The contributions of indigenous peoples and local communities to the implementation of the Strategic Plan for Biodiversity 2011–2020 and to renewing nature and cultures.

A complement to the fifth edition of the Global Biodiversity Outlook.

Kichwa villagers on a timber raft on the Arajuno River, Ecuador. Credit: Tomas Munita.
A woman sets fire to dry grass at Manikapitji at the beginning of the dry season in Australia. As fires swept through many parts of the country at the end of 2019 and beginning of 2020, various scientists and policymakers called for a revitalisation of Aboriginal fire management systems to rebuild ecosystem resilience and avoid similar carbon-releasing disasters in the future. Credit: Penny Tweedie.
Key messages

1

Aichi Biodiversity Target 18 of the Strategic Plan for Biodiversity 2011–2020, which relates to traditional knowledge and customary sustainable use, has not been met.

Ongoing disregard of the vital contributions of indigenous peoples and local communities (IPLCs) to biodiversity conservation and sustainable use—including in national biodiversity strategies and action plans—constitutes a major missed opportunity for the United Nations Decade on Biodiversity 2011–2020. This neglect has affected the under-achievement of all 20 Aichi Biodiversity Targets, with fundamental lessons remaining to be learnt about securing the future of nature and cultures.

Putting the cultures and rights of IPLCs at the heart of the 2050 biodiversity strategy would deliver sustainable livelihoods and wellbeing, and positive outcomes for biodiversity and climate.

2

Overcoming dualism, separation and imbalances in relationships between humans and nature is central to addressing the biodiversity and health crises, including the rise of zoonotic diseases and pandemics. Sustained interactions and partnerships between sciences and indigenous and local knowledge systems—inclusive of women, men, elders and youth—are enriching contemporary problem-solving with holism and reciprocity.

Indigenous ways of knowing and being evoke and inspire new narratives and visions of culture and nature working together within a living and sacred Earth.
IPLC values, ways of life, knowledge, resource governance and management systems, economies and technologies have much to offer in reimagining diverse global systems that can deliver shared visions of solidarity, leaving no one behind.

IPLCs propose changes towards more balanced relationships within societies and with nature through six key transitions:

- Cultural transitions towards diverse ways of knowing and being
- Land transitions towards securing customary land tenure of IPLCs
- Governance transitions towards inclusive decision-making and self-determined development
- Incentives and financial transitions towards rewarding effective culture-based solutions
- Economic transitions towards sustainable use and diverse local economies
- Food transitions towards revitalising indigenous and local food systems.

These transitions have now become imperatives for the survival of IPLCs and the health of people and planet. They are intergenerational visions honouring the historical struggles and wisdom of past generations, drawing from the experience and innovations of today’s living generations, and embodying the legacy and hopes for future generations. They contribute to humanity’s joint endeavour to save our common home.
Part I

A woman carrying out the heavy work of harvesting black cardamom (Thao Qua). Once cut, the fruits are collected in wicker baskets carried on the workers' backs and later transported to a campsite for drying. Credit: Ian Teh.
Introduction and overview

Local Biodiversity Outlooks presents the perspectives and experiences of indigenous peoples and local communities (IPLCs) on the current social-ecological crisis and their contributions to the Strategic Plan for Biodiversity of the Convention on Biological Diversity. The first edition (LBO-1) was produced in 2016 as a complement to the fourth edition of the Global Biodiversity Outlook (GBO-4) and has become a key source of evidence about the actions and contributions of IPLCs towards achieving the objectives of the Convention on Biological Diversity (CBD).

In 2016, at the thirteenth meeting of the Conference of the Parties to the Convention on Biological Diversity (COP 13), Parties welcomed the first edition and requested a second edition to be launched in conjunction with the fifth edition of the Global Biodiversity Outlook (GBO-5) in 2020. Local Biodiversity Outlooks 2: The contributions of indigenous peoples and local communities to the implementation of the Strategic Plan for Biodiversity 2011–2020 and to renewing nature and cultures (LBO-2), a complement to GBO-5, has been prepared in response to that request through a collaboration of the International Indigenous Forum on Biodiversity, the Indigenous Women’s Biodiversity Network, the Centres of Distinction on Indigenous and Local Knowledge, Forest Peoples Programme and the Secretariat of the Convention on Biological Diversity. It brings together information and case studies from indigenous peoples, local communities and community-based organisations around the world, with information from published academic and non-academic sources.

Part 1 provides an introduction and overview of the report’s contents, background and structure.

Part 2 follows a similar format to LBO-1: it consists of 20 chapters, each of which presents the perspectives and experiences of IPLCs in relation to one of the 20 Aichi Biodiversity Targets. It comprises the collective input, research and wisdom of a diverse group of indigenous and non-indigenous authors. From their contexts and experiences across all regions of the world, they have brought together assessments of progress towards the Aichi Biodiversity Targets which incorporate and reflect the knowledge and perspectives of indigenous peoples and local communities, both in the narrative text and in an extensive range of case studies. What they have found, and demonstrate here, is that progress towards the targets is patchy, inconsistent and hampered by political and economic factors built in to dominant economic, cultural and production models. With the ongoing negotiations towards a post-2020 global biodiversity framework, it is crucial that the lessons learnt in implementing the Aichi Biodiversity Targets are carefully studied; consequently, for each target, recommendations and opportunities to do just that are presented. Each chapter includes a brief outline of what the target means for IPLCs, their contributions and experiences in relation to the target, key messages, and an outline of opportunities and recommended actions.
Part 3 illustrates the holistic views and approaches of IPLCs in addressing the interrelated crises in biodiversity, climate change and the UN Sustainable Development Goals (SDGs). It elaborates on how a human-rights-based approach and an ecosystem-based approach can converge to provide solutions. It describes some IPLC contributions and concerns that relate to the SDGs.

Part 4 builds on Parts 2 and 3, and sets out a series of six interconnected transitions that emerge from the recommendations and needs of IPLCs, and that are essential to progress towards the 2050 vision of ‘living in harmony with nature’.

Part 5 closes with statements about IPLC contributions to the 2050 vision.

The LBO-2 editorial board was composed of IPLC representatives from the seven indigenous socio-cultural regions recognised by the UN Permanent Forum on Indigenous Issues: Ramiro Batzin, Ruth Spencer, Marie-Josee Artist, Tonio Sadik, Preston Hardison, Polina Shulbaeva, Viacheslav Shadrin, Gladman Chibememe, Lakpa Nuri Sherpa and Tui Shortland.

The lead authors for this publication and the separate summary of conclusions and recommendations were Joji Cariño and Maurizio Farhan Ferrari, together with Andrew Whitmore, Joyce Godio, Jo Ann Guillao, Helen Newing, Claire Bracegirdle and Helen Tugendhat, and vital contributions from over 50 authors and communities who provided case studies and examples. The publication was copyedited by Mary O’Callaghan. Sarah Roberts was the finance manager for this project.

While Forest Peoples Programme has taken great care to ensure that all information in this report is evidence-based and arising from the case-study contributions, it assumes full responsibility for any errors or omissions in this work.

We dedicate this publication to the individuals, communities and peoples who are protecting the world’s soils, forests, and rivers, and the biodiversity that they nurture. We stand with these brave environmental human-rights defenders who are routinely harassed and criminalised—some even killed—for standing up for their rights and for nature. In particular, we dedicate this publication to the indigenous peoples who face disproportionately grave risks when defending their lands, territories, waters and resources from destruction.

A cautionary note

Among indigenous peoples, it is a common protocol of respect that people be allowed to tell their own stories in their own ways. In a global assessment, this is not possible. Within the seven indigenous socio-cultural regions recognised by the United Nations Permanent Forum on Indigenous Issues, there is considerable diversity. It is precisely this diversity that we wish to protect and nurture, but it is difficult to reflect it fairly in a brief review. Therefore, while this report reflects the experiences of its authors and collators, and the views and policy recommendations received from IPLCs across the world, readers should consult directly with the people whose stories are included here to understand their concepts, interpretations and needs, and to ensure that these people directly participate in the design and implementation of policies.
Part II

A woman herds sheep on a hillside pasture in Peru. 
Credit: Tim Dirven.
Progress during the United Nations Decade on Biodiversity 2011–2020: Key messages on the Strategic Plan for Biodiversity and the Aichi Biodiversity Targets from the perspectives of IPLCs

Strategic Goal A

Address the underlying causes of biodiversity loss by mainstreaming biodiversity across government and society.

Key message

Worldviews that separate nature and culture are an underlying cause of biodiversity loss, as cultures condition behaviours and frame people’s relationships with other people and with the natural world. The holistic and diverse value systems and ways of life of IPLCs across the world offer culturally distinctive visions of alternative sustainable futures which need to be understood, respected and protected across the whole of government, economy and society. Yet, the cultures of IPLCs and the associated rich biodiversity on their lands continue to be eroded and displaced by dominant unsustainable production and consumption systems that are destroying the planet’s biodiversity.
Recommendations

In addressing the underlying causes of biodiversity loss, IPLCs, governments, conservation organisations and other actors should:

- Promote holistic approaches linking nature and culture within integrated social-ecological systems.
- Support cultural revitalisation and inter-cultural exchange.
- Engage IPLCs in local, national and global decision-making processes, upholding secure land tenure, local and indigenous knowledge, and full respect for individual and collective rights.
- Develop a new policy framework for sustainable production and consumption which enables the immediate upscaling of sustainable local economies.

Target 1: Awareness of biodiversity increased

Awareness-raising and mainstreaming of biodiversity require a shift away from a sole focus on economic values towards diverse intrinsic, material, social, cultural and spiritual values across society. Many IPLCs have value systems that emphasise connections between people, nature and 'living well', and are working to revitalise and nurture these diverse value systems and to raise awareness of them among the general public. Initiatives include intergenerational learning programmes, community events, educational materials for use in mainstream schools, and public communication campaigns.
Target 2: Biodiversity values integrated

Cultural and biological diversity are interdependent, and improved integration of diverse cultures and viewpoints into national and local development strategies and into planning, accounting and reporting processes results in better biodiversity and cultural outcomes. Mainstreaming holistic values requires stronger action to inclusively empower IPLCs—men and women, elders and youths—as knowledge-holders and as key agents of change, innovation and transformation.

Target 3: Incentives reformed

Perverse subsidies are a major cause of biodiversity loss. IPLCs around the world are working to raise awareness of perverse subsidies, to confront them, and to ensure that environmental incentives such as Reducing Emissions from Deforestation and Forest Degradation (REDD+) and payments for ecosystem services actually benefit local people. Positive incentives that support small-scale producers can—with certain preconditions, such as secure tenure rights—safeguard IPLCs’ livelihoods and cultural identities while also protecting the biodiversity on their lands and waters.
Target 4: Sustainable production and consumption

IPLCs are confronting the negative impacts of large-scale industrial production and resource extraction through pursuing regulation of supply chains and using accountability mechanisms within voluntary certification schemes such as the Roundtable on Sustainable Palm Oil and the Forest Stewardship Council, and ground-truthing outcomes through community-based monitoring and advocacy. Local production systems based on secure land rights provide far greater local social and economic benefits and tend to be far more favourable to biodiversity than large-scale commodity production. A concerted shift towards support for these kinds of traditional diverse and local production systems could transform progress in addressing biodiversity loss.

Celebrating National Indigenous Peoples Day in British Colombia, Canada. Credit: Province of British Colombia.
Strategic Goal B

Reduce the direct pressures on biodiversity and promote sustainable use.

Key message

Natural habitats, plants and animals, and the benefits that people receive from nature are declining at an alarming rate, in large part as a direct result of the expansion of agribusiness and extractive industries fuelled by the current economic growth paradigm. Their decline is slower in the lands, waters and territories of indigenous peoples than elsewhere as a result of their governance, values and practices, but they are still under great pressure. IPLCs in many countries are central actors in sustainable agriculture, fisheries, aquaculture and forestry and as caretakers of habitats. A radical transformation in governance is required, to one that fully recognises the role of IPLCs in conservation and sustainable use of biodiversity, and their contribution to protecting ecosystems, both of which are currently under-reported and under-valued.

IPLCs own and manage at least 50 per cent of the world’s land area, and many are working in policy fora and on the ground to defend their territories, manage their resources sustainably, and combat pollution, invasive alien species and the impacts of climate change. However, their lands and waters and the biodiversity that they contain are under direct threats from industrial-scale development and illegal incursions. IPLCs working to counter these threats and conserve their lands are paying a high price for doing so. They are facing increasing intimidation, criminalisation and violence, including assassinations of community leaders.

Recommendations:

- Governments and other actors should support IPLCs to protect their lands, waters, territories and biodiversity by applying a human-rights-based approach, including:
  - Measures to secure IPLCs’ customary land and water tenure and uphold their rights;
  - Effective safeguards for environmental defenders;
  - Support for greater participation of IPLCs in relevant policy forums;
- Harmonisation of relevant aspects of international and national law and policy;
- Zero tolerance of human rights violations.
- National and global statistics on the contributions of small-scale producers, including IPLCs, should be improved.
- Innovative fiscal measures should be taken to support local sustainable economies.
- Accountability of industries responsible for pollution and environmental damage should be increased.
- Support and resources for IPLCs’ important contributions in addressing direct drivers of biodiversity loss, based on indigenous and local knowledge and practices, should be increased.

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**Target 5: Habitat loss halved or reduced**

Many IPLCs act as environmental guardians, protecting vast areas against uncontrolled logging and mining or ill-planned, destructive development projects. There is substantial evidence that when the social, legal and economic conditions enable them to do so, IPLCs are highly effective at preventing habitat loss. But in many countries, rather than receiving support for these actions, IPLCs face increasing intimidation, criminalisation and violence. IPLCs working in defence of their lands are disproportionately represented in the numbers of assassinations of environmental human rights defenders.
Target 6: Sustainable management of aquatic living resources

Globally, small-scale fisheries contribute nearly 50 per cent of the total global fish catch. Local fishers often actively manage fish stocks through practical measures, including community-based patrolling and monitoring, and the creation of Locally Managed Marine Areas, Responsible Marine Fishing Areas and permanent or time-specific community no-take zones. Many community fisheries institutions have internal norms and rules to ensure sustainability. These may be based on traditional practices and customary systems of rights, or developed in collaboration with scientists, including calculation of sustainable yields, or on a combination of these. These local measures need to be complemented by larger-scale measures at the ecosystem level.

Target 7: Sustainable agriculture, aquaculture and forestry

Similarly, local sustainable production systems constitute a large part of rural economies and are important both for subsistence and for markets. To adapt and meet their changing needs, IPLCs are inventing new forms of local production, including through social enterprises, and revitalising traditional practices, such as traditional systems of aquaculture. They are also forming new networks of small-scale producers embodying the message of eat locally and eat what’s in season—an important lesson for the wider society as it embarks on transitions in food and in production and consumption systems. Securing legal recognition of customary tenure is critical for progress in sustainable local agriculture, aquaculture and forestry.
Target 8: Pollution reduced

IPLCs are working to counter the contamination of their traditional lands and territories with pollution and waste, which can have major impacts on their social, economic, political and cultural wellbeing. Some IPLCs have linked up with international campaigns and submitted claims to international complaints mechanisms or raised pollution-related legal challenges. Several court cases raised by IPLCs have been moved to the home jurisdiction of the companies responsible for the pollution. IPLCs have also set up monitoring systems on their lands to prevent, reduce and mitigate pollution and waste by external actors, and to reduce their own impacts.
Indigenous Moken children swimming off the coast of Mu Ko Surin island, Thailand. Credit: Andrew Testa.
Target 9: Invasive alien species prevented and controlled

Many species classified by scientists as invasive and alien are also of urgent concern to IPLCs because they disrupt ecosystems and damage local resources that are critical for IPLCs’ livelihoods and cultures. As well as participating in relevant global policy processes, IPLCs have worked on the ground to set up early-warning systems, and monitoring and eradication systems, independently or in collaboration with scientists. In some cases, they have also found new uses for invasive alien species and incorporated them into their livelihoods.

Target 10: Ecosystems vulnerable to climate change living resources

Many IPLCs live in ecosystems that are vulnerable to climate change and, therefore, are disproportionately impacted by the effects of climate change. Based on traditional knowledge and careful observation of their environment, some IPLCs have early-warning systems to predict extreme weather events, and they adjust their activities accordingly. Others have established territories and areas conserved by indigenous peoples and local communities (ICCAs), territories of life, or formed collaborative partnerships to monitor trends in ecosystem health, so that they are better able to address threats and pressures.
Strategic Goal C

Improve the status of biodiversity by safeguarding ecosystems, species and genetic diversity.

Key message

IPLCs are on the frontlines safeguarding genetic diversity, species diversity and ecosystem diversity. A high proportion of ecosystems rich in biodiversity, including many threatened species, is governed under customary or community-based regimes. Moreover, IPLCs also manage and enhance genetic diversity, especially in their highly diverse agroecological production systems.

A conceptual change is called for from ‘conservation as the objective’ of external interventions in seemingly ‘natural’ areas without human influence, towards understanding that high conservation outcomes arise from ongoing culturally rooted relationships between humans and nature, as manifested by IPLCs with their lands, territories and resources. A radical transformation is needed from current conservation approaches that exclude and alienate IPLCs, to rights-based collaborative approaches that support and promote community-led conservation and customary sustainable use and that celebrate the mutual relations between nature and culture.

Recommendations:

- Governments, conservation agencies and relevant actors should promote and support the transformation of conservation towards:
  - Recognising and prioritising the complex and enriched ecological mosaic that IPLCs’ lands and territories deliver, with high conservation outcomes blossoming from culturally rooted approaches;
  - Rights-based collaborative approaches that support and promote community ways of life that enrich relationships between humans and nature;
  - A qualitative focus on fair and good governance, justice and equity rather than a focus on quantitative expansion of protected and conserved areas.
All actors should recognise and respect IPLCs as rights-holders, and respect and support their distinct and special relationship to land, waters, territories and resources.

Appropriate legal measures should be enacted for recognition of IPLC territories and self-governance.

Support should be increased for community-led conservation.

Human rights and equity should be upheld in all forms of conservation.

All actors should mainstream species protection, including in production landscapes and biocultural habitats, and work with IPLCs to protect and enhance genetic diversity, including in local food systems.

All actors should commit to much greater coordination and cooperation across scales and jurisdictions for safeguarding genetic diversity, species diversity and ecosystem diversity.

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**Target 11: Protected and conserved areas increased and improved**

IPLCs are contributing significantly to the increase in equitable and effective protected and conserved areas, through community-led conservation (including in the form of ICCAs/territories of life and indigenous protected areas) and innovative collaborative management arrangements, and also by challenging human rights violations in broader conservation practice and promoting equity and justice. However, a major opportunity to upscale these approaches is being missed. A transformation is required towards conservation approaches that are positively rights-affirming, going beyond outreach and collaboration towards full recognition of IPLCs’ rights and increased support for the huge contribution of sustainably managed lands and territories that protect nature, often more effectively than state-run protected areas.
Target 12: Reducing risk of extinction

Many threatened species are integral to the identities and livelihoods of IPLCs, who view species as having kinship and moral standing, and as being imbued with spirit requiring duty of care obligations. IPLCs contribute to the conservation of threatened species in many ways, including through habitat protection, customary governance and management, community-based monitoring systems, and the provision of ecological information based on traditional knowledge. Partnerships involving two-way healing, two-way knowing and mutual learning have great potential to contribute to the safeguarding of species as long they are based on mutual respect, reciprocity, benefit-sharing and accountability.

Target 13: Safeguarding genetic diversity

IPLCs maintain and nurture genetic diversity in their crops, domestic livestock, and wild relatives, and this represents a significant part of global biodiversity as well as underpinning local food security, health and wellbeing. Yet, globalised agro-industrial food systems continue to displace local food production systems, with devastating immediate consequences for IPLCs and wider implications for the resilience of global food systems.
Women work in rice terraces that climb the hills of Luzon Island, Philippines. Credit: National Geographic Image Collection, Alamy Stock Photo.
Strategic Goal D

Enhance benefits to all from biodiversity and ecosystem services.

Key message

For IPLCs, the ecosystems and habitats that provide ‘essential services’ are their customary lands, territories, waters and resources, which support livelihoods and meet spiritual and cultural needs. Guided by IPLCs’ cultural ethics of maintaining harmonious relationships between humans and nature, collective lands and territories also play vital roles for the greater good by storing carbon, building ecosystem resilience, and in mitigating and adapting to climate change. Yet, under current economic and value systems these lands continue to be usurped and degraded by interventions to privatise and commodify these resources. Indigenous and local knowledge is particularly valuable in ecological restoration and resilience building, but this knowledge continues to be undervalued and is still often neglected in ecological restoration programmes. National implementation of the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization should foster broader benefit-sharing streams for IPLCs, based on their customary relationships with and management of their lands, territories and resources, including from seeds, genetic and biological resources, and bio-trade.

Recommendations:

- Governments should fulfil their obligations to: respect and protect the rights of IPLCs to their lands, waters and resources; respect and prioritise their cultural values, including in relation to sacred sites and culturally important species; and promote health, livelihoods and wellbeing, especially for women, the poor and the vulnerable.
- Governments should upscale recognition and accessible, equitable funding for IPLC actions towards ecosystem protection, carbon sequestration, restoration and resilience-building, with full recognition of the role of indigenous and local knowledge.
- Equitable benefit-sharing frameworks should be developed to reward IPLCs for their conservation and their customary management and sustainable use of biodiversity through partnerships and collaborations.
IPLCs’ contributions to the conservation of ecosystem services include actions to safeguard their lands and territories against external drivers of environmental destruction, and internal measures for conservation, sustainable use, and restoration, in which women play a particularly important role. IPLCs have successfully mounted court cases in defence of their lands and ecosystems against damage from oil exploration, mining, road construction, uncontrolled logging, commodity plantations and intensive aquaculture. They are protecting watersheds, restoring species, reforesting, patrolling and monitoring. Women in many societies are taking actions to safeguard ecosystem services, including through replanting programmes.
Target 15: Ecosystem restoration and resilience

Community lands commonly have lower rates of deforestation and forest carbon emissions than other areas and maintain higher levels of biodiversity, resulting in more resilient landscapes. This is due in part to the greater sustainability of customary natural resource management systems based on traditional knowledge, such as those for soil enrichment and fire management, in comparison to more intensive forms of use. IPLCs in different regions of the world are contributing to ecosystem restoration and resilience by planting trees, cleaning up water sources, improving waste management, and restoring neglected water systems and degraded environments.

Target 16: Nagoya Protocol in force and operational

In relation to sharing the wider benefits of biodiversity and ecosystem services, IPLCs are using community protocols to reconcile modern legal and institutional systems with customary law, systems and procedures. Community protocols are usually holistic and focus on the priorities and needs of IPLCs in specific localities and contexts. Applying innovative, rights-based approaches to benefit-sharing, with legal recognition of diverse community protocols and of customary law, opens potential for increased partnerships between governments, the private sector and IPLCs.
Flamingoes on Lake Bogoria, part of the territory of the Endorois people, Kenya.
Credit: Gudkov Andrey.
Strategic Goal E

Enhance implementation through participatory planning, knowledge management and capacity-building.

Key message

IPLCs make substantial contributions towards all three objectives of the Convention, through their traditional knowledge, customary sustainable use and collective actions. While their role has started to be recognised in global processes, it is still poorly recognised in National Biodiversity Strategies and Actions Plans (NBSAPs) and in most countries mechanisms for IPLCs’ full and effective participation at the national and local levels are yet to be developed. Community-based monitoring and information systems (CBMIS) are effective tools for highlighting local needs and priorities, making IPLCs’ contributions visible, and providing concrete data and information about the implementation of global and national policy commitments on the ground.

Recommendations:

- Governments should establish national and sub-national mechanisms to enable full and effective participation of IPLCs in national strategies and action plans, and to mainstream traditional knowledge, customary sustainable use and equitable benefit-sharing.

- Institutional support and direct, long-term funding should be increased, in line with needs identified by IPLCs.

- Links between diverse knowledge systems should be strengthened throughout global, national and local monitoring and reporting platforms, incorporating relevant indicators on trends in traditional knowledge and the wellbeing of IPLCs.

- National and global data and reporting systems should generate disaggregated data on the status of indigenous peoples, local communities, women, youth and marginalised groups, including through support and funding for complementary CBMIS by IPLCs.

- Robust environmental, social and cultural safeguards and measures should be integrated into all resource mobilisation processes.
Target 17: Biodiversity strategies and action plans

IPLCs are engaging actively in NBSAP processes where possible, and many of them are producing and implementing their own local biodiversity plans in the form of life plans (planes de vida), territorial management plans, and community-based natural resource management plans. However, while there has been some improvement in coverage of IPLCs in national reports over the past four years, there is no evidence of an increase in IPLCs’ participation in NBSAP processes. Moreover, only about half of the NBSAPs refer to gender or to women, despite women’s central role in local environmental management. There is still much to do to make NBSAPs truly participatory and inclusive.

Target 18: Traditional knowledge and customary sustainable use

In relation to traditional knowledge and customary sustainable use, IPLCs are working to revitalise their cultures and languages; to monitor land-use change and gain secure land tenure; and to document customary resource use and protect traditional occupations. Some national governments have recognised the role of traditional knowledge and customary sustainable use but the vast majority of the sixth national reports to the CBD fail to report on the globally agreed traditional knowledge indicators. Given the significant lack of data on overall progress, it is clear that this target has not been met.
Target 19: Sharing information and knowledge

More positively, community-based monitoring and information systems using indicators relevant for indigenous peoples have become more widespread in recent years. They generate data that are useful both for monitoring on the ground and for feeding into national and global assessments. IPLCs have established several global platforms to share their knowledge, of which *Local Biodiversity Outlooks* is one. Despite these advances, indigenous and local knowledge is still not adequately recognised in many countries, and this curtails IPLCs’ agency and voice.

Target 20: Resource mobilization

Overall, IPLCs contribute substantial resources to all 20 of the Aichi Biodiversity Targets through their collective actions. Global recognition of the value of collective actions has increased significantly in recent years, but, while there are some valuable funding schemes, there is insufficient evidence to assess whether there has been an overall increase in funding and support. However, it is clear from the evidence that financial support available to IPLCs is not commensurate with their contributions and increasing this type of support is essential. Meanwhile, there is an urgent need to strengthen safeguarding measures to address the continued negative impacts of biodiversity financing on IPLCs and to proactively secure their rights.
A Waorani woman digs the earth with a machete in order to plant plantain saplings in a patch of ground cleared in the Ecuadorian rainforest. Credit: Karla Gachet.
Part III

A Baka woman weaves baskets in Cameroon. Credit: Adrienne Surprenant.
Biodiversity, climate and sustainable development

Transforming our World: The 2030 Agenda for Sustainable Development brings together biodiversity conservation, climate change and sustainable development under a common universal agenda, but in many countries they are still implemented and considered in silos. IPLCs will continue to be disproportionately impacted if the Aichi Biodiversity Targets and the Sustainable Development Goals (SDGs) are not met. Nonetheless, these goals can empower IPLCs to overcome vulnerability and exclusion through the power of their collective actions and self-determined development, and government support. IPLCs make distinctive contributions to meeting global goals in an integrated and holistic way. Placing them at the centre of implementation delivers a triple win, bringing together the fulfilment of human rights and wellbeing, the conservation and sustainable use of biodiversity, and the maintenance of natural ecosystems to manage climate change. Indicators on the rights and wellbeing of IPLCs constitute important measures of progress in the implementation of the global agenda for change.

Cultural diversity is a creative source and enabler for sustainable development. Culture provides peoples and communities with a strong sense of identity and social cohesion. Policies responsive to cultural contexts can yield better, sustainable, inclusive and equitable development outcomes. Progress in meeting the pledge to leave no one behind requires robust monitoring frameworks engaging those most directly experiencing social exclusion and structural discrimination.

The Indigenous Navigator is a participatory monitoring tool which enables indigenous peoples to generate data on trends in recognition of indigenous peoples’ rights in development, to analyse their situation, and to develop strategies to address their concerns. It also allows them to track the implementation of international policy instruments, including the SDGs, and equips them to hold states to account and to engage confidently with key stakeholders and demand policy change. To date, the experiences of indigenous communities from 11 countries have been collated through the Indigenous Navigator. Life on Land (SDG15) stands out as the priority for IPLCs, alongside addressing poverty (SDG1), reducing inequality, including in relation to gender (SDGs 10 and 5), quality education (SDG4), and good health and wellbeing (SDG3). Absence of citizenship, legal recognition and social protection measures for indigenous peoples were highlighted as barriers limiting meaningful participation of indigenous peoples in the SDGs.
Recommendations

- Governments and relevant actors should collaborate to jointly develop NBSAPs and climate-related nationally determined contributions and integrate them into national development plans to secure synergies across biodiversity, climate and sustainable development.

- Governments and other actors should recognise rights and apply democratic principles at all levels to secure benefits across the whole of society as they work to address challenges related to development, biodiversity and climate change.

- IPLCs should continue to upscale community-based monitoring and information systems, building an evidence base and striving for increased transparency and accountability at all levels.

- IPLCs should also scale up individual and collective actions, building on intergenerational knowledge in creative, innovative problem-solving. They should also promote understanding of the linkages between nature and culture and between the local and the global.

- All actors should develop partnerships for generating knowledge and for sustainable and equitable outcomes, including through:
  - Greater recognition of the value of indigenous and local knowledge alongside scientific knowledge;
  - Participatory research;
  - Education for sustainable development;
  - The use of appropriate and innovative technologies;
  - The creation of multi-actor knowledge platforms.
An Ifugao woman crosses a suspension bridge on her way to collect young rice plants for transplanting into one of her family’s two paddy fields in the Philippines. Credit: Chris Stowers.
Transitions towards living in harmony with nature

Nature needs urgent measures. We need to act now to protect our biodiversity. There is no more time to waste. The recognition of our rights to govern our own territories and practice our knowledge contributes to community and ecosystem resilience. As the guardians and defenders of Mother Earth, we urge all governments to act on behalf of biodiversity. See us as the most valuable part of the solution and work together with us towards a new relationship with nature—one that heals and sustains for all of our future generations.

— International Indigenous Forum on Biodiversity statement, February 2020, Rome

IPLCs and biodiversity under threat

IPLCs are acutely experiencing the loss of biological and cultural diversity. These losses stem from unsustainable global systems of values, knowledge, governance, production, consumption, technology, economics, incentives and trade, all underlain by unequal decision-making power regarding the future of nature and peoples. The roots of these problems lie in the prevailing view of humans as separate from nature and in value systems that favour individual interests and profit-making. Nature is seen as an economic resource to be exploited and its degradation is treated as an externality of mainstream economics.

Reforms in governance are a critical part of the solution. Decision-making dominated by elites and powerful vested interests is often linked to systemic corruption and distortions of democratic rule, with large parts of society left behind. Incentives and subsidies are primarily directed towards the growth of unsustainable production and consumption patterns, including through agro-industrial food systems which too often result in unhealthy foods and diets. The crisis in biodiversity, climate change and development are in part a direct consequence of these factors.

Encroachment into and disruption of natural ecosystems and current industrial agricultural practices have also given rise to unprecedented opportunities for increased prevalence of multiple zoonotic diseases, including coronaviruses, the latest causing COVID-19. The worldwide COVID-19 pandemic has exposed the vulnerabilities and lack of resilience of human health systems, simultaneously impacting economic and trade systems, financial systems, food systems, and social and political systems. These systemic and interrelated problems call for joined-up solutions that will not lock in “business as usual” approaches, challenging humanity to urgently re-envision and renew our social and cultural relationships with each other and with nature.
Nature and culture transitions towards the 2050 vision

The values, ways of life, knowledge, resource governance and management systems, economies and technologies of IPLCs have much to offer towards addressing these crises and towards reimagining the diverse global systems that can deliver shared visions of solidarity and of no one left behind. IPLCs propose changes towards more balanced relationships within societies and with nature through six key transitions:

- Cultural transitions towards diverse ways of knowing and doing
- Land transitions towards securing customary land tenure of IPLCs
- Governance transitions towards inclusive decision-making and self-determined development
- Incentives and financial transitions towards rewarding effective culture-based solutions
- Economic transitions towards sustainable use and diverse local economies
- Food transitions towards revitalising indigenous and local food systems.

Each of these transitions addresses specific urgent issues and contains their own dynamics but are systemically linked to each other; indeed, no single transition can succeed alone, and they need to take place simultaneously, and be deployed in mutually reinforcing ways to maximise the potential for transformation. These transitions have now become imperatives for IPLCs' survival and the continued health of the biosphere, the limits of which have been breached.
Cultural transitions towards diverse ways of knowing and being

Humanity’s diverse ways of living, knowing and being in nature are celebrated, promoting plural values and worldviews across our economic, political and social systems, thereby securing the mutual resilience of nature and society. The diverse cultures of IPLCs inform and inspire the blossoming of new cultural narratives that locate humanity within a living, intelligent and sacred world. Education for sustainable development is universal and the importance of biodiversity and cultural values are widely understood. People everywhere have relevant information, awareness and the capacity for sustainable development and lifestyles that are in harmony with nature.

Life on Earth has been a process of co-evolution—biological diversity alongside human diversity, creating genetic, species and ecosystem diversity. Today, Earth’s life-support systems are in rapid decline and all of humanity’s creative intelligences are needed to address the planetary crisis. Contemporary IPLCs, whose cultures and values embody historical knowledge and relationships with ancestral lands and waters, have special importance in conserving and restoring vital ecosystems under threat. Modern societies can learn from IPLCs about being a part of living ecosystems and about humans participating in an intelligent and sacred world. New narratives and visions of culture and nature working together can transform the current imbalance in relationships between humans and nature. Among the ground-breaking advances in recent years has been the inclusion of indigenous and local knowledges alongside the sciences, as complementary systems of knowledge for achieving fuller and richer understandings of biodiversity—its values, functioning, status and trends, and the consequences of its loss at different scales.

Key components of the transition:

- Promoting biological and cultural diversity, sustainability, languages, human rights and heritage in school curricula and informal education.

- Transmitting indigenous and local knowledge in schools, youth programmes, information and education campaigns, cultural festivals and celebrations, social media and public communication.

- Having sustained interactions between scientific knowledge systems and indigenous and local knowledge systems.

- Renewing and exchanging cultures through the arts and the media.
Land transitions towards securing customary land tenure of IPLCs

The territories of life of IPLCs, including their distinct cultural, spiritual and customary relationships with their lands and waters and their intrinsic and vital contributions to human wellbeing, biodiversity conservation and climate change mitigation and adaptation, are secured. The collective lands, territories and resources of IPLCs are legally recognised and protected in keeping with international law; land-use classifications and land registration to uphold customary tenure are reformed; and the global coverage of areas conserved, sustainably used and restored are progressively and significantly increased.

Collective land and territories are of existential importance for the continued survival of IPLCs and biodiversity, and for securing wider global benefits. In many parts of the world, the lands of indigenous peoples are becoming islands of biological and cultural diversity surrounded by areas in which nature has further deteriorated; in many instances, biodiversity is increased and enhanced through indigenous values and practices. Failing to recognise this and to secure IPLC lands, territories, waters and resources, together with the high conservation values they contain, is one of the biggest missed opportunities for biodiversity conservation and sustainable use of the past decade. A transition towards securing customary land tenure systems could have huge benefits for biodiversity.

Key components of the transition:

- Upholding the human rights of IPLCs, women and youth, consistent with the UN Declaration on the Rights of Indigenous Peoples and the UN Declaration on the Rights of Peasants and Other People Working in Rural Areas.

- Adopting and scaling up effective constitutional, legal, policy and institutional frameworks, mechanisms and concrete measures to appropriately and legally recognise and adjudicate IPLCs’ rights to territories, lands and resources and to respect their customary tenure systems.

- Reforming land governance and strengthening measures to ensure businesses comply with human rights and environmental standards.

- Strengthening IPLC governance institutions over lands, territories and resources, including community participatory mapping, demarcation and monitoring.
- Transforming conservation policy and practice towards rights-based and collaborative approaches that support and promote community-led conservation and customary sustainable use, and that celebrate the mutual relations between nature and culture.

- Investing in and supporting partnerships to secure collective land rights, including access to justice and improved accountability, remediation and restitution measures to address violations of IPLCs’ land rights and the protection of environmental human rights defenders.

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**Governance transitions towards inclusive decision-making and self-determined development**

Nested governance institutions, including IPLC authorities, are exercising decision-making at appropriate scales, ensuring whole-of-government and whole-of-society approaches that guarantee respect for human rights and diverse biodiversity and cultural values.

These governance institutions are upgrading policy, legal and institutional transparency and accountability towards greater equity, wellbeing, sustainability and resilience for all.

Power inequalities in governance systems go hand in hand with imbalances in economic, social and ecological outcomes, and the fragmentation of governmental decision-making into specialised sectors has privileged economic growth over environmental health and social wellbeing. Integrative, holistic, transparent and accountable governance institutions, upholding respect for human rights, and equitable sharing of benefits from nature, will be critical elements in a transition towards just and sustainable outcomes for people and planet. The 2030 Agenda for Sustainable Development has set out a universal agenda for governments, businesses, all peoples, civil society and all citizens which embeds the universal values of human rights and a pledge to leave no one behind. This principled foundation permeates the whole transformative agenda, encompassing global inequalities, biodiversity, climate change and associated challenges.
Key components of the transition:

- Integrating national implementation strategies and action plans on sustainable development, biodiversity and climate change, based on inclusive participatory approaches and devolved decision-making.
- Reforming laws and policies to encompass plural approaches and increase equity, diversity and resilience.
- Enhancing reporting and accountability mechanisms for periodically assessing country contributions and overall progress.
- Empowering IPLCs and other marginalised groups, including with respect to gender equality and intergenerational equity.
- Consolidating stringent safeguards guaranteeing non-violation of human rights in the implementation of sustainable development, and biodiversity and climate change actions.

Incentives and financial transitions towards rewarding effective culture-based solutions

Incentives, including financial support for IPLCs’ collective actions and innovative culture-based solutions, are prioritised; environmental, social and human rights safeguards on biodiversity financing are applied; and perverse incentives and harmful investments are ended or redirected.

Mobilisation and allocation of resources, both monetary and non-monetary, are key elements in effective implementation of the post-2020 Global Biodiversity Framework. Currently, far more resources are available for activities that drive biological and cultural diversity loss than for activities that maintain, strengthen and revitalise them. These activities include focusing on market-based solutions and technological fixes that have a strong likelihood of generating further damage rather than addressing underlying causes and systemic change. Examples of such controversial ‘solutions’ include carbon trading, geo-engineering, synthetic biology and gene drives. A major shift in investments, incentives and funding, including on technology assessments, is needed to support activities, especially through the collective actions of IPLCs, and appropriate technologies that benefit both nature and people.
Key components of the transition:

- Fully recognising and reflecting IPLC contributions as monetary and non-monetary forms of resource mobilisation, through appropriate monitoring, accounting and reporting tools.
- Increasing direct funding for IPLCs and for their culture-based solutions and activities towards conservation and sustainable use, and including IPLCs on national committees related to domestic biodiversity financing.
- Monitoring and reporting on resource mobilisation to include disaggregated data on global, regional and domestic support for IPLC collective actions.
- Applying biodiversity financing safeguards in practical and concrete ways, ensuring social inclusion and adherence to human rights standards in all resource mobilisation processes.
- Making REDD+ more effective through early planning, up-front investment, collection of baseline data, and rigorous and widespread monitoring of impacts.
- Embedding technology assessments at all levels of biodiversity policy, planning and implementation.
- Eliminating perverse incentives and applying positive incentives, including directing COVID-19 responses into opportunities to reshape the economy towards sustainability for people and planet.
- Reforming the financial sector to align financial flows with sustainable practices.

Economic transitions towards sustainable use and diverse local economies

Diverse and human-scale economic systems are thriving, within which IPLCs’ customary sustainable use and other small-scale producers are contributing to sustainable and resilient economies, and scaled-down consumption patterns are guaranteeing a sustainable and just society.

Biodiversity loss, climate breakdown and intensifying social inequalities are the consequences of an economic system that seeks infinite growth, yet depends on finite resources. Also, recent research highlights that current large-scale agricultural and food production systems and the continued loss of habitats increase the risk of virus pandemics such as COVID-19. A radical transformation is needed in the current carbon-intensive economic systems and in global systems of production and consumption, a transformation towards a plurality of systems embodying local sustainable use, practices and technologies.
There is no single blueprint for transforming current unsustainable practices, but many diverse solutions, innovations, technologies and alternatives are emerging. Among these, with appropriate recognition and support, IPLCs’ systems of customary sustainable use and small-scale production offer multiple benefits at all levels for biodiversity, climate change mitigation and adaptation, and sustainable development.

**Key components of the transition:**

- Decentralising, diversifying and innovating economies.
- Shifting from fossil-fuel-based economies to clean energy.
- Recognising and supporting, nationally and sub-nationally, the roles, practices and technologies of IPLCs.
- Partnering to implement the CBD Plan of Action on Customary Sustainable Use of Biological Diversity.
- Increasing accountability of businesses and their transformation towards sustainable practices, including in supply chains.
- Recognising and supporting women and youth, who are key actors in revitalising and innovating rural and local sustainable economies.
- Reducing over-consumption and waste, and promoting and implementing the principles of circular economies, which decouple economic activity from the use of finite resources and promote recycling and environmental regeneration.

**Food transitions towards revitalising indigenous and local food systems**

Vibrant ecosystems and cultures ensure genetic diversity and diverse diets, improving health, resilience and livelihoods. Revitalised indigenous and local food systems contribute to local food security, food sovereignty and agroecology, and underpin a just agricultural transition.

IPLCs have nurtured agricultural biodiversity for millennia, both for food and medicines and for deeper spiritual, cultural and community values, with women paying vital roles. Small-scale producers and family farmers still feed the majority of the world’s people, while using less than 25 per cent of the world’s land, water and fossil fuel energy. Maintaining and expanding diversity in agriculture, landscapes and food systems will be critical in a transformation towards just, healthy and resilient food systems. Transforming unsustainable agro-industrial developments and stopping land-use conversions on IPLCs’ customary lands and
waters requires systemic changes across entire food systems, including through strategic land-use planning; enhancing biodiversity and ecosystem values across landscapes; recovering food traditions and cultural heritage values; and taking measures to reduce the consumption of highly processed foods among indigenous peoples and other rural and urban consumers. With food systems across the globe stretched to breaking point, and threats of impending famines linked to the current and future pandemics, food systems will be a frontier of change towards diverse and resilient food systems and local economies.

Key components of the transition:

- Integrating food policies that holistically address all aspects of food systems
- Securing food sovereignty, local food security and reforming governance.
- Embracing agro-ecology.
- Taking systemic approaches, rather than applying narrow technical fixes.
- Securing access to land and securing land tenure.
- Policy support and funding for grassroots food initiatives such as community seed banks, cooperatives, technological innovations and indigenous management practices.
Problem tree of the current social-ecological crisis. Credit: artwork by Agnès Stienne
A woman and her young cousin paddle a canoe in the Mangrove Conservation Area of Matafa Village, Samoa. Credit: Vlad Sokhin.
IPLCs’ contributions to the 2050 vision

Walking to the future in the footsteps of our ancestors

IPLCs uphold life-affirming cultural relationships with nature as central to nature’s future. Cultural diversity goes hand in hand with biological diversity as humans live our everyday lives in diverse ecosystems. Much of the world’s remaining biodiversity on IPLCs’ lands and waters has been nurtured through IPLCs’ distinct relationships with nature. Securing IPLCs’ continued guardianship of their territories and resources requires states to legally recognise and guarantee the security of collective land tenure of IPLCs and to respect their continued governance institutions and practices.

2020 was planned as a ‘super-year’ for nature and biodiversity, including the adoption of a new, forward-looking global biodiversity strategy to 2050 at the fifteenth meeting of the Conference of the Parties (COP-15) to the CBD in China. A packed schedule of biodiversity processes and events has been overtaken by the COVID-19 pandemic, an event revealing multiple interactions and profound systemic fragility in both human and natural systems. The increasing frequency of pandemics and new forms of zoonotic diseases (those that can be passed from animals to humans) caused by coronaviruses and other vectors highlights imbalances in our relationships with nature, which need addressing beyond the immediate time frame of the current health emergency. A quick ‘return to normal’, with its multiple imbalances and vulnerabilities in human health systems, food systems, economic and trade systems, financial systems and social and political systems, could deepen our human health and planetary crisis.

The systemic and inter-related problems challenge humanity to explore new pathways towards the vision of living in harmony with nature, by 2050 and beyond. The 2050 biodiversity strategy must envisage a future that is a radical departure from the ‘short-termism’ of quick returns towards long-term holistic solutions.

The six transitions identified by IPLCs as critical pathways to transformation—in diverse ways of knowing and being, in secure land tenure, in inclusive governance, in responsible finance and incentives, in sustainable economies and in local food systems—have now become imperatives for the transformation of failing social, cultural, economic, political and technological systems.

These transitions are intergenerational visions honouring the historical struggles and wisdom of past generations, drawing from the experience and innovations of today’s living generations, and embodying the legacy and hopes for future generations.
IPLC governance & self-determination

IPLC’s special relationships to lands, territories, & resources

Nature & culture: co-evolution & creation

Support for IPLC’s collective actions

Festivals, ceremonies, arts

Forests regenerated

Lands & waters restored

Healthy people

Genetic diversity

Customary sustainable use

Species protected

IPLC food systems

Nutritious food

Species protected

Genetic diversity

IPLC governance & self-determination

IPLC solution tree for the renewal of nature and cultures. Credit: artwork by Agnès Stienne
The stories and experiences shared in this publication are only a sampling of the myriad actions being taken by IPLCs across the planet. Support by governments and other actors for collective actions by IPLCs could stimulate strategic partnerships for change and enable IPLCs to multiply their contributions to biodiversity conservation and sustainable use, climate change mitigation and adaptation and to sustainable development.

We are all future ancestors, challenged to renew the Earth for coming generations. This is humanity’s joint endeavour to save our common home.
Live with the water, care for the river, live with trees, care for the forest. Live with the fish, care for the spawning grounds, live with the frog, care for the cliff.
Local Biodiversity Outlooks 2: Summary conclusions and recommendations

The contributions of indigenous peoples and local communities to the implementation of the Strategic Plan for Biodiversity 2011–2020 and to renewing nature and cultures.
Local Biodiversity Outlooks presents the perspectives and experiences of indigenous peoples and local communities on the current social-ecological crisis, and their contributions to the Strategic Plan for Biodiversity of the Convention on Biological Diversity.