



Sustainable Development Goals Policy Briefs Series - 1

Building the Sustainable Development Goals on the Aichi Biodiversity Targets



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INTERNATIONAL UNION FOR CONSERVATION OF NATURE

IUCN envisions sustainable development as a path that leads to a just and prosperous world which values and conserves nature by ensuring, through effective and equitable governance, that its resources are used sustainably.

The Sustainable Development Goals – Towards a Future We Want

One of the most important outcomes of the Rio +20 United Nations (UN) Conference on Sustainable Development was the decision by governments to develop and adopt a set of Sustainable Development Goals (SDGs) as a framework for pursuing focused and coherent action on sustainable development by building on existing commitments ([The Future We Want](#), paras. 245 - 251).

The international community has throughout the last decades adopted a multitude of instruments that establish the basic principles and obligations countries should comply with to achieve sustainable development. These include the main principles adopted at the Stockholm and Rio Summits (in 1972 and 1992 respectively) as well as impor-

tant international environmental agreements, namely, the Convention on Biological Diversity, the UN Framework Convention on Climate Change and the UN Convention to Combat Desertification (known as the Rio Conventions). In addition to these, there are a number of instruments and norms that are invaluable and should be taken into account in the discussions on the SDGs.

This brief focuses on ways in which obligations under the Convention on Biological Diversity (CBD), in particular the recently adopted Strategic Plan for Biodiversity 2011 – 2020 with its Aichi Biodiversity Targets, can and should be incorporated into the set of SDGs.

What are the Aichi Biodiversity Targets and How do They Relate to Sustainable Development?

The Aichi Biodiversity Targets are a set of 20 Targets grouped into five Strategic Goals that shall be achieved by 2020. They are part of the [Strategic Plan for Biodiversity 2011-2020](#), which was adopted in 2010 by the 10th Meeting of the Conference of Parties of the Convention on Biological Diversity (see Text Box 1).

The mission of the Strategic Plan is to ... *“halt the loss of biodiversity in order to ensure that by 2020 ecosystems are resilient and continue to provide essential services, thereby securing the planet’s variety of life, and **contributing to human well being, and poverty eradication...**”*

The Aichi Targets thus go beyond protecting biodiversity. They address aspects of sustainable development. They range from reducing direct

pressure on biodiversity and mainstreaming nature across different sectors, to promoting sustainable use and providing benefits to all from the use of biodiversity and ecosystem services. The targets have been agreed on by all 193 Parties to the CBD and can contribute to the design of the SDGs.

Definitions

Biodiversity: the variability among living organisms from all sources including terrestrial, marine and other aquatic ecosystems, and the ecological complexes of which they are part; this includes diversity within species, between species, and of ecosystems.

Ecosystems: a community of plants, animals and smaller organisms that live, feed, reproduce and interact in the same area or environment.

Text Box 1: The Aichi Biodiversity Targets

Strategic Goal A: Address the underlying causes of biodiversity loss by mainstreaming biodiversity across government and society

Target 1: By 2020, at the latest, people are aware of the values of biodiversity and the steps they can take to conserve and use it sustainably.

Target 2: By 2020, at the latest, biodiversity values have been integrated into national and local development and poverty reduction strategies and planning processes and are being incorporated into national accounting, as appropriate, and reporting systems.

Target 3: By 2020, at the latest, incentives, including subsidies, harmful to biodiversity are eliminated, phased out or reformed in order to minimize or avoid negative impacts, and positive incentives for the conservation and sustainable use of biodiversity are developed and applied, consistent and in harmony with the Convention and other relevant international obligations, taking into account national socio economic conditions.

Target 4: By 2020, at the latest, Governments, business and stakeholders at all levels have taken steps to achieve or have implemented plans for sustainable production and consumption and have kept the impacts of use of natural resources well within safe ecological limits.

Strategic Goal B: Reduce the direct pressures on biodiversity and promote sustainable use

Target 5: By 2020, the rate of loss of all natural habitats, including forests, is at least halved and where feasible brought close to zero, and degradation and fragmentation is significantly reduced.

Target 6: By 2020 all fish and invertebrate stocks and aquatic plants are managed and harvested sustainably, legally and applying ecosystem based approaches, so that overfishing is avoided, recovery plans and measures are in place for all depleted species, fisheries have no significant adverse impacts on threatened species and vulnerable ecosystems and the impacts of fisheries on stocks, species and ecosystems are within safe ecological limits.

Target 7: By 2020 areas under agriculture, aquaculture and forestry are managed sustainably, ensuring conservation of biodiversity.

Target 8: By 2020, pollution, including from excess nutrients, has been brought to levels that are not detrimental to ecosystem function and biodiversity.

Target 9: By 2020, invasive alien species and pathways are identified and prioritized, priority species are controlled or eradicated, and measures are in place to manage pathways to prevent their introduction and establishment.

Target 10: By 2015, the multiple anthropogenic pressures on coral reefs, and other vulnerable ecosystems impacted by climate change or ocean acidification are minimized, so as to maintain their integrity and functioning.

Strategic Goal C: Improve the status of biodiversity by safeguarding ecosystems, species and genetic diversity

Target 11: By 2020, at least 17 per cent of terrestrial and inland water, and 10 per cent of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem services, are conserved through effectively and equitably managed, ecologically representative and well connected systems of protected areas and other effective area-based conservation measures, and integrated into the wider landscape and seascapes.

Target 12: By 2020 the extinction of known threatened species has been prevented and their conservation status, particularly of those most in decline, has been improved and sustained.

Target 13: By 2020, the genetic diversity of cultivated plants and farmed and domesticated animals and of wild relatives, including other socio-economically as well as culturally valuable species, is maintained, and strategies have been developed and implemented for minimizing genetic erosion and safeguarding their genetic diversity.

Strategic Goal D: Enhance the benefits to all from biodiversity and ecosystem services

Target 14: By 2020, ecosystems that provide essential services, including services related to water, and contribute to health, livelihoods and well-being, are restored and safeguarded, taking into account the needs of women, indigenous and local communities, and the poor and vulnerable.

Target 15: By 2020, ecosystem resilience and the contribution of biodiversity to carbon stocks has been enhanced, through conservation and restoration, including restoration of at least 15 per cent of degraded ecosystems, thereby contributing to climate change mitigation and adaptation and to combating desertification.

Target 16: By 2015, the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization is in force and operational, consistent with national legislation.

Text Box 1: continued

Strategic Goal E: *Enhance implementation through participatory planning, knowledge management and capacity building*

Target 17: By 2015 each Party has developed, adopted as a policy instrument, and has commenced implementing an effective, participatory and updated national biodiversity strategy and action plan.

Target 18: By 2020, the traditional knowledge, innovations and practices of indigenous and local communities relevant for the conservation and sustainable use of biodiversity, and their customary use of biological resources, are respected, subject to national legislation and relevant international obligations, and fully integrated and reflected in the implementation of the Convention with the full and effective participation of indigenous and local communities, at all relevant levels.

Target 19: By 2020, knowledge, the science base and technologies relating to biodiversity, its values, functioning, status and trends, and the consequences of its loss, are improved, widely shared and transferred, and applied.

Target 20: By 2020, at the latest, the mobilization of financial resources for effectively implementing the Strategic Plan 2011- 2020 from all sources and in accordance with the consolidated and agreed process in the Strategy for Resource Mobilization should increase substantially from the current levels. This target will be subject to changes contingent to resources needs assessments to be developed and reported by Parties.

Why Should the SDGs Build on the Aichi Biodiversity Targets?

Nature provides a critical foundation for human well being in various ways. Firstly, nature provides humans with the basic elements without which human beings would not be able to survive: food, oxygen, fibre, fuel and resources to produce energy, and medicines. Secondly, nature provides for a set of services that are essential for human survival and wellbeing. These services include: clean water, pollination (critical in the food chain for animals and humans), regulation of pests and diseases (biological pest control), waste treatment and assimilation, flood regulation, climate regulation, among others. Nature, through its ecosystems, species and genetic diversity, has the capacity to adapt to changes, such as climatic changes, and to reduce vulnerability of nature itself and of communities. Finally, nature is a source of culture and traditions, spiritual well being, religious beliefs and recreation.

Despite the evidence of the role of nature in human prosperity and development, most benefits provided by nature are not accounted for by policy makers when designing development plans. In addition, benefits provided by nature are unequally distributed among people. The Aichi Targets aim at addressing these issues by requiring Parties to the CBD to include nature as an asset and

a capital in economic and social planning (Aichi Target 2 and others), and to establish adequate governance that ensures equitable distribution of benefits (Aichi targets 16, 18 and 19 among others).

Consequently, the SDGs could build on the Aichi Targets because:

- The Aichi Targets have been crafted on the basis of an analysis of the benefits nature provides for human wellbeing and hence go beyond conservation of biodiversity. The Aichi targets put forward the elements of connectedness between biodiversity and sustainable development. Target 2 reflects this by referring to development and the need to incorporate biodiversity values in development planning.
- The Strategic Plan for Biodiversity 2011-2020 and its Aichi Targets are key instruments that have been negotiated and adopted by all 193 Parties to the CBD, hence hold strong legitimacy. They contain negotiated language and could serve as a basis for the SDGs.
- Other biodiversity-related agreements and the UN System have subscribed to the Strategic Plan

and its Aichi Targets to ensure coherence among these instruments. The inclusion of the Aichi Targets in the SDGs would warrant international policy coherence. This is essential to facilitate implementation and to achieve the objectives of different agreements.

- The Strategic Plan and the Aichi Targets are currently under implementation through National Biodiversity Strategies and Action Plans (NBSAPs). Therefore, some countries have already incorporated or are in the process of incorporat-

ing these obligations into their national systems across ministries and sectors, providing for the institutional infrastructure and resources to implement these elements and then report on the results.

- Much work is underway to establish the indicators of the Aichi Targets. This constitutes an important and rigorous piece of work, including data collection that could benefit the achievement of the SDGs.

How Can the Aichi Biodiversity Targets be Included in the SDGs?

There are two approaches how to include the Aichi Targets in the SDGs. Firstly, by integrating relevant Aichi Targets into all relevant SDGs, and, secondly, by establishing a specific goal on biodiversity in conjunction with integrating all relevant Aichi Targets into the different SDGs.

Approach 1: Biodiversity integrated into all SDGs

As argued above, the Aichi Targets cover a range of development-related issues and could provide relevant elements and quantitative targets for the environmental dimension of the SDGs. The first approach, integrates relevant Aichi Targets into different SDGs on a variety of topics such as poverty reduction, health, water and food security, and energy as follows.

Poverty reduction

Poverty reduction can be achieved by conserving and managing sustainably the natural resources available. Furthermore Aichi Target 2, states that biodiversity should be included in poverty reduction plans. While some biodiversity values are already reflected in economic decision making

(e.g. food, fibre, fuel), many of the goods and services associated with biodiversity and regulating services (water purification, natural carbon storage, flood and coastal protection) are public goods and remain essentially invisible. Accounting for natural capital could activate the economy in certain areas and lead to poverty reduction.

Human health

Human health relies heavily on healthy ecosystems underpinned by biodiversity. Approximately, 60 percent of the world population relies almost entirely on plant medicine for primary health care.¹ Targets 12 on threatened species and 13 on genetic diversity and, to some extent, Target 16 on access and benefit sharing of genetic resources, relate to the preservation of the chances to discover new treatments that could end the suffering of millions of people. Aichi Target 14 refers directly to services provided by nature in relation to water, health and livelihoods. Aichi Target 18 refers to traditional knowledge, and given that a majority of population in some countries in Asia and Africa depend on traditional medicine for health care, its conservation is essential.

¹ Kevin J. Gaston & John I. Spicer. 2004. Biodiversity: an introduction, Blackwell Publishing. 2nd Ed. ISBN 1-4051-1857-1(pbk.)

Food security

As the world population continues to grow, food security is becoming a major challenge. The Aichi Targets provide essential elements to be included in a goal on access and availability of food and good nutrition to ensure its sustainability. Underpinning this issue is Target 14, since ecosystem services make critical contributions to food and nutrition security by supporting the availability of food, and strengthening the stability of food production by sustaining the processes on which such production depend.

Targets 6 on sustainable fisheries and 7 on agriculture, aquaculture and forestry are highly relevant. It is imperative that the increase in food production is done in a sustainable way in order to guarantee the necessary long term yields. In addition, maintaining a genetic diversity of farmed animals and cultivated plants is important as stipulated by Target 13 together with ensuring conservation of crop relatives in the wild. This is a necessary insurance policy to ensure that the gene pool is large enough to adapt to changing externalities.

Maintaining a big variety of species is also important in food production. Mammals, birds and insects are responsible for most of pollination necessary for plants to reproduce. In addition, some local communities rely primarily on meat from wildlife for their nutrition. Target 12 on preventing the extinction of species as well as Target 9 on handling invasive alien species, provide necessary environmental considerations.

Water

An SDG on access to safe drinking water could include Aichi Target 14 on conservation and restoration of ecosystems. Ecosystem services recycle and absorb excess nutrients and water pollution. Nature is essential in providing us with access to freshwater. The natural infrastructure provided by natural ecosystems is usually highly cost-effective and its conservation and restoration

should become a priority if we are to secure the supply side of access to water.

Energy

The shift towards renewable energy will have an impact on ecosystems. Targets 14 and 15 on conserving and restoring ecosystems are also relevant to a goal related to energy. The achievement of these targets would enhance the supply side of access to energy (as for water) as well as contribute to climate change adaptation and mitigation (ensuring energy resilience).

Additional Aichi Targets related to other topics, which could be covered by SDGs are education, subsidies, patterns of consumption and production and equity and governance.

Target 1 is about citizens of the world understanding the importance of biodiversity for human wellbeing. This target could be useful in contributing to building a more educated and sustainable world.

Did you know?

One billion people lack access to safe drinking water. More than 1 billion people do not have enough food. Seventy percent of the poor are rural dwellers who are highly dependent on natural resources, but each year, 12 million hectares – enough land to grow grain to feed over 6 million people per year – are lost to desertification. Loss of biodiversity and natural habitats undermines health, livelihoods, food production and the availability of clean water.

Target 3 calls for the phase out of harmful subsidies to biodiversity. This target may be a safeguard for goals related to food security and energy. At the same time, phasing out subsidies could be strategically perceived as an opportunity for re-investment in other areas, for example towards job creation.

Target 4 addresses sustainable production and consumption and aims at keeping the impacts of use of natural resources at a minimum. It calls on governments, businesses and stakeholders alike

to take the necessary steps to achieve plans for sustainable production and consumption. Should the SDGs “package” include sustainable production and consumption, it could take into account this Aichi Target.

In terms of equity, Target 16 establishes a system for equitable access to genetic resources and fair and equitable distribution of benefits derived from them. Target 19 also address equity as it calls for the sharing and transfer of knowledge, science and technology related to sustainable use and conservation of biodiversity

The advantage of such an integrated approach is that it would place biodiversity considerations in all aspects of life and would convey clearly that our planet also provides its cost-effective nature based solutions to development challenges. The Aichi Targets would be rendered “operational” within specific development contexts. The disadvantage is that, the urgency of saving biodiversity might not be apparent enough and only expressed in relation to activities contributing to human well being.

Approach 2: The integrated approach reinforced with a stand-alone goal

The second approach is combining the integration of relevant Aichi Targets in all relevant SDGs as explained above with an additional standalone goal on biodiversity.

This biodiversity stand-alone goal should be comprised of:

- a) A compilation of the elements/ targets/ indicators related to biodiversity and ecosystem services that have been integrated in the other goals;

and

- b) Critical issues related to biodiversity not included in other goals, that need urgent action and, without which, there will be a serious

negative impact on the achievement of the sustainable development goals as a whole.

The advantage of also including biodiversity in a separate goal is that biodiversity and ecosystem services would get high visibility and be considered at the same level of importance as other goals. This can also be beneficial when it comes to the distribution of funds. At the same time it will ensure that components of biodiversity are also protected even if their link to human well being is diffuse.

It is essential that the SDGs are truly sustainable and that no silo goals are created as was the case in the Millennium Development Goals (MDGs). Experiences of the MDGs silo approach have shown that it sometimes resulted in action within different goals, which were countering the outcome of others.

Through complementing the standalone goal with the integration approach (outlined in Approach 1) the problem of silo goals might be overcome and it can be ensured that actors from the different strands of sustainable development meet and are motivated to interact, take each other's concerns and interests into consideration and build together on existing opportunities. In addition, all benefits of the integration approach will also apply.

Additional general considerations in integrating the Aichi Biodiversity Targets in the SDGs

The timeframe for the SDGs has not been decided yet but it is likely to cover the period between 2015 and 2030, which would expand ten years beyond the timeframe of the Aichi Biodiversity Targets. This difference in timeframe should not be perceived as an obstacle to include the Aichi Targets into the SDGs. Achieving the Aichi Targets under the CBD by the agreed deadline of 2020 would positively contribute to the progressing of the SDGs. In this scenario, the elements in the SDGs coming from the Aichi Targets would

be attained by 2020 and would lead to a strong contribution towards the achievement of the SDGs in the remaining years. In addition, while the mission of the CBD Strategic Plan for Biodiversity specifies that the loss of biodiversity should be brought to a halt by 2020 so that ecosystems can continue to provide essential services, the vision of that plan extends until 2050.

However, should a reiteration or a new Strategic Plan be adopted by the CBD, the Conference of Parties of the CBD could take into consideration the time frame of the SDGs when reviewing, extending and/or updating the Strategic Plan.

Conclusion

Because of the critical role that biodiversity play as the “life support systems” of our Planet, well designed SDGs should provide for the enabling conditions to reinforce existing commitments related to biodiversity and ecosystem services. Healthy and productive soils/lands, forests, oceans and fresh water ecosystems, achieved through conservation, sustainable use, restoration of natural resources, and the fair and equitable sharing of benefits arising out of the utilization of biodiversity, are principal building blocks towards poverty eradication and universal human development and well-being. Therefore, connecting the Aichi Biodiversity Targets with the SDGs can bring us closer to the future we want.

For more information:

www.iucn.org
www.iucn.org/SDGs
www.iucn.org/GPU
www.iucn.org/NBSAPs

The CBD Strategic Plan for Biodiversity and its Aichi Biodiversity Targets:

<http://www.cbd.int/doc/strategic-plan/2011-2020/Aichi-Targets-EN.pdf>

IUCN's views on the SDGs:

https://cmsdata.iucn.org/downloads/iucn_views_on_the_post_2015_development_agenda_and_the_sdgs.pdf

IUCN's work on the Aichi Targets:

<http://www.cbd.int/doc/meetings/cop/cop-11/information/cop-11-inf-56-en.pdf>

Valuing the net benefits of ecosystem restoration:

http://cmsdata.iucn.org/downloads/ripon_city_quarry_ecosystem_valuation.pdf

Food Security Policies – making the ecosystem connections

https://cmsdata.iucn.org/downloads/iucn_food_security_en.pdf

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Or contact:

Constanza Martinez

Deputy Head
Global Policy Unit
IUCN HQ

Constanza.Martinez@iucn.org

Maximilian Mueller

Junior Policy Officer
Global Policy Unit
IUCN HQ

Maximilian.Mueller@iucn.org

IUCN World Headquarters
Rue Mauverney 28
1196 Gland, Switzerland
Tel: +41 22 999 0000
www.iucn.org