

# **Building capacities for biodiversity** for sustainable development and poverty reduction

**Strategy 2014-2023**

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## PREFACE

At the moment of writing this strategy, the world is celebrating the 20 years of the United Nations Conference on Environment and Development, also known as the Rio Earth Summit. The 1992 summit was a truly exceptional moment that led to several decisive global agreements and declarations to achieve a more sustainable development worldwide.

Twenty years later, one must admit that, even though many actions have been taken, the Rio agreements have yet to be fully realised. Fundamental issues such as fighting poverty while protecting the Earth from climate change, land degradation and biodiversity loss remain relevant today. For biodiversity, the high hopes of Rio are far from being attained. The 2010 biodiversity target (“to achieve by 2010 a significant reduction of the current rate of biodiversity loss ... as a contribution to poverty alleviation and to the benefit of all life on Earth.”) endorsed in 2002 as the 10-year milestone after the Rio Summit has not been achieved. Biodiversity loss is continuing at an unprecedented rate, caused by the multiple pressures induced by a growing human population and its unsustainable production and consumption patterns.

However, successes have been achieved and we should build on these to move forward. For example, some progress has been achieved in reducing poverty. Maternal deaths have been reduced, more children are attending school, poorer populations have increased access to clean water. Some progress has also been achieved in fighting biodiversity loss. Deforestation has slowed down in some regions, the coverage of protected areas has increased worldwide, big corporations and private companies are increasingly attentive to biodiversity.

Both governance processes, i.e. the fight to reduce poverty (fostered by the Millennium Declaration and Millennium Development Goals) and the road towards sustainable development (underpinned by the Rio Declaration and the associated agreements) are mutually dependent and supportive. The Millennium Ecosystem Assessment, a major scientific study published in 2005, demonstrates that people are integral parts of ecosystems and that biodiversity contributes directly and indirectly to many constituents of human well-being, including security, basic material for a good life, health, good social relations, and freedom of choice and action.

Further and, certainly more decisive, action is needed. First to reduce poverty while at the same time ensuring a sustainable economic and social development. Then, increased efforts and innovative approaches are needed to meet new targets for the conservation of biodiversity and the safeguarding of the ecosystem services it delivers.

This requires fundamental changes. The RBINS as a scientific institution specialised in natural sciences, is fully committed to do its part to conserve biodiversity and maintain ecosystem services for the benefits of all. It aims to do so in the context of the sustainable development of society.

The RBINS is one of the leading generators of scientific knowledge and a major provider of expertise on biodiversity in Belgium. The RBINS missions are fourfold: (i) to undertake scientific research in natural sciences, (ii) to provide scientific support to public and private institutions involved in the management of the natural environment, (iii) to manage and develop collections, databanks, libraries and specialised archives in the areas mentioned above and (iv) to develop and promote educational activities as key instruments for the spreading of scientific knowledge. As Belgian National Focal Point for the Convention on Biological Diversity, it is also centrally placed to bring together key biodiversity actors, to foster collaboration and to provide advice for policy decisions.

The RBINS 2014-2023 strategy draws on the four missions of the RBINS to work with partners in developing countries to achieve the objectives of the Convention on Biological Diversity (the conservation of biodiversity, the sustainable use of its components, the fair and equitable sharing of benefits arising out of the utilisation of genetic resources) and of its new Strategic Plan for Biodiversity 2011-2020. Sustainable development is the goal and building capacities for biodiversity and ecosystem services is a means to achieving it.

This new strategy is a continuation of activities established as early as 1999. For the 2014-2023 period, the RBINS will continue to develop a wide range of activities that include the building of new knowledge on biodiversity, the strengthening of institutions' abilities to play a major role in the implementation of the Convention on Biological Diversity, the improvement of biodiversity information flows and the mainstreaming of biodiversity in development and poverty reduction processes. The strategy's expected impact is to have partners in developing countries better armed to deliver efficient action on the ground, to the benefit of local populations.

**Part I**

**SITUATION ANALYSIS**

# 1. Biodiversity and ecosystem services

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## The concepts

The Convention on Biological Diversity (CBD) defines biological diversity, or “biodiversity”, as “the variability among living organisms from all sources including, inter alia, 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”<sup>1</sup>. The biodiversity we experience today is the fruit of billions of years of evolution. It forms the ‘web of life’ of which we, as humans, are an integral part and upon which we so fully depend.

**Biodiversity** is most often understood in terms of the wide variety of species present on Earth. So far, about 2 million species of plants, animals and micro-organisms have been identified. Most of these are tiny, nearly invisible creatures such as insects and bacteria. The work to inventory biodiversity is still ongoing. Scientific estimations of the total number of species range from 3 to 100 million, a good guess probably being around 13-15 million species<sup>2</sup>. The work ahead is considerable, considering that only about 15 000 new species are currently discovered each year<sup>3</sup>. Knowledge of biodiversity is unevenly distributed, with the bulk of inventory efforts having been concentrated in the countries with the financial and human resources to perform them. However, it is often in less developed countries (situated in tropical areas) that biodiversity is found in larger amounts and that it contributes most to the survival of local populations<sup>4</sup>.

Biodiversity is much more than a collection of species living side-by-side. All living creatures, including humans, interact with one another and with the air, water and soil around them. Species play different roles and have different influences on living processes and/or different responses to changes in their environment.

These dynamic living systems - or ‘**ecosystems**’ - supply a multitude of resources and processes that benefit humans. Collectively these benefits are known as ‘**ecosystems services**’. These benefits have been appreciated since the early existence of man: the natural world provides us with food, fuels, fibres, medicines; with shelter and protection from environmental hazards; with spiritual opportunities and aesthetic enjoyment. In 1997, the first attempt to provide a monetary estimation of the value of the world’s ecosystems yielded a staggering USD 18-33 trillions at the current price<sup>5</sup>. Since then, studies have been refined but their results all point in the same direction, i.e. ecosystems provide invaluable services.

**Ecosystem management** aims to conserve the major ecosystem services and restore natural resources while meeting the socioeconomic, political and cultural needs of current and future generations. The principal objective of ecosystem management is the efficient maintenance, and ethical use of natural resources.

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<sup>1</sup> Convention on Biological Diversity (1992). Convention text. United Nations (<http://www.cbd.int/doc/legal/cbd-en.pdf>)

<sup>2</sup> Hammond, P. (1995). The current magnitude of biodiversity. In V.H. Heywood and R.T. Watson (Eds.), *Global Biodiversity Assessment*. (pp. 113-138). Cambridge, U.K: Cambridge University Press.

<sup>3</sup> Zhang Z.Q. (2008). Contributing to the progress of descriptive taxonomy. *Zootaxa*, 1968:65-68.

<sup>4</sup> Gaston, K.J. (2000) Global patterns in biodiversity. *Nature*, 405, 220–227.

<sup>5</sup> Costanza R. *et al.* (1997). The value of the world's ecosystem services and natural capital. *Nature* 387:253-260 (1997).

## The current state of biodiversity

Despite an increase in the conservation of biodiversity and sustainable use,, the rate of biodiversity loss is not slowing. Pressures remain extremely high, driven by an increasing human population in the South and unsustainable production and consumption patterns in the North. In 2010, Butchart *et al.*<sup>6</sup> compiled 31 indicators to report on status of biodiversity and on the progress towards halting biodiversity loss (Figure 2).

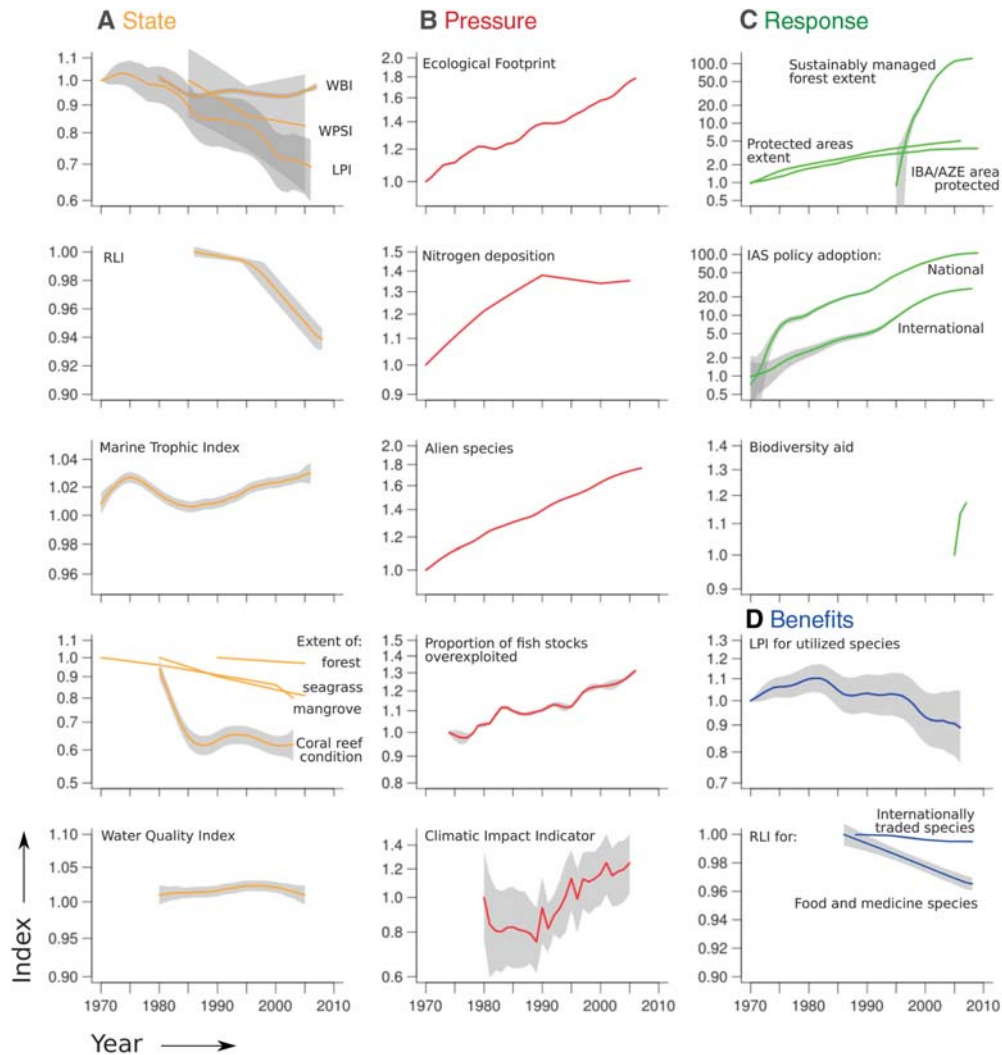


Figure 2. Indicator trends for (A) the state of biodiversity, (B) pressures upon it, (C) responses to address its loss and (D) the benefits humans derive from it. Data scaled to 1 in 1970 (or for first year of data if > 1970), modelled and plotted on a logarithmic ordinate axis. Shading shows 95% confidence intervals except where unavailable. WBI, Wild Bird Index; WPSI, Waterbird Population Status Index; LPI, Living Planet Index; RLI, Red List Index; IBA, Important Bird Area; AZE, Alliance for Zero Extinction site; IAS, invasive alien species. (From Butchart *et al.* 2010.).

<sup>6</sup> Butchart, S. H. M. *et al.* 2010. Global Biodiversity: Indicators of Recent Declines. *Science* 328, 1164-1168.



Most indicators of the state of biodiversity show declines, with no significant recent reductions in rate, whereas indicators of pressures on biodiversity show increases. Responses such as the coverage of protected areas and the adoption of policies are clearly insufficient. There is a need to act more decisively, not only to better implement current measures but also to bring new measures at hand. To influence major economic players and decision makers, a new approach to biodiversity is needed. The fairly recent concept of 'ecosystem services' provides a useful lever to move forward.

## The current state of ecosystem services

The United Nations launched a massive scientific effort in 2001 to analyse the state of the Earth's ecosystems and provide guidelines for decision-makers. The results were published in the 2005 Millennium Ecosystem Assessment<sup>7</sup>. The study concluded that human activity was having a significant and escalating impact on the world's ecosystems, reducing both their resilience to change and their biocapacity (i.e. their capacity to provide resources and absorb wastes).

The Millennium Ecosystem Assessment was instrumental in popularising the concept of ecosystem services and in raising awareness on the pressures the ecosystems are facing. It grouped the ecosystem services into four broad categories: **provisioning services** such as the production of food and fibres; **regulating services**, such as the control of climate and disease; **cultural services** such as spiritual and recreational benefits and **supporting services** such as nutrient cycles. The assessment evaluated 24 ecosystem services and concluded that only 4 had improved over the last 50 years, 15 were in serious decline and 5 were in a stable state overall but under threat in some parts of the world (Figure 1, next page).

Positive changes in services such as provision of crops, timber and water, have contributed to substantial net gains in human wellbeing and economic development, but these have been achieved at growing costs in the form of degradation of other services. Regulating and supporting services have particularly been affected, thereby compromising the natural equilibrium of natural systems.

It is now feared that, unless radical and creative actions are taken, some essential ecosystem services will approach "**tipping points**"<sup>8</sup>. Ecosystems would shift to less productive states from which it would be difficult or impossible to recover. One of such tipping point could occur in a nearby future (before 2020). It would be triggered by multiple collapses of coral reef ecosystems due to a combination of ocean acidification, warmer water leading to bleaching, over-fishing and nutrient pollution. This ecosystem shift would threaten the livelihoods of coral reef species, with heavy consequences for subsistence and commercial fisheries, as well as for the tourism industry (as is already seen in some places around the world).

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<sup>7</sup> Millennium Ecosystem Assessment, 2005. Ecosystems and Human Well-being: Synthesis. Island Press, Washington, DC.

<sup>8</sup> Secretariat of the Convention on Biological Diversity (2010) Global Biodiversity Outlook 3. Montréal, 94 pages.

Service	Sub-category	Status	Notes
<b>Provisioning Services</b>			
Food	crops	▲	substantial production increase
	livestock	▲	substantial production increase
	capture fisheries	▼	declining production due to overharvest
	aquaculture	▲	substantial production increase
	wild foods	▼	declining production
Fiber	timber	+/-	forest loss in some regions, growth in others
	cotton, hemp, silk	+/-	declining production of some fibers, growth in others
	wood fuel	▼	declining production
Genetic resources		▼	lost through extinction and crop genetic resource loss
Biochemicals, natural medicines, pharmaceuticals		▼	lost through extinction, overharvest
Fresh water		▼	unsustainable use for drinking, industry, and irrigation; amount of hydro energy unchanged, but dams increase ability to use that energy
<b>Regulating Services</b>			
Air quality regulation		▼	decline in ability of atmosphere to cleanse itself
Climate regulation	global	▲	net source of carbon sequestration since mid-century
	regional and local	▼	preponderance of negative impacts
Water regulation		+/-	varies depending on ecosystem change and location
Erosion regulation		▼	increased soil degradation
Water purification and waste treatment		▼	declining water quality
Disease regulation		+/-	varies depending on ecosystem change
Pest regulation		▼	natural control degraded through pesticide use
Pollination		▼ <sup>a</sup>	apparent global decline in abundance of pollinators
Natural hazard regulation		▼	loss of natural buffers (wetlands, mangroves)
<b>Cultural Services</b>			
Spiritual and religious values		▼	rapid decline in sacred groves and species
Aesthetic values		▼	decline in quantity and quality of natural lands
Recreation and ecotourism		+/-	more areas accessible but many degraded

Figure 1. Global Status of provisioning, regulating, and cultural ecosystem services evaluated in the Millennium Ecosystem Assessment (from Millennium Ecosystem Assessment, 2005).

## The links between biodiversity, ecosystem services and poverty

The studies presented above rightly conclude that there is an urgent need to act to avoid disastrous long-term social and environmental disruption. How to translate this into effective action remains a challenge, especially when action must be taken in the context of poverty alleviation.

The links between biodiversity and poverty are complex. It is not the purpose here to discuss the poverty typologies and their link to biodiversity. However, we can report on efforts that have been made to spatially map the relations between the two<sup>9</sup>. Proxies have to be used for both issues, such as species numbers for biodiversity and illness or mortality factors for poverty, giving only a incomplete view of the situation.

<sup>9</sup> Sachs J.D. et al. (2009). Science 325 (5947), 1502-1503.

Such mapping initiatives show that there is a broad overlap between poverty and biodiversity at a global scale as illustrated by Figure 3. Many areas that are rich in biodiversity, but harbouring great number of threatened species, are also suffering from higher poverty levels. This is particularly true for Sub-Saharan Africa.

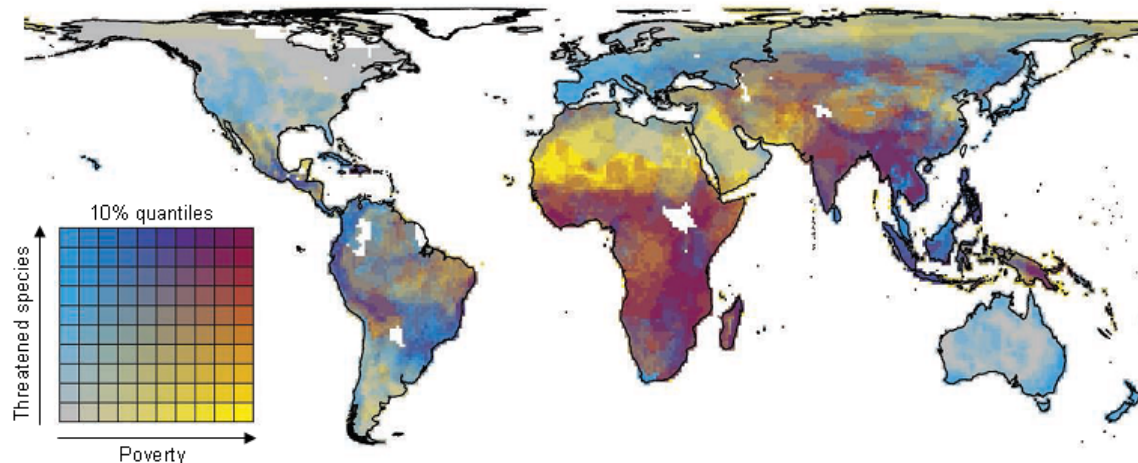


Figure 3. Map of poverty and potential biodiversity loss, showing the level of poverty (proxied by the log rate of human infant mortality) combined with the log number of threatened species of mammals, birds, and amphibians per one-degree grid square (Behrmann equal-area projection). White areas represent missing data. From Sachs *et al.* 2009.

In such biodiversity-rich areas, poor people often no other choice than to live from the extraction of living natural resources. Many studies have shown that the poorest communities depend disproportionately high on these resources for their subsistence needs, both in terms of income and insurance against risk<sup>10 11 12</sup>. This can yield pressures on biodiversity, if the use of the resources is carried out in an unsustainable way.

The usefulness of biodiversity conservation for economic development is a still a subject of debate. Biodiversity conservation can be a mean to get out of poverty if the poor communities get the conservation benefits. However, when conservation does not take local interests into account, it often only acts as a safety net to keep people from falling deeper into poverty.

Conservation intentions can create new opportunities, such as community resource management, markets for sustainably harvested timber and non-timber products and returns from payments for environmental services schemes<sup>13</sup>. Nearly a sixth of the world's population depend on protected areas for significant percent of their livelihoods. Current studies show that successes are more likely to be harvested only if such initiatives target the poorest communities and do not solely profit to local elites.

<sup>10</sup> Roe D. *et al.* (2010). Linking biodiversity conservation and poverty reduction: what, why and how? Summary report of a symposium held at the Zoological Society of London, 28th – 29th April 2010. Organised by IIED, UNEP-WCMC and AWF.

<sup>11</sup> World Bank (2011). The Changing Wealth of Nations: Measuring Sustainable Development in the New Millennium. World Bank.

<sup>12</sup> Secretariat of the Convention Biological Diversity (2010). Linking Biodiversity Conservation and Poverty Alleviation: A State of Knowledge Review. CBD Technical Series No: 55. Montreal, 71 pages.

<sup>13</sup> Roe D. *et al.* (2010). Linking biodiversity conservation and poverty reduction: what, why and how? Summary report of a symposium held at the Zoological Society of London, 28th – 29th April 2010. Organised by IIED, UNEP-WCMC and AWF.

These findings send an important message to policymakers: protecting the places of highest priority for biodiversity conservation, while ensuring returns to the poorest communities, can deliver benefits to human well-being and poverty alleviation that are large, both in absolute terms and relative to costs and needs.

In addition to biodiversity conservation, sustainable management schemes outside protected areas must be put in place. Many tools already exist, such as the certification schemes as mentioned above, temporary moratoria on over-harvested species, increased efficiencies in the use of biodiversity resources, etc.<sup>14</sup>

## 2. Governance processes

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### The Convention on Biological Diversity

The imperative to reduce human impacts on biodiversity has received attention since the late 1980's. The Convention on Biological Diversity, agreed at the 1992 Rio Earth Summit, is one of the most widely ratified treaties in the world. To date, 193 Parties have committed themselves to achieving the objectives of the Convention. They have also committed themselves to “achieve by 2010 a significant reduction of the current rate of biodiversity loss [...] as a contribution to poverty alleviation and to the benefit of all life on earth”<sup>15</sup>. This 2010 target was endorsed by the World Summit on Sustainable Development in 2002 and was later incorporated in the Millennium Development Goals in 2005 in recognition of the impact of biodiversity loss on human well-being<sup>16</sup>.

The various studies presented in the previous section demonstrate that the 2010 target has not been achieved (cf. Figure 2). Overall, efforts to stem biodiversity loss have clearly been inadequate. The cost of failure to halt biodiversity loss on land alone in the last 10 years is estimated to be \$500 billion<sup>17</sup>.

The lack of progress toward the 2010 target under the CBD also undermines the achievement of the Millennium Development Goals and of poverty reduction in the long term. In the past decade, the Convention on Biological Diversity realised the urgency of the situation and started taking decisions to address these issues. In 2008, the CBD Secretariat established the 'Biodiversity for Development' initiative. The aim of this initiative is to improve the integration of the three objectives of the Convention into development processes. The objectives of the initiative are<sup>18</sup>:

- to promote the integration of biodiversity considerations into sectoral policies or cross-sectoral strategies (e.g. Poverty Reduction Strategy Papers) as well as including the development dimension in National Biodiversity Strategies and Actions Plans (NBSAPs);
- to facilitate the exchange of experiences and the dissemination of good practices on the integration of biodiversity into development sectors and poverty reduction programmes;
- to strengthen the linkages between CBD programmes of work and development/poverty alleviation, and raise awareness of the Parties on this crucial issue.

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<sup>14</sup>IUCN (2012). IUCN Business Engagement Strategy. <http://data.iucn.org/dbtw-wpd/edocs/Rep-2012-001.pdf>. Accessed 5 October 2012.

<sup>15</sup>Convention on Biological Diversity (2002). COP-6 Decision VI/26. Strategic Plan for the Convention on Biological Diversity.

<sup>16</sup>United Nations General Assembly (2005). Resolution 60/1. 2005 World Summit Outcome.

<sup>17</sup>Secretariat of the Convention on Biological Diversity (2009). Biodiversity, Development and Poverty Alleviation: Recognizing the Role of Biodiversity for Human Well-being. Montreal, 52 pages.

<sup>18</sup><http://www.cbd.int/development/programme/workplan.shtml>

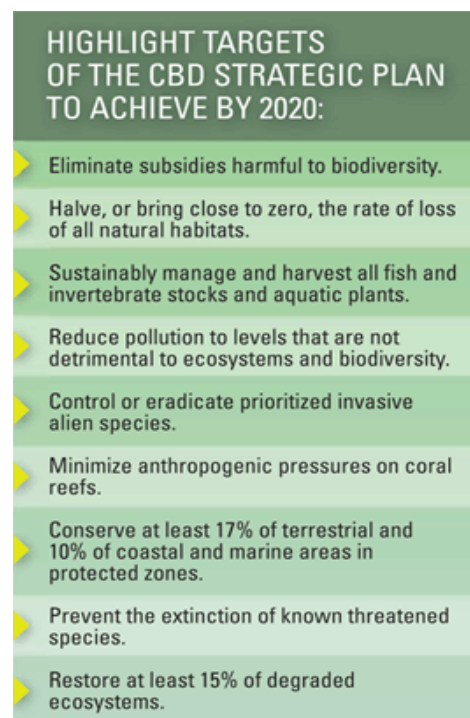
The 'Biodiversity for Development' initiative works in close partnership with the United Nations Development Programme (UNDP). The initiative is supported by all CBD Parties via the 'Dehradun Recommendations'<sup>19</sup>, [to be] adopted at 11<sup>th</sup> Conference of the Parties of the Convention in October 2012. These recommendations provide guidance on how to make the initiative operational.

One of the most important governance event of recent years was the adoption in 2010, at the 10<sup>th</sup> Conference of the Parties of the Convention in Aichi-Nagoya (Japan) of the Strategic Plan for Biodiversity 2011-2020 (together with the Nagoya Protocol on Access and Benefit Sharing and the Strategy for Resource Mobilization).

The Strategic Plan for Biodiversity 2011–2020 is a transversal text covering all themes and cross-cutting issues of the Convention on Biological Diversity. It contains social, economic and ecological components and enlists the strategic objectives of the Convention.

The plan includes 20 ambitious Aichi Biodiversity Targets<sup>20</sup>. It also serves as a flexible framework for the establishment of national and regional targets. More importantly, this new plan has been adopted as the overarching framework on biodiversity for the entire United Nations system.

The Strategic Plan 2011-2020 specifically addresses the need for a better integration of the agendas for biodiversity conservation and poverty reduction.



From <http://www.thegef.org>

## The Millennium Development Goals

Parallel to the CBD process, the Millennium Development Goals represent an unprecedented global consensus about measures to reduce poverty. The eight goals address targets to increase incomes; reduce hunger; achieve universal primary education; eliminate gender inequality; reduce maternal and child mortality; reverse the spread of HIV/AIDS, tuberculosis, and malaria; ensure environmental sustainability and establish effective global partnerships<sup>21</sup>.

In 2005, the United Nations General Assembly adopted a set of detailed targets related to Goal 7 which aimed at significantly reducing the rate of loss of biodiversity by the year 2010 (Target 7 B). This target is supported by two indicators for monitoring progress, namely, the proportion of terrestrial and marine areas protected and the proportion of species threatened with extinction.

However, it has been now amply demonstrated that the conservation of biodiversity and ecosystem services are critically important to achieving all the MDGs and not just Goal 7<sup>22</sup> (see Table 1).

<sup>19</sup> Secretariat of the Convention on Biological Diversity (2012). Document UNEP/CBD/WG-RI/4/5. Biodiversity and development: report of the expert meeting on biodiversity for poverty eradication and development. Note by the Executive Secretary. 10 pages.

<sup>20</sup> Secretariat of the Convention on Biological Diversity (2011). Strategic Plan for Biodiversity 2011-2020 and the Aichi Targets., 4 pages.

<sup>21</sup> Waage J. *et al.* (2010). The Millennium Development Goals: a cross-sectoral analysis and principles for goal setting after 2015. The Lancet. Published online September 13, 2010 DOI:10.1016/S0140-6736(10)61196-8.

<sup>22</sup> Secretariat of the Convention on Biological Diversity (2009). Biodiversity, Development and Poverty Alleviation: Recognizing the Role of Biodiversity for Human Well-being. Montreal, 52 pages.

Table 1. Some examples of links between the Millennium Development Goals and biodiversity (from Millennium Development Project 2005<sup>23</sup> and Secretariat of the Convention on Biological Diversity 2009<sup>24</sup>).

MDGs	What are the links with biodiversity?
Goal 1. Eradicate extreme poverty and hunger	The poor depend on living natural resources for as much as 90% of their livelihood needs. Loss of biodiversity compromises income and livelihoods. Sustainable use of biodiversity in agriculture, forest management, wildlife management, or biodiversity-based product development offers a source of stable secure job creation.
Goal 2. Achieve universal primary education	Ecosystem degradation and the loss of biodiversity are associated with more time being spent by women and children collecting resources such as fuel and potable water. This reduces time spent at school.
Goal 3. Promote gender equality and empower women	Women have unequal and insecure access to land and other natural resources, limiting their opportunities and ability to access productive assets.
Goal 4. Reduce child mortality	33% of childhood disease burden is associated to environmental factors. Availability of clean water is essential to health and the sustained provision of clean water is largely dependent on biodiversity.
Goal 5. Improve maternal health	Carrying heavy loads during late stages of pregnancy put women's health at risk before childbirth.
Goal 6. Combat HIV/AIDS, malaria and other diseases	Human health is highly dependent on a healthy well functioning environment; maintaining and restoring biodiversity opens up much needed options to combat major diseases such as malaria and haemorrhagic dengue. Health care needs of the majority of people continue to be met primarily with traditional medicines. Herbs in particular remaining an important medicinal staple worldwide and most plant species continue to be harvested from the wild.
Goal 7. Ensure environmental sustainability	Biodiversity is key to the functioning of ecosystems. Biodiversity loss directly affects the quality and quantity of ecosystem services. Clean water and effective sanitation is largely dependent on biodiversity.
Goal 8. Develop a global partnership for development	Development aid has been falling, in general and in particular for environmental sustainability. Market access for most developing countries is so far little improved. Trade-related assistance is too small and can contribute to biodiversity loss. Subsidies such as some agricultural subsidies can contribute to reduce biodiversity and do not always promote good practices.

While there has been worldwide eagerness to achieve the eight MDGs by the year 2015, concerns are mounting as to whether these goals, targets and indicators set out are realistic in terms of measuring and monitoring for concrete results<sup>25 26</sup>.

This is where the two governance processes meet. Initiatives under the CBD can provide more tangible information than what currently exists at MDG level. For these initiatives to contribute effectively to the MDG process, there is a need to link the targets and indicators of the Strategic Plan 2011-2020 with the commitments on the MDGs. In the context, the various programmes of work of the Convention on Biological Diversity are progressively adapted and actualised to increase their effectiveness and coherence related to broader development and poverty reduction processes<sup>27</sup>. Further work is necessary to render these programmes of work more relevant to policy-makers and stakeholders involved in development processes.

<sup>23</sup> UN Millennium Project (2005). Investing in Development: A Practical Plan to Achieve the Millennium Development Goals. New York.

<sup>24</sup> Secretariat of the Convention on Biological Diversity (2009). *ibid*.

<sup>25</sup> Waage J. *et al.* (2010). *Ibid*.

<sup>26</sup> Pisupati B. & Rubian R. (2008) MDG on Reducing Biodiversity Loss and the CBD's 2010 Target, UNU-IAS. 36 p.

<sup>27</sup> Smith, J. *et al.* (2010). "Linking the thematic Programmes of Work of the Convention on Biological Diversity (CBD) to Poverty Reduction". Biodiversity for Development: New Approaches for National Biodiversity Strategies. CBD Secretariat, Montreal.

**Part II**

**PRESENTATION OF THE MAIN PARTNERS**

## 1. The RBINS

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### Our missions

The Royal Belgian Institute of Natural Sciences (RBINS) is one of the ten federal scientific institutions governed by the Belgian Science Policy (Belspo). It also hosts a museum of natural history. The RBINS is a separately-managed State service.

The origins of the RBINS go back to the foundation of its museum in 1846, as a descendant of the *Musée de Bruxelles* of 1802. Since then, worldwide explorations, high level scientific programmes and successive reforms led to the institution in its modern form. In 1997, the Management Unit of the North Sea Mathematical Model (MUMM) was transferred to the RBINS and, in 2001, it was the turn of the Geological Survey of Belgium.

The RBINS is famous for its fossilized *Iguanodon* skeletons, which were discovered in 1878 in Bernissart. Another famous piece is the Ishango bone, an ancient mathematical tool made out of bone. It was discovered in 1960 in the Parc National Albert (now Virunga National Park in D.R. Congo).

Given its unique status as scientific institution, museum and governmental institution '*all in one*', the RBINS has four main missions:

1. To carry out scientific research in natural and earth sciences;
2. To provide scientific expertise to public authorities;
3. To manage and develop scientific and heritage collections;
4. To disseminate the scientific culture and knowledge to society.

### Scientific research

One out of every three people working at the RBINS is a scientist. The scientific personnel includes biologists studying fauna (zoologists, taxonomists, ecologists...), oceanographers, geologists, palaeontologists, anthropologists, prehistorians and archaeologists, which enables it to conduct multidisciplinary research. The main lines of research are the following:

- The study of biodiversity in all animal groups, be they extant or fossil.
- The study of land, freshwater and marine ecosystems.
- The study of the history and evolution of life, the climate and human installations.
- The study of the geology of Belgium.

### Provision of expertise and services

The RBINS provides scientific expertise under Belgium's international commitments in relation to environmental protection. It develops tools and methods for monitoring natural land or marine environments. It offers useful advice for the development of national and European policies for the protection and conservation of biotopes and biodiversity.

In 1995, the Institute was appointed as 'Belgian National Focal Point to the Convention on Biological Diversity'. In this context, the RBINS is the contact point between the international Secretariat of the



Convention and the Belgian authorities. By extension, it also plays an important role at national level, as explained in greater detail in the following section: it makes sure the CBD is implemented in Belgium, fosters cooperation with other countries and informs the public on biodiversity matters.

The RBINS also host the scientific coordination of the 'Belgian Biodiversity Platform', a body in charge of encouraging interdisciplinary cooperation among Belgian scientists and serving as an interface between researchers and science policy in Belgium.

### *Management of heritage*

With approximately 37 million specimens conserved as Belgian heritage of universal significance, the RBINS's biological, paleontological, prehistoric and geological collections serve above all as reference and research tools. The collections are dynamic; they are constantly being added to and provide an essential basis for numerous publications, taxonomical reviews and monographs. For several years now, the RBINS has been committed to an ambitious programme to digitise its collections and to do so has developed an open-source software, DaRWIN, which has made it possible to encode all the data on any collection of specimens, whatever their taxonomical group.

### *Museum and educational activities*

For the general public, the Museum of Natural Sciences is the visible part of the RBINS. It has 16,000 m<sup>2</sup> of permanent galleries, temporary exhibition rooms and spaces for educational workshops, enabling it to welcome more than 300,000 visitors each year, approximately 30% of whom are school groups. Its Dinosaur Gallery is the largest in Europe.

In 2010, it created the first part of its Biodiversity Wing by opening BiodiverCITY, a permanent exhibition presenting the wildlife and ecosystems present in urbanised environments and highlighting some of the actions every informed citizen can take to maintain and conserve biodiversity.

The RBINS plays a leading role in the promotion and dissemination of scientific culture, both within and beyond its walls, notably through travelling exhibitions and events. It is also resolutely oriented towards the promotion of a more respectful approach to nature.

## **The Belgian National Focal Point to the Convention on Biological Diversity**

National Focal Points exist in each country having ratified the Convention on Biological Diversity. In Belgium, the RBINS has this responsibility. As defined by the CBD<sup>28</sup>, "a focal point is the person or institution designated by a government to represent the Party between meetings of the Conference of the Parties in its routine dealings with the Secretariat in matters involving the Convention. These dealings include such activities as communication, dissemination of information, representation at meetings, responding to various request, collaboration with other stakeholder groups, monitoring, promoting and/or facilitating national implementation of the Convention".

This is a fairly good reflection of the activities of the RBINS as Belgian National Focal Point to the Convention. After its designation by the Inter-ministerial Conference for the Environment in 1995,

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<sup>28</sup> Secretariat of the Convention on Biological Diversity. (2009). Role of the CBD National Focal Point. CBD Capacity Building Modules. Module A-2. Version 2 – February 2009. <http://www.cbd.int/doc/training/nbsap/a2-train-role-nfp-v2-2009-02-en.pdf>. See also CBD COP Decision VIII/5.

the Institute has set up a small team that is in charge of liaising with the CBD Secretariat, spreading information on the Convention, supporting the policy process, organising awareness events, setting up training programmes...

Being hosted in Belgium's largest natural history institution, the focal point team can rely on a wide scientific and educational expertise to support its activities. This situation is quite unique in the world, as less than five countries have designated a scientific institution as their national focal point. This places the RBINS at the very interface between science, policy and education, thereby providing it with an unparalleled mean for action to increase the visibility of the Convention on Biological Diversity. It also places it in a good position to coordinate various networks, from policy makers to various stakeholders groups. In this context, the focal point currently chairs the national biodiversity coordination network, the 'Steering Committee Biodiversity Convention', one of the thematic groups of the 'Coordination Committee for International Environmental Policy (CCIEP)'.

Collaboration with counterparts in other countries is one of the tasks of national focal points. It is important in establishing best practices and overcoming the obstacles in implementing the Convention. A positive side effect is that strong international and regional partnerships pave the way for successful exchanges and negotiations during the meetings of the Conferences of the Parties.

The focal point team within the Institute maintains daily contacts with other national focal points, but also with various administrations, non-governmental organizations and scientific institutions worldwide. These contacts enable the transmission of crucial information on a wide range of topics, from policy-making to scientific research.

In addition to being CBD National Focal Point, the Institute is also thematic focal point for the Clearing House Mechanism (CHM), the Global Taxonomy Initiative (GTI) and the Subsidiary Body for Scientific, Technical and Technological Affairs (SBSTTA). Activities linked to all these mandates have always long been done in close synergy, being facilitated by the fact that it was the same person who was in charge of their activities till 2008. Nowadays, responsibilities have been shared but the coordination remains.

Since its early days, the Institute, as CBD focal point, has shared its networking and information exchange experience with other countries. At the European level, this has been achieved either at the policy level within the expert committees of the Council of the European Union and the European Commission or at the technical level through the European Environment Agency. At the global level, the Institute is one of the founding members of the 'Consortium of Scientific Partners on Biodiversity' of the Convention on Biological Diversity. Its purpose is to leverage the expertise and experience of scientific institutions to implement education and training activities to support developing countries that are building scientific, technical and policy skills in the area of biodiversity<sup>29</sup>. Since its establishment in 2006, the Consortium has proposed many training activities in the margins of international meetings of the CBD and has developed some public awareness initiatives.

The Institute has also always been involved in answering requests for support from developing countries. This has resulted in a capacity building programme, financially supported for a short time in 1998-1999 by the federal environmental administration (now the Federal Public Service Public Health, Security of the Food Chain and Environment) and for a much longer period by the Directorate General for Development Cooperation (DGD). The aim of the DGD-RBINS partnership is to continue and expand further these activities.

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<sup>29</sup> <http://www.cbd.int/csp/>

## 2. The DGD

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### **Our mission**

DGD (Directorate-General for Development-Cooperation) is an integral part of the Federal Public Service Foreign Affairs, Foreign Trade and Development Co-operation and has for mission:

- to strive for a just, fair and sustainable world, where everyone lives in peace, security, freedom and is protected against poverty;
- to stay an important actor, by active engagement in the development agenda;
- to be an efficient actor in development concentrated on the achievement of results;
- to manage the human potential on a proactive manner to contribute to the development and dedication of the staff.

The 'Thematic Direction D2' is responsible for developing the necessary knowledge and giving advice to the stakeholders in the field and to the DGD as a whole. D2 is divided into specialized services based on the development issues considered most relevant (e.g. inclusive growth, social development, natural resources). This allows defining more effective strategies against poverty and helping to assess the relevance and appropriateness of specific development interventions. Those services provide a contribution in terms of content to the strategies and institutions of the international donor community (and promote global public goods).

### **Service D2.4 'Climate, environment and natural resources'**

An ever developing and growing population puts a harsh pressure on our planet, which has limited natural resources and fragile ecosystems. Combined to the effects of climate change this makes the whole world, but especially the weakest in developing countries, facing enormous challenges. Water scarcity, biodiversity loss and environmental degradation are among the results of this process. Without a sustainable development strategy and a radical change in our current consumption patterns, (the living together and) the development prospects both locally and globally will be under increasing pressure in the future.

As knowledge centre, the D2.4 service is responsible for developing the Belgian thematic knowledge on climate, environment and natural resources with regards to development issues. For the sake of professionalism and consistency, external expertise is needed to provide the appropriate policy and decision-making support on those issues.

Together with external partners, D2.4 builds and transfers the needed knowledge and can provide strategic and technical advice on the relevance of development initiatives. Hence D2.4 strengthens embassies, development agencies, permanent representations and the DGD as a whole, in terms of content strategy.

## Main priorities on biodiversity and development

On biodiversity, the main areas of interest for DGD are related to ecosystem services (whether or not under the heading of 'green economy'<sup>30</sup>) and measurement, reporting and verification (MRV) of the financing of biodiversity.

**Ecosystem management.** Some ecosystems are of particular interest for DGD, as many development cooperation activities are in those fields :

- **Forests** in developing countries, both in the FLEGT (Forest Law Enforcement and Trade) and REDD + (Reducing Emissions from Deforestation and Forest Degradation). In both programs, biodiversity and associated ecosystem services are insufficiently known and often underestimated. However the sustainable management of forests (SFM) is the basis for the maintenance of a favourable conservation status of forest biodiversity. Important for DGD in this field are:
  - supporting biodiversity elements in the FLEGT Voluntary Partnership Agreements programme for better understanding the impact on poverty ;
  - support for REDD +, where biodiversity is mandatory for future funding;
  - support a more comprehensive LULUCF (Land Use, Land Use Change and Forestry) approach, where a well-managed balance between agriculture and biological diversity is needed.
- **Freshwater ecosystems:** water management, both at the level of the basin management as at the level of groundwater is very important for development. Water cycle management (WCM) is in many cases unilaterally treated in terms of production. The quality of the water is controlled by biological processes, however, both as the ultimate starting material and as in terms of the waste water flows. Therefore, DGD pays particular attention to the following issues:
  - the biology of the basin management, to further highlight with sustainable processes that additionally, can provide secondary benefits for the residents;
  - the reduction of waste and the treatment of small wastewater flows is not sufficiently known in developing countries. Custom technologies should be developed locally (?) to protect surface and groundwater;
  - sustainable land management (SLM) is needed, especially in arid, semi-arid and sub-humid regions, based on biological processes, including possibilities of secondary production.
- **Coastal and near-shore marine ecosystems:** Coastal ecosystems—coastal lands, areas where fresh water and salt water mix, and near shore marine areas—are among the most productive yet highly threatened systems in the world. These ecosystems produce disproportionately more services relating to human well-being than most other systems, even those covering larger total areas. Coastal zones throughout the world have historically been heavily exploited areas because of their rich resources. In coastal countries today an estimated half of the total populations live in coastal zones, and migration from inland areas to the coast is increasing. Not surprisingly, is also a sharp conflict between the need for immediate consumption or use of coastal resources and the need to ensure the long-term supply of those resources.

**Waste management.** Despite the fact that solid waste streams, sometimes ingeniously recycled (e.g. computer waste), the management of solid waste in rural and urban areas is insufficiently known. This solid waste may be of organic or inorganic in nature. The organic waste can be converted back into raw materials for agriculture and / or energy through biological processes. Particular attention

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<sup>30</sup> A 'green economy' is one that strives to improve human welfare whilst reducing environmental risks and ecological scarcities. In order to contribute to poverty reduction the economy must recognize the value of, and invest in, Natural Capital on which the poor depend most.

goes to the knowledge of processes such as fermentation of organic waste and the use of the products and/or energy; the support for controlling composting organic waste.

**Access and Benefit Sharing (ABS)**, based on the third objective of the Convention, will yield major challenges for development in the future. Until now, DGD has been completely absent in the debate, but the implementation of ABS is coming towards us. Therefore, DGD identifies the following necessities:

- a formation cycle (possibly in cooperation with other entities) on ABS;
- capacity building for ABS in our partner countries;
- results-oriented management for ABS.

**Measuring, Reporting, Verifying (MRV)** should be applied to all of the former fields of interest, as well on a scientific base as on the financing side. In particular, indicators of the financing for biodiversity are of great importance for DGD. Official Development Aid (ODA) will remain an important means of leveraging for financing biodiversity in developing countries. Indicators of all kinds are important in that respect.

**Synergies between the three Rio Conventions.** Belgium has always been a forerunner in the promotion of synergies between the three Rio conventions, but both in Belgium and in its partner countries this has not been expressed sufficiently. Biodiversity without land, climate change without biological cycles, land degradation without biodiversity... On different levels there are interactions. In this respect, DGD would like to encourage the following:

- the organisation of consultations between the three Rio Conventions in Belgium, with, where necessary, the involvement of other conventions that concern biodiversity;
- the promotion of the Belgian model as an example for the EU and internationally, including in Belgium's partner countries.

The operation of the **Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES)** comes to speed. DGD wishes to be informed of issues of importance for development in this discussion, with a special interest on desertification, agriculture and forestry.

### 3. The RBINS-DGD partnership

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The DGD-RBINS partnership is unique in its kind. It is the only partnership that exclusively focuses on building capacities on biodiversity-related issues and that operates in the context of the Convention on Biological Diversity.

#### The early activities

The Directorate General for Development Cooperation and the RBINS started working together on the implementation of the Convention in 1999. The first project served to establish the 'Partnering role for the Clearing-House Mechanism'. It responded to a request for assistance from D.R. Congo. This project provided training on website development to CHM focal points and webmasters in

charge of making biodiversity information freely available via national 'CHM websites'. It was specifically geared towards African countries.

## The 2003-2007 period

In 2003, the DGD and RBINS signed a **specific convention** for cooperation and developed their **first five-year programme** of activities. These activities covered five main thematic areas:

- the improvement of the exchange of information on biodiversity, thanks to the application of new information technologies (under the umbrella of the Clearing-House Mechanism),
- the increase in taxonomic knowledge and expertise, via research projects, training programmes and the publication of taxonomic manuals (as part of the Global Taxonomy Initiative),
- the valorisation of archive data collected during scientific expeditions in countries of the South, so that historical information can serve as a basis for modern conservation activities (with a focus on the National Parks of D.R. Congo),
- the setting up of public awareness programmes on biodiversity in the partner countries,
- the provision of scientific support to the DGD and other administrations working in the field of biodiversity.

This first programme enabled the RBINS to provide training and capacity building in one of its main fields of expertise, taxonomy. It was also during this first convention that work started on the valorisation of RBINS' archives on the national parks of D.R. Congo, via the digitisation of pictures and publications and the use of these archives in various projects.

## The 2008-2012 period

The **second five-year programme** was adopted in 2008 and ran till 2012. It continued to fulfil RBINS' previous commitments. While conserving the same overall philosophy as in the first programme, the new programme broadened its fields of action and included the following programme components to add new areas of activity. Former activities that were continued included:

- the improvement of the exchange of information on biodiversity, thanks to the application of new information technologies (under the umbrella of the CBD's Clearing-House Mechanism),
- the increase in taxonomic knowledge and expertise, via research projects, training programmes and the establishment of taxonomic manuals (as part of the CBD's Global Taxonomy Initiative),
- the valorisation of archive data collected during scientific expeditions in countries of the South, so that historical information can serve as a basis for modern conservation activities (with a focus on the National Parks of D.R. Congo),
- the provision of scientific support to the DGD and other administrations on biodiversity issues.

New activities focused on:

- the provision of support to carry out monitoring, inventories and assessments of biodiversity in terrestrial and marine ecosystems (with a focus on D.R. Congo).
- the organisation of a public awareness event on the importance of biodiversity for development on the occasion of the International Year of Biodiversity.
- the organisation of training courses to work with numerical models to support the study of ecosystem services. The training was extended through an intensive visitors' programme.

The RBINS being a scientific institution, a good part of the work programme has had a strong focus on building scientific capacities and technical expertise. The work achieved in the past five years enabled to consolidate the activities started in 2003. One of the great successes of the programme has been the enticement of the RBINS scientific staff to transmit their knowledge to their colleagues in the South. The RBINS has always seen a strong tradition of scientific exploration around the world, but before the DGD programme was put in place, this tradition was seldom associated with the building of local capacities. Nowadays, field research is accompanied by the training of scientific and technical staff both on the field and in Belgium, by the provision of support to local infrastructures and by the strengthening of networking ties between the North and the South.

One of the hopes from the DGD side was to try to convert this scientific enthusiasm into positive impacts for development that could be readily visible on the ground. This can prove to be quite difficult, as there is a rather long time lag between the moments when knowledge is generated, when it is made available and when it is put in practice by policy-makers or managers. The upcoming programme will try to find ways to reduce this time lag. It will also design an approach that provides greater attention to its relevance for development policy.

## The upcoming period

A **third multi-year strategy** is expected to start in 2014, and will run for ten years. This date is to be aligned with the starting dates of the programmes of other non-governmental actors following a reform process currently under way. A transition year is foreseen in 2013.

The challenges are the following: how can the 2014-2023 RBINS-DGD strategy contribute, through the sustainable management of biodiversity and ecosystem services, to the achievement of socio-economic goals of its partner countries and to the priorities of DGD? And how can the RBINS, as CBD National Focal Point, help its counterparts in partner countries with the implementation of the Convention and its Strategic Plan for Biodiversity 2011-2020?

We will need to further enhance collaborative work between the biodiversity and development communities, both in Belgium and in the partner countries. We will need to identify and implement ways to make them better interact, to jointly identify critical research questions and to address the main challenges for the future. We will help foster efficient networks of administrative, scientific and communication experts. We will have to see how the outputs that derive from these interactions can be valorised by CBD National Focal Points and their Millennium Development Goals counterparts. When addressed, these challenges will help ensure that poverty alleviation and conservation efforts produce win-win outcomes, or at least minimise negative impacts to each other's agenda.

As National Focal Point to the CBD, the RBINS will draw its frame for action from the Convention on Biological Diversity, the Strategic Plan for Biodiversity 2011-2020 and the Biodiversity for Development initiative. When operational, the newly established Intergovernmental Panel on Biodiversity and Ecosystem Services (IPBES) will also provide a useful framework for action. To paraphrase Dr Bráulio Ferreira de Souza Dias, the CBD's Executive Secretary, the three priorities of the RBINS at the 2020 horizon are "implementation, implementation and ... implementation".

The DGD – RBINS partnership is also framed by the Belgian national strategy for biodiversity 2006 – 2016 (to be extended up to 2020), in which development cooperation is targeted among others under Objective 11: Ensure continued and effective international cooperation for the protection of

biodiversity, and by the federal plan (2009 – 2013) for the integration of biodiversity in 4 federal key-sectors<sup>31</sup>. Development cooperation is one of these four key-sectors of the plan and is targeted by 13 action sheets in which RBINS is directly or indirectly involved.

Due attention will also be paid to the evolution of the Millennium Development Goals beyond 2015. Will the 'Sustainable Development Goals' (SDGs) complement or replace them? How will the MDGs and the SDGs relate to each other? What will be the place of biodiversity in these goals?

## Shared goals and responsibilities

The RBINS and DGD D2.4 both have an important role to play in the implementation of this strategy.

At the practical level, the RBINS and DGD will have to work together to better integrate the various components of the 2014-2023 strategy so that there is a coherent chain from the production of knowledge to its appropriate use by relevant stakeholders.

The RBINS and its partners in developing countries will lead the production of knowledge, as having a thorough knowledge of biodiversity (starting with taxonomy) is essential for a better understanding and preservation of ecosystem services. This knowledge will have to contribute to the societal problems faced by developing countries. DGD D2.4 will ensure that this is translated in better formulated objectives, thereby contributing more effectively to development issues.

One of the most important links between science, policy and society will be the dissemination of knowledge. Research results, whether fundamental or applied, have little value if they are not valorised outside the restricted circles of scientists. This will be quite challenging. A change of paradigm is not only needed at the level of RBINS but also, to a lesser extent, at that of scientists from developing countries. Current excellence in science is essentially measured in terms of publications in high-ranking peer-reviewed scientific journals. While the RBINS will still encourage the production of such publications as a guarantee of the scientific quality of its activities, it will also encourage other means to reach interested audiences. These may include tools such as technical and popularised publications (reports, manuals, brochures...), web2.0 technologies (websites, use of social networks...) and face-to-face activities (training sessions, user workshops, press briefings...). Specific provisions will be made in the strategy to help scientists identify the right tools and have the necessary resources to achieve such goals. As a dissemination mechanism, we will also use the national nodes of the CBD's Clearing-House Mechanism. We will also involve the various national and thematic focal points of the CBD as well as their MDGs colleagues. DGD D2.4 will help the RBINS and its partners identify local communication channels and end-users as well as international fora that may be interested in the results of activities. These may include cooperation attachés in partner countries or other stakeholders working in development circles.

Another challenge that await us is the strengthening of South-South cooperation. As an actor for scientific expertise and development, the RBINS is too small to be able to meet all requests and is not always the best placed to answers all needs. It will therefore encourage the implementation of south-driven initiatives. Some partners have already developed partnerships with other countries in their region and will be pivotal in developing these further.

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<sup>31</sup> [http://www.health.belgium.be/filestore/17964756\\_FR/plan\\_f%C3%A9d%C3%A9ral\\_biodiv\\_09\\_FR.pdf](http://www.health.belgium.be/filestore/17964756_FR/plan_f%C3%A9d%C3%A9ral_biodiv_09_FR.pdf)



**Part III**

**STRATEGIC FRAMEWORK**

## 1. Objectives at the 2020 horizon

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*"By 2050, biodiversity is valued, conserved, restored and wisely used, maintaining ecosystem services, sustaining a healthy planet and delivering benefits essential for all people"*

**Vision of the Strategic Plan for Biodiversity 2011-2020**

### General objective

In its capacity of National Focal Point to the Convention on Biological Diversity (CBD) and national reference centre for biodiversity, the Royal Belgian Institute of Natural Sciences uses the CBD as an overall framework for action.

- *The general objective of the 2014-2023 strategy is to **build scientific and technical capacities for a more effective implementation of the Convention on Biological Diversity and its Strategic Plan for Biodiversity 2011-2020**, as a contribution to poverty reduction and sustainable development worldwide.*

### Specific objectives

The RBINS will achieve six specific objectives by 2023. These objectives are grouped into two clusters. These highlight how the responsibilities are shared for the strategy's implementation.

The RBINS, with its partners aims:

- *To strengthen the **scientific and technical knowledge base** on biodiversity and on its linkages with ecosystem services and poverty reduction;*
- *To enhance the **information base** on these issues and on associated governance processes;*
- *To **raise awareness and communicate** on the importance of biodiversity and ecosystem services for poverty reduction and sustainable development, and on associated governance processes;*

The RBINS, with both its partners and DGD D2.4 aims:

- *To improve the **mainstreaming of biodiversity and ecosystem services** in policy sectors that have a high relevance for development;*
- *To improve the knowledge on the **measurement, reporting and verification (MRV)** of policy choices and activities linked to biodiversity and ecosystem services;*
- *To raise awareness on, and build capacities for, the implementation of the **Nagoya Protocol on Access and Benefit Sharing**.*

The **first cluster** groups objectives that will be achieved by the RBINS and its partners<sup>32</sup> at their own initiative, in accordance to national development priorities and policy frameworks. Multi-year and/or annual work programmes established by the RBINS<sup>33</sup> will serve as a guiding thread for the planning and undertaking of the activities. DGD will essentially act as a counsellor for a better integration of development issues during the implementation of these objectives and as a relay of project outputs to its network of potentially interested end-users.

The **second cluster** groups objectives that will be fulfilled by the RBINS, its partners and DGD D2.4. These objectives refer to themes that have special significance for DGD (see part II). Moreover, these objectives need to be addressed by Belgium as well as by developing countries as they figure in CBD requirements. Activities will be identified either by DGD, the RBINS or one of the RBINS partners. Decisions for their implementation will be taken together and responsibilities will be shared. The RBINS and its partners will however ensure most of the implementation. Planning for these activities will be undertaken on an annual basis as part of the annual work programmes established by the RBINS, with possible adjustments every six months.

## Links with the international context

The six specific objectives are guided by recent strategic decisions taken by the Convention on Biological Diversity and by developments under other international governance processes.

These include, among others,

- the Strategic Plan for Biodiversity 2011-2020, adopted at the 10<sup>th</sup> Conference of the Parties of the Convention on Biological Diversity (i.e. the Nagoya Summit) in 2010;
- the Strategy for Resource Mobilization, also adopted at Nagoya in 2010;
- the Nagoya Protocol for Access and Benefit-Sharing, also adopted at Nagoya in 2010<sup>34</sup>;
- the Biodiversity and Development Initiative and the Dehradun Recommendations on Biodiversity for Development [to be] adopted at the 11<sup>th</sup> Conference of the Parties of the CBD in 2012<sup>35</sup>;
- the options for enhanced cooperation identified by the three Rio Conventions<sup>36</sup>;
- the outcomes of the UN Conference on Sustainable Development (Rio+20) adopted in 2012;
- the capacity development framework established by UNDP to implement the Millennium Development Goals;
- the capacity building programme to be developed by the newly-established Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES)<sup>37</sup>;
- the European commitments to averting global biodiversity loss, as reflected in the EU Biodiversity Strategy to 2020<sup>38</sup> and the related EU Council conclusions<sup>39</sup>.

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<sup>32</sup> The partners of the RBINS are essentially scientific institutions, administrations or (non)governmental organisations based in developing countries. They may occasionally also include individuals from developing countries (such as in bursary programmes). Other partners may include, on a more limited basis, other Belgian actors of the non-governmental cooperation such as scientific institutes, universities and NGOs; international organizations such as the Secretariat of the Convention on Biological Diversity; UN bodies such as UNEP and UNEP-WCMC; European Agencies, scientific institutions in other European countries...

<sup>33</sup> And approved by DGD as well as the other members of the steering committee of the programme.

<sup>34</sup> It should be noted that aspects linked to the Cartagena Protocol on Biosafety and the Nagoya-Kuala Lumpur Supplementary Protocol on Liability and Redress will not be addressed in this strategic programme, even though they are two protocols established under the CBD.

<sup>35</sup> The recommendations will be formally adopted at the CBD's 11<sup>th</sup> Conference of the Parties, in October 2012.

<sup>36</sup> <http://www.cbd.int/rio/>

<sup>37</sup> <http://www.ipbes.net/>

<sup>38</sup> [http://ec.europa.eu/environment/nature/biodiversity/comm2006/pdf/2020/1\\_EN\\_ACT\\_part1\\_v7%5B1%5D.pdf](http://ec.europa.eu/environment/nature/biodiversity/comm2006/pdf/2020/1_EN_ACT_part1_v7%5B1%5D.pdf)

<sup>39</sup> <http://register.consilium.europa.eu/pdf/en/11/st18/st18862.en11.pdf>



### 3. Main elements of the strategy

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#### **Specific objective 1. The RBINS strengthens the scientific and technical knowledge base on biodiversity and on its linkages with ecosystem services and poverty reduction.**

*The 2010 biodiversity target has not been achieved. Despite growing evidence that human well-being depends on multiple services that are provided by ecosystems, the diversity that underpins these systems is still decreasing at an unprecedented rate. There is a need for the international scientific community to respond to the accelerating loss of biodiversity by focusing its efforts on addressing the key gaps to address policy-relevant issues. DIVERSITAS<sup>40</sup>, the leading international programme on biodiversity, has identified four challenges to achieve this response, i.e. (1) on critical detrimental changes in biodiversity and ecosystem services, (2) on the capacity of social-ecological systems to adapt, (3) on patterns, origins and changes in biodiversity and (4) on the establishment of a global network of biodiversity science<sup>41</sup>. The fourth challenge links to the recently-established Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES). IPBES will be an interface between the scientific community and policy makers that aims to build capacity for and strengthen the use of science in policy making. Once operational, this process will identify further activities that will need to be developed.*

#### **Background**

The RBINS possesses an internationally recognized scientific and technical expertise in the study of biodiversity and of ecosystems. In addition, the RBINS has developed valuable know-how on how to translate research results into valuable advice for policy and decision-makers.

Strong points of RBINS expertise that are most relevant for this objective can be grouped into three main categories: (i) the identification, monitoring and assessment of components of biodiversity (from taxonomic identification to ecological studies), (ii) the study and modeling of ecosystem functioning and (iii) the scientific foundations of conservation biology. These field of expertise cover all types of ecosystems, whether terrestrial, freshwater or marine.

In the framework of this strategy, the RBINS has for objective to build capacities to perform quality 'biodiversity and ecosystem science' – concentrating on the three identified categories above – that has relevance for poverty reduction and development. We will provide support to well-established scientific and technical institutions in developing countries, while not forgetting to help early career scientists and newly established research teams boost their capacities to undertake research. We will help our partners in developing countries contribute primary data and quality information in response to challenges 1, 3 and 4 of DIVERSITAS.

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<sup>40</sup> DIVERSITAS is an international global environmental change programme dedicated to the science of biodiversity. Its overall goals are (i) to promote an integrative biodiversity science, linking biological, ecological and social disciplines in an effort to produce socially relevant new knowledge; and (ii) to provide the scientific bases for the conservation and sustainable use of biodiversity. See <http://www.diversitas-international.org/>

<sup>41</sup> Larigauderie et al. 2012. Current Opinion in Environmental Sustainability, 4:101–105.

As biodiversity focal point, the RBINS operates at the interface of science and policy making. In this context, we will build capacities how to effectively put research results into use in developing countries. A key requirement is to increase the understanding of our own researchers and of our partners on how to convey scientific information so that it can be used by a whole range of actors that include the policy and decision-making communities.

### *Expected results*

Expected results (see box #1) are of three different kinds:

- the first is process-oriented: we aim to build new scientific and technical expertise or to increase/improve the existing expertise of our partners;
- the second focuses on outputs of high quality. Without sound biodiversity knowledge or sound knowledge of the abiotic environment that host biodiversity, policy decisions can lead to inadequate or ineffective actions. Sustained efforts and sufficient timeframes are therefore needed to produce quality, and we integrate this dimension in our strategy;
- the third and fourth results focus on the exploitation and valorisation of these outputs. By making the outputs available to people who need scientific data for their work, we contribute to generating changes that will ultimately have positive impacts on biodiversity and ecosystem services. The third expected result focuses explicitly on monitoring data, while the fourth result targets all other types of scientific outputs.

#### **Expected results # 1**

1.1. Scientific and technical expertise is built.

1.2. Quality scientific knowledge is produced.

1.3. Monitoring data is fed into national indicator processes.

1.4. Scientific outputs are made accessible to users.

To achieve these expected results, we are going to support activities of the following nature:

- **collaborative projects with institutions** that cover training, research, support to improve small infrastructures (such as material for scientific collections, lab work, training in the use and application of models to manage ecosystem services) and networking. Such projects will be undertaken with well-established partners that have signed a partnership agreement;
- **individual grants** for short terms assignments (study visits, participation in workshops or conferences, networking...) that will include the possibility of distance support (e.g. counselling and e-coaching). Such grants will primarily target early-career scientists, new partners with which we are not yet ready to sign a partnership agreement or high level scientists who need access to specialised equipment (molecular lab, electron microscopy, digital photography...);
- **production of tools and contribution to processes** that support research and its dissemination (publications, websites, end-user meetings, participation in communities of practice...).
- **pilot projects that will enable biodiversity monitoring data to be fed into national indicator processes.** It will be important to valorise the work carried out by our partners who are involved in biodiversity monitoring studies, so that their data can be useful for, and used in, current indicator processes on the status of biodiversity. Sound baselines and measurements of biodiversity are needed to be able to provide meaningful trends. To enable our partners to contribute to these indicator processes, training and dedicated follow-up will be required to ensure the quality of the produced data. These activities also directly contribute to fulfil specific objective 5, on monitoring, verifying and reporting processes (MRV).

The relevance of all these scientific activities for development is to be ensured by prioritizing the acquisition of knowledge and the establishment of projects in sectors that contribute to

development policies, such as sustainable forest management, sustainable use of natural resources (including for agriculture and energy), sustainable water management, sustainable coastal and marine management (including use of natural resources from the marine environment), issues linked to health policy, management of invasive alien species and pest species, biodiversity conservation, ecotourism and trade. At this stage, we prefer not to provide a restricted list, as to ensure a maximal adequacy with the national priorities of our partners.

### *Synergies and partnerships*

Synergies with other scientific actors in Belgium and abroad will be crucial, especially when training activities come at hand. This is also the case for the production of tools such as manuals and other publications. Often, the RBINS is not the sole source of expertise, but one of the many players that may allow to successfully address a given problematic. The specificity of the RBINS is that it is able to provide very specific and specialized expertise and training.

In Belgium, the RBINS works in particular with the Royal Museum for Central Africa (RMCA), the National Botanic Garden of Belgium (NBGB) and all the universities. The Vlaamse Interuniversitaire Raad (VLIR-UOS) and Commission universitaire pour le Développement (CUD) will be structural networking partners. At the European and international levels, privileged partners are natural history museums, conservation institutions and universities.

Finally, it will be important to link our scientific projects to similar initiatives, whether by Belgium (e.g. via bilateral, delegated or scientific cooperation undertaken by DGD or Belspo) or other European and international actors. As far as feasible, our activities should serve for the development of, or the inclusion in, bigger programmes that are financed by other donors. Such synergies will be essential for the generation of results that can have a real impact on policy development.

## **Specific objective 2. The RBINS plays a leading role in the enhancement of the information base on biodiversity, on its linkages with ecosystem services and poverty reduction and on associated governance processes.**

*In the past twenty years, the world of information has changed in ways most of us could not imagine<sup>42</sup>: the Internet, mobile phones and social media have increased the global connectivity. For developing countries, this revolution has helped bring information in areas where it was structurally absent. However, despite this change, scientific and technical information on biodiversity and ecosystem services remains under-valorised by potential users of this information, including policy and decision-makers. There are two main issues here. First, when and where information is not immediately at hand, it is not applied in policy or management decisions<sup>43</sup>. The use of new and traditional media therefore retains all its importance to provide adequate information flows between science, policy and practice. Second, it is not sufficient to provide immediate and easy access to information. There is also a need to bring the information to the right audiences at the right time and in the right form, in order to prevent the situation where “nothing is done” because of existing*

<sup>42</sup> UNEP (2011). Keeping Track of Our Changing Environment: From Rio to Rio+20 (1992-2012). Division of Early Warning and Assessment (DEWA), United Nations Environment Programme (UNEP), Nairobi

<sup>43</sup> Edwards et al. 2000. Interoperability of Biodiversity Databases: Biodiversity Information on Every Desktop. Science, 289: 2312-2314.

*or perceived constraints linked to a lack of knowledge or appropriation. To meet these two issues, there is a need to not only develop an expertise in managing information – and the pertaining necessary technology – but also in making it available to the right audiences on the right occasion. This will help that policies and programmes be established by taking into account the best available evidence on the importance of biodiversity and ecosystem services for sustainable development.*

## **Background**

The RBINS has been an active player in information exchange and networking for biodiversity since the early beginnings of the Convention on Biological Diversity. We started modestly, by setting up in 1996 one of the first websites of the Convention's information exchange mechanism<sup>44</sup>. Over the years, we gained expertise on how to improve access to information through web-based technologies. Even though our focus was mainly on the technical development of websites, we also worked on issues of content: what type of information should reach different audiences and under what format? Finally, we developed initiatives that encouraged using scientific and technical information to raise awareness on the importance of biodiversity and ecosystem services.

In the coming years, we will continue playing our leadership role in the establishment of biodiversity information networks under the Convention on Biological Diversity. We will focus on two aspects:

- first, we will continue providing training on and support for the use of web-based technologies as a mean to disseminate information (technical aspects).
- second, we will also build capacities on how to improve the content, relevance and timing of the information provided (strategic aspects).

Throughout all activities, specific attention will be devoted to the ways information flows contribute to the implementation of the various governance processes related to biodiversity and development, and in ensuring the cross-linkages between all these processes.

## **Expected results**

The philosophy underlying the expected results (see box #2) is the same as for the first specific objective:

- the first expected result is process-oriented, as we aim to build new expertise or to increase/improve the existing expertise of our partners;
- the second focuses on the quality of the information flows. Our experience has shown that many external constraints can hinder these flows. We will minimise these constraints or find loops around them;
- the third result focuses on the exploitation and valorisation of the information produced, so that it reaches the right audiences at the right moment.

### **Expected results # 2**

2.1. Expertise in information management is built.

2.2. Information flows are improved.

2.3. Information is used to advise governance processes.

In practice, we will attain these results by supporting activities of the following nature:

- **enabling training activities** that cover beginner training in website management/web2.0 technologies as well as training in content management. They include follow-up activities (such

<sup>44</sup> The Clearing-House Mechanism, see <http://www.cbd.int/chm>.



as e-coaching) to put the acquired skills in practice. Such activities will be carried out with new partners, or with new individuals joining well-established partnerships.

- **collaborative projects** that cover advanced training, enhancement of web infrastructure, the support of networking activities at national level and any other lever that enable an efficient and effective dissemination of information. Such projects primarily target active, well established partners;
- **networking activities** that enable the exchange of best practices at the international level (mainly at sub- regional or regional level). These activities bring together our well established partners in different countries so that they can strengthen their supra-national partnerships.

Our main partners are the webmasters, web content managers and focal points working on the dissemination of information related to the Convention on Biological Diversity. However, as biodiversity and ecosystem services are issues that have a much broader reach than the Convention itself, we stimulate the establishment of active networks, at national level and (sub)regional level, between civil servants, experts, scientists, NGOs, the private sector and other actors working in many different fields such as agriculture, climate change, forestry, water management, etc.

This is also why activities under this objective serve as a central node to all other activities of the strategy. Special efforts will be taken to ensure that information flows exist between all the actors involved in our strategy and that this information reaches wider audiences. In this regard, expected results 1.3 and 2.2 are closely related to each other.

### *Synergies and partnerships*

Synergies with other programmes or organisations are crucial for ensuring information flows. In Belgium, we are in contact with all the partners already mentioned under objective 1, i.e. scientific institutions and universities. To these scientific partners we add the Belgian Biodiversity Platform, which is in charge, among others, of promoting the inclusion of biodiversity data in international databases such as the Global Information Facility (GBIF)<sup>45</sup>. Administrations and decision-making bodies, such as DGD and federal/regional environmental administrations, are choice partners as they are both providers and recipients of information.

At the European and international levels, we maintain close contacts with other biodiversity information managers, whether in scientific institutions and universities or in administrations. Two important partners for the development of strategies and tools are the European Environment Agency and the Secretariat of the Convention on Biological Diversity.

And of course, our network of partners in developing countries is crucial to ensuring the success of the activities. We have developed long-lasting and fruitful partnerships with information managers in a number of African countries, such as Benin, Burundi, Burkina Faso, Cameroon, Côte d'Ivoire Madagascar, Morocco, Niger and others, and we intend to strengthen and develop further these partnerships. We also have some partnerships running in other parts of the world, such as in South Asia through the South Asia Co-operative Environment Programme (SACEP).

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<sup>45</sup> <http://www.gbif.org>

### **Specific objective 3. The RBINS contributes to awareness raising and communication on the importance of biodiversity and ecosystem services for poverty reduction and sustainable development, and on associated governance processes.**

*Governments worldwide have understood the strategic need to increase understanding of biodiversity, ecosystem services and their importance for human development. This is reflected by the formulation of the very first Aichi Target of the Strategic Plan for Biodiversity 2011-2020: “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”. As stated by UEBT’s Biodiversity Barometer 2012<sup>46</sup>, “awareness of biodiversity reveals the potential for increasing understanding and action on related issues”. This does not mean that the concepts of biodiversity, and even more so of ecosystems services, are well-known and understood by the public. UEBT, the Union for Ethical BioTrade, has been conducting surveys on biodiversity awareness among consumers worldwide for the past few years. Although it focuses essentially on developed or emerging economies, it is the only data available that can be compared across continents and provide trends. Data from 2012 show that awareness on biodiversity around the world is generally high – 63% of respondents have heard the word ‘biodiversity’ – with particularly high awareness rates in countries like Brazil, France, Switzerland and South Korea. Significant differences of awareness exist between countries, even within the same region. The understanding on biodiversity, measured through the number of people that provided correct definitions on biodiversity, is often very limited: nowhere does it exceed 50%. However, a positive finding is that since 2009, the understanding of biodiversity has gone up in France, Germany, UK and USA from 16% to 26%. Understanding can therefore be expected to grow in the coming years.*

#### **Background**

The RBINS in its capacity of scientific institution and museum, as well as focal point for biodiversity, is placed in a unique position to contribute to awareness raising and communication on biodiversity and ecosystem services. It knows how to work with a wide range of audiences, which include the ‘general public’, schools, citizen associations, scientists, policy-makers... It can capitalize on its experience gained as one of the main awareness raiser in Belgium to guide its partners in developing countries develop effective, efficient and relevant public awareness programmes or communication campaigns. In turn, the RBINS will also learn from its partners as each country has cultural specificities that makes communication so different from one place to another.

Meeting target 1 of the Strategic Plan for Biodiversity<sup>47</sup> requires that people are aware of (i) the importance of biodiversity (i.e. its environmental, cultural, economic and intrinsic values) and ecosystem services; and (ii) people are aware of the type of actions they can take to conserve biodiversity and use it sustainably. Different segments of society can take different actions depending on the types of activities they have control over.

As biodiversity is a global issue, it is crucial that people are not only aware of their relationships to the biodiversity of their own country but also to that of the rest of the world. This discourse can, among others, be brought forward through the concept of local, regional or global ecosystem services.

<sup>46</sup> [http://www.ethicalbiotrade.org/news/wp-content/uploads/BAROMETER.2012.web\\_1.pdf](http://www.ethicalbiotrade.org/news/wp-content/uploads/BAROMETER.2012.web_1.pdf) (last accessed 15.06.2012)

<sup>47</sup> 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.

## Expected results

Expected results (see box #3) are of two kinds:

- the first result expected is to have a better knowledge the level of awareness and/or engagement in the areas where we work. These areas are partner and project-dependent.
- The second expected result is to raise the levels of awareness and/or engagement. This increase will be essentially be measured in the areas where for which we have established baselines.

### Expected results # 3

3.1. Baselines provide an insight on the level of awareness and/or engagement.

3.2. Awareness and engagement are raised.

In practice, we will attain our results by developing the following:

- **pilot studies identifying suitable indicators and establishing baselines** on the level of awareness and/or participation. For the moment, there are no easy measurement of public awareness and understanding nor of public engagement<sup>48</sup>. However, in order to measure progress it is imperative to start establishing reference frameworks. The pilot studies will be in areas and on issues designated by our partners, in function of their national priorities. Results will be project-dependent. We hope in some instances to be able to provide national information. We will encourage the application of standardised methodologies if possible<sup>49</sup>. The pilot studies are linked to our work on indicators (see specific objective 5);
- **awareness raising or public participation projects** on biodiversity, ecosystem services and related governance processes (such as the Convention on Biological Diversity and its new Protocol on Access and Benefit sharing – See objective 6) as a follow-up of the pilot studies establishing the baselines. These projects will be area and issue-dependent, as for the pilot studies. This will enable our partners to monitor the results of activities and programmes, so as to identify whether progress has been made.
- on a more limited scale, we will also foster and promote **communication and awareness raising in Belgium**, among others on the importance of natural resources (including genetic resources – See objective 6) and ecosystem services in/from developing countries for the well-being of the Belgian population. One of the priority themes will be the (Belgian) dependencies on biodiversity and ecosystem services, as well as on the pressures that our consumption and production patterns impose on biodiversity and the impacts thereof for us (Belgians) and for developing countries<sup>50</sup>. To achieve this, we could contribute to projects and activities by other actors or we could encourage the development of communication, education or awareness raising tools/materials on the issue.

Contrary to our activities to strengthen the science base (objective 1) and the information base (objective 2), we will not develop a training programme on awareness raising. Cultural contexts and local situations greatly influence how public awareness and engagement activities are set up. Our Belgian experience therefore cannot be transposed locally in developing countries. However,

<sup>48</sup> Possible indicators could include the number of visits to protected areas and parks, zoos, botanical gardens...; the number of school biodiversity education programmes; volunteer participation in relevant activities; the development and use of lists of recommended actions for citizens, the private sector, and other stakeholders... The impact of public awareness campaigns could be monitored through surveys of awareness and attitudes. Other possible indicators could include the number of biodiversity related news articles published in national newspapers as well as changes in the demand for environmentally friendly products,...

<sup>49</sup> Work is ongoing at the international level, among others by the Secretariat of the Convention on Biological Diversity, to establish methodologies and indicators, and hopefully by 2014 some will be available for testing and/or use.

<sup>50</sup> For example, we could investigate and raise awareness on how we depend on natural resources and raw materials (in space and time), how these dependencies links to current and future economic development and how this economic development impacts (positively or negatively) biodiversity and ecosystem services.

whenever needed, we will provide methodological support and exchange best practices with our partners.

### *Synergies and partnerships*

Our main partners in developing countries will be our network of information managers already mentioned under specific objective 2. However, this is not exclusive as these partners will act as contact points and relays to awareness raising and education specialists in their respective countries. These can be NGOs, educational structures, universities...

In Belgium, the partners will vary in function of the projects identified. Our usual network of scientific partners (the universities, the National Botanic Garden and the Museum for Central Africa) may be involved if relevant. We will also keep contacts with NGOs and networks specialised in development education: they will be able to provide us with sound advice and expertise on activities to developed by our own partners and /or they may propose interesting projects in which we could bring our biodiversity expertise. The DGD will also be an important partner, as it has communication channels that can be put to good use to inform the wider community on ongoing initiatives or important issues (e.g. the Dimension 3 magazine).

An important partner overall for the framing of our activities and for methodological guidance is the Secretariat of the Convention on Biological Diversity. The Secretariat is the driving force behind the implementation of a comprehensive programme of activities as part of 'UN Decade on Biodiversity' (2011-2020). This Decade has been established to build support and momentum for the implementation of the Strategic Plan for Biodiversity 2011-2020 and to mainstream biodiversity at different levels<sup>51</sup>.

Another potential international partner is the International Union for Conservation of Nature (IUCN)<sup>52</sup>, and in particular the members of its Commission on Education and Communication. IUCN heads an extensive network of partners from very diverse backgrounds (national and international non-governmental organisations, scientific institutions, state and government agencies...). It carries out projects on the conservation and sustainable use of natural resources, including aspects related to communication, learning and knowledge management.

## **Specific objective 4. The RBINS and DGD unit D2.4 improve the mainstreaming of biodiversity and ecosystem services in policy sectors that have a high relevance for development.**

*The UNDP description of biodiversity mainstreaming fits perfectly our purpose<sup>53</sup>: "Most biodiversity in the world resides outside protected areas on lands and in waters dedicated to various economic production activities, including agriculture, forestry, fisheries, mining and tourism. The integration, or 'mainstreaming', of biodiversity-management objectives into these sectors constitutes a key vehicle for achieving the sustainable exploitation of natural resources". It is widely recognized that the values of biodiversity are not yet widely reflected in public and private decision-making. If actors in these economic fields see biodiversity maintenance as a*

<sup>51</sup> <http://www.cbd.int/2011-2020/goals/> , accessed on 21 June 2012

<sup>52</sup> <http://www.iucn.org>

<sup>53</sup> <http://web.undp.org/biodiversity/mainstreaming.shtml>, accessed on 13 June 2012

*negative balance sheet item, then the ecosystems will likely be unsustainably managed and their biodiversity lost. Thus, communities, policy makers and businesses need to be persuaded of the link between the value of ecosystem goods and services, and sustainable economic development. In practice, mainstreaming biodiversity and ecosystem services into strategies, planning processes and economic production activities will require their appropriate valuation. It will also imply an increased coordination among various ministries as well as among various categories of public and private stakeholders. Tools to assess the values of biodiversity and ecosystem services are now being made more widely available, including the Convention on Biological Diversity's work on economic, trade and incentive measures, the Economics of Ecosystems and Biodiversity (TEEB) study, the UN System of Economic and Environmental Accounting (SEEA), the World Bank's experience in integrating natural capital (such as forests) into national accounts, the Integrated Biodiversity Assessment Tool and many others... Such tools should be built upon and further developed, so that mainstreaming can occur in a stepwise or incremental manner, by first including those values of biodiversity which are easiest to account for and then by fully integrating all biodiversity values into decision making processes.*

## **Background**

RBINS started examining how best to develop mainstreaming activities in 2010. Since then, we have built some expertise in the field. Our main lesson learned is that the single most important aspect of mainstreaming is to take ample time to understand what are the needs and constraints of the target sectors and audiences. These will be different from one country to another, pending on local context and circumstances.

One of the activities we organised in 2011, together with DGD, was a short training session (9 hours) on biodiversity and ecosystem services for programme and project managers of DGD. Since then, we trained staff in, and worked with, many other federal administrations. This improved our understanding of many branches of economic activities and enabled us to develop a more holistic approach for our discourse on dependencies, pressures and impacts on biodiversity. We are now ready to share this expertise, with DGD and with our partners in developing countries.

As the role of DGD Service D2.4 is to provide advice on climate, environment and natural resources in the context of development, this unit is the perfect partner for our mainstreaming activities. While the RBINS will be the main content developer, D2.4 will be the main driver of the exchange of information to and from all the actors involved in the Belgian Development Cooperation. D2.4 will also identify issues of attention and for which a coordinated action of both partners will be needed.

## **Expected results**

Expected results (see box #4) are of two kinds:

- the first is process-oriented: we aim to build the expertise of the various actors of the Belgian Development Cooperation<sup>54</sup> on the values of biodiversity and ecosystem services for development, as well as their ability to

### **Expected results # 4**

4.1. Expertise of Belgian Development Cooperation is built.

4.2. Biodiversity and ecosystem services are mainstreamed in activities supported by the Belgian Development Cooperation

<sup>54</sup> These actors may be the Directorate-General for Development Cooperation (*attachés* in Belgium), the Directorate-General for Technical Cooperation, BIO-Invest (the Belgian Investment Company for Developing Countries) or non-governmental actors undertaking activities under DGD funding.

- transmit the acquired knowledge to their peers in Belgium or abroad;
- the second is outcome-oriented: thanks to our training activities and our work with DGD2.4, we aim to see a better integration of biodiversity and ecosystem services in all types of activities supported by the Belgian Development Cooperation (policies, programmes, projects...).

In practice, we will undertake the following :

- **training** of staff working for the Belgian Development Cooperation at large, either upon their request or as part of organized workshops, on the importance of biodiversity and ecosystem services for development, on options for the sustainable management of ecosystems or on more specific / specialized topics related to these issues;
- **provision of advice and support** during the development cycle of policies, programmes and projects that are supported by the Belgian Development Cooperation. This will be achieved on a demand-driven basis, according to the needs expressed by Belgium's partner countries, to undergoing discussions in international fora or to specific requests from DGD. We will maintain a constant dialogue with our partners, as to ensure that we are able to correctly understand what their priorities and constraints are, and they are able to better capture the values of biodiversity and reflect them better in decision-making.

### *Synergies and partnerships*

As part of our mainstreaming activities, we will take care to increase synergies between the RBINS, the Belgian Development Cooperation and other actors working in different fields and under different governance processes.

For example, synergies between actors working for the three Rio Conventions (climate, biodiversity, desertification) need to be boosted, particularly when addressing forest-related issues. This relates among others to issues such as REDD+ (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), but also to issues such as the biodiversity of arid and sub-humid lands. These ecosystems are extremely fragile, and are particularly at risk of pressures such as land degradation and climate change.

Partners for our activities will include the DGD, other federal administrations (e.g. the Federal Public Service for Public Health, Food Chain Safety and Environment) as well as universities, scientific institutions and NGOs.

## **Specific objective 5. The RBINS and DGD unit D2.4 improve the knowledge on the measurement, reporting and verification (MRV) of policy choices and activities linked to biodiversity and ecosystem services.**

*The notion of 'MRV' - Measuring, Reporting and Verification - can be conceived as a set of processes and procedures that enable the collection and reporting of factual information (data), their evaluation and audit to determine whether, when and how countries have met their obligations<sup>55</sup>. The system was initially established under the UN Framework Convention on Climate Change (UNFCCC) and the Kyoto Protocol. It*

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<sup>55</sup> Definition taken from <http://www.climat.be/spip.php?article749> (accessed on 13 June 2012)

requires reporting on emission reductions, as well as on financial assistance, technology and capacity building provided by developed countries to developing countries. Although not denominated 'MRV', more or less converging processes have been launched recently for biodiversity. The **Biodiversity Indicators Partnership**<sup>56</sup> (BIP) was initially mandated by the CBD to help monitor progress towards the 2010 Biodiversity target. However, the BIP has also provided support to other Multilateral Environmental Agreements, national and regional governments and other sectors. The Partnership will continue to supply biodiversity indicator information and trends into the future, and will be a key player for the monitoring of progress towards the **Aichi Biodiversity Targets**<sup>57</sup> established by the CBD's Strategic Plan for Biodiversity 2011-2020. One issue of particular sensitivity will be the monitoring of financial flows going to the conservation and sustainable use of biodiversity and to equitable sharing of benefits arising from the use of genetic resources. Targets for the **mobilisation of financial resources** are one of the hot topics under discussion since the Nagoya Summit in 2010.

## Background

The RBINS, as CBD National Focal Point, has been the coordinator of the Belgian reporting obligations under the Convention on Biological Diversity. Till recently, such reporting under the CBD was largely confined to descriptive information. With the adoption of the Strategic Plan for Biodiversity 2011-2020 and the Aichi Biodiversity Targets, countries will have to formulate indicators and gather data that will populate these.

The RBINS has relatively limited experience on the elaboration and formulation of indicators (largely a regional competence in Belgium) and on the establishment / follow-up of formal 'MRV' processes. This is therefore a relatively new field of expertise for us and we will need to build our own capacities before being fully operational. DGD Service D2.4 on the contrary has been, for many years, quite active in the follow-up of all three Rio conventions (climate, biodiversity, desertification). It has also been following financial discussions on a whole range of environmental issues and has extensive expertise on resource mobilisation. D2.4 therefore possesses a unique transversal view of the main issues at stake and will be instrumental in proposing activities that will enable us to meet this specific objective. The RBINS will take the responsibility of identifying the right partners and in delivering outputs of high scientific quality.

## Expected results

Expected results (see box #5) are of two kinds:

- the first is process-oriented: we aim to build our own expertise on how to establish and follow-up formal MRV processes;
- the second is output-oriented: through our work with D2.4 and with our partners, we aim to help develop methodologies to monitor the implementation of the Strategic Plan for Biodiversity 2011-2020 and the progress towards the Aichi Targets.

### Expected results # 5

- 4.1. Expertise of the RBINS on MRV is built.
- 4.2. Methodologies to assess progress towards the Aichi Targets are available.

We will focus our work on specific issues linked to our main fields of expertise and/or priorities:

<sup>56</sup> <http://www.bipindicators.net/>

<sup>57</sup> <http://www.cbd.int/sp/targets/>

- We will first start with **knowledge acquisition**. We will scan the literature, identify and, if possible, MRV experts and examine what has been achieved under the CBD, other biodiversity-related conventions and the other Rio Conventions to acquire an overall comprehension on the MRV processes and associated indicators. When needed, we will transmit this knowledge our partners involved in projects linked to MRV (e.g. see specific objective 1 and expected result 1.3 on monitoring data and national indicator processes).
- Second, we will help our partners with the establishment of **baselines and indicators for public awareness and public participation**, as has been started in the 2008-2012 work programme. There is currently no formally agreed indicator on this issue and work is still ongoing to find the best (set of) indicator(s). This has already been reflected under specific objective 3.
- Third, a set of **indicators for resource mobilisation** was adopted by the CBD in 2010. These indicators will likely be complemented by targets in 2012. Work will be needed to gather baseline information as well as subsequent data for this indicator. The RBINS will help DGD gather information and follow this process at the Belgian level.
- Finally, it should be noted that no coherent and inclusive set of **poverty-biodiversity indicators** currently exists. Such set of indicators should serve to measure the interconnections at different levels of interaction of biodiversity and poverty. Formulation work is currently under way at the CBD level<sup>58</sup>. The RBINS and DGD will follow the results of the undergoing studies, and will increase their own expertise and mastery of poverty-biodiversity indicators. When pertinent, we will encourage and help our partners in developing countries to make such indicators operational.

### *Synergies and partnerships*

Our main partners in developing countries will be those who already work with us under specific objectives 1 to 3, as results to be obtained under this objective are closely linked to the others. However, this is not exclusive as these partners will act as contact points and relays to MRV specialists in their respective countries.

We will develop synergies with MRV experts in Belgium, either from federal or regional administrations and institutions (e.g. for resource mobilisation) or from universities and NGOs (e.g. for public awareness/public participation). All services of the DGD will be essential in helping us fulfil our objectives, particularly for issues such as resource mobilisation and poverty-biodiversity indicators.

At the international level, the Secretariat of the Convention on Biological Diversity will be a great help for the achievement of our activities.

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<sup>58</sup> See <http://www.cbd.int/doc/vacancies/2012/scbd/Consultancies/scbd-2012-consultancy-poverty-indicators-en.pdf> (accessed 13 June 2012).



## **Specific objective 6. The RBINS and DGD unit D2.4. raise awareness on, and build capacities for, the implementation of the Nagoya Protocol on Access and Benefit Sharing in Belgium and in developing countries.**

*The fair and equitable sharing of the benefits arising out of the utilization of genetic resources is one of the three objectives of the Convention on Biological Diversity. The 'Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization to the Convention on Biological Diversity' – or Nagoya Protocol in short – is an international agreement which aims at sharing the benefits arising from the utilization of genetic resources in a fair and equitable way, including by appropriate access to genetic resources and by appropriate transfer of relevant technologies, taking into account all rights over those resources and to technologies, and by appropriate funding. As a protocol to the CBD, the Nagoya Protocol is the instrument for the implementation of the access and benefit sharing provisions of the CBD. The Nagoya Protocol also applies to traditional knowledge associated with genetic resources within the scope of the Convention and to the benefits arising from the utilization of such knowledge. The Nagoya Protocol was adopted under the auspices of the Convention on Biological Diversity during the 11<sup>th</sup> Conference of the Parties, in Nagoya (Japan) in 2010. Many countries still need to sign and ratify the Nagoya Protocol for it to enter into force: it will enter into force 90 days after the date of deposit of the 50<sup>th</sup> instrument of ratification. As of June 2012, only five countries have ratified the Protocol. The Nagoya Protocol will only be legally binding for the countries that do sign and ratify it. Belgium has signed the Protocol in 2011 and now is in the process of preparing its ratification. This process will closely be linked to that of the European Union, as access and benefit sharing relies on both European and national competencies.*

### **Background**

The RBINS and D2.4 both have limited experience on genetic resources, access and benefit sharing provisions or traditional knowledge associated to the use of genetic resources. They have followed the issue in their respective work related to the Convention on Biological Diversity, but without necessarily developing expertise or playing an active role in the process. At the Belgian level, many other interested parties are in a similar situation with the exception of the National Botanical Garden of Meise that does have some experience through European networks.

In order to clarify the implications of the Nagoya Protocol for Belgium, the Federal Public Service for Public Health, Security of the Food Chain and Environment and the environment administrations of the three regions have launched in 2012 a study that should prepare the ratification of the treaty by Belgium<sup>59</sup>.

Implementation in Belgium involves the federal level, the Regions and the Communities, and could include both legal and non-legal measures. This scope is extremely broad and goes far beyond the fields of competences of both the RBINS and DGD. For this reason, we propose to focus our activities during this strategy on issues that are within our expertise, i.e. capacity building, public awareness

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<sup>59</sup> Study for the implementation in Belgium of the Nagoya Protocol on Access and Benefit Sharing to the Convention on Biological Diversity, BIOGOV Unit of the Centre for Philosophy of Law, Université Catholique de Louvain. See the results of the workshop of 29 May 2010, which presented the preliminary results, on the Belgian CHM website: <http://www.biodiv.be/implementation/cross-cutting-issues/abs> (accessed 19 July 2012).

and information management (and the focus of these will depend on the results of the ongoing multilateral negotiations and of the 2012 Belgian study).

### *Expected results*

Expected results (see box #6) are process and output-oriented :

- The first result is process-oriented. Given that the Nagoya Protocol is fairly new and that it still needs quite a lot of work and many negotiations to make it operational, the RBINS and DGD will concentrate their efforts on understanding the process at hand and on building their own capacities.
- The second result is output-oriented. We will contribute to raising awareness in Belgium on the Protocol and its implications for various categories of stakeholders, one of these being the scientific community involved in biodiversity exploration. Given that we have no established baselines, and that it is a fairly new issue, we will concentrate on producing outputs of limited scope.

#### **Expected results # 6**

6.1. The RBINS and DGD are familiar with the obligations under the Nagoya Protocol.

6.2. Awareness of the scientific community on the Nagoya Protocol is raised.

In practice, this has the following implications :

- As a scientific institution, one of the RBINS' target audiences will be the **scientific biodiversity community**, whether in Belgium or in partner institutions in developing countries. This scientific community is directly concerned by the provisions on non-commercial research under the Protocol, and needs to be informed of the future implications of the Nagoya Protocol for their work.
- Other activities will depend on the evolution of the process, in Belgium, in Europe and at the international level. We will closely remain in touch with the ABS Focal Point at the Federal Public Service Public Health, Food Chain Safety and Environment and with the main ABS contact points in the three Belgian regions. One of the basis for our work will be the 'Awareness-raising strategy for the Nagoya Protocol on access and benefit-sharing' to be adopted at the 11<sup>th</sup> Conference of the Parties of the CBD in October 2012<sup>60</sup>.

In parallel, we will be attentive of developments on ABS carried out in our main partner countries. Some of them already have started awareness raising activities or have prepared communication plans (such as Benin for example) and we will certainly gain from their experience. If needed, we will help our partners launch projects linked to ABS issues but this might not be needed as there are / will be ample methodological support and funds available via a number of global initiatives (such as the Japan Biodiversity Fund)<sup>61</sup>.

### *Synergies and partnerships*

The main partners for implementing this objective are the federal and regional administrations in charge of the ABS process in Belgium<sup>62</sup>, as well as the universities and scientific institutions who have

<sup>60</sup> See document UNEP/CBD/ICNP/2/L.4, adopted in July 2012 by the 2<sup>nd</sup> Intergovernmental Committee for the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization, [www.cbd.int/doc/meetings/abs/icnp-02/in-session/icnp-02-L-04-en.doc](http://www.cbd.int/doc/meetings/abs/icnp-02/in-session/icnp-02-L-04-en.doc) (accessed on 19 July 2012).

<sup>61</sup> <http://www.cbd.int/jbf/> (accessed on 12 September 2012).

<sup>62</sup> The four commissioners of the 2012 ABS study are: the Federal Public Service for Health, Food Chain Safety and the Environment, Environment Directorate-General, Service for multilateral and strategic matters (SPSCAE), Bruxelles Environnement/Leefmilieu Brussel (IBGE-BIM), Vlaamse overheid, Departement Leefmilieu, Natuur en Energie (LNE), Service public de Wallonie, Direction générale opérationnelle Agriculture, Ressources naturelles et Environnement (DGARNE). Other administrations are involved at crucial steps of the study through workshops meant to collect views and comments on possible options for the implementation of the core obligations of the NP.

developed an academic expertise on this issue. In our partner countries, we will work with the administrations in charge of ABS issues as well as with their own national ABS networks.