PERIODIC REVIEW
FOR BIOSPHERE RESERVE

INTRODUCTION

The UNESCO General Conference, at its 28th session, adopted Resolution 28 C/2.4 on the Statutory Framework of the World Network of Biosphere Reserves. This text defines in particular the criteria for an area to be qualified for designation as a biosphere reserve (Article 4). In addition, Article 9 foresees a periodic review every ten years, based on a report prepared by the concerned authority, on the basis of the criteria of Article 4 and forwarded to the secretariat by the State concerned. The text of the Statutory Framework is given in the third annex.

The form which follows is provided to help States to prepare their national reports in accordance with Article 9 and to update the data available to the Secretariat on the biosphere reserve concerned. This report should enable the International Coordinating Council (ICC) of the MAB Programme to review how each biosphere reserve is fulfilling the criteria of Article 4 of the Statutory Framework and in particular the three functions. It should be noted that it is requested, in the last part of the form (Criteria and Progress Made), to indicate how the biosphere reserve fulfills each of these criteria.

The information presented on this periodic review will be used in a number of ways by UNESCO:

(a) for examination of the biosphere reserve by the International Advisory Committee for Biosphere Reserves and by the Bureau of the MAB International Coordinating Council;

(b) for use in a world-wide accessible information system, notably for the UNESCO-MABnet and publications, facilitating communication and interaction amongst persons interested in biosphere reserves throughout the world.

Kindly indicate if any part of this report should remain confidential.

The form consists of three parts:

- Part one is a summary highlighting the main changes in the biosphere reserve during the reporting period.
- Part two is more descriptive and detailed, referring to the human, physical and biological characteristics as well as to the institutional aspects.
- Part three consists of two Annexes (A): the first Annex (A.1) will be used to update the directory of biosphere reserves on the MABnet. The second annex will be used to provide promotion and communication materials of the biosphere reserve (A.2).

The third annex comprises the Statutory Framework for the World Network of Biosphere Reserves.

Please provide as many quantitative data as possible as well as supporting documentation to complete the information provided, especially:

- Map(s) clearly showing the zonation (see in particular 2.3.1);
- The legal texts for the different zones.

The form should be completed in English, French or Spanish. Two copies should be sent to the Secretariat, as follows:

1. The original hard copy, with the original signatures, letters of endorsement, zonation map and supporting documents. This should be sent to the Secretariat through the Official UNESCO channels, i.e. via the National Commission for UNESCO and/or the Permanent Delegation to UNESCO.
2. An electronic version (on diskette, CD, etc.) of the periodic review form and of maps (especially the zonation map). This can be sent directly to the MAB Secretariat:

UNESCO
Division of Ecological and Earth Sciences
1, rue Miollis
F-75732 Paris Cedex 15, France
Tel: +33 (0)1 45 68 40 67
Fax: +33 (0)1 45 68 58 04
E-mail: mab@unesco.org
www.unesco.org/mab

TABLE OF CONTENT

All pictures in this report are taken from "The Orange Book – 111x Biospärenpark Wienerwald", copyright BPWW/Lammerhuber

PART I: SUMMARY

a) **Name of the biosphere reserve:** *Wienerwald Biosphere Reserve*

b) **Country:** *Austria*

c) **Year of designation:** *2005*

d) **Year(s) of periodic review(s):** *This is the first review (2015)*.

e) Previous recommendation(s) made by the International Co-ordinating Council (MAB- ICC), if applicable:

Verification of nature conservation measures after three years.

f) **What follow-up actions are completed and if not completed/initiated, please provide justifications.**

Conservation sites in the biosphere reserve were enacted in 2006.

g) **Update on the implementation of measures to achieve the objectives of the biosphere reserve.**

In order to implement measures with regard to the Biosphere Reserve (BR) in the Region, the Biosphärenpark Wienerwald Management GmbH (BPWW Management GmbH) was founded in 2006.

h) **Briefly describe the process by which the current periodic review has been conducted:**

This periodic review has been prepared by the Wienerwald Biosphere Reserve Management and acknowledged by the Wienerwald Biosphere Reserve board of directors.

i) **Area and spatial configuration**:

	Nomination form 2005	**Proposed changes (if any)**
Area of terrestrial Core Area(s)	*5,576 ha*	
Area of terrestrial Buffer Zone(s)	*20,102 ha*	
Area of terrestrial Transition Area(s)	*79,866 ha*	
Area of marine Core Area(s)	-	
Area of marine Buffer Zone(s)	-	
Size of marine Transition Area(s)	-	

j) **Human population of the biosphere reserve**:

	Nomination form 2005	**At present (please state date of census or other source)**
Core Area(s) (permanent and seasonally)	*0*	*0*
Buffer Zone(s) (permanent and seasonally)	*0*	*0*
Transition Area(s) (permanent and seasonally)	*250,000*	*272,500*

The overall number of inhabitants in the Biosphere Reserve, comprising all communities in the Lower Austrian BR and the Viennese districts of the BR, totals 815,000. The Wienerwald population is concentrated along the major axes of settlement such as Wiental and the marginal areas. The population density is highest in the east between Wien-Döbling and Leobersdorf, and in the north in Klosterneuburg and its environs.

The number of residents in the Biosphere Reserve (BR) region has increased by almost 9% over the past ten years, equivalent to 65,000 individuals. In terms of the population figure of 250,000 living in the Wienerwald BR proper, this equates to a population increase to 272,500 individuals.

In the buffer zone, there are buildings used by agricultural or forestry businesses, some of which are also used as dwellings. However, there are no statistics available that would allow the indication of actual figures.

k) **Budget (main sources of funds, special capital funds) and international, regional or national relevant projects/initiatives carried out or planned**.

Budget in the **Nomination form 2005**	Current budget
€800,000	*€800,000*

During the first years of preparation and establishment (2007-2009) the BPWW Management GmbH was allocated a budget of €600,000 (i.e. 50% each financed by the Federal States of Lower Austria and Vienna respectively). As required by the legal agreement between the two Federal States (contract under Article 15a of the Federal Constitution Law (Vereinbarung gemäß Art. 15a BVG (Bundesverfassungsgesetz)), an amount of €800,000 was made available for the current operation of the BPWW Management GmbH, based on the requisite assessment procedure after a period of two years.

l) **International, regional, multilateral or bilateral framework of cooperation. Describe, where applicable, the contribution of the biosphere reserve to achieve objectives and developing mechanisms that contribute to the implementation of international or regional bilateral or multilateral agreements, conventions, etc**.

The Wienerwald BR, i.e. BPWW Management GmbH is in regular co-operation with various organisations, supports numerous declarations and strategies and belongs to regional, national and international networks:

At international level, e.g.:
UNESCO Convention for the Safeguarding of Intangible Cultural Heritage (cf. 6.3), Kyoto and Helsinki Climate Protocols, Natura 2000, Alpine Convention and Alparc, Convention on Biological Diversity, EU Biodiversity Strategy to 2020, Bern Convention, Bonn Convention, Pan-European Biological and Landscape Diversity Strategy, Important Bird Areas, EU Water Framework Directive.

At national level, e.g.:
Biodiversitätsstrategie Österreich 2020, Österreichische Strategie zur Anpassung an den Klimawandel (climate change adaption strategy), ARGE Streuobst, Arche Noah, Österreichisches Programm für umweltgerechte Landwirtschaft (ÖPUL: Austrian Programme for eco-compatible agriculture).

At regional level, e.g.:
Bildungsnetzwerk Niederösterreich (educational network of Lower Austria), Wienerwald Deklaration, Naturschutzbund Niederösterreich, Regionalmanagement Niederösterreich (NÖ.REGIONAL.GMBH), Magistratsabteilungen der Stadt Wien, Wienerwald Tourismus GmbH, Obst- und Weinbauschulen Krems und Klosterneuburg (pomi- and viticulture schools), BPWW-Partnernetzwerk Wienerwald BR partner network), BPWW-Bildungspartner (Wienerwald BR educational partner), Netzwerk der Kernzonen Grundeigentümer (core zone land owners network).

PART II: PERIODIC REVIEW REPORT

1. BIOSPHERE RESERVE:

1.1 **Year designated**: *2005*

1.2 **Year of first periodic review and of any following periodic review(s) (when appropriate):**

1.3 **Follow-up actions taken in response to each recommendation from the previous periodic review(s) (if applicable), and if not completed/initiated, please provide justifications**.

1.4 **Other observations or comments on the above.**

1.5 **Describe in detail the process by which the current periodic review has been conducted**:

1.5.1 **Which stakeholders were involved?**

This report was composed by BPWW Management GmbH and noted by the GmbH's Supervisory Board. The team of BPWW Management GmbH, the BR Co-ordinator for Vienna and the Supervisory Board of BPWW Management GmbH were closely involved in compiling this report. Also rrepresentatives of the MAB National Committee were involved.

Among other things the outcomes of the recently completed process of 'Zukunftskonzept Biosphärenpark Wienerwald 2020' (Wienerwald BR 2020 Vision) were taken into account in our responses to the assessment questions. Work on the 2020 Vision concept had been carried out between 2009 and 2014; it is regarded as the greatest opportunity so far for participation in the BPWW Management GmbH and the company's decision-making processes. In the context of this visionary concept, more than 300 stakeholders from a variety of backgrounds were surveyed by means of questionnaires, feedback opportunities and workshops. These stakeholders are involved e.g. in science and research, administration and politics, agriculture and forestry, regional development, education and nature conservation; they also include landowners as well as residents etc (cf. 7.7.2).

The outcomes of an internal assessment of BPWW Management GmbH carried out in 2008 were also taken into consideration. This evaluation was done by external consultants; it included a survey of employees and people living in the area (cf. 7.6.5).

1.5.2 **What methodology was used to involve stakeholders in the process (e.g. workshops, meetings, consultation with experts)?**

*Relevant stakeholders were consulted on the '**Wienerwald BR 2020 Vision'** by way of online questionnaires which were completed by more than 300 respondents. The aim was to establish, in co-operation with various stakeholders and other players, the major themes to be dealt with by BPWW Management GmbH in future and to determine the direction for our work in the next few years.*

At the heart of this process was a series of themed events. The themes were in the course of an internal workshop after having been weighted by consulting both stakeholders and the population in an online survey. The 'central themes for the future' were then discussed with other players in the course of 5 stakeholder workshops in which project ideas and implementation measures were discussed and presented. The results were validated by means of further feedback sessions and a scientific opinion.

The outcome was communicated to representatives of municipalities/communities on the occasion of a presentation on the entire process, in which 200 ideas were presented. This process culminated in more than 20 actual project proposals (for further information on the 2020 Vision concept, cf. 7.7.2).

*In writing this report, the **2008 internal assessment** was taken into account. This consisted among other things in a qualitative telephone survey of stakeholders involving 15 respondents. The outcome provided feedback on the effects of the work done by BPWW Management GmbH up to that date.*

1.5.3 **How many meetings, workshops, etc. occurred throughout the process of conducting this review?**

In conjunction with the 2020 Vision concept, 10 meetings and workshops were held. The compilation of this report involved the BPWW Management Team as well as external experts and players (e.g. BR Co-ordinator, members of the Supervisory Board) in the course of approx. 15 workshops and meetings and approx. 10 feedback sessions. This resulted in a comprehensive report on our work in the Wienerwald BR over the past ten years.

1.5.4 **Were they well attended, with full and balanced representation?**
(Describe participation and stakeholders).

More than 300 - of 630 individuals who had been invited to take part - participated in the online survey in conjunction with the 2020 Vision concept. A total of some 100 people from the region attended the five stakeholder workshops. The workshop participants came from all relevant fields including agriculture and forestry, economy, regional development, education, nature conservation, research and administration as well as landowners and members of the public.

The report was compiled by the BPWW Management Team spearheaded by a colleague from BPWW Management GmbH in close co-ordination with Management. Inputs and feedback were incorporated from all remits of the BPWW Management Team, from the BPWW Management GmbH's Supervisory Board and the BR Co-ordinator from Vienna.

2. SIGNIFICANT CHANGES IN THE BIOSPHERE RESERVE DURING THE PAST TEN YEARS:

2.1 Brief summary overview: Narrative account of important changes in the local economy, landscapes or habitat use, and other related issues. Note important changes in the institutional arrangements for governance of the biosphere reserve area, and changes (if any) in the coordinating arrangements (including the biosphere reserve organization/coordinator/manager) that provide direction for the biosphere reserve. Identify the role of biosphere reserve organization/coordinator/manager in initiating or responding to these changes.

Woodland:
Wind-throw and ice fall caused changes in core zones (and in commercial forests) owing to major storm events. Such changes in the natural structure are most obvious in core zone areas where no work - such as clearing of trees affected by wind-throw - takes place, resulting in increased availability of deadwood. Another change is the increased use of mechanical timber harvesting equipment in commercial forest, which is due to a distinct advance in technology.

Uncertainty prevails regarding any natural changes to be expected as a result of climate change. In this respect, the research project ADAPT (Lexer, M. 2008) indicates that in a dry-climate scenario, beech trees, comparatively common in the Wienerwald, may be entering a state of medium vulnerability. The response of businesses in the forestry sector ranges from stimulating natural regeneration as well as natural tree diversity to switching to different tree species such as Douglas fir.

With regard to some woodlands, e.g. in Lainzer Tiergarten, landowners established their own management plans based on socially and ecologically - rather than just economically - sustainable woodland use. A sea change is also noticeable in respect of the management of deadwood in commercial forest. In many places, waste wood or veteran trees are kept out of harvesting regimes thus increasing the percentage of deadwood in commercial forest.

In 2008 a small aircraft crashed into the largest core area of the Wienerwald Biosphere Reserve. In the area that had to be cleared for recovery of the aircraft (about 1,000m²), the (30 cm deep) contaminated topsoil was removed and survey points for exploring natural succession were assigned.

Open-space land:
*As part of the '**dry grassland**' project, bushes and overhanging branches were cleared on 7 ha along the line of thermal springs in Lower Austria (east slopes of the Wienerwald BR) and also from some 2 ha similar areas in Vienna, thus restoring the dry grassland habitat. Clear-felling and removal of scrub and overhanging branches were measures that allowed us to increase the percentage of dry grassland along the line of thermal springs by 10% (from 70 ha to 77 ha). In recent years, more than 3,800 individuals and voluntary associations gave more than 9,000 working hours in the endeavour to conserve these valuable, species-rich areas (cf. 4.2.).*

The community of Maria Enzersdorf received consultation services from BPWW Management GmbH on ecologically sustainable meadow management at Kalenderberg, and the proposed measures have been implemented since 2015. On advice from BPWW Management GmbH, the 'Rauchkogler' association has, for some years, been implementing conservation measures for dry grassland in the Rauchkogel area.

In co-operation with the BPWW Management GmbH, City of Vienna Forestry and Agriculture (MA 49) and the University of Natural Resources and Life Sciences Vienna (BOKU) as well as businesses and volunteers, valuable dry grassland and vineyard slopes were conserved and restored in the 19th district of Vienna (Nussberg, Burgstall, Mukental, Sieveringer Steinbruch). Furthermore, BPWW Management GmbH organised and implemented volunteer days for the conservation of valuable dry grassland areas (Himmelswiese/Neubergwiese) in the 23rd district of Vienna, with the help of various school classes and with the aid of measures taken by MA 49 (cf 4.2).

Generally speaking, opportunities for participation by members of the public have been created ever since 2005, enabling them to take an active part in carrying out measures for nature conservation and the preservation of the landscape. This is achieved by scheduling Volunteer Days through regional, non-profitmaking associations, organisations (e.g. MA 49) and BPWW-Management GmbH, which are attended by no less than several thousand people every year.

ÖPUL (Österreichisches Programm für umweltgerechte Landwirtschaft) – Conservation measures in the Wienerwald BR: *The Wienerwald BR open-space survey carried out in 2012-2014 included a sharp focus on green-space habitat types. In line with the outcomes of the open-space survey, a biotope type has been assigned to each area. Other biotope types present in the area have been marked as secondary biotope types. Those areas which are of greatest nature conservation value have been identified as 'hotspots'. The project's aim is to improve coverage of hotspots through ÖPUL nature conservation measures and also of the other habitat types identified by the Directive.*

INVEKOS data were used to elicit owners respectively farmers who manage habitat hotspots. These farmers were given the opportunity to register for a consultation visit to their farm including a consultation. In the course of farm visits, farmers are informed on participation in, as well as the handling and financing of, nature conservation measures.

In conjunction with the Österreichische Bundesforsten (ÖBf AG/Austrian Federal Forestry Authority) and the community of Heiligenkreuz, it was possible for the BPWW Management GmbH to organise, with the help of volunteers, the rehabilitation and conservation of a ***wetland-meadow*** *national monument.*

Since 2004, the association entitled 'Verein Freunde der Perchtoldsdorfer Heide', with the help of volunteers, has implemented conservation by grazing of 23ha of ***dry grassland*** *along the line of thermal springs, at the same time as carrying out ecological monitoring and conducting an extensive education programme.*

The FUER association has been using the help of volunteers to ensure the conservation of species-rich, ecologically valuable ***meadow areas*** *in the community of Königstetten.*

In the course of the Fruit Tree Campaign of the BPWW Management GmbH, more than 5,000 fruit trees and hedge shrubs have been planted in the Wienerwald BR over the past 10 years. The Fruit Tree Days were used to present the population with a theme-specific educational programme, including ancient fruit tree cultivars, their identification, pruning and nature-compatible management.
As for ***viticultural landscapes,*** *some 200 meters of drystone walls were erected in conjunction with drystone-walling courses provided by BPWW Management GmbH over the past ten years.*

It was possible to keep an ecologically valuable quarry open in the Wienerwald BR (approx. 1.5 hectares, characterised by secondary gravel and rock habitats) in Bad Vöslau, thanks to clear-felling and conservation work carried out by BPWW Management GmbH, the community of Bad Vöslau and volunteers. The value of quarries as precious substitute habitat is featured by BPWW Management GmbH in its publicity material.

Furthermore, it was possible to organise the ecologically sound conservation of escarpments in the viticultural landscape of Pfaffstätten, in co-operation with BPWW Management GmbH and the community. Targeted conservation measures made it possible to ensure the survival of the only colony of the Southern festoon butterfly (Zerynthia polyxena) in the Lower Austrian part of the Wienerwald BR, in co-operation with the Lamaste Association and the community of Pfaffstätten.

In the community of Perchtoldsdorf, the adaptation of escarpment conservation and fruit tree plantations in parts of the viticultural landscape was achieved by BPWW Management GmbH in co-operation with the vintners association 'Weinbauverein Perchtoldsdorf' and the community of Perchtoldsdorf.

Furthermore, various implementation measures for the conservation and enhancement of landscape structures such as Rauchkogel in Maria Enzwersdorf were carried out by the 'Verein Rauchkogler' association and BPWW Management GmbH.

<u>Economic changes:</u>
*In order to promote the production of regional products and create multipliers in the region, work began in 2009 to lay down the general framework for a **partnership network**. Since then, it has been possible to give awards to the first partnership companies in the fields of 'agriculture with direct marketing' and 'gastronomy and accommodation' (cf. 5.3).*

*As part of the project '**Wiesenmeister und Wiesenpartner**' (Meadow Master and Meadow Partner) a survey was also carried out on the products made by the managers of species-rich meadows and pastures who were able to enter the competition; all this to the end of enhancing marketing and profitability (cf. 5.3).*

Likewise, an organic farmer ('Klosterbauer') was supported alongside the 'Rauchkogler' association and the production co-operative 'Wienerwald Weiderind' (association for the promotion of pasture-fed beef) in developing and marketing their agricultural products (cf. 5.4).

*The BR wine awards ceremony entitled '**DER WEIN'** features wines from ecologically and sustainably managed vineyards. It is held annually in conjunction with a blind tasting and an award event (cf. 5.3).*

*As part of the project Viticultural Landscapes in Lower Austria, the tradition of **sheep pastures** was revived in an important area around the line of thermal springs, since there were only a few pastures left in the Wienerwald. Even those remaining pastures were threatened by encroaching woodland with the risk of losing many rare species. Since 2008, a rare breed of sheep, the Krainer Steinschafe, has been grazing along the line of thermal springs. The agricultural operation has distinguished itself in the field of grazing for nature conservation. An area of approx. 6 ha of dry grassland is managed regularly; the grassland is being restored to good condition and protected from scrub or tree encroachment.*

Institutional changes:
The administration of BPWW Management GmbH underwent various personnel changes in the course of the past 10 years. In this context, it is important to mention that there were three changes among the managerial staff, and the number of staff was increased from four to a total of ten staff members. Besides there were changes in the BPWW Management GmbH's Supervisory Board and in the General Assembly of the BPWW Management GmbH (cf. 7.2).

2.2 **Updated background information about the biosphere reserve**.

The Wienerwald BR covers an area of 105,645 hectares and extends across 51 communities in Lower Austria and seven municipal districts in Vienna. Some 815,000 people live in this region. The uniqueness of this region is characterised by the diversity of nature, culture and sustainable management on the margins of the city of Vienna – the only biosphere reserve in Europe part of which is located in a megacity with millions of inhabitants. Apart from the city of Vienna and concomitant suburbanisation, the region is characterised by a few small towns with more than 20,000 inhabitants and numerous small villages. It should be noted that 60% of communities have less than 5,000 inhabitants. Mödling and Klosterneuburg each have more than 20,000 inhabitants.

The Wienerwald is the largest contiguous deciduous beech woodland in Central Europe. The location of such a large expanse of woodland on the edge of a big city is unique. The range of climatic and geological conditions in the Wienerwald is the reason for the great diversity of vegetation types. The Biosphere Reserve has more than 20 types of woodland – with beech, oak and hornbeam dominating – and more than 17 types of meadow. There are more than 2,000 plant species and approx. 150 species of breeding birds in the Wienerwald. The sun-blessed slopes of the Wienerwald in this open cultural landscape are characterised by viticulture. This landscape is rich in structures such as fruit trees, hedges and stone walls providing habitats for numerous interesting and endangered animals and plants.
The Wienerwald BR harbours four National Parks, 15 Nature Reserves (including the Core zones) and 145 areas that are scheduled Natural Monuments. Vast tracts of the region are designated as protected landscapes and Natura2000 conservation areas (81% of the Wienerwald BR area, i.e. 849 km²).

The Wienerwald BR is administered by Biosphärenpark Wienerwald Management GmbH (BPWW Management GmbH) from its HQ in Tullnerbach. This Management Team aims at protecting nature and conserving the habitats and species that need protection, at the same time as developing the region in a way to make it a region that excels in responsible management and actions. The sample projects and initiatives carried out are intended to cover as far as possible all aspects of sustainability, i.e. ecology, economy and social concerns.

Total area: *105,645 ha*

Core area*(s):* *5,576 ha*

Buffer zone*(s):* *20,102 ha*

Transition area*(s):* *79,866 ha*

Altitudinal range *(*metres above sea level): *160-890 m above sea level*

Levels of political administration: *The Federal States of Lower Austria and Vienna*
Lower Austria:

6 municipalities (Baden, Wien-Umgebung, Mödling, Tulln, Lilienfeld and St. Pölten-Land)
The following 51 communities in Lower Austria are part of the Wienerwald BR (listed alphabetically):
Alland, Altlengbach, Altenmarkt an der Triesting, Asperhofen, Baden, Bad Vöslau, Berndorf, Brand-Laaben, Breitenfurt bei Wien, Brunn am Gebirge, Eichgraben, Gaaden, Gablitz, Gießhübl, Gumpoldskirchen, Guntramsdorf, Hainfeld, , Heiligenkreuz, Hinterbrühl, Hirtenberg, Judenau-Baumgarten, Kaltenleutgeben, Kaumberg, Klausen-Leopoldsdorf, Klosterneuburg, Königstetten, Kottingbrunn, Laab im Walde, Leobersdorf, Maria-Anzbach, Maria Enzersdorf, Mauerbach, Mödling, Neulengbach, Neustift-Innermanzing, Perchtoldsdorf, Pfaffstätten, Pottenstein, Pressbaum, Purkersdorf, Sieghartskirchen, Sooß, St. Andrä-Wördern, Traiskirchen, Tulbing, Tulln, Tullnerbach, Weißenbach an der Triesting, Wienerwald, Wolfsgraben, Zeiselmauer-Wolfpassing

Vienna: *Municipalities: (No.) 13 (Hietzing), 14 (Penzing), 16 (Ottakring), 17 (Hernals), 18 (Währing) and 19 (Döbling), 23 (Liesing).*

Major ecosystem type: ***Woodland*** *(approx. 70,000 ha) – mixed oak woods, beech woods, Austrian pinewoods and mixed acer-lime woods*
Open-space land *– meadows (e.g. tall oatgrass meadows, bromegrass meadows, purple moor grass meadows, fens and spring fens, orchard meadows, dry grasslands and semi-arid grassland) as well as pastures, arable land, viticultural landscapes and water bodies*

Bioclimatic zone: *sub-continental cold winters and dry-hot summers with precipitation levels of 650-1050 mm per year (trend of precipitation levels 2005-2014: monthly figures). Temperatures range from –5 to +20 degrees Celsius (temperature trend 2005-2014: monthly mean air temperature) (ZAMG, 2015).*

2.2.1 **Updated coordinates (if applicable). If any changes in the biosphere reserve's standard geographical coordinates, please provide them here (all projected under WGS 84):**

Cardinal points:	Latitude	Longitude
Most central point:	48°08'28'' N	16°04'56'' E
Northernmost point:	48°21'05'' N	16°15'28'' E
Southernmost point:	47°55'52'' N	16°10'47'' E
Westernmost point:	48°15'33'' N	16°22'13'' E
Easternmost point:	48°02'44'' N	15°47'40'' E

2.2.2 **If necessary, provide an updated map on a topographic layer of the precise location and delimitation of the three zones of the biosphere reserve Map(s) shall be provided in both paper and electronic copies. Shape files (also in WGS 84 projection system) used to produce the map must also be attached to the electronic copy of the form.**

The map of the Biosphere Reserve Wienerwald zonation is attached to this review as well as the shape files on CD.

If applicable, also provide a link to access this map on the internet (e.g. Google map, website).

See annex, and the following weblink: http://www.bpww.at/fileadmin/Redakteure/A3-CD-120326.pdf

2.2.3 **Changes in the human population of the biosphere reserve**.

The number of residents in the Biosphere Reserve (BR) region has increased by almost 9% over the past ten years, equivalent to an increase by some 65,000 individuals. In terms of the population figure of 250,000 living in the Wienerwald BR proper, this equates to a population increase to 272,500 individuals.

2.2.4 **Update on conservation function, including main changes since last report.**
(Note briefly here and refer to 4 below).

Since designation in 2005 and after signing permanent contracts, the 37 core zones have been legally registered as nature reserves (in Lower Austria) or as protected landscapes (in Vienna) respectively. For each area, a specific management plan was set up in co-ordination with landowners and nature conservation authorities. Apart from two exceptions, all core zone areas have been signposted in situ; the two exceptions are both part of larger protected landscapes or conservation areas. Furthermore, for aspects such as wildlife management in all core zones, an analysis of tracks and a pilot study for visitor monitoring in core zones were carried out (cf. 4.2).

For the core zone areas, forestry parameters, ecological habitat parameters and biodiversity data were collected between 2012 and 2014, with the goal to maintain the natural condition of the core zones, thus obtaining baseline data for subsequent comparative studies. Vegetation mapping was carried out at the level of sub-associations for all core zone areas (cf. 4.2).

Likewise, the open-space areas were mapped and surveyed as part of several research projects, and implementation measures were derived from the results (e.g. open-space survey, meadow mapping by ÖBf AG, viticultural landscapes, Verein Rauchkogler, drystone walling, escarpment conservation Pfaffstätten). As part of the dry grassland conservation campaign, it was possible to restore and maintain major expanses of dry grassland, in co-operation with communities, landowners, and with the help of residents (cf. 4.2 and 5.4).

The designation of buffer zones in these areas has restricted any rezoning of areas for building purposes in Lower Austria to a few exceptional and properly substantiated cases.

A research project on the reintroduction of the Ural owl (Strix uralensis) in the Wienerwald and in the wildlife area of Dürrnstein, involved the successful release of more than 100 individuals. Since then, 39 successful breeding attempts in the wild have been recorded (cf. 4.2).

2.2.5 **Update on the development function, including main changes since last report.**
(Note briefly here and refer to 5 below).

*Over the past ten years, several projects were carried out with regard to **meadows and pastures**. Every year since 2006, managers of meadows and pastures with high species diversity in the region have been given awards and received support for marketing their products. For some meadows, optimal management and conservation plans were established in co-operation with managers. In this way, it was possible to research the impact of meadow management on the occurrence of meadow saffron (Colchicum autumnale), also known as autumn crocus (cf. 5.3).*

*The possibilities of the ecologically **sustainable use of woodland biomass** for energy production were explored, and recommendations for practical application were developed in a participatory process. In another participatory research project, criteria and indicators for sustainable wildlife management in the Wienerwald BR were developed (cf. 5.3).*

*Some projects were initiated, accompanied and implemented in conjunction with regional products and **direct marketing**.*

*Since 2006 the Wienerwald BR annually bestows awards for the best **wines** typical of the region. Since 2011, only sustainably produced wines (organic production or controlled integrated production) are allowed to be submitted for tasting (cf. 5.3). A link between sustainable organic management of vineyards, landscape conservation and education is made by the 'Rauchkogler' Initiative which looks after a small-scale local recreation area (cf. 5.3). In the dry grassland along the line of thermal springs, it was possible to establish sheep pasture on areas with high nature value and the marketing of organic-pasture-fed lamb in co-operation with an agricultural partner business (cf. 4.2).*

*Operations registered as 'organic farms' and 'organic hotels' in the region, are currently also recognised as **partner businesses** of the Wienerwald BR. On the basis of pre-existing certifications and designations (such as the eco label), specific criteria were defined for sustainably operating partner businesses of the Wienerwald BR. So far, more than a dozen businesses have been inspected and registered accordingly (cf. 5.3).*

*Between 2007 and 2010 the Wienerwald BR was the focal region of the **Climate Alliance** in Lower Austria, to which 32 communities contributed initiatives and campaigns on three themes: energy, soil and mobility (cf. 5.3).*

*Since 2009 BPWW Management GmbH has been taking care of grant applications for fruit tree orders on behalf of farmers, thus demonstrating its commitment to increased planting of old and endangered varieties of native fruit trees and hedge shrubs best suited for the location. In this context, a **Fruit Tree Day** is held annually both in Vienna and Lower Austria. As a result, more than 5,000 fruit trees were planted over the past six years (cf. 4.3).*

2.2.6 **Update on logistic support function, including main changes since last report**.
(Note briefly here and refer to 6 below).

In preparation for the establishment of the Wienerwald BR, the original 'Biosphärenpark' logo was designed in 2003.

In the process of brand development, the logo and corporate design were revised in 2007 and 2008, at the same time as conceiving and fleshing out the corporate identity.

A considerable amount of information material and GiveAways were created, and some minor and major book projects (111x Biosphärenpark Wienerwald – The Orange Book), the first BR cookbook entitled 'Vielfalt Genießen' (Savouring Diversity), publications on meadows and pastures, woodlands, viticultural landscapes, dry grasslands were distributed, and 'Nature, Hiking and enjoyment' and publications to celebrate Biodiversity Day 2005 and 2008-2014 were issued.

Since 2009 a brochure has been published annually, advertising a programme of all activities and guided walks offered regionally for the Wienerwald BR. The partner businesses which offer these programmes were trained by BPWW Management GmbH on Wienerwald BR themes and aspects and are continually kept informed of new developments in the BR and supplied with the relevant material (cf. 6.5.1).
The co-operation and projects carried out jointly with universities and research institutes in the region were developed much further. The Wienerwald BR has a presence at numerous conferences and symposia, not only in terms of presentations and exhibition stands but also at regional and local technical discussions and presentations, both as experts and information providers for the population at large (e.g. neobiota).

In honour of International Women's Day on 8th March, a 'Wienerwälderin' (Ms Wienerwald BR) has been elected every year since 2012, thus acknowledging the diverse voluntary, social or ecological commitment and achievements of women in the region.

Close co-operation is maintained with the Austrian MAB National Committee. Committee members take part regularly in closed meetings (Klausuren) organised by the Wienerwald BR Management Team; and they serve on jury panels set up for the annual Ms Wienerwald BR election; and they provide support for the BPWW Management GmbH in research projects. They are important information providers and multipliers, not just at national but, above all, at international level, where the Wienerwald BR is repeatedly mentioned and presented as an example of best practice.

A folder containing teaching materials was compiled in 2005 for educational purposes in schools, and in 2011, a game was specially designed and produced for the Wienerwald BR. It can be played, both by school children in lessons on BR themes and by adults in conjunction with guided walks. In 2012, the game was given an award by the Austrian Advisory Board of UNESCO in connection with the UN Decade of Education for Sustainable Development 2005-2014. Within the framework of school twinnings, several co-operative schemes with schools in other Austrian BRs have been conducted since 2001. Furthermore, numerous guided walks for schools were offered in connection with projects (e.g. Meadow Master Championships, Biodiversity Day, dry grassland) (cf. 6.4).

In the course of the past ten years, a wide range of information events ('roadshows') were held among other for the benefit of communities, districts, specific visitor groups, stakeholders and other interested parties. A flexible and mobile exhibition was designed, with the objective to present the Wienerwald BR at various events organised for the general public. In 2013 a touring exhibition was created which was displayed in four communities in the two subsequent years, show-casing case studies on 20 communities (cf. 6.5.1).

In view of the large expanse of the region, BR Infopoints were set up in lieu of having just one single visitor centre. These decentralised infopoints are spread over a total of 10 locations in the region. In addition to information on the Wienerwald BR, they display baseline information and specific regional information (cf. 6.5.1).

In conjunction with GEO Day organised to celebrate biodiversity, the Wienerwald BR participated in 2015 for the ninth time, conducting a number of guided walks, offering informative and educational publications, species surveys in the outdoors and fringe events (for children and adults). The events were held alternately in a community in Lower Austria or in a municipal district of Vienna and always organised in co-operation with the local community. In this way, it was possible to reach more than 10,000 visitors over the years, including countless children and adults in the course of guided walks and field trips prior to the event (cf. 2.3.3 and 6.2).

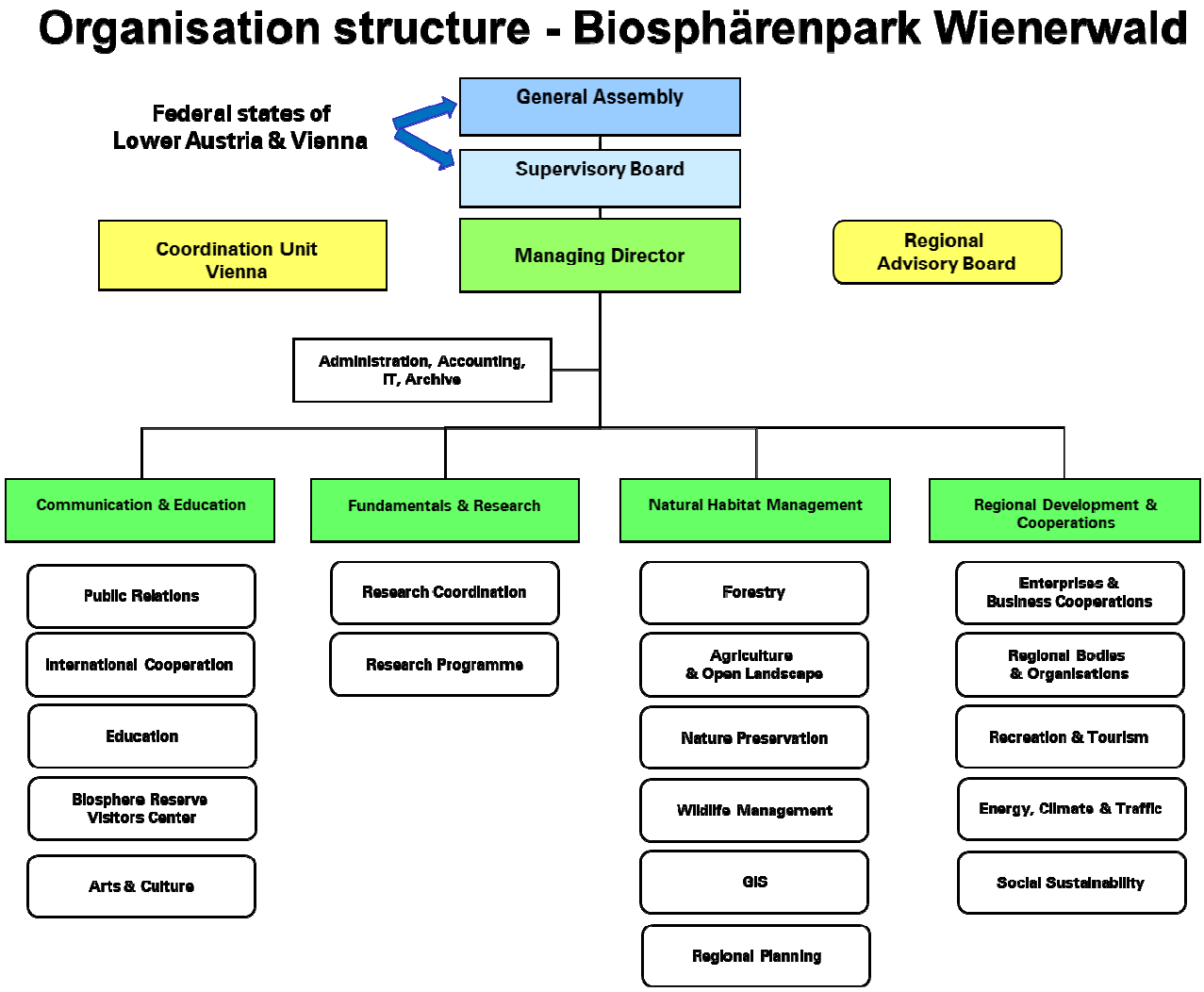
In order to ensure optimal use of the resources available to the BPWW Management GmbH, the 'Zukunftskonzept Biosphärenpark Wienerwald 2020' (Wienerwald BR 2020 Vision) was generated. This provides a thematic framework and facilitates a targeted and hence coordinated vision for the BR's work in the run-up towards 2020. In the course of this participatory process, a number of so-called 'BR Ambassadors' were appointed as liaison officers between the communities/municipal districts and the BPWW Management GmbH (cf. 7.7.2).

2.2.7 **Update on governance management and coordination, including changes since last report (if any) in hierarchy of administrative divisions, coordination structure**.
(Note briefly here and refer to 7 below).

The Biosphärenpark Management (BR Management) set up temporarily in 2002 was incorporated in the non-profitmaking Biosphärenpark Wienerwald Management GmbH (BPWW Management GmbH) which receives its core funding from the two Federal States of Lower Austria and Vienna (cf. 7.2).

2.3 **The authority/authorities in charge of coordinating/managing the biosphere reserve:**

(Comment on the following topics as much as is relevant).



A Scientific Advisory Council and a Participatory Council are to be established, and the existing Regional Advisory Board is to be used more effectively.

2.3.1 **Updates to cooperation/management policy/plan, including vision statement, goals and objectives, either current or for the next 5-10 years**

BPWW Management GmbH – Mission Statement:

In 2009, the BPWW Management GmbH developed a mission statement for its own work in the region:

We, the Wienerwald BR Management, regard ourselves as representatives of the Wienerwald region both internally and externally. We are a non-profitmaking organisation which was founded in 2006 by the Federal States of Lower Austria and Vienna.

WE WORK

- *in harmony with nature and in the interest of nature*
- *hand in hand with and for the benefit of the human population*
- *in the Wienerwald region*

OUR OBJECTIVES ARE:

- *to fulfil UNESCO's expectations of biosphere reserves in the long term. This includes, above all, the development of a model region for a sustainable approach to living, working, learning and conservation.*
- *to fashion, hand in hand with partners, the parameters for and secure the future of the Wienerwald and jointly find ways to enhance the quality of life in this region.*
- *to foster and maintain the diversity of nature, culture, economy and education.*
- *play our part in ensuring that aspects of environmental protection and nature conservation become integral parts of the BR's activities.*
- *play our part in adding value to the Wienerwald region. Regional products and offerings as well as sustainable initiatives for regional development are to feature prominently in this endeavour.*
- *to support research and monitoring with a focus on human interactions with the environment.*
- *to create a profile that is closely identified with the biosphere reserve.*

AND THIS IS HOW WE WILL ACHIEVE OUR OBJECTIVES:

- *by fostering and supporting environmentally sound methods of utilisation.*
- *by demonstrating alternative approaches to management which strike a balance between achieving economic success and maintaining the viability of habitats.*
- *by disseminating information on the special features of, and activities organised in, the region.*
- *by being the key contact for regional concerns of the biosphere reserve concept.*
- *by providing the impetus and support for training and education provision with regard to human interaction with the environment.*
- *by helping the major players in the region to network and by initiating sustainable projects.*
- *by co-operation both nationally and internationally with sustainable regions, by exchanging experience and applying the additional knowledge in the Wienerwald BR.*
- *by initiating and chaperoning specific research projects and ideas.*
- *by sharing the knowledge existing in the region and about the region by means of networking.*
- *by setting an example for sustainable actions.*

<u>Assessment of the Management GmbH:</u>

When the Biosphärenpark Wienerwald Management GmbH (BPWW Management GmbH)was founded, it was agreed as per contract under Article 15a of the Federal Constitution Law that an assessment of the management's work would be carried out after its first two years of operation, with a view to arguing for a possible increase of the budget from €600,000 to €800,000 (cf. 7.6.5).

<u>Wienerwald BR 2020 Vision:</u>

In the course of this truly participatory process, the framework for the work of the BPWW Management GmbH in the run-up to 2020 was developed. This framework covers both focal points and tangible projects which the management wish to implement in co-operation with the GmbH's partners over the years preceding 2020 (cf. 7.7.2).

2.3.2 **Budget and staff support, including approximate average annual amounts (or range from year-to-year); main sources of funds (including financial partnerships established (private/public), innovative financial schemes); special capital funds (if applicable); number of full and/or part-time staff; in-kind contribution of staff; volunteer contributions of time or other support.**

At the time of its foundation, BPWW Management GmbH had six full-time employees who handled the completion of day-to-day organisational and technical tasks, at the same time as fulfillíng the functions of project managers and/or co-ordinators for research or implementation projects in line with their respective remit (cf. organisation chart). Currently the GmbH employs one part-time and nine full-time staff members. Since 2007 the GmbH also employs on average three interns and numerous contractors – especially for information events. Besides, more than 3,800 volunteers take part in various join-in activities in the Wienerwald BR.

From 2005 to 2008, the basic budget amounted to €600,000 from 2009 onwards it amounted to €800,000 annually. The budget is financed in equal parts by the two Federal States of Lower Austria and Vienna. As far as the implementation of projects is concerned, additional subsidies are obtained from the EU (European Agricultural Fund for Rural Development (EAFRD)), the MAB Research Programme or other funding sources (e.g. Landschaftsfond/Landscape Fund).

Income and Expenditure – BR Administration – 2005 to 2014:

Year	***Items***	***Income***	***Expenditure***
2005		***354,378.86***	***352,535.95***
	Income from partners	*275,000.00*	
	Other income	*79,378.86*	
	Material costs and personnel costs		*15,564.65*
	Public Relations		*43,362.54*
	Projects		*149,608.76*
2006		***378,505.92***	***458,293.90***
	Income from partners	*275,000.00*	
	Other income	*103,50.92*	
	Material costs and personnel costs		*262,892.30*
	Public Relations		*116,057.03*
	Projects		*79,344.57*
2007		***735,000.00***	***558,511.00***
	Income from partners	*600,000*	
	Other income	*135,000.00*	
	Material costs and personnel costs		*413,111.00*
	Public Relations		*43,400.00*
	Projects		*102,000.00*
2008		***677,640.00***	***712,110.00***

Year	*Items*	*Income*	*Expenditure*
	Income from partners	*600,000.00*	
	Other income	*77,640.00*	
	Material costs and personnel costs		*364,878.00*
	Public Relations		*9,939.00*
	Projects		*337,293.00*
2009		***1,019,393.00***	***986,785.00***
	Income from partners	*816,398.00*	
	Other income (funding)	*202,995.00*	
	Material costs and personnel costs		*499,530.00*
	Public Relations		*155,597.00*
	Projects		*331,658.00*
2010		***1,008,528.00***	***980,922.00***
	Income from partners	*748,880.00*	
	Other income (funding)	*259,648.00*	
	Material costs and personnel costs		*515,048.00*
	Public Relations		*153,963.00*
	Projects		*311,911.00*
2011		***1,285,348.00***	***1,275,143.00***
	Incomer from partners	*758,869.00*	
	Other income (funding)	*526,470.00*	
	Material costs and personnel costs		*462,099.00*
	Public Relations		*103,860.00*
	Projects		*709,184.00*
2012		***2,035,980.00***	***2,032,404.00***
	Income from partners	*800,000.00*	
	Other income (funding)	*1,235,980.00*	
	Material costs and personnel costs		*554,800.00*
	Public Relations		*84,780.00*
	Projects		*1,392,824.00*
2013		***1,858,788.00***	***1,850,717.00***
	Income from partners	*800,000.00*	
	Other income (funding)	*1,058,788.00*	
	Material costs and personnel costs		*586,300.00*
	Public Relations		*25,234.00*
	Projects		*1,239,183.00*
2014		***1,711,911.00***	***1,713,344.00***
	Income from partners	*800,000.00*	
	Other income (funding)	*911,911.00*	
	Material costs and personnel costs		*698,834.00*
	Public Relations		*23,767.00*

Year	*Items*	*Income*	*Expenditure*
	Projects		*990,744.00*

[CONFIDENTIAL In addition to the income from partners, the BPWW Management GmbH receives compensatory payments from the Federal States of Lower Austria and Vienna in the amount of approx. €1.3 million (2015) for the landowners of the core zone areas. CONFIDENTIAL]

Furthermore, the Federal State of Lower Austria maintains a service agreement with the ÖBf AG. As part of a co-operation agreement with the State of Lower Austria, the Austrian Federal Forestry Authority (ÖBf AG) provides extensive services for the Wienerwald BR. They also participate in developing and implementing numerous research projects and nature projects. Any proceeds arising from such activities are entered into an escrow account and can be released as required, by the State of Lower Austria, for purposes of the Wienerwald BR.

Proceeds arise, for example, from safety felling (and removal of hazardous branches overhanging tracks) in core zones, as required by law, or from gratuities received in connection with guided walks and field trips or in connection with nature projects relating to the protection, conservation and enhancement of dry grassland areas along the line of thermal springs.

In Vienna, municipal department for environment and nature conservation (MA 22), as well as the Department of Forestry and Agriculture (MA 49) provide services for the Wienerwald BR which go beyond their responsibilities under the agreement according to the contract under Article 15a of the Federal Constitution Law. Just as with the Austrian Federal Forestry Authority's services to the Wienerwald BR, these are reflected in the BPWW Management GmbH's activity report.

2.3.3 **Communications strategy for the biosphere reserve including different approaches and tools geared towards the community and/or towards soliciting outside support.**

The main goal of the BPWW Management GmbH's communications is 'to get through' to the region's residents, stakeholders and decision-makers. The three main media for these communications are the newspaper ('Das Blatt in Ihrer Hand'/The page/leaf (pun!) in your hand), the electronic newsletter and the website (cf. 6.5.1 ff).

Event-based press releases are disseminated among approx. 600 journalists active in regional and supraregional media. Furthermore, various events are announced (either organised by ourselves or third parties), in order to inform – above all – the population. Furthermore, the community newsletters and official gazettes issued by district authorities are supplied with information, and project-based co-operative ventures are agreed with regional media (e.g. media co-operation with the 'Niederösterreichische Nachrichten' with regard to dry-grassland conservation, cf. 4.2). Since 2009 an activity report and a programme folder have been conveying information annually on the work of the BPWW Management GmbH and the guided walks/tours available in the region (cf. 6.5.1 and 5.9 respectively).

Folder (e.g.):

A programme folder gives an annual overview of events taking place in the Wienerwald BR, such as special events, guided walks, field trips, inaugurations, which are offered either by BPWW Management GmbH or by more than 100 education partners or Wienerwald BR partners, institutes and associations.

A general overview of the characteristics, goals and measures of the Wienerwald BR have been compiled in an informative folder entitled 'Wir leben Vielfalt' which is also available in English – 'We live diversity'

Furthermore, each of the 37 core zones have their own folder which contains details of special considerations in respect of nature conservation, characteristic species, location and description of the core zone in question.

Overall more than 70 folders and brochures were compiled in the course of the past 10 years. They were distributed on the occasion of special events among communities and districts and made available to partner institutions or submitted by post on request (e.g. fruit tree campaign folder, snakes in the Wienerwald, school twinning).

Over the past few years, it was possible to achieve a substantial reduction in the budget required by BPWW Management GmbH for work in the field of public relations and communications, thanks to optimised use of funding, the communication networks and well-established media contacts.

In 2013, the important role of communication partners, multipliers and key contacts in BR communities/districts was acknowledged by creating the role of BR Ambassadors. These individuals act as liaison officers between their community/district and the BPWW Management GmbH (cf. also 6.5.1).

Publications (e.g.):

- *111 x Biosphärenpark Wienerwald – The Orange Book*

On the occasion of our fifth anniversary in 2010, a nicely illustrated coffee table book entitled '111 x Biosphärenpark Wienerwald – The Orange Book' was produced. In co-operation with star photographer Lois Lammerhuber and the BR Team, 111 key terms relevant to the Wienerwald BR were collected. Subsequently, each of these key terms had a photographic motif assigned to it, photographed by Lois Lammerhuber in the Wienerwald in the course of one year.

In addition, a brief essay was composed by 111 people who either work or live in the Wienerwald or who have a personal connection with the region. In their statements, these individuals have not just shared their knowledge and experience, but also expressed their love of this unique landscape. The book was conceived as a testimonial to illustrate the extremely diverse energising effects emanating from millions of people who live in the high-powered, fertile environment of a major metropolis and its rural neighbour, Lower Austria.

- *Die Vielfalt genießen (Savouring Diversity) – the BR Cookbook*

On the occasion of the 40th anniversary of the MAB Programme, a book was produced jointly with the MAB National Committee and the Austrian Biosphere Reserves, and in co-operation with star photographer Lois Lammerhuber. This book raises awareness for the concept of UNESCO biosphere reserves as model regions for sustainable development, at the same time as illustrating the beauty, diversity and uniqueness of our native biosphere reserves (Wienerwald, Großes Walsertal, Neusiedlersee, Gurgler Kamm, Lobau, Gossenköllesee and the BR project Lungau/Nockberge – status 2014).

The book contains 34 regionally typical cooking recipes prepared with regional products and partly regional plants (herbs, vegetables, spices) which nowadays are used either rarely or not at all. The recipes demonstrate how these can be used and are accompanied by extraordinary images of landscapes, human beings, animals and plants.

The publishers chose to use the Landesberufsschule Waldegg (LBS Waldegg) as cooking partner, thus reflecting the MAB motto 'Biosphere Reserves as centres of learning for sustainable development'. The dishes were selected from the great number of recipes received through the school campaign and from family recipes and recipes contributed by local restaurateurs. The recipes were fine-tuned and then prepared by the pupils.

In the follow-up to the project 'Mehr als ein Kochbuch' (More than a Cookbook), training sessions were held for students and staff at LBS Waldegg. For more than a year, training events were held in order to introduce some 300 pupils to the BR concept. Subsequently, the young people immersed themselves in projects to deepen their BR knowledge, for example by creating an advertising folder for a biosphere reserve and a menu specifically designed for a biosphere reserve.

The project received an award from the Austrian Commission for UNESCO as 'UN Project of the Decade' in context with the UN Decade for 'Education on Sustainable Development 2005-2014' (cf. also 2.3.6 and Köck et al 2013).

As part of a series, small-format publications on popular science subjects were published, for distribution at special events, to hand out to interested individuals. They can also be ordered for free from BPWW Management GmbH for submission by post. (NB the English titles listed below are given just for guidance):

- *Meadows and pastures in the Wienerwald*
- *Dry grassland in the Wienerwald*
- *Viticultural landscapes in the Wienerwald*
- *Woodlands in the Wienerwald*
- *Wienerwald BR – nature, hiking and enjoyment*


Furthermore, a special publication was issued for every Biodiversity Day from 2007 to 2014, and for the first Biodiversity Day in the Königstetten part of the Wienerwald, featuring the most important and most interesting species and research results. These brochures were entitled 'Nature in …', and they were disseminated among all households in relevant communities, and to interested parties in Vienna through district mayors and other partner organisations. This is to enthuse the population for nature in the area where they live, and to elicit their commitment to nature conservation:

- *Nature in Königstetten (2005)*
- *Nature in Steinhofgründen, Dehnepark and Ottakringer Wald (2008) – Wien Hernals and Wien Penzing*
- *Nature in Pfaffstätten (2009)*
- *Nature in Mauer (2010) - Wien Liesing*
- *Nature Altenmarkt an der Triesting (2011)*
- *Nature in Döbling (2012) – Wien Döbling (Cobenzl)*
- *Nature in Maria Anzbach (2013)*
- *Nature in Hernals (2014) – Wien Hernals*

Events

- *Biodiversity Day:*

For the ninth time, the BPWW Management GmbH organised an event in 2015 to celebrate GEO Biodiversity Day as initiated by the renowned German nature magazine GEO. This gives us an opportunity to explore alternately a community in Lower Austria or a district in Vienna and to get the local inhabitants excited about the biodiversity on their own patch. The event is held with financial and logistics support from the municipality concerned, the local players, and partner organisations of the BPWW Management GmbH. Since 2009 the Biodiversity Day is funded by the European Agricultural Fund for Rural Development (EAFRD).

Since 2014, Biodiversity Day has been organised as a sustainable, eco-friendly event. From accessibility by means of public transport, to numerous measures for reducing waste, methods to save energy and water, use of eco-friendly materials, down to the diverse offer of seasonal organically produced groceries from the region, extensive activities are organised in order to make Biodiversity Day into a an Eco Event (cf. www.oekoevent.at/).

***Scientific part:** The objective for scientific participants and specialists is to survey as many species as possible in a given area in the course of 24 hours. The quest for species by experts participating voluntarily starts on Fridays and is continued on Saturdays. A special highlight on Fridays is the search for nocturnal animals (e.g. bats, nocturnal moths etc). Initial data was already collected during the event. With regard to species groups which require e.g. in-depth laboratory work for identification, the data will be entered into the database in the following months. Subsequently, the data is also published in a small-scale publication and made available to the community or municipality concerned.*

***Biodiversity festival:** In the course of this event, nature trails (both night and day) will be led by experts providing opportunities to observe rare animals such as bats and moths or to look over experts' shoulders as they do their research. On the subsequent day, the great family festival takes place in a community or district of the Wienerwald BR, with a varied programme of education and entertainments, numerous info booths highlighting local biodiversity, a wildflower market with rare varieties for the garden, colourful entertainments for children, regional delicacies and a raffle. A variety of offerings provide opportunities to experience the wonderful world of plants and animals at close quarters.*

Some statistics for past Biodiversity Day (BDD) events:

Location	***Year***	***Number of participants in guided walks***	***Number of participants in the Festival - BDD***	***Number of species found***
Königstetten	*2005*	*not specified*	*not specified*	*928*
Perchtoldsdorf	*2007*	*120*	*800*	*1,272*
*Steinhofgründe (Vienna, 14th and 16th **district**)*	*2008*	*140*	*>1,000*	*1,311*
Pfaffstätten	*2009*	*240*	*>2,500*	*1,839*
Mauer (Wien 23th)	*2010*	*500*	*>1,000*	*1,910*
Altenmarkt an der Triesting	*2011*	*300*	*>1.000*	*2,067*
Cobenzl (Wien 19th)	*2012*	*>200*	*>1,200*	*1,789*
Maria Anzbach	*2013*	*>150*	*>1,000*	*1,524*
Hernals (Wien 17th)	*2014*	*>150*	*>1,400*	*1,794*
Breitenfurt	*2015*	*>500*	*>900*	*>1,200*

- *Wienerwald BR's Summer Festival:*

In summer 2008 a major BR Summer Festival was held at the Cobenzl in Vienna. This enabled visitors to take part in guided walks, or to visit info booths, micro-theatre productions and other entertainments intended to disseminate information on the Wienerwald BR and its special features. An extensive supporting programme with numerous offers for families and children, culinary delicacies from the region and an impressive variety of stage performances provided entertainment for all. The festival was also used to launch the new Wienerwald BR logo and to get all mayors and district mayors of Wienerwald BR to meet for the occasion. In all, some 2,500 visitors to the Wienerwald BR Summer Festival were given a variety of BR information.

- *The BR Cup:*

The BR Cup is a team event, in which between three and ten individuals from widely varying ages proceed through ten stages to prove their knowledge, skills and creativity with regard to the Wienerwald BR. 2015 was the first year in which the event took place in its present form. It was embedded with the Open Day of the Norbertinum with its School and BR Office. The aim of the event is to enthuse families for the BR and its multifaceted themes.

The 2015 BR Cup was organised jointly by BPWW Management GmbH and the Austrian Federal Forestry Authority (Österreichische Bundesforsten) in co-operation with partners such as Bird Life Austria, Universität für Bodenkultur Wien (Institut für Landschaftsentwicklung, Erholungs- und Naturschutzplanung and the Institut für Waldbau), Biohof Edibichl (organic farm), Bundesforschungszentrum für Wald und Institut für Wildtierkunde und Ökologie der Veterinärmedizinischen Universität Wien.

The intention is to continue this project in years to come and to apply the concept at other schools as well.

Films:

Over the past ten years, minor film projects were carried out:

- *2008: A concise 20-minute film on the Wienerwald BR, its aims and its tasks which includes interviews with representatives from the UNESCO Commission in Austria, from the national MAB Committee, from agriculture and forestry, research, education and the BR team.*
- *2010: a short promotional film on the book '111 x Biosphärenpark Wienerwald – the Orange Book'.*
- *2011: a short promotional film on the book ‚Vielfalt Genießen – das erste Biosphärenpark Kochbuch' (Savouring Diversity – the First BR Cookbook)*
- *2014: A film of about 10-minute duration on school twinning activities in the Wienerwald BR.*
- *2015: A film entitled 'Österreich Bild' (25 minutes duration) made jointly with Wienerwald Tourismus GmbH, filmed by ORF Lower Austria on the Wienerwald region and the BR which bears its name.*

Infopoints:
See 6.5.1

Educational/Nature trails and themed tracks:
Over the past 10 years, several educational trails on various subjects were created in the Wienerwald BR. Some of them were designed in co-operation with BPWW Management GmbH (e.g. the Perchtoldsdorf viticultural trail, the Bad Vöslau educational dry grassland trail, Hermesvillapark nature trails, Nikolaitor Lainzer Tiergarten nature trail), while others were adapted or adapted in consultation, in order to incorporate information on the Wienerwald BR, e.g. by means of individual interpretive panels.

2.3.4 **Strategies for fostering networks of cooperation in the biosphere reserve that serve as connections ("bridging") among diverse groups in different sectors of the community (e.g. groups devoted to agricultural issues, local economic development, tourism, conservation of ecosystems, research and monitoring).**

In the planning phase and immediately after the official designation of the Wienerwald BR, consultation fora were set up and meetings were held regularly on themes such as open-space areas, woodland and BR management. Once the GmbH was founded in 2006, the last-named forum was incorporated in the Supervisory Board of the GmbH. The other two (woodland and open-space areas) were dissolved, i.e. the themes were incorporated into bilateral talks or informal discussions.

To establish the Wienerwald BR in its institutional form, meetings were held with landowners of parts of the core zone areas, with representatives of other NPOs and NGOs active in the region (e.g. Naturschutzbund Niederösterreich, Stadt-Umland-Management, Wienerwald Tourismus GmbH), with the mayors and district mayors of the relevant 51 communities in Lower Austria and 7 districts in Vienna respectively, with the the BR Co-ordinator for Vienna with the BR team of the Wienerwald Forestry Department of the Austrian Federal Forestry Authority, and through attendance at networking meetings of the regional management of the Federal State of Lower Austria (NÖ.Regional.GmbH) (cf. 7.5 Regional Advisory Board). Likewise, BPWW Management GmbH participates regularly in meetings of the MAB National Committee, where it reports on work in the region.

Furthermore, BPWW Management GmbH takes part in various co-ordination and networking meetings held by other organisations in the region, e.g. Marketing Advisory Committee of the Wienerwald Tourismus GmbH, workshops for regional land-use planning Mödling, national park meetings, discussions with the Österreichische Alpenverein, Mountainbike Platform ARGE Wienerwald Trails.

In 2013 the network of BR Ambassadors was founded in order to enhance communications with communities and municipal districts. The Ambassadors were appointed as communication channels between BPWW Management GmbH and the population (cf. 7.5).

The folder 'Spielregeln im Wald' (Ground rules for behaviour in the woods) is intended to promote mutual understanding among the diverse groups of woodland users and their expectations and preferences (cf. 6.5.1).

2.3.5 **Particular vision and approaches adopted for addressing the socio- cultural context and role of the biosphere reserve (e.g. promotion of local heritage resources, history, cultural and cross-cultural learning opportunities; cooperation with local population; reaching out to recent immigrant groups, indigenous people etc.).**

BPWW Management GmbH occasionally gives support to local cultural projects such as the production of a music CD by the Blasorchester (brass band) Tullnerbach (www.blasmusik-tullnerbach.at/) or the book entitled 'Blumen einst und jetzt: Klosterbibliothek Heiligenkreuz – Biosphärenpark Wienerwald' (Flowers Then and Now) (http://www.amazon.de/Blumen-einst-jetzt-Klosterbibliothek-Biosph%C3%A4renpark/dp/3702507787).

As far as possible, BPWW Management GmbH also works with socio-economic job-creation schemes in the region. This includes e.g. the manufacture of bags made of recycled Wienerwald BR transparencies, and bags filled with marigold seeds as advertising material, made by a branch of Caritas Wien or the 'Startbahn' association (cf. 6.5.1).

In respect of the 'Biosphere Volunteers' we try to interest in particular the young people in various parts of the Wienerwald BR in the region's nature and wildlife. Working together and the visible success of this work help young people to increase their sense of belonging to the region and contribute to a shared social experience.

Likewise, the high number of visits from stakeholders of other (BR) regions and research groups from all over the world contributes to socio-cultural exchanges (cf. 6.6. ff).

Here are some examples of projects and measures in the socio-cultural field:

- *drystone walling:*

The BPWW Management GmbH runs at least two drystone walling courses every year. Drystone walling, i.e. the building of walls in which stones are laid and wedged without the use of cement, is a craft that has existed for hundreds of years. Drystone walls last for an extremely long time (sometimes several hundred years) and provide habitats and sanctuaries for numerous animal species. The three-day hands-on training courses are always held on-site at a vintner's estate, in co-operation with the wine- and fruit-growing school at Krems. The course teaches the basic skills required in building retaining walls on slopes or embankments by means of the drystone method – from the foundation to laying the coping stones. Since the first course was held in 2009, some 150 participants have used no less than 280 tonnes of material, building 200 linear meters of drystone wall. The courses are intended to encourage participants to keep on walling, and many of them have already applied their newly acquired skills in their own field.

- *Trans-generational project:*

In conjunction with the Wienerwald BR's 2020 Vision concept, a trans-generational memory project was designed in the region. From 2016 onwards, it is intended to collect and evaluate scientifically, the experiences, customs, stories and photographic documents from the past 100 years, by involving children, adolescents and older people from the region. For the local population, the outcomes and insights are to be curated for a photographic exhibition and a book, to benefit the local population.

- *Viticultural landscapes*

As part of the Fruit Tree Campaign and Fruit Tree Day projects, ancient fruit tree cultivars are brought into the limelight, in order to promote their revival in terms of planting and conservation. The Campaign enables people to buy such trees. Experts provide information in the course of the campaign on the trees' importance in terms of nature conservation, imparting advice on pruning and maintenance (cf. 4.2 and 4.3).

Likewise, the competition 'DER WEIN' focuses on grape varieties typical of the region and on sustainable production (cf. 4.3 and 5.3).

2.3.6 **Use of traditional and local knowledge in the management of the biosphere reserve.**

Some of the activities and offerings contained in the programme folder issued annually by BPWW Management GmbH, are concerned with old processing techniques or traditional knowledge (e.g. 'Sensenmähen für den Hausgebrauch' (DIY Scything), 'Essbare Landschaft' (Edible Landscape), 'Wildkräuter Wanderungen' [Wild Herb Trails]) and the trans-generational project described under item 2.3.5 above, will explore in greater depth the traditional knowledge still existing in the region.

<u>Other projects and initiatives to be highlighted in this context include:</u>

- *Natur zum Genießen (Nature to be Savoured):*

During the International Year of Biodiversity as proclaimed by the United Nations in 2010, experts from the Wienerwald BR visited the region's schools. As ambassadors for nature, they

introduced six- to 14-year old pupils to the diversity of the plant world in their immediate environment explaining the importance of plants and how they can be used. The skills acquired were utilised in a subsequent competition, collating and editing stories about experiences with edible wild plants in their natural habitats. The outcome was fed into the cookbook ‚Die Vielfalt Genießen' (Savouring Biodiversity) published by the Austrian Biosphere Reserves (cf. 2.3.3).

- *Ms Wienerwald BR of the year:*

Since 2012 the BPWW Management GmbH celebrates 'Women's Day' by featuring women who have made a special contribution to sustainability, awarding the annual title of 'Wienerwälderin des Jahres' (Ms Wienerwald BR). In 2015 the title was awarded to two women from the Wienerwald on the occasion of the BR's 10th anniversary. A crucial reason for this dual award was primarily that the two individuals concerned had distinguished themselves in very different domains while both strengthening the pillars of sustainability – one in terms of social achievements, and the other in the field of ecology.

- *BR Ambassadors*

Apart from their function as BR Ambassadors (i.e. information channels) to which they were appointed in 2013, these individuals are also in possession of tremendous regional and local knowledge which is extremely valuable to the BPWW Management GmbH (cf. 7.5).

- *Meadow Master – Meadow Partner:*

The characteristic cultural landscapes of the Wienerwald have among others led to its designation as biosphere reserve. The conservation of these cultural landscapes requires taking recourse to the pool of traditional knowledge owned by the local population, as e.g. in the projects 'Meadow Master and Meadow Partner' or the 'Biosphere Volunteers'. Jointly with the BPWW Management GmbH, another angle is to work out and implement management strategies for meadows or drygrass landscapes. The traditional knowledge commanded by the local population will inform also the future development of the Wienerwald Biosphere Reserve.

2.3.7 Community cultural development initiatives. Programmes and actions to promote community language, and, both tangible and intangible cultural heritage. Are spiritual and cultural values and customary practices promoted and transmitted?

BPWW Management GmbH has no programme or campaign dedicated explicitly to the promotion of cultural heritage. The regional customs and traditions are maintained and practised by the communities, associations and religious institutions concerned. These roles are played in particular by the Augustiner-Chorherren Stift Klosterneuburg (www.stift-klosterneuburg.at) and the Cistercian Abbey Stift Heiligenkreuz (www.stift-heiligenkreuz.org).

An example for maintaining and fostering cultural development are the courses offered by BPWW Management GmbH for drystone walling, especially in traditional viticultural landscapes. These are contributions to the promotion of regional traditions and artisanal skills (cf. 2.3.5).

The Wienerwald BR can boast ten elements of intangible cultural heritage which were demonstrated to UNESCO since 2005 and acknowledged in due course. These are:

- *Perchtoldsdorfer Hütereinzug (herdsmen's procession) (2010)*
- *charcoal burning (2010)*
- *folk dancing (2011)*
- *Wiener Dudler (a Viennese variant on yodeling) (2010)*
- *pine-tapping (2011)*
- *a pharmacy's own specific recipes (2010)*
- *falconry (2010)*
- *storytelling (2010)*
- *the classical equestrian tradition of the Spanish Riding School in Vienna (2010)*
- *and the Viennese coffee-house culture (2011*

In line with the cultural pillar of sustainability, these elements are communicated, presented and described on the BPWW Management GmbH's website and in the course of events (cf. 5.8).

2.3.8 **Specify the number of spoken and written languages (including ethnic, minority and endangered languages) in the biosphere reserve. Has there been a change in the number of spoken and written languages? Has there been a revitalization programme for endangered languages?**

In the Wienerwald BR, German is the official written language. The spoken language is 'Austrian', a modified form of German, which exists in various regional dialects. For many centuries, there has been an influx of immigrants in the BR region owing to migratory movements, especially from Germany, Turkey and the former Yugoslav republics; this influx has also influenced the continuous natural evolution of the German language. However most oft the recents settlers are people from Vienna..

2.3.9 **Management effectiveness. Obstacles encountered in the management/coordination of the biosphere reserve or challenges to its effective functioning**.

Within the region of the Wienerwald BR, some 815,000 people live in 51 communities of Lower Austria and in 7 municipal districts of Vienna. To reach all of them and appeal to them with our goals and concerns and to motivate them to participate in and become committed to what goes on in the BR, is one of the greatest challenges among our management tasks. Besides, the Wienerwald BR extends across two Federal States and there is a great number of relevant organisations and interest groups active in the region. It is therefore necessary to find common denominators for these numerous interests and activities and try to link them in networks.

The Wienerwald BR region owes its markedly urban character to the megacity of Vienna and its so-called 'Speckgürtel' (commuter belt). On the other hand, the region also contains some very rural areas characterised by small settlements and agrarian landscapes. These differences are another source of disparate expectations and demands on the Wienerwald BR which have to be addressed by its management team (cf. 7.2 and 7.4 ff).

2.4 **Comment on the following matters of special interest in regard to this biosphere reserve:** (Refer to other sections below where appropriate).

2.4.1 **Is the biosphere reserve addressed specifically in any local, regional or/and national development plan? If so, what plan(s)? Briefly describe such plans that have been completed or revised in the past 10 years.**

The Wienerwald Declaration, signed in 2002, by the Federal States of Vienna, Lower Austria and the Burgenland, decrees that the Wienerwald be conserved for future generations as a space for wildlife and recreation, but also that its attraction as a high-quality economic area and living space be increased for the benefit of the people who live there.

The core zones of the Wienerwald BR have been designated as nature reserves in Lower Austria and as protected landscapes in Vienna thus affording appropriate legal protection and security in both Federal States.

19 areas with a total amount of 331 ha were dedicated as forest reserves (Naturwaldreservate) to monitor the natural development of forests. They are part of the implementation of the resolution of the Ministerial Conference on the Protection of Forests in Europe (MCPFE).

In Lower Austria, the buffer zones were designated in co-ordination with the competent departments of the State Government and the regional communities.

In Vienna, the Wienerwald BR was taken into consideration in the process of zoning (for development), and the BR's interests have to be considered in zoning decisions for the benefit of public interest. The buffer zones are all located in the 'Schutzgebiet Wald and Wiesengürtel' in Vienna, and in the landscape protection area and are thus earmarked for recreation and public health while simultaneously being protected by building regulations.

Three LEADER regions project into the area of the Wienerwald BR which are all characterised by different key focal points: 'Donauland-Traisental-Tullnerfeld', 'Elsbeere-Wienerwald' and 'Triestingtal'. The co-operation with managers of the two last-named regions is good, and there is also a regular exchange through networking meetings with the NPO's and NGO's of the region (cf. 2.4.3). In view of the fact that the 'Donauland-Traisental-Tullnerfeld' share of the Wienerwald BR is very small, this makes co-operation less intensive.

2.4.2 **Outcomes of management/cooperation plans of government agencies and other organizations in the biosphere reserve.**

Numerous organisations are active in the region of the Wienerwald BR. Below is a list of those organisations which currently play a prominent role in terms of co-operation with the Wienerwald BR:

- *Energie- und Umweltagentur des Landes Niederösterreich – eNu (Energy and Environment Agency of Lower Austria): www.enu.at*
- *NÖ.Regional.GmbH: www.noeregional.at/*
- *Stadt-Umland-Management Süd – SUM Süd (Urban Environment Management – South): www.stadt-umland.at*
- *Forstamt und Landwirtschaftsbetrieb der Stadt Wien – MA 49 (City of Vienna Forestry and Agriculture Dept.): www.wien.gv.at/umwelt/wald/forstamt/*
- *Österreichische Bundesforste AG (Austrian Federal Forestry Authority) – ÖBf AG: www.bundesforste.at*

- *Wienerwald Tourismus GmbH – www.wienerwald.info*
- *Wiener Umweltschutzabteilung – MA22 (Dept. for Environmental Protection): www.wien.gv.at/umweltschutz/*
- *Verein der Freunde der Perchtoldsdorfer Heide (Association of the Friends of Perchtelsdorf Heath): www.perchtoldsdorfer-heide.at*
- *Verein „Für Umwelt, Erhaltung und Rettung "Königstetten – FUER: www.fuer-koenigstetten.at*
- *Stift Klosterneuburg: www.stift-klosterneuburg.at*
- *Stift Heiligenkreuz: www.stift-heiligenkreuz.at*
- *Stiftung (foundation) Fürst Liechtenstein: www.sfl.li*
- *Universität für Bodenkultur Wien – BOKU: www.boku.ac.at*
- *Forschungsinstitut für Wildtierkunde (wildlife) und Ökologie – FIWI: www.vetmeduni.ac.at/fiwi/*
- *Bundesforschungszentrum für Wald (Austrian Research Centre for Forests) – BFW: www.bfw.ac.at*
- *National parks: Sandstein-Wienerwald, Föhrenberge, Eichenhain und Sparbach www.naturparke.at*
- *Hochschule für Agrar- und Umweltpädagogik – HAUP: www.agrarumweltpaedagogik.ac.at*
- *Verein (association) Lamaste: www.lamaste.at*
  - *51 BR communities in Lower Austria*
  - *7 municipal BR districts in Vienna*

The following is an excerpt from projects which are currently being carried out by these organisations in the Wienerwald:

- *NextBike – trans-community bike hire system, similar to the well-known Citybike systems in major cities.*
- *So schmeckt NÖ (The taste of Lower Austria) – Initiative to promote the culinary assets of Lower Austria, especially on the occasion of festivals and events.*
- *Klimabündnis Wienerwald (Wienerwald Climate Alliance) – focal region of the Lower Austrian Climate Alliance from 2007 until 2010 (cf. 5.2.).*
- *ÖkoEvent (Vienna) and Sauberhafte Feste (Lower Austria) – initiatives and campaigns for major and minor events on the concept of sustainable disposal, tableware and culinary items.*
- *Regionale Leitplanung Mödling – planning for co-ordinated structural development in communities belonging to the Mödling district.*
- *ÖkoBusinessPlan Wien – this is the environmental service package operated by the City of Vienna for businesses in the city.*
- *ÖkoKauf Wien: The aim is to ensure that the purchase of goods, products and services in all areas of city administration is more strongly based on ecological principles.*
- *Eco label for tourism businesses in Vienna: The MA 22 Department supports businesses in Vienna in a targeted manner to encourage applications for the Austrian eco label.*
- *Implementation of measures in open-space areas, e.g. for the conservation of the Southern festoon butterfly (Zerynthia polyxena).*
- *Habitat and visitor management for habitats that come under the Habitats Directive - and visitor management for such habitats, e.g. in the Perchtoldsdorfer Heide*

2.4.3 **Continued involvement of local people in the work of the biosphere reserve. Which communities, groups, etc. How are they involved?**

The BPWW Management GmbH organises regular meetings which are held in order to involve the population, stakeholders and important partner organisations in their work.

Regular meetings are also held with landowners of core zone areas, with nature conservation organisations as well as organisations in charge of development in the region, and with the Austrian Federal Forestry Authority in its capacity as the largest woodland owner in the region. Special significance is attributed to the BR Ambassadors who – since 2013 – have been acting as key contacts and communication channels between BPWW Management GmbH and the local population (cf. 7.5).

In conjunction with the project 'Zukunftskonzept Biosphärenpark Wienerwald 2020' (Wienerwald BR 2020 Vision), it was possible to actively involve more than 600 individuals in an online survey and some 100 individuals in workshops held on the subject of the Wienerwald BR's future development (cf. 7.7.2). Furthermore, it was possible to involve students, pupils and adults (e.g. scout groups and staff of a pharmacy chain) in outdoor conservation projects (e.g. dry grassland conservation activities, biosphere volunteers). Likewise, it is regular practice to involve the mayors and district mayors in these activities. Likewise, the BR's education partners are individuals who are based in the region, and they are kept informed regularly and involved actively in educational work (cf. 5.9).

2.4.4 **Women's roles. Do women participate in community organizations and decision-making processes? Are their interests and needs given equal consideration within the biosphere reserve? What incentives or programmes are in place to encourage their representation and participation? (e.g. was a "gender impact assessment" carried out?) Are there any studies that examine a) whether men and women have different access to and control over sources of income and b) which sources of income do women control? If so, provide reference of these studies and/or a paper copy in an annex.**

Women participate in the daily life of the BR region to the same extent as men. Currently there are seven female mayors in the 51 communities of Lower Austria, two female district mayors among the seven BR municipalities of Vienna and 14 BR Ambassadrices among the 49 ambassadors appointed so far.

Since 2011, the BPWW Management GmbH has been headed by female directors; half of the Supervisory Board of the BPWW Management GmbH, and also the staff on the BPWW Management GmbH's team, as well as the leader of the Co-operation Team of the Austrian Federal Forestry Authority are women. Since 2007, 20 female interns have been employed by BPWW Management GmbH.

Educational work in schools and field trips conducted by the Wienerwald BR are handled predominantly by women. Since 2012 women have been featured every year on International Women's Day (8th March). For their special contributions to sustainability and awarded the title of 'Wienerwälderin des Jahres' (Ms Wienerwald BR).

2.4.5 **Are there any changes in the main protection regime of the core area(s) and of the buffer zone(s)?**

There have been no changes in the protection regime for the core area(s) or the buffer zone(s). The core zones in Lower Austria are designated as nature reserves and in Vienna as protected landscapes. Approximately 80 % of the buffer zones are located in Natura2000 designated areas, and they are maintained and looked after by their managers and landowners. All relevant legal issues are covered by the core area legislation and/or buffer zone legislation as decreed by the Federal States concerned.

2.4.6 **What research and monitoring activities have been undertaken in the biosphere reserve by local universities, government agencies, stakeholders and/or linked with national and international programs?**

The BPWW Management GmbH is aware of the following research and monitoring projects having been carried out in the Wienerwald in the course of the past ten years:

Research Project Title	***Author(s):***	***Completion or Reporting Year (for projects in progress, year of project start or the year of last survey)***
Biodiversity Day – scientific part	*BPWW Management GmbH*	*2005 and annually since 2007*
Health Spaces – BR landscapes and their importance to health: Analysis of the potential of Wienerwald BR in terms of quality of life and subjective perception of wellbeing	*Arnberger A., Allex B.*	*Project started in 2013*
Nut hunt in the BR	*Rotter, B.*	*Ongoing*
Clarification of the potential risks to health from the oak processionary moth: Exposure and risk assessment	*Schopf, A.*	*Ongoing*
BirdLife bird monitoring in the core zone of Hoher Lindkogel	*ÖBf AG (funded via service agreement with State of Lower Austria)*	*Ongoing*
Bat monitoring	*ÖBf AG (funded via service agreement with State of Lower Austria)*	*Ongoing*

Research Project Title	***Author(s):***	***Completion or Reporting Year (for projects in progress, year of project start or the year of last survey)***
Management plans for the core zones of the Wienerwald BR	*BPWW Management GmbH*	*2015*
Wildcat	*Keilbach, M.*	*2015*
Neobiota	*Lassnig, Ch.; Waiss, G.*	*2015*
Green infrastructure	*ÖBf AG (funded via service agreement with State of Lower Austria)*	*Project started in 2015*
ASEG – Perceptions and satisfaction of ethnic minorities with regard to the Wienerwald BR: A pilot study on the integrative function of protected areas close to urban areas	*Muhar, A. et al*	*2015*
Maurer Wald recreational area. Recording current visitor frequencies and developing a guidance concept on behalf of MA 49 – City of Vienna Department of Forestry and Agriculture	*Czachs, Ch. et al.*	*2015*
Biodiversity monitoring and obtaining evidence in the core zones of the Wienerwald BR	*BPWW Management GmbH*	*2014*
Management and monitoring the meadows in the Natura2000 area of Lainzer Tiergarten	*Karrar, G.*	*2014*
Survey of the potential occurrence of Ornate bluet (damselfly) (Coenagrion ornatum) in Vienna	*Staufer, M.*	*2014*
The local population's perceptions of the Wienerwald BR (Biosphere People)	*Arnberger A.; Eder R.*	*2014*
Open-space survey, Wienerwald BR	*Staudinger, M., Korner I.*	*2013*
Beech Forests for the Future	*European joint project of several institutes.*	*2013*

Research Project Title	***Author(s):***	***Completion or Reporting Year (for projects in progress, year of project start or the year of last survey)***
Control of the Tree of Heaven (Ailanthus altissima)	*Halmschlager, E.*	*2013*
Evaluating the Zonation of the Biosphere Reserve Wienerwald: How well does the conservation zone contribute to biodiversity conservation?	*Willner, W.*	*2013*
Mass hibernation and notes on the winter activity of fire salamanders (S. Salamandra) in the Maurer Wald (Vienna, Austria)	*Leeb, Ch.*	*2013*
BIOS –the dynamics of regeneration and deadwood	*Hochbichler. E*	*Project started in 2012*
IESP - Towards Integrated Ecological Spatial Planning for the Wienerwald Biosphere Reserve	*Reimoser F., et. al*	*2012*
Echo location –educational echo	*Rotter, B.*	*2012*
Baseline monitoring in the core zones of the Wienerwald BR	*BPWW Management GmbH*	*Recorded 2007-2009; publication in 2011*
Soil monitoring	*Englisch, J.*	*2011*
Setaceous Hebrew character (moth): Research into lepidoptera caterpillars – Sparkling Science	*Lackner, Ch.*	*2011*
Replacement bat roosts in Vienna	*Hüttmeir, U.; Reiter, G.*	*2011*
Evaluation by ÖBf AG of the quality of experience gained in guided walks as provided by the Wienerwald BR	*Arnberger A.; Eder R.*	*2011*
Meadow saffron (Colchicum autumnale)	*Karrer, G.: Winter, S.*	*2010*
Part_b: Participatory processes in the BR – intervention theory, strategy analysis and process ethics using the examples of the Wienerwald BR, Großes Walsertal and Nockberge National Park	*Jungmeier, M. et al.*	*2010*

Research Project Title	***Author(s):***	***Completion or Reporting Year (for projects in progress, year of project start or the year of last survey)***
Photovoltaics with due regard to economic and ecological assessment criteria using the example of the Wienerwald BR	*Kalss, K.*	*2010*
The Rosalia alpina (L.) beetle in Lainzer Tiergarten – first localisation, conservation status and recommendations for measures	*Paill, W.*	*2010*
Beech bark beetle	*Steyrer, G.*	*2009*
Efficient spatial use in suburban areas? Sustainable settlement structures thanks to efficient use of existing building site contingencies in the Wienerwald BR	*Musil R.; Pindur, P.*	*2009*
Recording the occurrence of moss species as per Annex II of the Habitats Directive and recording the moss flora of urban Vienna by means of random sampling	*Zechmeister, H.*	*2009*
Viticultural landscapes along the line of thermal springs and in Vienna	*BPWW Management GmbH*	*2008*
Integrated Sustainable Wildlife Management - ISWIMAB	*Reimoser F., et. al*	*2008*
ADAPT – Assessing the vulnerability of woodlands/forests owned by the Austrian Federal Forestry Authority, with regard to climate change and development of adaptive management strategies	*Lexer, M.*	*2008*
Patches of natural forest	*Milasowszky, N., et. al.*	*2008*
Occurrence and endangered status of underwing moths (gen. Catocala spp.) (Lepidoptera, Noctuidae: Catocalinae) in Vienna	*Schulze, Ch.*	*2008*
Sustainable woodland biomass management	*Sauberer, N. et al*	*2007*
Monitoring of air pollutants using mosses in the Wienerwald BR	*Zechmeister H. et al*	*2007*

Research Project Title	***Author(s):***	***Completion or Reporting Year (for projects in progress, year of project start or the year of last survey)***
Sustainable suburbanisation? Development trends and control mechanisms for settlement activities in the Wienerwald BR	*Musil R.;, Pindur, P.*	*2007*
Ural owl (Strix uralensis), re-introduction	*Zink, R. et al*	*2007*
Deadwood succession – Life in Deadwood	*BPWW Management GmbH, ÖBf AG, Forstamt der Stadt Wien (MA49)*	*Project started in 2007*
Recording and estimating the conservation status of mussels and river crab species as per Annex II, IV and V under the Habitats Directive, and as listed in Vienna's nature conservation regulations.	*Ofenböck, Th.*	*2007*
Guide for research and monitoring in the Wienerwald BR	*Kirchmeir, H.; Zollner, D.*	*2006*
The Great Capricorn beetle, Cerambyx cerdo Linnaeus 1758, in Lainzer Tiergarten	*Zabransky, P.*	*2006*
The Small eggar moth in Vienna	*Höttinger, H.*	*2005*
Survey of butterflies in Lainzer Tiergarten	*Pendl, M.; Bobits, H.*	*Surveys 2004-2005*
Outcome of breeding bird monitoring in the trial areas of Wien-Kalksburg in 2005	*Donnerbaum, K. et al*	*2005*
Possibilities of biological control of the Oak processionary moth.	*Schopf, A.*	*2005*

Furthermore, numerous diploma, masters, seminar and baccalaureate studies were backed, accompanied or supported financially by a contribution to the printing costs (e.g. 'Geocaching und Naturschutz im Biosphärenpark Wienerwald', 'Einfluss des Geophytenzyklus auf die Nährstoffe eines Fließgewässers').

2.4.7 **How have collective capacities for the overall governance of the biosphere reserve (e.g. organization of new networks of cooperation, partnerships) been strengthened?**

In the course of various projects, new networks were established and existing ones were expanded. Some of these are firmly established networks where exchanges take place at regular meetings on a specific subject or for a specific purpose; and some of the networks came about because individuals had worked together closely on specific projects and subsequently maintained casual links as co-operation partners.

Among the firmly established networks are e.g. the BR partner businesses (cf. 5.3), the BR Ambassadors (cf. 7.5), the Wienerwald Climate Alliance (cf. 5.3), the BR's education partners (cf. 5.9) and the 'Rauchkogler' Association (cf. 5.4). New co-operation contacts have been made e.g. through the process 'Zukunftskonzept Biosphärenpark Wienerwald 2020' (Wienerwald BR 2020 Vision) (cf. 7.7.2).

2.4.8. **Please provide some additional information about the interaction between the three zones.**

In some projects, links between the various zones of the Wienerwald BR are explored or examined.

With regard to the research projects entitled 'Totholz' (deadwood), 'Totholzsukzession' (deadwood succession) and 'Nachhaltiges Waldbiomassemanagement' (sustainable woodland biomass management) explorations are carried out either in core zones or in commercial forests of the buffer zone or transition zone. The outcomes of the research are analysed to see to what extent the results from one zone can be applied to the other (cf. 4.2 and 5.3).

Another example is the landscape conservation work of the 'Rauchkogler' association, the market town of Pfaffstätten, the "Verein der Freunde der Perchtoldsdorfer Heide" , the City of Vienna Department of Forestry and Agriculture, the FUER association in Königstetten, the BPWW Management GmbH and many other organisations, which takes place mostly in the buffer zone but has a model effect for activities in the transition zone (cf. 5.4).

The BPWW Management GmbH's educational work is focused on raising awareness for sustainable development and takes place mostly in the buffer and transition zones. This work has an effect on all three zones in terms of changes in consciousness and behaviour. In the sense of a model region for sustainable development, many initiatives in the core and buffer zones bring about changes in behaviour which also impact the transition zone. For example, the 'meadow master – meadow partner' project which takes place mostly in the buffer zone (e.g. by means of field trips to meadows or identification of species-rich meadows), has an enormous model effect on the transition zone thus influencing visitor behaviour, and consumption behaviour in terms of the purchase of sustainable regional products while also impacting on the management of habitats.

Likewise, the initiative 'Wirtschaft und Natur' (economy and nature) creates links among the three zones. On one hand, measures are determined by businesses, in co-ordination with experts, regarding the buffer and transition zones; on the other, awareness is raised for the importance of core zones and the behaviour in nature which can, in turn, influence the behaviour and management in the other two zones (cf. 5.7).

Apart from the wide range of projects and activities and their impacts on the three zones, certain animal species also use all three zones depending on their habitat needs at various stages of

their life or development. From an ecological viewpoint, any changes in one of the three zones therefore impact on the other two. One example is the clouded Apollo butterfly (Parnassius mnemosyne). In its butterfly form it forages on extensively managed meadows but deposits its eggs in selected types of woodland which are the caterpillars' habitat.

2.4.9 **Participation of young people. How were young people involved in the organizations and community decision-making processes? How were their interests and needs considered within the biosphere reserve? What are the incentives or programs in place to encourage their participation?**

In the literature, participation is defined as a process which can take place at four different levels of intensity: information, consultation, co-determination and self-administration. Over the past ten years, the participation of young people in the Wienerwald BR took place predominantly at the levels of information and consultation.

Children and adolescents were approached in the course of the dissemination of information and educational work. The BPWW Management GmbH offers for example a free lesson to each primary school in the communities of Lower Austria.

As part of the projects 'Wiesenmeister-Wiesenpartner' (cf. 5.3) and 'Tag der Artenvielfalt' (Biodiversity Day) (cf. 6.5.1) there are specific lessons and field trips on offer for the communities/districts concerned. Furthermore, guided walks specially for children and adolescents are offered e.g. by the Verein der Freunde der Perchtoldsdorfer Heide, the Forstamt der Stadt Wien and the Verein FUER.

The BR Game was developed to introduce pupils between the ages of 7 and 15 in a playful way to the goals and tasks of a biosphere reserve. In connection with the school twinning project, opportunities are explored for exchanges with schools in other biosphere reserves (cf. 6.4).

As early as 2005 a folder with teaching materials for teaching staff was collated on the subject of biosphere reserves for 7- to 15-year old pupils and distributed to schools in the region (cf. 6.4).

Apart from presentations at universities and colleges, numerous guided walks are held for student groups dealing with specific subjects, which since 2014, in conjunction with the Biosphere Volunteers project, can, on request, also be combined with join-in campaigns such as conservation of dry grassland involving volunteers.

Children and adolescents have been vital participants in two projects conducted in the BR in recent years:

- *Nut hunt in the BR: an extraordinary species-conservation project for the benefit of the hazel dormouse. The aim is to find out, with the help of many young explorers, where in the Wienerwald the hazel dormouse occurs and how endangered it is (cf. 4.2).*

- *The competition entitled 'Natur zum genießen' (Nature to be savoured) challenges young people to ask their parents and grandparents for ancient recipes containing edible wild plants (cf. 2.3.6). In the course of a follow-up book project entitled 'Vielfalt genießen' (Savouring Diversity) the recipes selected were cooked jointly with the young people (cf. 2.3.3).*

The BR region has, e.g. in some BR districts of Vienna, its own children's and youth parliament in which interested youngsters can plan and develop their own tangible ideas and visions for

'their' district and discover new entry routes into politics. In consultation with the competent political establishment of the district, their ideas can be tested for implementability, and tangible measures for actual implementation can be determined (cf. e.g.): http://www.wiengestalten.at/kinder-und-jugendparlament-waehring/).

3. ECOSYSTEM SERVICES:

3.1 If possible, provide an update in the ecosystem services provided by each ecosystem of the biosphere reserve and the beneficiaries of these services.

(As per previous report and with reference to the Millennium Ecosystem Assessment Framework and The Economics of Ecosystems and Biodiversity (TEEB) Framework (http://millenniumassessment.org/en/Framework.html and http://www.teebweb.org/publications/teeb-study-reports/foundations/)).

Forest	***Ecosystem services***		***Beneficiaries of the services***
	Supporting services (ecosystem services that are necessary for the production of all other ecosystem services)	*Nutrient dispersal and cycling*	*Forestry*
		Seed dispersal	
		Primary production	
	Provisioning services (products obtained from ecosystems)	*Pharmaceuticals, biochemicals and industrial products*	*Pharmaceutical industry, energy providers, households*
		Biomass fuels	
	Regulating services: 'benefits obtained from the regulation of ecosystem processes'	*Carbon sequestration and adaptation to climate change*	*Forestry, beekeepers*
		Crop pollination	
		Pest an disease control	
	Cultural services: 'non-material benefits people obtain from ecosystems through spiritual enrichment, cognitive development, reflection, recreation and aesthetic experiences'	*Cultural, intellectual and spiritual inspiration*	*Communities, universities, research institutes, tourism operators*
		Recreational experiences (including ecotourism)	
		Scientific discovery	

Arable land	***Ecosystem services***		***Beneficiaries of the services***
	Supporting services	*Nutrient dispersal and cycling*	*Farmers*
		Seed dispersal	
		Primary production	
	Provisioning services	*Food, crops*	*Communities, farmers, pharmaceutical industry, energy providers*
		Pharmaceuticals, biochemicals and industrial products	
		Biomass fuels	
		Crop pollination	
	Cultural services	*Cultural, intellectual and spiritual inspiration*	*Communities, universities, research institutes, tourism operators*
		Recreational experiences (including ecotourism)	
		Scientific discovery	

Vineyards	***Ecosystem services***		***Beneficiaries of the services***
	Supporting services	*Nutrient dispersal and cycling*	*Wine producers*
		Seed dispersal	
		Primary production	
	Provisioning services	*Food, crops*	*Communities, wine producers*
	Regulating services	*Carbon sequestration and adaptation to climate change*	*Wine producers, communities*
		Purification of water and air	
		Crop pollination	
		Pest and disease control	
	Cultural services	*Cultural, intellectual and spiritual inspiration*	*Communities, universities, research institutes, tourism operators*
		Recreational experiences (including ecotourism)	
		Scientific discovery	

Grassland	***Ecosystem services***		***Beneficiaries of the services***
	Supporting services	*Nutrient dispersal and cycling*	*Farmers*
		Seed dispersal	
		Primary production	
	Provisioning services	*Food*	*Communities, farmers, energy providers*
	Regulating services	*Carbon sequestration and adaptation to climate change*	*Farmers, communities, beekeepers*
		Purification of water and air	
		Crop pollination	
	Cultural services	*Cultural, intellectual and spiritual inspiration*	*Communities, universities, research institutes, tourism operators*
		Recreational experiences (including ecotourism)	
		Scientific discovery	

Body of flowing water	***Ecosystem services***		***Beneficiaries of the services***
	Supporting services	*Nutrient dispersal and cycling*	*Farmers, fishermen*
		Seed dispersal	
		Primary production	
		Water supply	
	Provisioning services	*Fish, water*	*Communities, farmers, fishermen, energy providers*
		Hydro-power for Micro Hydro Units	
	Regulating services	*Adaptation to climate change*	*Farmers, communities, nature conservation*
		Corridor function	
		Flood prevention	
	Cultural services	*Cultural, intellectual and spiritual inspiration*	*Communities, universities, research institutes, tourism operators*
		Recreational experiences (including ecotourism)	
		Scientific discovery	

3.2 **Specify if there are any changes regarding the indicators of ecosystem services that are being used to evaluate the three functions (conservation, development and logistic) of the biosphere reserve. If yes, which ones and give details and update**.

We are not aware of any changes.

3.3 **Update description on biodiversity involved in the provision of ecosystems services in the biosphere reserve (e.g. species or groups of species involved).**

Neobiota:
Invasive species such as Tree of Heaven (Ailanthus altissima) and Japanese knotweed (Fallopia japonica) are on the advance in the Wienerwald. Owing to their dominance and rapid spread, the diversity of plant species and thus the resilience of native ecosystems is reduced. For example, Japanese knotweed tends to destabilise the sloping banks of minor rivers in the Wienerwald BR thus preventing the development of natural tree vegetation. In the long term, also the Tree of Heaven might cause economic damage owing to its tendency to displace high-value trees such as oak or beech.

Organic farming:
An increase in organic agriculture and viticulture has been observed over the years since foundation of the Wienerwald BR. Apart from businesses which have already converted their production methods or which are in the midst of the conversion process, there is an increasing number of farmers/vintners who are confronting the subject, weighing up the pros and cons, and in some cases consult BPWW Management GmbH. It fits well with the extensive sustainability strategies practised by biosphere reserves, that there is clearly an upward tendency in conversions to organic production in Wienerwald farms.

Rehabilitation of habitats:
In the course of projects such as 'Trockenrasenpflege' (cf. 4.2), 'Trockensteinmauerbau' (cf. 2.3.5) and 'Obstbaumaktion' (cf. 4.2) habitats which have become rare or which are threatened in various parts of the region, have been restored or newly created. Furthermore, there are numerous projects organised by other stakeholders such as the renaturation of Liesing in Vienna or the revival of an orchard meadow on the Feilerhöhe in Purkersdorf.

3.4 **Specify whether any recent/updated ecosystem services assessment has been done for the biosphere reserve since its nomination/last report. If yes, please specify and indicate if and how this is being used in the management plan**.

The data on the natural environment required for BR designation was compiled on the basis of existing reports and examinations. However, in order to be able to compare the biosphere reserve's impacts on nature in the region in the course of years or decades, it is necessary to collect baseline data for later comparisons. Consequently the following projects were carried out over the past few years: 'baseline monitoring in the core zones', 'securing evidence and biodiversity monitoring in the core areas', and 'open-space surveys', as well as the 'water body monitoring project' (cf. 4.2); (original titles: 'Basismonitoring in den Kernzonen', 'Beweissicherung und Biodiversitätsmonitoring in den Kernzonen', 'Offenlanderhebung' and 'Gewässermonitoring').

THE CONSERVATION FUNCTION:

[This refers to programmes that seek to protect biodiversity at landscape and site levels and/or ecological functions that provide ecosystem goods and services in the biosphere reserve. While actions to address this function might be focused on core area(s) and buffer zone(s), ecosystem dynamics occur across a range of spatial and temporal scales throughout the biosphere reserve and beyond.]

4.1 Significant changes (if any) in the main habitat types, ecosystems, species or varieties of traditional or economic importance identified for the biosphere reserve, including natural processes or events, main human impacts, and/or relevant management practices (since the last report).

In line with Article 17 Habitats Directive, the 2007-2012 report issued for Austria in general makes the following statement with regard to changes in habitat types and species:

> *"Trends – the development tendency in terms of distribution areas is, compared to the trends of other parameters, in many cases stable, with a minimal downward tendency. Compared to legally protected assets, trends for habitat types appear to be more favourable than trends for species.*
>
> *Conservation status at the biogeographical level:*
> *Both in terms of species and habitat types, the proportion of legally protected groups in a favourable conservation state is higher in the alpine region than in the continental region. The assessment of habitat types in the continental region is particularly unfavourable, as just under half of these habitat types fell into the worst category (unfavourable-poor).*
>
> *Assessment by groups and ecosystems:*
> *A comparison of animal groups in the biogeographical regions demonstrated the highest need for action with regard to beetle species in the two biogeographical regions. Furthermore, there is urgent need for action with regard to fish and crabs in both regions. Comparatively speaking, the most favourable conservation status was observed in both regions for mammals from the groups of ungulates, rodents and predatory animals whereas the conservation status of bats is slightly worse.*
>
> *… In the continental region the protected components of ecosystems are in a poor conservation status throughout, with heaths and scrub, moorlands and grassland faring worst. The report under Article 17 also names the legally protected groups as most affected by adverse impacts. In this context, hydraulic engineering measures are examples of impacts on freshwater habitats, while the extraction of sand and gravel as well as water pollution were identified as major causes of poor conservation status. With regard to moorlands, the most detrimental impacts were caused by grazing, fertilisation, succession, changes to the hydrological regime and afforestation, while for grassland areas, adverse impacts were caused by the abandonment of land use (natural succession), fertilisation, afforestation and intensive grazing." (Umweltbundesamt, 2013: Report on Austria according to Art. 17 Habitats Directive, Reporting period 2007-2012).*

Apart from these general trends for Austria, favourable changes have been observed in the Wienerwald BR, induced by various projects which helped to restore or recreate a variety of threatened or rare habitats.

Woodland:
By taking the core zone areas of more than 5,500 ha out of commercial use, the foundations were laid for creating the 'virgin forests' of tomorrow. The core zones have a considerable amount of deadwood which provides valuable habitats for diverse organisms. Veteran trees are equally important, because their structural complexity provides habitat for bats and beetles which live in duff.

Open-space land:
With the help of the project 'Dry grassland conservation' (cf. 4.2), it was possible, for instance, to increase the dry grassland area along the line of thermal springs by 10%, by means of clear-felling and scrub removal. The re-introduction of sheep grazing, organised with the aid of BPWW Management GmbH, and the conservation work carried out by volunteers, make significant contributions to keeping these important areas open. The courses on 'drystone walling' (cf. 2.3.5) helped in recent years to create 200 meters of valuable habitat e.g. for the Green lizard (Lacerta viridis). The Fruit Tree Campaign (cf. 4.2) made it possible to plant more than 5,000 trees derived from ancient and endangered fruit tree and hedge shrub cultivars. Furthermore, there are numerous projects such as the renaturation of Liesing in Vienna or the revival of an orchard meadow on the Feilerhöhe in Purkersdorf, which contribute to the enhancement of habitats and species diversity.

4.2 **Describe the main conservation programmes that have been conducted in the biosphere reserve over the past ten years as well as current on-going ones. Note their main goals and the scope of activities, e.g. biotic inventories, species-at-risk, landscape analyses, conservation stewardship actions. Cross reference to other sections below where appropriate.**

BPWW Management GmbH is unable to make available any nature conservation programmes of its own, not only due to budgetary constraints, but also because such programmes are already offered and utilised at both EU level, national and federal level. However, numerous third-party projects have been supported by BPWW Management GmbH in the past, either in terms of logistics or personnel, or by means of knowledge transfer.

The most important funding programme in the Wienerwald BR is the programme of the European Agricultural Fund for Rural Development (EAFRD) . This is the route which is used to finance most projects of BPWW Management GmbH, as it can also be used to finance actual implementation and educational activities.

Of particular importance for research projects is the MAB research programme which is co-ordinated by a MAB National Committee located at the Academy of Science and financed by the Federal Ministry of Science, Research and Economics.

Over the past ten years, the following (research) projects on these and other funding programmes under the Conservation Function were financed:

Woodland:

Management plans for the core zones in Vienna and Lower Austria:
Management plans are a basic requirement for the implementation of conservation processes in the Wienerwald BR. The requisite data was researched, management objectives and management actions were laid down and an efficient management tool was developed. This enabled us to fulfil the basic requirements for optimal implementation thus providing assistance and information for the players concerned (e.g. government agency, landowners of the core zones,

community). The inclusion of the relevant players in the overall process was an essential requirement in achieving acceptance and it was also crucial for a successful implementation.

In practice, this involved creating a guide for the establishment of management plans and for carrying out management activities in the core zones. Baseline data was collected, and this served as a basis for deriving management objectives and measures for individual core zones. An analysis was carried out of all tracks through the core zones, identifying those that were surplus to requirements and establishing procedures for renaturation by removing or reducing the extent of some of the tracks. Likewise, a survey was carried out with regard to the infrastructure in use for hunting, and procedural decisions were made in this respect.

One sub-project was concerned with a management tool for the efficient, transparent and structured handling of management actions with a strong focus on including the competent government agency and landowner. The web-based solution gave all parties concerned access to this tool thus facilitating ease of communication. Information on the core zones can be downloaded (subject to authorisation). Proposed actions are entered in a straight-forward and structured manner. Release, start and completion of the management action are communicated via this tool. The parties involved can check at any time whether the action is planned, in progress or completed.
The management plans for the core zones in the Wienerwald BR provide a well-defined framework for management actions in these core zones. It is easy to see which actions and measures are proposed to be carried out and which ones are not going ahead in the core zones. Applications for exemptions from legal regulations on conservation matters are to be limited to special cases.

Baseline monitoring in the core zones of the Wienerwald BR:
In order to create a solid data resource, baseline surveys were conducted in all core zones of the Wienerwald BR to establish their actual condition. This kind of 'stock-taking' forms the basis for current and future research projects.

The surveys were carried out by means of the random sampling method. This involved the collection of data at sampling points arranged within a grid pattern, which was then extrapolated to the total area. The following parameters were surveyed in the process: tree species present, age, height and diameter of the trees as well as the ground flora and the presence of deadwood.

This regular monitoring at intervals of approx. 10 years allows us to establish and document the extent to which the core zones are changing. The report on core zone monitoring is available for download at www.bpww.at.

Safeguarding and monitoring biodiversity in the core zones of Vienna and Lower Austria
In line with the goals laid down by UNESCO, the core zones of the Wienerwald BR are designated to conserve biological diversity, to monitor ecosystems exposed to anthropogenic disturbance and to implement research projects. Through conservation by non-intervention in natural processes, it is hoped that these areas will become the 'virgin forests of tomorrow'. Since 2003, there has been no commercial forestry on these sites. In order to obtain evidence and to establish long-term records of changes in biodiversity (thus fulfilling UNESCO's research objectives), ***biodiversity monitoring*** *was introduced by BPWW Management GmbH in 2012 - on completion of the contiguous mapping of vegetation communities in the core zones in 2011. This includes research on a total of 13 groups of organisms at selected sampling points in the core zones. For the purpose of comparison, sampling points were also set up in commercially*

managed forests. Recording in conjunction with biodiversity monitoring first began in the years 2012 and 2013 respectively. The survey included: mosses, cormophytes, lichens, fungi, land snails, spiders, craneflies, pseudoscorpions, ground beetles, deadwood beetles, amphibians, birds and bats. In order to provide explanatory habitat parameters, the research included detailed surveys on deadwood and on the structure of forest stands.

Sustainable wildlife management:
In conjunction with the project entitled 'Integrative, sustainable wildlife management in the Wienerwald BR', criteria and corresponding indicators were developed for the sustainable management of wildlife and their habitats. In addition, actions were derived for the purpose of minimising any conflicts of use. For the entire duration of the project all interest groups and user groups were included in the development process.

The criteria and indicators established enabled interested parties in agriculture and forestry, the leisure and recreation sector and hunters, to assess their own actions in terms of sustainable wildlife management and its requirements. The insights thus gained are to be used for deriving and implementing purposeful measures.

Re-introduction of the Ural owl in the Wienerwald BR and the Dürrenstein Wildnisgebiet (wilderness):
Since 2007 the re-introduction of the Ural owl has been conducted under the guidance of a team of researchers of the Forschungsinstitut für Wildtierkunde und Ökologie (Research Institute for Game Biology and Ecology) of the Veterinärmedizinische Universität Wien (Institute of Veterinary Medicine, Vienna). The goal is to achieve the comeback of this large owl to the forests of Austria where, owing to habitat losses and illegal shooting, the species became extinct in the middle of the 20th century. Thanks to the designation of protected areas and gradual conversion to sustainable woodland management, the living conditions for the Ural owl have improved.

In the light of these findings, an international delegation of experts recommended the re-introduction project in autumn 2006. The release sites selected were the protected areas of the Wienerwald BR and the 'Wildnisgebiet Dürrenstein'. These ecologically highly valuable woodland areas offer these 'newcomers' optimal chances of survival. The aim was to create mini-populations for re-colonisation of the areas surrounding release sites in the Wienerwald BR and the Wildnisgebiet Dürrenstein, and to develop links with existing populations abroad, as well as to achieve the conservation of Ural owl habitats. If it is possible to resettle the species in the Austrian part of the Alps, there might be a chance of linking these populations with those south (Slovenia, Italy) and north (Germany, Czech Republic) of our Alpine republic. The migration of owls between the populations would fulfil a useful purpose in maintaining gene flow within the European metapopulation thus safeguarding the survival of this rare species.

The method for releasing the young Ural owls has been tried and tested in the Bayrische Wald National Park where re-introduction has succeeded and the species has been reproducing successfully since the 1970s: The juvenile birds and their parents were first transferred to re-introduction enclosures located exactly where they were going to be released. In late summer, the enclosures were partitioned and the juvenile birds released to make their home in the surrounding habitat while the parent birds were kept behind in the enclosure to make the young birds bond firmly with the local area. In order to assess the project's progress, continuous monitoring of the released birds was absolutely vital. The owls were therefore fitted with transmitters. This ensured that it was possible to know at all times where the birds were.

Furthermore, a high-tech nestbox system was installed. This way it was possible to check birds easily during the breeding season. Since the project started 100 Ural owls were successfully set free and 39 outdoor breeding successes were documented.

BIOS – Regeneration and Deadwood Dynamics in Beech- and Oakwoods
The initiation of natural regeneration is one of the most important but also most difficult tasks in the management of semi-natural forests. The extent of benefit from light absorption has a major impact on the regenerative success of beechwoods and oakwoods. With the project started in late 2012, BOKU (University of Natural Resources and Life Sciences) contributed to resolving the question in what way regeneration interventions ought to be dealt with. To this end, mature beech and oak stands in the core zone areas of the BR were examined for regenerative success under a great variety of light-ecological conditions.

Some of the core zones which are exempt from commercial use, changed very rapidly. Especially wind-throw resulted in massive accumulations of deadwood in some of the core zones. Apart from regeneration issues, researchers also looked into temporal changes and the decomposition dynamics of deadwood. In order to observe and make scientific records of the natural decomposition of wood, a deadwood decomposition trial was set up outside the core zones. In addition, deadwood from beech trees and oak trees was examined in the BR's core zones. The purpose was to improve the assessment of the age of deadwood in various stages of decomposition, and to explore the impact of various deadwood conditions on the decomposition process.

The outcomes from research into the progress of regeneration in core zones were compared with outcomes from beechwoods and oakwoods managed in different ways. The purpose was to improve silvicultural management and regeneration concepts for beech and oak in the Wienerwald. The project was carried out by the Institut für Waldbau in co-operation with the BPWW Management GmbH and the Austrian Federal Forestry Authority (ÖBf AG).

Deadwood succession – Life in Deadwood

In the course of this Wienerwald BR project, in Co operation with Forstamt und Landwirtschaftsbetrieb der Stadt Wien (MA 49) and ÖBf AG, the wood is sampled several times a year over an observation period of 10 years, trapping, collecting and identifying beetles and fungi respectively.

While decomposing, wood is colonised by a range of fungi and insects. Many of these are rarities, as their habitat – the wood from old, strong trees – is not easy to find nowadays, owing to hundreds of years of woodland management. It is largely unknown in which order fungi and insects occur in the course of years and centuries and how they process the dead and dying wood. The core zones of the BR which are now free from regular commercial forestry are therefore ideal for this research.

The samples evaluated so far indicate 131 beetle species which can be assigned to 48 beetle families. Notably, 14 of these species are on the Red List of Endangered Species for Austria. As far as fungi are concerned, it has been possible so far to identify 63 deadwood-dependent species in the core area of Mauerbach alone. As far as the sequence of fungi is concerned, experts have already been able to clearly identify a succession of certain species of fungi. The first phase of extensive analyses of the core zone 'Johannser Kogel' has been completed; it has produced remarkable results.

Beech bark beetle

In co-operation with the Austrian Federal Forestry Authority and the Ausbildungszentrum für Wald (Woodland Research and Education Centre), we examined the question whether the changing climatic and economic terms of reference indicate that increased damage to beech forests is to be expected in future. One outcome of the survey was that for the time being, no mass reproduction of the beech-bark beetle in the BR has been observed.

Since 2006 there have been several sightings in the Wienerwald of beechtree crowns dying; it had been speculated that this might have been caused by the beech-bark beetle. Disaster scenarios as experienced in the Bayerische Wald had led commercial forest managers to fear that the untouched core zone areas might have become a source of infestation with beech-bark beetle for the adjacent commercial forests.

Six trial areas – including four core zone areas – were examined for pre-existing mechanical damage as well as symptoms of disease or infestation in root collars, tree trunks and crowns. Analyses were made in particular of the species composition and abundance of the beech bark beetle. The analyses focused mainly on Taphrorychus bicolor. In the course of the three-year duration of the project, no infestation was found in standing timber, neither in the trunk area nor in the branches, not even in the trial areas which contained major quantities of wind-throw suitable for breeding. Even considerably weakened beeches either showed no signs of infestation or they were able to withstand attempts of beetles trying to penetrate their bark. Some wind-thrown beeches were found to be infested by beech agrilus (Agrilus viridis) and by bark beetles which breed both in wood and bark of fallen trees. Such infestations were not found to spread to adjacent beeches.

Soil monitoring

A number of questions were explored in connection with the project: e.g. which properties are linked with which soil types, what are the changes in availability of water to plants, and how good is the nutrient supply in various locations?

This and several other data gained in the course of conducting the soil monitoring project, contains important information for conservation and forest management. The soil data will make it possible to draw inferences regarding the potential natural vegetation. The surveys already under way in the core zones will be enhanced by data from the commercial forests managed by the Austrian Federal Forestry Authority (ÖBf AG) thus ensuring a good general overview of the Wienerwald BR.

In terms of methodology, the project is based on the existing sampling network of core zone baseline monitoring. At some extant sampling points, the soil was analysed chemically both in situ and in the laboratory, in order to determine characteristics and composition. This extensive pioneering work in the Wienerwald BR provides the foundation for long-term monitoring of soils.

Patches of natural forest
In conjunction with this project, spiders and ground beetles were explored in natural forest patches in the Irenental. This made it possible to carry out an assessment on the basis of ecological criteria.

Natural forest patches are areas of woodland in sizes of one hectare and more, which have been taken out of commercial management voluntarily, where the woodland ecosystem is allowed to evolve largely without human influence. In the Wienerwald, the first areas of this kind were set up as much as 20 years ago. Natural forest patches can make a valid contribution towards the conservation and natural evolution of biodiversity in the forest.

Nut hunt in the BR – on the trail of the hazel dormouse
Hazel dormice are difficult to find, as they are no bigger than a thumb and live mostly in dense undergrowth. Its secretive life style means that there is hardly anything known about this small mammal.

The Wienerwald BR and its project partners, the Forschungsinstitut für Wildtierkunde und Ökologie and the Austrian Federal Forestry Authority (ÖBf AG) jointly initiated an extraordinary species conservation project for the hazel dormouse. With the assistance of local inhabitants, foremost among them children and adolescents, it was possible to establish where the hazel dormouse occurs in the Wienerwald and to what extent it is endangered. Hazelnuts with characteristic tooth marks provided telltale signs of the presence of these rodents. Children and adolescents were invited to take part in the quest.

Wildcats in the Wienerwald BR?
For centuries, wildcats were part of the native fauna. However, there have not been any sightings of wildcat in the Wienerwald although it would seem to offer optimal habitat conditions. The core zones, in particular, would offer sanctuaries to the wildcat for rearing its young. Besides, a habitat study was commissioned by the Nature Conservation Organisation and supported by the Austrian Federal Forestry Authority.

A 'stocktaking' project conducted in close co-operation with the Austrian Nature Conservation organisation, Austrian Federal Forestry Authority and BPWW Management GmbH and with support from other members of 'Plattform Wildkatze' was carried out in order to enhance our knowledge about the wildcat in the Wienerwald, and to inform the region's inhabitants on wildcat matters. Of special importance was the inclusion of hunting partners.

With the aid of 26 lures (e.g. roughly sawn wooden posts infused with valerian tincture), installed to collect hair samples for genetic analysis, attempts were made to prove the existence of wildcats in the region. However, no such evidence was found at any stage of the research project.

Deadwood succession in Lainzer Tiergarten:
Lainzer Tiergarten, including the Johannser Kogel, is a virgin forest sanctuary of European significance known for its size, age structure, traditional habitat, partly park-like tree structure and a high proportion of old trees as well as both standing and fallen deadwood in large dimensions.

Especially at the planar and colline levels of Central Europe, such habitats just do not exist any more, which may be the reason why a very large proportion of the beetle zoonosis researched is endangered, both supraregionally and nationally. The area is a nature reserve, a natural monument, a forest reserve and a core zone of the biosphere reserve.

Even so, it is questionable whether the function and significance of this area for species occurring in ancient deciduous forests can be maintained in future. This is due to the high density of wildlife which has existed here for a very long time and has prevented oak regeneration for approximately 250 years. The trees are senescent, and therefore it seems vital to incorporate adjacent, younger oak stands in long-term conservation schemes, based on the knowledge that the accessibility of these trees is hampered by the limited flight capacity of saproxylic beetles.

In the course of natural succession, the fallen tree giants will in time be shaded, the micro-location will become shadier and moister thus accelerating the decomposition of wood. As a result, highly endangered saproxylic organisms will lose the substrate which is essential for their development.

It is therefore important to ensure that standing deadwood is kept as long as possible in an upright position where it can be exposed to sunlight. Relief cuts in treetops, as practised in the region in order to keep trees standing upright, therefore play an important conservation role in the area, by virtue of extending the period of availability of sunlit deadwood. Targeted tree surgery as part of track maintenance does not necessarily counteract this goal. On the contrary, if carried out appropriately, it can even provide potentially high-quality habitats for those highly endangered species. Of further benefit is a targeted regeneration of oaks which should be carried out in concert with targeted control of browsing mammals. The aim is to foster the development of stronger oak trees in the course of natural regeneration.

Open-space land:

Open space survey:
In order to obtain a consistent and technically reliable basis for a targeted conservation of the cultural landscape in open-space biotopes – and supplementary to the contiguous mapping already carried out for the Viennese part of the BR – the BPWW-Management GmbH carried out a contiguous biotope mapping of all open-space areas in the Lower Austrian part of the BR, as this had not been done consistently in the past. In principle, the categorisation of biotope types was based on the typology and terms of reference laid down in the list of endangered biotope types in Austria, and more detailed definitions were generated for some of the biotope types in the Wienerwald. At the same time, the open-space habitat types under the Habitats Directive, according to the terms of reference used by Ellmauer et al. in 2005 (development of criteria,

indicators and threshold values for assessing the condition of assets designated under Natura 2000) and their conservation were surveyed.

This means that, for the first time ever, the open-space habitat types under the Habitats Directive have been identified contiguously for the Natura2000 area of 'Wienerwald – Thermenregion' (Wienerwald region of thermal springs). In addition, zoological surveys were carried out with a focus on numerous fields (e.g. birds, grasshoppers, amphibians and reptiles). This is of particular importance for biotopes which from a botanical point of view may not contain any rarities; however, their structure and abiotic habitat parameters may provide extremely valuable habitats for rare and protected animal species (e.g. extraction sites such as stone quarries or gravel tracks and abandoned railway lines). Depending on the value and condition of such areas, some were defined as priority areas and others as areas in need of action or as areas which might benefit from campaigns initiated by BPWW Management GmbH involving volunteers from the population. With regard to priority areas, the BPWW Management GmbH, in co-operation with the conservation agency of the Federal State of Lower Austria carried out a consultation with farmers in 2014 counselling them on a transition to the ÖPUL conservation programme (an Austrian programme for eco-compatible agriculture) with a view to safeguarding the relevant areas by long-term contract-based conservation (cf. 5.3).

The mapping outcomes now also provide an essential basis for optimising the buffer zoning, enabling us to nominate valuable open space areas which have not so far been designated as buffer zones. Concurrently, discussions were held with experts from Germany, examining potential starting points for developing a 'Landschaftskonto' (literal translation: 'Landscape Account') tool in Lower Austria, which is based on the following provisional definition: a tool for establishing potential substitution and compensatory measures for implementation at suitable sites within the region or landscape.

<u>Viticultural landscapes along the line of thermal springs and in Vienna</u>
One of the foremost goals of a UNESCO Biosphere Reserve is the conservation of valuable cultural landscapes, i.e. a landscape that has been shaped by human impacts. Even though the viticultural landscape in the Wienerwald is only a small proportion of the BR's surface area, with approx. 1,800 ha in the BR's communities and districts, it is characterised by the juxtaposition of two climate regions, which gives it a particularly high biodiversity making it particularly valuable in ecological terms.

Of special importance for the plant and animal communities is the historically evolved patchwork structure of the vineyards – often there are only a few lines of vines cultivated by a vintner. This means that small vineyard patches are often managed in quite different ways, as they tend to have a great variety of transitional structures such as escarpments, drystone walls, clearance cairns, fallow patches, copses, fruit trees and patches of dry grassland. In the course of mechanisation and intensification, many of these structures were lost in recent decades.

In 2008 the BPWW Management GmbH therefore initiated the detailed mapping of biotopes in viticultural and pasture landscapes in Vienna and Lower Austria. Overall, 4.664 hectares were mapped and 20,926 individual elements were identified and important characteristics were recorded within the course of one year. This data now forms the basis for diverse implementations in the area.

Pasture land formerly covered the slopes of the Wienerwald along the line of the thermal springs; only few of those pastures now remain. In most cases these are at risk from scrub

encroachment which would eventually lead to the loss of many rare species. The project facilitated the re-introduction of sheep grazing. In co-operation with an agricultural partner business, it has been possible to use a native breed of sheep (Krainer Steinschafe) for grazing, and to introduce the direct marketing of organic-pasture fed lamb. On one hand, this protects the land from scrub encroachment and on the other, it provides shepherds with essential pasture land as well as proceeds from marketing their high-quality lamb, reared on organically managed pastures.

Besides, the same project has sparked several other implementation projects such as the 'Rauchkogler' association (cf. 5.4) or the annual Fruit Tree Day (cf. 4.3).

Meadow saffron (Colchicum autumnale)
See 5.3.

Management and monitoring of meadows in the Natura2000 area of Lainzer Tiergarten
In 1999 trial plots were fenced in on three widespread and two rarer types of meadow in Lainzer Tiergarten, in order to test the evolution of these meadows at different intensities of hay-making – unaffected by any impacts from any abundance of wildlife.

This was done for the purpose of comparing the types of species composition and biomass production under the following management regime (NB: Austrian programme for eco-compatible agriculture):

- *one annual cut of hay at the ÖPUL-relevant cutting time (haymaking)*
- *Haymaking at the ÖPUL-relevant time every other year (rotational set-aside)*
- *No haymaking/cutting since 2000 (set-aside)*

There is a clearly noticeable change in the species composition as a function of the mowing frequency. Within only a few years, the number of species in the completely uncultivated plots declined to between half and a third of the original number of species. The process of decline was slowest in the dry meadow types (Brometum) where even after 12 years, more than half of the species originally present were still to be found, although there were only very few seedlings left. Plant species disappeared more quickly on fresh (Festuco-Trisetetum) and moist (Molinietum) meadows. A particular surprise was the loss of species on uncultivated purple-moor grass meadows. Given conditions of adequate moisture, purple moor grass produces immense amounts of biomass which in winter covers everything with a contiguous screen of litter.

Although rotational haymaking every other year slows down species decline, it cannot prevent it. The fresh and relatively nutrient-rich Trisetetum meadows tend to become rapidly dominated by the small reed which has a distinct sealing effect owing to its high production of biomass. This is why these areas demonstrated the comparatively fastest and in qualitative terms most distinct loss of species. Species of high fodder value (e.g. yellow oatgrass, meadow fescue) declined, as did perennial herbacious species. In moist purple-moor grass meadows the species loss in the rotational plots clearly progresses more slowly but still distinctly enough, resulting in a loss of roughly 25%, especially in terms of not very competitive growth-restricted plants. Even slower is the progress of loss in the rotational plots of dry bromegrass meadows (Brometum). Nonetheless, the average species loss builds up to 15-20% in the course of 12 years.

In virtually all fenced-in plots, the proportion of short-lived ruderal species declined markedly over the first 1-3 years, which is due to the fact that their strong presence in Lainzer Tiergarten

depends very much on regular disturbance by wild boar or intensive grazing. It can therefore be concluded that the fencing itself caused some of the change in species.

Research into the recruitment of 'new' meadow plants (emergence of seedlings) between 1999 and 2010 also showed distinctly that especially the new recruits among herbacious plants, but also most grasses, suffered significantly, both in the rotational plots and set-aside plots, from the heavy biomass production by a small number of typical set-aside plants (i.e. small reed, purple moor grass and lady's bedstraw). In regularly cut areas, germination rates are much higher than in rotational and set-aside plots, which compensates for the high mortality rates in those plots and results in an overall higher recruitment of herbs, grasses and annuals.

In conclusion, it can be said that completely uncultivated meadows, especially with regard to meadows with good water supply, will lead to very rapid loss of species. Species loss proceeds more slowly in drier meadows because the displacement effect exerted by biomass producers is less strong. A regime of haymaking every other year cannot prevent species loss. Even in dry meadows, almost 20% of the original species community would disappear within 10 years.

Meadow conservation in Vienna:
The meadows and pastures in the Viennese part of the Wienerwald BR are biodiversity hotspots and hence tangible proof that agricultural use and nature conservation can go hand in hand. As early as the 1990s, the meadows of the Wienerwald owned by MA 49 were mapped, and conservation plans were established. While haymaking is done by the farmer, the trees growing at the margins are cut back regularly by MA 49 thus conserving valuable meadow space.

Biodiversity Day – research part:
See 2.3.3

There's Life in the Steppe! – dry grassland conservation:
Under the motto 'Die Steppe lebt!' (There is Life in the Steppe!) numerous guided walks and conservation events were conducted in the most beautiful dry grassland areas, involving the public in some BR communities and districts. The project goal is the rehabilitation and conservation of these natural areas which are severely endangered even now.

Numerous rare and special animal and plant species, including the oxeye daisy, rose daphne, various orchid species, the impressive predatory bush cricket, the superb green lizard and many other species, live in the dry grassland biotope of the Wienerwald BR between Wien-Mauer and Bad Vöslau. Some species such as the Cantabrican morning glory, Zygina frauenfeldi (Lethierry 1890) or Paracaloptenus caloptenoides (Brunner von Wattenwyl 1861) are found in Austria exclusively along the line of thermal springs. Many dry grassland areas have disappeared since the Second World War owing to wood encroachment on abandoned meadows. The few remaining areas are often at risk from scrub or wood encroachment and hence in danger of disappearing. In order to conserve or rehabilitate these valuable habitats, BPWW Management GmbH, jointly with the communities of Baden, Bad Vöslau and Pfaffstätten and the Naturschutzbund NÖ (Lower Austrian conservation organisation), the City of Vienna Department of Forestry and Agriculture and the City of Vienna Department for Protection of the Environment, started a multi-annual project sponsored under the European Agricultural Fund for Rural Development (EAFRD). The project is supported by a newspaper called 'Niederösterreichische Nachrichten´ acting as media partner, and by Werkzeugfachmarkt Schumits acting as sponsor of the tools required by voluntary helpers.

An essential part of the project are the Conservation Days held annually every spring and autumn, under the guidance of the BPWW management GmbH and local technical advisors, e.g. in Pfaffstätten, Wien-Döbling or Perchtoldsdorfer Heide. The aim is to remove encroaching vegetation from dry grassland areas, and the event is open to all comers. More than 3,800 individuals and voluntary associations gave more than 9,000 working hours in the endeavour to conserve these valuable, species-rich areas. Clear-felling and removal of scrub and overhanging branches were additional measures that allowed us to increase the percentage of dry grassland along the line of thermal springs by a total of 10%.

Conservation of dry habitats in Mukental
The largest contiguous viticultural area in Vienna is located in Döbling (19th municipal district of Vienna), between Leopoldsberg and Sievering. The diverse cultural landscape which has evolved in the course of hundreds of years of management is being restored by the City of Vienna Department of Forestry and Agriculture (MA 49) and BPWW Management GmbH thus conserving important habitats for rare and endangered animal and plant species. Public Relations and the involvement of school classes and volunteers in helping to conserve these habitats, are aimed at making people understand the very real threats to nature on their own doorstep. In autumn 2011, the former dry grassland was mown, and scrub was cleared from stone walls thus creating natural hiding and breeding places for insects, reptiles and birds. Furthermore, the area is networked with other dry-habitat areas in the region.

Woodland and open-space land:

Amphibians in the Wienerwald BR:
All 20 native species of amphibians in Austria are on the Red List of Endangered Species for Austria and are strictly protected.

The terrestrial and aquatic habitats of amphibians are today fragmented in many cases by roads, insurmountable walls and housing estates, and separated from each other by numerous traps such as swimming pools, cellar wells and flights of stairs. To make things worse, there are still incidents where spawning pools are either filled in or stocked with fish which devour spawn and larvae. Even goldfish and red-eared sliders (Trachemys scripta elegans) constitute a major problem for amphibians, and the straightening of streams has removed many quieter parts from water courses, which used to be their habitats.

In the Wienerwald BR the amphibian biotopes were surveyed by means of GPS, and mapped accordingly. Initial results have shown that, in particular, artificially created biotopes play an important role in amphibian conservation. The Austrian Federal Forestry Authority already located 100 such small water bodies, and now they plan to explore also the areas owned by other landowners. By locating the spawning sites of Messrs Frog & Co. it is possible to create a baseline foundation for conservation projects in favour of this highly endangered group of animals. In conjunction with this project, an appeal was launched to private individuals, communities and road maintenance depots to take an active part in the project and to report on-line any amphibian sightings that come their way.

<u>Neobiota (non-indigenous species) in the Wienerwald BR</u>
In conjunction with this project, the issue of Neobiota is discussed both at a theoretical and a practical level. The aim is to apply various methods to curb giant hogweed and other neobiota in selected trial areas, to make information available for awareness-raising, and to work out a neobiota strategy jointly with BR partners. Since 2013, the MA 49 Department (Forstamt und Landwirtschaftsbetrieb der Stadt Wien) has been working on a project to control the Tree of Heaven (Ailanthus altissima) with the aid of a wilt-inducing fungus (Verticillium spp.) in designated areas, and this approach has already borne fruit.

In 2014 our objective to raise awareness among the inhabitants of the BR focused on the avoidance of invasive neobiota in gardening. In five information events, participants were told how they can support native biodiversity in their choice of plants for their gardens. An information brochure was handed out to reinforce the message conveyed on the occasion of these events.

<u>Echo location –Educational Echo</u>
The bat project entitled 'Echoortung – Bildungsecho' (echo location – educational echo) was part of an initiative entitled 'generation innovation', in other words, the promotion of young talent, taken by the Federal Ministry of Transport, Innovation and Technology, and produced a positive outcome after a duration of 1.5 years.

More than 400 pupils from six different schools in the Wienerwald BR got involved under the motto 'Quartiere suchen, Quartiere schaffen' (find roosts, create roosts) with regard to bat conservation and bat research. They carried out bat surveys in their own communities and took part in bat excursions accompanied by their parents or siblings. While the younger children constructed replacement bat roosts in various sizes from wooden boards, the older ones were given the opportunity to generate distribution maps with the aid of GIS (Geographical Information System) or they could opt to learn about the intricacies of ultrasound under the guidance of specialists in this field. The budding researchers were supported in their endeavours by the Institute for Landscape Development, Recreational and Conservation Planning (Institut für Landschaftsentwicklung, Erholungs- und Naturschutzplanung) and by the Institute of

Zoology of the University of Natural Resources and Life Sciences, Vienna (Universität für Bodenkultur, Wien).

In the course of the project, a workshop on constructing replacement roosts took place which was open to all interested parties. The participants received first-hand information from experts employed by the KFFÖ (Co-ordination Centre for Bat Conservation and Research in Austria) regarding the species occurring in the Wienerwald and also on opportunities to get personally involved in active bat conservation.

Amphibienschutzanlage (amphibian protection system) Exelbergstraße in Wien Hernals:
In the ecosystems of our planet, amphibians play an indispensable role. As predators of tree and crop pests they are indeed of incalculable value also to humans. It is therefore even more tragic that worldwide almost half of all species of amphibians are threatened by extinction. In Austria all native amphibians – from common tree frog to fire salamander – are on the red list of endangered species and therefore heavily protected. The area adjacent to the Exelbergstraße in Wien-Hernals harbours one of the largest and most significant accumulations of amphibians in the conurbation of Vienna. Ten different species occur in this area – that is no less than half of all native species. Apart from common toad, there are grass frog, agile frog and tree frog, newt and fire salamander present, and even a sizable population of the Italian crested newt (Triturus carnifex).

In order to conserve this very special diversity, voluntary helpers have worked tirelessly for 10 years using the fence-and-bucket-method. Over a distance of roughly one kilometer, up to 9,000 animals are carried across the road every spring. This initiative gave rise to the association 'Amphibienschutz Wienerwald' with the aim to do even more in future to counteract mass fatalities on the public highway. In 2009 the two first tunnels were completed as part of a modern, permanent amphibian protection system. On their migration, the animals are guided along barrier fencing to a tunnel underneath the Exelbergstraße taking them safely to the other side of the road.

The tunnel has been sponsored by MA 22 (Wiener Umweltschutzabteilung/City of Vienna Department for Protection of the Environment) which contributed roughly 80% of total costs, supplemented by sponsorship from Tiergarten Schönbrunn (the world's oldest zoo) and their association of friends (Verein der Freunde des Tiergarten Schönbrunn) as well as private sponsors.

Water bodies as vital lines in the Wienerwald BR (in process of planning):
Water courses provide major ecosystem services for humans, and they are important spaces for nature, recreation and commercial activities. They form an ecological network which spans the entire area, and because of their great importance, they are designated as buffer zones in many parts of the BR. Currently, the BPWW Management GmbH is conducting a project which involves a comprehensive survey of water bodies in the Wienerwald.

Once the extant knowledge on water bodies in the BR has been collated and the multi-functional and interdisciplinary stocktaking and assessment of surface waters (flowing and static water) and their special locations (sources, alluvial forests, tall perennial herb meadows) in the BR has been completed, an overall strategy for the future conservation and enhancement of the water bodies in the area as well as a long-term implementation plan for the BPWW Management GmbH and its co-operation partners (e.g. landowners, communities, clubs/associations, state administration etc) will be developed.

Extensive awareness-raising campaigns and educational activities, e.g. communities adopting water bodies, area-/community-specific presentations and exciting guided walks for the population in general and school children in particular, are to be held, with the aim to improve public awareness of the water-body biotope and its ecosystem services, and to arouse interest in the implementation of projects (e.g. voluntary helpers controlling neophytes, renaturation of degraded habitats) and to ensure that people understand the importance of taking good care of water bodies.

Economy:

Economy and Nature:
The initiative 'Economy and Nature' was started as a LIFE+ Project in 2014 and aims at raising awareness for the value of biodiversity and ecosystem services among businesses (cf. 5.7).

Sustainable woodland biomass management:
See 5.3.

4.3 **In what ways are conservation activities linked to, or integrated with, sustainable development issues (e.g. stewardship for conservation on private lands used for other purposes)?**

*As part of the **dry grassland conservation** campaign, the local and regional population is actively encouraged to get involved, including school groups and student groups. Under technical guidance, all participants work on the rehabilitation or conservation of areas worth conserving (cf. 4.2).*

*The annual award of the title '**Wiesenmeister'** (Meadow Master) is intended to encourage meadow managers who practise sustainable management, at the same time as making the public aware of the connection between regional products and meadow conservation, thus enabling farmers to benefit also commercially from their efforts (cf. 5.3).*

*In 2013 the conservation activities were extended to one of the wet meadows located in the community of Heiligenkreuz, which is of great importance for the region. Since 2014 conservation activities such as that entitled '**Biosphere Volunteers**' have been co-ordinated and, in a technical sense, guided by BPWW Management GmbH.*

*Since 2011 any business which receives an award under the annual award ceremony entitled '**DER WEIN'** is allocated (in that context), a particular species of animal or plant in their vineyard, which they 'adopt' for the purpose of protection and conservation. The objective is to make both the vineyard manager and the sampler of new wine ('Heurige') more aware of the impacts of management practices on biological diversity. The allocation of animal or plant species to vintners is based on the species that are known to occur in managed vineyards.*

***Fruit Tree Campaign and Fruit Tree Day:** For a long time, vineyard trees such as peach, almond, cherry, apple, cornel cherry, nuts, beam-tree or true service tree were grown in traditional viticultural landscapes, in orchard meadows or even in avenues. These days you would be hard-pressed to spot any fruit-trees, not only in vineyards but also in the Wienerwald generally. The BPWW Management GmbH provides support for vintners and farmers, and equally for communities and other owners of agricultural land in the Wienerwald BR, both in Lower Austria and in the buffer zone in Vienna, encouraging them to plant fruit trees. In co-operation with the Federal State of Lower Austria, the City of Vienna, farmers' chambers in various districts and 'Noah's Ark', fruit trees and hedgerow shrubs are offered for planting. Since 2009 the campaign has already achieved the planting of more than 3,000 standard fruit trees and 2,000 native hedgerow shrubs.*

Likewise, the annual Fruit Tree Day held since 2009 is all about fruit from the region. Nurseries for native trees sell fruit trees typical of the region, and patrons receive free advice in choosing varieties, and how to plant and care for their trees. Experts help to identify cultivars of apple or pear trees which visitors bring from their gardens. The framework programme contains local delicacies, fruit juices, and Wienerwald wines typical of the region, as well as an extensive programme for children, and other entertainments. In view of the great success in 2011, the BPWW Management GmbH has been holding two Fruit Tree Days annually – one in Lower Austria, and one in Vienna.

4.4 **How do you assess the effectiveness of actions or strategies applied?**

(Describe the methods, indicators used).

The effectiveness of actions or strategies is assessed continually by the BPWW Management GmbH internally, even though there is no formal process laid down for this assessment owing to the wide range of different projects. This assessment includes the number of successfully completed or implemented projects and the number or extent of areas which have been either restored or conserved.

The effectiveness of events is measured e.g. in terms of visitor numbers (e.g. Biodiversity Day, Fruit Tree Day, various educational events), the success of join-in activities, the number of voluntary helpers and the working hours spent by volunteers (e.g. conservation of dry grassland, meadow conservation) and the dimensions of the area concerned.

4.5 **What are the main factors that influenced (positively or negatively) the successes of conservation efforts in the entire biosphere reserve? Given the experiences and lessons learned in the past ten years, what new strategies or approaches will be most effective for conservation for sustainable development?**

Negative impacts on nature conservation work include the marked fragmentation of the area by road networks and urban sprawl, high pressure on habitats from leisure and recreational use and generally, the many and varied interests colliding in the region. The size of the overall area is another factor which makes the implementation of conservation work difficult, as not all areas can be dealt with in the same manner.

One positive factor is the affluent, highly educated and interested population, especially those people who live in the outskirts of Vienna and its adjacent catchment areas. This situation facilitates access to numerous potential partner businesses for various co-operative ventures (e.g. the project 'Economy and Nature', BR partner businesses) and also attracts 'lateral entrants' who settle in the Wienerwald e.g. as farmers. The proximity of numerous high schools, universities and research institutes provides access to young, interested people, e.g. for guided walks, lectures and join-in activities and is also a welcome source of useful extant research data and results.

The great range of various landowners is also perceived as an advantage, because it covers a great variety of management approaches. For example, in some cases it is possible to pursue objectives that are more compatible with designated areas than in a normal commercial forest managed by big business. The areas owned by MA 49 (Forstamt und Landwirtschaftsbetrieb der Stadt Wien) for instance, are managed primarily for nature conservation and recreational purposes.

The European Agricultural Fund for Rural Development (EAFRD) has provided relatively easy and uncomplicated access to research and development funding for conservation issues, which constitutes an important source of financial support for the projects carried out by the BR.

The BPWW Management GmbH's strategy for best-possible support of conservation tasks is focused on awareness-raising and education for sustainable development. Information events such as guided walks, lessons and field trips are intended to arouse interest in nature and its complexity, thus achieving changes in attitudes. Positive experiences are currently made in conjunction with a project entitled 'Economy and Nature' (Wirtschaft und Natur) which aims at motivating major businesses to adopt nature conservation goals and tasks by providing finance or co-operation (cf. 5.7).

4.6 **Other comments/observations from a biosphere reserve perspective.**

From the BPWW Management GmbH's point of view, good co-operation with regional and local political decision makers (town councillor. Landesrat [Federal State MP], district mayor) and with the members of the GmbH's Supervisory Board is very important for the success of initiatives and nature conservation projects in the region. Likewise, close co-operation with the MAB National Committee also facilitates many research projects.

5. **THE DEVELOPMENT FUNCTION:**

[This refers to programmes that address sustainability issues at the individual livelihood and community levels, including economic trends in different sectors that drive the need to innovate and/or adapt, the main adaptive strategies being implemented within the biosphere reserve, and initiatives to develop certain sectors such as tourism to complement and/or compensate for losses in other markets, employment, and community well-being over the past ten years]

5.1 Briefly describe the prevailing trends over the past decade in each main sector of the economic base of the biosphere reserve (e.g. agriculture and forest activities, renewable resources, non-renewable resources, manufacturing and construction, tourism and other service industries).

Agriculture:

In agriculture there is a noticeable trend towards diversification within the agricultural fields of operation and this has placed more and more emphasis on the importance of Green Care issues. However, there are also advances in the 'ecologisation' of agriculture, and in some cases there is a strong tendency towards specialisation in niche areas, e.g. extensive sheep grazing to protect dry grassland areas from scrub encroachment.

Viticulture:

There are signs that viticulture, too, is undergoing ecologisation processes. Among the vintners who participate in the wine competition (DER WEIN), it is possible to notice an increase in businesses practising organic management techniques. Furthermore, there are tendencies to move away from mass products to regionality combined with top quality of products.

Tourism:

Tourism in the Wienerwald region is taken care of by the organisation Wienerwald Tourismus GmbH. Over the past few years this organisation has informed us with increasing regularity that at international tourism fairs the subject of 'biosphere reserves' is frequently mentioned in conversations about tourism in the Wienerwald. Generally speaking, tourism in the Wienerwald is focused on enjoyment, relaxation and regionality (cf. 5.2).

Economy:

As far as the economy and services are concerned, the concept of sustainability has in some sectors managed to gain acceptance in recent years. In this context it is worth mentioning that there is e.g. a distinct increase in the number of printing offices in the region which have obtained the Austrian eco-label certification. Owing to the proximity of the city, there is a continual influx of new entrants who introduce new impulses to the region, e.g. in the field of agriculture (e.g. Annahof–Laab im Walde) or textile design ((e.g. Kamaeleon – Pressbaum).

Renewable energy and sustainable mobility:

In conjunction with the focus on 'Klimabündnis Wienerwald' (Wienerwald Climate Alliance), a lot of work has been done in the field of renewable energy and sustainable mobility in 32 communities of Lower Austria which are part of the BR region (cf. 5.2).

5.2 **Describe the tourism industry in the biosphere reserve. Has tourism increased or decreased since nomination or the last periodic review? What new projects or initiatives have been undertaken? What types of tourism activities? What effect have these activities had on the economy, ecology and society of the biosphere reserve? Are there any studies that examine whether designation of the area as a biosphere reserve has influenced the number of tourists? Please provide the bibliographic information of any studies and/or a paper copy in an annex.**

The management of tourism for the Wienerwald in Lower Austria is taken care of by the organisation Wienerwald Tourismus GmbH. This organisation has undergone personnel, organisational and visual restructuring in recent years which also resulted in the development of new offerings. The Wienerwald Tourismus GmbH is embedded in the tourism strategy of the Federal State of Lower Austria, and the company's management is currently staffed by a team of six.

In 2014 a 4% increase in bed-nights was recorded in the region. This is attributed primarily to successful projects on the themes of enjoyment, slowing down and regionality, which were developed over recent years. The region was renowned for tourism already prior to designation as biosphere reserve. However, the increase in bed-nights over recent years is attributed to the improved range of offerings and is probably not directly connected with the BR. Nevertheless, there is a distinct increase in international groups which are coming to the area explicitly to visit the BR.

The range of packages offered by Wienerwald Tourismus GmbH are aimed at holidaymakers in search of enjoyment, as well as families and older people (health resort visitors), i.e. groups and agendas which combine well with sustainable tourism. The diversity of cultural attractions in the Wienerwald BR (e.g. Stift Heiligenkreuz, Stift Klosterneuburg, Essl Museum) are visited above all by day trippers. It is planned to develop more joint offerings and packages in future.

The BPWW Management GmbH and Wienerwald Tourismus GmbH act independently. However, there is good exchange of information and co-operations (tourist guiding, e.g. for health cure visitors, which include input from the biosphere reserve, and the participation of the Wienerwald BR in tourist events, e.g. the 'Genussmeile' (Gourmet Mile) – http://www.thermenregion-wienerwald.at/genussmeile.html).

The subject 'Biosphärenpark' has so far not been featured actively by Viennese tourism agencies, as their focus has been primarily on the 'classical' visitor attractions and Vienna as a city of culture.

In conjunction with workshops on the project entitled 'Zukunftskonzept Biosphärenpark Wienerwald 2020' (Wienerwald BR 2020 Vision), a project proposal was submitted intended to popularise the brand of 'Biosphärenpark Wienerwald' (Wienerwald BR) at the international level. The proposal was not, however, included in the final report, as tourism development in the region is not a priority task for the BPWW Management GmbH. Nevertheless, it demonstrates that both the population and stakeholders are aware of the sustainability goals adopted by a model region.

5.3 **When applicable, describe other key sectors and uses such as agriculture, fishing, forestry. Have they increased or decreased since the nomination or the last periodic review? What kind of new projects or initiatives have been undertaken? What effect have they had on the economy and ecology of the biosphere reserve, and on its biodiversity? Are there any studies that examine whether designation as a biosphere reserve has influenced the frequency of its activities? If so, provide the bibliographic information of these studies and/or a paper copy in an annex.**

The relevant key sectors are agriculture, forestry and viticulture. The BPWW Management GmbH is anxious to promote ecologically sustainable agricultural management, to increase the chances of survival for agricultural businesses practised as a sideline and to support existing tendencies towards regionality, quality and ecologisation in the Wienerwald BR.

Open-space land:

Meadow Master – Meadow Partner:
The project 'Wiesenmeisterschaft' (Meadow-Master Championship) has been used annually since 2006 to award the title to people who manage their meadows, pastures and orchard meadows ecologically, and to celebrate the award by bringing these managers into the limelight. Operating criteria such as the commitment to direct marketing and to educational aspects are taken into account in the assessment.

The goal is to reward the work of farmers in maintaining the landscape and ecologically valuable biotopes and species, and to raise awareness for the importance of this work among the wider public. At the same time, our intention is to sensitise the population – in their role as meadow partners – to the value of meadows and to encourage correct behaviour in visitors to these biotopes. In co-operation with farmers from various meadow master communities or districts, guided meadow walks are offered to the population and to all school classes.

Since 2011, the competition has taken place in 5 to 6 annually selected BR communities or in 1 to 3 BR districts of Vienna. In view of a reduction in the size of the overall area, it is possible to organise a more extensive information and framework programme for these events.

In conjunction with the sub-project 'Wiesenpartner' (Meadow Partner), the BR Management offers, in co-operation with biologists and farmers, an extensive educational programme with presentations and guided walks for the population and all school classes in the Wiesenmeister communities/districts. The aim is to foster understanding for the high value of hay meadows, orchard meadows and pastures, current and historical agricultural use and the current production of sustainable regional products such as hay from extensively-managed meadows, fruit products from orchard meadows, pasture-fed beef and lamb etc, and the correct behaviour of meadow visitors.

Since 2012, 2,163 school children and nursery tots from 26 schools and 4 nurseries respectively took part in 112 guided walks in the Wiesenmeister communities (Vienna and Lower Austria), and more than 100 people took part in another eight guided meadow walks.

Wienerwald BR – DER WEIN
The BPWW Management GmbH's annual wine award competition 'DER WEIN' aims at making links between the wine theme and the Wienerwald, because there are excellent wine-growing domains in the far corners of the Wienerwald which are characterised by great landscape diversity which affords a high quality of life. On the other hand, the award is to promote the

grape varieties typical of the three viticultural regions in the BR – Thermenregion and Großlage Klosterneuburg in Lower Austria and in Vienna, the areas within the seven BR districts.

The trademark 'Biosphärenpark Wienerwald – DER WEIN' stands for excellent, sustainably produced Quality Wines from grape varieties typical of the region - such as the spicy Zierfandler, the rich Rotgipfler or the special blend 'Gemischter Satz' from Vienna. Consequently, vintners have been invited since 2006 to register the wines typical of the region for participation in this competition.

In order to promote sustainable viticulture and to create a unique selling point vis-à-vis external wine award competitions, it was decided in 2012 that only those wines be allowed to be entered which have been produced organically or according to the requirements for certified organic and integrated wine production – because in these processes, only a significantly reduced amount of pesticides is permitted.

A high-carat jury assesses the wines in a blind tasting which is based on internationally valid criteria. The best wines and vintners receive their awards every autumn in the course of an award ceremony. To assist marketing these award-winning wines, a wine folder has been produced every year since 2012 with a print run of 3,000 copies. This folder is also available for download from the website. Since 2009, the award-winning vintners are each presented with their own TOP WINZER (top vintner) sign which they can either fix to the gate of their vineyard or hang it up in a 'Heurigenlokal' (traditional Viennese wine bar).

<u>ÖBf Wiesen – Joint protection of meadows:</u>
In 2007, BPWW Management GmbH, the Austrian Federal Forestry Authority (Österreichische Bundesforste AG) and the Naturschutzbund Niederösterreich started a joint project for the protection of meadows in the Wienerwald. This was the first time that meadows owned by the Austrian Federal Forestry Authority (Österreichische Bundesforste AG) were surveyed by experts. 481 Wienerwald meadows comprising an area of 726 ha were explored in this project. Half of the area is of value in terms of nature conservation while 16% of the area (53 sites) are categorised as 'Highlights'. The diversity of various types of meadows is great. Many meadows contain interesting elements such as individual trees, hedgerows, bushes, water sources, escarpments, highly structured woodland edges or fruit trees. Some of these meadows are also of great importance for our fauna. The meadows surveyed showed evidence of the endangered corncrake, rare grasshoppers such as the large Saw-tailed bush crickets and butterflies such as the Clouded Apollo. Just barely a tenth of the total meadow area has currently no recognisable value in terms of nature conservation. A total of 70 endangered plant species were found including the Hungarian vetch (Vicia pannonica), Superb pink (Dianthus superbus) or the Siberian flag (Iris sibirica).

Many meadows, however, also displayed risk factors. The most frequent risk is from encroachment of scrub and bushes in cases where the meadow is neither used nor managed. In these cases it is important to take measures in order to maintain the current good state or improve it. Approximately 90% of the total meadow area is tenanted, but it is difficult to find tenants for meadows in remote areas. In co-operation with the managers, meadow experts have worked out measures which were published in the brochure entitled „Aktiv für Wiesen und Weiden – Anregungen für Landwirte, Forstwirte und Jäger" (Suggestions for farmers, foresters and hunters) which can be obtained free of charge from the Austrian Federal Forestry Authority.

Further information on Wienerwald meadows and pastures, their history, the wide range of meadow types and associated animal and plant species is contained in the brochure entitled

'Wiesen und Weiden im Biosphärenpark Wienerwald' (Meadows and Pastures in the Wienerwald BR).

<u>Meadow saffron – beautiful but toxic:</u>
Meadow saffron (Colchicum autumnale) is relatively common in the Wienerwald. This plant has become perfectly adapted to hay-making rhythms. It does not flower until autumn, after hay-making is finished, and then sets fruit which ripen by the following year. The process of haymaking subsequently distributes the fruits throughout the meadow.

Meadow saffron is poisonous and is spurned by cattle grazing in the meadow. There is no data on the toxicity of these fruits in the hay fed to cattle – there have been no records of problems. As far as horses are concerned, meadow saffron in hay is poisonous although, as a rule, horses will not eat it (so far no incidents of horses poisoned by meadow saffron have been diagnosed). Nevertheless, many hay clients insist on buying hay only if it is free from meadow saffron. If meadow saffron becomes too wide-spread, farmers will be unable to sell their hay.

The Institute for Botany of the University of Natural Resources and life Sciences (BOKU) in Vienna has, supported by BPWW Management GmbH and the Österreichischen Bundesforste, set up trial plots on some meadows which are managed in a variety of ways. The aim was to find an optimal management regime which is compatible with nature at the same time as curbing the encroachment of meadow saffron. The trials were held from 2008 up to and including 2010.

Here are the key results (including the results from a final specialists' workshop in which experts were questioned on their own experiences). During the two-year trials, it became noticeable that it might be possible to curb the amount of meadow saffron by early hay-making (before mid-May). However, this is recommended for problem areas only as this control procedure has to be conducted over several years thus preventing also the other meadow plants from setting and casting their seed so that the plant composition of the meadow may decline.

On the other hand, certain management techniques can inadvertently make the encroachment of meadow saffron worse: plant material which is left lying about after cutting will kill the meadow vegetation thus favouring the spreading of meadow saffron. Pricking out individual plants by hand can actually increase the abundance of meadow saffron, as this will effectively divide the nodules thus multiplying them so that they will continue to grow. Tearing the leaves off by hand is effective, because the leaves do not keep growing during the vegetation period. However, this is extremely labour-intensive and therefore not suitable for large areas. Further research is required before reliable recommendations for meadow management with regard to meadow saffron can be made.

Dry grassland:
See 4.2.

Support for participation in the ÖPUL Programme:
Jointly with the Federal State of Lower Austria we have provided direct support to farmers participating in the Austrian programme for eco-compatible agriculture (Österreichisches Programm für umweltgerechte Landwirtschaft: ÖPUL) and in managing their meadows and pastures in line with the programme requirements thus making it possible to secure essential funding in further consequence. After the contiguous open-space survey (cf. 4.2) managers of hotspot meadows were targeted with a view to enter the ÖPUL Förderprogramm.

Economy:

Partner businesses:
The BPWW Management GmbH has established a partnership network of businesses involved in production, processing or marketing in order to strengthen and secure the appeal of regional products, offerings and services and in order to create additional value for products from the region.

The provenance of products and the purchase of regional products are becoming increasingly important to consumers. Consequently, this project aims at creating a network of businesses which meet quality criteria. These criteria need to be verifiable and transparent; at the same time they need to be in line with the goals and tasks of the Biosphere Reserve. The intention is that BR partner businesses act as multipliers in the region, helping to convey the BR concept and implementing BR ideas in their everyday management.

Co-operation with the Wienerwald Tourismus GmbH is intended to open up marketing potentials, and the turnover of products and services is to be improved by concerted marketing activities.

The focus in the first project phase is on catering, the hotel industry and direct marketing. The quality criteria were developed in co-operation with representatives from various interest groups and with the aid of external consultants, on the basis of pre-existing quality seals and brands/trademarks (e.g. the Austrian eco label). The first partner businesses from the industry of 'Agriculture with Direct Marketing' were launched in 2013 (cf. 'Partnerbetriebe der Branche Landwirtschaft mit Direktvermarktung'). In 2014 the first two businesses from the fields of catering and accommodation were designated in this way.

'Rauchkogler' Association

See 5.4.

Wienerwald Climate Alliance in the BR:
The Federal State of Lower Austria joined the Climate Alliance in 1993. To meet the ambitious targets of the Climate Alliance – e.g. reduction of CO_2 emissions by 2030 by 50% – is a distinct challenge to the State and its communities. Consequently, the Federal State of Lower Austria has been supporting climate protection measures since 2001.

From 2007 until 2010 the Wienerwald BR used to be the Climate Alliance Region of Lower Austria. 32 communities participated actively in more than 200 climate-relevant projects and 100 workshops with around 1,000 participants. The workshops are used by the communities for

planning climate protection projects and for awareness-raising focused on private households. Networking meetings led to an exchange between the communities, and to preparations for the key subjects of energy, mobility and soil.

The Federal State of Lower Austria made available funding amounting to €840,000 for climate-relevant projects, in addition to providing consultancy services. Furthermore, the communities were given professional guidance on implementation procedures and funding management, free of charge. The partner organisations included the AEE – Arbeitsgemeinschaft Erneuerbare Energie Wien-Niederösterreich, BPWW Management GmbH, 'die umweltberatung', Energieagentur der Regionen, Klimabündnis NÖ, NÖ Dorf- und Stadterneuerung, Regionalmanagement NÖ and Südwind NÖ (NÖ: Lower Austria). In order to progress this successful course in the communities beyond the duration of the project, the co-ordination for follow-up programmes and offerings of the Federal State of Lower Austria was continued for another year.

The concept of a Climate Alliance Region is unique to Austria. This entails that funding, consultancy services and informations are bundled for a selected region for a specific duration thus placing climate protection into the centre of community activities. The designation of the Wienerwald BR in 2001 meant that the Federal State of Lower Austria has already implemented its fourth Climate Alliance Region.

Woodland:

Sustainable woodland biomass management:
Energy production from biomass – especially in view of climate change – is a highly topical subject. Its proximity to the city of Vienna and the city's energy demand makes the Wienerwald particularly relevant in this respect.

Jointly, the BPWW Management GmbH and the Austrian Federal Forestry Authority, with the aid of the University for Natural Resources and Life Sciences Vienna (BOKU) and the Vienna Institute for Nature Conservation and Analysis have researched the sustainable use of woodland biomass in the Wienerwald BR and developed recommendations for the commercial forest of the Wienerwald BR in line with BR goals. The research project was supported by the Österreichische Akademie der Wissenschaften as part of the Man and Biosphere (MAB) Programme and concluded in April 2007.

The aim of the project was to survey the potential for the commercially and ecologically sustainable utilisation of biomass; and to establish guidelines for the conservation of deadwood and waste wood was an important prerequisite for maintaining biodiversity in commercial forests.

In contrast with previous commercial forestry, the theoretical multi-use potential of the stands of beech and oak trees surveyed, depending on their age, amounted to between 12 and 20% of total biomass. The wood concerned was mostly from branches which were largely left behind in the forest. Apart from foliage, these branches contain most of the nutrients. To remove too much of this material was therefore not sustainable in economic terms: intensive use of biomass – depending on the location – impacts the growth potential of a woodland or stand of trees. Consequently, branch material should not be removed in great amounts for biomass use; it should be left behind in the forest as before.

Besides, the removal of biomass has an effect on biodiversity. Many species are dependent on so-called deadwood. A deadwood content of as little as 5-10% makes it possible for even the more demanding species to survive in a commercial forest. These values refer to oak and beech forests which are more than 80 years old with biomass amounting to between 400 and 600 m³/ha.

According to the findings of an interdisciplinary study, depending on the stock (400 to 600m³/ha) approximately 8-10 (5%) to 16-20 (10%) trees per hectare of forest should be available as deadwood/waste wood, and there should also be deadwood candidates available. Approximately half of this should be 'standing deadwood'. This includes dead or dying trees which are still upright. Of particular value are deciduous trees, and also particularly bulky trees with a diameter from 40 cm upwards.

Besides, waste wood and deadwood should not be available just in isolation but should be well dispersed and networked over the commercial forest. Core zones and other non-commercial forest areas - although of great importance for the conservation of rare species, cannot replace deadwood/waste wood in a commercial forest!

5.4 **How do economic activities in the biosphere benefit local communities?**

Whenever possible, the BPWW Management GmbH commission regional businesses with the provision of products or services (e.g. buffets, caterings, print runs, bus hire) and purchases e.g. drinks, wine, flowers or gifts from regional service providers and producers. Likewise, BR events (e.g. wine award ceremonies, info events, festivals, retreats) are held in the premises of BR partner businesses or other businesses in the region. The BR's partner businesses are featured by BPWW Management GmbH in the BR's media and also receive recommendations on the occasion of personal conversations in the region (cf. 5.3). Likewise, the BR's educational partners from the region and BPWW Management GmbH support their work by featuring it in their offerings of guided walks and field trips in the BR visitor programme, on the BPWW website and in other media (e.g. newspaper, newsletter) (cf. 5.9).

<u>Pasture-fed Wienerwald beef:</u>
In order to set up and foster economic cycles, suitable projects and initiatives are supported by BPWW Management GmbH. To this end, a regional meat label was introduced as part of the Wienerwald Weiderind (pasture-fed beef) project and a business cycle between beef producers, butchers, catering businesses and clients was developed. Humane animal husbandry and semi-natural grazing were just as important in this as considerate handling of animals in transport and slaughter and the traditional manual crafts of aging, portioning and processing of meat. The interface between producers and catering businesses would normally be the regional butchering business which unfortunately proved not equal to this task. A change of butchers did not advance the project either and there were no other alternatives available in the region. The producers and caterers concerned therefore had no option but to select a processing business outwith the region and to find additional production sites outwith the Wienerwald. The BPWW Management GmbH therefore had to withdraw from the project.

The BPWW Management GmbH had invested considerable personnel resources in this project which produced a lot of useful insights, but not the desired outcome in terms of content. In hindsight it could be argued that the requirements stated by BPWW Management GmbH, both in terms of content and in technical terms, had been neither strict nor clear enough. At the same time, the support given – partly by funded technical and organisational advice from experts –

may have been too generous so that the parties concerned did not feel obliged to develop a sense of self-reliance for the project as a whole (cf. 5.5).

'Rauchkogler' association
A second project supported by BPWW Management GmbH has proved more sustainable with regard to developing and maintaining an economic cycle. A group composed of vintners, a beekeeper and a health trainer decided that they would manage a geographically defined area (available to them), along purely organic lines, to rehabilitate dry grassland patches and to restore structures such as drystone walls, to plant fruit trees in order to increase species diversity and to get involved in educational and information work featuring their co-operation and the characteristics of the natural environment on site. They set up their own wine label which they named 'Rauchkogler' after the small elevation in the area managed by them. They designed and made a nature trail, and nowadays they continually organise festivals and guided walks to make the special characteristics and importance of this area clear to the public.

Wienerwald Climate Alliance:
Within the framework of the key subject Wienerwald Climate Alliance, additional funding in the amount of €840,000 was invested in the region. The fact that the region was chosen as focal region, is due to its status of biosphere reserve and the concomitant tasks of a model region (cf. 5.3).

Landscape conservation by means of agricultural management:
The population in the BR and beyond benefits greatly from the work of agricultural businesses in terms of landscape conservation. Mowing and grazing of meadows and pastures is the prerequisite for maintaining the typical Wienerwald landscape which is used and enjoyed for recreation and various leisure activities. Likewise, local and regional products covered by direct marketing and offered for sale direct 'from the farm' help to add value and enhance the local population's quality of life.

5.5 **How do you assess the effectiveness of actions or strategies applied?**
(Describe the methods, indicators).

At the moment, BPWW Management GmbH does not have any strategies of its own for measuring the effectiveness of various relevant activities. The effectiveness of measures and activities in terms of its development function is, however, evaluated by means of feedback forms completed after guided walks and field trips. The competition 'DER WEIN' has been enjoying increasing popularity year on year, as reflected in rising numbers of vintners participating, and also in terms of the number of wines entered into the competition. Likewise, the number of BR partner businesses is increasing all the time.

The effectiveness of the support provided by BPWW Management GmbH in regional commercial projects can be measured in terms of the success of the initiatives taken. BPWW Management GmbH's activities in this field so far indicate that it is important to leave 100% of the responsibility for these activies and their implementation with the individuals involved in the projects concerned. This motivates them to act sustainably in their own interest; it strengthens self-reliance and ensures that the resources contributed by the BR in terms of technical and logistic support, are used to best advantage (cf. the example Wienerwald Weiderind 5.4).

5.6 **Community economic development initiatives. What programmes exist to promote comprehensive strategies for economic innovation, change, and adaptation within the biosphere reserve, and to what extent are they implemented?**

BR Management, internally:
BPWW Management GmbH sets an example in its own sphere of activity, e.g. by ensuring that printed matter produced in the region is produced sustainably. Awards are given only to partner businesses using organic management procedures, and since 2010 only sustainably produced wines are given awards.

Apart from regional products and services purchased by BPWW Management GmbH for our own use, we also use exclusively organically produced milk, Fair Trade coffee and chocolate, and paper that has been manufactured in a certified eco-friendly way. Likewise, we arrange lots of events on Biodiversity Day to make it an Eco Event (cf. 2.3.3 and http://www.oekoevent.at/).

Furthermore, there are various campaigns/actions, programmes and initiatives led by various partner organisations in the BR region, four of which are described below in detail.

LEADER Region Elsbeere-Wienerwald:
In the years from 2009 to 2010, the LEADER Region of Elsbeere-Wienerwald has developed its own regional energy concept on the basis of the following targets by the year 2020: 100% self-sufficiency in respect of heating provision, 100% self-sufficiency in respect of electricity supply and 50% self-sufficiency in respect of mobility. In conjunction with past and impending LEADER periods, appropriate measures (e.g. our own heating plan within the region) have been/will be taken in order to reach targets. Since 2012 this region has also been a model region for climate and energy; in that context, the region has focused on electromobility in terms of an eco-compatible alternative to conventional transport.

Model regions in terms of climate and energy:
Since 2011, the municipality of Baden has also been a model region for climate and energy; by producing its own 'Energiereferat' (energy manifesto), it has set an example for sustainability in this field. The projects implemented include solar energy, electromobility, adaptation of buildings to thermal heating, and raising public awareness for all these sustainable forms of energy production/consumption. Likewise, the communities of Perchtoldsdorf, Purkersdorf, Mauerbach and Gablitz have become model regions in terms of climate and energy in recent years, and they managed to implement numerous projects in this field (e.g. conversion of street lighting to LED lamps).

Regional land-use planning:
As for land-use planning, there are two sub-regions in the Wienerwald BR which decided to approach land-use planning jointly, so that it spans their respective communities. The aim is to work out a general outline for land-use planning and regional co-operation, which is agreed in a partnership between the communities and the Federal State of Lower Austria.

ÖkoBusinessPlan Vienna:
As early as 1998, the foundation was laid for the ÖkoBusinessPlan Wien programme. This Umwelt-Service-Programm (environmental service scheme) of the City of Vienna is used by businesses to save money and resources in fields ranging from waste avoidance to energy savings and conversion of entire production processes. Savings made so far by 1,113 participating businesses on overheads amount to €127.6 million in the course of 11,000 implementation projects over recent years.

Overall, the businesses involved in the ÖkoBusinessPlan Wien have made the following savings between 1998 and 2014:

- *124,190 tonnes reduction in refuse*
- *1.27 Terra Watt hours (TWh) reduction in energy consumption. This is almost equivalent to the annual consumption by half of Vienna's households.*
- *360,000 tonnes reduction in carbon dioxide emissions.*
- *A reduction by 94 million transport kilometers*
- *Reducing the consumption of drinking water by more than 2.6 million m^3*
- *7,403 tonnes dangerous waste was NOT produced during that time.*

5.7 **Local business or other economic development initiatives. Are there specific "green" alternatives being undertaken to address sustainability issues? What relationships (if any) are there among these different activities?**

Economy and Nature:
Biodiversity or biological diversity is not just an important philosophy for all of us; it also provides the foundation for numerous sectors of our economy. In many ways, the commercial success of businesses depends on ecosystems and their species diversity. Within the framework of this initiative for companies in Lower Austria, joint strategies and projects are developed in order to integrate the biodiversity concept effectively in management philosophies and to communicate the individual companies' commitment effectively.

Initially, a company survey was carried out eliciting responses from 82 companies. Approximately 62% of the respondents stated that their business has an influence on nature or biodiversity. 46% of those feel that their influence is either positive or mostly positive. Respondents estimated that the impact of biodiversity and ecosystem services on the success of businesses is going to increase over the next ten years. 15% do not apply any measures currently, but 90% of these respondents would be willing, on principle, to become active in this respect.

In this field, the potential includes, in particular, measures such as the furtherance of nature within their own premises and the integration of biodiversity in any pre-existing sustainability concepts (e.g. CSR: Corporate Social Responsibility) adopted by them. Another aim is to co-operate actively with designated areas and/or nature conservation organisations. The reasons for company commitment include customer loyalty and recruitment and – above all – image enhancement. Other important aspects for companies include the motivation of staff members, the strengthening of regional loyalty and the maintenance of the company's entrepreneurial tradition.

The project is carried out jointly by the Energie und Umweltagentur Niederösterreich (eNu/Energy and Environment Agency of Lower Austria), the Umweltdachverband (governing body for energy), the BPWW Management GmbH, the Federal State of Lower Austria and the Wirtschaftskammer NÖ; the project is sponsored by the EU LIFE+ Programme.

Other examples:
The BR region operates some initiatives and programmes of its own which are intended to support a sustainable development in the economic sphere. These are borne by partner organisations and are aimed mainly at the energy sector. For example, there is a LEADER region which has the status of model region in terms of climate and energy. Since 2011, the

municipality of Baden has operated its own 'Energiereferat' (energy manifesto) which enforces the implementation of renewable energy in Baden. Furthermore, there are four other communities which are climate and energy regions, seven Fair Trade communities in Lower Austria and 32 Climate Alliance communities in the Wienerwald.

BPWW Management GmbH features in particular those partner businesses (cf. 5.3) which are already distinguishing themselves as pioneers of sustainable procedures and processes in the region. In addition, there are some businesses and other organisations (e.g. hotels and catering, printworks, schools) which are working towards gaining the Austrian eco label, thus pointing the way for sustainability in their field. The wine awards 'DER WEIN' and the Meadow Master Championship are initiatives which clearly demonstrate sustainable production methods, and bring exemplary players into the limelight thus helping them increase their commercial success by enhancing their profile and popularity. By featuring the offerings of the BR education partners, these are supported likewise.

5.8 **Describe the main changes (if there are any) in terms of cultural values (religious, historical, political, social, ethnological) and others, if possible with distinction between material and intangible heritage.**

(c.f. UNESCO Convention concerning the Protection of the World Cultural and Natural Heritage 1972 and UNESCO Convention for the Safeguard of the Intangible Cultural Heritage 2003 (http://portal.unesco.org/en/ev.php-URL_ID=13055&URL_DO=DO_TOPIC&URL_SECTION=201.html and http://portal.unesco.org/en/ev.php-URL_ID=17716&URL_DO=DO_TOPIC&URL_SECTION=201.html)).

Intangible cultural heritage:

Since 2005, it has been possible to register and obtain recognition from UNESCO for elements of intangible cultural heritage. The following elements that can boast tradition in the Wienerwald BR have been designated over recent years: Perchtoldsdorfer Hütereinzug (herdsmen's procession) (2010); charcoal burning (2010), folk dancing (2011), Wiener Dudler (a Viennese variant on yodeling (2010), pine-tapping (2011)), a pharmacy's own specific recipes (2010), falconry (2010), storytelling (2010), the classical equestrian tradition of the Spanish Riding School in Vienna (2010) and the Viennese coffee-house culture (2011).

On the BPWW Management GmbH's website, these elements are described as integral parts of the special cultural features of the region.

Drystone walling:

In conjunction with the 'drystone walling' project, several stonewalls were built, but what is more, this traditional skill was also passed on to 150 course participants (cf. 2.3.5).

FruitTree Campaign and Fruit Tree Day:

Furthermore, the Fruit Tree Campaign and the Fruit Tree Days made a contribution towards the conservation of ancient, endangered fruit tree varieties (cf. 4.3).

5.9 **Community support facilities and services. What programmes in/for the biosphere reserve address issues such as job preparation and skills training, health and social services, and social justice questions. What are the relationships among them and with community economic development?**

Across Austria, vocational training and further education in the fields of health care and social services are the remit of government and non-government organisations. In the region, the following education, further education and information opportunities are offered by BPWW Management GmbH:

BR education partners – further education for facilitators:
Since 2008, BPWW Management GmbH has provided further education on the subject of biosphere reserves for individuals who are already active in the field of education (e.g. countryside rangers, tour guides, woodland educators). As part of the 5-day training course, the participants are taught the basic principles underlying the Wienerwald BR, as well as its goals and tasks. In the course of several field trips, businesses in a variety of different industries are visited, and these examples are used to demonstrate the concept of a model region for sustainability and to get the message across. As their final task, the future training partners of the BR have to plan their own guided tour of the BR with appropriate BR inputs. In 2015 the written modules for the BR training will be revised and collated in a folder for presentation to the course attendants. In the course of the past eight years, 150 individuals have taken part in this course; 124 of them have produced their own tour programme for inclusion in the 2015 programme folder for the Wienerwald BR.

Wienerwald BR visitor programme:
Every year since 2009, offerings on education, field trips and activities from the circle of education partners trained for the BR, are collated and published in a comprehensive programme brochure for visitors to the BR and the resident population. In the visitor programme for 2015, 124 education-partner programmes offer more than 80 different activities.

Drystone walling:
As part of the project 'drystone walling', courses are offered on practical training in drystone-walling (cf. 2.3.5).

Further examples:
Furthermore, the BR staff regularly gives presentations on the Wienerwald BR in connection with various courses/lectures at universities or colleges. Likewise, specific field trips for students at colleges or universities and research groups from Austria and abroad are on offer.

Further educational offers and measures in the BR region are carried out e.g. by the LEADER Region Triestingtal (e.g. qualification measures 1+2, apprenticeship initiatives – cf. http://www.triestingtal.at/regionsentwicklung/region-bis-2014/soziales-und-bildung).

5.10 **What indicators are in place to assess the effectiveness of activities aiming to foster sustainable development? What have these indicators shown?**

Currently there are no indicators in existence to measure the effectiveness of activities in the field of sustainable development.

5.11 **What are the main factors that influenced (positively or negatively) the success of development efforts in the entire biosphere reserve? Given the experiences and lessons learned in the past ten years, what new strategies or approaches will be most effective?**

A positive impact of the activities and endeavours within the development function of the Wienerwald BR is the inclusion of the city of Vienna, as the proximity of research institutes, potential sponsors and co-operation partners facilitates access. Likewise, the sustainable development activities and programmes of the two Federal States of Lower Austria and Vienna themselves can be seen as support for the model region (e.g. the Eco Business Plan, eco label, e5 communities, Wienerwald Climate Alliance, LEADER regions).

On the whole, the residents in the region tend to be very well educated and have a heightened willingness to face up to the subject of sustainability (at least in theory), which can be seen as the first step towards an understanding of the goals and tasks of the Wienerwald BR. The great number of organisations and institutions active in the region gives rise to an incredibly wide range of activities and programmes for further education in the region, especially in fields such as regional development, nature conservation, education, tourism, mobility and energy.

The fact that there are so many different regional decision-makers, landowners and administrative agencies also means, however, that this requires great co-ordination efforts in the region.

6. THE LOGISTIC FUNCTION:

[This refers to programs that enhance the capacity of people and organizations in the biosphere reserve to address both conservation and development issues for sustainable development as well as research, monitoring, demonstration projects and education needed to deal with the specific context and conditions of the biosphere reserve.]

6.1 **Describe the main institutions conducting research or monitoring in the biosphere reserve, and their programmes. Comment on organizational changes (if any) in these institutions over the past ten years as they relate to their work in the biosphere reserve.**

Over the past 10 years, the following research institutes had a permanent presence in the Wienerwald BR:

- *Forschungsinstitut für Wildtierkunde und Ökologie (http://www.vu-wien.ac.at/i128/fiwi1.htm)*
- *IMADEC University (http://www.imadec.ac.at/)*
- *Konrad Lorenz Institut für Verhaltensforschung (http://www.oeaw.ac.at/klivv/en/institute/)*
- *Bundesforschungs- und Ausbildungszentrum für Wald, Naturgefahren und Landschaft (BFW) (http://bfw.ac.at/index-en.html)*
- *LFS Norbertinum Tullnerbach (Landwirtschaftliche Fachschule, http://www.lfs-tullnerbach.ac.at)*
- *Obst- und Weinbauschule Klosterneuburg (Technical School for Viticulture and Fruit-growing)*
- *Bundesdenkmalamt Restaurierwerkstätten Baudenkmalpflege Kartause Mauerbach (maintenance and restoration of built heritage) (http://www.bda.at/mauerbach/english/default.htm)*
- *HTL Mödling (http://www.htl.moedling.at/htl2/)*

Research institutes with a permanent presence within a radius of 10 km from the boundary of the Wienerwald BR:

- *Universität Wien (http://www.univie.ac.at/en/)*
- *Universität für Bodenkultur Wien (http://www.boku.ac.at/)*
- *Wirtschaftsuniversität Wien (http://www.wu-wien.ac.at/english)*
- *Technische Universität Wien (http://www.tuwien.ac.at/english/)*
- *Veterinärmedizinische Universität Wien (http://www.vu-wien.ac.at/)*
- *Medizinische Universität Wien (http://www.meduniwien.ac.at)*
- *Akademie der bildenden Künste Wien (http://www.akbild.ac.at/?l=en)*
- *Universität für angewandte Kunst (http://www.dieangewandte.at/)*
- *Universität für Musik und darstellende Kunst Wien (http://www.mdw.ac.at/)*
- *PEF Privatuniversität für Management, Wien (http://www.pef.at/)*
- *various universities for applied sciences*
- *Österreichische Akademie der Wissenschaften (http://www.oeaw.at/)*
- *Umweltbundesamt (Federal Environment Ministry) (http://www.umweltbundesamt.at)*
- *Zentralanstalt für Meteorologie und Geodynamik (http://www.zamg.ac.at)*
- *Institut für höhere Studien (http://www.ihs.ac.at/)*
- *Fakultät für Interdisziplinäre Forschung und Fortbildung Wien (http://www.iff.ac.at/html/framewien.htm)*
- *Zentrum für soziale Innovation (ZSI) (http://www.zsi.at/en/)*
- *Österreichisches Institut für Wirtschaftsforschung (WIFO) (http://www.wifo.ac.at/(en)/)*
- *Österreichisches Bundesinstitut für Gesundheitswesen (ÖBIG) (http://www.oebig.at)*
- *KMU FORSCHUNG AUSTRIA (http://www.kmuforschung.ac.at/en/)*

• *Tiergarten Schönbrunn (http://www.zoovienna.at/e/)*
• *Naturhistorisches Museum Wien (http://www.nhm-wien.ac.at)*
• *AIT - Austrian Institute of technology GmbH (http://www.ait.ac.at/)*
• *Institut für Jugendkulturforschung (http://www.jugendkultur.at)*
• *Interuniversitäres Department für Agrarbiotechnologie, IFA-Tulln (http://www.ifa-tulln.ac.at)*
• *Institut für angewandte Systemanalyse (IIASA), Laxenburg (http://www.iiasa.ac.at/)*
• *Landwirtschaftliche Fachschule Tulln (http://www.lfs-tulln.ac.at)*

In 2007 the Institute of Science and Technology Austria (IST Austria) was founded in Klosterneuburg, which exclusively offers an inderdisciplinary PhD programme and conducts top-level research. The institute is funded by the Republic of Austria and the Federal State of Lower Austria and its existence is secured up to 2026.

In 2014, the Bundesforschungs- und Ausbildungszentrum für Wald, Naturgefahren und Landschaft (Federal Research and Training Institute for Forests, Natural Hazards and Landscape) moved to a new site in Vienna (Hietzing) which lies outwith the Wienerwald BR.

The Weinbauschule Gumpoldskirchen (school for viticulture) and the Försterschule Gainfarn (foresters school) have meanwhile been closed.

There have been no other changes in respect of universities or research institutes.

6.2 **Summarize the main themes of research and monitoring undertaken over the past ten years and the area(s) in which they were undertaken in order to address specific questions related to biosphere reserve management and for the implementation of the management plan (please refer to variables in Annex I).**
(For each specific topic provide reference citations. Provide the full citations alphabetically by lead author at the end of Section 6 or in a separate annex).

Title	***Author(s):***	***Theme/Contents***	***Zone***
Biodiversity Day – scientific part	*BPWW Management GmbH*	*See 2.3.3*	*Core zones, buffer zone, transition zone*
Health Spaces – BR landscapes and their importance to health: Analysis of the potential of Wienerwald BR in terms of quality of life and subjective perception of wellbeing	*Arnberger A., Allex B.*	*Identification of landscapes which have the potential to be beneficial to the health and wellbeing of humans*	*Core zone, buffer zone, transition zone*
Nut hunt in the Wienerwald BR	*Rotter, B.*	*See 4.2*	*Core zones, buffer zone, transition zone*

Title	***Author(s):***	***Theme/Contents***	***Zone***
Clarification of the potential risks to health from the Oak processionary moth (Thaumetopoea processionea): Exposure and risk assessment	*Schopf, A.*	*Developing an early-warning system for estimating concentration levels from exposure to the toxic hairs of this moth in the open air with regard to human health*	*buffer zone, transition zone*
BirdLife bird monitoring in the core zone of Hoher Lindkogel	*ÖBf AG (funded via service agreement with State of Lower Austria)*	*Bird monitoring*	*Core zone*
Bat monitoring	*ÖBf AG (funded via service agreement with State of Lower Austria)*	*Bat monitoring*	*Core zone, buffer zone*
Management plans for the core zones of the Wienerwald BR	*BPWW Management GmbH*	*Generating a management plan for each core zone of the BR in order to obtain a definitive framework for management actions and to create a compliant legal environment.*	*Core zones*
Wildcat	*Keilbach, M.*	*Project for surveying the wildcat population in the Wienerwald to improve the current knowledge on the situation of the wildcat in the Wienerwald and to inform residents in the region about wildcat matters*	*Core zone, buffer zone*

Title	***Author(s):***	***Theme/Contents***	***Zone***
Neobiota management in the Wienerwald BR	*Lassnig, Ch.; Waiss, G.*	*Testing various methods for curbing neophytes. Information events and field trips for interested and affected communities, landowners and interested members of the public. Deriving a neobiota strategy.*	*Buffer zone, transition zone*
Green infrastructure	*ÖBf AG (funded via service agreement with State of Lower Austria)*		
ASEG – Perceptions and satisfaction of ethnic minorities with regard to Wienerwald BR: a pilot study on the integrative function of protected areas close to urban areas	*Muhar, A. et al*	*Role of recreational areas close to urban areas in the leisure behaviour of selected groups with a view to migration issues. Identification of expectations, barriers to use and target-group specific measures in respect of the leisure behaviour of these groups.*	*Buffer zone, transition zone*
Maurer Wald recreational area. Recording current visitor frequencies and developing a guidance concept.	*Czachs, Ch. et al.*	*Survey of visitor frequencies and developing a guidance concept*	*Pflegezone, Entwicklungszone*
Biodiversity monitoring and obtaining evidence in the core zones of the Wienerwald BR	*BPWW Management GmbH*	*Collection of biodiversity data on core zones and comparison points in commercial forests, for long-term documentation of the evolution of core zones and for obtaining evidence.*	*Core zones, buffer zone, transition zone*

Title	***Author(s):***	***Theme/Contents***	***Zone***
Management and monitoring the meadows in the Natura2000 area of Lainzer Tiergarten	*Karrar, G.*	*Meadow management and monitoring*	*Buffer zone*
Survey of the potential occurrence of Ornate bluet damselfly (Coenagrion ornatum) in Vienna	*Staufer, M.*	*Occurrence survey*	*Buffer zone, transition zone*
The local population's perceptions of the Wienerwald BR (Biosphere People)	*Arnberger A.; Eder R.*	*Survey of people living in the Wienerwald BR*	*Transition zone*
Open-space survey, Wienerwald BR	*Staudinger, M., Korner I.*	*Biotope mapping and mapping of zoological groups in open space areas in Lower Austria to establish baseline data for optimising buffer zones and for use as basis for implementations in open space areas.*	*Buffer zone, transition zone*
Beech Forests for the Future	*European joint project of several institutes.*	*The ecological and institutional background for the conservation and management of beech forests in selected European countries is examined taking into account the challenges of climate change.*	*Buffer zone, transition zone*
Control of the Tree of Heaven (Ailanthus altissima)	*Halmschlager, E.; Maschek, O.*	*Research into the control of the Tree of Heaven with the aid of a wilt-inducing fungus (Verticillium sp.)*	*Buffer zone, transition zone*

Title	***Author(s):***	***Theme/Contents***	***Zone***
Evaluating the Zonation of the Biosphere Reserve Wienerwald: How well does the conservation zone contribute to biodiversity conservation?	*Willner, W.*	*Evaluation of the zonation*	*Core zone, buffer zone, transition zone*
Mass hibernation and notes on the winter activity of fire salamanders (S. Salamandra) in the Maurer Wald (Vienna, Austria)	*Leeb, Ch.*	*Winter habitats of fire salamanders in the Maurer Wald*	*Buffer zone, transition zone*
BIOS –the dynamics of regeneration and deadwood	*Universität für Bodenkultur Wien*	*See 4.2*	*Core zones, transition zone*
IESP - Towards Integrated Ecological Spatial Planning for the Wienerwald Biosphere Reserve	*Reimoser, F. et. al*	*Improving the integrative sustainable land use; technical and methodical foundations were developed for a forward-looking management of conflicts between habitat requirements for wildlife and land use expectations of people, based on the example of recreational use in the Wienerwald BR*	*Core zones, buffer zone, transition zone*
Echo location – educational echo	*Österreichische Bundesforste (ÖBf AG)*	*See 4.2*	*Core zones, buffer zone, transition zone*
Baseline monitoring in the core zones of the Wienerwald BR	*BPWW Management GmbH*	*Collection of forestry and ecological parameters (e.g. deadwood) at fixed sampling points in the core zones*	*Core zones*

Title	***Author(s):***	***Theme/Contents***	***Zone***
Soil monitoring	*Austrian Research Centre for Forests (BFW), project partner: City of Vienna Department of Forestry and Agriculture (MA 49), the Austrian Federal Forestry Authority /ÖBf AG)*	*See 4.2*	*Core zones, transition zone*
Setaceous Hebrew character (moth): Research into lepidoptera caterpillars – 'Sparkling Science'	*Lackner, Ch.*	*Scientific exploration of wintering caterpillars in the spring meadows of Lainzer Tiergarten and their contribution to biodiversity and population dynamics.*	*Buffer zone*
Replacement bat roosts in Vienna	*Hüttmeir, U.; Reiter, G.*	*Bat*	*Buffer zone, transition zone*
Evaluation by ÖBf of the quality of the BR experience	*Arnberger A.; Eder R.*	*Evaluation*	*Transition zone*
Meadow saffron (Colchicum autumnale)	*Karrer, G.; Winter, S.*	*See 5.3*	*Buffer zones and transition zone*
Part_b: Participatory processes in the BR – intervention theory, strategy analysis and process ethics using the examples of the Wienerwald BR, Großes Walsertal and Nockberge National Park	*Jungmeier, M. et al*	*Participatory processes in the BR – intervention theory, strategy analysis and process ethics*	*Transition zone*

Title	***Author(s):***	***Theme/Contents***	***Zone***
Photovoltaics with due regard to economic and ecological assessment criteria using the example of the Wienerwald BR	*Kalss, K.*	*Based on basic technical research into the existing technology of photovoltaics, and supported by an explanation of an assessment of the environment, a life cycle assessment and an economic assessment of various PV systems, the work provides a cross-functional analysis of the technology of photovoltaics.*	*Transition zone*
The Rosalia alpina (L.) beetle in Lainzer Tiergarten	*Paill, W.*	*First localisation, conservation status and recommendations for measures.*	*Buffer zone*
Beech bark beetle	*Österreichische Bundesforste (ÖBf AG), Austrian Research Centre for Forests (BFW)*	*See 4.2*	*Core zones, buffer zone, transition zone*
Efficient spatial use in suburban areas? Sustainable settlement structures thanks to efficient use of existing building site contingencies in the Wienerwald BR	*Musil, R.; Pindur, P.*	*Sustainable settlement structures thanks to efficient use of existing building site contingencies in the Wienerwald BR*	*Transition zone*
Recording the occurrence of moss species as per Annex II of the Habitats Directive and recording the moss flora of urban Vienna by means of random sampling	*Zechmeister, H.*		*Core zone, buffer zone, transition zone*

Title	***Author(s):***	***Theme/Contents***	***Zone***
Viticultural landscapes along the line of thermal springs and in Vienna	*BPWW Management GmbH*	*Mapping of viticultural landscapes and their structures for analysing natural conditions and deriving management strategies, educational work and public relations*	*Buffer zone, transition zone*
Integrated Sustainable Wildlife Management - ISWIMAB	*Reimoser, F. et. al*	*Developing model concepts, contents and instruments for an integrated, i.e. cross-sectorally aligned assessment of sustainability among several land user groups*	*Core zones, buffer zone, transition zone*
ADAPT – Assessing the vulnerability of forests owned by the Austrian Federal Forestry Authority with regard to climate change and the development of adaptive management strategies	*Lexer, M.*	*Assessing the vulnerability of woodlands/forests owned by the Austrian Federal Forestry Authority with regard to climate change and the development of adaptive management strategies*	*Core zones, buffer zone, transition zone*
Patches of natural forest	*Milasowszky, N., et. al.*	*Research into spiders and ground beetles in patches of natural forest in the Irenental for the assessment of areas on the basis of ecological criteria*	*Core zones, buffer zone, transition zone*
Occurrence and endangered status of underwing moths (genus Catocala spp.) (Lepidoptera, Noctuidae: Catocalinae) in Vienna	*Schulze, Ch.*	*Occurrence and endangerment of underwing moths*	*Buffer zone, transition zone*
Sustainable woodland biomass management	*Sauberer, N. et al*	*See 5.3*	*Core zones, buffer zone, transition zone*

Title	***Author(s):***	***Theme/Contents***	***Zone***
Monitoring of air pollutants using mosses in the Wienerwald BR	*Zechmeister H. et al*	*The use of bioindicators to explore adverse effects on the environment and human health from pollutants. Biomonitors do not require any infrastructure; at the same time, one single sampling can afford an overview of the pollutant depositions in recent years.*	*Core zones, buffer zone, transition zone*
Sustainable suburbanisation? Development trends and control mechanisms for settlement activities in the Wienerwald BR	*Musil, R.; Pindur, P.*	*Development trends and control mechanisms for settlement activities in the Wienerwald BR*	*Transition zone*
Ural owl (Strix uralensis), re-introduction	*Zink, R.*	*See 4.2*	*Core zones*
Deadwood succession – Life in Deadwood	*BPWW Management GmbH*	*Recording of various species of fungi and beetles occurring on beech and oak deadwood.*	*Core zones*
Recording and assessing the conservation status of mussels and river crab species as per Annex II, IV and V to the Habitats Directive, and as listed in Vienna's nature conservation regulations	*Ofenböck, Th.*	*Survey of species of mussels and river crabs occurring in Vienna*	*Buffer zone, transition zone*
Guide for research and monitoring in the Wienerwald BR	*Kirchmeir, H.; Zollner, D.*	*The guide is intended to provide principles, guidelines and framework conditions for future research and monitoring*	*Core zones, buffer zone, transition zone*

Title	***Author(s):***	***Theme/Contents***	***Zone***
The Great capricorn beetle, Cerambyx cerdo Linnaeus 1758, in Lainzer Tiergarten	*Zabransky, P.*	*Survey*	*Buffer zone*
The Small eggar moth in Vienna	*Höttinger, H.*	*Survey*	*Buffer zone*
Survey of butterflies in Lainzer Tiergarten	*Pendl, M.; Bobits, H.*	*Survey*	*Buffer zone*
Outcome of breeding bird monitoring in the trial areas of Vienna-Kalksburg in 2005	*Donnerbaum, K. et al*	*Breeding bird monitoring*	*Buffer zone, transition zone*
Possibilities of biological control of the Oak processionary moth.	*Schopf, A.*	*Research into the sensitivity of caterpillars to toxins from various strains of the bacterium Bacillus thuringiensis (Bt).*	*Buffer zone, transition zone*

Water body monitoring is already in progress, in the course of which the natural condition of all water bodies in the Wienerwald BR is to be surveyed (cf. 4.2).

It is also planned to carry out visitor monitoring in the core zones of the Wienerwald BR. In this context, there is currently a pilot study being conducted in the core zones of Leopoldsberg and Dombachgraben under the project entitled 'Management plans for the core zones in the Viennese part of the BR' (cf. 4.2).

Also being planned is a socio-cultural research project on changes in land use, the visual landscape, traditions and customs practised over the past 100 years (trans-generational memory project [cf. 2.3.5]).

6.3 **Describe how traditional and local knowledge and knowledge from relating to management practices have been collected, synthesized and disseminated. Explain how such knowledge is being applied to new management practices, and how and if it has been integrated into training and educational programmes.**

*The traditional knowledge of how to build **drystone walls** by applying a technique of carefully choosing interlocking stones and without using any mortar or cement is passed on in the courses offered by BPWW Management GmbH (cf. 2.3.5).*

*In Austria, the craft of **scything** is fading into oblivion. One of the educational partners of the BPWW Management GmbH and member of the 'Rauchkogler' association (cf. 5.4) offers courses*

in DIY scything in which he also talks about the various scythes available and about the best sharpening technique.

*As far as the Wiesenmeisterschaft (**Meadow-Master Championship**) is concerned, there are annual awards for sustainable management available to the managers of the most beautiful meadows, pastures and orchard meadows. Their meadow management is based on their traditional knowledge, and their experience is acknowledged by this award.*

*The old **crafts** of pine tapping, charcoal burning and floating timber had a long tradition also in the Wienerwald, but they too have now almost faded into oblivion. The revival of pine tapping and charcoal burning in the list of Austria's intangible cultural heritage assets is an attempt to revive the old traditions (cf. 5.8).*
The museum of log floating and forestry (Holztrift- und Forstmuseum) Schöpflklause in Klausen-Leopoldsdorf conveys a very good overview, in terms of photographs, sketches, models and numerous exhibits, of the installation and operation of the largest firewood floating plant in Europe and of woodland use over past centuries.

Other museums in the Wienerwald are also concerned with ancient traditional knowledge und skills, e.g. the Kaiser-Franz-Josef Museum für Handwerk und Volkskunst in Baden by Vienna and the Wienerwald Museum in Eichgraben which has hosted e.g. the BR's touring exhibition 'Nach-halt-ich' (a pun on nachhaltig=sustainable) (cf. 6.5.1). Just like the intangible cultural heritage, the museum is featured on the BPWW Management GmbH's website.

Likewise, individual offers contained in the annual programme folder produced by BPWW Management GmbH are concerned with ancient crafts and traditional knowledge, with the aim to ensure that they are passed on by means of practical application (cf. 5.9).

Apart from numerous small traditional craft businesses such as the turner's workshop Drechslerei Gutscher in Altlengbach (http://www.drechslerei-gutscher.at/) there are also modern craft businesses which combine ancient knowledge and experience with modern technology, e.g. Acetaia Pecoraro in Klosterneuburg (http://www.pecorarobalsamico.at/index.htm).

6.4 **Environmental/sustainability education. Which are the main educational institutions ("formal" – schools, colleges, universities, and "informal" services for the general public) that are active in the biosphere reserve? Describe their programmes, including special school or adult education programmes, as these contribute towards the functions of the biosphere reserve. Comment on organizational changes (if any) in institutions and programmes that were identified in the biosphere reserve ten or so years ago (e.g. closed down, redesigned, new initiatives). Refer to programmes and initiatives of UNESCO Associated Schools networks, UNESCO Chairs and Centers where applicable**.

Currently, the Wienerwald BR region can boast eight UNESCO schools in Vienna, 39 'Ökolog' schools (13 in Vienna and 26 in Lower Austria) and an eco-label school (Hochschule für Agrar- und Umweltpädagogik HAUP). Furthermore, there are many schools which have adopted one of many initiatives for key themes (e.g. >20 'Healthy Schools' [Gesunde Schulen] in the Wienerwald BR). Other than that there are no notable changes in the kind or number of schools and school-type education centres in the BR.

Over the past 10 years, the following important projects were implemented in the field of education by BPWW Management GmbH:

Teaching materials:
Already in 2005 BPWW Management GmbH compiled a folder with teaching materials for primary schools and schools of secondary education grade I in the Wienerwald region. The decision for these school levels was made for both practical and pedagogic reasons.

The involvement with their local environment, with the place where they live and attend school, occurs first at primary school, especially when the children learn about factual issues. This is the age at which it is particularly feasible to initiate positive emotional relationships with nature and the region. On the other hand, the secondary school level makes it possible to let students learn about various biotopes, habitats and their diversity. Moreover, this is the time when conservation concepts can be addressed and perspectives can be opened up for the future. This happens in regular lessons, say in subjects like geography and biology, but also in projects that range across various subjects.

The folder contains information for teachers on all themes, which means that more advanced students and adults can also learn something about the Wienerwald BR.

The BR Game:
The game was developed in connection with the Meadow-Master Championship 2011 by the Austrian Federal Forestry Authority (ÖBf AG), the Arbeitsgemeinschaft Vegetationsökologie und Landschaftsplanung GmbH (AVL) (working group for vegetation ecology and spatial planning) and is suitable for use in the classroom and – given some minor adjustments – also in adult education. The game is a perfect tool for illustrating the complex concept of 'biosphere reserve', thus making the complexity accessible and comprehensible in a playful way.

A landscape with mountains, lakes, settlements, fields, roads etc is built up on a green playing field. Subsequently, the players mark the transition, buffer and core zones of their BR. In the process, they adopt various roles, such as recreational users or farmer, and they try to shape the landscape in line with what is required in each case.

This roleplay teaches not just how to zone a BR; it also makes players come face-to-face with complex interactions between various interest groups. It takes about 2-3 hours to play this game. In 2012, the game was given an award by the Austrian Advisory Board of UNESCO in connection with the UN Decade of Education for Sustainable Development 2005-2014.

BR school twinning:
On the occasion of the 40th anniversary of the MAB Research Programme, a Europe-wide project was initiated to promote the exchange of information between students who live in biosphere reserves. The theme is the communication of knowledge about various habitats and biotopes including 'Best Practice' examples of sustainable development.

School classes in various European biosphere reserves are given the opportunity to collaborate interactively using a web platform and they can also visit each other. The information exchange on regional development, sustainable economy and their local environment provides an opportunity for young people to consider and discuss local circumstances from a variety of viewpoints. As a result of knowledge and experience gained in various regions, jointly conducted projects can lead to creative and innovative ideas.

The provision of education on sustainable development is a fundamental task for biosphere reserves. This process contributes to increasing the knowledge and commitment of residents in and visitors to the BR as well as the relationship between humans and nature. Biosphere reserves as centres of learning about sustainable development is one of the aims of the Madrid Action Plan (UNESCO 2008). This function corresponds to the role envisaged by the Decade of Education for Sustainable Development 2005-2014 declared by UNESCO. School partnerships such as School Twinnings promote the understanding and acceptance of other countries and their populations by young people.

Natur zum Genießen (Nature to be Savoured):
This school project aims at bringing pupils in touch with traditional knowledge about the collecting and processing of wild herbs and other wild plants (cf. 2.3.6).

Educational networks:
The BPWW Management GmbH is particularly active in two educational networks:

- *Netzwerk Umweltbildung Niederösterreich: A pool of 70 institutes concerned with environmental education, co-operating on a voluntary basis and in accordance with the principles laid down in the Wienerwald Declaration. The co-ordination of this network - unique in Austria - is supported by the Federal State of Lower Austria.*
- *BR educational network: All educational partners of the Wienerwald BR are members of this network.*

Further examples:
Furthermore, BPWW Management GmbH offers guided BR walks for school classes as part of various projects (e.g. Biodiversity Day and Meadow Master Championships).

6.5 How **do you assess the effectiveness of actions or strategies applied?**
(Describe the methods, indicators).

The effectiveness of BR offerings for visitors or school classes and the annual offer of further education for facilitators is to some extent measured in terms of participants. Furthermore, feedback forms are completed by participants in guided walks at various events; the feedback is used to assess the contents and quality of the knowledge conveyed. The evaluation of other parts of the programme of guided walks is currently being discussed.

Other benchmarks include media reports on the BR or a BR event, number of research projects conducted, and the number of international groups which are guided through the BR on field trips for specialists.

6.5.1 **Describe the biosphere reserve's main internal and external communication mechanisms/systems**

BR Media:

The main objective of the BPWW Management GmbH's communications consists in reaching the region's residents, stakeholders and decision-makers. The BPWW Management GmbH's most important tools of communication are the newspaper 'Das Blatt', the electronic newsletter and the BR website, which are all run with this objective in mind.

The newspaper 'Das Blatt':
In the years from 2004 to 2007 there was an annual edition of the newspaper 'Das Blatt'. In 2008 it was possible to produce three editions, and in subsequent years two editions per year. The size of the newspaper was increased from originally 8 to 16 pages. In the early years, the newspaper was sent to each household in the Wienerwald BR, and this is the reason why print runs of approx. 100,000 copies were made. This approach made the costs of printing and distribution very high and it was not possible to verify the efficacy of the approach in sufficient depth. The print run was therefore reduced to 15,000 copies. More than 6,700 of these are sent to subscribers direct and the remaining copies are distributed at events and via partner organisations. Subscriptions to and requests for the newspaper can be made by telephone, email or online.

Newsletter
See 6.5.3

Website:
See 6.5.2

Other means of communication:

Below you will find a list and description of examples of other means of communication which play an important role in BPWW Management GmbH's PR work:

Infopoints:
In view of the size of the BR region, a decision was made to have decentralised infopoints rather than having just one central visitor centre. An infopoint consists of one to three components which are presented like segments of a hemisphere, because they have been modelled on a hemisphere of the earth in order to emphasise the global importance of biosphere reserves. The individual elements display, on both sides, information on the Wienerwald BR, locally occurring special biotopes, animal and plant species as well as specific projects which are of special relevance to the community or district where the infopoint is located. In total, six infopoints were set up in Lower Austria and five in Vienna.

Signage for the outside boundaries of the Wienerwald BR in Lower Austria:
In order to make the outside boundaries of the Wienerwald BR clearly visible on-site, distinctive welcome signs were installed at all entry points to the BR on all major routes into the region. These panels welcome approaching visitors and say goodbye to those that are leaving; at the same time they serve as official signage for the protected landscape of the Wienerwald. In Lower Austria, approx. 30 welcome signs were installed. Similar panels are being planned for Vienna.

Activity report:
Since 2009 a detailed activity report has been compiled every year on the work of the BPWW Management GmbH. It contains the BR Management's mission statement, detailed descriptions of two sample projects, brief descriptions of the projects and activities carried out, an overview of the media reports and events, the key contacts in the BR Team and basic information on the budget and the committees of the BPWW Management GmbH. Since 2010 the annual activity report also contains a report on the BR-related activities of the City of Vienna Department of Forestry and Agriculture (MA 49) and the Austrian Federal Forestry Authority (ÖBf AG).

The activity report for 2014 was published in a heavily abridged form as only pre-existing projects were continued and they had already been described in detail in the Activity Report for 2013; this abridgement allowed us to make cost savings.

BR exhibitions:
In 2006 a mobile exhibition about the Wienerwald BR was created which, on seven panels, introduces the region and the tasks and goals of the BR as well as presenting some sample projects. In 2013 a mobile exhibition was designed entitled 'Nach-halt-Ich!' (a pun placing the individual at the centre of sustainability) which, in addition to information on the Wienerwald BR, focuses on the presentation of projects and activities proceeding in those communities/districts where the exhibition happens to be staged. This involved selecting and preparing the best demonstration projects in co-operation with the communities/districts concerned. Examples from everyday life were chosen to inspire each and every exhibition visitor to take action for himself or herself - in the most sustainable way possible. In the run-up to 2015 the exhibition has been shown in four communities and in that time, sample projects from as many as 20 communities have been shown.

Core zone folder, core zone panels and additional panels:
A separate folder was compiled for each core zone; it contains a brief description of the core zone in question and draws attention to some basic do's and don'ts. In addition to official identification of individual areas as core zones of the BR and as nature reserves, supplementary panels were installed at sites with particularly high visitor numbers. These panels display a map with more detailed information on tracks in the core zone, also mentioning one or two special animal or plant species occurring there. The visitor is requested to give priority to nature and to act in a considerate manner.

Folder:

Ground rules for behaviour in the forest:
Based on the outcomes of two research projects entitled 'Integrated sustainable Wildlife Management – ISWIMAB' and 'Towards Integrated Ecological Spatial Planning – IESP' as well as the body of experience from ten years of BR management and generating management plans for the core zones, a special folder was issued in 2015 regarding behaviour in the forest. This folder covers numerous different forms of usage of the Wienerwald (e.g. walking, mountain biking, timber extraction, wildlife management, cross-country skiing) and provides information on how the BR is zoned.

Furthermore, numerous themed folders were produced over the past ten years, e.g. for all core zones, for the Fruit Tree Campaign, Biodiversity Day, Snakes in the Wienerwald, School Twinning and many more.

Wienerwald BR visitor programme:
See 5.9

Publication series:
See 2.3.3

Advertising material:
Over the past 10 years, a range of advertising material was produced. These items range from cloth bags and wine carrier bags made of textiles to a wine cooler made of felt, wooden boards and calendars, and a variety of stickers. Of special interest in this context are bags made from

recycled transparencies produced for the Summer Fest 2005 which were fashioned within the region by a socio-economic job creation scheme run by Caritas. Furthermore, small seed-holding bags were produced under the Wienerwald BR logo; these were filled with marigold seeds; this too was done by people working in a job creation scheme. The orange-blossomed marigold is the Wienerwald BR's floral ambassador.

Working clothes:
For a joint public appearance of the BPWW Management GmbH's staff members, white, black and orange polo shirts were fashioned with an orange or white embroidered BPWW Logo.

BR Ambassadors
For communication with communities and districts, the so-called BR Ambassadors appointed in 2013 are an essential communication channel (cf. also 7.5). They receive email information on important news, pass the information on to their communities and provide the BPWW management GmbH with feedback from the region.

Likewise, events are important communication opportunities, enabling us to reach interested individuals, although we differentiate between external events where the BPWW Management GmbH is e.g. represented in the form of an info booth (on one hand), and BR events organised by the BPWW Management GmbH (on the other). Events staged annually by the BPWW Management GmbH are e.g. Biodiversity Day, Fruit Tree Day or wine award ceremony.

In order to ensure that reports are printed on BR themes in local and regional media, event-based press releases are disseminated via a distribution list of some 600 journalists working at regional and supraregional media. Likewise, the community newsletters and official gazettes issued by district authorities are supplied regularly with topical information on the BR.

External communications:

For external communications, BPWW Management GmbH primarily uses the networks of the MAB National Committees and UNESCO.

Communication in the international UNESCO and MAB Network:
BPWW Management GmbH takes part regularly in meetings of the Austrian MAB National Committee where the company reports on topical subjects and projects. Furthermore, the Wienerwald BR has been represented at every EuroMAB meeting and has taken part in many other MAB events ever since its designation (cf. 6.6).

6.5.2 **Is there a biosphere reserve website? If so, provide the link.**

There is a comprehensive website which covers all themes and activities conducted by BPWW Management GmbH in German, and an abridged version in English which contains mostly basic information and a few selected project descriptions.

To access the German version visit: www.bpww.at

To access the English version visit: www.bpww.at/en

The website is being updated currently in order to make it compatible with tablet and smartphone equipment. Besides, a number of program functionalities are to be added such as blog, smartgames, and databases.

6.5.3 **Is there an electronic newsletter? How often is it published? (provide the link, if applicable).**

The first electronic newsletter was issued in 2007 by BPWW Management GmbH and in that year, it was published in three editions. Since 2008 six editions per year have been dispatched to roughly 5,000 addressees. Furthermore, event-related special editions of the newsletter are disseminated (e.g. announcing Biodiversity Day or invitations to register for the Ms Wienerwald BR competition). The newsletter can be ordered direct online or by subscription.

6.5.4 **Does the biosphere reserve belong to a social network (Facebook, Twitter, etc.)? Provide the contact.**

Currently, BPWW Management GmbH does not belong to any networks. Discussions are still in progress as to the potential utilisation of such networks, also with regard to any requirements this would involve in terms of management effort and resources.

6.5.5 **Are there any other internal communication systems? If so, describe them.**

Apart from regular meetings with various partnership organisations (cf. 2.3.4) and the BR media described above, there are no other communication systems in use.

6.6 **Describe how the biosphere reserve currently contributes to the World Network of Biosphere Reserves and/or could do so in the future.**

The BR Wienerwald is involved and cooperating with MAB Paris, the EuroMAB and the NordMAB communities as well as with certain BR´s in joint projects. The EuroMAB meeting 2005 took place in the Wienerwald and, above all, the international co-operation in education was started in that year.

Since then the Wienerwald BR has participated actively in EuroMAB meetings and taken part in working groups and themed discussions. In the 2015 EuroMAB meeting, the Wienerwald BR contributed keynote speeches at two workshops entitled 'Landscape and Health' and 'Business & Biodiversity - financing nature conservation via corporate social responsibility´.

At the World Conference in Madrid in 2008, the Wienerwald BR started a more intense collaboration with the BR Manicouagan Uapishka in Canada.

In 2009 the Wienerwald BR Management participated in a workshop about the 'ARDI' method in Fontainebleau, France, and gave a presentation about this at the 2009 EuroMAB meeting in Slovakia. At a workshop about education for sustainable development in Athens in 2012, experience was shared with conservation areas around the Mediterranean. There is also co-operation with the UNESCO Biosphere Reserves in South East Europe on the sustainable use of medicinal and aromatic plants (2013 workshop in Venice).

In 2010, at a BR conference in the Galloway and Southern Ayrshire BR, Scotland, and in BR Vänerskärgarden med Kinnekülle, Sweden, the international exchange of experiences from the Wienerwald BR began, assisting new BR´s in informing their stakeholders about the benefits of a BR. This work was continued in Strandja Nature Park, Bulgaria (2011), and in the Roztochya BR, Ukraine, in 2014.

For EXPO 2015 in Milan, the Wienerwald BR contributed material for the UNESCO exhibition in Venice and was represented at the event entitled 'Beyond Food Sustainability´ in the Biodiversity Park at the Milan EXPO. On this occasion we had our first meeting with the Ticino Valley BR when a closer co-operation for the future was set up.

The Wienerwald BR also hosts expert visitors from other BRs in Austria and from abroad (Sweden, Canada, Czech Republic, Slovenia, Australia, South Eastern Europe, etc) to exchange experience and share expertise.

6.6.1 **Describe any collaboration with existing biosphere reserves at national, regional, and international levels, also within regional and bilateral agreements.**

There is close co-operation between the Austrian BR´s such as Wienerwald, Großes Walsertal, Kärntner Nockberge and Salzburger Lungau. Regular meetings are held at the conferences of the Austrian MAB National Committee, and there is collaboration on presentations for stakeholders and in themed workshops about zoning, management plans etc. Also school twinnings and mutual visits are part of the cooperation.

Likewise, there is close co-operation with the Skocjanske Jame BR in Slovenia, where school twinning and mutual visits have taken place and are planned on a regular basis for the future.

A larger project on which we co-operated with the Czech Dolni Morava BR was the 'Transboundary information exchange for revision and functional improvement of zonation in the Lower Morava Biosphere Reserve'. The Dolni Morava BR management asked for help from Austrian colleagues who have up-to-date experience with BR zonation. The main output of the project co-funded by the Austrian Academy of Sciences, led by E.C.O. – Ecological Institute, and supported by BPWW Management GmbH, was in the form of a plan designed for Dolni Morava BR and its proposed zonation revision. The project stressed the importance of implementing international practical experience, including feedback from the MAB Programme and active involvement of all stakeholders. The Dolni Morava BR has been following the guidelines for a revision of zonation, and the stakeholder negotiations reached the final stage. The new zonation proposal, as agreed by stakeholders, has been available since 2014.

Since 2011 the Wienerwald BR has been involved with the working group on the establishment of the 'Transboundary UNESCO Biosphere Reserve Mura-Drava-Danube' (TBR MDD), following a commitment made in 2011 by the ministers responsible for environmental protection and nature conservation of Austria, Croatia, Hungary, Serbia and Slovenia. The BR Wienerwald participated in relevant workshops in Budapest, Kopacki Rit and Vienna; and in 2011, expressed its support for the idea at a stakeholder conference in Backi Monostor, Serbia.

In addition to the meetings and workshops held with other BRs, as mentioned above, several international field trips for specialists are organised every year in the Wienerwald BR. In this context, we were able to welcome visitor groups from China, Canada, Australia, Laos, Vietnam, Ukraine, Georgia und Cameroon.

6.6.2 **What are the current and expected benefits of international cooperation for the biosphere reserve?**

The benefit of international co-operation lies in support during the stages of planning and establishing the BR. Mutual stakeholder visits raise public awareness of the importance of international networking and are necessary for a frank and constructive exchange of ideas, as well as sharing best-practice examples and learning from each other.

Co-operation in education helps to encompass the wide range of education in sustainable development and adds an international aspect to the educational programmes.

6.6.3 **How do you intend to contribute to the World Network of Biosphere Reserves in the future and to the Regional and Thematic Networks?**

The Wienerwald BR intends to contribute to the World Network of Biosphere Reserves through the exchange of scientific information and contacts between relevant research groups making full use of the potential provided by the universities existing in Vienna. Other contributions include exchanging experience in conservation and sustainable use of resources, especially sharing examples of sustainable forestry, wildlife management, viticulture and the revitalisation of agricultural landscapes. The topics of BR participation, management and the involvement of business sectors and communities in the BR are other areas of expertise which the Wienerwald BR can offer to share in the future.

The BR is also able to offer practical and logistic support for study tours by other BR personnel, seminars and workshops as well as participation in relevant themed discussion groups, etc.

For the future, a more intense co-operation with regional and themed networks (EuroMAB, NordMAB, Mediterranean Network and North East Europe BR´s) is planned. This will involve, for instance, establishing a working group on 'business and biodiversity' using the EuroMAB platform, or supporting the project concerned with the sustainable use of medicinal and aromatic plants in the SEE BR´s.

6.7 **What are the main factors that influenced (positively or negatively) the success of activities contributing to the logistic support function? Given the experiences and lessons learned in the past ten years, what new strategies or approaches will be favored as being most effective?**

The proximity of the city of Vienna is considered an advantage also for the logistics function, primarily on account of the research institutes located there. Likewise, any incomers from cities and other new entrants to the region contribute positive dynamic inputs, thanks to the variety of viewpoints they represent.

The size of the region and its significant number of residents makes communicating the work and tasks of the BPWW Management GmbH harder, and this naturally poses challenges to everyday working processes. During the first ten years, the Wienerwald BR's research focus was on collecting baseline data in the field of nature conservation. In 2006 a 'Guide for research and monitoring in the Wienerwald BR' was published; it was compiled within the framework of the MAB project, in co-operation with the BPWW Management GmbH. However, the outcomes have not been considered sufficiently in the selection of research subjects over recent years. Moreover, BPWW Management GmbH lacks access to funding and sponsorship mechanisms for projects in the field of economic and social pillars of sustainability. This was one of the contributing factors why, over the past ten years, it was not possible to carry out as many relevant projects as might be desirable. Consequently, the subjects chosen for projects were either essential for managing various areas, or subjects which were of particular interest to scientists or scientific institutions.

The content- and process-related outcomes of the 'Wienerwald BR 2020 Vision' concept can be used as a working brief for the next few years (cf. 7.7.2).

6.8 **Other comments/observations from a biosphere reserve perspective.**

None

7. GOVERNANCE, BIOSPHERE RESERVE MANAGEMENT AND COORDINATION:

[Biosphere reserve coordination/management coordinators/managers have to work within extensive overlays of government bodies, business enterprises, and a "civil society" mix of non-governmental organizations and community groups. These collectively constitute the structures of governance for the area of the biosphere reserve. Success in carrying out the functions of a biosphere reserve can be crucially dependent upon the collaborative arrangements that evolve with these organizations and actors. Key roles for those responsible for the biosphere reserve coordination/management are to learn about the governance system they must work within and to explore ways to enhance its collective capacities for fulfilling the functions of the biosphere reserve.]

7.1 **What are the technical and logistical resources for the coordination of the biosphere reserve?**

The staff of the BPWW Management GmbH currently comprises 9 full-time and one part-time employee.

In autumn 2015 the Management is to move to a new office building at the same location. The office space in the new building covers 415 m² and consists of five office rooms for 2-3 staff members, one meeting room for 20 people max., a kitchenette and two large storage rooms for the archive and library, and one service room. The premise of a school in the same location contains a lecture theatre and a large multi-purpose hall which can be hired for events.

The office is fully furnished with computers, laptops and a tablet; furthermore, it contains a printer, copier, fax machine, telephone system and broadband access to the internet. Furthermore, there are two cameras and two GPS units available, and each member of staff has a company-owned mobile telephone.

BPWW Management GmbH owns various types of equipment for events, such as roll-up display banners, beach flags, other flags and small exhibition tents, in addition to tools for various join-in and conservation activities - and a service bicycle.

<u>Wienerwald BR's GIS:</u>

Geodata sources:
The BPWW Management GmbH administers and processes its own internal geodata as well as geodata from external partners. Depending on provenance, spatial allocation and subject area, the data is either comprehensive or restricted to specific parts of the BPWW area.

Data suppliers are categorised roughly as follows:
- *Federal states*
- *Communities and districts*
- *Landowners*
- *Administrative bodies, public agencies*
- *Experts and specialist groups*
- *Wienerwald BR (internal)*

Categorisation:
The individual geodatasets are grouped into themes and, in accordance with data protection guidelines, are designated either for public or exclusively for internal use.

• *Wienerwald BR baseline data* o *Boundary lines* o *Area* • *Administration* o *State boundaries* o *Communities and districts* o *Cadastral communities* o *Data Control Model* o *Allocation of use as assigned by spatial planning* • *Topographical information* o *Basic maps* o *Aerial photographs* o *Shading* o *Isolines* • *Zoning* o *Core zones* o *Buffer zones* • *Nature conservation* o *Natura2000* o *Natural monuments* o *Nature reserves* o *Protected landscape areas* • *Transport* o *Road network* o *Railway lines*	• *General technical data* o *Geology* o *Water body system* o *Forest development plan* • *Wienerwald BR regional data* o *Events / education partners* o *Partner businesses* • *Track network* o *Recreation (hiking, MTB, horse-riding)* o *Hunting* • *Technical data* o *Biodiversity monitoring* o *Open-space survey* o *Vegetation mapping* o *Natural forest reserves* o *Soil survey* o *Viticultural landscape* o *Meadows* • *Leisure* o *Hiking destinations* o *POI* • *Miscellaneous* o *Locations* o *Storage sites*

Geo Information System:
All geodata is stored, documented and secured on an internal server (e.g. in SHP format). The processing system used is QGIS (Quantum GIS, http://qgis.org), a free Open Source Geo Information Software. All external data sources are integrated via various web services, such as: WMTS, WMS or WFS.

GIS applications used by BPWW Management GmbH include:

- *the generation of themed maps for use in digital atlases and for printing (topological overview maps, hiking maps etc),*
- *the provision of working papers for activities in nature (e.g. core zone reconnaissance, plans for conservation measures etc)*
- *statistical evaluation of locational observation data (species identification, hunting or shooting lanes, etc),*

- *spatially based retrieval of area and property analyses in the course of landscape projects (parts of protected areas, vegetation categories in buffer zones etc).*

Notwithstanding the size of the area, this data safeguards accurate working procedures.

A browser-based WebGIS (Javascript, PostgreSQL+PostGIS) is available for internet access and linked to an external server. WebGIS contains various subsets of the overall geodataset which can be accessed subject to user authentication control.

7.2 **What is the overall framework for governance in the area of the biosphere reserve? Identify the main components and their contributions to the biosphere reserve.**

BPWW Management GmbH is a non-profitmaking organisation which was founded in 2006 by the association 'Niederösterreich – Wien – Gemeinsame Entwicklungsräume'. The association is supported in equal parts by Lower Austria and Vienna; consequently, the two states are represented in equal parts in the GmbH's boards/committees. The General Assembly is formed respectively by the Landesrat of Lower Austria, responsible for the BR, and the City Councillor of Vienna, responsible for the BR. The Supervisory Board consists of two members each from the administrative tiers of the two state governments.

7.3 **Describe social impact assessments or similar tools and guidelines used to support indigenous and local rights and cultural initiatives (e.g. CBD Akwé:Kon guidelines, Free, Prior, and Informed Consent Programme/policy, access and benefit sharing institutional arrangements, etc.).**

None.

7.4 **What (if any) are the main conflicts relating to the biosphere reserve and what solutions have been implemented?**

The greatest challenges are caused by the size and diversity of the region. The area is densely populated, with 272,500 residents in the immediate environment, and another 500,000 in outlying areas of the BR. With this amount of residents, it is important that they are not just well informed about the Wienerwald BR; they also have to be actively involved in structuring its development. There are countless different types of use of the landscape, of nature and of the region in general which all have to be reconciled to the goals and tasks of a biosphere reserve.

The BPWW Management GmbH tries to reach the individuals concerned via various projects, gradually integrating more and more people into the BR's activities.

7.4.1 **Describe the main conflicts regarding access to, or the use of, resources in the area and the relevant timeframe. If the biosphere reserve has contributed to preventing or resolving some of these conflicts, explain what has been resolved or prevented, and how this was achieved for each zone?**

There are several areas of conflict regarding the utilisation of natural resources in the Wienerwald BR.

Agricultural use – recreational use:
Although it is not permitted to walk or drive in meadows, this rule is not very well adhered to by the general public using the great outdoors for leisure and recreation. This lack of consideration creates serious problems for farmers in managing their meadows, especially with regard to hay-making. Hay from meadows contaminated by dog faeces cannot be used by farmers, because animal stock would not eat the hay. Losing a cut of hay means to farmers that they lose a significant part of their income. In order to draw attention to these issues, the BPWW Management GmbH has produced its own publication entitled 'Meadows and pastures in the Wienerwald' (cf. 2.3.3). Guided meadow walks held in the past four years as part of the Meadow Master Championship provided the opportunity to alert more than 2,300 people to this problem (cf. 5.3).

Re-use of stone quarries:
There are many places in the Wienerwald where in former times mineral resources such as flysh, limestone and dolomite were quarried. Only few quarries are still in operation today. Abandoned quarries which have not been refilled, reforested or renaturated, because of their open rock and rubble areas, make valuable substitute habitat for rare species such as eagle owl, green lizard, wall lizard, smooth snake, green toad, peregrine falcon and wallcreeper as well as for numerous species of insects which have lost their habitat elsewhere. Various mapping projects carried out by BPWW Management GmbH have proved this conclusively for quarries in the Wienerwald BR. Infilling is therefore to be avoided categorically; in fact, abandoned quarries ought to be kept open rather than using them as storage spaces or for building developments. A frequent problem in keeping abandoned quarries open is the introduction of neophytes such as the Tree of Heaven (Ailanthus altissima), Robinia and Golden rod, either through deposits or wind dispersal of seeds. It is therefore imperative to avoid deposits of biomass from gardens, parks etc.

Since 2007, the BPWW Management GmbH has been committed to awareness-raising and sustainable implementations, in the course of dissertations, co-operation and co-ordination with landowners, nature conservation agencies and spatial planning authorities. Likewise, it is committed to conservation activities with volunteers from the public and educational work. This is done both in the course of current work and in tangible projects, e.g. 'Viticultural landscapes along the line of thermal springs', 'Viticultural landscapes in the Viennese Wienerwald BR', 'Dry grassland and semi-dry grassland along the line of thermal springs in Lower Austria' and 'Info material for educational measures in Lower Austria'.

Conflicts of use in the forest:
Conflicts also occur time and again between forestry, recreational use and wildlife management, especially in terms of timing aspects. In the course of the project entitled 'Integrated sustainable Wildlife Management' solution proposals were discussed with representatives from all user groups. The outcomes were collated in the folder entitled 'Ground rules for behaviour in the forest' (Spielregeln im Wald) (cf. 6.5.1 and Köck, G., Brenner, H. 2015).

7.4.2 **Describe any conflicts in competence among the different administrative authorities involved in the management of the area comprising the biosphere reserve.**

There is a certain amount of co-ordination required between departments of the two Federal States of Lower Austria and Vienna. However, good co-operation between the BPWW Management GmbH and its Supervisory Board tends to have a compensatory effect. There is some overlap between the numerous offerings from organisations and institutions active in the region (both spatially and in terms of content), and this too requires good co-ordination, in order to avoid duplication of effort, at the same time as ensuring optimal use of the resources available in the region.

7.4.3 **Explain the means used to resolve these conflicts, and their effectiveness. Describe its composition and functioning, resolution on a case-by-case basis. Are there local mediators; if so, are they approved by the biosphere reserve or by another authority?**

Co-ordination with the GmbH's boards/committees is on-going. The Supervisory Board holds meeting four times a year, which are attended by the management of BPWW Management GmbH. This forum is used to discuss and pass future budgets (liquidity planning), as well as projects and work schedules. The meetings are also used to discuss the current financial status, activities and projects. The General Assembly takes place once a year (until 2014, it was held twice a year) for the adoption of the previous year's balance sheet and for granting the discharge of the management and members of the Supervisory Board. Up until 2014, the annual programme was also released on this occasion; nowadays, this is done just by approval from the Supervisory Board.

7.5 **Updated information about the representation and consultation of local communities and their participation in the life of the biosphere reserve**:

In order to facilitate the participation of mayors and district mayors in a formal manner, a Regional Advisory Board was formed in 2009 (as envisaged by the contract under Article 15a of the Federal Constitution Law); all 51 mayors of Lower Austria and the seven district mayors belong to this Regional Advisory Board. This Advisory Board appointed a Regional Committee with 16 representatives from communities/municipalities who were selected on equal terms.

These two bodies are to ensure the regular exchange of information and the co-ordination of specific themes. In recent years, however, other meetings have been used increasingly in order to reach these goals. Furthermore, there are ongoing contacts regarding a wide range of subjects between BPWW Management GmbH and the mayors and district mayors. It is envisaged, however, to involve the Regional Advisory Board more actively again in future and to hold relevant events at regular intervals.

In this context, the BR Ambassadors were appointed in 2013; they have taken on most of the functions of the Regional Advisory Board and the Regional Committee. Furthermore, BPWW Management GmbH held a number of information events in the communities and districts and/or used events in municipalities in order to report on topical news from the BR and exchange information.

Within the framework of 'Wienerwald BR 2020 Vision', community representatives were invited individually to play an active part in determining the future direction of the BPWW Management GmbH (cf. 7.7.2).

7.5.1 **Describe how local people (including women and indigenous people) are represented in the planning and management of the biosphere reserve (e.g., assembly of representatives, consultation of associations, women's groups)**.

The entire local population can approach BPWW Management GmbH at any time, either direct or through their mayor/district mayor or through one of the BR Ambassadors. The BPWW Management GmbH aims at responding to all enquiries within three days, at least with a brief interim reply, and to reply properly in terms of content within two weeks. In all BR matters, women and men are addressed in equal terms.

7.5.2 **What form does this representation take: companies, associations, environmental associations, trade unions (list the various groups)?**

Apart from the bodies mentioned above (Regional Advisory Board, Regional Committee, BR Ambassador), there are no formal bodies in which the local population is represented. Nevertheless, it is planned to launch a Participatory Council. It is not yet clear, however, in what form and number the local population is to be integrated in this.

7.5.3 **Indicate whether there are procedures for integrating the representative body of local communities (e.g., financial, election of representatives, traditional authorities)**.

The Regional Advisory Board is composed of mayors and district mayors from individual communities and districts. Consequently, they are elected by their constituents. The BR Ambassadors were nominated by mayors and district mayors from their individual communities and districts.

7.5.4 **How long-lived is the consultation mechanism (e.g., permanent assembly, consultation on specific projects)?**

Since foundation of the Regional Advisory Board and the Regional Committee in 2009, the Regional Advisory Board has met twice and the Regional Committee five times.

Since their appointment in 2013, the BR Ambassadors have been looked after and kept up to speed by BPWW Management GmbH on an ongoing basis. A network meeting to be held once a year for the purpose of exchanging information on experiences and challenges is at the planning stage.

7.5.5 **What is the impact of this consultation on the decision-making process (decisional, consultative or merely to inform the population)?**

The bodies and individuals mentioned above are involved partly for consultation, but mainly as a means of informing the population. Network meetings can of course be used to discuss frequently occurring problems or requests which can then be addressed in a targeted manner.

7.5.6 **At which step in the existence of a biosphere reserve is the population involved: creation of the biosphere reserve, drawing up of the management plan, implementation of the plan, day to day management of the biosphere reserve? Give some practical examples.**

The planning phase for the Wienerwald BR included decision-makers and interested parties in the framework of technical consultation fora (e.g. forest, open space etc). The process of allocating core zone areas actively involved the relevant landowners, as did the process of setting up management plans for the individual core zones. With regard to the detailed planning

of buffer zones, the communities were involved intensively in order to achieve optimal consideration of various aspects of spatial planning at an early stage.

Within the framework of the 'Wienerwald BR 2020 Vision', decision-makers, interested parties and the population were involved in determining the working brief for subsequent years (cf. 7.7.2).

7.6 **Update on management and coordination structure:**

7.6.1 **Describe any changes regarding administrative authorities that have competence for each zone of the biosphere reserve (core area(s), buffer zone(s) and transition area(s))? If there are any changes since the nomination form/last periodic review report, please submit the original endorsements for each area.**

During the planning and preparation phase for the Wienerwald BR, the top-level forestry authorities of the two Federal States (Department of Forestry in Lower Austria and City of Vienna Department of Forestry and Agriculture, respectively) spearheaded the co-ordination and organisation.

The submission and recognition of the Wienerwald BR in 2006 constituted the transfer of responsibility in Lower Austria to the Abteilung für Raumordnung und Regionalpolitik (department for spatial planning and regional policy). Only the agendas of the service agreement with the Austrian Federal Forestry Authority (ÖBf AG) (cf. 2.3.2) were retained by the Forestry Department. In Vienna the Department of Forestry and Agriculture is still responsible for the Wienerwald BR agendas. At the time when the BPWW Management GmbH was founded, a BR co-ordinator was appointed in Vienna whose role it is to support communications between BPWW Management GmbH and the competent municipal departments of the City of Vienna concerning relevant topics or questions.

7.6.2 **Update information about the manager(s)/coordinator(s) of the biosphere reserve including designation procedures.**

The BPWW Management GmbH is controlled by a Managing Director. This person is appointed in the course of a hearing at which the Supervisory Board selects three individuals. This shortlist of three is then presented to the General Assembly which makes the final decision. Over the past ten years, the GmbH has had four different Managing Directors (GeschäftsführerInnen). Since 8th April 2015, the position has been held by Andrea Moser.

7.6.3 **Are there any changes with regard to the coordination structure of the biosphere reserve? (if yes, describe in details its functioning, composition and the relative proportion of each group in this structure, its role and competence.). Is this coordination structure autonomous or is it under the authority of local or central government, or of the manager of the biosphere reserve?).**

During the planning phase and in the first years after designation (2005-2006) the BR Management belonged to an association entitled 'Niederösterreich-Wien – Gemeinsame Erholungsräume' (Lower Austria-Vienna – Joint Recreational Areas).

This association was restructured at the end of 2006 and renamed as ‚Niederösterreich-Wien – Gemeinsame Entwicklungsräume' (Lower Austria and Vienna – Joint Development Areas); it

founded the non-profitmaking Biosphärenpark Wienerwald Management GmbH (BPWW Management GmbH). The core finance for this GmbH is borne with 50% each by the two Federal States, and representatives from the two Federal States are members of the GmbH's bodies.

7.6.4 How has the management/coordination been adapted to the local situation?

The greatest challenge in the local situation of the Wienerwald BR is the fact that as many as 815,000 residents have to be integrated in the work of the BR. To this end, BPWW Management GmbH has adopted an approach which consists in addressing as many as possible of the multiplier groups, decision-makers and stakeholders to inform them on our projects and activities.

To achieve the necessary co-ordination between representatives from the two Federal States in the BPWW Management GmbH, regular Supervisory Board meetings are used, and in some cases further co-ordination discussions are held at a smaller scale. Likewise, there are regular meetings with partner organisations and NGO's for mutual information and co-ordination.

7.6.5 **Was the effectiveness of the management/coordination evaluated? If yes, was it according to a procedure?**

In line with the contract under Article 15a of the Federal Constitution Law (cf. annex), BPWW Management GmbH was assessed and subsequently the core funding was increased from €600.000 to €800.000.

The assessment was carried out by an external consultancy in co-operation with BPWW Management GmbH. The assessment focused on the question whether the objectives set in UNESCO's Seville Strategy were being fulfilled. The assessment also extended to examining the impact of the management's work in the region so far. The process revealed that the tasks and goals of a BR encompassing an area of this size and with a population of (then only) 750,000 people, requires a budget exceeding €600,000; as a result, the budget was increased in due course.

7.7 **Update on the management/cooperation plan/policy:**

7.7.1 **Are there any changes with regard to the management/cooperation plan/policy and the stakeholders involved? If yes, provide detailed information on process for involvement of stakeholders, adoption and revision of the plan.**

In respect of the 'Wienerwald BR Vision 2020' the key areas of work as well as tangible projects leading up to 2020 were defined and determined in a participatory process (cf. 7.7.2). Apart from the outcomes of these processes, there is no management plan for the Wienerwald BR region, except for the core zones of the Wienerwald BR, which - as a foundation and planning instrument for the landowners - is aimed at fulfilling the goals of the Wienerwald BR in the long term.

7.7.2 **Describe contents of the management/cooperation plan (provide some examples of measures and guidelines). Is the plan binding? Is it based on consensus?**

Wienerwald BR 2020 Vision:
This major participatory project of BPWW Management GmbH enabled the company, with the help of 600 individuals, to make a direct contribution to the further development of its content. In view of the great importance of the project for the work of the Wienerwald BR in the years leading up to 2020 and in line with the concept of 'model BR', which is to make insights available to the international network of biosphere reserves, the process is described below in more detail.

As a result of rising awareness of the Wienerwald as a biosphere reserve, there has been an increase in the number of ideas, suggestions and demands raised by residents, scientists and various institutions and organisations whose members are concerned with the Wienerwald. In the course of years of successful work on establishing the BR, it became clear that a comprehensive concept was required for a targeted and hence also co-ordinated vision for the work in the Wienerwald BR over the next few years.

The visionary concept was intended to include key subject areas and numerous project ideas, involving in its design as many people as possible. This type of broad-ranging participatory process constitutes a major challenge in a region with more than 800,000 inhabitants. Therefore, a process design was created which facilitated the greatest possible participation of the population.

On the basis of experience gained so far, the BPWW Management GmbH team defined ten key themes which were considered of prime relevance to the future:

- *to strengthen sustainable forestry and agriculture*
- *to support viable innovations*
- *to promote identification and participation*
- *to safeguard and enhance ecological resources*
- *to take into account sustainable economic aspects*
- *to promote responsible consumption*
- *to strengthen education and information for the benefit of sustainable development*
- *to strengthen compatible tourism and compatible leisure activities*
- *to provide a network and platform*
- *to strengthen integration/community/social commitment*

A simple online survey was used, either by email or by invitation on the Wienerwald BR website, asking more than 600 stakeholders and players from the Wienerwald BR, to name their priorities by selecting three of the themes. More than 50% of the people contacted responded and in addition, numerous supplementary comments were collected.

This multiple-choice approach enabled us to contact, consciencitise and include the most important BR partners. The responses produced five weighted themes:

- *Strengthening sustainable forestry and agriculture*
- *Promoting people's identification with the region*
- *Safeguarding and enhancing ecological resources*

- *Pushing ahead with sustainable economic aspects*
- *Education and information on sustainable development*

A series of events was held on the basis of the five preferred themes for the future, and all respondents to the online survey were invited to attend. In addition, players who are actively involved in targeting these individual themes were also invited. The events were held in the evenings in order to enable people to attend, for whom this attendance would not be part of their job or daily work. First, members of BPWW Management GmbH gave their input regarding various fields. In order to ensure the active involvement of participants, the subsequent process was designed to proceed as follows:

- *Formulating project ideas which the BPWW Management GmbH's team might implement with their partners by 2020*
- *Summarising the outcomes of discussions on individual themes*
- *Detailed work on ideas in subgroups on the basis of a given rotor*
- *Presentation and discussion of project proposals on a mutual basis*

The event outcomes were documented and collated in the form of workshop logs and sent to participants, and their feedback was subsequently incorporated.

The workshops and theme definitions were allocated to the 'BR functions' as defined by UNESCO (conservation, development, logistics support):

Conservation function:

- *In the workshop on 'Safeguarding and enhancing ecological resources', the themes defined were: water bodies and soil, education and awareness-raising, woodland-meadows-agriculture, trends in human settlements-transport-spatial planning as well as research.*

Development function:

- *Participants in the workshop on 'Pushing ahead with sustainable economic aspects' defined the following central themes as vital for the future: real estate, educational work, tourism, new product ideas and co-operation in order to strengthen networks and develop brands.*
- *In the workshop on 'Promoting people's identification with the region', the following elements were seen as central: vision, (youth) education, culture and history, campaigns/events, symbols and products, mobility-energy-transport as well as marketing-PR-advertising.*
- *In the workshop on 'Strengthening sustainable forestry and agriculture' , the following themes emerged: woodland dynamics, strategy and regulatory framework, tangible management recommendations, awareness-raising and education as well as forest and wildlife. For the theme of agriculture, the major concerns were awareness-raising, meadows and hay, marketing of agricultural produce, and landscape structures.*

Logistics function:

- *In the workshop on 'Education and information on sustainable development' the following themes were identified: vision, educational work and providing information for senior citizens, extra-curricular youth work, schools and educational offerings for working adults*

In order to ensure that the process concept would be easy to assess by people looking at it from the outside, a scientific feedback mechanism was envisaged from the start, in the form of a feedback discussion with Dr. Norbert Weixlbaumer. Dr. Weixlbaumer is Professor at the Institute of Geography and Regional Research of the University of Vienna and a member of the Austrian MAB National Committee. The professor can draw on years of experience in the field of perception and acceptance of large conservation areas and in dealing with self-perception and perception of ‚the other' in terms of conservation area policy.

The focus of the emerging project proposals was further refined by the BPWW Management GmbH's team; funding and implementation plans were created, and the overall concept was co-ordinated with the BPWW Management GmbH's Advisory Board. In the meantime, it has become the framework for our work in the Wienerwald BR over the next few years.

The report on the Vision 2020 concept is available for download on the Wienerwald BR's website (Biosphärenpark Wienerwald) (http://www.bpww.at/fileadmin/Redakteure/Aktuelles_2014/Zukunftskonzept_2020.pdf).

7.7.3 **Describe the role of the authorities in charge of the implementation of the plan. Describe institutional changes since the nomination form/last periodic review report. Please provide evidence of the role of these authorities**.

It is the BPWW Management GmbH's responsibility to implement the projects arising from the 'Wienerwald BR 2020 Vision' concept. In coming years, these projects will be implemented in the region in co-operation with partners.

7.7.4 **Indicate how the management plan addresses the objectives of the biosphere reserve.**

The key subjects and project ideas selected were assessed in a workshop organised by BPWW Management GmbH to discuss their capacity to fulfil one of the three BR functions (conservation, development, logistics).

7.7.5 **What are the progresses with regard to the guidelines of the management/cooperation plan/policy?**

The implementation of some projects contained in the 'Wienerwald BR 2020 Vision' concept has already begun. Any projects still outstanding are dealt with in line with an implementation schedule which includes the relevant financial scope.

7.7.6 **Were there any factors and/or changes that impeded or helped with the implementation of the management/coordination plan/policy? (Reluctance of local people, conflicts between different levels of decision-making).**

As implementation has only just begun, it is not possible to provide any conclusive comments. Bottlenecks in terms of finance within the BPWW Management GmbH respectively changes in the funding conditions of the European Agricultural Fund for Rural Development (EAFRD might however present problems during project implementation.

7.7.7 **If applicable, how is the biosphere integrated in regional/national strategies? Vice versa, how are the local/municipal plans integrated in the planning of the biosphere reserve?**
(Please provide detailed information if there are any changes since the nomination form/last periodic review report).

The Wienerwald Declaration (cf. 2.4.1) and the Landschaftsschutzgebiet Wienerwald (protected landscape area) in Lower Austria and Vienna's 'Schutzgebiet Wald- und Wiesengürtel'

(protected woodland and meadow belt) provide the Wienerwald BR with a foundation in both strategic and spatial terms

The core zones of the Wienerwald BR have been designated as nature reserves in Lower Austria and as protected landscapes in Vienna thus affording appropriate legal protection and legal compliance in both Federal States.

In Lower Austria, the buffer zones were designated in co-ordination with the competent departments of the State Government and the regional communities.

In Vienna, the Wienerwald BR was taken into consideration in the process of zoning for development, and the BR's interests have to be considered in all zoning decisions for the benefit of public interest. The buffer zones are all located in Vienna's 'Schutzgebiet Wald und Wiesengürtel' and in the Landschaftsschutzgebiet Wienerwald (protected landscape area) and are thus earmarked for recreation and public health while simultaneously being protected by building regulations.

The Wienerwald BR is embedded in the European conservation network Natura2000, as many parts of the BR area are also designated as protected areas under Natura2000.

8. CRITERIA AND PROGRESS MADE:

[Conclude by highlighting the major changes, achievements, and progress made in your biosphere reserve since nomination or the last periodic review. How does your biosphere reserve fulfill the criteria. Develop justification for the site to be a biosphere reserve and rationale for the zonation. What is lacking, and how could it be improved? What can your biosphere reserve share with others on how to implement sustainable development into practice?]

Brief justification of the way in which the biosphere reserve fulfills each criteria of article 4 of the Statutory Framework of the World Network of Biosphere Reserves:

1. **"Encompass a mosaic of ecological systems representative of major biogeographic region(s), including a gradation of human interventions".**
   (The term "major biogeographic region" is not strictly defined but it would be useful to refer to the Udvardy classification system (http://www.unep-wcmc.org/udvardys-biogeographical-provinces-1975_745.html)).

Concentrated in a small area, the Wienerwald contains a great number of different habitats some of which are of Europe-wide significance. Various biogeographical subsections of the nemoral zonobiome adjoin here: elements of the continental biogeographical region with Pannonian character can be found here, and elements of the alpine biogeographical region are also present.

Jointly with various geological circumstances, a distinct differentiation in altitudes and the coincidence of various climate zones, this was the foundation for the evolution of various natural forest types. Despite overtones of use for commercial forestry, the Wienerwald is the largest contiguous beech forest area remaining in existence in present-day Europe. Apart from dominant beech forests, the downy-oak forests on the BR's eastern boundary and the sub-mediterranean pine forests with autochthonous European black pine (Pinus nigra) are of European importance. There are also small areas of various special woodland communities such as 'summit' green ash forests, alder mire forests and alluvial stands.

As a result of human activity, the contiguous forest created by nature has been thinned in the course of centuries. This anthropogenic intervention is the very reason for the existence of the typical cultural landscape of the Wienerwald with its diverse open-space habitats. They are most estimable in terms of nature conservation. In wide areas of the Wienerwald, extensive meadows and pastures characterise the landscape. They have evolved from centuries of management. Particularly distinctive are the meadows which are cut once or twice maximum per year, some of which are grazed even after mowing – ranging from fertile meadows to rough pasture and wet meadows.

In moist to wet locations, molinia meadows and alkaline fens evolved, which used to be harvested for animal bedding or litter. Eastern-European-type steppes and calcareous brome-fescue dry grasslands are to be found at the eastern boundary of the BR. Locally present dry grassland areas are particularly species-rich, because they used to be managed as pasture land. Old vineyards and orchards, areas marked by intensive agricultural use, a dense network of streams and a great variety of structural elements are local enhancements of the diverse landscape. In the limestone area of Karbonat-Wienerwald in the south and east of the area, you can find bizzare rock formations and more than 250 caves ranging from large to micro-size.

Human activity has left even stronger marks on habitats in residential areas. In the BR area, they range from built-up urban areas to more widely distributed properties with gardens and a mosaic of scattered habitations in rural areas. A great range of gardens with various degrees of

utilisation, parks and orchard meadows near farmsteads make important contributions to biological diversity.

The dense system of flowing waters in the Wienerwald ranges from ditches that are temporarily filled with water, both in the forest and in open-space areas, to streams and minor rivers. They all drain into the Danube. In parts they are still semi-natural. However, streams have been built over, entrenched or straightened, especially in residential areas, and in some cases they have been converted to underground canals. Static waters are not common in the Wienerwald. The largest of these is the Wienerwaldsee, which was created by damming the river Wien.

2. **"Be of Significance for biological diversity conservation"**.

The Wienerwald is characterised by being the 'meeting point' (ecotone) for several different biogeographical regions, altitudes and climate zones. The traditional forms of management such as forestry, agriculture and viticulture have contributed to shaping the region. The almost contiguous woodland became a mosaic of different landscapes characterised by various types of use. Consequently, the Wienerwald was able to evolve into a region which is particularly rich in biodiversity.

There are 26 habitat types in the Wienerwald BR as scheduled in Annex I of the Habitats Directive. Of particular note are the sub-mediterranean pine forests with autochthonous European black pine and the thermophilic downy-oak forests.

The woodland-free areas include calcareous fens, patches of calcareous pioneer grassland, purple moor grass meadows and fescue grasslands which are special features of the region. The open-space survey (cf. 4.2) revealed 127 different types of biotope; and the baseline survey in the core zones (cf. 4.2) revealed 18 woodland communities and 34 syntaxonomic units (including sub-associations) of which two were newly recorded for the Wienerwald. So far there has been no contiguous survey of woodland areas in the Wienerwald.

There are many species in the Wienerwald which are scheduled under the Habitats Directive, for which the requirement of special measures has been identified in the Article 17 report, e.g. ground squirrel, alpine crested newt, yellow-bellied toad, stag beetle, hermit beetle, the Rosalia alpina beetle, great capricorn beetle, scarce large blue butterfly, large blue butterfly, dusky large blue butterfly, Helicopsis striata austriaca, Adriatic lizard orchid, alpine pasqueflower.

Furthermore, 23 bird species occur in the Wienerwald; some of them are of national importance in Austria and are scheduled as worth protecting in Annex I of the Birds Directive. The following bird species are afforded the highest-ranking protection status: corncrake (Crex crex), woodlark (Lullula arborea), red-breasted flycatcher (Ficedula parva), medium spotted woodpecker (Dendrocopus medius), black stork (Ciconia nigra), white-backed woodpecker (Dendrocopus leucotos) and collared flycatcher (Ficedula albicollis).

To some extent, the high biodiversity and great number of rare species and habitats can be attributed to the range of different management techniques and intensities. Particularly extensive management methods have created valuable biotopes. The conservation of those areas and the maintenance of nature-friendly management approaches therefore continue to be priority goals for the BR.

3. "**Provide an opportunity to explore and demonstrate approaches to sustainable development on a regional scale".**
(Including examples or learning experiences from putting sustainable development into practice).

Even before designation as a biosphere reserve, the Wienerwald region was already involved in diverse initiatives, projects and co-operative ventures with communities, companies and organisations which were striving for sustainable development and were active in reaching this goal.

The BPWW Management GmbH has developed sample projects and initiatives in order to demonstrate various approaches which foster sustainable development in the region. Involving residents and partners from the region plays an important role in this context.

The region's diversity in every respect entitled it already ten years ago to gain the accolade of BR designation. The wide range of sample projects and initiatives of recent years validates the designation and confirms that the Wienerwald BR is worthy of this accolade.

4. **"Have an appropriate size to serve the three functions of biosphere reserves".**

The Wienerwald BR covers an area of 105,645 hectares.

Proportions of various parts of the BR zones:	***Area [ha]***	***in % of the overall BR area***
Total area of the Wienerwald BR	*105,545*	
Total core zone area	*5,576*	*5.28*
Total buffer zone area	*20,102*	*19.05*
of which woodland buffer zone	*4,912*	*4.65*
of which open-space buffer zone area	*15,191*	*14.39*
Transition zone	*79,866*	*75.67*

5. **Appropriate zonation to serve the three functions**

Transition zone (proportion 76%)

The Transition Zone is the space dedicated to habitation, commercial and recreational activity in the BR. This area is earmarked for developing management techniques which meet the demands of humans and nature in equal measure – it is also intended to become a model for Austria in general. Part of this is a form of tourism that is compatible with the environment and socially acceptable, as well as the marketing of regional, eco-friendly products.

Buffer Zone (proportion: 19%)

The buffer zone in the Wienerwald is dedicated to the conservation of habitats created by human usage (e.g. meadows, pastures, vineyards). This zone can boast an astonishingly high species diversity resulting from use by humans and livestock. In order to maintain these areas, it is

essential to continue their use or conservation. Notably, buffer zones also serve to screen the core zone from adverse effects.

Core Zone (proportion: 5%)

The core zone is kept as free as possible from human influence allowing evolution to take its course. The Wienerwald BR's core zones are exclusively woodland areas; the 37 individual areas enjoy legal protection either as nature reserves (in Lower Austria) or protected landscapes (in Vienna).

6. **"Organizational arrangements should be provided for the involvement and participation of a suitable range of inter alia public authorities, local communities and private interests in the design and the carrying out of the functions of a biosphere reserve".**

In order to involve decision-makers and opinion leaders, it is planned to set up a Participatory Council, a Scientific Advisory Council and a Regional Advisory Board. The latter was set up as early as 2009 (cf. 7.5), and the establishment of the other two is currently in preparation.

In addition, there are several meetings focused on specific themes (NPO's), such as the networking meeting or the core-zone landowner meeting (cf. 2.3.4). The BR Ambassadors appointed in 2012 also make an important contribution in terms of involving the population and for participation (cf. 7.5).

The BPWW Management GmbH was founded to serve as co-ordinating centre for all issues and concerns of the Wienerwald BR. The GmbH is also the central point to be approached in case of questions or requests.

7. **Mechanisms for implementation**:

a) **Mechanisms to manage human use and activities**

Human use and activities in the buffer zones are regulated by a number of existing legal and spatial planning tools.

- *In woodland buffer zones, the regulations under the Austrian Forestry legislation and the Nature Conservation legislation at the level of Federal States play an important role.*
- *In open-space buffer zones, planning tools under spatial planning law (regional spatial planning programmes, spatial zoning plans and local development plans) and nature conservation law (protected landscapes and designated areas under Natura2000) apply.*
- *Compensation and grant systems for eco-compatible agriculture (ÖPUL cf. 5.3) are applied on the basis of extensive regulations for quality and scope of management and conservation measures.*

Various projects are used to implement other management measures regarding human impact (cf. in particular 5.3 and 4.2).

b) **Management policy or plan**

Under Article 15a BV-G (Federal Constitution Law) of the Federal States of Lower Austria and Vienna, the contract contains a clear definition of the goals and tasks for the Wienerwald BR. It is the foundation for developing the Wienerwald BR as a model region for sustainability.

The Federal States of Lower Austria and Vienna have each passed their own BR legislation which provides the legal framework for the Wienerwald BR in both states. In addition, zoning issues in the Wienerwald BR were made subject to special zoning regulations established by both states.

Each core zone area is protected legally under an agreement with the relevant landowners, and management plans were set up respectively, which provide a clearly defined framework for management actions in each core zone.

A mission statement describes the working brief for everyday tasks to be undertaken by the employees of the BPWW Management GmbH.

All legal documents are attached in Annex 3 to this Report.

c) **Authority or mechanism to implement this policy or plan**

The contract under Article 15a of the Federal Constitution Law concluded between Lower Austria and Vienna, provides the legal foundation for all further actions in connection with the Wienerwald BR. Among other things, the contract requires that the Wienerwald BR be established and run in such a way that:

- *the BR's international acknowledgement by UNESCO is obtained and maintained in the long term;*
- *the BR constitutes a tool for conservation of biological diversity and sustainable use of natural resources;*
- *the BR acts as a model region for achieving the following goals at regional level:*
    - *conservation: contribution to conserving landscapes, ecosystems, species and genetic diversity;*
    - *development: fostering ecologically, economically and socio-culturally sustainable development;*
    - *education and research: support and fostering of environmental education and training, research and monitoring.*
- *the contract partners, as holders of private rights, maintain due regard for the goals and objectives laid down in the Wienerwald Declaration (cf. Annex).*

All legal documents are attached in Annex 3 to this Report.

The BPWW Management GmbH was founded in 2006 for the implementation of management plans and strategies.

d) **Programmes for research, monitoring, education and training**

The BR region harbours numerous research and educational institutions (cf. 6.1). BPWW Management GmbH belongs to the Netzwerk-Umweltbildung-Niederösterreich (Network for Environmental Education in Lower Austria) and offers its own further education programmes on BR-related subjects. Furthermore, degree candidates are supported in their Wienerwald research by receiving a print-cost contribution towards the bound edition of their work.

Does the biosphere reserve have cooperative activities with other biosphere reserves (exchanges of information and staff, joint programmes, etc.)?

At the national level:

There is close co-operation between the Austrian BR´s: Wienerwald, Großes Walsertal, Kärntner Nockberge and Salzburger Lungau. There are regular meetings of the Austrian MAB National Committee, collaboration with mutual presentations for stakeholders and in themed workshops about zoning, management plans etc. Furthermore, school twinnings and mutual visits are part of the cooperation.

The last time a new Managing Director took over, the occasion was used to propose a meeting of the three BRs for an exchange of new ideas and suggestions including future co-operation.

At the regional level:

There is also close co-operation with the Skocjanske Jame BR in Slovenia, where school twinning and mutual visits have taken place and are planned on a regular basis for the future.

A larger project with the Czech Dolni Morava BR was the 'Transboundary information exchange for revision and functional improvement of zonation in the Lower Morava Biosphere Reserve' (cf. 6.6.1).

… through twinning and/or transboundary biosphere reserves:

Since 2011 the Wienerwald BR has been involved in the working group on the establishment of the Transboundary UNESCO Biosphere Reserve 'Mura-Drava-Danube' (TBR MDD) (cf. 6.6.1).

… within the World Network:

In 2010 the team of BPWW Management GmbH visited the Schaalsee BR in Germany. The aim was to exchange insights and experience, especially in the fields of nature conservation and regional development.

Numerous delegations from other BRs have visited the Wienerwald for the purpose of exchanging information on projects and content in situ. For the 2015 visit by a Norwegian group, it was possible to invite a representative from the BR Salzburger Lungau and Kärntner Nockberge to the Wienerwald thus widening the exchange to include also their insights and experience.

Obstacles encountered, measures to be taken and, if appropriate, assistance expected from the Secretariat:

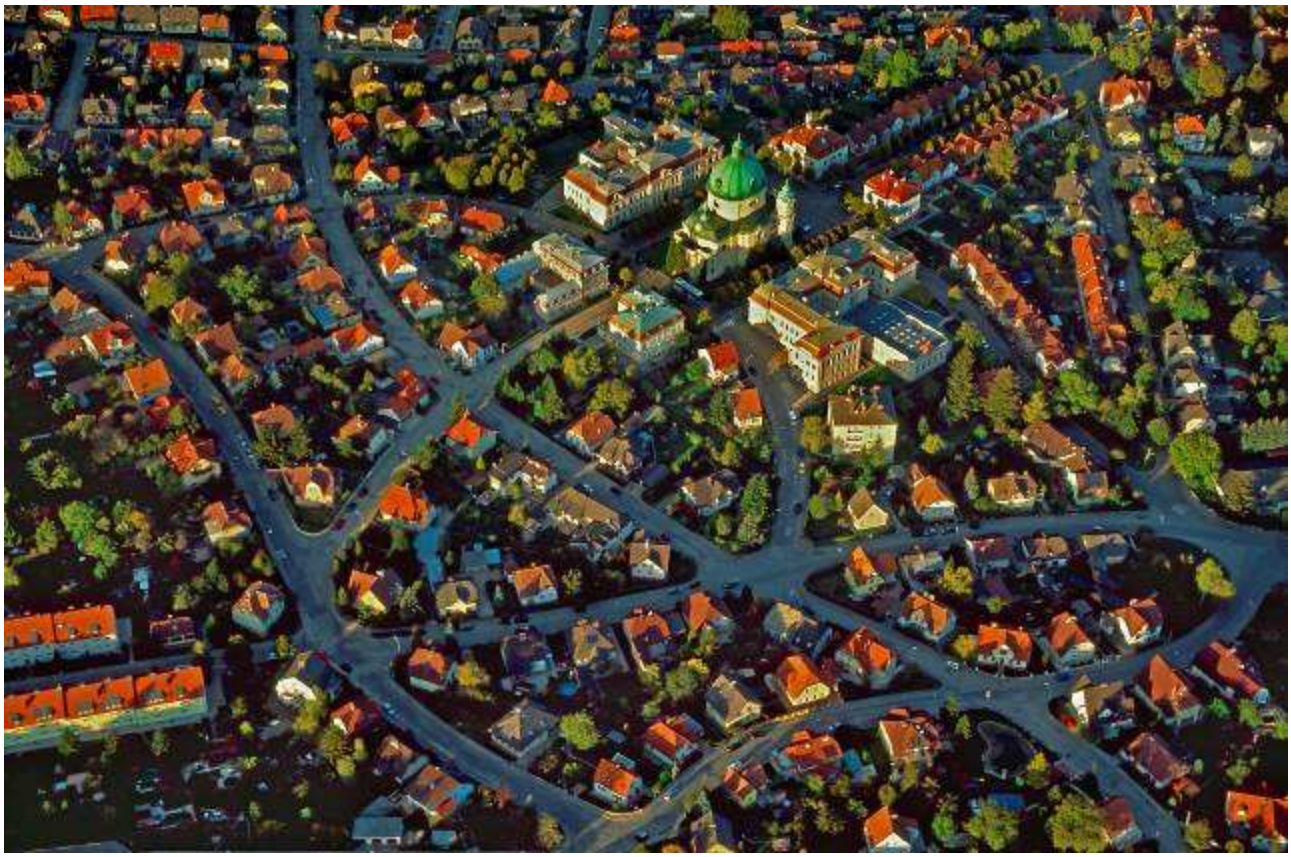
A common obstacle to international work is the lack of awareness about its importance in the local financing systems of BR managements. It is important to stress the significance of international networking for the MAB Programme as a prerequisite for the BR designation to be maintained. This is working very well in personal contacts with the Secretariat; but an official reminder to individual BR centres by e-mail or letter from time to time would be useful.

Main objectives of the Biosphere Reserve:

Describe the main objectives of the biosphere reserve integrating the three functions and the sustainable development objectives for the coming years.

The contract under Article 15a of the Federal Constitution Law (BV-G) between the two Federal States of Lower Austria and Vienna contains an agreement that the Wienerwald be established and operated in a manner to ensure that:

- *the BR's international acknowledgement by UNESCO is obtained and maintained in the long term;*
- *the BR constitutes a tool for conservation of biological diversity and sustainable use of natural resources;*
- *the BR acts as a model region for achieving the following goals at regional level:*
    - *Conservation: contributing to conserving landscapes, ecosystems, species and genetic diversity;*
    - *Development: fostering ecologically, economically and socio-culturally sustainable development;*
    - *Education and research: supporting and fostering environmental education and training, research and monitoring.*
- *the parties to the contract, as holders of private rights, maintain due regard for the goals and objectives laid down in the Wienerwald Declaration (cf. Annex).*



9. SUPPORTING DOCUMENTS

[List of the annexes submitted with periodic review report.]

(1) Updated location and zonation map with coordinates

[Provide the biosphere reserve's standard geographical coordinates (all projected under WGS 84). Provide a map on a topographic layer of the precise location and delimitation of the three zones of the biosphere reserve (Map(s) shall be provided in both paper and electronic copies). Shapefiles (also in WGS 84 projection system) used to produce the map must also be attached to the electronic copy of the form. If applicable, also provide a link to access this map on the internet (e.g. Google map, website…).]

(2) Updated vegetation map or land cover map

[A vegetation map or land cover map showing the principal habitats and land cover types of the biosphere reserve should be provided, if available.]

(3) Updated list of legal documents (if possible with English, French or Spanish synthesis of its contents and a translation of its most relevant provisions)

[If applicable update the principal legal documents since the nomination of the biosphere reserve and provide a copy of these documents.]

(4) Updated list of land use and management/cooperation plans

[List existing land use and management/cooperation plans (with dates and reference numbers) for the administrative area(s) included within the biosphere reserve. Provide a copy of these documents. It is recommended to produce an English, French or Spanish synthesis of its contents and a translation of its most relevant provisions.]

(5) Updated species list (to be annexed)

[Provide a list of important species occurring within the proposed biosphere reserve, including common names, wherever possible.]

(6) Updated list of main bibliographic references (to be annexed)

[Provide a list of the main publications and articles of relevance to the proposed biosphere reserve.]

(7) Further supporting documents: List of promotion and communication materials

10. ADRESSES

10.1 Contact address of the proposed biosphere reserve:
[Government agency, organization, or other entity (entities) to serve as the main contact to whom all correspondence within the World Network of Biosphere Reserves should be addressed.]

Name: _____ Biosphärenpark Wienerwald Management GmbH
Street or P.O. Box: _____Norbertinumstrasse 9
City with postal code: _____ 3013 Tullnerbach
Country: _____Austria
Telephone: _____+43 2233 54 187
E-mail: _____ office@bpww.at
Web site: www.bpww.at

20.2. Administering entity of the core area(s):
Name: *siehe oben* _____
Street or P.O. Box: _____
City with postal code: _____
Country: _____
Telephone: _____
E-mail: _____
Web site: _____

20.3. Administering entity of the buffer zone(s):
Name: *siehe oben* _____
Street or P.O. Box: _____
City with postal code: _____
Country: _____
Telephone: _____
E-mail: _____
Web site:_____

20.4. Administering entity of the transition area(s):
Name: *siehe oben* _____
Street or P.O. Box: _____
City with postal code: _____
Country: _____
Telephone: _____
E-mail: _____
Web site: _____

Annex I to the Biosphere Reserve Periodic Review, January 2013

MABnet Directory of Biosphere Reserves

Administrative details

Country: Austria
Name of BR: Wienerwald Biosphere Reserve
Year designated: 2005
Administrative authorities Biosphärenpark Wienerwald Management GmbH
Main Contact: DI Andrea Moser
Contact address *(Including phone number, postal and email addresses)*:
Norbertinumstraße 9, A-3013 Tullnerbach
T 02233 54 187-0 F 02233 54 187-50
M 0676/ 812 20 400
E am@bpww.at
I www.bpww.at
Social networks: (6.5.4)

Description

General description:

The Wienerwald BR covers an area of 105,645 hectares and extends across 51 communities in Lower Austria and seven municipal districts in Vienna. Some 815,000 people live in this region. The uniqueness of this region is characterised by the diversity of nature, culture and sustainable management on the margins of the city of Vienna – the only biosphere reserve in Europe part of which is located in a megacity with millions of inhabitants. Apart from the city of Vienna and concomitant suburbanisation, the region is characterised by a few small towns with more than 20,000 inhabitants and numerous small villages. It should be noted that 60% of communities have less than 5,000 inhabitants. Mödling and Klosterneuburg each have more than 20,000 inhabitants.

The Wienerwald is the largest contiguous beech woodland in Central Europe. The location of such a large expanse of woodland on the edge of a big city is unique. The range of climatic and geological conditions in the Wienerwald is the reason for its great diversity of vegetation types. The Biosphere Reserve has more than 20 types of woodland – with beech, oak and hornbeam dominating – and more than 17 types of meadow. There are more than 2,000 plant species and approx. 150 species of breeding birds in the Wienerwald. The sun-blessed hills of the Wienerwald in this open cultural landscape are characterised by viticulture. This landscape is rich in structures such as fruit trees, hedges and stone walls thus providing habitats for numerous interesting and endangered animal and plant species.

The Wienerwald BR has four national parks within its boundaries, and major parts of the region are designated as protected landscapes and Natura2000 sites respectively.

The Wienerwald BR is administered by Biosphärenpark Wienerwald Management GmbH from its HQ in Tullnerbach. This management team aims at protecting nature and conserving the habitats and species that need this protection, at the same time as developing the region in a way to make it excel in responsible management and actions. The sample projects and initiatives carried out are intended to cover as far as possible all aspects of sustainability, i.e. ecology, economy and social concerns.

Major ecosystem type: **Woodland** (approx. 70,000 ha) – mixed oak woods, beech woods, Austrian pinewoods and mixed acer-lime woods
Open-space land – meadows (e.g. tall oatgrass meadows, brome fescue meadows, purple moor grass meadows, fens and spring fens, orchard

meadows, dry grassland and semi-dry grassland) as well as pastures, arable land, viticultural landscapes and water bodies

Bioclimatic zone: *sub-continental cold winters and dry-hot summers with precipitation levels of 650-1050 mm per year (trend of precipitation levels 2005-2014: monthly figures). Temperatures range from –5 to +20 degrees Celsius (temperature trend 2005-2014: monthly mean air temperature) (ZAMG, 2015).*

Location (latitude & longitude):

Cardinal points:	Latitude	Longitude
Most central point:	48°08’28’’ N	16°04’56’’ E
Northernmost point:	48°21’05’’ N	16°15’28’’ E
Southernmost point:	47°55’52’’ N	16°10’47’’ E
Westernmost point:	48°15’33’’ N	16°22’13’’ E
Easternmost point:	48°02’44’’ N	15°47’40’’ E

Total Area (ha): *105,645*

Core area*(s): 5,576*

Buffer zone*(s): 20,102*

Transition area*(s): 79,866*

Different existing zonation: *none*

Altitudinal range *(*metres above sea level): *160-890 above sea level*

Zonation map(s) (refer to section 2.2.2): *cf. annex*

Main objectives of the biosphere reserve

Brief description

This management regime aims at protecting nature and conserving the habitats and species that need this protection within the region, at the same time as developing the region in a way to make it excel in responsible management and actions. The sample projects and initiatives carried out are intended to cover as far as possible all aspects of sustainability, i.e. ecology, economy and social concerns.
The key goals of the Wienerwald BR are as follows:

- Sustained maintenance of its international recognition granted by UNESCO.
- Conservation of biological diversity and sustainable use of natural resources
- Model region for achieving the following goals at regional level:
  - contributing to conserving landscapes, ecosystems, species and genetic diversity;
  - fostering ecologically, economically and socio-culturally sustainable development;
  - supporting and fostering environmental education and training, research and monitoring.

Research

Brief description

In the fields of zoology, botany, agriculture and forestry, spatial planning and landscape planning, as well as sociology and economics, research is carried out in the Wienerwald in equal measure.

In recent years, the focus was mainly on research into natural assets and collection of evidence in order to obtain baseline knowledge regarding the region and to create a foundation for subsequent comparative studies intended to document the impact made by the biosphere reserve, e.g.:

- woodland and woodland biomass management
- open-space surveys and biotope mapping
- biodiversity
- impacts from climate change on woodland ecosystems
- wildlife management
- recreational use
- participatory processes (and lots more, cf. sections 2.4.5 and 6.2)

Monitoring

Brief description

Apart from research projects in the disciplines mentioned above, there are monitoring projects taking place on an on-going basis, e.g.:

- core zone monitoring
- biodiversity monitoring in the core zones
- soil monitoring
- bird monitoring
- bat monitoring
- air pollutant monitoring

Specific variables (fill in the table below and tick the relevant parameters)

Abiotic		Biodiversity	
Abiotic factors		Afforestation/Reforestation	X
Acidic deposition/Atmospheric factors		Algae	
Air quality		Alien and/or invasive species	X
Air temperature		Amphibians	X
Climate, climatology	X	Arid and semi-arid systems	
Contaminants		Autoecology	
Drought		Beach/soft bottom systems	
Erosion		Benthos	X
Geology		Biodiversity aspects	X
Geomorphology		Biogeography	X
Geophysics		Biology	X
Glaciology		Biotechnology	
Global change	X	Birds	X
Groundwater		Boreal forest systems	
Habitat issues	X	Breeding	X
Heavy metals		Coastal/marine systems	
Hydrology		Community studies	X
Indicators	X	Conservation	X
Meteorology		Coral reefs	
Modeling		Degraded areas	X
Monitoring/methodologies		Desertification	
Nutrients		Dune systems	
Physical oceanography		Ecology	X
XPollution, pollutants		Ecosystem assessment	X
Siltation/sedimentation		Ecosystem functioning/structure	X
Soil	X	Ecosystem services	X
Speleology		Ecotones	X
Topography		Endemic species	X
Toxicology		Ethology	
UV radiation		Evapotranspiration	
		Evolutionary studies/Palaeoecology	
		Fauna	X
		Fires/fire ecology	
		Fishes	X
		Flora	X
		Forest systems	X
		Freshwater systems	
		Fungi	X
		Genetic resources	X
		Genetically modified organisms	
		Home gardens	X
		Indicators	X
		Invertebrates	X
		Island systems/studies	
		Lagoon systems	
		Lichens	X
		Mammals	X
		Mangrove systems	

		Mediterranean type systems	
		Microorganisms	X
		Migrating populations	X
		Modeling	X
		Monitoring/methodologies	X
		Mountain and highland systems	
		Natural and other resources	X
		Natural medicinal products	X
		Perturbations and resilience	
		Pests/Diseases	
		Phenology	X
		Phytosociology/Succession	X
		Plankton	
		Plants	X
		Polar systems	
		Pollination	
		Population genetics/dynamics	
		Productivity	X
		Rare/Endangered species	X
		Reptiles	
		Restoration/Rehabilitation	X
		Species (re) introduction	X
		Species inventorying	X
		Sub-tropical and temperate rainforest	
		Taxonomy	
		Temperate forest systems	X
		Temperate grassland systems	X
		Tropical dry forest systems	
		Tropical grassland and savannah systems	
		Tropical humid forest systems	
		Tundra systems	
		Vegetation studies	X
		Volcanic/Geothermal systems	
		Wetland systems	
		Wildlife	X

		Integrated monitoring	
Agriculture/Other production systems	X	Biogeochemical studies	
Agroforestry	X	Carrying capacity	X
Anthropological studies		Climate change	X
Aquaculture		Conflict analysis/resolution	X
Archaeology		Ecosystem approach	X
Bioprospecting		Education and public awareness	X
Capacity building		Environmental changes	X
Cottage (home-based) industry		Geographic Information System (GIS)	X
Cultural aspects	X	Impact and risk studies	X
Demography	X	Indicators	
Economic studies		Indicators of environmental quality	
Economically important species		Infrastructure development	
Energy production systems	X	Institutional and legal aspects	
Ethnology/traditional practices/knowledge		Integrated studies	
Firewood cutting	X	Interdisciplinary studies	
Fishery		Land tenure	
Forestry	X	Land use/Land cover	X
Human health	X	Landscape inventorying/monitoring	X
Human migration	X	Management issues	X
Hunting	X	Mapping	X
Indicators	X	Modeling	
Indicators of sustainability	X	Monitoring/methodologies	
Indigenous people's issues		Planning and zoning measures	X
Industry		Policy issues	X
Livelihood measures		Remote sensing	X
Livestock and related impacts	X	Rural systems	
Local participation		Sustainable development/use	X
Micro-credits		Transboundary issues/measures	
Mining		Urban systems	
Modeling		Watershed studies/monitoring	
Monitoring/methodologies			
Natural hazards	X		
Non-timber forest products	X		
Pastoralism			
People-Nature relations	X		
Poverty			
Quality economies/marketing			
Recreation	X		
Resource use	X		
Role of women	X		
Sacred sites	X		
Small business initiatives	X		
Social/Socio-economic aspects	X		
Stakeholders' interests	X		
Tourism	X		
Transports	X		

Annex II to the Biosphere Reserve Periodic Review, January 2013
Promotion and Communication Materials
for the biosphere reserve

Provide some promotional material regarding the site, notably high quality photos, and/or short videos on the site so as to allow the Secretariat to prepare appropriate files for press events. To this end, a selection of photographs in high resolution (300 dpi), with photo credits and captions and video footage (rushes), without any comments or sub-titles, of professional quality – DV CAM or BETA only, will be needed.

In addition, return a signed copy of the following Agreements on Non-Exclusive Rights for photo(s) and video(s).

United Nations Educational, Scientific and Cultural Organization
Organisation des Nations Unies pour l'éducation, la science et la culture
Organización de las Naciones Unidas para la Educación, la Ciencia y la Cultura
Организация Объединенных Наций по вопросам образования, науки и культуры
منظمة الأمم المتحدة للتربية والعلم والثقافة
联合国教育、科学及文化组织

UNESCO Photo Library

Bureau of Public Information

AGREEMENT GRANTING NON-EXCLUSIVE RIGHTS

Reference:

1. a) I the undersigned, copyright-holder of the above mentioned photo(s) hereby grant to UNESCO free of charge the non-exclusive right to exploit, publish, reproduce, diffuse, communicate to the public in any form and on any support, including digital, all or part of the photograph(s) and to licence these rights to third parties on the basis of the rights herein vested in UNESCO

   b) These rights are granted to UNESCO for the legal term of copyright throughout the world.

   c) The name of the photographer will be cited alongside UNESCO's whenever his/her work is used in any form.

2. I certify that:

   a) I am the sole copyright holder of the photo(s) and am the owner of the rights granted by virtue of this agreement and other rights conferred to me by national legislation and pertinent international conventions on copyright and that I have full rights to enter into this agreement.

   b) The photo(s) is/are in no way whatever a violation or an infringement of any existing copyright or licence, and contain(s) nothing obscene, libellous or defamatory.

Name and Address:

Signature : Date :

(Sign, return to UNESCO two copies of the Agreement and retain the original for yourself)

Mailing address: 7 Place Fontenoy, 75352 Paris 07 SP, Direct Telephone: 00331 – 45681687

Direct Fax: 00331 – 45685655; e-mail: photobank@unesco.org; m.ravassard@unesco.org

United Nations Educational, Scientific and Cultural Organization
Organisation des Nations Unies pour l'éducation, la science et la culture
Organización de las Naciones Unidas para la Educación, la Ciencia y la Cultura
Организация Объединенных Наций по вопросам образования, науки и культуры
منظمة الأمم المتحدة للتربية والعلم والثقافة
联合国教育、科学及文化组织

UNESCO PHOTO LIBRARY

Bureau of Public Information

AGREEMENT GRANTING NON-EXCLUSIVE RIGHTS

Reference:

1. a) I the undersigned, copyright-holder of the above mentioned video(s) hereby grant to UNESCO free of charge the non-exclusive right to exploit, publish, reproduce, diffuse, communicate to the public in any form and on any support, including digital, all or part of the photograph(s) and to licence these rights to third parties on the basis of the rights herein vested in UNESCO

   b) These rights are granted to UNESCO for the legal term of copyright throughout the world.

   c) The name of the author/copyright holder will be cited alongside UNESCO's whenever his/her work is used in any form.

2. I certify that:

   a) I am the sole copyright holder of the video(s) and am the owner of the rights granted by virtue of this agreement and other rights conferred to me by national legislation and pertinent international conventions on copyright and that I have full rights to enter into this agreement.

   b) The video(s) is/are in no way whatever a violation or an infringement of any existing copyright or licence, and contain(s) nothing obscene, libellous or defamatory.

Name and Address:

Signature : Date:

(Sign, return to UNESCO two copies of the Agreement and retain the original for yourself)

Mailing address: 7 Place Fontenoy, 75352 Paris 07 SP, Direct Telephone: 00331 – 45681687

Direct Fax: 00331 – 45685655; e-mail: photobank@unesco.org; m.ravassard@unesco.org

Annex III to the Biosphere Reserve Periodic Review, January 2013

The Statutory Framework of the World Network of Biosphere Reserves

Introduction

Within UNESCO's Man and the Biosphere (MAB) programme, biosphere reserves are established to promote and demonstrate a balanced relationship between humans and the biosphere. Biosphere reserves are designated by the International Co-ordinating Council of the MAB Programme, at the request of the State concerned. Biosphere reserves, each of which remains under the sole sovereignty of the State where it is situated and thereby submitted to State legislation only, form a World Network in which participation by the States is voluntary.

The present Statutory Framework of the World Network of Biosphere Reserves has been formulated with the objectives of enhancing the effectiveness of individual biosphere reserves and strengthening common understanding, communication and co-operation at regional and international levels.

This Statutory Framework is intended to contribute to the widespread recognition of biosphere reserves and to encourage and promote good working examples. The delisting procedure foreseen should be considered as an exception to this basically positive approach, and should be applied only after careful examination, paying due respect to the cultural and socio-economic situation of the country, and after consulting the government concerned.

The text provides for the designation, support and promotion of biosphere reserves, while taking account of the diversity of national and local situations. States are encouraged to elaborate and implement national criteria for biosphere reserves which take into account the special conditions of the State concerned.

Article 1 - Definition

Biosphere reserves are areas of terrestrial and coastal/marine ecosystems or a combination thereof, which are internationally recognized within the framework of UNESCO's programme on Man and the Biosphere (MAB), in accordance with the present Statutory Framework.

Article 2 - World Network of Biosphere Reserves

1. Biosphere reserves form a worldwide network, known as the World Network of Biosphere Reserves, hereafter called the Network.

2. The Network constitutes a tool for the conservation of biological diversity and the sustainable use of its components, thus contributing to the objectives of the Convention on Biological Diversity and other pertinent conventions and instruments.

3. Individual biosphere reserves remain under the sovereign jurisdiction of the States where they are situated. Under the present Statutory Framework, States take the measures which they deem necessary according to their national legislation.

Article 3 - Functions

In combining the three functions below, biosphere reserves should strive to be sites of excellence to explore and demonstrate approaches to conservation and sustainable development on a regional scale:

(i) conservation - contribute to the conservation of landscapes, ecosystems, species and genetic variation;

(ii) development - foster economic and human development which is socio-culturally and ecologically sustainable;

(iii) logistic support - support for demonstration projects, environmental education and training, research and monitoring related to local, regional, national and global issues of conservation and sustainable development.

Article 4 - Criteria

General criteria for an area to be qualified for designation as a biosphere reserve:

1. It should encompass a mosaic of ecological systems representative of major biogeographic regions, including a gradation of human interventions.

2. It should be of significance for biological diversity conservation.

3. It should provide an opportunity to explore and demonstrate approaches to sustainable development on a regional scale.

4. It should have an appropriate size to serve the three functions of biosphere reserves, as set out in Article 3.

5. It should include these functions, through appropriate zonation, recognizing:

(a) a legally constituted core area or areas devoted to long-term protection, according to the conservation objectives of the biosphere reserve, and of sufficient size to meet these objectives;

(b) a buffer zone or zones clearly identified and surrounding or contiguous to the core area or areas, where only activities compatible with the conservation objectives can take place;

(c) an outer transition area where sustainable resource management practices are promoted and developed.

6. Organizational arrangements should be provided for the involvement and participation of a suitable range of inter alia public authorities, local communities and private interests in the design and carrying out the functions of a biosphere reserve.

7. In addition, provisions should be made for:

(a) mechanisms to manage human use and activities in the buffer zone or zones;

(b) a management policy or plan for the area as a biosphere reserve;

(c) a designated authority or mechanism to implement this policy or plan;

(d) programmes for research, monitoring, education and training.

Article 5 - Designation procedure

1. Biosphere reserves are designated for inclusion in the Network by the International Co-ordinating Council (ICC) of the MAB programme in accordance with the following procedure:

(a) States, through National MAB Committees where appropriate, forward nominations with supporting documentation to the secretariat after having reviewed potential sites, taking into account the criteria as defined in Article 4;

(b) the secretariat verifies the content and supporting documentation: in the case of incomplete nomination, the secretariat requests the missing information from the nominating State;

(c) nominations will be considered by the Advisory Committee for Biosphere Reserves for recommendation to ICC;

(d) ICC of the MAB programme takes a decision on nominations for designation. The Director-General of UNESCO notifies the State concerned of the decision of ICC.

2. States are encouraged to examine and improve the adequacy of any existing biosphere reserve, and to propose extension as appropriate, to enable it to function fully within the Network. Proposals for extension follow the same procedure as described above for new designations.

3. Biosphere reserves which have been designated before the adoption of the present Statutory Framework are considered to be already part of the Network. The provisions of the Statutory Framework therefore apply to them.

Article 6 - Publicity

1. The designation of an area as a biosphere reserve should be given appropriate publicity by the State and authorities concerned, including commemorative plaques and dissemination of information material.

2. Biosphere reserves within the Network, as well as the objectives, should be given appropriate and continuing promotion.

Article 7 - Participation in the Network

1. States participate in or facilitate co-operative activities of the Network, including scientific research and monitoring, at the global, regional and sub-regional levels.

2. The appropriate authorities should make available the results of research, associated publications and other data, taking into account intellectual property rights, in order to ensure the proper functioning of the Network and maximize the benefits from information exchanges.

3. States and appropriate authorities should promote environmental education and training, as well as the development of human resources, in co-operation with other biosphere reserves in the Network.

Article 8 - Regional and thematic subnetworks

States should encourage the constitution and co-operative operation of regional and/or thematic subnetworks of biosphere reserves, and promote development of information exchanges, including electronic information, within the framework of these subnetworks.

Article 9 - Periodic review

1. The status of each biosphere reserve should be subject to a periodic review every ten years, based on a report prepared by the concerned authority, on the basis of the criteria of Article 4, and forwarded to the secretariat by the State concerned.

2. The report will be considered by the Advisory Committee for Biosphere Reserves for recommendation to ICC.

3. ICC will examine the periodic reports from States concerned.

4. If ICC considers that the status or management of the biosphere reserve is satisfactory, or has improved since designation or the last review, this will be formally recognized by ICC.

5. If ICC considers that the biosphere reserve no longer satisfies the criteria contained in Article 4, it may recommend that the State concerned take measures to ensure conformity with the provisions of Article 4, taking into account the cultural and socio-economic context of the State concerned. ICC indicates to the secretariat actions that it should take to assist the State concerned in the implementation of such measures.

6. Should ICC find that the biosphere reserve in question still does not satisfy the criteria contained in Article 4, within a reasonable period, the area will no longer be referred to as a biosphere reserve which is part of the Network.

7. The Director-General of UNESCO notifies the State concerned of the decision of ICC.

8. Should a State wish to remove a biosphere reserve under its jurisdiction from the Network, it notifies the secretariat. This notification shall be transmitted to ICC for information. The area will then no longer be referred to as a biosphere reserve which is part of the Network.

Article 10 - Secretariat

1. UNESCO shall act as the secretariat of the Network and be responsible for its functioning and promotion. The secretariat shall facilitate communication and interaction among individual biosphere reserves and among experts. UNESCO shall also develop and maintain a worldwide accessible information system on biosphere reserves, to be linked to other relevant initiatives.

2. In order to reinforce individual biosphere reserves and the functioning of the Network and sub-networks, UNESCO shall seek financial support from bilateral and multilateral sources.

3. The list of biosphere reserves forming part of the Network, their objectives and descriptive details, shall be updated, published and distributed by the secretariat periodically.