# Accelerating Implementation of the Kunming-Montreal Global Biodiversity Framework

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## Perspectives for the Convention on Biological Diversity

The seventeenth meeting of the Conference of the Parties (COP17) to the Convention on Biological Diversity (CBD) marked the first global review of progress towards implementation of the Kunming-Montreal Global Biodiversity Framework (KMGBF). While the review demonstrated growing commitment to biodiversity action, it also highlighted persistent implementation challenges. At the same time, biodiversity loss continues globally and many countries, including the UK, remain off track to meet biodiversity goals and targets. The challenge is therefore increasingly one of implementation rather than ambition.



One of the clearest messages emerging from COP17 is that biodiversity loss cannot be addressed in isolation.

Delivering the goals of the KMGBF will require stronger connections between scientific evidence, Indigenous Peoples and local communities, policy development, business action and investment, alongside approaches that recognise the links between biodiversity, climate change and land degradation.

UKCEH's unique multidisciplinary expertise spans biodiversity, freshwater and terrestrial ecosystems, soils, pollution, ecosystem services and environmental change enabling us to develop whole-system approaches that connect monitoring, policy, finance and implementation across land, water and air. Drawing on this experience, we highlight four priorities for accelerating implementation of the KMGBF:

## 1. Supporting implementation through integrated evidence and Rio Convention Synergies

The next phase of KMGBF implementation will require integrated evidence that supports action across biodiversity, climate and land agendas. UKCEH's whole-systems expertise across land, water and air can help countries strengthen National Biodiversity Strategies and Action Plans (NBSAP) implementation, reduce duplication in monitoring and reporting, and accelerate delivery of biodiversity, climate and land restoration objectives.

One of the clearest messages emerging from CBD COP17 is that biodiversity loss, climate change and land degradation cannot be addressed in isolation. These challenges are also closely linked with water security, food systems and human health, creating interconnected risks and opportunities that cut across traditional policy and institutional boundaries. While there is now broad agreement that these challenges are interconnected, implementation often remains fragmented across policy, planning, monitoring and funding processes. As a result, countries can face multiple reporting requirements, competing priorities and parallel delivery mechanisms for challenges that are fundamentally interconnected.

The opportunity is not simply to improve coordination between the Rio Conventions, but to help countries identify actions that deliver benefits across multiple objectives while minimising unintended trade-offs between sectors and policy goals. The IPBES Nexus Assessment, co-chaired by UKCEH's Professor Paula Harrison, demonstrated that biodiversity, climate, water, food and human health are deeply interconnected and that integrated approaches can generate greater benefits while reducing trade-offs.[1] The assessment identified 71 response options capable of delivering co-benefits across multiple dimensions of sustainable development when implemented in a coordinated manner and supported by enabling governance, finance and societal engagement. Increasingly, countries need evidence systems that support this type of joined-up decision-making, helping align NBSAPs with wider climate, land restoration and sustainable development priorities.

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## 1. Supporting implementation through integrated evidence and Rio Convention Synergies

This direction was further reinforced through the Armenia Declaration on Rio Convention Synergies, which highlighted the need for stronger alignment between biodiversity, climate and land planning, finance and implementation processes. Ultimately, sustainable development will depend on acknowledgment of contributions from nature to society including businesses but also the effects of economic drivers on nature.

UKCEH's multidisciplinary expertise positions us to support the practical implementation of Rio Convention Synergies. By integrating evidence across land, water and air, we can help countries align NBSAPs with wider climate and land objectives, identify actions that deliver multiple environmental benefits, and develop monitoring and assessment approaches that support implementation, investment and reporting from a common evidence base. Our whole-systems expertise can also help support nexus approaches that connect biodiversity policy with wider objectives for food, water and health, helping decision-makers identify interventions that are more resilient, equitable and effective. Such approaches have the potential to reduce duplication, strengthen decision-making and accelerate delivery of biodiversity, climate and land restoration goals.

## 2. Enabling businesses to take nature-positive action

The evidence is increasingly clear that business and finance must play a central role in achieving the KMGBF. UKCEH helps bridge science, policy, business and finance together by providing the evidence and assessment approaches needed to understand business dependencies and impacts on biodiversity, identify effective actions and support nature-positive decision-making and investment.

The first global review of progress towards the KMGBF highlighted a growing implementation challenge: how to translate biodiversity commitments into practical action across the sectors and economic activities that drive biodiversity loss. As Parties seek to accelerate implementation, increasing attention is being given to biodiversity mainstreaming, resource mobilisation and the role of business and finance in delivering biodiversity outcomes. The recent Methodological Assessment of the Impact and Dependence of Business on Biodiversity and Nature's Contributions to People reinforces that businesses both depend upon and impact biodiversity, and that biodiversity loss presents material risks to economies, financial systems and human wellbeing.[2]

The challenge is therefore increasingly not whether businesses should act, but how. Governments, businesses and investors need practical, evidence-based approaches that help identify effective interventions, evaluate outcomes and direct investment towards activities that benefit nature. Nature-positive transitions will require tools and evidence that help decisionmakers understand biodiversity risks and dependencies, identify priority actions and measure progress towards biodiversity targets.

UKCEH is already helping bridge the gap between biodiversity ambition and implementation. Through the Nature Positive Pathways initiative, UKCEH is helping identify how sectors such as food, water and the built environment can contribute towards biodiversity targets while supporting economic resilience and investment.[3] This work provides a framework for identifying sector-specific actions, transition pathways and enabling conditions needed to support long-term nature-positive transformation. Through the Integrating Finance and Biodiversity (IFB) programme, we are helping develop the knowledge, tools and partnerships needed to embed biodiversity into financial decision-making and mobilise investment for nature recovery. Together, these initiatives demonstrate how biodiversity evidence can be translated into practical pathways for implementation, helping governments, businesses and investors identify priority actions, target resources effectively and measure outcomes. This positions UKCEH as a valuable technical and scientific partner for initiatives that seek to strengthen biodiversity mainstreaming, biodiversity finance planning, resource mobilisation and implementation of National Biodiversity Strategies and Action Plans, including through mechanisms such as the Biodiversity Finance Initiative (BIOFIN).

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## 3. Strengthening insect monitoring, surveillance and early warning systems

Strengthening insect monitoring, surveillance and early-warning systems should be recognised as a strategic investment in implementation of the KMGBF, and UKCEH is helping develop the innovative monitoring approaches needed to support this transition.

Effective implementation of the KMGBF depends on the ability to detect biodiversity change, identify emerging threats and evaluate whether conservation actions are working. Yet significant gaps remain in global biodiversity monitoring. This is particularly true for insects, which are the most diverse group of organisms and play fundamental roles in pollination, food webs, nutrient cycling and wider ecosystem functioning. Unravelling the causes of insect declines is critical while also recognising the variation in responses of this diverse animal group.[4] New evidence from UKCEH highlights that the consequences of insect decline extend far beyond insects themselves, affecting ecosystem resilience and the benefits that nature provides to people.[5] Improving understanding of insect populations and stronger integration of insects into biodiversity policy and implementation frameworks therefore represents one of the greatest opportunities to strengthen biodiversity monitoring systems and address a critical evidence gap in implementation of the KMGBF.[6]

The IPBES Thematic Assessment Report on Invasive Alien Species and their Control, co-chaired by UKCEH's Professor Helen Roy, reinforced the importance of surveillance, monitoring, early detection and rapid response in reducing biodiversity impacts and avoiding the higher costs associated with delayed action.[7] Many insect groups respond rapidly to environmental pressures, making them valuable indicators of ecosystem condition and change. Strengthening observations of insects can support a range of implementation needs by improving understanding of biodiversity change, helping identify emerging environmental pressures and providing insights into ecosystem condition and resilience. Recent research highlights the importance of integrating multiple sources of evidence to understand insect biodiversity change and support more effective conservation action.[8]

Addressing these challenges will require monitoring approaches that are scalable, accessible and useful for decision-making. UKCEH is developing innovative approaches through automated monitoring, artificial intelligence, citizen science and long-term biodiversity observation, enabling a more complete understanding of biodiversity change across freshwater and terrestrial ecosystems.[9] By strengthening surveillance, supporting earlier detection of environmental change and generating more actionable biodiversity evidence, these approaches can help Parties improve biodiversity monitoring systems, strengthen invasive species surveillance and develop the early-warning systems needed to support implementation of the KMGBF.

## 4. Building equitable biodiversity capability and evidence

Achieving the KMGBF will require equitable investment by Parties, development partners, international funders and donors in scientific capability, analytical infrastructure, institutions and partnerships that build local ownership and strengthen the ability of countries and communities to generate, interpret and apply biodiversity evidence in support of policy, implementation and investment decisions.

Delivering the KMGBF depends on access to robust, relevant and accessible biodiversity evidence. However, substantial gaps remain in monitoring capacity, scientific infrastructure, technical expertise and access to biodiversity data globally but unevenly amongst regions. Indeed, some of the most species rich regions of the world are the most data poor. These inequalities can limit countries' ability to assess biodiversity change, prioritise interventions, demonstrate progress and attract investment. Recent proposals for a World Biodiversity Research Programme highlight a persistent gap between identifying biodiversity knowledge needs and coordinating the research, monitoring and capacity development required to address them, while also noting continued disparities in access to biodiversity data, modelling capabilities and scientific expertise.[10]

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## 4. Building equitable biodiversity evidence and capability

The challenge facing the KMGBF is not simply one of data availability. Findings from the UKCEH-led Innovate4Nature project demonstrate that biodiversity monitoring remains fragmented and uneven, with low- and middle-income countries facing significant barriers relating to technology access, scientific infrastructure, analytical capability, long-term funding and data accessibility.[11] The report highlights that many organisations and countries face challenges not only in collecting biodiversity data, but also in accessing the computing resources, analytical tools and expertise required to translate data into actionable insights. It further highlights the risk that data collection becomes concentrated in one region while analysis and decision-making capacity remain elsewhere, alongside limited opportunities to shape research priorities, monitoring design and the questions that biodiversity evidence is intended to address undermining the impact of monitoring investments for local implementation and decision-making.

Building equitable biodiversity capability and evidence therefore requires investment in people, institutions and partnerships alongside monitoring systems and technology. Long-term success depends on ensuring that countries, Indigenous Peoples and local communities, practitioners and institutions have the capability, infrastructure and partnerships needed to generate, interpret and apply biodiversity evidence themselves. UKCEH's experience in co-designing monitoring and research partnerships, including work with the UK Overseas Territories on invasive species surveillance, demonstrates how scientific capability, infrastructure and ownership can be strengthened together.[12] Scientific partnerships are most effective when they build local ownership, institutional resilience and decision-making capacity, enabling countries and communities to develop and sustain their own monitoring systems and assessment capabilities rather than creating dependence on external expertise. These are not simply capacity challenges; they are implementation challenges. Without the ability to generate and apply biodiversity evidence locally, countries will struggle to translate ambition into action.

## A partnership for impact

Achieving the ambitions of the KMGBF will require more than stronger biodiversity commitments. It will require scientific capability, practical implementation pathways, integrated evidence and stronger connections between science, policy, business and finance. Through our expertise in biodiversity monitoring, environmental assessment, nature-positive transitions and integrated evidence across land, water and air, UKCEH is well placed to support the CBD Secretariat, Parties and implementation partners in strengthening NBSAP implementation, advancing Rio Convention Synergies, supporting biodiversity finance initiatives and accelerating delivery of the KMGBF.

*To explore opportunities for collaboration please contact Melissa Allan, International Relations Coordinator, UKCEH melall@ceh.ac.uk*

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