SECTION VII. UPDATED BIODIVERSITY COUNTRY PROFILES

Biodiversity facts

Status and trends of biodiversity, including benefits from biodiversity and ecosystem services and functions:

The geographical and geological characteristics of Belgium, together with long-standing human impact on land use, have resulted in magnificent biodiversity. The Belgian diversity of life forms is estimated to comprise up to 55,000 species. In addition to some 300 species of blue-green algae, Belgium is home to a few thousand species of bacteria. The best known organisms are the vascular plants (flowering plants, conifers, ferns, horsetails, quillworts, clubmosses), bryophytes, macro-algae and macro-lichens, vertebrates (fish, amphibians, reptiles, birds, mammals), carabids (ground beetles), butterflies, and dragon- and damselflies. Yet they represent less than 4% of the species living in Belgium. The main vegetation types found in Belgium are deciduous and conifer forests, grasslands, heathlands, peat bogs, wetlands, lakes and rivers, and marine ecosystems in the North Sea; their distribution varies from region to region. For example, about 80% of the forested areas are found in the southern part of the country, while northern Belgium is noted for its semi-natural grasslands, wetlands, heathlands and coastal dunes.

Recent observation data shows that many species are in decline or have even disappeared. It can be roughly estimated that between 20% and 70% of species are threatened per main group of organisms, depending on the group and the region of the country:

• In Flanders, at least 7% of formerly recorded species are extinct. Of the remaining assessed species, 17% are endangered to critically endangered and 29% are vulnerable to near threatened; only 52% are considered safe or at low risk (for 2% of the assessed species, data are insufficient to define a status).

• In Wallonia, 9% of the animal and plant species have already disappeared and 31% of the animal and plant species are threatened to disappear.

• In the Brussels-Capital Region, a special focus can be found at https://environnement.brussels/synthese-2015-2016/espaces-verts-et-biodiversite/monitoring-des-especes and more detailed data for the monitoring of species can be found on the webpage: http://document.environnement.brussels/opac_css/elecfile/FD_14_Biodiversite.

The Belgian marine area suffers from severe declines in fish and crustaceans, notably in commercial species. In addition, the quality of the structure and function of sandbanks and biogenic reefs have been affected by bottom-disturbing activities.

Various studies have been conducted in Belgium on the importance and value of biodiversity and ecosystem services. A few are cited herewith with further details on these studies and others provided in Chapter I of the fifth national report. The "Nature Value Explorer" website serves as a calculation tool to value ecosystem services and assist in the mapping of the socioeconomic importance of ecosystems. In addition, the Flemish Research Institute for Nature and Forests compiled the mapping and scientific assessment of the ecosystems and their services in Flanders, while the University of Namur has elaborated a scientific assessment of the services provided by the ecosystems in the Walloon Region. A case study was also developed in the Walloon Region on the monetary value of the forest ecosystem services in the region, three of which (wood, big game, carbon sequestration) together represent more than 6.5 billion euros. The Flemish Agency for Nature and Forests launched an inventory of the benefits of greening cities, identifying no less than 14 ecological, social and economic benefits: climate mitigation, climate adaptation, air

quality, noise mitigation, water management, human fitness and health, city agriculture, social cohesion, recreation and tourism, nature education, biomass, better housing and higher real estate values, attractiveness to businesses.

Main pressures on and drivers of change to biodiversity (direct and indirect):

Land conversion, whether for urban and industrial expansion, agriculture (including impact by input of nitrogen and phosphorus), infrastructure or tourism, is undoubtedly the main cause of biodiversity loss in Belgium. Such activities result in the loss, degradation or fragmentation of habitats, and currently affect all habitat types. In Flanders, Brussels and the marine area, changes in environmental quality due to eutrophication also impose heavy pressure on fauna and flora. This problem is probably less acute in Wallonia however pollution (including eutrophication) is nevertheless considered a secondary threat to biodiversity in the region. The urban nature of the Brussels-Capital Region leads to specific problems, such as very high recreation pressure on green areas. Cities are also important introduction points for alien species. There is growing attention placed on the issue of invasive alien species, especially given the rapid expansion of some introduced plants, fish, amphibians, reptiles, birds, and invertebrates, such as insects, crayfish, mussels, land slugs, etc. Climate change is a growing concern, already having a perceptible impact on biodiversity (notably on the geographical range, phenology and behaviour of organisms, such as migrating birds and insects). It also exacerbates other threats to biodiversity, such as habitat fragmentation and biological invasions.

Measures to enhance implementation of the Convention

Implementation of the NBSAP:

In November 2013, Belgium's Inter-ministerial Conference for the Environment adopted an update of the National Biodiversity Strategy to 2020. Based largely on the previous Strategy (2006-2016), the update incorporates provisions aligned with the Strategic Plan for Biodiversity (2011-2020) and the EU Biodiversity Strategy to 2020. It will guide activities for revising federal and regional biodiversity action plans and be promoted in sectoral policy-making.

The new Strategy's main focuses are: a) tackling emerging risks and the impact of internal trade of live specimens; b) protecting and restoring biodiversity and associated ecosystem services through protected areas - green infrastructure - no net loss; identifying pathways of introduction on IAS; c) phasing out perverse incentives and using guidelines on the integration of the values of biodiversity and ecosystem services in development strategies, planning processes and reporting systems included; developing an approach to include these values in national accounting; d) implementing the Nagoya Protocol; e) mapping ecosystem services in Belgium and assessing their values; f) ensuring the implementation and enforcement of biodiversity legislation; g) involving provinces, cities and other local authorities; h) boosting the mobilization of resources (including through innovative mechanisms) and enhancing capacities. The Strategy contains 15 priority strategic objectives and 85 operational objectives that have been mapped to the Aichi Biodiversity Targets and to the targets of the EU Biodiversity Strategy. Specific actions and indicators for the Strategy will be developed at a later stage (during the implementation process).

Overall actions taken to contribute to the implementation of the Strategic Plan for Biodiversity 2011-2020:

In 2010, the Royal Belgian Institute of Natural Sciences opened a new permanent exhibition hall on "Biodiversity in Cities" and plans to dedicate more halls to biodiversity in the next years.

The Belgium Ecosystem Services (BEES) Community was launched in April 2012, with the following objectives: develop ecosystem services concepts, tools and practices; stop ecosystem and biodiversity degradation, and improve their status; develop mainstreaming and policy tools to promote the integration of ecosystem services concepts in policy and management, business and

society; facilitate capacity building, exchange of expertise and experience: including methodologies and transfer of knowledge on Belgian ecosystem services to policy and share the needs from policy makers on this issue, to enable involvement of Belgian actors in national and international initiatives and build the capacity to conduct assessments of ecosystem services; provide overviews of state of the art knowledge and best practices.

The adoption of biodiversity criteria in public procurement policies is increasing. For example, as a result of federal and regional authorities encouraging the use of certified wood in public works, the concept of "green procurement" is gaining popularity.

Various incentives and support programs are having direct positive effects on biodiversity. An example is the Flemish rural development program which provides support for agro-environmental measures (e.g. organic agriculture, planting and maintenance of orchards with tall fruit trees, preservation of local breeds, mechanical weed control, confusion technique in fruit cultivation, cultivation of Leguminosae, agroforestry).

In Flanders about 15% of the forest area has a recognized FSC label. In Wallonia, 54% of the forest area is PEFC certified. Also, one of the objectives of Walloon's Forestry Code is to combat climate change and preserve biodiversity. Notably, as a result of measures taken to reduce acidification in forests, the extent of affected forest surfaces was reduced from 90% in 1990 to 10% in 2007.

In the Brussels-Capital region, the adoption of the new Ordinance on Nature Conservation ensures that 14,6% of the region's territory is protected under active status [Natura 2000 (2316 ha) and natural and forestry reserve (287 ha)]. The Green and Blue Network Program endeavors for a greener city where green spaces are ecologically managed and better connected through the development of green infrastructures when possible. A strong focus is currently put on developing partnership with other public and private stakeholders (planners, urbanists) in order to maintain remaining areas of high biological interest, to promote the development of green infrastructures and the integration of biodiversity into building. This will reinforce the Brussels Ecological Network.

Measures are being implemented to reduce the rate of habitat loss, degradation and fragmentation in the North Sea (e.g. sand and gravel extraction, dredging and dumping of dredge spoil are subject to licenses; zero tolerance policy in relation to oil pollution; development of a cleaning policy for the North Sea through the "Fishing for Litter Program"; regulation of coastal fisheries to protect marine mammals; ongoing actions to reduce import of nutrients and hazardous substances).

At the national level, as a result of collaboration between the federal and regional authorities, a code of conduct in relation to invasive plants has been elaborated within the framework of the AlterIAS project.

In June 2012, Belgium officially submitted notification of its intent to join the Multilateral System of the International Treaty on Plant Genetic Resources for Food and Agriculture and signed the Memorandum of Understanding for the Establishment of a European Genebank Integrated System.

Support mechanisms for national implementation (legislation, funding, capacity-building, coordination, mainstreaming, etc.):

The Belgian CHM has continued to support the exchange of relevant information through the national CHM website (http://www.biodiv.be). In collaboration with the European CHM, a tool has been developed to facilitate the reporting obligations related to the implementation of national

and EU biodiversity strategies by Parties, as well as to the CBD and related Conventions (https://be-tct.biodiversity.europa.eu). It will focus on using indicators for the Aichi Biodiversity Targets.

The Royal Belgian Institute of Natural Sciences and the Belgian Development Cooperation have continued to strengthen technical and scientific capacities for the implementation of the CBD in developing countries. The CHM partnership activity worked with 27 countries to assist them with the development of their national CHM. Between 2014 and 2018, 506 people were trained through 19 national workshops in partner countries, 4 training workshops in Belgium and 6 regional workshopsThe result of this were the 3rd price for Belgium during the CHM Awards at COP13, first price for Burundi and 3rd price for Morocco for existing CHM and 3rd price for Guinea-Bissau for new CHM during COP14. Seven countries have started their national CHM through these activities. In addition, the GTI capacity building programme has enabled 68 visits to Belgium to receive taxonomic training or to use the expertise and collections of the Royal Belgian Institute of Natural Sciences. Furthermore, 110 taxonomists and para taxonomists participated in training workshops in developing countries. Eight manuals in the ABC-Taxa series have been produced in the reporting period. Seen the importance of monitoring of changes in ecosystems and habitats towards management decisions or external factors a special programme was started in 2009 to monitor changes in habitats and to support research towards monitoring. One of the activities is the monitoring of vegetation changes in national parks in DR Congo, Burundi and soon Benin. Part of this programme consists of training park rangers in how to include/integrate habitat changes in their normal monitoring missions. Another activity is the monitoring and modelling of sea currents in Delta's to predict implications of human activities on among other the biodiversity in Vietnam, Peru and Bénin. Through this programme more than 380 people received training in the reporting phase. Two lexica were produced. A tool for a sea monitoring modelling project with IRHOB (Benin) won the third place for the D4D price in 2018.

The implementation of the Convention on Biological Diversity is carried out by the federal government, the regions, the communities and the local authorities (provinces and municipalities). The regions are in charge of territorial matters. They have therefore the greatest amount of responsibilities on biodiversity-related issues: nature conservation, forest management, agriculture, exploitation of natural resources, land use and spatial planning, hunting, fisheries, etc. They are also in charge of tourism. The federal government is the competent body for the biodiversity management of the Belgian part of the North Sea, for the international dimension of the marine environment policy and coordinates the Belgian external relations with respect to biodiversity. It is the federal government that undertakes the follow-up of trade in threatened species and that takes measures relating to the trade (import, export and transit) of exotic species. The communities take care of issues linked to culture, research, education and public awareness. The regions and the federal government can also conduct research and raise public awareness in their own fields of competence. The provinces and the municipalities play an important role at the local level, in accordance with regional policy. The coherence of international environmental policy at national level is ensured by a coordination mechanism composed of representatives from the federal government, the regions and the communities. It is called the Coordinating Committee for International Environment Policy (CCIEP). This body functions under the high level authority of the Inter-ministerial Conference for the Environment (ICE). Under the CCIEP different committees, convention related or thematic, have been established, such as for Biodiversity, Climate Change, Adaptation to Climate Change, Forests, Nature, etc.

Mechanisms for monitoring and reviewing implementation:

Although the status of a set of biodiversity and environment indicators is published every year by the regions, the new National Biodiversity Strategy to 2020 calls for the further development of indicators, as a support mechanism for monitoring and evaluating the effectiveness of measures taken to implement the Strategy.