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Item 14 of the provisional agenda*

HIGH LEVEL PANEL ON GLOBAL ASSESSMENT OF RESOURCES FOR IMPLEMENTING THE STRATEGIC PLAN FOR BIODIVERSITY 2011-2020

EXECUTIVE SUMMARY

Note by the Executive Secretary

1. In paragraph 24 of decision XI/4, the Conference of Parties welcomed the initial findings of the High-level Panel on the Global Assessment of Resources for Implementing the Strategic Plan for Biodiversity 2011-2020, and invited the High-level Panel, in collaboration with other relevant initiatives that could provide a more bottom-up approach, to continue its work with a broadened composition and to report back on the results of its work to the twelfth meeting of the Conference of the Parties.

2. In response, the Executive Secretary, in consultation with the Bureau of the Conference of the Parties, established a second phase of the High-level Panel on Global Assessment of Resources for Implementing the Strategic Plan for Biodiversity 2011-2020. Through a broadened regionally-balanced membership of fifteen experts, and drawing upon regional supporting assessments, in collaboration with other relevant initiatives, the Panel was able to provide a more bottom-up approach to its assessment.

3. The annex to the present document provides the Executive Summary of the report of the second phase of the High-level Panel, including draft Key Messages, for consideration by the Conference of the Parties at its twelfth meeting. The full report of the High-level Panel and six regional supporting assessments are also available.[1]

** Reposted on 11 September with a technical correction in footnote 1.

* UNEP/CBD/COP/12/1/Rev.1

[1] UNEP/CBD/COP/12/INF/4.

Annex

EXECUTIVE SUMMARY OF THE REPORT OF THE SECOND PHASE OF THE HIGH-LEVEL PANEL[2]

Resourcing the Aichi Biodiversity Targets

An Assessment of Benefits, Investments and Resource needs for Implementing the Strategic Plan for Biodiversity 2011-2020

[2] Prepared by the members of the High Level Panel. See appendix.

The preparation of this report has been supported by a synthesis team comprising Sarah Smith, (UNEP World Conservation Monitoring Centre) and Matt Rayment and Mavourneen Conway (ICF International), with Ravi Sharma and Tristan Tyrrell (Secretariat of the Convention on Biological Diversity) to assist the work of the High-level Panel.

EXECUTIVE SUMMARY

Introduction

The continued work of the High-Level Panel on Global Assessment of Resources for implementing the Strategic Plan for Biodiversity 2011-2020 was intended to support discussions on resource mobilization in the lead up to and at the twelfth meeting of the Conference of the Parties of the Convention on Biological Diversity (COP 12). This report builds on the global assessment of resources presented by the first High-Level Panel report and identifies the benefits of delivering the Aichi Targets, their investment and resource requirements. The report also analyses how the social, economic and environmental benefits of biodiversity investments align with existing policy, to ensure cost-effective delivery.

Summary of the findings of the first High-Level Panel

The first High-Level Panel report (HLP 2012) presented a global assessment of the costs of meeting the Aichi Biodiversity Targets by 2020, estimating that between US$ 150 billion and US$ 440 billion per year would be required. The Panel acknowledged a range of uncertainties, and recognised that further research is vital to help refine these estimates. It highlighted that the resource needs were not a "bill" for biodiversity, but called for a change in the way resources are allocated in our economies to get the best outcomes for biodiversity and sustainable development. The report added that a variety of factors would affect the magnitude of the funding requirements. In particular, inter-linkages and synergies between Targets and other goals mean that the approach, resourcing and effectiveness of the delivery of any one Target may influence the investment needs of another. The High-Level Panel highlighted some of the significant benefits of delivering the Targets, as well as co-benefits to other sectors, and concluded that benefits secured through implementing the Aichi Targets are likely to significantly outweigh costs. However, it also recognised that there is a need for the development of an appropriate and coherent political and institutional framework, including strong political will, in all nations in order to secure these benefits and synergies.

Box 1 – Key messages from the first phase of the High-Level Panel

1. Implementation and delivery of the Targets requires the development of an appropriate and coherent political and institutional framework and strong political will, particularly at the national and regional levels;
2. Investment in biodiversity and natural capital will deliver significant co-benefits for sustainable development;
3. Existing evidence suggests that benefits of meeting the Targets are likely to significantly outweigh costs;
4. There are clear differences in the relative scale of investment required to deliver the various Targets. In addition, the investment needed to deliver a Target is not necessarily correlated to its importance;
5. Many factors affect the magnitude of the estimates of the investments needed to achieve each of the Targets. These include the scope of the activities to be costed, and associated investment opportunities and the potential synergies among Targets, as well as uncertainties arising from limitations in data and methodologies;
6. There are many inter-linkages and co-dependencies to consider both between the Targets themselves, and between the Targets and other national policy goals;
7. Funding from a diverse range of international and national sources, and across different policy areas is required to secure the full range of economic and social benefits to be gained from meeting the Aichi Targets;
8. Further research is vital to help improve and refine these estimates.

COP decision and mandate of the High-Level Panel

The eleventh meeting of the Conference of Parties invited the High-level Pane, in collaboration with other relevant initiatives that could provide a more bottom-up approach, to continue its work with a broadened composition (of new Panel members with a regional balance) and to report back on the results of its work to COP 12 (decision XI/4).

The main objectives (Terms of Reference) of the High-Level Panel are to:

1. Develop an assessment of the benefits of meeting the Aichi Biodiversity Targets, examining both direct biodiversity benefits and wider benefits to society that result from the investments and policy developments required;
2. Assess the range of the costs of implementing the activities needed to achieve the targets, taking into account the further work proposed in the High-Level Panel report to COP-11;
3. Identify opportunities to secure the benefits most cost effectively through actions in both the biodiversity sector and across economies as a whole that can mobilize / make better use of resources, to deliver greatest progress towards meeting the Aichi targets.

In its second phase of work, the Panel has built upon the findings of the first report by initiating a more bottom-up approach that takes greater account of regional evidence and places more emphasis on the costs and benefits of meeting the targets, cost-effective means of reaching objectives, and synergies with other policy agendas.

Organization of work of the High-level Panel

The High-Level Panel since its establishment in 2012 including its underpinning research were co-sponsored by the governments of Brazil, India, Japan, Norway and the UK. Representatives from these governments, along with UNEP, UNDP, OECD, the World Bank, the GEF and the CBD Secretariat, have thus been closely engaged in facilitating the work of the Panel. Following COP 11, the High-Level Panel physically met three times on 30-31 May 2013 (Trondheim, Norway), 2-4 December 2013 (Chennai, India) and on 14-15 April 2014 (Brasilia, Brazil). Meetings reviewed progress on the preparation of the report and its findings, and feedback received during its review.

Organization of research

The CBD Secretariat commissioned a project for research to support the second phase of the work of the High-Level Panel. This work was contracted to the United Nations Environment Programme World Conservation Monitoring Centre (UNEP-WCMC) and ICF International.

The research was organised so as to collect bottom-up evidence from different countries, regions and initiatives at different geographical scales, through six regional research consultancies which considered data from national sources. This evidence supported analysis of the inter-linkages between targets and with broader policy agendas, as well as the costs and benefits of meeting individual targets at these different levels. This report draws on the regional reports, supplemented by global analyses, and presents synthesised evidence and case studies from the regional assessments. The High-Level Panel has drawn ten Key Messages from its assessment, which is then used to structure the evidence presented. In addition, in order to deliver a long-term, stable and predictable increase in resources for meeting the Aichi Targets, and the associated Vision for 2050, the High-Level Panel makes a series of recommendations which aim to highlight the actions required to ensure the values of biodiversity are reflected in plans and decisions throughout our economies and societies.

Key Messages

Key Message 1:

Meeting the Aichi Targets will deliver substantial benefits to people and to economies across the world

A major part of the underlying rationale for the Strategic Plan for Biodiversity and the Aichi Biodiversity Targets is that "*biological diversity underpins ecosystem functioning and the provision of ecosystem services essential for human well-being. It provides for food security, human health, the provision of clean air and water; it contributes to local livelihoods, and economic development, and is essential for the achievement of the Millennium Development Goals, including poverty reduction.*"

Assessments at the global, regional, national and local levels all highlight the substantial values of the essential provisioning, regulating, cultural and supporting services that ecosystems provide, and the benefits of actions for the conservation and sustainable use of biodiversity, and for restoration of degraded ecosystems.

There is strong evidence of the benefits of biodiversity action for society across a wide range of Aichi targets, for all types of ecosystems and for all regions of the world.

Key Message 2:

Biodiversity is essential to sustainable development

Biodiversity is a powerful engine for delivering current and future sustainable development objectives at varying scales, including goals linked to food security, water security, livelihoods, climate change and disaster risk reduction, among other development goals.

Investments in biodiversity and in the implementation of the Aichi Targets will deliver significant co-benefits for sustainable development. The Targets are inextricably linked to all aspects of sustainable development including poverty alleviation, the rights of indigenous and local communities, long-term food security, human health, climate change mitigation, adaptation and resilience; as well as to ecological infrastructure[3], local livelihoods, and job creation, thereby supporting national and global economies. Hence, biodiversity conservation and sustainable use constitute not only the environmental aspect of sustainable development, but are broadly linked to development as a whole, including economic and social dimensions.

Expenditure and actions to meet the Aichi Biodiversity Targets should be recognised as part of wider investment needs for achieving sustainable development in the context of the post-2015 sustainable development agenda.

Biodiversity is central to goals relating to the conservation and sustainable use of terrestrial and ocean ecosystems and should be integrated, along with biodiversity-related targets and indicators, in to all other relevant Sustainable Development Goal (SDG) focal areas. At the same time, if sufficient policy coherence is achieved, the SDGs will help to create the enabling conditions necessary for biodiversity conservation and sustainable use, including improved institutions, policy development, and increasing human capability to make informed decisions with respect to the natural world. Similarly, the Means of Implementation discussion (under the SDGs) and the biodiversity resource mobilization agenda are mutually supportive, and adequate integration of biodiversity in the post-2015 framework at global and at national level will help reduce biodiversity financing needs.

[3]Also known as green infrastructure

Achieving the Aichi targets will help to create jobs and revenue flows and support new economic and business opportunities.

Biodiversity underpins natural capital, which represents, on average, 36% of the total wealth of low-income countries and supports more than half of the "GDP of the poor". Nature-based investments will be an essential component of the movement towards inclusive green economies. Sustainable agriculture, alongside technological development, is likely to improve incomes; establishing protected areas will create new opportunities for tourism business; and the control of invasive alien species and restoration will create jobs.

Key Message 3:

Biodiversity contributes to climate change mitigation, adaptation and resilience

Investing in biodiversity can effectively reduce national and community vulnerability, increase resilience and aid adaptation to climate-related impacts at all scales, and contribute significantly to climate change mitigation, including helping to meet mitigation targets.

Maintaining healthy oceans and restoring and conserving forests and wetlands are key strategies for climate change mitigation. Halving deforestation rates by 2030 would reduce global greenhouse gas emissions by 1.5 to 2.7 GT CO_2 per year, thereby avoiding damages from climate change estimated at more than US$ 3.7 trillion (net present value) globally (Eliasch 2008). It is well established that carbon stocks in intact forests are more resilient than those in degraded fragmented forests. Other mitigation actions include protection of soil carbon, and reducing emissions from wetland, marine and agricultural systems.

Ecosystem-based adaptation can be cost-effective and generate multiple benefits for society.

The vulnerability of people, particularly the poor, to the impacts of climate change is inextricably linked to impacts on ecosystem services. Investments in biodiversity can provide direct adaption benefits including coastal protection (e.g. from the restoration of mangroves and coral reefs), flood regulation (from forests and wetland conservation) and protection for people and livestock from the sun. These investments will enhance resilience, including through safeguarding water, food security, and securing livelihoods options. This will be increasingly important in helping communities adapt to climate change and in minimising damage and loss.

There is a need to further understand impacts of climate change on biodiversity, and their implications for ecosystem-based mitigation and adaptation as well as to enhance the climate resilience of such interventions. At the same time, there is a need to improve understanding and consider trade-offs and co-benefits for biodiversity when developing wider climate change mitigation and adaptation policies and approaches. The role of local communities in assisting with ecosystem-based mitigation and adaptation should also be recognised.

The potential for enhancing synergies between the Aichi Targets and policies to address climate change is still not fully utilised, and there is significant scope for improvements in this regard.

There are significant alignments and inter-dependencies between the Aichi Targets and policies to address climate change. Investments in REDD+ for carbon mitigation are highly important for biodiversity conservation as well as for securing livelihoods, provided that adequate safeguards are in place and potential trade-offs are addressed.[4] Nature-based

[4] See Appendix 1 to the UNFCCC Decision 1/CP.16 Appendix 1 to the UNFCCC Decision 1/CP.16, "Guidance and safeguards for policy approaches and positive incentives on issues relating to reducing emissions from deforestation and forest degradation in developing countries; and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries" available at UNFCCC/CP/2010/7/Add.1, 15 March 2011, pages 26-27,

solutions for climate adaptation can be cost-effective and contribute to the objectives of both the UNFCCC and the CBD.

Key Message 4:

Investments in biodiversity can strengthen the provision of ecosystem services on which vulnerable communities depend

As biodiversity loss disproportionately affects vulnerable populations, investments in biodiversity will secure the long-term provisioning of key services and access to critical biodiversity resources that are essential for food security, economic opportunities, human well-being and quality of life.

Regional evidence demonstrates that vulnerable communities within developing countries are particularly dependent on ecosystems and their services. About 70% of the world's poor – some 870 million people – live in rural areas and many are directly dependent on biodiversity for their survival and well-being, including for the direct provision of food, fuel, building materials, clean water, medicinal plants and other necessary goods.

For many of the world's poor and vulnerable communities, land and natural resources and associated traditional knowledge are their primary capital assets, providing options to those that may otherwise have none.

Land-based sectors account for a large proportion of economies and employment in rural parts of developing countries. Biodiversity provides diverse livelihood options, including a vehicle for starting small businesses. This can be a lifeline for poor households during times of crisis. Biodiversity provides a 'social safety net' for the rural and coastal poor, providing wild protein to supplement agriculture and nature-based livelihoods to diversify on-farm income and offset the boom and bust of small-holder farming. The sustainable use of natural resources is essential for the sustained and equitable sharing of the benefits that nature provides in creating such socio-economic opportunities.

Biodiversity action needs to take account of distributional impacts, to ensure that benefits for poor and vulnerable communities are secured.

Action for biodiversity needs to take careful account of the needs of local communities, to ensure that potential negative impacts are identified and addressed. Schemes that help indigenous peoples and local communities and other natural resource managers to capture a larger proportion of the value of biodiversity and ecosystem services will increase incentives for conservation and help to deliver the Aichi Targets. All such schemes will require an appropriate recognition, allocation and security of property or access rights. Taking into account and addressing the distribution of monetary and non-monetary benefits within local communities, including for women, is likely to increase the cost effectiveness of activities towards conservation and sustainable use of biodiversity.

Key Message 5:

Biodiversity provides insurance and option values

Investments in biodiversity can provide insurance against uncertain and accelerating future environmental change, and maintain and enhance future development options. Investments made now will reduce future costs and preserve opportunities for current and future generations.

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http://unfccc.int/resource/docs/2010/cop16/eng/07a01.pdf, accessed 17 August 2012. The CBD Secretariat has provided advice on the application of relevant safeguards for biodiversity with regard to REDD+ UNEP/CBD/COP/11/24, Note by the Executive Secretary, 24 August 2012, http://www.cbd.int/cop11/doc/ accessed 1 October 2012.

Conservation and sustainable use of biodiversity are important, not just for the range of values of the services that they currently provide, but also because of their insurance and potential option values for mitigating risks, and for development opportunities. 'Insurance' is closely related to resilience, and biodiversity plays a crucial role in sustaining the resilience of ecosystems to cope with disturbance and change. By safeguarding critical ecological resources and functions, the ability to 'ride through' shocks – such as extreme events – increases. Safeguarding species and populations will protect the genetic variety of life, as well as the potential current and future values that may be associated with them. Thus healthy, functional and resilient ecosystems are increasingly being seen as a 'life insurance' policy for many communities, providing benefits across sectors including disaster risk reduction; food security; sustainable water management and diversification of livelihoods.

Failing to invest in biodiversity now will increase the risks and costs in the future.

The World Economic Forum Global Risks report (WEF 2014) found that four of the eight worst global risks are ecosystem-based. Taking insufficient action to address biodiversity loss will risk losing current and future benefits that could become vital in the future.

Strategies to halt ecosystem degradation now will decrease future costs of restoration, reduce the need for expensive manufactured substitutes to ecological systems, and reduce the costs of responding to humanitarian crises.

Key Message 6:

Enhancing synergies, addressing trade-offs and promoting alignments across sectoral policies, are prerequisites for effective implementation of the Aichi Targets and of major importance for resource mobilization

Developing harmonised objectives across sectors to develop and implement mutually supportive policies and activities, and increased efforts to manage trade-offs are all important steps for achieving the Aichi Targets, delivering co-benefits and developing cost-effective pathways towards a sustainable society. This will help to identify co-funding opportunities and to secure contributions to meeting the Aichi Targets from a wide range of sources across economies and societies.

Mainstreaming of biodiversity into wider policy agendas, plans and budgets, offers significant opportunities for more efficient policy-making processes and co-funding, but is still at an early stage. A more coordinated and coherent approach to planning and delivery between the biodiversity sector and other policy areas including development, growth, poverty alleviation, climate change, agriculture, forest, fisheries, water, and health, coupled with a more co-ordinated deployment of resources, is crucial to help address conflicts, deliver co-benefits and to meet the Aichi Targets at lower cost.

Efforts to capture the broad range of biodiversity values in accounting and reporting systems can contribute significantly to resource mobilization efforts

Initiatives such as The Economics of Ecosystems and Biodiversity (TEEB), the Wealth Accounting and the Valuation of Ecosystem Services (WAVES) partnership, the ongoing development of statistical standards for environmental economic and ecosystem accounts from the United Nations Statistics Division and planned studies under the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES), as well as related work at national and regional levels, are expanding the toolbox for capturing the range of values from biodiversity and ecosystem services in accounting and reporting systems, and thus in decision-making. Increased use of such tools in support of improved decision-making in public and private sectors may significantly contribute to long-term human well-being and sustainability.

The strengthened science-policy interface for biodiversity and ecosystem services could be a critical force in shaping the governance system for mainstreaming.

Effective integration of biodiversity and ecosystem services concerns into other sectors, and their plans for resource use and investments, will require a full understanding and recognition of their relevance and value to those sectors. With the establishment of IPBES, and the adoption of its first work programme, there is a strong potential for presenting information on the relevance and value of biodiversity and ecosystem services in a more coherent manner, and through processes that are recognised by both the knowledge sectors and governments alike.

Key Message 7:

All countries need to invest in institutions and policy frameworks, direct conservation and sustainable use actions, incentives and economic instruments

Cohesive, well-designed institutions and effective policy frameworks are a prerequisite for effective and efficient biodiversity financing.

The full report presents a typology of the investments needed to meet the Aichi Targets, and reviews evidence about investment needs in different countries and regions. It shows that "bottom-up" assessments of investment needs are broadly consistent with the "top-down" global assessment of investments needed to meet each Target presented in HLP (2012).

Investing in policy frameworks and general enabling conditions is a pre-requisite for biodiversity action in many countries, and especially in less developed parts of Africa, Asia, Latin America and the Caribbean, and Eastern Europe. Actions to raise awareness, build capacity, develop the knowledge base and establish the necessary legal structures, institutions and governance frameworks are a prerequisite for effective delivery of all of the Aichi Targets, as well as contributing directly to Targets 1-4 and 16-20. In some regions, such as North America, the EU and Australasia, enabling frameworks are generally more developed, but much progress still needs to be made in raising awareness of the values of biodiversity, improving understanding of ecosystem services, and integrating knowledge and awareness into incentive mechanisms, sectoral policies and public and private sector decision-making processes.

Barriers to meeting the Targets may have as much to do with a lack of the appropriate institutional frameworks and decision-making processes, as with a lack of resources. Effective action will require coherent policies, improved institutions and strengthened governance, engaging all relevant actors from global to local level.

Countries need to invest in direct conservation and sustainable use actions, in developing incentives and economic instruments, and in technology. They need to address the underlying drivers of biodiversity loss.

Investment in mainstreaming biodiversity into other policy areas is a key priority for all regions. Since there is inadequate funding for biodiversity action in many countries, opportunities to integrate biodiversity with other policy agendas related to poverty alleviation, sustainable livelihoods and natural resource management are important.

There is a need to respect and learn from indigenous peoples and local communities' knowledge and their contribution to the sustainable use and conservation of biodiversity, including recognising property rights and enhancing their participation and involvement in planning and implementation processes.

Key Message 8:

Design and implementation of appropriate economic and policy instruments is essential to halt the loss of biodiversity

Achieving the Aichi Targets at least-cost will require more efficient use of public budgets, together with the application of a wider range of economic instruments and incentives.

The actions required to meet the Aichi Targets require major investments and, given the very real constraints, trade-offs and priorities will have to be made. Nevertheless, resources acquired through grants and government funding can and should be stretched using better financial strategies, providing better incentives and encouraging investments from the private sector as far as possible, recognising the multiple benefits and beneficiaries. There is equally a role for national governments in the establishment of the enabling conditions that allow for further involvement of the private sector.

The range of instruments for biodiversity conservation and sustainable use, including incentives and economic instruments, must be scaled up and made more ambitious. These need to be designed and implemented so as to ensure they are as environmentally effective, cost-effective and as equitably distributed as possible.

Much can be gained by phasing-out perverse incentives and unsustainable practices, and extending good land-use and marine planning and the development of green fiscal policies.

The elimination of environmentally harmful and market-distorting subsidies, including those supporting agriculture, fisheries, forestry and the extractive industry, if well managed, would reduce negative impacts on biodiversity and free up resources that could be used for other investments in biodiversity protection and in more cost-effective development strategies. Proactive investments in sustainable production and consumption will be far less effective without either first, or at least simultaneously, eliminating subsidies to unsustainable production and consumption. At a global scale, it has been estimated that the removal of harmful fisheries subsidies, which currently amount to some US$ 19.2 billion, would contribute to obtaining a net gain in the returns to fisheries of US$ 124.8 billion ($77.6 – 170.6 billion) by 2020 (Harding et. al. 2012). Further work to identify and address the barriers to subsidy reform will aid this process.

Greater understanding and recognition of these benefits will encourage policy decisions that support resource mobilization and promote economic efficiency, market access, income diversification, fiscal reform and private sector investment. This will also provide clear and consistent signals to consumers, producers, investors and decision makers.

Environmental fiscal reform, payments for ecosystem services, biodiversity offsets, markets for green products, and the integration of biodiversity into climate change funding and international development finance (amongst other instruments, as examined by the OECD and others) all offer strong potential to achieve this if introduced wisely, under the right institutional frameworks, and with appropriate safeguards.

Key Message 9:

The monetary and non-monetary benefits of biodiversity conservation and sustainable use frequently outweigh the costs

The benefits of biodiversity conservation and sustainable use have been shown to greatly exceed the investment costs for all regions and for a wide range of Aichi Targets. Based on the HLP (2012) annual aggregate estimates of investment needs, the average global per capita investment needed for biodiversity action is estimated

to be between approximately US$20 and US$60[5]. This translates to investment requirements ranging from 0.08 to 0.25% of global GDP.

The first report of the High-Level Panel (HLP 2012) provided a first overall estimate of the level of resources required to deliver the Aichi targets globally, by aggregating global "top-down" estimates for each of the 20 targets. Through simple addition of the resource requirements identified for each Target, the resources needed to implement the twenty Aichi Biodiversity Targets were estimated at between US$ 150 billion and US$ 440 billion per year. These estimates include existing expenditures.

Regional and country level evidence broadly supports the estimates of global resource needs made by the High-Level Panel in its first report. However, given the multiple benefits of the investments required, only a small proportion of these resources need to be found from dedicated biodiversity budgets.

The top-down estimates of resource needs in HLP (2012) are broadly consistent with available assessments at the national, regional and global levels. Where there are differences, the evidence tends to suggest that the Panel's first phase estimates may have been rather conservative for some targets. In particular, the top-down global assessment in HLP (2012) came up with lower estimates for some targets than are suggested in estimates for some high income regions, such as the EU, where land and labour costs are high. In addition, estimates for Targets 2-4 in HLP 2012 are low compared to some other assessments, as they are based on the costs of studies and plans, rather than the full resources required to implement policy change.

It is estimated that expenditures focused primarily and directly on biodiversity make up only 18% of the estimated total global resources required to meet the Aichi Targets; a further 25% of investments will support climate action and other ecosystem services; while the majority of expenditures (an estimated 57% of the total) will support wider sustainability, through control of pollution and invasive alien species, and the promotion of sustainability in key sectors. The implication is that a minority of the identified investments will need to come from dedicated biodiversity budgets, but most could be funded jointly through public budgets and the reprioritization of private spending on agriculture, forestry, fisheries, water, pollution control and climate action.

Key Message 10:

There is a need to increase investments substantially to bridge financing gaps

Estimates at global, regional and national levels all point to a substantial gap between the investments needed to deliver biodiversity targets and the resources currently allocated. This is true for all of the Aichi Targets.

The first High-Level Panel report found that, for most of the Aichi Targets, there is a substantial gap between the resources required and those currently being allocated nationally and internationally.

This finding is supported by assessments at global, regional and national levels. For example, one review estimated current levels of global funding for biodiversity at between US$ 51 and 53 billion annually, compared to estimated needs of US$300-400 billion annually (Parker et. al. 2012). It has been estimated that current global expenditures on species protection are less than one eighth of those required, and that those for protected areas are less than one third of what is needed developing countries and half of what is required in developed countries. Similar conclusions have been reached by regional and

[5]Based on a global population of approximately 7 billion people

national assessments in all of the world's regions, and for a wide range of biodiversity actions.

Increases in dedicated funding for biodiversity action are needed but will not be sufficient. Closing the financial gap can only be achieved through realigning existing expenditures (particularly those which currently lead to biodiversity loss) with biodiversity objectives, and through improved sectoral integration. Most of the funding required to tackle the direct and indirect drivers of biodiversity loss will deliver multiple objectives and will require mainstreaming of biodiversity action into existing budgets.

Recommendations

The World Economic Forum Global Risks report (WEF 2014) found that four of the eight worst global risks are ecosystem-based. The evidence presented in this report suggests that the costs to society of not implementing the Strategic Plan for Biodiversity 2011-2020 and achieving the Aichi Targets are in many cases much higher than the resource needs for doing so; and that taking insufficient action to address biodiversity loss will risk losing current and future benefits that could become vital in the future

All countries should therefore develop plans to bridge biodiversity financing gaps. For core biodiversity conservation initiatives to protect vulnerable species and ecosystems, this will require countries to broaden the base of finance to increase the supply of sustained and predicable finance. To address the drivers of biodiversity loss throughout our economies and societies, countries will need to mainstream conservation and sustainable use across sectors, as well as private finance to realign current expenditures.

The High-level Panel thus recommends a series of actions which it considers, if fully implemented, would enable countries to significantly reduce the additional resources required, and increase the cost-effectiveness of expenditure on biodiversity conservation and sustainable use. These actions are equally important for developed and developing countries. The High-level Panel anticipates that its recommendations could inform direct action by countries and other stakeholders, as well as ongoing capacity development efforts.

1. **All countries should continue to urgently assess financing baselines, needs and gaps, and the full range of potential financing sources, as well as identify opportunities for improving cost-effectiveness in national biodiversity expenditure; and use this information at the national level to understand where further action is needed and to help identify potential sources of finance**. National experiences, including lessons learnt from the BIOFIN initiative should be documented, collected and shared, including through the CBD Clearing House Mechanism (CHM) and the NBSAP Forum, and support mechanisms to accelerate learning should be developed. Donors and Parties from developed countries should consider providing bilateral and multilateral support to countries to implement steps embodied in the BIOFIN approach.

2. **Countries should develop strategies and policies to bridge the biodiversity finance gap with a broadened and diversified base of sustained and predictable sources of finance, including commitment of public funds through medium-term expenditure frameworks.** Countries should substantially increase and complement domestic biodiversity budgets, for example, through new and innovative financial mechanisms[6] as well as scaling-up current initiatives. The realignment of current expenditures must be the central part of the effort to bridge the gaps. There is also a strong role for governments to play in leveraging financing from the private sector, via incentives and economic instruments, by formulating and implementing necessary policies and enabling conditions, under appropriate safeguards.

[6] www.cbd.int/financial/innovations/

3. **Biodiversity investments in marine, freshwater and terrestrial ecosystems need to be understood, presented and recognised as solutions to wider problems and challenges.** This requires better understanding and communication of the wider benefits of well-functioning ecosystems and the value of natural solutions in place of human-made alternatives. Countries and other stakeholders should make use of evidence from available studies, such as the High-level Panel regional assessments, to build the business case for investments in biodiversity from across different sectors, and to communicate the benefits and the costs of inaction and delayed investments, particularly for poor segments of society. This should be communicated with tailored advice by national conservation-related ministries, NGOs and other agencies, to relevant stakeholders including other national governmental agencies, multilateral and bilateral donor agencies and development banks, focusing on the role of biodiversity in delivering objectives that they are expected to deliver. This will help to support mainstreaming of biodiversity conservation and sustainable use objectives into national and regional development plans and budgets, and the required changes in practice across sectors. This evidence should also be integrated into NBSAPs and regional biodiversity strategy and action plans.

4. **When developing international and national sustainable development goals and plans, countries should identify actions through which mainstreaming biodiversity can directly contribute to achieving such objectives and goals, in order to encourage biodiversity-positive development decisions.** This includes the contribution it can make to, for example, food security, water security, disaster risk reduction, livelihoods and poverty reduction, and national security, as well as to national revenue. Countries should explore specific mechanisms for doing this such as ecosystem accounting under appropriate biodiversity and social safeguards, and identifying and facilitating specific shifts in public sector policy to remove biodiversity-harmful incentives and subsidies. Biodiversity action at the national and local levels should take account of distributional impacts, to ensure that benefits for poor and vulnerable people are secured.

5. **As part of broader mainstreaming efforts, countries should further enhance the links between climate change policies, projects and programmes and biodiversity conservation and sustainable use. This has the potential to secure substantial additional funding for biodiversity action.** This would include the integration of biodiversity and ecosystem services into their National Climate Change Policy frameworks, and the development of ecosystem-based approaches to adaptation and mitigation. Such approaches can create sustainable and cost-effective solutions to the challenges posed by climate change.

6. **Governments should convene broad dialogue among governmental, private and civil society actors on the arguments for the integration of conservation and sustainable use principles into various sectors, and on practical options, to increase funding and to assist in mainstreaming conservation and sustainable use objectives.** In ensuring a cross-sectoral approach to the revision and implementation of NBSAPs, countries should identify relevant roles and responsibilities for all relevant stakeholders including, in particular, planning and finance agencies. This approach is essential for achieving broadly supported resource mobilization plans for implementing key strategies and actions.

7. **The in-kind contributions of indigenous peoples and local communities' collective actions, efforts and knowledge on the conservation and sustainable use of biodiversity, and provisioning of ecosystem services and functions, should be respected and taken into account when designing, resourcing and implementing interventions.** This should include clarifying and respecting the resource rights of indigenous peoples and local communities and enhancing their participation in the choice and operationalization of biodiversity-related policies and plans.

8. **Human and institutional capacity development programmes should include an increased focus on the sharing of practical knowledge and experience in developing effective policies and instruments for mainstreaming that support increased**

investment in conservation and sustainable use; and enhance the role of regional and south-south cooperation and support. Lessons at both the national and international levels should also be sought and drawn from existing partnership approaches, such as where there is a shared agenda across developed and developing countries including those being utilised by the Wealth Accounting and Valuation of Ecosystem Services (WAVES) project, The Economics of Ecosystems and Biodiversity (TEEB[7]), and country-specific approaches such as the Mother Earth Approach[8].

9. **Countries should integrate into training, education and capacity building programmes, awareness of the economic rationale for action for biodiversity and ecosystem services, and their role in achieving sustainable development.** Relevant modules should be included in secondary and tertiary education curricula, and new and existing civil society and private sector training programmes. Those focused on business management are especially important.

10. **Countries should include robust and verifiable baselines and indicators on the status and trends of biodiversity, ecosystems and ecosystem services within their local and national sustainable development plans and NBSAPs that will help to track and evaluate the benefits of biodiversity investments and promote their uptake more broadly**. In this respect, the High-level Panel recommends the use of natural capital mapping as an assessment tool of ecosystems and their services; community-based monitoring and information systems; further research in ecosystem accounting and assessment of ecosystem resilience and thresholds; and the development and application of other appropriate methodologies. There is a strong role for the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) to support these efforts.

11. Investments should be made in improved knowledge generation regarding the insurance value of biodiversity and better learning processes for adaptive governance of ecosystems to avoid dangerous tipping points and regime shifts to cost-effectively increase the potential for sustainable development and well-being. This should be applied to policies and practices, including the use of appropriate financial measures that support various activities to protect biodiversity and ecosystem services, which are better guided by knowledge of the links between biodiversity and ecosystem function and the delivery of ecosystem services, and securing ecosystem resilience and the associated insurance values. They could be guided by methodologies such as ecosystem assessments[9], resilience assessments[10], Community Based Resilience Analysis (CoBRA)[11] and Strategic Environmental Assessments (SEAs), including associated risk assessments with scenario analysis, as well as the application of the precautionary approach.

[7] http://www.teebweb.org/
[8] http://ucordillera.edu.bo/ descarga/livingwell.pdf
[9] http://www.ecosystemassessments.net/
[10] http://www.resalliance.org/index.php/resilience_assessment
[11] http://www.undp.org/content/undp/en/home/librarypage/environment-energy/sustainable_land_management/CoBRA.html

Appendix

HIGH-LEVEL PANEL MEMBERS		
Chair		
Mr. Carlos Manuel Rodriguez, Costa Rica		
Botswana	Dr. Hillary Masundire	Professor Department of Biological Sciences University of Botswana
Brazil	Mr. Roberto Brandão Cavalcanti	Secretary Biodiversity and Forests Ministry of Environment
Canada	Dr. Ussif Rashid Sumaila	Director Fisheries Centre and Fisheries Economics Research Unit, University of British Columbia
China	Mr. Zhu Liucai	Director Biodiversity Office, Foreign Economic Cooperation Office, Ministry of Environmental Protection
	Mr. Wang Xin	Director Foreign Economic Cooperation Office, Ministry of Environmental Protection
Costa Rica	Mr. Carlos Manuel Rodriguez	Vice President and Senior Advisor Global Policy Conservation International
Germany	Dr. Heidi Wittmer	Deputy Head of Department Department of Environmental Politics, Helmholtz Centre for Environmental Research (UFZ)
India	Dr. A Damodaran	Professor Faculty of Economics and Social Sciences Indian Institute of Management
Mexico	Ms. Mariana Bellot Rojas	Director General, General Directorate for Institutional Development and Promotion, National Commission for Protected Areas (CONANP)
Norway	Mr. Tom Rådahl	Secretary General Ministry of the Environment
Philippines	Ms. Rina Maria P. Rosales	Resource Economist Resources Environment Economic Center for Studies
South Korea	Dr. Tae Yong Jung	Professor Korea Development Institute (KDI) School of Public Policy and Management
Sweden	Ms. Maria Schultz	Director The Resilience and Development Programme (SwedBio),Stockholm Resilience Centre
United Kingdom	Prof. Sir Robert Watson	Co-Chair UK National Ecosystem Assessment
OBSERVERS FROM UNITED NATIONS AGENCIES AND INTERNATIONAL ORGANIZATIONS		
GEF Secretariat	Mr. Mark Zimsky	Senior Biodiversity Specialist Natural Resources
OECD Secretariat	Dr. Katia Karousakis	Economist Climate Change, Biodiversity and Development Division
TEEB Secretariat	Dr. Salman Hussain	Coordinator

UNDP	Mr. Nik Sekhran	Officer in Charge Environment and Energy Group Bureau for Development Policy
	Ms. Caroline Petersen	Head Ecosystems and Biodiversity Bureau for Development Policy
	Mr. Yves de Soye	Manager Biodiversity Finance (BIOFIN) Initiative
	Dr. Jamison Ervin	Technical Advisor Biodiversity Finance (BIOFIN) Initiative
UNEP	Mr. Bakary Kante	Director Division of Environmental Law and Conventions
	Mr. Alphonse Kambu	Programme Officer Division of Environmental Law and Conventions
World Bank	Dr. Valerie Hickey	Biodiversity Specialist
GOVERNMENT OBSERVERS		
European Commission	Ms. Laure Ledoux	Biodiversity Unit Directorate General for the Environment
India	Mr. Hem Pande	Additional Secretary Ministry of Environment, Forests and
Japan	Mr. Rikiya Konishi	Deputy Director Global Biodiversity Strategy Office, Nature Conservation Bureau, Ministry of the Environment
Norway	Ms. Tone Solhaug	Senior Adviser Department for Biodiversity, Outdoor Recreation and Cultural Heritage, Ministry of Environment
United Kingdom	Mr. Jeremy Eppel	Deputy Director International Biodiversity, Ecosystems and Evidence Department for Environment, Food and Rural Affairs
	Mr. James Vause	Economist, Biodiversity Natural Environment Economics Department for Environment, Food and Rural Affairs
	Mr. Richard Earley	International Biodiversity Policy Advisor Department for Environment, Food and Rural Affairs

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