about status and power, and we have to be really attuned to it and aware of it constantly (Female, CEC, Global North, Practitioner).

This disconnection can lead some individuals to lose touch with the realities faced on the ground, making it challenging for their work to be effectively communicated or valued by local communities.

Box 25 - Section 3.2. summary

Respondents highlighted key barriers to effective behaviour change initiatives, primarily due to knowledge gaps, resource constraints, and organisational resistance.

Respondents reflected that conservationists often lack behavioural sciences expertise, relying heavily on biological perspectives without the interdisciplinary insights essential for addressing human-centric issues. Conservationists also face challenges in accessing appropriate tools, leading to common mislabelling of sensitization actions or public engagement efforts as behaviour change, lacking the required methodological rigour. Such limitations, compounded by inconsistent terminology, underscore the need for structured approaches to intervention planning and evaluation.

Social, economic, and political factors also impede behaviour change efforts: cultural norms, economic constraints, and governance instability can hinder individuals and institutions from adopting new behaviours, even when economic incentives are available.

Respondents emphasised the unique social context of each conservation scenario, cautioning that economic incentives alone are insufficient and may conflict with broader socio-political realities. Additionally, behaviour change initiatives can suffer from poor recognition and visibility, particularly those from the Global South.

Financial constraints further complicate implementation, particularly for smaller organisations dependent on external funding. High turnover and understaffing, especially in underrepresented regions, create additional challenges. These financial, structural, and cultural barriers collectively limit conservationists' ability to adopt and sustain behaviour change approaches effectively.

3.3. Foundations for broadening behaviour change adoption

This section explores the critical elements that respondents viewed as necessary for the wider adoption of behaviour change in conservation practice. Through the careful analysis of the interview data, it was possible to identify key resources, support mechanisms, and enabling factors that could significantly enhance the implementation and impact of these behaviour change interventions across diverse conservation contexts. These essential components span over four main categories: 1) funding and partnerships, which address financial and collaborative needs; 2) knowledge resources, which encompass practical guidance and learning materials; 3) learning and development opportunities, which focus on skill-building and capacity enhancement; and 4) information access, which addresses how practitioners can effectively find and utilise relevant resources. Each category represents distinct yet interconnected dimensions of support that respondents highlighted as fundamental to advancing behaviour change application in conservation.

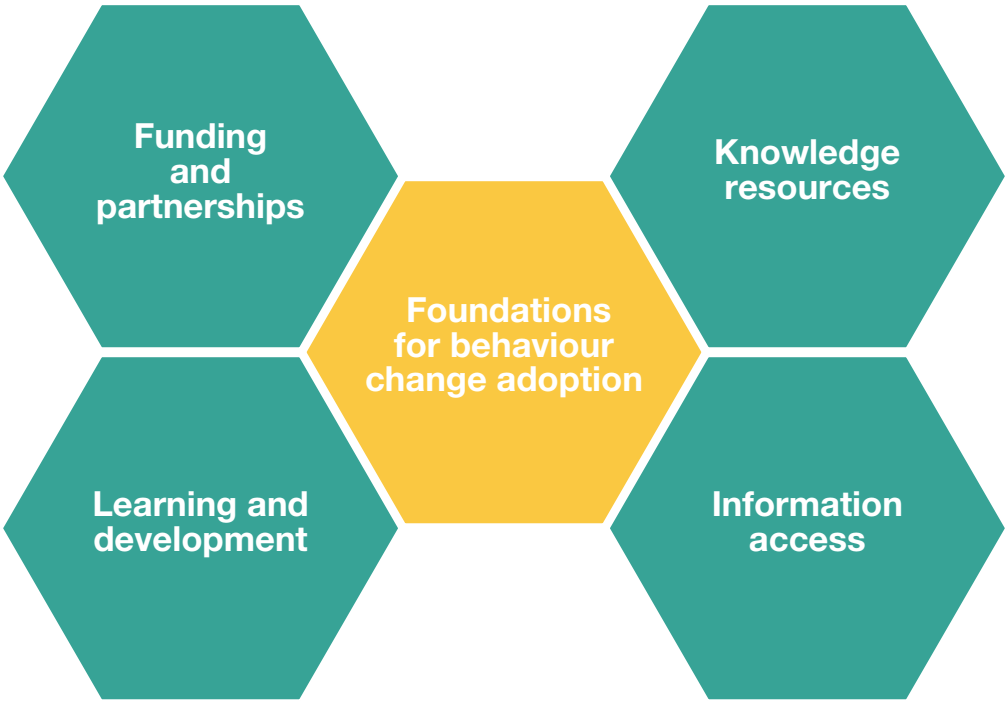

Figure 4 - Foundations for broadening behaviour change adoption. Source: Authors

3.3.1. Funding and partnerships

This theme was identified as the most critical need, and over half of respondents emphasised the importance of financial support and collaborative opportunities to increase behaviour change activities in the field of conservation. Respondents frequently mentioned the importance of networks in accessing funding information: *"We became aware of more funding opportunities through our connections"* (Female, Key Informant, Global South, Practitioner). The way these funding networks can be accessed was mentioned by one practitioner: *"Identify funders and all those who are keen to fund demand reduction or behaviour change campaigns. Because from my experience, it's very hard to get donations or funding into that"* (Female, Key Informant, Global North, Practitioner). This quote reflects how a thematic approach to funding networks, with awareness to more 'traditional' conservation topics, could help facilitate the funding to behaviour change projects.

Box 26 - Key finding

Respondents underscored the value of partnerships and workshops that promote learning and resource sharing, especially through structured, ongoing collaboration.

Respondents also expressed the need for partnerships that could promote learning and resource sharing, taking advantage of already existing events. One practitioner explained, *"through some sort of facilitated workshop, find other organisations who are wanting to work on similar themes and share, and then kind of meet regularly to achieve certain objectives."* (Female, Key Informant, Global North, Practitioner).

Given the diversity of individuals and organisations operating in conservation networks and their varying regional scopes, online platforms could play an important role in connecting these actors. As one academic explained:

> Developing some inter-country examples, inter-regional examples in which the experts come together to brainstorm, and a lot of online media should be used for it and then have some introduction of material sort of a field testing of material that is developed and then route this through the government machinery into the different countries or different groups (Female, CEC, Global South, Academic).

The scope of how participants viewed the partnerships taking place was quite broad, and this section was more focused on the institutional nature. The following sections will cover in more detail references to learning and knowledge networks.

3.3.2. Knowledge resources

Mentioned by less than half of the participants, this theme covers both priority topics for behaviour change implementation, and various types of knowledge-based resources. These include guidance on evaluation methods that measure intervention effectiveness and promote ongoing improvement, alongside formats such as case studies, guidelines, media materials and toolkits that support practical application across diverse conservation contexts.

3.3.2.1. Evaluation methods

Evaluation methods were highlighted as an important aspect for implementing behavioural sciences. According to respondents, there is a need for robust evaluation tools and techniques and the knowledge to use them to ensure that conservationists can measure and demonstrate the impact of their work. These measurement challenges are compounded by the inherent difficulties in assessing behaviour change, which often relies on self-reporting methods that may not always capture actual behaviours accurately. As a practitioner explained: *"There's a desire and a requirement in certain areas for evaluating behaviour change and being more rigorous"* (Male, Key Informant, Global North, Academic). Another respondent further emphasised the importance of making these methods more accessible: *"There could be more opportunities to inspire people, colleagues about evaluation, and more importantly, to make it affordable, both resources speaking and also capacity speaking, make it affordable for practitioners"* (Female, CEC, Global South, Practitioner).

Box 27 - Key finding

Respondents underscored the value of partnerships and workshops that promote learning and resource sharing, especially through structured, ongoing collaboration.

Participants also mentioned the need for evaluation tools for funders, specifically measurable indicators for behaviour change projects. A respondent mentioned that *"it would be really helpful to have just a basic table of measurable indicators, which projects could use and recommend for behavioural change because we get all sorts of things, because people don't know"* (Female, SSC, Global North, Practitioner). This quote reinforces the previous paragraph, regarding the lack of knowledge conservationists have regarding evaluation tools. This view is also supported by the growing demand from donors for evaluation tools (with a focus on quantitative evaluation tools) and for comprehensive evaluation approaches. As one practitioner discussed, *"because nowadays whether it is a national donor or any kind of international donor agency, they are very particular about the deliverables and the deliverables have to be both qualitative and more quantitative"* (Male, CEC, Global South, Practitioner).

3.3.2.2. Case studies

Respondents emphasised, the importance of case studies on behaviour change, indicating a strong demand for practical, real-world examples that can provide valuable insights and guidance for implementation. An academic highlighted the effectiveness of case studies in conveying relatable experiences through storytelling: *"There's nothing like a good case study that's working up, it seems to me that we're storytellers and you can give people examples, these practical examples of stories that have made a contribution. People can relate to that"* (Male, Key Informant, Global North, Academic). These practical examples not only offer conservationists a clear understanding of what works and what doesn't but also inspire them to adapt successful methods and tools to their own contexts. As one respondent noted, the key is to communicate these examples in an impactful manner that allows people to deeply understand the potential: *"I think they have to drop into the experience and get a sense of what's possible"* (Female, CEC, Global North, Practitioner).

Box 28 - Key finding

Respondents suggested case studies as a valuable tool for sharing practical insights and inspiring behaviour change initiatives, but their effectiveness is contingent on their relevance to specific local contexts and their ability to be communicated in engaging and impactful ways.

Although case studies can be relevant to facilitate the adoption of behavioural sciences by conservationists, another practitioner cautioned for potential limitations. Their concern was a focus on global case studies and their applicability to unique local contexts: *"Case studies definitely are very important. I don't know how much they work at a global level, because when you're working with communities, each community is so different, their background is so different"* (Female, Key Informant, South, Practitioner).

3.3.2.3. Guidelines

Among participants there was a generalised sense of the need for guidelines on how to implement and develop behaviour change interventions: *"The first thing that everybody wants, the first thing that some people want, and I would say that this includes larger organisations, like the top level or zoo associations, is a set of guidelines"* (Female, Key Informant, Global North, Practitioner).

Box 29 - Key finding

Participants emphasised the need for clear and accessible guidelines to support the implementation of behaviour change interventions, while acknowledging the importance of balancing comprehensiveness with practicality.

While there is a need for guidelines to support the implementation of behaviour change interventions, it is essential to balance comprehensiveness with accessibility. As one practitioner noted, *"you have to know enough in order to understand what those guidelines are. They're not for people who don't have any background in conservation social sciences"* (Female, Key Informant, Global North, Practitioner). To ensure broader adoption, guidelines should be practical and adaptable to diverse contexts and expertise levels.

3.3.2.4. Media and materials

Only a limited number of participants addressed this theme, but their insights highlighted a demand for accessible, practical, and visually engaging materials that can effectively drive action and foster long-term behaviour change outcomes.

Box 30 - Key finding

Respondents emphasised the need for accessible, engaging, and informative resources, to effectively communicate conservation messages and drive behaviour change.

Accessible and visually engaging resources were emphasised by a practitioner, who highlighted the need for easily accessible and optimised content, especially mobile devices: *"things that were available from universities, websites and PDFs are hard to read and download on a cell phone, formatting for mobile phones, because globally mobile phones are the way that people are accessing electronics and not via computers"* (Female, SSC, Global North, Practitioner).

Participants also pointed to the benefits of interactive online content to engage audiences in conservation efforts. As a practitioner mentioned, these dynamic, digital learning formats can be effective tools for driving behaviour change: *"online conservation seminars, they have helped a lot, maybe have little lectures online or on YouTube, a little short film or something that could be useful"* (Female, SSC, Global South, Practitioner).

Other participants referred to more structured educational materials. One academic underscored the value of standardised educational tools, noting: *"standardised fact sheets, manuals, worksheets that can be introduced to the schools will be very useful and when you say conservation education, you say biodiversity"* (Female, CEC, Global South, Academic).

More traditional communication paths were also mentioned by participants, with narrative-driven communication, using the power of storytelling in conservation communication, as a practitioner stated: *"Stories are huge and I think that we should be using conservation stories. People love that stuff. Share it even if it's not perfect, share the mishaps as well. That just makes us more human"* (Female, CEC, Global North, Practitioner).

3.3.2.5. Toolkits

Toolkits, while mentioned by only a small portion of respondents, emerged as a noteworthy theme from the analysis. These practical resources can offer hands-on instruments for applying behavioural sciences concepts in specific contexts, because, according with a practitioner, *"one of the best things that we can do is once we have multiple sort of similarities or principles that we want to refine, we can build toolkits from those principles that are practice-based toolkits"* (Female, CEC, Global North, Practitioner). The same respondent further elaborated on the advantages of these resources, when compared with other more technical publications: *"design-based toolkits are going to move research and practice radically compared to just writing a bunch of research papers for policymakers that 10 people read. (...) toolkits for practice are going to be a lot better"* (Female, CEC, Global North, Practitioner).

Box 31 - Key finding

Respondents highlighted the need for practical toolkits that provide hands-on guidance, but that should be accessible and ideally complemented by training and networking opportunities.

One practitioner suggested a more integrated approach to toolkits, rather than just a standalone publication, because according to their experience they *"found that people can use it more easily if they meet. They really want to share the entire experience, not just read the toolkit. They want a question-and-answer session"* (Female, Key Informant, Global South, Practitioner).

3.3.3. Learning and development

This theme was mentioned by almost half of the participants, with different sub-themes being identified regarding training needs and preferences, requests for expert support or mentorship, and communities of practice. These findings provided valuable insights into the capacity-building requirements of conservationists seeking to implement behaviour change approaches. Respondents emphasised various formats and pathways for skills development, highlighting both structured training opportunities and ongoing support mechanisms that would enable practitioners to effectively apply behaviour change concepts in their work. This strong interest in learning opportunities can be interpreted considering the high prevalence of barriers related to knowledge gaps regarding behaviour change, as previously discussed in section 3.2.1. Knowledge gaps and mislabelling.

Box 32 - Key finding

Aware of the growing importance of behaviour change, the nature conservation community is looking for opportunities for capacity building.

The demand for opportunities to learn and develop skills is a common trend in the conservation community. One respondent shared the insights of a scientific study where participants also mention the development of conservation social sciences skills as a top priority:

> Behaviour change expertise came up top as the subject knowledge that people wanted more training and capacity building in. The soft skills came up really high, as being important for researchers and practitioners looking to have a career that involves conservation of social sciences (Female, Key Informant, Global North, Practitioner).

Other participants mentioned the need for capacity building as a one of the most important steps regarding behaviour change skills development, even the ones with a certain level of experience: *"capacity building is very, very important, because that plays a tremendous role. Because even the practitioners sometimes lack certain things"* (Male, CEC, Global South, Practitioner).

According to the participants' inputs, there was no clear preference for how training opportunities should be made available. In-person, online, and hybrid formats, were all mentioned with equal frequency.

One respondent emphasised that while online delivery can enhance equity, access, reach and scale, there are inherent limitations to capacity building in any format:

> I think remote work, for the most part, increases equity, access, reach, and scale, but realistically, in terms of capacity building, we can only probably achieve so much in that vein, unless somebody's willing to invest much, much more time, even universities, would really have to get into much more of a two-year kind of program if you really want to adopt the skills (Female, Key Informant, Global North, Practitioner).

From the previous quote it is also true that meaningful skill development requires substantial time investment, which may be beyond the resources of many organisations.

Paths to capacity building were also mentioned, some respondents approached the topic with single layer options. Others requested multilayered approaches, that can combine workshops, networking and expert support, as stated by the following practitioner:

> Where a group of people, including some experts in this area, are stepping through all the things that we need to change, sort of formal behaviour change targets, given the context for this species, and then who would be the stakeholders around that particular behaviour or group of behaviours. What would be the obstacles to changing that behaviour? To try and get some sort of framework around moving that particular piece forward. That would be structured in such a way that it would dovetail with the flow of the three and a half day workshop (Female, SSC, Global North, Practitioner).

Other respondents, such as an academic, made a more concrete suggestion on the approach to learning and development, by establishing a basic level of resources that should be made available at an entry level to behaviour change, that will pave the way for more advanced learning stages: *"It's knowledge generation, synthesis, sharing, training capacity, building capacity development. Those are the really obvious things you kind of have to do. Even if you have a more innovative forward thing"* (Female, SSC, Global North, Academic).

Box 33 - Key finding

Skill development should be a continuum, where conservationists have access to a network to advance in capacity building, but also have a support net for ongoing support.

Learning opportunities should not be one-off events. Respondents emphasised the need for a critical approach to training, encouraging reflection and discussion. They also advocated for creating cohorts to foster long-term engagement and support among participants. As one practitioner noted, *"there was always that opportunity to say, well, how did that resonate with you? Like, what are your questions?"* (Female, Key Informant, Global North, Practitioner). This critical thinking approach, combined with the support of a cohort, can significantly enhance the impact of capacity-building initiatives, as stated by the same practitioner: *"one of the benefits of capacity building courses, one of the things that we should be having is that a group of people who feel that they're a cohort"* (Female, Key Informant, Global North, Practitioner).

Participants also mentioned with some frequency the need for collaboration and support of experts in behaviour change, as they are seeking direct collaboration and mentorship. This kind of collaboration can be very focused on specific projects, as a respondent referred *"the best approach would be to get advice on specific projects. Because we need examples. And we need to create models we can reproduce on other sites"* (Male, SSC, Global South, Practitioner).

There was a strong emphasis on learning from experts through structured behaviour change training programmes, as one practitioner explained: *"supervised guidance, and then maybe have minimum standards and say: now you understand the context for these, we will give you advice as you need it, but go out and do and see how that works for you"* (Female, Key Informant, Global North, Practitioner). This approach involved a hand-in-hand support system where experts guided participants in developing

behaviour change interventions. The practitioner advocated for *"a cohort approach to training (...) not just a throwaway document and not just a throwaway one hour talk on something is sufficient for this"* (Female, Key Informant, Global North, Practitioner).

Box 34 - Key finding

Overcoming disciplinary silos is key for a multidisciplinary approach to capacity building. Connecting communities and allowing for knowledge integration and a better understanding of the strengths of different scientific backgrounds, that can coexist in the nature conservation space.

According to the respondents, the interactions of experts should be interdisciplinary, also from outside of the scope of behaviour change, to promote knowledge sharing on different environmental issues, as participant referred: *"I think that also is really key because people working on climate change probably have a lot more experience to share than people working on wildlife trade and so that cross fertilisation could really also be facilitated nicely by the group"* (Female, Key Informant, Global North, Practitioner).

The previously described needs can only be achieved, as some participants expressed, with better access to experts. One academic gave the example of a mailing group, where practitioners *"could also send an email to the group and ask, does anyone here have a sort of roster of experts on call to ask if anyone has an answer?"* (Female, Key Informant, Global North, Academic). Another respondent, suggested the creation of a platform where practitioners and academics could search for expertise on behaviour change: *"have a list of consultants who, if they want advice in a specific country"* (Female, SSC, Global North, Academic).

3.3.4. Information access

Box 35 - Key finding

There is a need for a centralised and accessible resources hub, that uses standardised terminology and offers multilingual content.

This theme emerged as a critical concern voiced by nearly one-third of the respondents. This supports a pressing need for improved access to knowledge, resources, and networking opportunities. Participants consistently emphasised the importance of having readily available, comprehensive, and easily digestible information to guide their work in behaviour change. A solution could be a centralised resource hub on behaviour change, a tool that can serve multiple functions, as a practitioner explained:

> A central place for people who are applying behaviour change to specifically conservation efforts, to be able to share their work, learn from others' work, access the published papers and research on these things, in a central place (...) the community is hungry to be a community, and this could be a place for that. Right now it's scattered in just a few too many different places (Female, Key Informant, Global North, Practitioner).

The quality of the resources in these platforms was also of concern to respondents. A practitioner referred to the importance of having curated resources: *"someone had done a pre-assessment of the main toolkits and summarised, just like this one is really good for dealing with traditional knowledge. This one is really good for dealing with urban environments, this one's good for illegal trade and this one is an alien invasive species"* (Female, SSC, Global North, Practitioner).

Another topic that surfaced was the need for standardisation of terminology and methodologies. Respondents also highlighted the importance of creating a path to facilitate information access. There was a call for a "common language" for behaviour change as a practitioner shared: *"one of the issues is the lack of a uniform, consensus language. It would be helpful. And I know that to create that consensus, it will require talking with other partners or institutions that are pushing or leading the behavioural change topic in conservation"* (Female, Key Informant, Global South, Practitioner).

The language dimension was also referred to by a respondent, to ensure wider accessibility, a practitioner stressed the need for multi-language resources: *"we need to also cross the language issue. If we want to train more, especially in areas where there's multiple languages used, making it available to people that may not necessarily have the command of English is important"* (Male, Key Informant, Global South, Practitioner). Such resources can help bridge gaps in understanding and practices across different regions and linguistic communities, fostering more cohesive and effective implementation of behaviour change.

The frequency with which the information access theme arose highlighted an important gap in the current landscape of conservation efforts, suggesting that addressing these information access needs could potentially catalyse more effective and widespread implementation of behaviour change strategies in conservation worldwide.

Box 36 - Section 3.3. summary

Respondents emphasised the critical need for enhanced funding, partnerships, and knowledge resources to support effective behaviour change initiatives.

Participants referenced that financial support and collaborative opportunities are paramount, and many highlighted the importance of networks in accessing funding information. Others expressed the need for structured partnerships and workshops that promote resource sharing and learning. Respondents recognised the necessity for ongoing, structured collaboration to address complex conservation challenges, and suggested that online platforms could be used to connect stakeholders across regions.

In addition to funding and partnerships, participants identified knowledge resources as essential for effective behaviour change interventions. Evaluation methods were particularly highlighted as crucial for measuring impact, with calls for more accessible and affordable tools to aid practitioners. Case studies were also deemed valuable, providing practical insights that resonate with local contexts. Guidelines and toolkits were requested to support the development and application of behaviour change interventions, balancing clarity and accessibility with comprehensiveness.

Participants also advocated for multilayered capacity-building opportunities, combining workshops, networking, and expert mentorship to foster critical thinking and long-term engagement among practitioners. The findings highlighted a collective demand for comprehensive training initiatives that address knowledge gaps and enhance practical skills essential for effective conservation efforts.

4 Recomendations

Image: Diogo Veríssimo

4 Recommendations

This section addresses the key issues identified in section 3.3. Foundations for broadening behaviour change adoption, offering actionable strategies to promote behaviour change in biodiversity conservation. The recommendations are structured into two integrated streams: Resources and Capacity building, with prioritisation and implementation pathways. The following recommendation tables also include the possible target audiences for the listed solutions. For details on the proposed target groups, refer to the Glossary.

4.1. Resources

Behaviour change related resources were among the key issues, raised in sections 3.3.2. Knowledge resources and 3.3.3. Learning and development, which intersected with section 3.3.4. Information access. Although resources are available from other areas where behaviour change is applied outside the scope of nature conservation (e.g., public health), they are either out of reach of conservationists (outside their knowledge network or their native language) or scattered across many platforms. This combination of factors raises numerous barriers to accessing resources, resulting in:

Table 3 - Potential solutions to address fragmented access to resources and information

Key issue - Fragmented access to resources and information	
Possible solutions	**Target audience**
Translate key materials on behavioural sciences into other languages, partnering with local institutions to adapt the materials to the local context.	• Practitioners
Develop an open-source hub with a comprehensive database of resources on behaviour change and multi-source search engine. This platform should be connected to other existing hubs and resource platforms.	• Academics • Early-career conservationists • Funders • Practitioners
Create offline resource packages that can be downloaded and used in areas with limited connectivity. (e.g. PDF files, offline apps)	• Practitioners

Source: Authors

4 Recommendations

This unifying platform to facilitate access to behaviour change resources could also host all the typologies of resources the participants viewed as necessary, a list that included: guidelines, evaluation and case studies:

Table 4 - Potential solutions to support the implementation of behaviour change interventions

Key issue - Lack of clear and accessible guidelines to support the implementation of behaviour change interventions	
Possible solutions	**Target audience**
Develop comprehensive guidelines for the design, implementation, piloting, evaluation, and refinement of conservation behaviour change interventions, incorporating feedback loops.	• Academics • Funders • Practitioners
Conceptualise and test interactive decision-making tools to help conservationists identify appropriate behaviour change models and intervention types based on specific contexts and target audiences.source search engine. This platform should be connected to other existing hubs and resource platforms.	• Academics • Funders • Practitioners
Develop a pre-intervention tool, based on existing resources and best practices, for evaluating intervention feasibility and requirements.	• Funders • Practitioners

Source: Authors

4 Recommendations

Table 5 - Potential solutions to improve access to evaluation tools for behavioural interventions

Key issue - Limited access to evaluation tools for behavioural interventions	
Possible solutions	**Target audience**
Provide guidance on how to evaluate behaviour change interventions.	• Funders • Practitioners
Establish partnerships with institutions or workgroups with expertise in evaluation (e.g. Society for Conservation Biology's Impact Evaluation Working Group).	• Academics • Funders • Practitioners
Identify and share, or develop (if needed), standardised metrics and KPIs for behaviour change interventions.	• Academics • Funders • Practitioners

Source: Authors

Table 6 - Potential solutions for the development of examples of behavioural interventions, for inspiration or guidance

Key issue - Lack of practical examples of behavioural interventions for inspiration or guidance	
Possible solutions	**Target audience**
Publish a handbook with practical examples of interventions, detailing their objectives, implementation processes, challenges, learnings and outcomes.	• Early-Career Conservationists • Practitioners
Create social media content and/or podcasts highlighting behavioural interventions and lessons learned from them.	• Early-Career Conservationists • Practitioners
Partner with organisations and academics to document and publish their behavioural intervention projects as case studies.	• Academics • Practitioners

Source: Authors

4 Recommendations

All the previous resources need to share a common language, a unifying language for conservation behaviour change, as a facilitating element for adoption and effective implementation of this disciplinary field. Engaging and meaningful resources were identified by participants as a much-needed tool to convey conservation messages, but they need the skills to craft these tools.

Table 7 - Potential solutions for the establishment of a common language and terminology in behaviour change

Key issue - Lack of common language and terminology in behaviour change	
Possible solutions	**Target audience**
Develop standardised glossary (e.g. indigenous knowledge, target audiences, audience segmentation) on conservation behaviour change, available in multiple languages.	• Academics • Funders • Practitioners
Create a common behavioural model best practice guide, with a communication component, for behaviour change interventions.	• Practitioners
Develop a practical storytelling toolkit with templates and guides that help practitioners create compelling conservation narratives focused on behaviour change.	• Practitioners

Source: Authors

4 Recommendations

The way resources are made available can also be an issue for accessibility. Although a vast number of resources are channelled through digital platforms and formats, the platforms where they are accessed can impose a barrier. Many resources are built to be used and visualised on computer screens and laptops, but they fail to accommodate, for example, the growing number of users accessing content on smaller mobile screens, hampering correct visualisation and compromising the user experience.

Table 8 - Potential solutions for designing resources for mobile devices

Key issue - Many resources are not designed or optimised for mobile devices	
Possible solutions	**Target audience**
Create guides for breaking down complex scientific language information into mobile-digestible content.	• Academics • Practitioners
Identify existing mobile-friendly platforms or incentive partnerships with technology partners so that practitioners can access information in a more user-friendly manner, to develop interactive elements to engage with their target audiences (e.g. forms, quizzes, surveys).	• Practitioners

Source: Authors

4 Recommendations

Another type of resource that participants viewed as crucial was financial resources, with a focus on how to access them.

Table 9 - Potential solutions for improve access to funding

Key issue - Limited or lack of access to funders or funding information	
Possible solutions	**Target audience**
Develop guidance for funders to align funding cycles with behaviour change intervention timelines (e.g. to encompass impact evaluation timelines, that take place over larger timescales).	• Funders
Develop proposal writing templates specific to behaviour change interventions.	• Academics • Practitioners
Improve dissemination of funding opportunities within the SSC and CEC networks.	• Academics • Practitioners
Create or disseminate existing accessible thematic/geographic funding databases with direct channels to connect with funders.	• Practitioners
Create funding opportunity alerts and matching systems.	• Academics • Practitioners

Source: Authors

4.2. Capacity building

To address one of the main barriers identified in the analysis: Knowledge Gaps; it is vital to support the conservation community in capacity building regarding behaviour change. Based on the findings in sections 3.3.3. Learning and development and 3.3.4 Information access, this section presents possible pathways to help conservationists integrate behavioural insights into their practices and skill repertoire, but also how the resources outlined previously can be used to promote capacity building.

The development of accessible (e.g. in terms of cost and language) training opportunities is a cornerstone for capacity building:

Table 10 - Potential solutions to promote capacity building on behaviour change

Key issue - Lack of training and capacity building on behaviour change	
Possible solutions	**Target audience**
Create cost-accessible, multilingual training opportunities on behaviour change, with a focus on practical skill development: • Structured training courses with different entry points: from entry-level to advanced skills in conservation behaviour change. • Develop micro-learning, self-paced, modules for quick skill acquisition.	• Academics • Practitioners
Create a competence registry platform for professional development recognition, frame and certify practical/formal experience.	• Practitioners
Deliver hands-on learning experiences through webinars, in-person workshops, and other formats.	• Practitioners
Provide storytelling training for practitioners, to develop engaging and effective communication skills, complementing “Key Issue - Lack of Common Language and Terminology in Behaviour Change - Develop a practical storytelling toolkit…”	• Practitioners

Source: Authors

4 Recommendations

Networking can also provide critical opportunities for knowledge transfer, but according to the respondents, there is a need to promote cooperation and networking.

Table 11 - Potential solutions to improve collaborative learning opportunities

Key issue - Limited collaborative learning opportunities	
Possible solutions	**Target audience**
Organise facilitated workshops at existing conferences and events to foster collaboration.	• Academics • Early-Career Conservationists • Practitioners
Leverage existing networks or create, manage and sustain online communities of practice focused on behaviour change to connect practitioners.	• Academics • Early-Career Conservationists • Practitioners
Establish regular interdisciplinary online networking events to encourage cross-sector exchange.	• Academics • Early-Career Conservationists • Funders • Practitioners
Support the development of regional knowledge-sharing hubs to address local challenges and solutions.	• Academics • Early-Career Conservationists • Funders • Practitioners

Source: Authors

4 Recommendations

These networks can also help establish knowledge-sharing and support systems with experts in behavioural sciences. This represents a distinct dimension of knowledge transfer, bringing these experts closer to conservationists and facilitating collaborative learning.

Table 12 - Potential solutions to improve access to behavioural experts

Key issue - Lack of access to behavioural scientists/expertise	
Possible solutions	**Target audience**
Build a comprehensive, accessible database of behavioural science experts for consultation and partnerships.	• Early-Career Conservationists • Funders • Practitioners
Establish post-training cohorts to sustain community-expert engagement and long-term collaboration between practitioners and behavioural experts. to connect practitioners.	• Early-Career Conservationists • Practitioners
Design cross-disciplinary expertise networks to enhance conservationists' access to behavioural science knowledge.	• Academics • Early-Career Conservationists • Practitioners
Develop a mentorship-matching platform to connect conservationists with experts for ongoing support and capacity building.	• Early-Career Conservationists • Practitioners

Source: Authors

5 What is the role of the Behaviour Change Task Force?

Image: Gerd Altmann / Pixabay / CC0

5 What is the role of Behaviour Change Task Force?

Based on the findings of this report and the Task Force's established objectives, this section outlines how the Task Force will address identified barriers and implement the section 4. Recommendations, aligning with its capacity as a volunteer-led group while maximising its impact on the integration of behaviour change throughout conservation.

5.1 Building on IUCN's network

The Task Force will leverage the IUCN's established reputation as a trusted, neutral convener. As one respondent noted, the IUCN brand is one which *"everybody respects. And when the organisation reaches out, people take that seriously"* (Female, Key Informant, Global South, Practitioner). Beyond the institutional reputation, the IUCN network provides access to a global reach far exceeding what the Task Force could achieve independently. This extensive network provides a unique platform for mainstreaming behaviour change approaches and establishing widely adopted standards across conservation contexts worldwide.

The IUCN's neutral position offers advantages in bringing together diverse perspectives and stakeholders. According to one practitioner, *"some organisations are worried about intellectual property... No one is worried about the IUCN doing that"* (Female, Key Informant, Global South, Practitioner). This neutrality will be instrumental in creating collaborative platforms and integrated resources.

5.2 Strategic priorities for action

5.2.1. Resource development and integration

This theme was identified as the most critical need, and over half of respondents emphasised the importance of financial support and collaborative opportunities to increase behaviour change activities in the field of conservation. Respondents frequently mentioned the importance of networks in accessing funding information: *"We became aware of more funding opportunities through our connections"* (Female, Key Informant, Global South, Practitioner). The way these funding networks can be accessed was mentioned by one practitioner: *"Identify funders and all those who are keen to fund demand reduction or behaviour change campaigns. Because from my experience, it's very hard to get donations or funding into that"* (Female, Key Informant, Global North, Practitioner). This quote reflects how a thematic approach to funding networks, with awareness to more 'traditional' conservation topics, could help facilitate the funding to behaviour change projects.

5.2.2. Bridging research and practice

The Task Force will prioritise *"being that connection between people who are doing research in this area and those implementing behaviour change campaigns"* (Male, Practitioner, Global North), ensuring practitioners have access to evidence-based approaches while helping academics understand implementation challenges.

A key focus will be documenting practitioner knowledge that often goes unrecorded, as the Task Force could be *"instrumental in coaxing and promoting documentation of any work that happens... a lot of work happens, but nothing gets documented*" (Male, Key Informant, Global North, Academic). This documentation will be accomplished through multiple targeted approaches:

- Developing a series of regular knowledge-sharing webinars that can highlight field implementations.
- Developing thematic case studies examples, e.g. with regional or language scope, for to capture and disseminate local experiences.
- Facilitating practitioner-academic partnerships to ensure knowledge exchange.

5.2.3. Capacity building

The Task Force will address training needs by developing accessible learning opportunities and fostering communities of practice, establishing *"a core group of strategic advisors and a broader community of practice"* (Male, Practitioner, Global North). This effort will be extended across regions, recognizing that *"the capacity building potential is across the world"* (Male, Key Informant, Global North, Academic).

5.3 Networking

The Task Force will adopt a network-based approach, reflecting that *"the future is networks... Their behavioural change groups are multidisciplinary"* (Male, Key Informant, Global North, Academic), by:

- Establishing working groups aligned with the outlined Recommendations.
- Creating partnerships with academic institutions, NGOs, and funding organisations.
- Developing platforms for knowledge sharing and community building.
- Promoting knowledge-sharing between different groups of experts, with different areas of expertise within conservation behaviour change.

6 Conclusions

Image: crystal710 / Pixabay / CC0

6 Conclusions

The findings of this needs assessment provide a comprehensive overview of the barriers, opportunities, and strategic pathways for mainstreaming behaviour change in biodiversity conservation. While there is a growing recognition of the importance of behavioural sciences in conservation, notable challenges remain in translating awareness into effective, evidence-based action. This assessment highlights critical knowledge gaps, structural barriers, and resource constraints that hinder the adoption of behavioural science approaches, particularly in under-resourced and marginalised regions.

Key barriers include the mislabelling of interventions as behaviour change, insufficient access to expertise, and resistance to adopting social science methodologies within 'traditional' conservation frameworks. Financial constraints further exacerbate these issues, limiting access to training, tools, and long-term support for practitioners. Social, economic, and political complexities add additional layers of challenge, often stalling progress in behaviour change initiatives.

However, this assessment also identifies clear opportunities for advancing behaviour change adoption through actionable pathways. These include the creation of centralised, multilingual resource hubs; structured capacity-building programs; enhanced partnerships and expert networks; and the development and identification of robust tools for planning, implementing, and evaluating behaviour change interventions. Importantly, respondents underscored the need for tailored resources that balance theoretical rigor with practical applicability, as well as long-term mentorship and collaborative learning opportunities.

The Task Force is uniquely positioned to play a leadership role in addressing these needs. By prioritising resource development, capacity building, and strategic collaborations, the Task Force can bridge the gap between theory and practice, enabling conservationists to design interventions that are grounded in a nuanced understanding of human behaviour.

While some of the challenges identified extend beyond the Task Force's immediate scope, they underscore broader systemic issues that require collective action from funders, policymakers, and conservation organisations. By fostering a community of practice, promoting knowledge sharing, and amplifying successful case studies, the Task Force can catalyse a shift toward more effective and sustainable conservation outcomes.

In conclusion, this needs assessment serves as both a diagnostic tool and a call to action. It provides the foundation for a more strategic, evidence-based approach to integrating behavioural sciences into biodiversity conservation. Moving forward, the Task Force's efforts to address the identified gaps and leverage the proposed solutions will be essential for unlocking the transformative potential of behaviour change and driving meaningful progress in global conservation efforts.

7 Methods

Image: Quang Nguyen vinh / Pixabay / CC0

7 Methods

7.1. Study design

This needs assessment employed a qualitative research approach, specifically utilising semi-structured interviews and thematic analysis to identify barriers and needs for practitioners in the use of conservation behavioural sciences.

The work plan for this needs assessment comprised three stages:

Figure XX - Work plan stages. Source: Authors

7.2. Ethical considerations

The study was conducted in accordance with ethical guidelines for human subject's research, obtaining Institutional Review Boards (IRB) approval (Indiana University/IU Health Records, ID 1722). Informed consent was obtained from participants, containing all the required elements for ethical human subjects research.

To maintain confidentiality, interview transcripts were de-identified, with personal identifiers such as names, specific locations, and other potentially identifying information removed. In the final report, quotes were carefully reviewed for potential deductive disclosure. Respondents were described by gender, location, role, and invitation status, providing context without compromising anonymity.

Regular team meetings ensured ethical reflection and analysis remained true to participants' experiences throughout the data collection, analysis, and reporting processes.

7.3. Participant selection

The recruitment of participants followed two distinct approaches:

1. IUCN Commission Networks: The study leveraged the members' networks within two of the IUCN's Commissions: Species Survival Commission and Commission on Education and Communication. In December 2023, a Google Form was distributed through these commissions' mailing lists, inviting volunteers to participate in the needs assessment. The form gathered information on potential participants' background and availability. This approach ensured a diverse pool of participants with relevant expertise to the scope of this research, while also leveraging the commitment of IUCN commission members to contribute to important research initiatives.

2. Key Informants: The IUCN Behaviour Change Task Force members provided a list of individuals who could make valuable contributions to the needs assessment, based on their expertise in fields such as behavioural sciences, conservation biology, and environmental policy. The participant selection process for this group was purposive sampling. In addition to academic and professional qualifications, factors such as geographic region, gender, and sector background were considered. Participants were selected to ensure a diversity of perspectives and interests.

7.4. Data collection

From the contacts gathered through the above approaches, the research team sent emails to schedule individual interviews via Teams or Zoom meetings. This process took place from January to July 2024.

A total of 71 interviews were conducted by six members of the IUCN Behaviour Change Task Force. Interviews lasted between 20 to 50 minutes and were primarily conducted in English, with options for French, Spanish, and Portuguese to accommodate participants' preferences.

A semi-structured interview guide (Appendix - A Interview script) was used, tailored for three groups: Practitioners/Policymakers, Academics, and Funders. All interviews were recorded and transcribed verbatim using AI-assisted tools, then cleaned for clarity.

7.5. Data processing and management

Each de-identified transcript was associated with a unique individual code, allowing for backtracking to the original data if necessary while maintaining participant privacy. All interview materials, including video recordings and original transcripts, were uploaded into a secure, cloud-based database with encrypted access. This ensured the protection of participants' sensitive information and maintained data integrity. Access to the data was restricted to select team members based on their specific roles in the project: one project lead, two coders, and two data analysts.

7.6. Data analysis

The data analysis process followed a rigorous thematic analysis approach, beginning with data familiarisation. The research team immersed themselves in the de-identified interview transcripts, conducting multiple read-throughs to gain a comprehensive understanding of the content and context. During this stage, the team began to identify recurring patterns and potential areas of interest across the dataset. Both inductive and deductive approaches were used to theme and identify codes, for iterative refinement of codebook.

Following data familiarisation, the team collaboratively developed a preliminary codebook (Appendix B - Codebook). This codebook was iteratively refined through team discussions and applied to a subset of transcripts to ensure consistency and relevance.

The team used Dedoose, a qualitative data analysis software, to analyse transcripts using the codebook. As coding progressed, the team engaged in regular meetings to discuss emerging patterns and potential themes. The Project Lead and Data Analysts then reviewed the coded data to identify and refine overarching themes that captured key insights from across the participant groups.

7 Methods

This inductive theme identification was used to guide further analysis, exploring the nuances within each theme, examining relationships between themes, and considering how these insights addressed the study's research questions on conservation behaviour change. Throughout this process, the team maintained the ability to return to original data when necessary, using the unique individual codes assigned to each de-identified transcript, ensuring that the context and integrity of participants' contributions were preserved.

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Appendices

Appendix A - Interview script

General Introduction

Hello, I am _____ from the IUCN Behaviour Change Taskforce.

Task Force main goal is to act as a knowledge broker between the behavioural sciences and those working to conserve biodiversity. The behavioural sciences investigate the cognitive, social, and environmental drivers and barriers that influence human behaviours in order to change them.

This interview follows your reply to our inquiry through the IUCN CEC/SSC calling for participants for this needs assessment.

We've asked to interview you today because we want to understand the conservation field better in terms of how people use behavioural science techniques, or alternatively, what are the barriers to their use.

Thank you very much for contributing your time and expertise to this effort.

Would it be possible to record this interview for our notes?

Questions for Practitioners and Policy Makers

1. Can you please share your name and the organisation you currently work for?
2. Could you give us a brief description of your work? Prompt: For example, would you say you focus more on research, policy, practice, or funding?
3. Could you give us a brief description of some conservation projects you've been involved with in the past?
4. Within the organisation you currently work for, do you have the authority to make decisions about how projects are run and what they include? Prompt: For example, could you decide to add in a research component, or what sort of information is used to guide the design of the project?
5. How familiar are you with the field of conservation behaviour change? (Prompt: For example, have you had any formal or informal training in the behavioural sciences? Follow-up prompt: How familiar are you with specific behaviour change techniques?
6. How familiar are you with behaviour change techniques? Prompt: For example, have you had any formal or informal training in the behavioural sciences?
7. Have you ever used behaviour change techniques or approaches (e.g. audience research, audience segmentation, co-design or audience persona) in any of your conservation projects? Prompt: Can you tell me about the types of behaviour have you tried to change? IF YES to 6
8. Do you have any success stories you could share, where you were able to change people's behaviour? 1st follow-up prompt: What strategies were applied? Why did you choose them? 2nd follow-up prompt: How did you measure the outcomes of those interventions?

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1. What are the main difficulties or barriers you've experienced while trying to use behavioural techniques in conservation projects? Prompt: For example, did they relate more to your organisational structure, the existing evidence base, or maybe the type of behaviour you were targeting? Follow-up prompt: In your opinion, what do you think could help to overcome those barriers?
2. For your conservation work that has involved behaviour change, how have you planned these activities? Prompt: Can you tell me about any resources you made use of in this process? Follow-up prompt: Are there any other sorts of resources that would be useful to your work? IF NO to 6
3. Are behaviour change techniques used by other people in your organisation? Follow-up prompt: ask for names for snowball sampling?
4. Have you seen any examples of behavioural science being applied to address conservation challenges in the field? Follow-up prompt: How effective have these efforts been?
5. Why would you say you've not used behavioural techniques previously? Prompt: For example, was human behaviour not relevant to the problems you were working on, or was it due to a lack of familiarity with behavioural science?
6. What sort of tools, resources or support would help you and your organisation use behavioural science in future conservation projects? Prompt: For example, what could we as a task force put in place that would help you to engage with behaviour science techniques?
7. Is there anything else you would like us to consider, as a Task Force, that you think would help bring behaviour change science into conservation practice more effectively?

Questions for Academics

1. Can you please share your name and the organisation you currently work for?
2. Could you give us a brief description of your work? Prompt: For example, would you say you focus more on research, policy, practice, or funding?
3. Could you give us a brief description of some conservation projects you've been involved with in the past?
4. What areas or specific behaviour change approaches do you focus on in your research? Follow-up prompt: Would you say your research is more practice- or theory-focused? Why?
5. Are there any behavioural interventions that you think could have a particularly large impact if scaled up? Follow-up prompt: What evidence supports this?
6. In your opinion, what information do we need to have to successfully apply this discipline to conservation problems? Prompt: For example, do we need to know more about people in the Global South, about illegal behaviours, about effective messaging…?
7. What do you see as the key challenges or barriers in translating behavioural research to on-the-ground conservation practice? Prompt: What tools or resources would you give academics, which would help them to support practitioners in this field

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Questions for Funders

1. Can you please share your name and the organisation you currently work for?
2. Could you give us a brief description of your work? Prompt: For example, would you say you focus more on research, policy, practice, or funding?
3. Could you give us a brief description of some conservation projects you've been involved with in the past?
4. How familiar are you with behaviour change techniques? Prompt: For example, have you had any formal or informal training in the behavioural sciences?
5. How does behaviour change relate to your organisation's conservation funding priorities? Follow-up prompt: Why/why not?
6. Has your organisation's perspective on behaviour change changed over time?
7. Aside from funding, what other support could your organisation provide to advance evidence-based, scalable interventions using behavioural insights?
8. From your perspective, what current gaps exist in translating behavioural science research into on-the-ground impact for conservation?

Appendix B - Codebook

Code	Sub-code 1	Sub-code 2
Familiarisation with behaviour change	**User**	**Formal training**
Initial segmentation of the sample based on use or not of behavioural sciences.	*Level of familiarisation and background of the interviewees with behaviour change.*	*Interviewee has formal education or certified courses in a behaviour change-related field.*
		Informal training
		Interviewee has informal training, such as non-certified courses or self-directed learning in behaviour change.
		Organisational experience
		Interviewee's organisation has experience with behaviour change, with knowledge-sharing and training initiatives.
	Non-user	**Aware non-user**
	Level of familiarisation on non-users with behaviour change.	*Aware of behaviour change but does not use it due to individual, organisational, or situational factors.*
		Deliberate non-user
		Aware of behaviour change but does not find it applicable or meaningful.
		Unaware
		Not aware of the existence and applications of behaviour change.

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Code	Sub-code 1	Sub-code 2
Applications	**Planning**	**Decision-making power over projects**
When and how behaviour change is applied	*Does the respondent have input into planning and how to assist it?*	*Respondents can influence planning and implementation of behaviour change activities.*
		Expert support
		Internal or external academic/technical support is available for implementing behaviour change.
		No expert support
		No internal or external support for implementing behaviour change.
	Implementation examples	
	Specific examples of behaviour change applications in practice.	
	Facilitator elements	
	Existing resources and conditions that enable effective implementation of behavioural science approaches in conservation efforts.	

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Code	Sub-code 1	Sub-code 2
Barriers	**Capacity**	**Training**
The nature and origins of the obstacles to the application of behavioural sciences in conservation.	*Obstacles to training, such as limited access, cost, language barriers, or training duration.*	*Obstacles to training, such as limited access, cost, language barriers, or training duration.*
		Knowledge gap/mislabelling
		Projects incorrectly labelled as behaviour change due to inadequate techniques or lack of knowledge.
		Lack of expert support
		Behaviour change is not implemented due to lack of technical or academic support.
	Structural	**Financial constraints**
	Obstacles to behaviour change adoption regarding structural issues.	*Funding - lack of financial support for implementing behaviour change projects, including hiring consultants or accessing training, as well as insufficient funding duration.* *Funding institutions do not prioritise or recognise behaviour change as a necessary intervention.* *Cost - cost of the access to learning opportunities.*
		Scale
		Project's scale is either too broad or narrow, making it challenging to meet objectives.
		Time
		Insufficient time to apply behaviour change projects/ interventions, to evaluate results.
		Institutional/Organisational
		References to lack of awareness/resistance to change, conflicting priorities or limited resources.

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Code	Sub-code 1	Sub-code 2
		Staff
		Lack of staff with capacity to learn and implement behaviour change, including understaffing and staff overwhelmed by workloads.
		Internet Access
		Enlist issues related to the ability to access online content or constraints of the network (Slow Internet Speeds or geographic restrictions).
		Challenges to Social Science Adoption
		Internal or external factors that limit or actively block the usage of behavioural sciences.
		Social and/or Economic Background
		Identifies societal factor that may act as barriers or constraints to behaviour change.
	Communication	**Language**
	Obstacles to behaviour change adoption regarding communication problematics.	*Miscommunication, misunderstanding, inability to effectively convey messages due to language differences (consider use of technical jargon).*
		Translation
		Lack of available resources translated to the desired language or staff/funds for translated contents.
	Lack of recognition	
	The work that is being done has no exposure, is to visible outside the local/country context.	

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Code	Sub-code 1	Sub-code 2
Resources needs	**Knowledge resources**	**Evaluation methods**
What type of materials are going to be required to encourage the application and integration of behavioural sciences in the field of conservation.	*References to various forms of knowledge-based resources including case studies (global, local, adaptable), guidelines, best practices, frameworks, models, and comprehensive toolkits.*	*References to needs of tools, or frameworks used to assess the effectiveness and impact of behaviour change interventions.*
		Guidelines
		Requests of guidelines and best practices to the implementation of conservation behaviour change approaches.
		Case-studies
		Geographic scope of the case studies and scalability.
		Media and materials
		Requests for various media types including digital resources (videos, interactive content) and traditional printed or printable materials.
		Toolkits
		Requests for sets of multiple resources.
	Information access	
	References to centralised information hubs, requests for multi-language resources, and needs for standardisation of terminology and methodologies in the field.	
	Learning and development	**Expert collaboration**
	Mentions of training needs and preferences (online, in-person, hybrid), requests for expert support or mentorship, and discussions about establishing or participating in communities of practice.	*Experts available to providing scientific inputs to behaviour change implementation.*

Code	Sub-code 1	Sub-code 2
		Training (hybrid/in-person/online)
		Preferences regarding the typologies of the training actions .
		Community of practice
		Examples of how a community of practice could be useful, how it should be, what topics, how it will keep members engaged.
	Funding and partnerships	
	Discussions about funding needs, information on accessing funding opportunities, and references to establishing collaborative partnerships or knowledge-sharing platforms.	

Appendices

Code	Sub-code 1	Sub-code 2
The Task Force	**Perception**	**Support**
Institutional perceptions of the Task Force and how it can be relevant.	*How can the Task Force be perceived?*	*How can the Task Force play a support role to individuals and institutions in promoting and adopting behaviour change, and be relevant to the nature conservation field.*
		Competitor
		Views on how the Task Force can be seen as a competitor player, in the behaviour change space.
		Neutral
		Views on how the Task Force can be seen as a neutral player, in the behaviour change space.
		Redundant
		Views on why the Task Force can overlap other existing institutions, resources, models.
	Function	
	How can the Task Force play a supporting role to individuals and institutions in promoting and adopting behaviour change and be relevant to the nature conservation field. Or how should it function.	
	Impact of the IUCN Brand	**Positive**
		Views of the IUCN as a favourable brand that can help facilitate, promote the recognition of the Task Force.
		Negative
		Views of the IUCN as non-positive brand, with negative impact on the Task Force acceptance
		Neutral
		Views of the IUCN as a non-impactful or neutral perceived brand.

Appendices

Code	Sub-code 1	Sub-code 2
	Competitors	
	Discrimination of the existing competitor of the Task Force and how it can overlap with other institutions.	
	Dissemination	
	Identification of the best channels, strategies, and partnerships to disseminate the Task Force.	

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