



HOW INTEGRATED LANDSCAPE MANAGEMENT CAN CONTRIBUTE TO THE CBD POST-2020 BIODIVERSITY FRAMEWORK

RECOMMENDATIONS FOR POLICYMAKERS FROM AFRICAN LANDSCAPE LEADERS

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How Integrated Landscape Management can contribute to the CBD Post-2020 Biodiversity Framework: Summary of Recommendations for Policymakers from African Landscape Leaders

Provide policy support for locally-led landscape partnerships

1. Support and strengthen long term, locally-led and area-based landscape initiatives
2. Create national policy and enabling frameworks that make space for community-led landscape initiatives
3. Plan with communities and promote more broadly land use planning methods that embrace integrated landscapes at larger scales (regional, national and trans-boundary)
4. Work through existing integrated landscape initiatives.

Build 'green' landscape economies

5. Manage agricultural systems for biodiversity conservation
6. Integrate biodiversity consideration and natural infrastructure into urban landscape planning
7. Generate direct community benefits from protecting wildlife and biodiversity and link wildlife economy to market
8. Mobilize finance for integrated landscape investments that support biodiversity.

Measure landscape-level performance

9. Set landscape biodiversity targets
10. Build local skills and invest in Community Resource Centres for locally-led landscape monitoring and research

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1. Introduction

Biodiversity loss at all levels continues to occur at an alarming rate, faster than it can recover, especially in agricultural landscapes and outside protected areas. This trend, as noted by the latest analysis of the progress towards the Aichi Targets of the Convention on Biological Diversity (CBD) (CBD, 2016a and CBD, 2016b) and the review by Johnson et al. 2017 on biodiversity losses and conservation responses in the Anthropocene, will lead to the failure to reach many of the Targets. During 2020, the parties to the CBD will craft a post – 2020 goals and strategy for biodiversity conservation (CBD 2019). The experience of Africa should inform this strategy, in particular the lessons learned from using Integrated Landscape Management (ILM) to meet biodiversity goals.

Integrated landscape management involves the development of shared or agreed management objectives that encompass multiple benefits from the landscape; collaborative, community-engaged processes for dialogue, planning, negotiating, and monitoring decisions; the adoption of field, farm and forest practices designed to contribute to multiple objectives; the management of ecological, social, and economic interactions among different parts of the landscape to realize positive synergies; and the development of markets and public policies to achieve the diverse set of landscape objectives and institutional requirements (Scherr, Shames and Friedman 2013).

The African Landscapes Dialogues held in 2014, 2017 and 2019 provide a robust platform for experience and knowledge sharing among the various ILM initiatives in the region. The November 2019 Dialogue held in Arusha, Tanzania, brought together leaders of dozens of integrated landscape partnerships across Africa to share experiences and innovations, and to jointly update the African Landscapes Action Plan.

A key theme was the role of ILM in biodiversity and wildlife conservation. This policy brief synthesizes key points from those discussions. Section 2 presents the African perspective on biodiversity problems and the need for integrated landscape management to solve them; section 3 draws from the rich African experience with ILM to propose concrete recommendations for the post-2020 CBD Agenda.

2. An African Perspective on Biodiversity Conservation

International attention on biodiversity conservation in Africa has focused on threats to flora and fauna species, especially large wildlife. What is generally missed is the ecological crisis caused by extensive degradation of Africa's ecosystems and landscapes, which is at the centre of the continent's biodiversity conservation challenge (European Commission 2015). The reality is that 70% of wildlife is outside Protected Areas.

The recent IPBES regional assessment for Africa reported that drivers of habitat and biodiversity loss include land-clearing, pollution, fragmentation and wetlands drainage for agriculture, fencing for estate and private businesses, introduction of invasive species of flora and fauna, as well as widespread concessions for oil, gas, mining and hydroelectric dam development programs and deforestation for fuelwood, charcoaling and lumbering. Pollution of surface and groundwater sources, soils, air and biota is resulting from solid waste, disposal of industrial effluents and other pollutants. Agricultural areas and groundwater sources suffer from nitrate and other pollution resulting from the use of chemical fertilizers, pesticides and herbicides. By degrading soil conditions and soil-dependent organisms, they affect soil fertility and thus also impact negatively on agricultural productivity (IPBES 2018).

The link between human well-being and nature (UNU-IAS, 2018) in the wake of the growing ecosystem degradation and



species extinction crisis is becoming clear. In response, there is a growing focus on integrated approaches to managing natural resources in production landscapes and seascapes. These include planning for integrated socio-economic development and biodiversity conservation goals to sustain the quality of ecosystem services (UNU-IAS, 2018). While the idea of making human-dominated landscapes more wildlife-friendly dates back at least to the 1970s, the challenge has become more urgent due to increasing human population and competition among land use options. These challenges call for a new philosophy of landscape management.

Significant attention has been put on mainstreaming biodiversity into production sectors, which include agriculture, forestry, fisheries and tourism and other related sectors. Biodiversity mainstreaming has been a key aspect of the Management Effectiveness Tracking Tool (METT) deployed in GEF projects to monitor how biodiversity resources are accounted for in production landscapes and seascapes. The thirteenth meeting of the Conference of the Parties to the Convention on Biological Diversity (CBD COP 13) held in Cancun, Mexico in December 2016 adopted the “Cancun Declaration on Mainstreaming the Conservation and Sustainable Use of Biodiversity for Well-Being” through which CBD Parties committed

to implementing their National Biodiversity Strategies and Action Plans (NBSAPs) “to strengthen the mainstreaming of biological diversity.”

There is a clear admission of the centrality of integrated landscape and seascape management approaches to aid effective attainment of national, as well as global biodiversity goals such as the Aichi Biodiversity Targets (UNU-IAS, 2018). The “Pan-African Agenda on Land Restoration on Ecosystem Restoration for Increased Resilience” was endorsed by governments during the Africa Biodiversity Summit held in Egypt, November 2018 (CBD 2018). While many efforts at mainstreaming of biodiversity conservation in production sectors have been government led, there is increasing interest in ILM Initiatives across Africa convened by CSOs, communities and other private entities that have strong consideration for biodiversity conservation, as a basis for landscape sustainability and resilience.

A continental review in 2013 documented 87 large integrated landscape initiatives in Africa (Milder, et al 2014), but by 2019 the number had significantly grown, with new initiatives from different ‘entry points’, including integrated watershed management, biological corridors, agriculture green

growth, forest landscape restoration and climate-smart landscapes. These are variously led by regional governments (e.g. AFR100, the Great Green Wall, TerrAfrica and HOAREC&N), national governments (e.g., Ethiopia's watershed program and Rwanda water management programme), and NGOs (e.g., African Model Forest Network, SORALO, IUCN, Conservation International, Solidaridad, African Wildlife Foundation, WWF, ARCOS Network) and by local civil society groups and farmer organizations such as Kijabe Environment Volunteers in Kenya (KENVO).

Over the last decade, landscape initiatives have developed much more effective strategies to conserve biodiversity within working landscapes. Of particular note are new approaches to land use planning; new types of locally managed conservancies, new ways to incorporate biodiversity benefits in livelihood strategies; managing agricultural systems for biodiversity benefits; and financial innovations that encourage biodiversity conservation in economic development. However, for these approaches to be sustainable, national policy and planning frameworks need to recognize and promote ILM as tool to overcoming the internal inconsistencies of sectorial planning frameworks to ensure integrated land use planning that consider spatial and temporal ecological processes and ecosystem connectivity for optimal realisation of benefits from a range of ecosystem services.

3. Ten Recommendations from Africa for the Post-2020 Biodiversity Agenda

Discussions at the African Landscapes Dialogue generated 10 recommendations for the CBD Post-2020 Agenda. They encompass providing policy support for locally-led landscape partnerships; building 'green' landscape economies; and measuring landscape performance. These are presented below, along with examples of African landscape innovations that demonstrate their importance and potential.

Provide policy support for locally-led landscape partnerships

1. Support and strengthen long term, locally-led and area-based landscape initiatives.

Overall, in Africa, delimited protected areas have been ineffective in protecting species whose movement patterns and migration cycles require extended temporal and spatial scales, traversing national boundaries into community lands and areas designated for different land uses. Winning more areas for conservation therefore requires conservation planning that takes into account the critical role wildlife corridors, wildlife dispersal areas and buffer zones in conservation of species and ecosystems, along with the imperative to clearly define their governance so adjacent communities to these areas can engage in meaningful community managed or co-management arrangements that can apportion tangible conservation benefits to the population.

Many community and private groups across Africa are now taking active roles in biodiversity conservation, including wildlife conservancies, community or private managed ranches, village forest reserves, wildlife management areas. Community scouts/rangers are active in critical areas where state management arrangements are absent.

Kenya and Namibia have seen a remarkable growth in the number and types of conservancies, implementing a variety of conservation and livelihood strategies that integrate both women and youth through community ranger systems with huge conservation outcome. Namibia now has 86 conservancies representing 19% of communal land); Kenya has 160 conservancies making up for 11% of community areas placed under conservation (more than formal protected areas – 8%) (GEF-CSO 2019).

Private and community conservancies have won more than 6.4 million hectares of land for biodiversity conservation, providing connectivity across entire ecological regions and between parks and community lands. Indigenous Conserved Areas are taking a

landscape approach and aligning activities with traditional practices. This presents a real opportunity to integrate indigenous knowledge and traditional institutions that have succeeded to govern community resources over the past several decades.

In Ethiopia, the Eco-Hub concept has been designed with a biodiversity focus. The Gambella Eco-Hub, is implemented on 450 hectares of land, as a demonstration site under HoA-REC&N's Horn of Africa Climate Change Programme. It integrates land use planning at a micro-spatial scale to serve as a one-stop shop for community learning to demonstrate soil and water conservation practices, biodiversity conservation, community participation, ecotourism and regenerative farming through zoning.

On this land, a permaculture farming system, a form of climate-smart agriculture modelled around ecological design, along with integrated water resources management that support re-generation of habitat have worked to sustain ecosystem functions within the Eco-Hub (WEF 2015).

The Eco-Hub's integrated landscape approach has captured the imagination of land use planners and regional policy makers alike and Eco-Hubs are slated for replication in the different agro-ecological zones of the Gambella region.

Landscape initiatives such as the [Manyara Ranch wildlife corridor](#) in Tanzania have blended habitat conservation with tourism to benefit local communities; the [Northern Tanzania Rangelands Initiative](#) helping to conserve wildlife corridors, communal land rights and securing community benefits; and the Southern Agricultural Growth Corridor of Tanzania ([SAGCOT](#)), a Public – Private Partnership (PPP) seeks to empower smallholder farmers to enhance environmental sustainability and promote wildlife and biodiversity conservation.

2. Create national policy and enabling frameworks that make space for community-led landscape initiatives.

Policy information tends to remain within confines of government circles. In Kenya

an initiative has been launched to bridge the policy information gaps and integrate communities into policy development and review process. The Nature Conservancy (TNC) and Kenya Wildlife Conservancies Association (KWCA) implemented on a new initiative, the Community Conservancy Policy Support and Implementation Program.

The program supports communities and landowners to participate in national policy review processes so they can have better access to policy information and incentives. Policy barriers that tend to stifle development of conservancies have been addressed through this initiative. The program supported communities and landowners across 12 landscape-based regional wildlife conservancies associations, representing private and community-based conservancies in Kenya. The range of policy related areas covered by the program include land and resource policy, community governance systems, conservation incentives and inclusion of women and youths for more equitable distribution of conservancy benefits (USAID 2019).

On a regional scale, the Intergovernmental Authority on Development (IGAD) has deployed an ILM approach to implement its Regional Biodiversity Management Programme (BMP). IGAD has developed biodiversity policy, biodiversity protocol and other strategic documents such as the Wildlife Management Strategy, Invasive Species Control and Management Strategy, Biodiversity Benefits Sharing Strategy and has established regional biodiversity databases and information systems for its eight member countries (Djibouti, Eritrea, Ethiopia, Kenya, Somalia, South Sudan, Sudan and Uganda).

IGAD, with the support of NGOs, also designed and implemented trans-boundary landscape initiatives for the Lamu area between Kenya and Somalia, the Awash-Lake Abe area between Ethiopia and Djibouti and the Boma-Gambella transboundary area between Ethiopia and South Sudan (IGAD 2017). IGAD's transboundary ILM initiative incorporates wildlife, biodiversity

and community concerns in their spatial transboundary planning project design and decision making and monitoring of natural resources management for a sustainable outcome. Other initiatives in Africa include the Greater Virunga Transboundary Collaboration (GVTC) that was established under the GVTC treaty 2015 by the Democratic Republic of Congo, Rwanda and Uganda as a framework of programmes, plans and activities to conserve a network of transboundary protected Areas in Greater Virunga Landscape (GVL).

Biodiversity leaders should produce guidelines to promoting integrated policy frameworks; produce policy briefs to promote this; ensure government ownership and government leadership. Wildlife and biodiversity management should be integrated into all sectoral policies and compliance monitored. Inter-ministerial committees can be set up as a platform for discussions among the different natural-resources based ministries and sectors. The inter-ministerial Natural Resource Management Group in South Sudan illustrates how sectors can come on a common table to discuss development issues and undertake development planning.

3. Plan with communities and promote land use planning methods that embraces integrated landscapes at larger scales (regional, national and transboundary).

Land use planning needs to be done in a more fluid way, to accommodate climate change impact and other environmental shocks. The planning approach should adopt a broader landscape scale to consider ecosystem connectivity and ecological processes, flow of goods and services and development impacts at different temporal and spatial scales. The Government of Tanzania has begun shifting to a larger zonal- (rather than village-) level planning, to reflect landscape interconnectedness, land use impacts due to different human settlement patterns and land use practices, and better accommodate biodiversity objectives in the planning process.

In Ethiopia, HoA-REC&N is facilitating the development of an Integrated Land use and Development Plan (ILDP) for Gambella Peoples' National Regional State (GPNRS). In 2013 ILDP was sanctioned by the Government of Ethiopia to chart a sustainable development path for the Gambella region as the rush for agricultural concessions threatened to undermine biodiversity conservation and the region's hydrological processes. With no proper land use plan to rely on, water extraction for irrigation purposes and the dangers of draining wetlands and rivers pose a big challenge.

As such, the ILDP is being designed to support coordinated use of the region's resources such as land, water, forest, wildlife, and fisheries, among others. The on-going ILDP process has managed to halt the drive for agricultural concessions in the region and gave the needed time for an integrated planning to inform future concessions on the resources in the region.

In South Sudan, the Natural Resource Management Group (NRMG), an inter-ministerial body, was formed to coordinate policy, to ensure holistic and integrated management of South Sudan's natural resources for sustainable development. The NRMG is constituted of natural resources based Government ministries (agriculture, forestry, wildlife and tourism, animal resources, environment, petroleum and mining and water resources etc.), along with the South Sudan Land Commission and Cooperatives & Rural Development. Despite the political crisis in the country, such a body remains a promising innovation to overcome sectorial planning shortcomings and a good platform for cross-sectoral policy coordination and policy dialogue and to minimize policy trade-offs in sectoral natural resources management.

4. Work through existing integrated landscape initiatives.

National governments do not need to organize landscape initiatives themselves. In many countries, there are already numerous locally-organized initiatives



underway that just need to be recognized and supported. National programs for biodiversity conservation, as well as food security, climate change, water, rural and urban development, can seek out these initiatives as means of implementing policies and programs, adapted to meet local needs and priorities and a route to mainstreaming wildlife and biodiversity conservation objectives.

Governments can also build on and work with existing networks of landscape initiatives, such as national landscape networks in Ethiopia and Uganda, and regional networks like the African Landscapes Dialogue, the African Model Forest Network, and the Horn of Africa Regional Environment Centre and Network. Governments can support regular National Landscape Dialogues linking local initiatives. International networks and platforms like the International Satoyama Initiative and the Global Landscapes Forum can further support knowledge-sharing.

Build 'green' landscape economies

5. Manage agricultural systems for biodiversity conservation.

A lot of wildlife/biodiversity depends on compatible agricultural systems. Effective

conservation of biodiversity in Africa requires direct Dialogues between biodiversity and agriculture communities to forge strong new partnerships. Important entry points can be ecologically-smart production agriculture, sustainable agribusiness, farmer organization leadership in habitat and species protection, and integrating national agriculture and biodiversity plans.

There is a growing movement in Africa for 'climate-smart agriculture', which can be greatly enriched by expanding the approach to 'ecologically-smart agriculture' to encompass more dimensions of biodiversity and ecosystem services. For example, in the Albertine Rift in Rwanda a movement towards ecological agriculture is underway. Climate change is modifying agricultural pest dynamics, so that new approaches to pest control will be needed; for the sake of biodiversity, it is essential that this be done in ecologically sustainable ways. This means moving the focus of biodiversity conservation beyond mega-fauna and mammals, to include agricultural species and species that can be conserved in agricultural landscapes. Important issues not yet high on most national biodiversity agendas include: crop species/variety diversity; livestock breed diversity; agricultural pollinators and

predators of crop pests; and wild species whose natural habitat is in agricultural areas (e.g., amphibians in wetlands).

Organized farmer groups can play a leading role in biodiversity protection and management. For example, in Uganda, the farmers' association is promoting bee keeping as a business with environment component. Mwindi-Greater Virunga coffee producer groups in and around Bwindi National Park are promoting organic 'Gorilla Coffee' not only to promote protection of Gorilla habitat, but also to save their own environment. Restoration of farmland and fallows In central Africa cocoa and coffee producers are restoring farmland and fallows, including habitat for microfauna and actions to reduce herbicides. Indeed, restoration can be linked to diversification of livelihoods (e.g., through non-timber forest products)

The private agribusiness sector is increasingly open to engaging in landscape restoration. For example, in Tanzania the Kilombero Sugar Company has developed a whole range of compliance system in their approach to environmental management and sustainability. eco-labels in Mbeya, Tanzania.

National governments need to plan and design policies and programs that explicitly connect agriculture and biodiversity. In 2018, FAO hosted a multi-stakeholder dialogue on biodiversity mainstreaming across sectors of agriculture in collaboration with the Secretariat of the CBD, bringing together experts with the aim of building a community of practice, planning the Biodiversity Mainstreaming Platform's future work, spreading awareness and mobilizing resources. There is a large information base available that can be used in developing such plans. For example, in 2019 Rwanda's Ministry of Agriculture coordinated the national biodiversity mainstreaming strategy. In the Netherlands, where there is a single Ministry of Agriculture and Nature, Agricultural Development Plans have become Sustainable/Biodiversity-friendly

Agricultural Plans.

6. Integrate biodiversity and natural infrastructure into urban landscape planning.

In a rapidly urbanizing environment, urban landscapes provide a good opportunity to reflect biodiversity objectives in city and municipality planning agenda. Most cities are established in or near riparian zones fed by a network of streams and rivers; many are situated in ecological transition zones (forest to grasslands) with representative species richness. For example, in Pretoria, South Africa, the Rietvlei Nature Reserve, an urban nature reserve owned and managed by the City of Tshwane, harbours an important wetland that plays an important role in purifying water that flows into the Rietvlei. This wetland--initially drained for peat mining, drylands cropping and irrigation drives--is now home to many species of birds, animals and plants (WRC 2018).

Urban biodiversity initiatives are positioned well to preserve local biodiversity, advance environmental education and promote recreational activities. Such efforts provide a good incentive for to clean up the river from localized pollution, undertake better planning to avoid disruption of urban ecological structure and build a sustainable city environment that supports human well being.

Managing crucial urban areas goes hand in hand with city re-greening and establishment of green spaces and botanical gardens. In Ethiopia in Addis Ababa, the Gulelle Botanic Garden ([GBG](#)) stands as "a living museum" of plants that are threatened with local extinction. Some exotic species of plants are also being preserved in the botanic garden. GBG now offers opportunities for research, recreations for the general public and environmental education for students and scientists alike. GBG is home to wild animal, birds and plant species. Through the good practice drawn from GBG in Ethiopia, a similar replication is planned and underway for replication in Somaliland through the Horn of Africa Regional Environmental Sustainability and Resilience (HoA-ESR)

initiative to establish Geed Deeble Botanic Garden as a pathway to restore Somaliland's indigenous biodiversity.

The newly conceived 'Great Green Wall of Cities' expands on the Sahelland regeneration initiative of the Great Green Wall of Africa. This city-landscape initiative is not just for beauty, but part of city-region biodiversity strategy to restore and incorporate more native species. New city-focused landscape initiatives can draw inspiration from the Target set by FAO "to create up to 500,000 hectares of new urban forests and restore or maintain up to 300,000 hectares of existing natural forests in and around cities" (FAO 2019). Creating urban green areas provides a real opportunity for cities to be integrated into landscape restoration, with huge positive biodiversity conservation outcomes.

7. Generate direct community benefits from protecting wildlife and biodiversity and link wildlife economy to market.

A major lesson learned from African experience in biodiversity conservation is that local communities must benefit directly, both collectively and as individual households. This can be achieved both through, and by incorporating conservation objectives into the main livelihood and business activities.

All over Africa have emerged businesses that 'make conservation pay', such as new types of benefit-sharing from wildlife and ecosystem conservation in protected areas; locally-owned eco-tourism business ventures; support for sustainable livelihoods; payment for ecosystem services; and wildlife-friendly and nature-based enterprises. Coexistence models have been developed (livestock and wildlife and other such systems that are compatible with sustainable resource use) while innovations to reduce wildlife-human conflicts have reduced costs to communities. Benefits need not always be financial. For example, in the integrated Population-Health-Environment in western Tanzania, health benefits motivate community participation in environmental management.

It is also critically important to expand attention beyond nature-led livelihoods, to see how dominant livelihoods and economic activities can incorporate biodiversity management. This was reflected in the agriculture recommendation above, but can also be extended to manufacturing, infrastructure and other sectors. For example, Integrated landscape restoration initiatives are increasing local benefits by incorporating to livelihood diversification and improvements, supported by stakeholders from multiple sectors, for examples in the Wine and Biodiversity initiative in South Africa.

8. Mobilize finance for integrated landscape investments that support biodiversity

Financial models need to incorporate biodiversity into investments across the landscape, aligning investment across sectors and land uses to ensure habitat protection and effective connectivity for wildlife and ecosystem services. Exciting financial innovations are emerging across Africa.

Payments for ecosystem services are being used that reward land and resource managers for their stewardship, with biological, social and cultural benefits. A Water Fund in Kenya has been set up to finance sustainable development across a major watershed. The voluntary carbon market is being used to drive long term planning and achieve high conservation impact, while promoting sustainable livelihoods. For example, the WildlifeWorks forest carbon project in Kenya incorporates biodiversity and social benefits. The Kenya Agricultural Carbon Project, operating since 2009 in three Counties, has used carbon finance to restore agricultural productivity, diversify household food sources, increase resilience to climate change; and reduce GHG emissions, working with nearly 30,000 farmers on 21,000 hectares. Multi-year agricultural development and landscape restoration in Mt Elgon, Uganda is being financed jointly by dairy investments and carbon offset payments.



Landscape partnerships are working collaboratively to mobilize linked development and conservation funding. For example, the Albertine Rift Conservation Society (ARCOS Network) established Nature Based Villages in Rwanda; through a Nature-Based Community Fund, communities receive financial incentives and on their side, contribute to landscape restoration and biodiversity benefits. The Imarisha Naivasha landscape in Kenya, a public-private-civic partnership, has mobilized finance from private sector buyers of export products, tourism, geothermal investments, payments to farmers for watershed and biodiversity protection; eco-friendly market actors, and carbon credit finance. In Ethiopia, the Nestle company is working with public, private and civic sector partners to develop a 15-year landscape investment portfolio for joint agriculture, infrastructure and ecosystem restoration. In Laikipia County, Kenya a group of people started a small Water Bank, where all the local shareholders are also local water users. In West Africa, African Model Forest partnerships are setting up their own Green Funds to build inclusive and eco-friendly communities.

International public sector finance is also evolving to make it possible for integrated landscape partnerships to directly access

funding for joint development and conservation investments. For example, the (climate) Adaptation Fund has accredited SANBIO in South Africa to fund sustainable landscape investments. The Green Climate Fund and IFAD are mobilizing funding for landscape investment that incorporates biodiversity and ecosystem, as well as social benefits. Impact investment and some government funds are including biodiversity conditionalities for investment.

Measure landscape-scale performance

9. Set landscape biodiversity targets.

Contributing to the Bonn Challenge, the African Resilient Landscapes Initiative (ARLI), the African Union Agenda 2063, the Sustainable Development Goals and other targets, the African Forest Landscape Restoration Initiative (AFR100) is a country-led effort to bring 100 million hectares of land in Africa into restoration by 2030. Today 29 African countries have committed to restore more than 125 million hectares of land by 2030, bringing natural benefits to people and biodiversity. African countries have also made national commitments to biodiversity and habitat conservation (<http://afr100.org>)

In addition to these overall area targets, national and state governments—as well as local landscape initiatives—should be encouraged to set specific targets and commitments for biodiversity conservation from an ILM perspective. These would explicitly connect different aspects of conservation with sustainable use, such as agriculture, forestry, and urban development.

In 2014, leaders of the Landscapes for People, Food and Nature initiative proposed a specific Landscape Target that could be adapted: “All landscapes are managed by their stakeholders, across sectoral and administrative boundaries, in a way that integrates food security, sustainable production, livelihood development and ecosystem services/biodiversity.” This cross-cutting target offers a mechanism for countries to implement multiple SDGs, including for biodiversity conservation. Options for indicators include: number of integrated landscape initiatives; proportion of agricultural area managed with climate-, water- and biodiversity-friendly practices; area of landscapes with continuous vegetative cover; national policy support for integrated landscape management; percentage improvement in the multiple dimensions of human well-being of households within a landscape (Scherr, et al. 2014).

10. Build local skills and invest in Community Resource Centres for locally-led landscape monitoring and research.

Science and evidence are needed to promote inter-ministerial dialogue and harmonise sectoral policies to protect biodiversity, inform the strategies, practices and products for biodiversity-friendly development. This calls for more monitoring and research, and strategies that build on and inform integrated landscape management.

There have been important advances in methodologies for landscape monitoring integrating biodiversity and other land use-related activity. The World Agroforestry Centre and partners have developed advanced tools for measuring

and monitoring biodiversity in agricultural landscapes designed to be implemented across a series of “sentinel” landscapes at national level (Harrison, et al 2018). The [LandScale initiative](#) has developed a framework for integrated impact monitoring at landscape scale, including for biodiversity. The Integrated Landscape Assessment and Monitoring (ILAM) framework developed by ARCOS Network using the State-Pressure-Response model to assess the status of biodiversity, ecosystem services and socio-economic condition is focal landscapes.

Building local research capacities and skills is critical to landscape monitoring and documentation. Efforts should be directed to support and promote Community Resource Centres to enhance direct participation of community members in the generation of knowledge about landscape resources. The Laleenok Resource Centre in the South Rift Landscape in Kenya run by SORALO provides a living example of this. The Centre has not only provided training for professionals from the community to actively participate in the resource mapping and documentation exercises, but it has also become a popular destination for research on community resource management practices.

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Annex 1.

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