IUCN Conservation Outlook Assessment 2017 **(archived)**
Finalised on 08 November 2017

Please note: this is an archived Conservation Outlook Assessment for Białowieża Forest. To access the most up-to-date Conservation Outlook Assessment for this site, please visit https://www.worldheritageoutlook.iucn.org.

Białowieża Forest

SITE INFORMATION

Country:
Belarus, Poland
Inscribed in: 1992
Criteria:
(ix) (x)

Site description:

Situated on the watershed of the Baltic Sea and the Black Sea, this immense forest range, consisting of evergreens and broad-leaved trees, is home to some remarkable animal life, including rare mammals such as the wolf, the lynx and the otter, as well as some 300 European Bison, a species which has been reintroduced into the park. © UNESCO

SUMMARY

2017 Conservation Outlook

Significant concern

The 2014 nomination and extension of the property has resulted in significant additions to the site and the configuration that included the most significant areas of old-growth forests of the Bialowieza Forest. However, since 2016 serious concerns have been expressed over the management of the newly added areas in Poland and particularly the increased logging, made possible through the recent amendments to the Forest Management Plan for the Białowieża Forest District which provided for a threefold increase in fellings, as well as logging of old-growth forests provided for by the decision 51 of the Polish General Directorate of the State Forests and wood extraction in the management zones excluded from logging. While it was argued that the measures were necessary in order to combat the bark beetle infestation and that the logging operations were necessary for ensuring public safety and for the conservation of habitats and species under the EU Habitats and Birds Directives, both the World Heritage Committee and the European Commission expressed their concerns over the increased logging and over potential adverse impacts on the conservation of the site's habitats and species as well as irreparable biodiversity loss, including through removal of 100-year and older trees. In addition, while the preparation of the transboundary management plan for the property has started, it will likely take several years, and therefore concerns remain that until an integrated transboundary management framework has been operationalized, the property will remain subject to different management regimes with different approaches.

Current state and trend of VALUES

High Concern
Trend: Deteriorating

While the diversity of forest flora and fauna of the site seems to remain relatively well preserved, high concerns have arisen recently about the state and overall integrity of forest ecosystems, especially related to recent logging operations in

the Polish part of the property. In its recent decision within the framework of infringement procedure the European Commission also noted that increased logging is likely to adversely affect the conservation of the site's habitats and species and cause irreparable biodiversity loss, including through removal of 100-year and older trees (European Commission, 2017).

Overall THREATS

High Threat

Since the last assessment logging has become the major threat to the OUV of the property. Since 2016 serious concerns have been expressed over increased logging in the Polish part of Bialowieza Forest, made possible through the recent amendments to the Forest Management Plan for the Białowieża Forest District in Poland which provided for a threefold increase in fellings. The State Party of Poland argued that the measures were necessary in order to combat the bark beetle infestation and that the logging operations were necessary for ensuring public safety and for the conservation of habitats and species under the EU Habitats and Birds Directives. However, both the World Heritage Committee and the European Commission expressed their concerns over the increased logging and over potential adverse impacts on the conservation of the site's habitats and species as well as irreparable biodiversity loss, including through removal of 100-year and older trees. In addition, a number of threats remain, such as extensive road network within the site, tourism infrastructure and the border fence which prevents free movement and gene among large mammals’ populations. Changes in temperature and precipitation and shifts in phenology and seasonality have been previously observed, but the overall extent and impact of climate change on the values of the site needs to be studied further. Climate change may also significantly increase the risk of forest fires in the future.

Overall PROTECTION and MANAGEMENT

Serious Concern

The recent renomination and extension of the property has resulted not only in significant additions to the site with the most important old-growth forest stands now being included into the property, but also in intensification of transboundary cooperation. However, effective coordination between three authorities responsible for the management of the site – the Belovezhskaya Pushcha National Park in Belarus and the Bialowieza National Park and the Forestry

Administration in Poland – still needs to be established and operationalized. Moreover, the 2016 decision of the Polish Government to amend the Forest Management Plan for Bialowieza Forest district to allow a threefold increase of logging raises serious concern over the protection of the property’s OUV. The 2017 infringement procedure under the EU Legislation against Poland for non-compliance with EU Natura 2000 legislation, also raises concerns on the effectiveness of the legislative framework on the Polish side.

FULL ASSESSMENT

Description of values

Values

World Heritage values

► **Diverse complex of forest ecosystems with extensive old-growth forests**
Criterion:(ix)

"Bialowieza Forest conserves a diverse complex of forest ecosystems which exemplify the Central European mixed forests terrestrial ecoregion, and a range of associated non-forest habitats, including wet meadows, river valleys and other wetlands. The area has an exceptionally high nature conservation value, including extensive old-growth forests. The large and integral forest area supports complete food webs including viable populations of large mammals and large carnivores (wolf, lynx and otter) amongst other. The richness in dead wood, standing and on the ground, leads to a consequent high diversity of fungi and saproxylic invertebrates" (SoOUV, 2014).

► **Extraordinary diversity of forest flora and fungi**
Criterion:(x)

The site includes a large area with substantially undisturbed natural vegetation that mainly includes old-aged deciduous and coniferous forests. The forest vegetation in BF is dominated by fresh oak-linden-hornbeam forest. The second most significant forest communities are ash-alder flood plain forests, and bog-birch forest (Thelypterido-Betuletum pubescentis) (IUCN, 2014). There are over 1,060 vascular plant species and an estimate of over 400 lichen species. Recent data confirms over 230 bryophyte species, 71 liverworts and 2 antocerotes. In terms of its mycoflora, Bialowieza Forest

can be considered one of the most important refuges for large-cap fungi (macromycete) in the whole boreo-nemoral region. Just in a small area of 10,000 ha, over 1,600 macromycete species were listed. Out of 33 macromycete species regarded as critically endangered in Europe, at least 5 occur in the site (IUCN, 2014).

▶ **Outstanding diversity of forest fauna**
Criterion:(x)

The site is home to the largest free-roaming population of European Bison. The diverse fauna of the site also includes 59 mammal species, over 250 bird species, 13 amphibians, 7 reptiles, and over 12,000 invertebrates (SoOUV, 2014).

Assessment information

Threats

Current Threats
Very High Threat

Since the last assessment logging has become the major threat to the OUV of the property. Since 2016 serious concerns have been expressed over increased logging in the Polish part of Bialowieza Forest, made possible through the recent amendments to the Forest Management Plan for the Białowieża Forest District in Poland which provided for a threefold increase in fellings and decision no 51 of the Polish General Directorate of the State Forests, issued on 17 February 2017, allowing logging in old-growth forest. The State Party of Poland argued that the measures were necessary in order to combat the bark beetle infestation and that the logging operations were necessary for ensuring public safety and for the conservation of habitats and species under the EU Habitats and Birds Directives. However, both the World Heritage Committee and the European Commission expressed their concerns over the increased logging and over potential adverse impacts on the conservation of the site's habitats and species as well as irreparable biodiversity loss, including through

removal of 100-year and older trees. In addition, a number of threats remain, such as extensive road network within the site, tourism infrastructure and the border fence which limits free movement and gene among large mammals' populations. Climate change impacts on the site's values need to be further assessed.

▶ Tourism/ Recreation Areas

Low Threat
Inside site, scattered(5-15%)
Outside site

There are three large hotel complexes in and around Bialowieza village on the Polish side (Heiss and Patry, 2008). Despite being relatively well-managed, this is a significant visitation pressure (Council of Europe, 2009). On the Belorussian side, the "Father Frost House", situated in an exclave of the National Park, receives high numbers of visitors during the orthodox Christmas season. 275.000 tourists haven been reported for 2016 (State Party of Poland and Belarus, 2016), indicating stable tourism numbers around 300.000/annum (Kobyak, 2011). Concerns were also previously expressed about, the new 190 km "bypass" road skirting Belovezhskaya Pushcha and improving access to the Belorussian part of the site from Brest, Hrodna and also Poland, may result in increased and potentially poorly managed tourism development (Karpik, 2011). However, the core areas of the site are under strict protection and are not affected by tourism development.

▶ Hunting (commercial/subsistence)

Low Threat
Inside site, scattered(5-15%)

It isnoted that 20 European bison are culled annually on the Polish side, targeting diseased individuals or those involved in human-wildlife conflict (UNESCO, 2017). Predators' numbers, on the other hand, seem to be at an unnaturally low level on the Belorussian side. The artificially maintained high density of herbivores may compromise forest rejuvenation, and hence the long-term integrity of the site (Kuijken, 2012).

▶ Other Ecosystem Modifications

Low Threat

Inside site, localised(<5%)

The border fence between Belarus and Poland impairs large mammal migration and gene flow between the component PAs of the property on both sides of the border (Heiss and Patry, 2008; Daleszczyk et al., 2009). At the same time, it prevents interbreeding of two genetically different populations of European Bison (with the Belorussian population carrying genes of the Lowland-Caucasian line (Kuijken, 2012). The overall impact of this habitat fragmentation is considered limited (Heiss and Patry, 2008).

► Invasive Non-Native/ Alien Species

Data Deficient
Inside site, extent of threat not known
Outside site

Replacement of native dendroflora by Red Oak (Q. rubra) is a significant threat, which requires further monitoring (Heiss & Patry, 2008). Invasions of other not-native plant (e.g. Impatiens parviflora, Malus domestica, Acer negundo) and animals (e.g. Neovison vison, Nyctereutes procyonoides, Prycon lotor) have also been observed.

► Roads/ Railroads

Low Threat
Inside site, localised(<5%)

A network of roads exists within the property, particularly on the Belorussian side, many of which are maintained for fire prevention purposes. During its evaluation of the site’s extension IUCN recommended that “the States Parties carefully assess the real need for maintaining these roads and fire prevention corridors, and reduce their numbers through a programme of rationalization, accompanied by appropriate monitoring” (IUCN, 2014).

► Logging/ Wood Harvesting

Very High Threat
Inside site, widespread(15-50%)
Outside site

Since 2016 serious concerns have been expressed over increased logging in the Polish part of Bialowieza Forest. In 2016 the World Heritage Committee noted with concern “the recent amendments to the Forest Management Plan

for the Białowieża Forest District in Poland which would provide for a threefold increase in fellings, including in mature stands” (World Heritage Committee, 2016). The State Party of Poland argued that the increased logging was necessary to combat bark beetle infestation and that “all actions commenced by the forest stands managers were necessary for the conservation of habitats and species under the EU Habitats and Birds Directives, as well as for ensuring public safety” (UNESCO, 2017). In 2017 the World Heritage Committee also referred to “the infringement decision issued by the European Commission in relation to Białowieża Forest in Poland, which noted that increased logging is likely to adversely affect the conservation of the site's habitats and species as well as cause irreparable biodiversity loss, including through removal of 100-year and older trees, and that these measures would, according to the evidence available, exceed those that would be necessary for ensuring the safe use of the forest“

(World Heritage Committee, 2017; European Commission, 2017). The European Commission has decided to refer Poland to the Court of Justice of the EU and, as logging operations have started on a significant scale, has also requested the Court for “interim measures compelling Poland to suspend the works immediately” (European Commission, 2017, http://europa.eu/rapid/press-release_MEMO-17-1935_en.htm). An interim Decision by the Court of Justice issued on the 27th of July 2017 called on Poland to halt logging, recognizing high potential for serious and irreversible damage to Bialowieza Forest.

Potential Threats

Low Threat

Changes in temperature and precipitation and shifts in phenology and seasonality have been previously observed, but the overall extent and impact of climate change on the values of the site needs to be studied further. Climate change may also significantly increase the risk of forest fires in the future.

► Temperature extremes

Data Deficient

Inside site, throughout(>50%)
Outside site

Changes in temperature and precipitation (Pierzgalski et al., 2002), and shifts in phenology of spring flowers (Sparks et al., 2009) and seasonality of bird breeding (Wesolowski and Cholowa, 2009) have been observed, but the overall extent and impact of climate change on the values of the site needs to be studied further. It is possible that recent outbreak of spruce bark beetle and subsequent spruce dieback is also an effect of extremely low precipitation during the last decade (IUCN Consultation, 2017).

► Fire/ Fire Suppression

Low Threat
Inside site, localised(<5%)
Outside site

Forest fire is a potential threat, though only very limited fires happened in the last few years (none in 2016). The risk of fires is considered relatively low currently (Lethier & Avramoski, 2016), however, climate change may increase the danger of forest fires (IUCN, 2014).

Protection and management

Assessing Protection and Management

► Relationships with local people

Some Concern

NGOs and other stakeholders expressed consistent support for the renomination and extension of the site, which added large new areas on the Polish side of the property. The extension was approved by the World Heritage Committee in June 2014. The current level of local stakeholder involvement of Belovezhskaya Pushcha National Park (Belarus) is unclear, but there seems to be no formal participation of local people in the management planning process and no local stakeholder council for continuous management input (Kuijken, 2012).
Since 2016, local and national NGOs in Poland have reported a lack of consultation/participation of local stakeholders and NGOs in decision-making

processes regarding the property.
The newly established Committee for the Bialowieza Forest doesn't include scientists not related to forestry sector or NGO representatives (Süddeutsche Zeitung 2017).

► Legal framework

Mostly Effective

The legal basis for the conservation of the Belovezhskaya Pushcha National Park (Belarus) consists of the Land Code of the Republic of Belarus (1999), Forest Code (2000), and the Law of the Republic of Belarus on Special Protected Natural Areas (1994, 2000). The National Park was established in 1991 on the basis of a former hunting reserve, which was founded in 1940 (Heiss and Patry, 2008). Like all Polish protected areas, Bialowieza National Park is based on 1991 Act on Nature Protection. The Bialowieza National Park was re-established after the Second World War by an Ordinance of the Council of Ministers in 1947 (Heiss and Patry, 2008). The State Party of Belarus increased the strict conservation zone of the Belarusian part of the property by 1,250 ha and a new management plan for the Belarusian part was adopted in 2016 (WHC, 2017)
Both component protected areas are also UNESCO Biosphere Reserves (UNEP-WCMC; 2011). The entire Polish part of Bialowieza Forest including the Bialowieza National Park is also part of Natura 2000 network.

► Enforcement

Serious Concern

The 2017 infringement procedure under the EU Legislation against Poland for non-compliance with EU Natura 2000 legislation, raises concerns on the effectiveness of the legislative framework on the Polish side (WHC, 2017; EU Commission 2017).

► Integration into regional and national planning systems

Mostly Effective

The management of Bialowieza National Park is embedded into a wider regional and national sustainable development framework, which also includes sustainable tourism planning (Council of Europe, 2009). Although there is a developed planning framework for nature protection in Belarus

(Heiss and Patry, 2008), it is not clear how the management of the site is integrated into it.

► Management system

Serious Concern

This transboundary property consists of the Belovezhskaya Pushcha National Park in Belarus and the areas belonging to the Bialowieza National Park and to the Forest Administration in Poland. In Belarus the whole area is managed by the National Park Authority. The administration and management of Bialowieza National Park on the Polish side is under the Ministry of Environment. A new management plan for the National Park was finally approved in 2014 after years of preparation. In October 2013 a Steering Committee was established to coordinate the management of the Polish part of the site between the National Park and the Forest Administration. The Bialowieza National Park, the Polish Forestry Administration and the Belovezhskaya Pushcha National Park have recently signed an agreement regarding preparation and implementation of the management plan for the whole transboundray property (IUCN, 2014). In 2017 preparations on the transboundary management plan have started but it is expected that it will take some years to complete the plan. Until then the property will remain subject to different management regimes with different approaches and to decisions based on individual forest management plans (WHC, 2017). Serious concerns arise from the recently amended forest management plan for the Bialowieza district (Polish part of the property) allowing threefold increased wood extraction in the Bialowiesca forest district (World Heritage Committee, 2016 and 2017). Another serious threat is a decision permitting logging of old growth forest, including within management zones excluded from forestry, in three forests districts in Poland. The permission is provided by decision no 51 of 17 February 2017 of the Polish General Directorate of the State Forests.

► Management effectiveness

Data Deficient

No formal management effectiveness assessment is on record for either of the component parts of the site. Significant progress has been achieved in formalizing transboundary cooperation, but the effectiveness of it is still to be

evaluated at a later stage and should be part of the integrated management plan which is under preparation. Although preparations on the transboundary management plan have started, it is expected that it will take some years to complete the plan (UNESCO, 2017)

► Implementation of Committee decisions and recommendations

Serious Concern

The slow and/or incomplete implementation of some Committee decisions and recommendations regarding the management of the site is a recurrent problem (WHC, 2006, 2008, 2016, 2017). This includes, establishment of a joint management framework for the entire property, adequate implementation of the requested SEA to assess the amended forest management (Polish part of the property), halting logging and wood extraction (WHC, 2017).

► Boundaries

Highly Effective

The 2014 renomination and extension of the site has extended the area on the Polish side from 5,069 to 59,576.09 ha and has resulted in an overall much better boundaries which now include the most important old-growth stands (IUCN, 2014).

► Sustainable finance

Mostly Effective

All bodies responsible for the management of the property (Bialowieza National Park and Forest Administration in Poland, and Belovezhskaya Pushcha in Belarus) appear to be relatively well-resourced in terms of human and financial resources. In Belarus the Belovezhskaya Pushcha National Park is considered a high priority area and it receives significant budget allocations from the government; its budget appears secure in the long-term. In Poland the Forest Administration appears to have a significant budget secured by its commercial activities; however there is a need to clarify the additional budget that will be allocated for the management of the proposed extended property (IUCN, 2014).

► Staff training and development

Mostly Effective

The 2006 Periodic Reporting round reported 37 staff for Belovezhskaya Pushcha National Park (WHC, 2006). The Bialowieza National Park in 2000 had 113 staff members (UNEP-WCMC, 2011). Staff numbers are reportedly more or less adequate in both component protected areas. Senior staff turnover in Bialowieza National Park is high, and local expertise of senior staff members consequently low. The general level of staff qualification in both protected areas is unclear. Staff in both protected areas have access to some external training (WHC, 2006).

► Sustainable use

Serious Concern

Significant areas of the site are now under strict protection with some zones where forest products collection (e.g. mushrooms) is allowed for local people. At the same time, commercial timber production in the vicinity of the site may still be unsustainable in that it exerts a negative impact (e.g. fragmentation) on the overall functionality of the forest ecosystems. The increased logging operations in the Polish part of the property (see above) are considered to exceed those that would be necessary for ensuring the safe use of the forest (EU Commission, 2017).

► Education and interpretation programs

Mostly Effective

In parts of the property, educational activities targeting school children and other groups are carried out (States Parties of Poland and Belarus, 2017). There are museums and ecological education centres on both sides of the border. There are also guided excursions on visitor trails in Bialowieza National Park (Heiss and Patry, 2008). A more coordinated approach to education and interpretation and a stronger focus on the World Heritage status would improve management of this area.

► Tourism and visitation management

Mostly Effective

Tourism development is not always accompanied by an equal development of interpretation programmes. It is unclear what role interpretation plays in the tourism projects on the Belorussian side of the property (Kuijken, 2012). There is also a significant tourism development pressure near Bialowieza National Park on the Polish side, but this appears to be more integrated with interpretative activities such as guided tours on the visitor trails (Heiss and Patry, 2008). Given free access to the areas with no strict conservation, monitoring of tourism numbers and impacts remains difficult (SP Poland and Belarus, 2017).

► Monitoring

Some Concern

There is some long-term monitoring carried out on permanent study plots as well as wildlife monitoring in both component parts of the site (UNEP-WCMC, 2011). However, intensified monitoring of key threats (invasive alien species, tourism impact, hydrological regime) has been recommended for Belovezhskaya Pushcha (Kuijken, 2012), and may also be needed in Bialowieza National Park. No joint monitoring programmes are in place (States Parties of Poland and Belarus, 2017).

► Research

Mostly Effective

There is a scientific research centre and laboratory in Kamieniuki on the Belorussian side, and an extensive research collaboration involving Bialowieza National Park Administration, the University of Warsaw, Forest Research Institute, five research centres of other universities and the Polish Academy of Sciences, and visiting scientists on the Polish side (UNEP-WCMC, 2011). Important research areas include forest ecology, entomology and bison ecology.

Overall assessment of protection and management

Serious Concern

The recent renomination and extension of the property has resulted not only in significant additions to the site with the most important old-growth forest

stands now being included into the property, but also in intensification of transboundary cooperation. However, effective coordination between three authorities responsible for the management of the site – the Belovezhskaya Pushcha National Park in Belarus and the Bialowieza National Park and the Forestry Administration in Poland – still needs to be established and operationalized. Moreover, the 2016 decision of the Polish Government to amend the Forest Management Plan for Bialowieza Forest district to allow a threefold increase of logging raises serious concern over the protection of the property's OUV. The 2017 infringement procedure under the EU Legislation against Poland for non-compliance with EU Natura 2000 legislation, also raises concerns on the effectiveness of the legislative framework on the Polish side.

▶ **Assessment of the effectiveness of protection and management in addressing threats outside the site**

Data Deficient

Data deficient

State and trend of values

Assessing the current state and trend of values

World Heritage values

▶ **Diverse complex of forest ecosystems with extensive old-growth forests**

High Concern
Trend:Deteriorating

The enlarged (2014) boundaries of the site now include the most significant areas of old-growth forest and the areas that were impacted by past activities have been recovering. Recently, serious concerns have been raised with regards to the management and conservation of the Polish part of the property, including the 2016 "Programme for the Białowieża Forest as a UNESCO Natural Heritage and a Natura 2000 site" which would allow active habitat restoration interventions in two thirds of each of the three Forest districts in Poland within Białowieża Forest (WHC, 2016) and 17 February 2017 decision no 51 of the Polish General Directorate of the State Forests

allowing logging in old-growth forest. In its recent decision within the framework of infringement procedure the European Commission also noted that increased logging is likely to adversely affect the conservation of the site's habitats and species and cause irreparable biodiversity loss, including through removal of 100-year and older trees (European Commission, 2017).

► Extraordinary diversity of forest flora and fungi

Low Concern
Trend:Deteriorating

No local extinctions of flora have been reported, although the spread of Red Oak which replaces the native trees (Heiss and Patry, 2008) is of some concern, as is a number of other non-native plant species. The current changes in management and enhanced logging of old trees on Polish site may impact on flora diversity (especially bryophyte species depending on dead wood and primeval forest structures) and may open the sites to invasion by non-native plants.

► Outstanding diversity of forest fauna

High Concern
Trend:Deteriorating

No local extinctions or dramatic reductions of fauna have been reported, and the status and trend of forest fauna are considered of low concern however the current changes in management and enhanced logging of old trees may impact on fauna diversity (especially species depending on dead wood and primeval forest structures (WHC, 2017). The scientific views on the effects of the border fence on the populations of large mammals differ.

Summary of the Values

► Assessment of the current state and trend of World Heritage values

High Concern

Trend: Deteriorating

While the diversity of forest flora and fauna of the site seems to remain relatively well preserved, high concerns have arisen recently about the state and overall integrity of forest ecosystems, especially related to recent

logging operations in the Polish part of the property. In its recent decision within the framework of infringement procedure the European Commission also noted that increased logging is likely to adversely affect the conservation of the site's habitats and species and cause irreparable biodiversity loss, including through removal of 100-year and older trees (European Commission, 2017).

Additional information

Benefits

Understanding Benefits

▶ **Wilderness and iconic features**

Also only partly consisting of primary forest, Bialowieza Forest is one of the last great wildernesses in central/eastern Europe (UNEP-WCMC, 2011), with considerable wilderness values and iconic importance. The reintroduced population of European Bison strongly contributes to this value. This is also the last opportunity to experience primeval forest of this type for current and future generations (Heiss and Patry, 2008).

▶ **Collection of genetic material**

In addition to the rich local and traditional knowledge and scientific articles that have been written already about the flora of the property, it is likely that the site harbors significant genetic resources that may be used for medicinal or other relevant uses.

▶ **History and tradition**

The site straddles the EU borderand is a symbol of the joint heritage of EU and non-EU countries. If joint management can be established there, it can become an example of international cooperation and contribute to pan-European peace building.

► Outdoor recreation and tourism

Tourism, including nature based tourism is practiced at an increasing intensity. If developed in a sustainable way, the site may offer a unique opportunity to experience an undisturbed wilderness. This might also contribute significantly to income generation and the socio-economic development of the region (Heiss and Patry, 2008). Currently, ca. €350,000 for entrance fees, hunting licenses and horse riding are paid annually in Bialowieza National Park alone (Pabian and Jaroszewicz, 2009).

► Collection of wild plants and mushrooms

Several non-timber forest products are used from the site (UNEP-WCMC, 2011) and this use might be expanded. The annual value of mushrooms and honey extracted from Bialowieza NP alone has been estimated at €180,000 and €100,000 respectively (Pabian and Jaroszewicz, 2009). The management regime of both component PAs of the property should be adapted in a way that the sustainable use of these resources in support of local livelihoods and regional development is permitted and promoted. The newest assessment published in 2016 showed that recreational benefits associated with the Białowieża National Park benefits are 27 times higher than the average profits generated by the Białowieża Forest District (Giergiczny 2016).

Summary of benefits

The property already provides multiple conservation, economic and scientific benefits and ecosystem services to local inhabitants, the citizens of Poland and Belarus, and also to the few interested foreigners who currently know about it as well as the international conservation community. There is considerable potential to maintain and enhance these benefits through equitable participatory management of the property, particularly in areas such as sustainable and equitable tourism development, sustainable natural resource use, and the potential exploitation of natural resources. Equitability will be a crucial issue, for instance in the future sharing of benefits from natural resource use and tourism development.

Projects

Compilation of active conservation projects

№	Organization/ individuals	Project duration	Brief description of Active Projects
1	APB-BirdLife Belarus	From: 2017 To: 2017	Bird and ecosystem conservation projects throughout the Belorussian side of the property
2	Polish Bird Protection Society	From: 2017 To: 2017	Bird and ecosystem conservation projects throughout the Polish side of the property
3	Mammal Research Institute of the Polish Academy of Sciences	From: 2017 To: 2017	Monitoring of Wolf and Lynx populations, including effect of habitat fragmentation on conservation status of populations
4	Institute of European Environmental Policy	From: 2017 To: 2017	Research into ecosystem goods and services from the property
5	APB-Birdlife Belarus and Frankfurt Zoological Society	From: 2017 To: 2017	Restoration of moors the Belarusian part (revitalisation of the Dziki Nikar low-moor)

Compilation of potential site needs

№	Site need title	Brief description of potential site needs	Support needed for following years
1	N.A.	Ungulate management plan for Belovezhskaya Pushcha NP	From: 2017 To: 2017
2	N.A.	Environmental impact assessment of tourism development	From: 2017 To: 2017

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