Post-2020 global biodiversity framework: reflections from Future Earth

Following recommendation SBI/2/19 of the Convention on Biological Diversity (CBD), Future Earth is pleased to share with the CBD Executive Secretariat , its views regarding the scope and content of the post-2020 global biodiversity framework.

This document highlights the key elements expressed by the Future Earth community regarding (a) the scientific underpinning of the scale and scope of actions necessary to make progress towards the 2050 Vision; and (b) a possible structure for the post-2020 biodiversity framework.

Future Earth conducted an open consultation, jointly with CNRS – the French National Center for Scientific Research, reaching out to the largest and most diverse scientific communities.

Overall, Future Earth and CNRS welcome the outcomes of the recent CBD COP14, which highlight the great importance of sound scientific assessment and science-based orientations, not only for the post-2020 framework, but also for the entire scope of action of the CDB and its Parties, including expert views to co-design solution and joint implementation on the ground.

Results of the consultation

1 - The scientific underpinning of the scale and scope of actions necessary to make progress towards the 2050 Vision.

Science provides the most reliable source of knowledge regarding the state of biodiversity, its complex interactions within wider socio-ecosystems, the direct and indirect drivers of biodiversity loss, and the effects of policy options.

The global 2050 Vision will only happen if coherent actions are implemented at all scales (including local, sub-national, national, regional, and global scales). Analyzing phenomena across scales and sectors is one of the most exciting scientific challenges – it is also where policy-making often reaches its limits for promoting coherence and biodiversity mainstreaming. Moreover, non-governmental organisations (NGOs), businesses, and society at large, have proven their ability to come up with innovative actions across various scales.

While the role of science for assessing situations and providing expert advice is largely recognized, it is important to stress that science is part of society, and that at every level and across scales, actions should be co-designed by society and for society. Science has been providing data, information and expertise to inform policy action for decades. For instance, the direct and indirect drivers of biodiversity loss are well known (i.e. from the Global Biodiversity Outlook 3: (i) habitat loss and degradation, (ii) climate change, (iii) excessive nutrient load and other forms of pollution, (iv) overexploitation & (v) unsustainable use and invasive alien species), and yes – our knowledge is ever improving.

Transformative actions towards the 2050 Vision would require a better integration of this knowledge into policy, biodiversity mainstreaming and more use of this knowledge to co-design solutions with all stakeholders.

In the past 10 years, environmental sciences have experienced a major shift. Sustainability science is now about generating knowledge that cuts across issues such as biodiversity, climate change, health, production and consumption patterns, public policies, business practices, etc. together with society. This transformation remains to be systemically transferred and picked up by policy-making efforts.

- The 2050 Vision must be back-casted[1] into progressive steps and actions at various scales.
This requires more than targets and indicators: it requires roadmaps, guidelines, milestones, translations, adaptations, differentiations, and inclusivity.

- Science can help at all scales of action.
Science connects local observations with global scenarios, as well as national actions with its regional consequences.

- Transdisciplinary science can help build effective cross-sectoral solutions.
Science connects biodiversity with climate, pollution, health, culture, well-being, policies, business practices, etc.

The post-2020 global biodiversity framework must embrace these principles and organise the translation of the 2050 Vision into local, sub-national, national, regional visions and actions. Science can underpin these actions and join the exercise, in a participatory process with all stakeholders for co-designed roadmaps and milestones. Science can further underpin the implementation of subsequent actions and provide expertise on policy coherence.

Policy coherence is a key step towards synergistic actions with other multilateral environmental agreements, especially with the Paris Agreement's Nationally Determined Contributions (NDC) and the Sustainable Development Goals' Voluntary National Reviews towards the 2030 Agenda. The post-2020 framework is an opportunity to enhance ambitions and policy coherence at all levels.

CNRS and the Future Earth community are committed to participate in this effort and will liaise with the Executive Secretariat of the CDB to make it happen.

2 - Possible structure for the post-2020 biodiversity framework

The current Strategic Plan 2011-2020 covers the major domains where action is needed to fulfill the 2050 Vision. It has the advantage of being a well-known common framework with comprehensive targets. As such, it is a strong basis for the future. However, very few of

[1] Backcasting: starting from a defined desirable future (e.g. the 2050 biodiversity vision) to then move backwards to identify actions (e.g. policies) that will make the present meet the future vision.

the Aichi targets will be reached in 2020, despite ongoing progress. The post-2020 framework could thus strengthen what works and adapt what needs adjustment.

One of the main difficulties with the Aichi targets is not the targets nor the indicators but their translation into national policies. Current National Biodiversity Strategies and Action Plans (NBSAP) do not fully reflect the Strategic Plan, showing how difficult it is to translate global goals into local actions.

Therefore, one of the first paths towards an effective global framework would be to ensure that it can be adapted at different scales. It is crucial that this new common framework also provides progressive methods and pathways to guide implementation at sub-global levels. The gap is too important today between the global Aichi targets and related indicators on one side, and the NBSAPs on the other. Although a complex policy exercise, co-designing pathways, progressive targets and related indicators is an endeavour which the scientific community is well equipped to pursue, along with relevant actors at various scales.

All targets are currently placed at the same level of importance. Although this is fully understandable since action is required on all fronts, the most transformative levers would come from enhanced importance given to Strategic goals A and B (Aichi targets 1 to 10). These targets are clearly related to drivers of biodiversity loss, stronger policies, policy coherence and political will to mainstream biodiversity in all sectors and to promote socio-ecological synergies. Allowing countries to adapt their priorities according to their national contexts (e.g. the type of biodiversity they host, the most prevalent drivers of loss they face) would also be an interesting prospect.

Besides these options to adapt the Strategic Plan, here are some examples regarding possible ways to enhance its relevance, which could be included in the post-2020 framework:

2.1 – Enhancing the coverage of major challenges

Fiveoverarching questions emerged from the consultation organised by Future Earth which should be considered when designing the post-2020 biodiversity framework, as described below.

How to mainstream biodiversity?
One central element of the post-2020 biodiversity framework should be to consider ways through which mainstreaming can be achieved, answering the question, how can biodiversity concerns be integrated across all sectors such as energy, health and construction? Pathways and roadmaps on how societies can develop “in harmony with nature” at various scales thus need to be explored in collaboration with other sectors.
Mainstreaming is a complex task, but what has been accomplished on health, for instance, is an example of major progress, streamlining efforts and approaches into implementation strategies.

How to (re)connect biodiversity to society?
As the collection of individual actions in favour of the environment has been recognised as a strong lever for change (especially in climate change discussions, e.g. the impact of diets on greenhouse gas emissions), the same should be promoted for biodiversity. Transforming lifestyles and shifting towards biodiversity-friendly production and consumption patterns has been recognised as one key method for addressing drivers of habitat loss. The challenge remains to connect biodiversity to societal challenges in order to ensure strong social adoption (e.g. making the link between biodiversity loss and health or poverty).

How to promote biodiversity as an ally to adapt to environmental changes?
The post-2020 biodiversity framework should also put forward the role of biodiversity and ecosystems in helping societies adapt to environmental changes (e.g. how can ecosystem services provide adaptation and mitigation solutions for climate change?). This also implies a larger understanding of the role of biodiversity as a key contributor to human well-being and sustainable development (i.e. biodiversity mainstreaming).

How to ensure a just future for humanity in the process of achieving conservation?
The post-2020 biodiversity framework should ensure that the governance of conservation protects both nature and people, making the link between social and environmental justice. This implies not only keeping an eye on the end result (i.e. that conservation has been achieved), but also ensuring justice in the process, giving space to social innovation to shape governance, policy and ways of knowledge production.

How to value biodiversity and secure investments in biodiversity?
Ways through which financial incentives to carry out conservation and sustainable use of biodiversity need to be included in the post-2020 biodiversity framework. This includes the need for effective and agreed valuation, proper markets that achieve system-level benefit, for example offsets, and accounting for the true environmental cost of development, inaction, and in some cases ineffective conservation. Likewise, the various legal, financial and other market-related incentives that have adverse effects on biodiversity should be addressed immediately.

2.2 – Indicators and knowledge gaps

Some of the emerging scientific questions relate to understanding and monitoring socio-ecological dynamics as a whole. The attention given to biological diversity should not dismiss the importance of biocultural, socio-ecological, holistic approaches. Society is fully embedded in the environment and humans are part of, and depend on biodiversity. The success of approaches linking biodiversity with health, climate change, disaster risk reduction or local and indigenous knowledge is building this path, as biodiversity is an essential component of social, economic and cultural systems. These emerging approaches point to new priorities of action and possible indicators (i.e. biocultural ones), which could be co-designed with stakeholders and aggregated at different scales.

Beyond knowledge gaps, the lack of political will remains the main difficulty. This shows in the lack of demand for scientific support to policy innovation and to implementation in

most countries, and leaves a huge quantity of research, data an information unused (i.e. creating knowledge waste). The multiple synergies and trade-offs between policies, challenges, practices and priorities are not well covered by policy efforts. Even incentives affecting biodiversity, although often well-documented, are still widely used. Yet the potential to trigger change is massive. It is a sensitive balance where science might point out policy incoherence in fields with high political stakes, but where co-designing pathways and solutions for a constructive way forward could be extremely beneficial for biodiversity and society.

Gaps in knowledge are the fuel of scientific research. These gaps are not limits to what we already know, they are ways forward. **Therefore, a first priority for a policy framework is to take stock of the knowledge already available, take responsibility, and act upon it**. The assessments conducted by IPBES clearly prove useful and are highly valued by decision-makers. Yet, there are gaps in expertise and in monitoring strategies, such as:

- Biodiversity in groundwater, in the soil and in the air, is largely unknown, and important investments should be made to provide knowledge.
- Methods to identify adequate baselines or goals, in order to monitor change and assess progress towards success are still being built, tested, and are very context-related.
- Understanding the socio-political context of psychology, cultural and socio-economic habits and practices, as well as the impacts of power relations and management practices are important, yet little funding is available to narrow this gap in regard to the challenge at hand.
- Scaling up what works locally is an ambition that is fueled by solution-driven approaches, but the context-dependant variables often determine success. This requires sound knowledge generation and case-by-case approaches rather than unpacking solutions hastily.
- Monetary and non-monetary valuation of ecosystem functions and services, of nature's contributions to people, is a growing field with an IPBES assessment about to start, while remaining an area that requires more integrated knowledge.
- The links between biodiversity, ecosystem-related contributions and business practices in the long run are a major gap that should be addressed. There is evidence that biodiversity is a condition for sustainable economics, yet business choices and metrics rarely reflect this.

The global picture of biodiversity decline and drivers could be much more precise provided we have a better understanding of what is at stake. Most of these gaps can be addressed at the local or intermediate levels, showing the importance of developing context-specific strategies, roadmaps and milestones.

That being said, the most urgent gaps remain in direct actions on the well-known drivers, to rapidly bend the curve of of biodiversity loss. Unless these action gaps are addressed, new knowledge might only deliver a clearer picture of a never-slowing decline.

2.3 – Synergies with other frameworks

Sustainability science is about grasping the complex, holistic, systemic reality of our socio-environmental planet. In that regard, it seems of utmost importance to **ensure the post-2020 global biodiversity framework, the Paris Agreement and the 2030 Agenda are not only aligned but inter-dependent.** Today, ministries working on energy and climate are distinct from those working on nature conservation. Those working on employment are distinct from those working on health. From a scientific point of view, **these distinctions are problematic when they create a functional separation of phenomena that should not be separated**.

CBD's NBSAPs, UNFCCC's NDCs, 2030 Agenda's National Reviews should be integrated into a common system. **Given the reflections and suggestions that emerged from our consultation, the post-2020 biodiversity framework could trigger such a transformative change.**