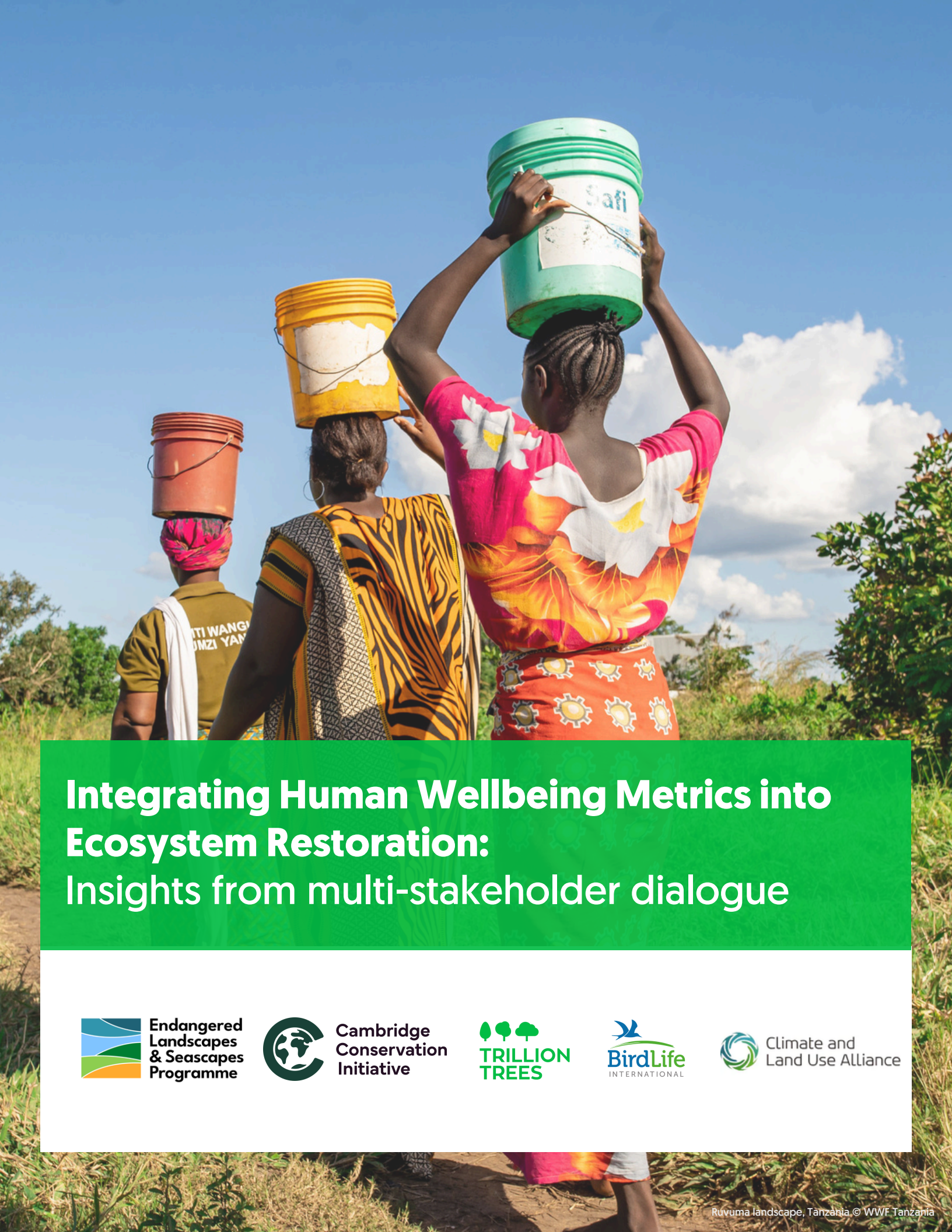


Integrating Human Wellbeing Metrics into Ecosystem Restoration:
Insights from multi-stakeholder dialogue

Endangered Landscapes & Seascapes Programme

Cambridge Conservation Initiative

TRILLION TREES

BirdLife INTERNATIONAL

Climate and Land Use Alliance

Ruvuma landscape, Tanzania © WWF Tanzania

Contents

Executive Summary 3

1. Importance of monitoring human wellbeing in ecosystem restoration and aims of dialogue 5

2. Conceptual foundations for the definition of human wellbeing and the importance of a human wellbeing approach to restoration 6

3. Conventional approaches to monitoring wellbeing and challenges in restoration projects 10

4. Experience of monitoring human wellbeing in restoration projects and the challenges and opportunities 11

5. Towards a Framework for Wellbeing Metrics 18

6. Process considerations 22

7. A Data Justice Framework for Wellbeing Metrics in Restoration 25

8. Recommendations and Next Steps 27

Ruvuma landscape, Tanzania © WWF Tanzania

Executive Summary

This report presents the outcomes of a multi-stakeholder Restoration Dialogue convened by BirdLife International and Trillion Trees in January 2026, bringing together 33 conservation practitioners, researchers, and policymakers from 21 organisations across seven countries. The workshop explored how ecosystem restoration initiatives can more effectively and equitably monitor their impacts on human wellbeing, and how such monitoring can improve restoration design and delivery of just outcomes. The Dialogue was novel in its explicit focus on integrating social and ecological dimensions through a collaborative, cross-sectoral process, bridging academic insight with practitioner experience to advance collective knowledge and guidance for ecosystem restoration.

A central finding is that monitoring human wellbeing is not only necessary to evidence the impacts of restoration, but is critical to improving project design, governance, and adaptive management of projects. When embedded from the outset, wellbeing metrics can help identify trade-offs, reveal hidden harms, and support more equitable outcomes for Indigenous peoples and local communities involved in restoration projects. The Dialogue emphasised that restoration has a plurality of implications for human wellbeing, and recognised that a shift towards people-centred, holistic approaches is essential for long-term sustainability.

Despite persistent challenges to monitoring wellbeing—including resource constraints, attribution difficulties, and tensions between standardisation and local relevance—participants identified a set of practical opportunities to strengthen current approaches. Participants agreed that wellbeing monitoring must be inherently multidimensional and context specific. A practical recommendation is to establish indicators across at least two to three relevant social domains, such as health, living standards, agency, or social and cultural wellbeing, if not possible to measure all dimensions. Effective approaches combine quantitative and standardised indicators (e.g. income, participation rates) with qualitative and locally defined measures that capture relational, cultural and subjective aspects of wellbeing. While standardised metrics can support comparison and inform policy, they often fail to reflect how communities themselves understand and experience wellbeing. This creates an opportunity for a holistic approach that combines core indicators with locally prioritised measures that capture intangible and relational dimensions, enabling assessments that are both comparable and grounded in lived experience.

In addition, a two-tier framework is recommended: short-term, project-level indicators that inform implementation and adaptive management, alongside longer-term indicators that track broader societal outcomes, often through alignment with existing national datasets that can continue monitoring post-project. Opportunities to draw on these existing monitoring frameworks will also enable the more effective alignment of wellbeing metrics with donor priorities as interest in holistic approaches grows. Crucially, participants stressed that wellbeing monitoring should not be reduced to what is easiest to measure but should retain a holistic perspective that reflects the full complexity of locally lived experience.

The process of monitoring is as important as the indicators themselves. Central to this is ensuring clarity about the purpose of data collection within each project and who it is intended to serve. Indicators should be chosen based on their relevance to the local context, their usefulness for decision-making, and their ethical and practical viability. This approach helps to avoid overburdening project teams and communities, while ensuring that monitoring remains meaningful and actionable. The Dialogue identified key principles, including intentional co-design with communities, and the integration of data justice approaches. This aims to ensure that data collection, ownership, and use contribute to equity rather than harm, and are locally legitimate and relevant. Monitoring systems should also minimise burden on communities, invest in appropriate skills and capacity, and prioritise meaningful, actionable data over extensive but underused datasets. Advances in digital tools and the use of qualitative methods, such as storytelling and participatory approaches, can assist by offering important avenues for capturing the complex and culturally specific dimensions of wellbeing that are often overlooked. Triangulation, feedback loops, and the use of monitoring results to inform decision-making are essential to maintaining legitimacy and effectiveness.

Overall, the Dialogue demonstrated that integrating human wellbeing into restoration monitoring is both feasible and transformative. By adopting holistic, participatory and justice-oriented approaches, restoration practitioners can better align ecological goals with human wellbeing, ultimately strengthening the effectiveness, equity, and resilience of restoration efforts.

This project was supported by the Endangered Landscapes & Seascapes Programme, managed by the Cambridge Conservation Initiative in partnership with Arcadia.

1. Importance of monitoring human wellbeing in ecosystem restoration and aims of dialogue

There is widespread recognition and aspiration that ecosystem restoration can deliver benefits to people as well as nature and climate (CBD, 2022) and must avoid harm to all, particularly the most marginalised (CBD, 2022). The longer timeframes involved in delivering restoration work and the higher likelihood that a greater proportion of local communities will be directly engaged in the work than in conservation initiatives (e.g., due in part to greater labour requirements), makes monitoring human wellbeing particularly important in this type of project.

However, restoration projects can face challenges in recognising, measuring, and evidencing the socioeconomic impacts of ecosystem restoration for Indigenous peoples and local communities (IP&LCs) across diverse contexts. The challenges arise from a range of factors, including lack of experience in monitoring social dimensions (as restoration is often a natural-science and ecology driven initiative), the multidimensional and contextual nature of human wellbeing spanning non-material constituents, the practical challenges of effective monitoring of social impacts across long timescales of restoration, and managing and adequately capturing the trade-offs that restoration and land use change may involve. Measures of material change (such as incomes) are recognised as narrow and inadequate but can become the default when identified as most feasible to measure (Carmenta et al., 2023a). Importantly, the benefits of achieving an enhanced approach are not only for evidencing project impact: the definition and incorporation of suitable wellbeing metrics into ecosystem restoration also has the potential to transform restoration practice itself by promoting a more holistic, people-centred approach, advancing a more equitable and integrated model of landscape restoration and ensuring hidden harms are not incurred.

This Dialogue aimed to address current challenges by:

- Exploring existing definitions of wellbeing and seeking consensus on a definition that reflects the needs, values, and motivations of those impacted by ecosystem restoration efforts.
- Examining existing approaches to the monitoring of human wellbeing, gaps and challenges.
- Identifying indicators that are effective to monitor the range of impacts on human wellbeing and are appropriate to different scales of ecosystem restoration practice.
- Bringing together diverse disciplinary insights, academics, and practitioners from and/or familiar with diverse contexts to bridge quantitative-qualitative ideas and approaches.

To achieve these aims, a 3-day workshop was convened by BirdLife International and Trillion Trees in January 2026, taking place as part of a CCI Restoration Dialogue series and supported by funding from the Endangered Land and Seascapes Programme (ELSP) at CCI and the Climate and Land Use Alliance (CLUA). The Dialogue was attended by 33 participants, including practitioners, government representatives and academics from 21 organisations across 7 countries, enabling the sharing of experience from a broad range of contexts.

Participants were welcomed by David Thomas, Director of the Endangered Landscapes and Seascapes Programme at CCI and Laura D'Arcy on behalf of the Trillion Trees partnership, who noted the importance of this topic to the restoration work being undertaken by ELSP, CCI and Trillion Trees. They noted that this type of Dialogue, bringing together practitioners and academics across a broad range of geographies, epitomises the collaborative approach that is a goal of CCI.

2. Conceptual foundations for the definition of human wellbeing and the importance of a human wellbeing approach to restoration

The Dialogue invited 3 keynote presentations to set the scene for the workshop, which drew on existing initiatives and academic literature on wellbeing in conservation and development.

2.1 Issues and questions around Human Wellbeing and Ecosystem Restoration – Neil Dawson, IUCN Commission on Environmental, Economic and Social Policy (CEESP)

Human wellbeing is a broad and holistic concept for which there are many different definitions and frameworks. No one indicator can adequately capture wellbeing, and most frameworks include multiple interrelated dimensions, including material, social, cultural, political, governance, psychological, environmental and more. Different dimensions favour different methods, as some are simple to measure consistently, while others are more challenging.

There is an important difference between exploratory approaches: open studies exploring what it means to live well, rooted in people's identities and values, to reveal new insights and contextualised solutions - and confirmatory approaches, which forego this potential and focus more narrowly on impacts of managerial interest over a defined project period (Copestake 2014).

Martin et al.'s 2025 review of 'Just & Transformative Social-ecological Restoration' presents four categories of the role IP&LCs play in restoration: exclusionary (fully imposed), managerial (with limited consultation or incentives – the most commonly observed), collaborative (more genuine partnership) and just and transformative (led by local ideas and values). A social monitoring strategy should be able to capture the distinctions between these forms and their impacts. Evidence shows local influence and leadership is a critical factor in restoration success. Furthermore, wellbeing monitoring should be integrated into project design and governance as part of an overall approach to restoration that is shaped by and responsive to local values, knowledge and experiences.

Wellbeing-orientated restoration may also require a long-term political and institutional view. Ecosystem degradation may have disrupted wellbeing as well as Indigenous and local knowledge systems. We need to ask how far restoration addresses this social-ecological disruption and the true drivers of ecosystem degradation that may be connected to consumers and politics far beyond the landscape and part of long-term processes. This broader view of restoration challenges us to rethink what is to be restored & how – knowledge systems as much as ecosystems, process as much as outcome.

Workshop discussion explored whether wellbeing was a state of being once basic needs are met, or whether it covers both, with most participants seeing it as encompassing both basic needs and additional non-material elements.

Agroforestry management workshop in Pedra D'Antas Reserve Lagoa dos Gatos, Brasil © SAVE Brasil

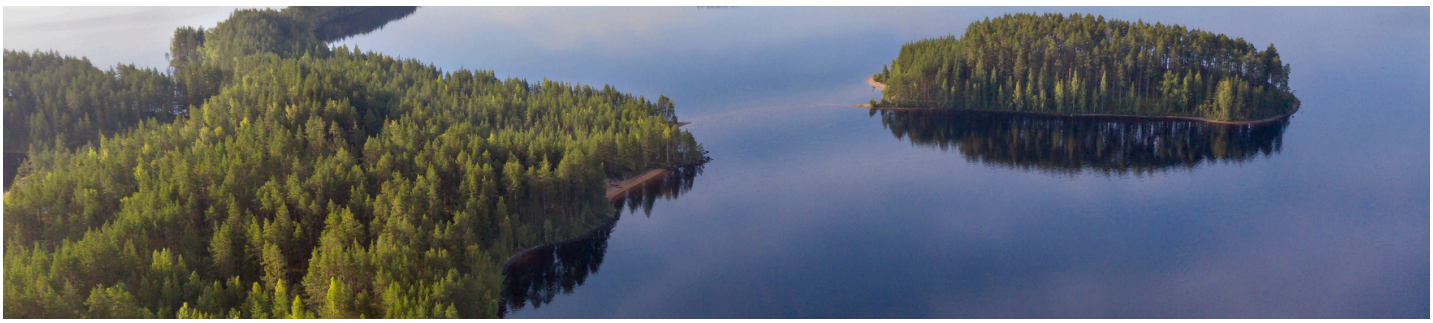
2.2 The value of wellbeing as a concept in global development and conservation and the relevance of the Connected Conservation approach - Rachel Carmenta, University of East Anglia

Ecosystems are crucial to humanity for their contributions to biodiversity, climate change mitigation and climate stabilisation as well as many additional goods and services that benefit societies across scales. They also contribute to the human wellbeing of IP&LCs in diverse ways that are overlooked due to perceived challenges in measuring less tangible flows and non-material wellbeing constituents.

The attraction of material indicators is understandable to some extent, given that tangible things are easier to detect, to measure and in some cases large datasets exist for these constituents. However, it is crucial to continue progress towards capturing the relational and quality of life (sometimes called subjective) domains of wellbeing. Such an endeavour is particularly important as research has shown that plural values have proven consonant with nature - that is that where plural values and conceptions of living well are strong, so too are conservation outcomes (Garnett et al, 2018); forest-based communities have done least to contribute to the crises we now face; and interventions impact plural values through their design and the strategies they employ (Carmenta et al 2023a).

Further, a considerable literature from diverse disciplines (e.g., Wiedmann et al., 2015; Diaz et al., 2019; Wiedmann et al., 2020; Costanza, 2022; Kenter et al., 2025) has also shown unequivocally that the bias towards material values continues to be a leading driver of the biodiversity and climate crises, making it even more important to find ways to give salience to those harder to measure values in intervention goals, delivery and design. This is crucial not only within forest landscapes, but in those telecoupled places where the decisions of citizens are driving environmental collapse albeit in distant places (Mayer et al., 2025). The conceptual approach of Connected Conservation has been developed to consider how conservation efforts, including restoration, might move beyond a site level emphasis, towards a series of potential actions for the conservation agenda to engage with, both in centres of wealth and in biocultural centres, that centre plural notions of wellbeing (Carmenta et al 2023b).

The workshop recognised that a project may result in distributive flows and transfers between different aspects of wellbeing and between people. Participants also noted the challenges of shifting away from approaches which rely solely on objective measures of wellbeing, and more towards those which incorporate aspects of more subjective relational wellbeing. Ways forward might include through engaging with education systems, engaging communities in restoration projects that involve building community as one of the foci of the project, and ideas raised by the post-growth and wellbeing economy movements amongst others.



Aerial view of Koitere Lake, Finland © Mika Honkalinna, Snowchange

2.3 Transparency and data justice - Rose Pritchard, University of Manchester

Data are powerful and biases and omissions in data sets can have important real-world consequences. One example is that until very recently crash tests for cars have been entirely designed based on a 'male' body, as a consequence of which women are more likely to be seriously injured in car accidents.

An early definition of data justice defined the term as "fairness in the way people are made visible, represented and treated as a result of their production of digital data" (Taylor, 2017). Scholarship on data justice originally emerged in response to concerns about Big Data, privacy and freedoms, recognising that datasets are created and used within unequal societies, and that the nature and use of data can both challenge and reinforce social injustice (Dencik et al., 2019). This is an important consideration for the practice of ecosystem restoration because restoration can also be part of efforts towards social justice but can also lead to exclusions and social harms. The data justice guidance presented at the workshop responds to recent calls for data justice advocacy to extend to the data used in environmental action and governance (Vera et al., 2019; Pritchard et al., 2022).

Given the recognition that data can work both for and against justice, the discussion of wellbeing data requires thinking about equity and the need to collect and manage wellbeing data in a way that is just, shared, and contributes to just restoration. The focus of this workshop is on what to measure, but it is important to set this within the larger question of for whom these data are going to be making the world better, and who has access to data. Challenges include the fact that justice means different things in different places, which may mean that data justice approaches need tailoring to context. For this reason, the Dialogue included a data justice discussion to explore the choices which need to be made from initial research or restoration initiative design to dataset governance, and how to embed social equity within these choices.

Community awareness meeting, Uganda © WWF Uganda

2.4 Discussion

Following the three keynote presentations, participants were asked to share reflections arising from the scene-setting.

Concepts that were noted as particularly resonating with participants based on their experience included:

- The importance of community-led and community-owned approaches to defining and selecting indicators of human wellbeing, recognising that human wellbeing is multidimensional and context and culturally specific. Also, that there is a need to triangulate collected data and perceptions between project team and communities, with communities involved in deciding what 'improved wellbeing means'.
- Recognition that dimensions of human wellbeing include both material and non-material dimensions, including relational, cultural, territorial, and governance aspects that are often best captured through qualitative, narrative, and Indigenous knowledge methods. These approaches should be treated as equally valid forms of evidence, rather than as supplementary.
- Being mindful of the purpose of collecting data on human wellbeing and how it will be used.
- Recognition that monitoring human wellbeing is particularly challenging in contested landscapes where multiple demands for land exist, with different impacts across actor types.
- Recognition that when done well, the process of monitoring human wellbeing can deliver benefits for the community through relationship-building. Conversely, poor approaches have potential either to deliver harm through poorly chosen indicators and insufficient stakeholder engagement, or to allow for invisible harms to accrue and go unaccounted.
- Monitoring of locally relevant human wellbeing can and should be used to inform intervention design/adaptation.

Questions in participants' minds included:

- If wellbeing is subjective and context-specific, even within a local community, how do we ensure we have the right metrics and process for measuring?
- How do we balance comprehensiveness and cost/time of monitoring?
- What is a good metric for measuring engagement i.e. ensuring the metric is meaningful, that it captures participation (e.g. youth) and accounts for the diversity of local values?
- How to collect locally relevant data at scale to enable comparative analysis? Should upscaling be a goal?
- How can we mainstream a more holistic understanding of human wellbeing among conservation and restoration funders?
- How can monitoring of human wellbeing contribute to outcomes related to rights, responsibilities and roles?

Makira Natural Park, Madagascar © WCS

3. Conventional approaches to monitoring wellbeing and challenges in restoration projects - Johan Oldekop, University of Manchester

Multidimensional poverty frameworks (e.g., Human Development Index (ul Haq, 1990), Global Multidimensional Poverty Index (Alkire et al., 2019)) help policymakers and researchers to measure progress towards national and international targets for poverty reduction. These frameworks typically cover three domains: health, education, and living standards, and use indicators such as nutrition, child mortality, years of schooling, sanitation, drinking water, electricity, housing, and assets. These indicators correlate strongly with income, the metric still favoured by many major donors. There is considerable overlap across different approaches to poverty and wellbeing, and six dimensions have been found to be particularly relevant for restoration: health, education, living standards, emotional wellbeing, safety and security, and political resources (e.g., involvement in rulemaking and participation in meetings) (Sen, 1979; Nussbaum, 2011; Alkire and Foster, 2011; Loveridge et al., 2020).

Johan highlighted the importance of distinguishing between monitoring and evaluation. Monitoring tracks changes over time whereas evaluation attempts to determine whether observed changes can be attributed to a particular intervention and therefore requires counterfactuals, which demands more data and expertise than many organisations possess or have access to. In practice, most NGOs commonly look at evidencing their contribution to a given change, and contribution-driven evaluations are widely used. However, using indicators that can be linked to existing datasets can reduce the burden of attribution-driven evaluations as some of the six key dimensions of poverty and wellbeing are already being monitored by global institutions (e.g., health, education, living standards have been part of USAID's longstanding periodic demographic and health surveys). One challenge then lies in selecting indicators that are both relevant to restoration and compatible with these broader datasets. Furthermore, indicators related to health, education, living standards and material wellbeing are more routinely monitored while indicators related to political, social, and emotional wellbeing are rarely included in the development sector, despite being crucial for understanding comprehensive wellbeing.

When selecting wellbeing indicators, it is also essential to clarify the purpose of the data collection and for whom it is collected. A single, standardised set of metrics has advantages for policy and decision making but will not always reflect how IP&LCs perceive their wellbeing. Locally derived indicators can help to fill this gap, particularly where wellbeing relates to intangible or relational aspects. Until correlations hold consistently across all dimensions of wellbeing, arguments can be made for the need for multiple metrics to ensure assessments remain comprehensive, locally relevant, and grounded in lived experiences. Developing a framework that enables comparison between locally derived indicators and standardised core metrics is therefore crucial.

The group discussed how context-specific wellbeing measures fit alongside standard indicators. Johan noted that while local indicators can be useful—especially at site level—subjective measures are less reliable for tracking change over time as they can fluctuate a lot across very short time frames and can be impacted by multiple factors far beyond the scope of restoration initiatives. He argued that consistent, widely used indicators remain important for comparability.

Participants reflected on the identified gaps in current wellbeing metrics including political resources and social/emotional wellbeing and questioned whether reliance on these widely used indicators which correlate with wealth obscure these dimensions. Participants noted methodologies that might fill some of these gaps, such as the wellbeing framework developed by Bath University (White, 2009), and the Indigenous Navigator (Indigenous Navigator, 2024), while also recognising the benefits that can arise from using long-term existing data to support counterfactuals.

4. Experience of monitoring human wellbeing in restoration projects and the challenges and opportunities

4.1 Survey of workshop participants, CCI organisations and ELSP grantees on current experiences of monitoring human wellbeing

A survey was conducted ahead of the Dialogue to understand the approaches currently being used to measure wellbeing, as well as the challenges and recommendations linked to these approaches. The survey was circulated among CCI organisations, ELSP grantees and individuals invited to the workshop.

A total of 18 responses were received, primarily from academics, researchers and project managers. Respondents' main areas of expertise were related to the social aspects of restoration, including community engagement, as well as restoration ecology and policy. Eleven respondents reported being involved in restoration initiatives, and six indicated that they were measuring human wellbeing as part of their initiatives.

Among the dimensions of human wellbeing being monitored, participation and engagement and governance and equity received the highest scores, while physical and mental wellbeing scored lower. The survey also asked respondents to share human wellbeing metrics they use, and a few sets of indicators were identified. The frameworks reported as informing approaches to wellbeing monitoring included the Sustainable Development Goals, the Millenium Ecosystem Assessment (2005), the CBD Women's Caucus framework for monitoring gender-responsive indicators, the Site-level Assessment of Governance and Equity (SAGE) developed by IIED, the WWF Global Wellbeing Survey and the ELSP monitoring framework.

Challenges identified included:

- Cost and time constraints, as monitoring requires intense fieldwork and places a time burden on project participants in responding to surveys etc, which is also linked to participant fatigue.
- The multidimensional and subjective nature of human wellbeing.
- Trade-offs in methodological approaches, while qualitative methods allow for greater nuance and understanding, identifying suitable indicators can be challenging, often requiring local relevance to be prioritised at the expense of validity across different contexts.
- Lack of clarity around the intended use of the information being measured.
- Balancing site-specific indicators with the need for cross-site comparability.
- Linking changes in human wellbeing to ecological restoration outcomes.

Key recommendations from survey respondents included:

- Building strong, trusted relations with local communities.
- Ensuring that monitoring frameworks reflect communities' needs and values, with indicators adapted to local contexts so monitoring is relevant and meaningful.
- Supporting communities to strengthen their capacity and agency to apply wellbeing frameworks.
- Combining quantitative indicators with qualitative stories of change.
- Avoiding 'tick-box' approach to the use of indicators.

4.2 Presentations - examples of measuring wellbeing in the field

The Dialogue invited six participants to share their experience of monitoring human wellbeing within ecosystem restoration projects.

4.2.1 Monitoring wellbeing in the Endangered Landscapes & Seascapes Programme - Nancy Ockendon, Endangered Landscapes and Seascapes Programme

Socioeconomic benefits are a fundamental part of landscape restoration, and the ELSP encourages projects to monitor indicators to understand and demonstrate these impacts. Nancy described the monitoring framework used by the Endangered Landscapes & Seascapes Programme. Projects are asked to consider indicators of ecosystem services (including provisioning, regulating and cultural services) as well as socioeconomic benefits. Lessons learned from working with 21 projects over the last 7 years include the value of both the process and insight that come from collecting social data, and the importance of ensuring the design of data collection is participatory and appropriate to the local context. Remaining challenges relate to the inclusion of qualitative indicators of change, the effective attribution of changes to project actions, and timescales taken to see change in both the social and ecological targets of restoration.

Planting day at restoration site in Misiones, Argentina © Emilio White

4.2.2 Integrating the sacred - Liza Zogib, DiversEarth

Spirituality is often a key element of perceived wellbeing in many landscapes, more often than we might imagine, and as such must (and can) be integrated into monitoring measures. The sacred in restoration initiatives can be considered in three main ways:

- The sacred, in terms of both place and species, is pivotal for wellbeing in many landscapes (sometimes the whole landscape is sacred)
- Spiritual custodians are key players in protection, management, restoration of lands and waters
- The sacred dimension of restoration itself (restoration as spiritual healing and reconnection)

Sacred site elements that can be measured as a proxy for spiritual wellbeing can include: sacred site health or physical integrity; condition of sacred elements (springs, stones, altars, trees); connectivity between sites; access; pilgrimage / visitation / ritual; perceived sanctity of place. In terms of sacred species, researchers could look at: population health; cultural availability; access; ritual / use; intergenerational knowledge.
If spiritual custodians are not the primary implementers of the restoration project, it is important to centre them in projects within spiritual landscapes or landscapes of spiritual value. They should decide on what spiritual wellbeing means and how to 'measure it'.

4.2.3 Measuring socioeconomic outcomes of restoration - Manuelita Montano, Climate Focus

Climate Focus has developed RESEM (Restoration Socioeconomic Outcomes Measuring tool) to assess the social and economic impacts of restoration beyond ecological metrics. Supported by the Climate and Land Use Alliance, RESEM is an Excel-based tool that uses 15 qualitative and quantitative indicators across five categories: livelihoods, community wellbeing, employment, ecosystem services, and participation and governance. Built through a literature review and stakeholder interviews, the tool was piloted in two Colombian project sites. It enables practitioners to understand context-specific socioeconomic outcomes, identify data gaps, and make informed decisions to enhance restoration projects benefits or address harms. RESEM also supports communication with donors and helps projects tailor social safeguards. Practitioners found the tool valuable for tracking progress and engaging donors. Its participatory nature allows communities to assess their involvement and demand accountability. Further improvements include enhancing usability (e.g. user-friendly platform) and expanding testing beyond Latin America.

Cumbria Naddle Forest © Spike Webb

4.2.4 Measuring Wellbeing in Cumbria Connect - Alix Syder, Cumbria Connect - RSPB

Cumbria Connect, an ELSP-funded project for the restoration of upland landscapes in the UK, is monitoring cultural dimensions of wellbeing through communities' sense of place and changing self-identities. Our approach uses qualitative methods, in-depth on-farm interviews and photo elicitation, to explore participants' relational values to land, nature and place. Changes occurring through restoration intervention can support nature-positive place attachment or incur trauma experiences if existing meaning is felt as threatened. To support nature-friendly farming practice, the project seeks to enable positive self-identity of farmers in the role of restoring nature. Changing self-identities can bring insecurity and challenges, shaped by both perceptions and social norms. Our monitoring framework takes a whole systems approach to account for not only changes in farming practice but the underlying values-based goals and contextual factors which shape identity. We assess across livelihood, hedonic and normative dimensions all required to establish sustainable long term positive change.

4.2.5 Measuring intangible impacts of rewilding - Amy Duthie, Rewilding Europe

The Wider Benefits monitoring tool is a social-science-based monitoring framework developed by Rewilding Europe to capture the intangible social impacts of rewilding. It focuses on how rewilding influences people's attitudes, perceptions, and lived experiences, including connection to nature, sense of place, wellbeing, social cohesion, and perceived opportunities. It combines a standardized questionnaire with a robust methodological protocol grounded in contemporary social science practice to ensure replicability across different landscapes while remaining adaptable to local contexts.

Piloted in several countries in partnership with the University of Aberdeen, the approach establishes a social baseline that can be repeated over time to track trends and progress in social change, and to inform adaptive management. Results are intended to support learning, decision-making, and engagement with key stakeholders, and to complement ecological and economic monitoring with rigorous, people-centred evidence of rewilding's wider benefits. Data from the Central Appennines of Italy was shared to illustrate the approach and results.

Women's group meeting in Mbeliling, Indonesia © Muhammad Meisa

4.2.6 Community-based Ecosystem Restoration in Seruyan District, Indonesia - Michael Padmanaba, KALEKA

Implemented in collaboration with district government, communities and civil society, this restoration programme aims to generate socio-economic benefits alongside ecological recovery, including development of marketable products such as patchouli oils, palm sugar, and banana flour, creating jobs and strengthening local economies over time. Importantly, the programme also aims to deliver broader wellbeing outcomes, including more inclusive decision-making, improved security over land and resource use supported by village rules and legal assistance, and reduced risks from fires and floods. Experience from the programme highlights the importance of measuring both economic outcomes (income, jobs, market access) and social wellbeing outcomes (security, inclusion, and hope for the future) to fully understand and communicate the impacts of community-based restoration initiatives. Indicators for monitoring socioeconomic benefits cover 5 categories (economic benefits, participation, land rights, risk reduction, overall better life).

4.3 Discussion on the challenges and opportunities in wellbeing monitoring

Participants engaged in breakout group discussions to further explore the challenges and opportunities for the application of human wellbeing metrics in restoration projects which were identified as follows:

Category	Theme	Summary
Challenges	Resources, time and inclusion	Limited resources and time constrain outreach and inclusive data collection, often resulting in a focus on easily accessible groups (e.g. landowners) and measures whilst overlooking harder groups and measures. Long timescales for ecological and wellbeing impacts further complicate sustained monitoring.
	Power dynamics	Power imbalances can lead to biased data, elite capture, unequal participation, and exclusion of marginalised groups.
	Contradictory priorities	Local understandings of wellbeing may conflict with restoration objectives.
	Capacity constraints	Project teams may have limited capacity to collect, analyse, and interpret wellbeing data, with risks of insufficient attention to ethics or purpose.
	Attribution and causality	It is difficult to isolate the specific contribution of restoration to wellbeing outcomes amid broader social, economic, political, and environmental drivers.
	Aggregation	Aggregating wellbeing data across sites and scales is challenging if local context is considered. Standardised indicators risk losing local nuance, while locally tailored indicators limit comparability.
	Assumptions about wellbeing	Project proponents may embed unexamined assumptions about wellbeing, wealth, or poverty. Participants reflected about the importance of challenging those assumptions, recognising community dynamics and contextualising wellbeing.
	Oversimplification of wellbeing	Reliance on single or easily quantifiable indicators risks overlooking the multidimensional and subjective nature of wellbeing, and highlights tensions between aspirational and practical measurement.
	Buy-in	Limited prioritisation of wellbeing within organisations and among donors, who may not view wellbeing as central to conservation or restoration outcomes.
	Fatigue	Communities may experience project and data-collection fatigue, especially when findings are not shared back in accessible, meaningful ways, leading to disengagement and weakened relationships.
	Technology (constraints)	Lack of interoperability between data systems and misalignment between technical tools and local capacities or contexts.

4.3 Discussion on the challenges and opportunities in wellbeing monitoring

Category	Theme	Summary
Opportunities	Donor engagement	Opportunities exist to sensitise donors to the time required to demonstrate wellbeing impacts and to encourage broader, more holistic wellbeing metrics beyond income. Donors are increasingly open to qualitative data.
	Best practices and learning	Existing experience, frameworks, and indicators from other sectors (e.g. SDGs) offer opportunities to share lessons learned and improve guidance on wellbeing monitoring.
	Role of qualitative methods	Qualitative approaches (e.g. focus groups, storytelling) enable richer understanding of values, cultural, relational, and subjective dimensions of wellbeing often missed by conventional metrics.
	Agency	Strengthening agency through co-development and co-design with Indigenous Peoples and Local Communities (IP&LCs) can enhance both wellbeing outcomes and monitoring approaches.
	Technology (opportunities)	Digital tools (e.g. photo and voice, digital storytelling, dashboards) can support more cost-effective, inclusive, and near–real-time wellbeing monitoring and feedback, strengthening approaches that align closely with IP&LCs oral traditions and existing community story telling practices.
	Information and communication	Improved communication enhances transparency, builds trust, and supports better understanding of systems, drivers, counterfactuals, and telecoupled dynamics affecting wellbeing. Communication can also provide the opportunity to build a positive profile around best practice measurement of wellbeing, demonstrating its value to a wider audience, and thereby increasing funding opportunities. There is also a current moment of widespread recognition that the multiple crises are largely representative of a broader values crisis, so there is a global gaze on plural values, which connects to multiple dimensions of wellbeing.

4.4 Changes in community wellbeing expected from restoration initiatives

Participants discussed a range of changes in community wellbeing that restoration initiatives are expected to influence, including:

- Continuity of local and Indigenous knowledge
- Ecosystem stability
- Health, including mental health
- Identity, sense of place
- Income and job creation
- Multidimensional poverty
- Perceived security (e.g. tenure, food, and financial security) and resilience
- Psychological and emotional wellbeing
- Relational wellbeing, including conflict reduction
- Social capital, community cohesion, inclusive participation, gender inclusion, agency, and governance

Discussions on indicators to measure these changes highlighted that participants have mainly used quantitative metrics, often due to the challenges of defining and tracking qualitative dimensions of wellbeing.

Nevertheless, a variety of both quantitative and qualitative indicators were mentioned:

- Economic indicators, such as changes in income and the number of diversified livelihoods
- Social and cultural indicators, such as relational indicators (e.g. culture, health, and social relations), and the percentage of participation of marginalised groups (e.g. youth, women)
- Changes in access to resources (e.g. number of skipped meals)
- Agency and perceived ability to influence life choices, landscape governance, and any restoration initiatives
- Cultural assets, such as use of local language
- Percentage or number of practices linked to local and Indigenous knowledge
- Community-defined indicators

Participants also reflected on how such data are used. Indicators are commonly applied to establish baselines, support reporting (including to donors or investors), and inform adaptive management and learning. They are also used to strengthen decision-making and accountability, and in some cases to support dissemination, shape future interventions, inform policymakers, and contribute to advocacy. Participants noted that these indicators are not always used for formal impact evaluation. The importance of community involvement in defining and validating metrics was also emphasised.

5. Towards a Framework for Wellbeing Metrics

A central goal of the workshop was the development of a framework to integrate wellbeing metrics into restoration projects. To this end, discussions addressed how to design and select wellbeing indicators for restoration projects, including the importance of selecting indicators that are aligned to the timeframe of expected changes.

Participants agreed that some wellbeing outcomes, such as reductions in child mortality and poverty, or significant governance shifts, occur over timeframes (e.g. 10-20 years) that are much longer than those of a typical project or restoration intervention (e.g. 3-5 years). Discussions therefore stressed the importance of distinguishing short term, project duration indicators from longer term, societal outcome indicators (Figure 1), with the latter likely to benefit from integration with external or longitudinal datasets. A recurring point was that funding cycles rarely support long-term monitoring, resulting in pressure to limit measurements to what is feasible within project boundaries. While acknowledging these constraints, participants also noted that at the landscape scale, long term data management is possible and should be actively pursued. There was agreement that once a project establishes a baseline, short timeframes can feel insufficient to demonstrate meaningful change, and supplementary resources or follow up monitoring may be required.

This mismatch prompted the suggestion that indicators should be divided into two tiers:

1. A core set of long-term indicators suitable for before–after comparisons and counterfactual supported evaluation. Using these indicators requires either periodic revisits funded by donors or linking project-level data to externally collected (i.e. national) datasets that capture aspects such as socio-economic outcomes, educational attainment, long-term income trajectories, health outcomes, ecological recovery, and land-use change. As attribution of these cannot rely on single project datasets, emphasis should therefore shift from attribution to a contribution approach.

2. A project duration set of indicators focused on processes, activities, and short term changes that can be detected within standard project cycles, which capture aspects such as implementation quality, community engagement and agency, perceptions of project relevance, early behaviour changes, and baseline shifts in participation, trust, and inclusion. These are indicators which are feasible within project lifecycles and directly inform adaptive management.

Bisil Ku Reforestation Corridor, PNG © WCS PNG

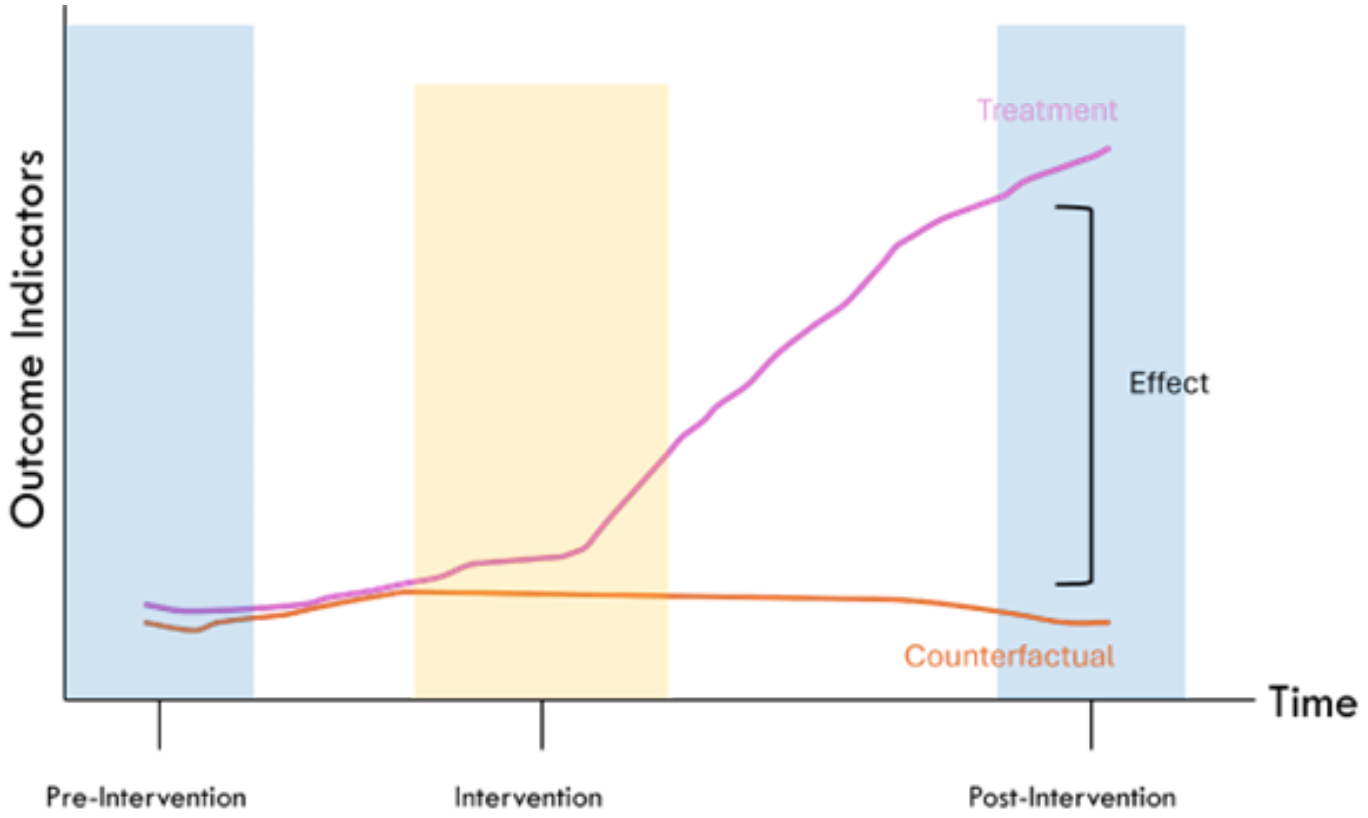


Figure 1. Monitoring overview for restoration projects using a combination of shorter-term indicators during the project lifespan (yellow) and longer-term societal indicators in conjunction with external datasets.

Nationally representative household surveys were mentioned as valuable for constructing counterfactuals in particular contexts, particularly for broader, long-term outcomes, although there was recognition that such data may not always capture change at the appropriate spatial scale for project level evaluations. Participants emphasised that national datasets should complement, not replace, project level monitoring. They also noted that household-level data alone risks missing the community-level dynamics, relationships, and inter-household processes that underpin wellbeing in many IP&LC contexts, highlighting the need for methods capable of capturing these collective dimensions.

A further distinction was made between attribution and contribution. In shorter time frames, projects are more able to observe changes plausibly attributable to their activities through proximal or process indicators. However, over the longer term, the goal shifts to demonstrating contribution to wider wellbeing outcomes, supported by integration with independent datasets and theories of change. Existing indicator frameworks, such as those from SER, IUCN, and FAO, were recognised as valuable but mainly suited to project duration timescales. Participants discussed complementing these with long term indicators that connect project level processes with landscape or societal level outcomes, and that help track community-level and inter-household patterns shaping collective wellbeing.

The discussion also acknowledged the necessity to measure human wellbeing in nature-based solutions (NbS) and carbon projects, and existing opportunities to integrate wellbeing monitoring within these. As many ecological indicators (e.g., tree cover, biomass, carbon) can be monitored by remote sensing, there is potential to embed human wellbeing metrics alongside biophysical measures to form a more holistic data collection framework, connecting remote sensing data to those collected on the ground.

Participants also examined approaches available at the end of a project cycle. While counterfactual methods remain the most robust way to assess impact, they are often resource intensive. The workshop highlighted pragmatic alternatives drawn from existing practitioner guidance, such as IIED's publication on assessing conservation impacts on wellbeing, as an important tool for supporting real world evaluation.

An overarching caution throughout the discussion was controlling the scope of monitoring and evaluation efforts. Participants favoured selecting a focused, high-quality set of indicators, prioritising feasibility and those with strong relevance to a project's aims and local communities' priorities, instead of aiming to monitor every potential dimension of wellbeing. At the same time, participants stressed that wellbeing measurement must not be allowed to narrow to only carbon or NbS related dimensions, and if a project aims to create benefits for people, nature, and the climate, the monitoring framework should reflect this full breadth. There was also reflection on how, over multiple projects in the same landscape, counterfactuals may become less tenable due to cumulative interventions. In such cases, evaluators may need to shift towards contribution analyses, systems approaches, or qualitative comparative methods.

Finally, participants refined a set of wellbeing domains likely relevant to restoration projects that balance global relevance and comparability with local flexibility and sensitivity to community-defined priorities. These domains were not described as rigid categories, but rather as interconnected dimensions of lived experience. The agreed domains are summarised in Table 2. Participants also identified a number of subcategories, which have been tentatively added against potentially relevant domains.

Table 2. Wellbeing domains and definitions, as agreed by workshop participants, and subcategories identified by workshop participants and assigned to potential domains for review.

Domain	Domain definition/ notes	Subcategories
Health	Encompassing physical, mental, and emotional health, including connection to nature.	Psychological Connection to nature and/or place
Education	Considered to be context-dependent but highly relevant in many contexts and primarily a long-term indicator set.	
Living Standards	Encompassing income, assets, time savings, and livelihood diversification.	
Safety & Security	Encompassing tenure security and food security, as well as physical and psychological safety.	Resilience
Agency	Encompassing people's capacity to act, participate, and influence the decisions shaping their environment, capturing governance engagement, perceived influence, and social capital.	Aspirational Governance Agency/ autonomy
Social, cultural, & spiritual wellbeing	Encompassing relational, identity, and place-based aspects central to restoration contexts.	Cultural and spiritual Relational Sense of place Identity

Participants emphasised that while many of these domains can be measured quantitatively, qualitative insights, such as perceived fairness or empowerment, are equally important and increasingly measurable at scale. This combination reflects a recognition that wellbeing is inherently multidimensional and experienced subjectively as well as materially. Participants similarly stressed that communities must always have space to define what matters to them. Locally meaningful indicators, such as cultural and spiritual activities and context-specific prosperity measures, should complement core indicators rather than be sidelined by them. Participants viewed co-design as essential to legitimacy and relevance. Throughout the discussion participants repeatedly returned to the principle of simplicity, with common agreement that overly long indicator lists risk overwhelming small project teams who collect a lot of data that ultimately goes unused.

The workshop achieved broad agreement on a balanced monitoring approach based on universal wellbeing domains with a two-tier indicator system (short-term and long-term) and strong community participation in indicator selection, integration of project and national datasets, incorporation of both qualitative and quantitative methods, and adoption of a contribution approach instead of strict attribution.

It was acknowledged that an ideal scenario would be for restoration initiatives to identify a couple of indicators for each domain for comprehensive monitoring of wellbeing. However, a practical recommendation emerged to select indicators only for the two to three domains most relevant or appropriate for a restoration initiative and its local context, to avoid overburdening project teams. Restoration teams must ensure that each indicator is meaningful, feasible, ethical, directly useful for decision-making, and aligned with both project aims and community priorities. Participants agreed that wellbeing monitoring and evaluation should remain holistic and should not be reduced just to those metrics which are easiest to measure. The resulting hybrid framework recognises the diversity and complexity of restoration contexts while providing a coherent, practical structure for evaluating wellbeing impacts over time.

Community tree planting, Tunari National Park, Bolivia © Asociacion Armonia

6. Process considerations

Three speakers were invited to share their experience and learning on process elements of monitoring human wellbeing.

6.1 Human Wellbeing in Forest Landscape Restoration Insights from the FLR in Africa Initiative - Perpetua Masanja, WWF Tanzania

The WWF Forest Landscape Restoration in Africa Initiative is a regional, multi-country programme operating across nine African countries with an overarching objective of restoring degraded forest and landscape ecosystems in ways that deliver benefits for both nature and people. The presentation highlighted that integrating wellbeing into forest landscape restoration remains an evolving area of practice, shaped by ecological objectives, social contexts, and implementation scale. Key reflections were the context-specific and subjective nature of wellbeing indicators, the importance of adapting measures to local realities, and the need for shared learning on what is meaningful, feasible, and useful. The presentation emphasised the value of designing wellbeing monitoring approaches that support learning and adaptive management alongside ecological restoration goals.

6.2 Restoring high biodiversity regions of Tanzania, Robin Loverage, Reforest Africa

Reforest Africa co-manages four forest protected areas within the Eastern Afromontane biodiversity hotspot in Tanzania, an area that also overlaps with a national priority agriculture development corridor. A wellbeing indicator selection tool has been developed which integrates top down and bottom-up approaches (Loveridge et al 2020), and this has supported the selection of 19 indicators from an initial list of 111. Work has also been done with communities to undertake an impact evaluation and evidence linkages in causal chains of wellbeing. This is useful for challenging preconceived ideas of causality and unpacking how human wellbeing impacts are achieved. Causal chains are developed through a mixed methods approach, that first qualitatively identifies locally appropriate indicators through community consultations, then quantitatively tests causal relationships between short term and long-term wellbeing impacts through a combination site matching and use of Structural Equation Modelling to test the strength of relationships between different parts of the project theory of change. For example, Loveridge et al., 2022 found that human wellbeing was driven more by community perceptions that forest governance was fair and promoted equitable decision-making, than by direct financial benefits.

Reforest Africa emphasised the value of using exploratory wellbeing assessments to inform the design of locally meaningful Forest Landscape Restoration programmes that are targeted to address local wellbeing challenges. For example, Reforest Africa used the wellbeing assessments to identify that security and community cohesion were priorities in project villages, and have designed an innovative community eco-fund model that addresses these challenges by establishing community run savings groups that make microloans available to community members who participate in forest restoration activities. The talk identified synergies between human wellbeing indicators and the Sustainable Development Goals and opportunities to mainstream human wellbeing assessment through developing practical guidance on using human wellbeing for monitoring social impacts of carbon projects.

6.3 Wellbeing in Kakheti Steppes - Aleksandre Mikeladze, SABUKO

Long-term, the goal is to support both ecological and community wellbeing across 103,000 hectares by 2050. Project progress is assessed through combined satellite and field data, including NDVI, land degradation hotspots, grazing patterns (GPS), acoustic monitoring of poaching, river sediment and water levels, and key species such as Imperial Eagles and larks. Satellite monitoring allows landscape-scale assessment, while small field plots provide detail. Community wellbeing is measured through farmer income, market access, and eco-branding outcomes, all selected through participatory workshops. Fairness principles guide decisions: farmers receive accessible maps and alerts, sensitive household data is protected, and all stakeholders contribute. Key results include the increase of Imperial Eagle pairs from 12 to 20, reduced poaching, improved rivers, and a 23.75% rise in farmer income through rotational grazing and eco-products.

Iori River Valley, Georgia. The Doukhobors' Land © Natela Grigalashvili

6.4 Discussion on process approaches for monitoring human wellbeing

Participants thanked the speakers for sharing their experience, which is helpful for both practitioners and academics to see how practitioners are thinking about designing their monitoring and projects. In plenary discussion, clarification was sought on how participants are selected, and whether monitoring is done at the individual, household or community level. All four projects monitored wellbeing at the individual level, recognising that wellbeing may vary between members of a household, although some indicators such as land tenure may operate at household or farm level. Sample size may be constrained by funding availability. Speakers were asked if there were elements of the process of monitoring wellbeing related to restoration projects in particular. Speakers reflected that the long timeframes involved in delivering restoration impacts pose challenges, and that these also make attribution difficult. At the same time, restoration can directly engage a larger proportion of a community due to greater labour requirements compared to conservation initiatives. This more hands-on and widespread participation could make associated socio-economic impacts easier to attribute to restoration.

All participants were asked to reflect on experiences shared to identify best practices for the process of monitoring human wellbeing. This resulted in identification of 9 elements:

1. **Co-design indicators with communities:** Community involvement in indicator selection (confirmatory)/design (exploratory) to ensure contextually and culturally appropriate, monitor what is relevant and important to them. Ensure processes respect IP&LCs governance structures, oral traditions, and collective decision-making norms, and be attentive as there may be different belief systems in the landscape.
2. **Use a holistic approach:** monitor multiple dimensions (tangible and intangible constituents), combine objective and subjective approaches. Seek to achieve external as well as internal validity. May involve mixed methods of quantitative measures and storytelling. Standardised socio-economic metrics can facilitate comparisons with larger-scale data.
3. **Transparency and purpose:** be clear on who you are monitoring for, what and why. Only collect data where it has a purpose. Secure agreement with communities on how data will be used and shared. Use FPIC approaches.
4. **Select short and longer-term indicators:** Use process indicators as well as measuring outcomes, which may take a long time to arrive. Examples of process indicators include who participates in decisions, whether institutions are strengthened etc. The relevance of wellbeing indicators may change over time.
5. **Training/skills:** from the start consider the skills needed for data collection and analysis of chosen methods, choose the right staff, promote community-based monitoring, invest in training - including cross-disciplinary, conduct pilot tests.
6. **Minimise burden:** consider appropriate ways to minimise or compensate for burdens on the community's time, find ways to minimise survey fatigue for example through accessing data already collected. Be mindful of extractive data practices, ensuring that researchers do not simply extract knowledge and information without reciprocal benefit; instead, prioritise approaches that foster long-term, respectful relationships and provide value to communities.
7. **Acknowledge time/funding constraints:** it may be better to measure fewer things but in a better way.
8. **Triangulation:** feed your results back to local communities to confirm interpretation. Context is important to interpret human wellbeing data.
9. **Use wellbeing monitoring** to inform adaptive management of restoration approach.

Participants reflected that codes of ethics for academic research, and principles developed in relation to Indigenous and local knowledge are relevant to this.

Women from Cruce La Colorada planting trees, Guatemala © WCS Guatemala

7. A Data Justice Framework for Wellbeing Metrics in Restoration

The final session focused on workshopping a draft set of guidelines intended to help wellbeing data, and those who use it, contribute to just and equitable restoration. These guidelines emerged as part of a collaboration between Trillion Trees and researchers from the University of Manchester (Dr Rose Pritchard and Prof. Johan Oldekop). The development of this framework was motivated by recent work on data justice as introduced in the keynote on Day 1 (Section 2.3 of this report). The draft guidance addresses two central concerns:

- **Ensure that wellbeing data contribute to more effective and equitable restoration**
- **Ensure that data collection and governance practices do not themselves become a source of social harm**

This guidance (Table 3) follows established best practice by taking a 'whole of value chain' approach (Heeks & Renken, 2016; Nost & Goldstein, 2022), considering how choices at different stages from research design to data governance could promote justice or injustice. The guidance is deliberately non-prescriptive, recognising that what is 'just' and 'unjust' will vary between contexts and stakeholder groups. Participants were asked to comment on strengths and weaknesses in the current guidance, with the goal of refining the guidance and making it more useful for restoration research and practice.

Table 3. Draft guidelines for data practices to support more equitable ecosystem restoration, which participants were invited to comment on

Research Design	1. Define a clear positionality and theory of change
	2. Choose wellbeing assessment methods and metrics aligned with this theory of change
	3. Assess potential data risks prior to data collection
	4. Choose scales, sampling strategy and boundaries carefully to reflect a range of experiences
Data Collection	5. Ensure that the scope of justice and fairness extends to data collectors
Data Governance	6. Maintain clear metadata including potential sources of bias and error
	7. Situate findings as part of an ongoing conversation with research participants
	8. Develop a data ownership model aligned with the needs, norms and values of local people and partners
	9. Aim for open access, but identify and protect data which could lead to social harms

Participants welcomed the draft guidance (Table 3) for its clarity and alignment with existing best practices, particularly its emphasis on early risk assessment and mitigation, and the safety of data collectors. Wellbeing data collection was seen as part of an ongoing dialogue with participants and stakeholders. Groups highlighted challenges in developing a theory of change specifically for wellbeing data, noting that such data are often embedded within larger projects with fixed governance and funder requirements. Unanticipated causal pathways and the need for iterative theories of change as evidence emerges were also emphasised. Several participants suggested that enabling factors, such as skills and capacity for qualitative data collection and analysis, should be addressed more explicitly, potentially as a standalone guideline instead of being embedded within an existing principle.

Participants recommended adding guidance on data quality and validity, including piloting tools, setting norms for data integrity, providing training and opportunities for capacity development, and establishing quality checks. They also noted that the guidance currently focuses on primary data and should consider how to incorporate secondary data. Risks to both participants and data collectors were seen as requiring greater attention, including safeguarding (especially for vulnerable groups), appropriate training for enumerators, and minimising the burden on participants. Some noted that organisations new to social data collection may require ethics training comparable to academic standards.

Co-design with participants was widely supported as a cross-cutting principle, including joint development of theories of change and data governance. Participants also suggested guidance on tracing data use to support learning, identify unintended consequences, and strengthen the processes for Free, Prior and Informed Consent, particularly for longitudinal data collection efforts.

Participants raised concerns about data access and ownership, including risks associated with mandatory data sharing when there is a legal requirement to share data with national governments, especially if participants disclose illegal or politically sensitive activity during wellbeing assessments, sensitivities around qualitative data, and potential environmental harms from data disclosure, such as if it makes visible the locations of threatened species with high economic value. Recommendations for the framework presentation included adding good- and bad-practice case studies and reducing jargon in the final guidance.

Community member planting trees in Ruvuma Landscape, Tanzania © WWF Tanzania

8. Recommendations and Next Steps

As the workshop came to a close, participants undertook some further refinement of the content outlined above and agreed next steps as follows:

- Participants committed to commenting on the draft workshop report. This will result in a document for practitioners to share the learnings from this Dialogue on *indicator domains, best practices for the process of monitoring human wellbeing, and a data justice framework.*
- Exploration of the potential to produce a peer-reviewed paper.
- Commitment to forms of follow-up over the next few months in the form of a call or survey. This will enable participants to share how they have put what they have learned into practice.

Participants also shared the key overall messages that they were taking away with them, which included as follows:

1. **Monitoring human wellbeing can guide the overall approach to restoration:** restoration projects have a plurality of implications for human-wellbeing and monitoring wellbeing can help guide the overall project design, the restoration process, and adaptive management. Data should affect change.
2. **Co-agreement/design of indicators with communities** is really important
3. **Wellbeing is multidimensional, and no one metric is suited to all projects:** further development of metrics and methodologies for some qualitative measures is needed to help them be used more widely.
4. **Wellbeing monitoring can respond to several needs** (such as local priorities vs project and national level needs) through combinations of metrics. Locally derived and standardised metrics have different strengths and weaknesses.
5. **Measuring wellbeing is do-able:** no single definition of wellbeing exists, but there are ways to do this. Be guided by what matters to the community alongside broader project needs and you don't need to measure everything. Tools, frameworks and a network of practitioners and academics exists, and there are rich opportunities for continuing to share knowledge.
6. **Connect with existing frameworks:** monitoring of governance, equity and rights are well developed, find synergies with SDGs and carbon standards.
7. **Timescales:** consider the timeframe of the overall Theory of Change and what change you can measure in each period with which indicators.
8. **Data justice:** consider data ownership models, share information with communities, consider format, privacy and ethics.
9. **Skills:** make sure approaches are tested and that data collectors have the right skills. There may be trade-offs between preferred approaches and what's possible.

At the workshop close, participants shared that while monitoring human wellbeing can feel challenging and overwhelming at times, they were leaving this dialogue feeling optimistic, empowered, excited, educated and thankful for the opportunity to collaborate in this manner. Thanks were given to the organisers, facilitators and all who participated, with commitments made to follow up in future.

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