2021-2022 Global Horizon Scan for Community Conservation: informing future priorities and decision-making

BRIEFING DOCUMENT
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PREPARED BY THE COMMUNITY CONSERVATION HORIZON SCAN COLLABORATION

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Summary

This Briefing Document presents the outcomes and systematic approach of the first horizon scan on community conservation. The final 15 topics relate to 6 themes:

1) Conservation finance and income (diversifying conservation-compatible livelihoods; leveraging 'basic income'; locally based climate-smart agriculture and fisheries; changes in tourism and travel; mobile finance augmenting economic potential)
2) Diversity, equity, inclusion, and access (power shifting towards local actors; co-creating knowledge across disciplines and cultures; conservation finance for grassroots initiatives)
3) Global biodiversity policy (global target to conserve 30% of Earth by 2030; global ecosystem restoration commitments)
4) Human and community rights (increased recognition of indigenous and community rights; growing violence against environmental human rights defenders)
5) Economic reforms (moving away from conventional economics; strengthened corporate norms and standards)
6) Shifting human geography (unpredictable and irregular human migration).

The scan's rigorous methodology and its results can guide donors, NGOs, governments, intergovernmental and multi-lateral bodies in setting science-based objectives to support communities and nations in pursuing an environmentally conscious recovery for long-term ecological, social and economic resilience. Specifically, the insights presented can support planning processes, strategic discussions and decisions for management, policy, and financing. The information here has been extracted from a manuscript currently in preparation by the Community Conservation Horizon Scan Collaboration, a global group of conservation researchers and practitioners, coordinated by the Wilder Institute/Calgary Zoo, Canada.

Objective

To inform donors, NGOs, governments, intergovernmental and multi-lateral bodies on emerging threats and opportunities for community conservation from 2022-2035.

Horizon scanning as a foresight technique

Horizon scanning is used to gather, organise, and prioritise new and existing evidence about emerging issues (future threats and opportunities) in a timely, structured, and transparent way[1]. The process supports the systematic search of diverse information streams[2] to help understand system dynamics and anticipate future impacts; it can support better coordination of resources, responsive policy, and on-the-ground action to seize opportunities or mitigate threats before they fully materialise[3].

Many scans elicit inputs primarily from an invited group of 'experts.' However, who and what defines an expert is contentious, and poses the risk that particular worldviews dominate. Some recent scans have mitigated this by (remotely) soliciting initial ideas from as many different contributors as possible to capture diverse global views[4]. Once ideas are gathered, varying adaptations of the Delphi-method serve to build consensus around which emerging issues deserve priority attention[1].

Previous environmentally focused horizon scans have informed policy, funding and decision-making. An Antarctic science horizon scan[5], for example, invoked financial support for ice sheet research under the National Science Foundation. Insights from a recent horizon scan[4] on future economic, sociopolitical, financial, and ecological factors related to illegal wildlife trade were considered in

[1] Wintle, B. C., Kennicutt, II, M. C., & Sutherland, W. J. (2020). Scanning horizons in research, policy and practice. In W. J. Sutherland, P. Brotherton, Z. Davies, N. Pettorelli, B. Vira, & J. Vickery (Eds.), *Conservation research, policy and practice* (pp. 29–47). Cambridge, UK: Cambridge University Press.

[2] Amanatidou, E., Butter, M., Carabias, V., Konnola, T., Leis, M., ... Rij, V. V. (2012). On concepts and methods in horizon scanning: Lessons from initiating policy dialogues on emerging issues. *Science and Public Policy*, *39*(2), 208–221. https://doi.org/10.1093/ scipol/scs017.

[3] Konnola, T., Salo, A., Cagnin, C., Carabias, V., & Vilkkumaa, E. (2012). Facing the future: Scanning, synthesizing and sense-making in horizon scanning. *Science and Public Policy*, *39*, 222–231. https://doi. org/10.1093/scipol/scs021.

[4] Esmail, N., Wintle, B., 't Sas-Rolfes, M., Athanas, A., Beale, C.M., ... Milner-Gulland, E.J. (2020). Emerging illegal wildlife trade issues: a horizon scan. *Conservation Letters,* e12715. doi.org/10.1111/conl.12715

[5] Kennicutt, M., Chown, S., Cassano, J., Liggett, D., Massom, R., Peck, L., ... Sutherland, W. J. (2014). Polar research: Six priorities for Antarctic science. *Nature*, *512*, 23–25. https://doi.org/10.1038/512023a.

formulating CITES policies[6] and UK government-funding priorities. Annual horizon scans conducted over the past 10 years on emerging topics in global conservation[7] have informed the UK's Natural Environment Research Council's strategic planning and have been confirmed to provide salient insights. For example, poorly known topics identified as emerging in 2009, such as microplastics and synthetic meat, have become mainstream issues since[8].

The community conservation horizon scan

Community conservation seeks to catalyse benefits for both people and nature by simultaneously improving local livelihoods and conservation outcomes for wild species. To achieve this goal, community conservation commonly addresses root causes of environmental challenges.

The Wilder Institute/Calgary Zoo initiated the horizon scan on community conservation in 2020 to identify risks and opportunities expected to hinder or support community conservation over the next 10-15 years. By better understanding these risks and opportunities and bringing them to the attention of global policy and local grassroots audiences alike, the aim is to encourage proactive strategies that will strengthen community conservation as an effective approach for safeguarding biodiversity and human wellbeing.

Because diverse input and perspectives are critical to gaining a comprehensive, globally relevant picture of community conservation, the first step involved the formation of a gender-balanced steering committee and working group. This group of collaborators comprises approximately equal numbers of women and men at different stages in their career from diverse cultural and disciplinary backgrounds, with varying geographic and ecosystem expertise and different roles in community conservation. Supported by a coordination team, the collaboration has designed, disseminated and analysed results from a global online survey. The number of core collaborators has fluctuated between approximately 20-30 over time, with a total of 43 people contributing to date.

[6] Esmail, N., Harrington, L.,Lam, J., Malsch, K., Milner-Gulland, E. J., Bending, Z., & 't Sas-Rolfes, M. (2019). Horizon scanning for illegal wildlife trade: A strategic approach to inform future CITES Policy Decisions. Retrieved from www.oxfordmartin.ox.ac.uk/ publications/cites-briefing-2019/

[7] Sutherland, W. J., Atkinson, P. W., Butchart, S. H., Capaja, M., Dicks, L. V., ... & Thornton, A. (2022). A horizon scan of global biological conservation issues for 2022. *Trends in ecology & evolution*, *37*(1), 95-104.

[8] Sutherland, W. J., Fleishman, E., Clout, M., Gibbons, D. W., Lickorish, F., Peck, L. S., & Ockendon, N. (2019). Ten years on: A review of the first global conservation horizon scan. *Trends in Ecology & Evolution*, *34*, 139–153. https://doi.org/10.1016/j.tree.2018.12.003.

Systematic process to synthesize global inputs

An online survey was created in nine different languages (Arabic, traditional and simplified Chinese, English, French, German, Hindi, Portuguese, and Spanish) and emailed to at least 2,189 people worldwide with a known or inferred interest in community conservation. Recipients were asked to share the survey with others. The survey was also posted on 20 online media forums (subscription lists, websites, etc.). Participants were anonymously asked about: (1) their experience with community conservation and vision for success; (2) observed and anticipated impacts of the current COVID-19 pandemic on community conservation efforts; and (3) obstacles and opportunities they think might hinder and/or facilitate effective community-based conservation within the next 15 years.

The online survey received 1,089 responses in total; 555 individuals and 36 groups (comprising an additional 620 individuals) completed the majority of questions. Those who completed the survey originated from 107 nations and resided in 109 countries, and represented people from varied socio-cultural backgrounds (Global North, Global South, indigenous) working across all global geographic regions. More respondents identified as male (58%) than female (41%); a small percentage (1%) chose other gender identification or preferred not to answer. Participants came from diverse disciplinary or knowledge backgrounds (including biological sciences, administration/government, agriculture/farming, forestry, anthropology/culture, conservation, development, economics, law, local or indigenous or traditional ecological knowledge, protected area management) and held varying levels of experience (< 1 year (8%), 1-3 years (12%), 4-6 years (17%), 7-10 years (18%), 11-15 years (13%), >15 years (32%)). They also performed a variety of non-mutually exclusive roles in community conservation (research (96%), practice (95%), funding (43%), policy (33%), governance (21%), or other (20%)), for initiatives in diverse ecosystems (68% terrestrial, 67% rural, 28% marine, 21% freshwater, 10% urban and 0.5% other).

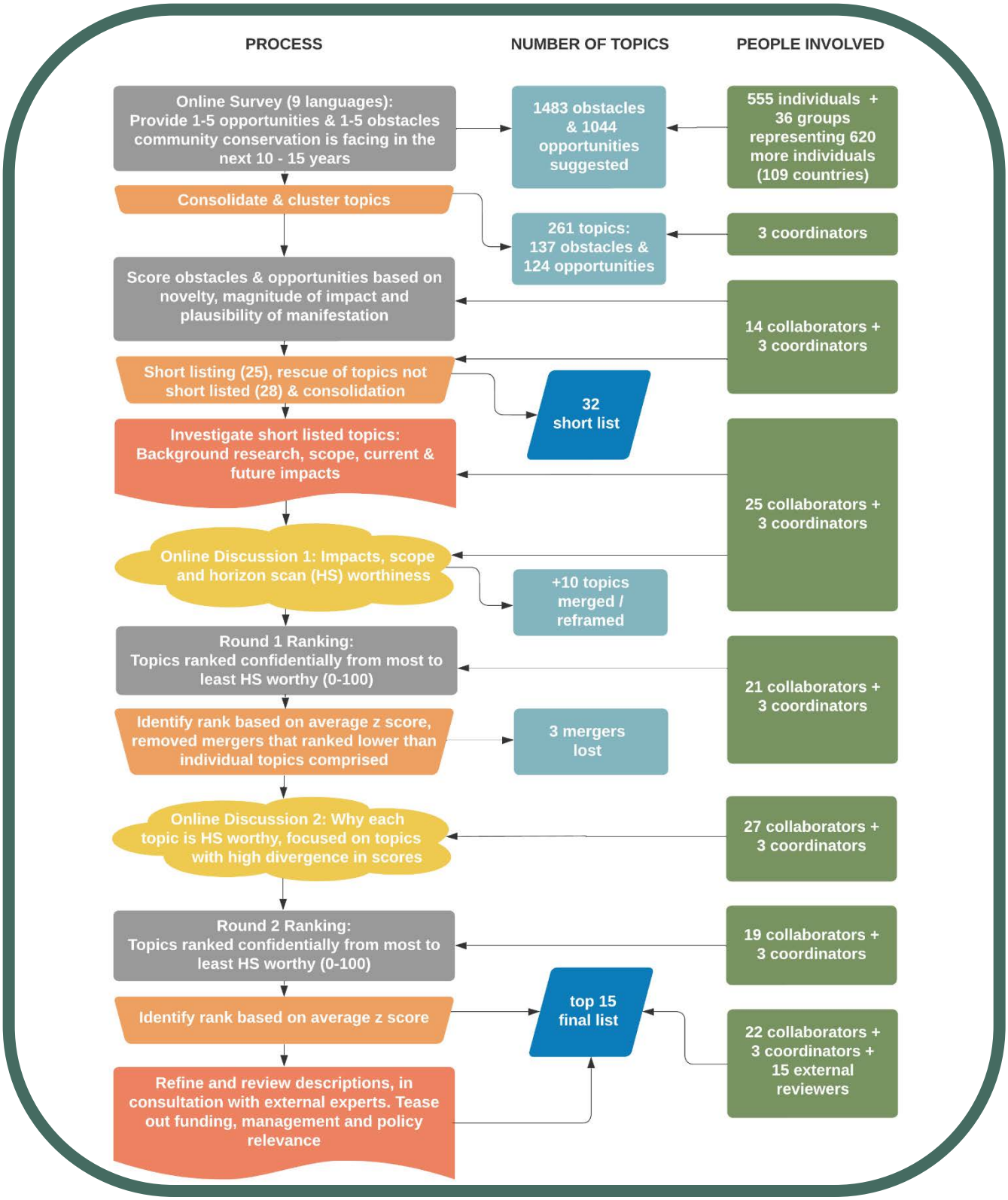

Figure 1: The process and number of people involved in the Community Conservation Horizon Scan

A 3-person facilitation team coordinated the systematic process by which collaborators analysed the survey's results (Figure 1). The process involved careful synthesis, shortlisting, in-depth investigation, and iterative rounds of debate and anonymous ranking (based on the criteria of novelty, magnitude of impact, plausibility and pervasiveness of manifestation) to crystallise 2,527 submitted ideas into a final list of 15 emerging topics expected to shape community conservation over the coming 10-15 years.

Key emerging issues in community conservation

The prioritised list was finalised in January 2022 and includes both critical threats and opportunities related to six broad themes involving global environmental commitments, rights, financing, and economic reforms (Figure 2). Each topic has both positive and negative facets. The global community can now shape how each materialises by proactively mitigating threats and taking advantage of opportunities. Brief topic descriptions follow. More in-depth descriptions with specific examples, references and foreseen potential impacts are available upon request from the corresponding authors.[9]

[9] Jana McPherson: janam@wilderinstitute.org and Nafeesa Esmail: nafeesae@wilderinstitute.org

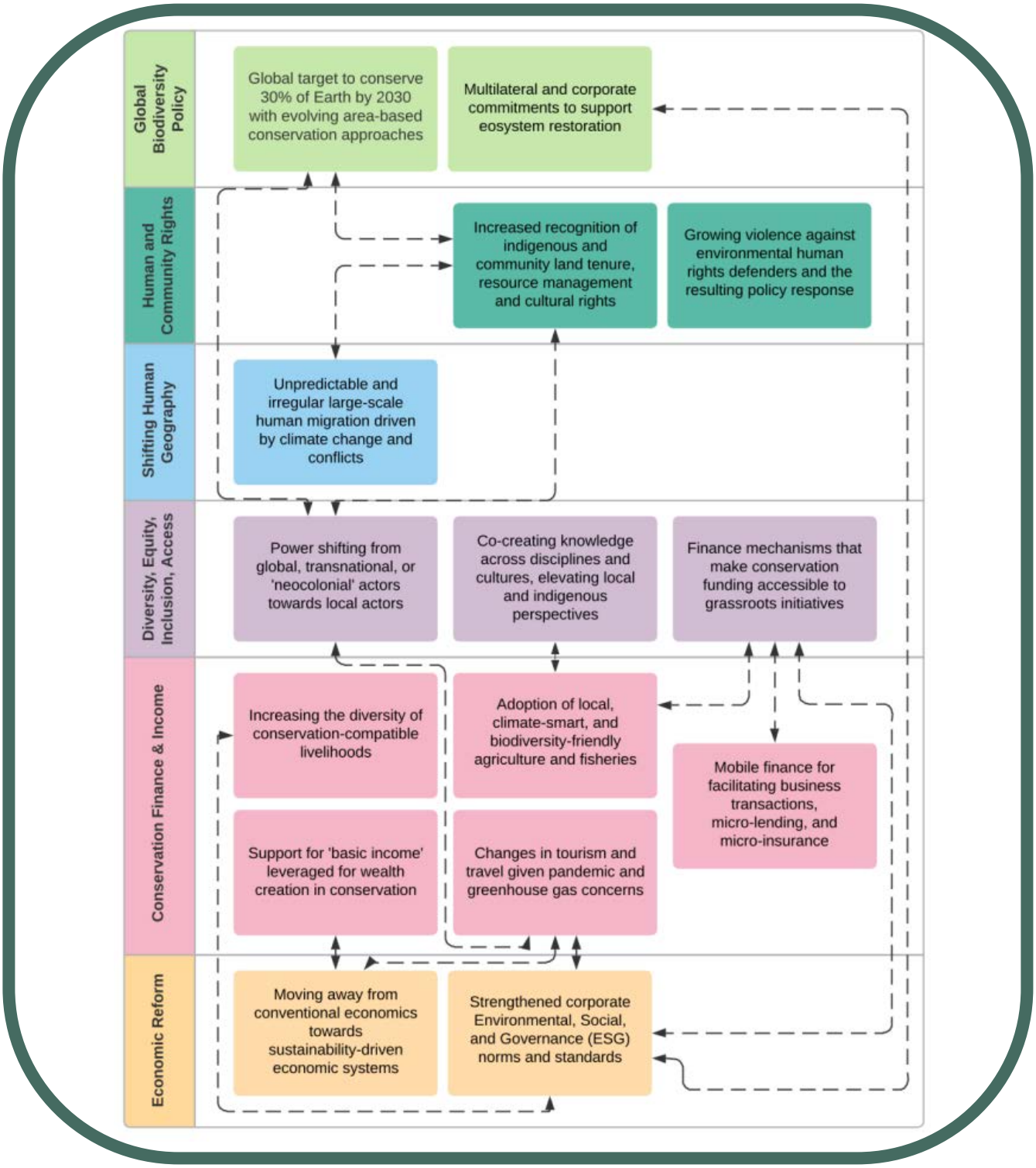

Figure 2: Thematic grouping of the 15 topics deemed most pertinent to community conservation over the coming 15 years. Dashed arrows represent a connection between topics, there is an assumed connection between topics within the same theme.

Global Biodiversity Policy

Global target to conserve 30% of Earth by 2030 with evolving, area-based conservation approaches
One target in the post-2020 Global Biodiversity Framework (GBF) aims to conserve 30% of the planet by 2030. This could drive expansion of area-based conservation beyond traditional protected areas to other effective area-based conservation measures (OECMs). Conducive to community conservation and Indigenous peoples and local community (IPLC) stewardship, such measures could re-define effectiveness and create opportunities at scale. However, this target may also drive top-down, fortress-style conservation, detrimental to IPLCs. Either outcome is possible, depending on final wording of the GBF and subsequent implementation within national political and policy contexts.

Multilateral and corporate commitments to support ecosystem restoration
The United Nations (UN) Decade on Ecosystem Restoration and the US$12 billion Global Forest Finance Pledge at the UN Framework Convention on Climate Change's CoP26 has renewed global commitments to restore nature. Moreover, the Convention now recognises the centrality of ecosystem restoration for carbon storage and climate change mitigation. Such high-level commitments risk encouraging large, unsustainable initiatives that exclude local communities from decision-making. Conversely, these commitments can help communities (re)build resilient social-ecological systems if they embrace IPLCs rights and autonomy, traditional ecological knowledge, and adaptive change management.

Human and Community Rights

Increased recognition of Indigenous and community land tenure, resource management & cultural rights
Growing emphasis on Indigenous, traditional, and community rights in global environmental policy, as exemplified by the US$1.7 billion pledge for tenure rights at CoP26, aspires to undo historic injustices and recognize the value of IPLC knowledge and practices in conservation. Likely to further influence funding, legislation, and national policies, it may foster improved environmental justice given increased mapping of IPLC rights and possible reinforcement by OECMs. Rights without resources are insufficient and can be undermined by conflict or the widespread rise of authoritarianism.

Growing Violence Against Environmental Human Rights Defenders and the resulting policy response
Threats and violence against environmental human rights defenders are rising, with record numbers of murders and attacks in 2020. Increased attention from donors, multi-lateral policy, and the public, thanks to media, provides momentum to better integrate conservation and human rights efforts. Existing mechanisms within the UN and European Union, and pioneering Latin American legislation like the Escazú Agreement, can mitigate against violations associated with large extractive industries and conservation elites.

Shifting Human Geography

Unpredictable and irregular large-scale human migration driven by climate change and conflicts

More people than ever have been displaced by conflict, violence, and natural disasters in 2020-2022. Climate-induced disasters may displace up to 1 billion by 2050, with the poorest disproportionately vulnerable. Displacements can perpetuate conflict and environmental degradation. Mobility can physically create space for conservation or reinvigorate talent pools by diversifying perspectives and experiences. Conversely, mobility may erode community cohesion, undermine resource-use planning, dilute traditional knowledge and weaken cultural connections to place and nature.

Diversity, Equity, and Inclusion Access

Power shifting from global, transnational, or 'neocolonial actors to local actors

Heightened global recognition of continued, historically rooted injustices offers momentum to redress international, national, and local power imbalances and mismatched goals within conservation partnerships. Mistrust, however, is deep-seated and can spark protests, tensions and violence between those with and without power. Growing representation of marginalized voices in decision-making gives hope that fair, transparent, inclusive governance will advance socially-just and culturally sensitive conservation approaches in the future.

Co-creating knowledge across disciplines and cultures, elevating local and Indigenous perspectives

COVID-19 and associated travel constraints have highlighted the need for interdisciplinary knowledge and greater reliance on local leadership and community-based expertise. Although not a new concept, knowledge co-creation with local and Indigenous stakeholders is increasingly valued, but still often underutilized and misunderstood in environmental decision-making. Renewed interest may advance efforts to respectfully interweave knowledge systems, support cultural revival, and recognize Indigenous and Global South researchers and local actors. Risks include tokenism, misrepresentation, and continued discrimination.

Finance mechanisms that make conservation funding accessible to grassroots initiatives

As funding for conservation increases from both private and public sources, there is growing interest in getting funds to the local level and to IPLC initiatives. Funders, as well as emerging markets and financing mechanisms, such as carbon finance, biodiversity credits and debt-for-nature swaps, are developing new financing vehicles that can be tailored to suit and be more accessible to grassroots organisations. These have the potential to strengthen community conservation by aligning decision-making with resources at local levels.

Conservation Finance and Income

Increasing the diversity of conservation-compatible livelihoods

The stark economic downfall since 2020 has highlighted the urgency of diversifying income and livelihoods for community conservation initiatives. Options are expanding given growing online connectivity, increased environmental and social responsibility in businesses, investors keen on sustainable enterprises, and conservation finance mechanisms (e.g., environmental impact bonds) or basic income schemes. Adaptation to local contexts and careful evaluation via developing interdisciplinary metrics are key for proof-of-concept to encourage wider adoption.

Adoption of local, climate-smart, and biodiversity-friendly agriculture and fisheries

Climate-smart agriculture, aquaculture, and fisheries (CSA), aimed at enhancing the sustainability and climate-resiliency of food production systems, draws upon ancestral knowledge, but increasingly also on remote sensing, robotics, and artificial intelligence. An overreliance on technological innovation can make CSA inaccessible or socially inappropriate. Moreover, it may undermine possible co-benefits to community conservation, such as revived application of traditional knowledge, reduced biodiversity impacts, and improved livelihood resilience. Continued rollout of CSA therefore requires forward-thinking and inclusive policy, legislation, and capacity-building tailored to diverse contexts and stakeholders.

Support for 'basic income' leveraged for wealth creation in conservation

The COVID-19 pandemic has accelerated implementation of cash transfers comparable to temporary basic income. Prior pilot schemes indicate that basic income improves health, education, and income-generating capacity. A ‘conservation basic income’ or ‘payment to encourage coexistence’ for communities connected to areas of conservation interest could support community conservation’s environmental and socio-economic goals by reducing reliance on resource extraction, balancing opportunity costs, and empowering social innovation. Conditions (even implicit ones), safeguards, financing, and complementary conservation measures require careful consideration.

Changes in tourism and travel given pandemic and greenhouse gas concerns

Dramatically reduced tourism in 2020-2021, in light of COVID-19, highlighted the sectors’ positive and negative social and environmental impacts, inspiring momentum for reform towards more purposeful, sustainable, and regenerative tourism. Community conservation initiatives lacking in typical tourist attractions might in future benefit from agri-tourism, cultural immersion, wellness stays, digital nomadism, and virtual tours. Nonetheless, avoiding heavy dependence on tourism-derived income is key to resilient jobs and operational budgets, especially because rising concern over greenhouse gas emissions may reshape travel in the foreseeable future.

Mobile finance for facilitating business transactions, micro-lending, and micro-insurance

Continued growth in mobile financial services has overcome cost, geographic and identity-verification barriers to provide previously ‘unbanked’ populations with basic transaction accounts, savings, credit, and insurance which they previously lacked access to. Benefits for community conservation include increased financial and market literacy, pay-as-you-go access to critical services (e.g., health, education, utilities), expanded business opportunities, and improved financial resilience. Unequal, gender-biased access, however, could deepen the digital divide. Moreover, digital transaction records raise concerns over privacy and misuse.

Economic Reform

Moving away from conventional economics towards sustainability-driven economic systems

COVID-19-induced social and economic upheaval amplified calls for economic reform, at least initially. Resulting emphasis on green growth may, however, insufficiently mitigate the climate and biodiversity crises unless social, ecological, and inter-generational outcomes are given prominent consideration in evaluating wealth. There are growing efforts to identify more comprehensive indicators of well-being. Community conservation, already pursuing holistic wealth, can both guide and benefit from wider adoption of transformative, sufficiency-focused frameworks such as doughnut economics, convivial conservation and Buen Vivir.

Strengthened corporate Environmental, Social, and Governance (ESG) norms and standards

Private sector partnerships for community conservation initiatives may grow as regulators, investors and consumers pressure corporations to improve their environmental, social, and governance (ESG) outcomes. Environmental reporting increasingly includes biodiversity impacts, and efforts to standardize metrics will help minimize greenwashing but must allow for contextually tailored safeguards reflective of local sociocultural conditions. Communities could benefit through fair pricing, provision of amenities, and conservation support if corporate ESG efforts avoid large-scale, flawed offset projects that ignore local people and biodiversity.

Conclusion

Horizon scanning supports foresight beyond existing problems, to identify tangible future opportunities and detect issues before they become urgent or prevalent and whilst they are still manageable. Stakeholders stand to benefit by recognizing emerging and developing opportunities and threats. Early recognition helps pre-emptively inform effective funding priorities focused on strategic preparation for what is to come rather than perpetuating a crisis response.

The Collaboration

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[10] https://cchorizonscan.org/acknowledgements/