Mainstreaming requires reforming a diverse range of sectors and processes that are currently harming biodiversity and the peoples and communities who depend directly upon biodiversity for their survival, livelihoods and cultures. It has the potential to place biodiversity conservation and sustainable use firmly at the core of human economies and societies, including within and across all relevant sectors and policies. In this sense, it is a response to governments’ failure to mainstream biodiversity conservation to date, which has turned industrial agriculture, forest and fishery policies into significant threats to community conservation initiatives.

Indigenous peoples’ and community conserved territories and areas (commonly known as ICCAs) and other community conservation initiatives play a key role in this process. They exemplify how to successfully mainstream biodiversity at the local level through rights-based approaches that benefit both nature and people’s livelihoods, cultures and wellbeing. However, the Community Conservation Resilience Initiative has found that these initiatives, despite being sustained and adapted over many generations, now face significant threats, including from large-scale industrial activities such as agriculture, forestry and fishing that rely on ‘renewable’ natural resources. The further expansion of such industries – often with two or more being developed in concert or close succession – undermines indigenous peoples’ and local communities’ customary laws and traditional knowledge, innovations and practices and has widespread negative impacts on the lands and territories upon which they directly depend. Evidence from many places in the world indicates that the so-called ‘co-existence’ of unsustainable and sustainable models of agriculture, forestry and fisheries is not a viable option in the long run, as the continued expansion of the former effectively precludes the continued existence of the latter.

Mainstreaming biodiversity conservation and the ecosystem approach in conventional sectors such as agriculture, forestry and fisheries is essential for the resilience of indigenous peoples’ and local communities’ small-scale and subsistence economies and ways of life. At the same time, compliance with the agreed milestones to implement Aichi Target 3 [1] is a necessary condition for biodiversity mainstreaming. Thus a key way forward is to eliminate, phase out and reform harmful and perverse incentives and replace them with positive incentives that actively support implementation of the Strategic Plan and CBD more broadly. This should include, *inter alia*, positive legal, policy, financial, technical and other incentives to appropriately recognise and support equitable and sustainable...
modes of production such as those in ICCAs and other community conservation initiatives. [2]

Mainstreaming biodiversity at national and global levels necessitates broad, deep and ambitious transformational change to enable our species to live within the planetary boundaries of Mother Earth and equitably with each other. This process requires analysing and addressing the underlying causes of unsustainable production models, including (inter alia) by changing consumption patterns of products of living resources such as meat, dairy, fish and wood. Such transformational change requires strong, transparent and inclusive public governance arrangements, addressing inequities between and within countries and marginalised populations, as well as curtailing undue influence of and regulatory capture by corporate and other commercial interests. It should fully recognise and include rights-holders, including indigenous peoples, local communities and women, in all decision-making processes that affect them, and should recognise, respect and support the diverse contributions of collective action, traditional knowledge and customary practices to the conservation and sustainable use of biodiversity within and across sectors. Mainstreaming biodiversity is not just a technical matter; it is about justice, inter- and intra-generational equity, peace and
democracy. The extent to which it is realised in practice will be an indication of State Parties’ levels of ambition and capacity to effectively comply with the CBD and its Strategic Plan and to achieve the recently adopted UN Sustainable Development Goals (SDGs).

Mbya families in Paraguay practice agro-forestry, but they have been displaced from their forest areas due to the expansion of soybean plantations. Wanqing Zhou

Community participatory mapping process in Ethiopia. MELCA/CIC
Why is mainstreaming important and how does it relate to indigenous peoples and local communities?

For State Parties, mainstreaming can be understood as the integration of the conservation and sustainable use of biodiversity in cross-sectoral policies such as sustainable development, poverty reduction, climate change, health, education, trade and international cooperation, and across specific sectors (especially agriculture, forests and fisheries, but also mining, energy, tourism, transport and others).

The current mainstreaming process in the CBD is anchored in Article 6(b), which places an obligation on parties to: “Integrate, as far as possible and as appropriate, the conservation and sustainable use of biological diversity into relevant sectoral or cross-sectoral plans, programmes and policies”. The CBD Strategic Plan for Biodiversity 2011-2020, the vision of which is “Living in Harmony with Nature”, includes 20 Aichi Biodiversity Targets organised under five strategic goals. These include, inter alia, “[address[ing] the underlying causes of biodiversity loss by mainstreaming biodiversity across government and society” (Goal A) and ensuring that, by 2020, “areas under agriculture, aquaculture and forestry are managed sustainably, ensuring conservation of biodiversity” (Aichi Target 7). These obligations are directed not only towards the Ministries and agencies formally responsible for biodiversity policy, but also towards other government agencies with responsibility for agriculture, forests and fisheries. These sector-specific governmental actors should be closely involved in all levels of biodiversity policymaking, including the CBD process itself.

As part of the Community Conservation Resilience Initiative in 2015, 33 communities in ten sustainable practices and active conservation and restoration such as combating illegal poaching and mangrove restoration. Although communities may not consider their initiatives in this light, they demonstrate that mainstreaming biodiversity into small-scale and subsistence agriculture, fisheries and uses of forests is not only feasible, but is also an economic, social, cultural and spiritual imperative for sustainable livelihoods. Furthermore, these conservation initiatives may embody indigenous and local worldviews that understand biodiversity as integral to and interconnected with their identities and culture, rather than as a mechanistic source of ‘resources’ or ‘services’ for human benefit alone.

Agriculture is by far the most heavily subsidised sector in the world. About one third of agricultural production is subsidised and approximately 85% of the total amount of agricultural subsidies can be found in OECD countries. About two thirds of direct farm subsidies are estimated to be perverse, meaning that they are harmful to the environment as well as to economic development in society.

Enviromentially Harmful Subsidies
Peter Marcus Kjellingbro and Maria Skotte

different countries each undertook a participatory assessment of the resilience of their conservation initiatives and the ways in which they would like to address potential threats and pursue opportunities to strengthen them. The communities are involved in a rich diversity of inspiring conservation initiatives based primarily on voluntary collective action, including de facto conservation through customary
achievement of the CBD and Strategic Plan. Most recently, COP 12 in Pyeongchang in 2014 further entrenched ICCAs and community conservation initiatives in the CBD through a number of decisions, including on resource mobilisation (XII/3), biodiversity for poverty eradication and sustainable development (XII/5), Article 8(j) and related provisions, including the adopted Plan of Action on Customary Sustainable Use of Biological Diversity (XII/12), and ecosystem conservation and restoration (XII/19). The vital role of women in such conservation initiatives has also been explicitly recognised by CBD Parties and their decisions (XII/7). These and other decisions provide a clear basis for CBD Parties to recognise and support ICCAs and other community conservation initiatives in the context of biodiversity mainstreaming.

Women preparing to down go to their gardens, Hageulu, Solomon Islands. Aydah Akao/CIC
Challenges to mainstreaming

Mainstreaming requires reforming a diverse range of sectors and processes that are currently harming biodiversity and the peoples and communities who depend directly upon biodiversity for their survival, livelihoods and cultures. It has the potential to place biodiversity conservation and sustainable use firmly at the core of human economies and societies, including within and across all relevant sectors and policies. In this sense, it is a response to governments’ failure to mainstream biodiversity conservation to date, which has turned industrial agriculture, forest and fishery policies into significant threats to community conservation initiatives.

The outcomes of the first round of community conservation resilience assessments in 2015 not only demonstrated the value of community conservation itself, but also painted a rather bleak picture of increasingly vulnerable and isolated initiatives in a rapidly warming, changing and degrading world.

There is growing legal, policy, financial, moral and technical recognition of and support for ICCAs and other community conservation initiatives, including from governments, donors and civil society. However, past and current support for these initiatives is rather modest compared to the perverse incentives that continue to be provided to conventional agriculture, forestry and fisheries. As long as these industrial sectors are accorded overwhelming priority in national and global economic policies and continue to further expand, including in indigenous peoples’ and communities’ territories and areas, ICCAs and similar initiatives have little chance of becoming stronger and delivering the levels of biodiversity conservation that they potentially could.

In this regard, there is a clear and urgent need to include indigenous peoples’ and community conservation efforts in biodiversity mainstreaming itself. Localised collective action based on long-term cultural connections to specific territories and areas forms the cornerstone of successful biodiversity conservation, sustainable use and restoration. Given the complexity of mainstreaming biodiversity overall, and recognising and supporting indigenous peoples’ and community conservation efforts within that, indigenous peoples, local communities, women and other rights-holders must be fully and effectively involved in these policy- and decision-making processes.

An example of the impact of conventional agriculture on ICCAs is the introduction of oil palm plantations on the Kalangala Islands in Lake Victoria, Uganda. Before the plantations were introduced, the communities living on these islands depended on fishing, farming and forestry products for their livelihoods. The introduction of oil palms resulted in forest destruction and substantial chemical use, which caused environmental degradation. As a result, indicators of biodiversity loss became more evident. In particular, forest destruction impacted on species of birds and monkeys, amongst others, which used to attract tourists and additional sources of income to complement traditional farming. Now, 25 families have taken the company responsible to court over the harm caused to the communities and the environment.
The importance of strong and equitable public governance for mainstreaming

Market-based and private sector-led approaches such as Public-Private Partnerships (PPPs) are gaining increasing popularity and prominence, especially amongst Northern countries that are scaling back official development assistance. In addition, voluntary certification schemes have been established for various agricultural, forestry and fisheries products such as palm oil, soy feedstock, beef and seafood.

Some actors are promoting these approaches as mainstreaming tools that could motivate the private sector to improve environmental and social practices, but the same tools have also faced many critiques. For example, the creation of ‘green markets’ for purportedly sustainable products does not in itself decrease unsustainable production, and these markets fail to address quantity-related ecological impacts. These and other private sector-led approaches to mainstreaming thus have inherent limitations, as there are few economic incentives for the private sector to promote measures that limit production and therefore revenue, even when such limits are de facto imposed by natural ecological and planetary boundaries in the long term.

Since it is essential to reform the very industries that have caused and continue to cause the majority of biodiversity damage and loss, biodiversity mainstreaming must not be guided by the commercial interests of those industries or by a for-profit approach in general. Instead, indigenous peoples’ and local communities’ ways of living in harmony with nature need to be effectively mainstreamed as a starting point for more sustainable production and consumption patterns. Strong and equitable public governance is required to ensure national policies comply with international obligations such as the CBD. This process should respect the rights of indigenous peoples and local communities, including to self-determination and self-governance and to provide or withhold free, prior and informed consent; the multiple values of their small-scale and subsistence economies and production systems; and the differentiated roles, rights, needs and aspirations of women. In this regard, the FAO Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests provide a useful reference point for ‘operationalising’ governance aspects of these key sectors. [3]

Biodiversity mainstreaming also requires greater cooperation and coherence between relevant government agencies and between different levels and types of law and policy, for example, concerning biodiversity, sustainable development, climate change, agriculture, forests, fisheries and the law of the sea, and finance, investment and trade. Furthermore, the CBD Strategic Plan and the UN SDGs are intended to provide overarching frameworks, for biodiversity and sustainable development respectively, that apply to the entire UN system. As such, they should be pursued synergistically, with particular emphasis on supporting local collective actions that contribute to the achievement of both frameworks.

Chanleifu community CCRI participants, Chile. Carolina Lagos/CIC
Biodiversity Mainstreaming in Agriculture, Forests and Fisheries

Agriculture

ICCA and other community conservation initiatives play a key role in conserving and enhancing agricultural biodiversity, for example, through careful selection and cultivation of traditional crop varieties and livestock breeds, intercropping with natural and secondary forests, and use of long fallow periods and rotation of diverse crops to ensure soil fertility and regeneration. However, these initiatives are under severe threat from conventional industrial agriculture, which continues to expand at the cost of small-scale agro-biodiversity systems. Since the beginning of the ‘Green Revolution’, industrial agricultural practices have caused severe environmental degradation and impacted negatively on small-scale and traditional agricultural systems. Large-scale commercial agriculture tends to be heavily subsidised, especially in OECD countries, but the industrial agricultural model is arguably not delivering on its promise of providing food for all. Instead, it largely prioritises commercial speculation and produces commodities that compromise human and environmental health. Large swathes of fertile land are being used for bioenergy crops touted as ‘renewable energy’ and to provide feedstock for the industrial livestock industry, both of which have significant negative impacts on communities and their territories and areas. Meanwhile, and partly as a result of international trade rules, small-scale, local and traditional agriculture receives far less support, despite providing between 70% and 80% of all food consumed. [4]

Most of the communities participating in the Community Conservation Resilience Initiative are engaged in successful agricultural biodiversity conservation initiatives such as agro-ecology, seed saving and the restoration of degraded soils and habitats. With appropriate support, these initiatives could be strengthened and could serve as inspiring examples of successful community-determined mainstreaming. In many cases, however, they are akin to isolated islands that may not survive in the longer term due to the ecological pressures of industrial agriculture and poor governance of tenure and land use planning. The loss of traditional, sustainable small-scale farming must be halted and reversed, including through viable options for small farmers and indigenous peoples to secure collective tenure to lands they have occupied, owned and worked on. This is vitally important not only for such peoples and communities, but also for the resilience of agro-biodiversity for the rest of the world’s food supply.

Minga Porá, in Paraguay, is a clear example of the incongruity of the notion of ‘co-existence’ between sustainable and unsustainable agriculture. With fertile soils, the area used to support highly biodiverse subtropical forests, but since the expansion of soya and cattle ranching, the region has been heavily deforested and now only a few scattered patches of forest remain. Without any support from the state, 15 families have managed to protect a small area of 46 hectares through productive agro-ecological practices and selling surplus production at the local market. They have preserved native plant species and plan to use this oasis of biodiversity to restore larger areas in the future. However, their crops and the health of the community members are severely impacted by heavy pesticide use in the surrounding soya fields, thus undermining their conservation initiatives and livelihoods.
Forestry

In 2015, the world’s heads of state committed to halting deforestation by 2020 and restoring global forest cover as part of the Sustainable Development Goals (SDGs). In addition to striving to mainstream biodiversity across the SDGs as a whole, Parties to the CBD are well positioned to actively support the implementation of the SDG on forests (SDG 15.2) and to ensure that efforts to conserve and restore forest cover support and build upon community conservation and restoration initiatives and biodiversity conservation in general, in line with existing decisions of the CBD.

One of the key challenges to mainstreaming biodiversity in the forestry sector is the persistent use of the term ‘forests’ to describe monoculture tree plantations. Forests are complex ecosystems that are full of life and a wide range of biodiversity. Monoculture tree plantations, on the other hand, do not fulfil the ecological functions of forests. Replacing biologically diverse ecosystems with tree monocultures, particularly of non-native and invasive species such as eucalyptus and pine, is a rapidly increasing threat to biodiversity and indigenous peoples and local communities. Despite this, significant amounts of forestry-related finance are still directed towards projects that promote large-scale monoculture tree plantations, including for pulp and paper. [5]

There is an urgent need to mainstream biodiversity in forestry practices and to clearly distinguish forest ecosystems from what are essentially conventional agricultural production models for the production of tree crops. Legally binding and enforceable legislation, as well as effective monitoring and compliance mechanisms, are needed at minimum to ensure that deforestation is halted by 2020 and forests are being restored. Efforts to achieve this goal should be community-driven and based on ecologically sound forest restoration practices, including the use of native species.

Landgrabbing in Uganda for monoculture tree plantations. Jason Taylor

Indigenous peoples and local communities in South Africa, India, Uganda and Chile identified monoculture tree plantations as a strong external threat to community conservation. In Uganda, for example, monoculture tree plantations that were planted to ‘compensate’ for the expansion of oil palm plantations undermined community forest conservation efforts. In Chile, the Chañaral community practises agriculture that is diverse, traditional and small-scale and does not use pesticides or other agrochemicals. However, they are struggling with the impacts of tree plantations that threaten local biodiversity and places of cultural importance.
Fisheries

Small-scale and subsistence fisheries are rooted in indigenous peoples’ and local communities’ cultures and traditional values and knowledge systems. They often provide the primary source of protein for communities and are responsible for around half of global fish catches. They also contribute to biodiversity conservation, for example, through traditional temporal and spatial no-take zones such as areas governed by taboos in Samoa and the Solomon Islands. Internationally, the FAO Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries provides an important minimum policy. [6]

However, they are often threatened by large-scale industrial operations that prioritise short-term economic gain over long-term sustainable use and restoration. Such operations not only undermine community livelihoods and deplete local biodiversity, but also threaten aquatic biodiversity and fish stocks worldwide, for example, through bottom trawling and the use of driftnets. It is very difficult to effectively address illegal, unregulated and unreported fishing (IUU), including in areas beyond national jurisdiction and due to the use of ‘flags of convenience’. [7] This IUU industry is also linked to human rights violations such as human trafficking and modern-day slave labour in fishing boats, [8] and arguably contributes to the criminalisation of local fishing practices such as the fishing or hunting of certain species whose populations are now depleted or endangered due to large-scale fisheries.

Communities engaging in small-scale and subsistence fishing practices require secure tenure rights to the resources and areas upon which they depend for their livelihoods, identity and wellbeing. Although it is practically difficult to ascribe tenure rights to fish as a mobile resource, it is not impossible to recognise related customary rights and community-defined conservation efforts. A progressive example of mainstreaming biodiversity and indigenous peoples’ rights in fisheries is the Solomon Islands’ Fisheries Management Act 2015. [9] The Act recognises customary rights to resources, artisanal fishing and aquaculture, and places the environment and people at the heart of its objectives and principles. Among its many supportive provisions are Community Fisheries Management Plans, which include explicit legal recognition for community-defined management measures and enforcement powers. Customary rights are recognised and respected in all activities falling within the scope of the Act. This leading example of supportive legislation could be improved even further by extending recognition of customary rights to ownership or governance rights more broadly and by eliminating, phasing out or reforming harmful incentives for large-scale industrial fishing.

An Udege man fishing on the Bikin River, Russia. BROC/CIC

The indigenous Udege people in Russia inhabit the USSuri taiga, a forest area that contains the highest level of biodiversity of all of Asia's boreal forests. The Udege identified the main external threats to their conservation initiatives as a lack of recognised land rights and the over-exploitation of fish and wildlife resources. In particular, the over-fishing of salmon stocks by Japanese commercial fishing fleets in waters along the Russian coast has led to a serious decline in salmon in rivers fished by the Udege.
General recommendations

Mainstreaming biodiversity requires extensive reform and transformation of the conventional agriculture, forestry and fisheries industries, particularly by achieving the agreed milestones to implement Aichi Target 3 on the elimination, phasing out and reform of harmful incentives and perverse subsidies, and integrating the ecosystem approach in all sectors that directly or indirectly rely on or impact biodiversity.

Mainstreaming biodiversity also necessitates policy coherence and institutional coordination across ministries and sectors, and the reorientation of all productive and economic sectors towards achieving the CBD Strategic Plan and UN Sustainable Development Goals as a whole, which provide common frameworks for biodiversity and sustainable development (respectively) across the entire UN system.

At the same time, mainstreaming biodiversity requires appropriate forms of recognition and support to help sustain and strengthen ICCAs and other community conservation initiatives and the governance and management systems on which they are based, including customary laws, traditional knowledge and sustainable use practices. [10] ICCAs and other community conservation initiatives are excellent local examples of how biodiversity concerns can be successfully mainstreamed within and across sectors on the basis of rights-based approaches that deliver positive results for both biodiversity and communities. At the community level, these different ‘sectors’ (agriculture, forestry and fisheries) are often integrated into customary territories and areas and cultural practices without stark distinctions between them, and biodiversity ‘mainstreaming’ is an economic, social, cultural and spiritual imperative for sustainable livelihoods.

ICCs and other community conservation initiatives themselves should be appropriately recognised and supported in biodiversity mainstreaming policies. In doing so, indigenous peoples, women, peasants, fisherfolk and local communities must be involved in all decision-making processes that affect them, on the basis of clear recognition of their rights to their territories, customary land, water and resource tenure, self-determination and self-governance, and free, prior and informed consent.

Despite welcome and growing governmental and non-governmental support for ICCAs and other community conservation initiatives, it is unlikely that they will survive in the long-term if the negative impacts of large-scale conventional industries that threaten them are not addressed. The so-called ‘co-existence’ of unsustainable and sustainable models of agriculture, forestry and fisheries is not a viable option in the long run as the continued expansion of the former effectively precludes the continued existence of the latter.

Strong public policies and measures, including binding and effectively enforced regulations, are needed to change entrenched unsustainable consumption and production patterns and food systems. Such policies cannot be driven by commercial interests or by a for-profit approach more generally. Instead, they must be shaped to meet the rights and self-determined priorities of rights-holders such as indigenous peoples, peasants, fisherfolk, women, workers and consumers.
A misleading definition of forests that includes monoculture tree plantations has triggered significant financial and other support for plantations, which are a major threat to both biodiversity and community conservation initiatives. This definition must be revised, and financial investments and other incentives in the forest sector should be redirected to support the implementation of Sustainable Development Goal 15.2 on halting deforestation by 2020, as well as rights-based, community-driven, and ecologically sound forest conservation and restoration initiatives.

As part of efforts to address governance aspects and community considerations in the main sectors of agriculture, forestry and fisheries, State governments should use as a minimum policy the FAO Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests in the Context of National Food Security and the FAO Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries in the Context of Food Security and Poverty Eradication.

In general, it is critical that (sub-)national policies and laws are amended to provide a clear and coherent domestic framework for the effective implementation and mainstreaming of state governments’ rights and obligations under international agreements such as the CBD, the SDGs and the UN Declaration on the Rights of Indigenous Peoples.

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