

Policy pointers

Global biodiversity loss is driven by the loss of Indigenous cultures and encroachment on Indigenous territories. The Convention on Biological Diversity post-2020 biodiversity targets must explicitly recognise the connection between these dual crises.

The protection of Indigenous peoples' territories, rights, traditional knowledge, customary sustainable use and self-determination should be integrated across the post-2020 targets.

Target 2 should explicitly protect the self-governed territories of Indigenous peoples and local communities, such as biocultural heritage territories, as effective area-based conservation measures that also address several Sustainable Development Goals.

Target 13 on mainstreaming biodiversity should also mainstream cultural values and traditional knowledge into development policies, processes and education systems, and end Indigenous marginalisation, racial discrimination and violence against environmental defenders.

Biocultural heritage territories: key to halting biodiversity loss

Biodiversity, on which humanity depends, is being lost at an unprecedented rate. And the diversity of human cultures which has sustained biodiversity for millennia is fast disappearing. In 2021, governments will agree a new set of post-2020 targets for addressing biodiversity loss.¹ To be effective and equitable, these targets must recognise the central role of Indigenous peoples and local communities (IPLCs) as the custodians of around 80% of the world's biodiversity.² This policy briefing discusses how community-led approaches such as Indigenous biocultural heritage territories (BCHTs) are vital to achieving both Convention on Biological Diversity (CBD) post-2020 targets and Sustainable Development Goals (SDGs), and can help avoid negative social impacts often associated with state-run protected areas.

Biodiversity underpins the ecosystem services on which human life depends: freshwater, healthy soils, food, climate resilience and human health (for example habitat destruction can increase the risk of disease outbreaks such as COVID-19). Globally, state-run protected areas are the principal tool for conserving biodiversity. This model reflects a Western worldview that separates humans and nature, often excluding local people to 'protect' biodiversity. But a recent scientific assessment found that biodiversity is best conserved on the lands and territories of IPLCs.³

Traditional farmers, pastoralists, fishers, hunters and gatherers typically conserve biodiversity through adaptive management.⁴ They have strong protocols and prohibitions against overharvesting and towards sustainable use,⁵ and have created a wealth of agricultural biodiversity through domestication and breeding, providing evolving gene banks for climate adaptation.⁶ In contrast, many protected areas are losing biodiversity and are not effectively or equitably managed.³ Traditional harvesting practices are

often restricted — despite evidence that they are sustainable and critical for food security.⁵ Protected areas have had negative social impacts, especially on poor and vulnerable groups, including the loss of precious land and resources for IPLCs.⁸

Instead, community-led approaches such as Indigenous BCHTs like the Potato Park in Peru (discussed later) and territories and areas conserved by Indigenous peoples and local communities (ICCAs) can provide fairer, effective and lower-cost alternatives to protected areas (see Boxes 1 and 2).⁸ The CBD Programme of Work on Protected Areas mandated Parties to identify, recognise and support 'other effective area-based conservation measures'⁹ such as BCHTs and ICCAs.

Understanding biocultural heritage territories

Biocultural heritage territories, like ICCAs, are characterised by a deep connection between

people and their territory, self-determined governance institutions that contribute to conservation and community wellbeing, and a focus on strengthening the rights of Indigenous peoples.

Community-led approaches such as Indigenous biocultural heritage territories can provide fairer, effective and low-cost alternatives to protected areas

the wellbeing of both people and nature, and results in conservation as the outcome of an

BCHTs are a vernacular territorial approach which emerged from Indigenous peoples' struggle for self-determination and a twenty-year decolonising participatory action-research (PAR) process in the Potato Park. Their main goal is holistic wellbeing, rather than conservation, but holistic wellbeing means

autonomous process. This reflects Indigenous peoples' holistic worldview that biodiversity and culture — or nature and people — are inextricably linked and cannot be separated.

BCHTs arise from Indigenous traditions of landscape management expressed in holistic territorial concepts. They are bottom-up, food-centred processes, that strengthen Indigenous exchange systems, ritual culture and spirituality, and the continued co-evolution of land and culture from pre-colonial times. BCHTs encompass centres of origin and diversity of important foods (animal, plants, fish, grasses and so on). They protect native varieties, wild relatives and the links between them for resilience to climate change. They also conserve rich wildlife and ecosystem services, while supporting a range of CBD and SDG goals (see Box 3).

But biodiversity on IPLC lands and territories is facing significant threats from growing resource extraction, commodity production, mining, transport and energy infrastructure, and loss of traditional knowledge and livelihoods.³ The world's estimated 476 million Indigenous people are among the poorest and most marginalised, often suffering racial discrimination and violence.¹⁰ Protecting the integrity of Indigenous peoples' lands and territories is vital for achieving both the CBD post-2020 targets and the SDGs.

Box 1. What is biocultural heritage?

'Biocultural heritage' reflects Indigenous holistic worldviews where biodiversity and culture are inextricably linked and are an integral part of holistic wellbeing. The concept of 'collective biocultural heritage' was constructed through a participatory action-research (PAR) process, involving Indigenous peoples in Peru, Panama, India, Kenya and China.¹⁴ It includes traditional knowledge, biodiversity, landscapes, cultural and spiritual values and customary laws as interdependent components of complex socioecological systems.⁷ It represents memory, language, history, practices, values and ways of life within a particular territory and ecological context. The term 'heritage' reaffirms Indigenous peoples' rights over their ancestral territories and resources, and responsibility to future generations.

The biocultural heritage concept provides a useful framework and alternative to Western 'conservation' paradigms which separate people and nature. It bridges siloes and knowledge systems. But it is not a substitute for Indigenous peoples' own holistic wellbeing concepts, which should guide the development of BCHTs.

'Biocultural diversity' also stresses the inextricable linkages between biological, cultural and linguistic diversity. Global mapping of components of biodiversity and culture has shown strong geographical overlap.¹⁶

Box 2. What are BCHTs and ICCAs?

BCHTs are autonomous processes which have been defined as 'land use mosaics encompassing Indigenous and traditional land tenure, production and exchange systems, cultural identity, community organisation and simultaneous goals of endogenous development and biodiversity conservation'.¹⁷ By linking 'heritage' (which has associated history and rights) and 'bioculture' (a holistic concept denoting the indivisibility of land and culture) BCHTs reflect land-use practices within Indigenous worldviews and cultural traditions.

Territories and areas conserved by Indigenous peoples and local communities (ICCAs) or 'territories of life' are 'collectively governed, managed and conserved by their custodian Indigenous peoples and local communities'.¹³ ICCAs are diverse. They include Indigenous territorial approaches like BCHTs as well as local community-led conservation initiatives that are not necessarily rooted in traditional culture.

Backing Indigenous biodiversity stewards

Unlike Western concepts such as 'ecosystem services' and 'nature-based solutions', Indigenous people see their relationship with nature as reciprocal rather than linear. Too often, cultural and spiritual values critical for delivering conservation outcomes are undermined by Western conservation paradigms, narrow market-focused approaches and mainstream development sectors. Rather than pursuing Western economic models, biocultural heritage territories — such as the Potato Park and the Maize Park in Peru — foster Indigenous solidarity economies or 'biocultural economies' that promote Indigenous values of ecological stewardship, self-sufficiency, solidarity and equity. A key lesson from the Potato Park is that BCHTs must be supported as community-led processes or 'social movements' guided by Indigenous philosophies. Indigenous research methods and tools revitalise Indigenous knowledge and values, and rights over Indigenous knowledge are protected through secure community databases.¹¹

Potato Park: a thriving biocultural economy.

The Potato Park is in a beautiful high Andean landscape near Písaq, Cusco, Peru. Circa 9,600 hectares, it is collectively governed by five

Quechua communities. The potato symbolises their shared cultural identity. They joined their lands and registered a community association in 2002 with the help of the Indigenous NGO Asociación ANDES. The decolonising PAR approach and Indigenous methods and tools used fostered strong local leadership and capacity, ensuring self-sustainability.¹²

The Potato Park is located in a micro-centre of potato origin. Based on holistic Andean concepts, values and customary laws, the park conserves about 1,400 native potato varieties, four potato wild relatives, and Andean crops and wildlife. Through a repatriation agreement with the International Potato Center, 400 native potato varieties have been restored, reviving associated Indigenous knowledge, values and beliefs. The park enables the communities to defend their territories against mining, ensure food and nutrition security despite severe climate change impacts, and generate ecotourism revenue. It has revitalised traditional beliefs, ceremonies and rituals that underpin conservation and sustainable use of biodiversity.

Governance of the park is guided by mountain gods (*apus*) and Quechua values of reciprocity, equilibrium, collectiveness and solidarity, which apply both to society and to people's relationship with nature. The park's goal is *sumaq causay* or holistic wellbeing. This requires balance and reciprocity between three realms or '*ayllus*': the human and domesticated realm (plants, animals etc) (*Runa ayllu*); the wild realm (animals, plants, lakes etc) (*Sallka ayllu*); and the sacred and ancestral realm (*Auki ayllu*) (see Figure 1).

A collective of potato guardians — Indigenous experts from different communities — manage the community seed bank. Inter-community microenterprises (mainly women) generate revenue from biocultural products and services: traditional crafts and textiles, medicinal plants and natural products (herbal teas, potato shampoo), gastronomy and ecotourism (homestay, trekking). Ten per cent of revenues are redistributed among the communities each year, guided by an inter-community agreement and customary laws. This prevents conflicts and inequality, reinforces cultural values and collective stewardship, and provides a safety net for the very poor (such as orphans, widows).

Maize Park: revitalising biocultural heritage.

Since 2012, Asociación ANDES has also supported four Quechua communities in Lares District, Cusco, Peru, to establish a Maize Park. This work has been facilitated by Indigenous researchers from the Potato Park ('tecnicos') in an empowering horizontal learning process, guided by Quechua philosophy. The Lares area is thought to have the highest maize diversity of Peru. The park

Box 3. How BCHTs contribute to global goals

Conserving agrobiodiversity — SDG2, FAO Treaty, CBD: genetic diversity and wild relatives are conserved and enhanced on-farm, in landscapes, in community seed banks, and through repatriation and seed sharing.

Adapting to climate change — SDGs 2 and 13, Paris Agreement: vulnerability to climate risk is reduced through on-farm diversification, conservation of resilient wild relatives, traditional resilience strategies, maintenance of ecosystem services, linking traditional knowledge and science, and minimal greenhouse gas emissions.

Conserving wildlife — SDG15, CBD: wildlife is conserved through agroecological practices, protected sacred sites (such as mountains, lakes, rivers, forests), sustainable use of wild plants, integrated landscape management and holistic living.

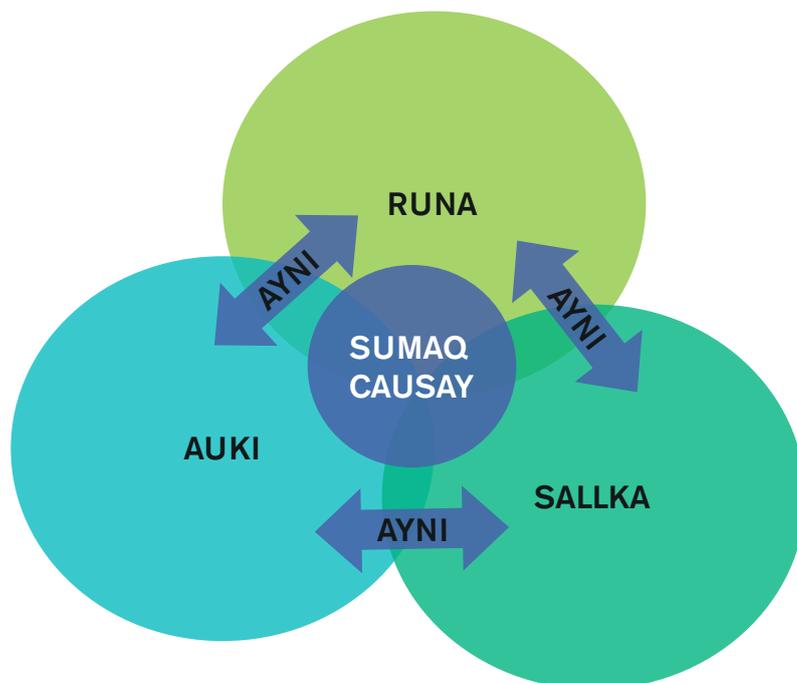
Ending hunger — SDG2: food and nutrition security is ensured through self-reliant, locally controlled, diversified food systems, nutrient-dense traditional foods and wild plants.

Reducing poverty and inequality — SDGs 1 and 10: income is enhanced through local value addition and direct sale of farm and landscape-based products and services; land and resource rights are strengthened; and inequality is reduced through empowerment and solidarity.

Protecting traditional knowledge — CBD, UNESCO Conventions: traditional knowledge, customary sustainable use and intangible cultural heritage are protected from loss and misappropriation.

Promoting peace, gender equality, health and wellbeing — SDGs 16, 5 and 3: peace and social cohesion is enhanced; women are empowered; and health and wellbeing are strengthened.

Figure 1. The 'Ayllu' concept: holistic wellbeing



Ayni = reciprocity; sumaq causay = holistic wellbeing; Runa ayllu = the human and domesticated realm; Sallka ayllu = the wild realm; Auki ayllu = the sacred and ancestral realm

Source: Alejandro Argumedo, ANDES (Peru)

has an estimated 95 varieties of maize, more than 400 potato varieties and potato wild relatives.¹¹

Barter in the Maize Park and nearby Lares Market (based on reciprocity) ensures food and nutrition security for the very poor. Farmer field schools and participatory plant breeding have revitalised Indigenous knowledge and strengthened resilience to climate change. Participatory transects have identified underutilised wild food and medicinal plants to improve diets, including an iron-rich wetland plant to tackle childhood anaemia. Biocultural festivals have revitalised traditional foods, shared findings and built local government support. The communities now want to establish micro-enterprises for biocultural products and services.

Scaling-out biocultural territories

Indigenous peoples typically share similar core values of living in harmony with nature, sacredness of Mother Earth, collective stewardship, reciprocity and solidarity.¹⁴ But these values are becoming weaker, particularly in Africa and Asia, due to colonisation, modernisation, top-down development and racial discrimination. This makes establishing BCHTs more challenging and more urgent.

Inspired by the Potato Park, Indigenous peoples in Asia and Africa are establishing similar BCHTs and exploring their own holistic wellbeing concepts and values (with support from IIED, ANDES and the International Network of Mountain Indigenous Peoples):

- Yunnan, southwest China: the Stone Village ancient Naxi homeland has revived resilient traditional crops (maize, rice, soya, buckwheat) and is engaging neighbouring Naxi and Moso villages along the Yangtze River in a biocultural revival network.
- West Bengal, India: Lepcha and Limbu communities are establishing a collective BCHT in a Lepcha ancestral forest homeland bordering Sikkim, with rich agrobiodiversity (such as millet, rice bean, dryland paddy).

Notes

¹ CBD, Preparations for the post-2020 Biodiversity Framework. www.cbd.int/conferences/post2020 / ² Sobrevila, C (2008) The role of indigenous peoples in biodiversity conservation: the natural but often forgotten partners. World Bank. / ³ IPBES (2019) Global assessment report on biodiversity and ecosystem services. <https://ipbes.net/global-assessment> / ⁴ Berkes, F, Colding, J and Folke, C (2000) Rediscovery of traditional ecological knowledge as adaptive management. *Ecological Applications* 10(5) 1,251–1,262. / ⁵ Kuhnlein, H (ed.) (2013) Indigenous peoples' food systems and well-being: interventions and policies for healthy communities. FAO and CINE. / ⁶ Cocks, M and Wiersum, F (2014) Reappraising the concept of biocultural diversity: a perspective from South Africa. *Human Ecology* 42 727–737. / ⁷ IIED, About biocultural heritage. <http://biocultural.iied.org/about-biocultural-heritage> / ⁸ RRI (2015) Protected areas and the land rights of indigenous peoples and local communities. / ⁹ CBD (2018) Protected areas and other effective area-based conservation measures. <https://bit.ly/3gzOoj1> / ¹⁰ Berger, DN (ed.) (2019) The indigenous world 2019. IWGIA. / ¹¹ Swiderska, K and Stenner, T (2020) The Maize Park biocultural heritage territory in Lares, Peru. Case study guidance on biocultural heritage territories. INMIP. pubs.iied.org/G04447 / ¹² Swiderska, K (2017) Resilient biocultural heritage landscapes for sustainable mountain development. INMIP and IIED. pubs.iied.org/14670IIED / ¹³ Pimbert, M and Borrini-Feyerabend, G (2019) Nourishing life: territories of life and food sovereignty. ICCA. / ¹⁴ Swiderska, K, Argumedo, A, Song, Y, Li, J, Pant, R, Herrera, H, Mutta, D, Munyi, P and Vedavathy, S (2009) Protecting community rights over traditional knowledge: implications of customary laws and practices (key findings and recommendations, 2005–2009). IIED, London. pubs.iied.org/14591IIED / ¹⁵ The Sharm El-Sheikh Declaration on Nature and Culture. CBD/COP/14/Inf/46. <https://bit.ly/2VXOdGk> / ¹⁶ Maffi, L (2007) Biocultural diversity and sustainability. SAGE Handbook of Environment and Society. SAGE. / ¹⁷ Argumedo, A and Swiderska, K (2014) Biocultural heritage territories. IIED, London. pubs.iied.org/G03843

- Kilifi, coastal Kenya: the Mijikenda community of Rabai is establishing a collective BCHT of ten villages to protect Kaya forests, cowpea wild relatives, resilient landraces and water sources.
- Tajikistan, centre of origin for apple and wheat: in the Rasht Valley, communities have established an Apple Park to conserve wild relatives. In the Pamirs, a Wheat Park is being established.

Setting the post-2020 biodiversity targets

The CBD's 2018 Sharm El-Sheikh Declaration on Nature and Culture called for increased protection of biocultural landscapes and for CBD Parties to accelerate recognition of Indigenous peoples' lands, waters and territories in their post-2020 targets.¹⁵ These new biodiversity targets must now address the interlinked crises of biological and cultural diversity loss. In particular:

- The protection of Indigenous peoples' territories, rights, traditional knowledge, customary sustainable use and self-determination should be integrated across the post-2020 targets.
- Target 2 on protected areas and 'other effective area-based conservation measures' should ensure the secure protection of Indigenous peoples' self-governed territories, such as biocultural heritage territories.
- Target 13 on mainstreaming biodiversity values should also require the mainstreaming of cultural values and traditional knowledge across development policies and processes, including education systems, and an end to Indigenous marginalisation, racial discrimination and violence against environmental defenders.

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Knowledge Products

The International Institute for Environment and Development (IIED) promotes sustainable development, linking local priorities to global challenges.

The Association for Nature and Sustainable Development (ANDES), is an international NGO involved in poverty alleviation, biodiversity management and strengthening traditional resource rights.

INMIP is an international network of indigenous mountain communities which aims to revitalise biocultural heritage for climate adaptation and sustainable mountain development.

The Centre for Agroecology, Water and Resilience is driving innovative, transdisciplinary research on the understanding and development of resilient food and water systems.

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