

UNITED NATIONS EDUCATIONAL, SCIENTIFIC AND CULTURAL ORGANIZATION

International Co-ordinating Council of the Man and the Biosphere (MAB) Programme

Thirty-third session

Abuja, Nigeria (Hybrid meeting)

13 – 17 September 2021

**ITEM 9 OF THE PROVISIONAL AGENDA: Periodic Review Reports and Follow-Up
Information Received since the 31st
session of the MAB-ICC**

1. Due to the online format of the 32nd session of MAB ICC, the review of the recommendations of the 26th session of the International Advisory Committee for Biosphere reserves (IACBR) on Periodic Review Reports and Follow-Up Information received since the 31st session of the MAB-ICC was postponed to the 33rd session of MAB ICC.
2. The document SC-21/CONF.233/8-rev. contains the recommendations concerning the periodic reviews and Follow-Up Information on individual biosphere reserves considered by the IACBR at its 26th session in February 2020 (Part I) and 27th session in March 2021 (Part II). Whenever relevant, it also refers to MAB-ICC decision.
3. At its 26th meeting held in presentia at UNESCO HQ, from 17 to 20 February 2020 the Advisory Committee examined 27 reports and 29 follow-up to previous recommendations from 34 countries, including reports and follow-up as implementation of the Exit Strategy/Process of Excellence. The recommendations of the Advisory Committee on each of these sites are included in Annexes 1 and 2 under PART I of this document. These recommendations have been transmitted to the Member States concerned for follow-up. The Advisory Committee took notes on voluntary withdrawals of 11 sites from 4 countries (see below).
4. It is worth recalling that at its 32nd session in October 2020, the MAB ICC took note of the following voluntary withdrawal of 11 sites from 4 countries:

Uluru (Ayers Rock-Mount Olga), Australia
Croajingalong, Australia

Riverland (formerly Bookmark), Australia
Kosciuszko, Australia
Unnamed (Mamungari), Australia
Ali Botouch, Bulgaria
Doupki-Djindjiritza, Bulgaria
Mantaritza, Bulgaria
Parangalitsa, Bulgaria
Lufira, the Democratic Republic of Congo
Reserva de la Biosfera Islas del Golfo de California, Mexico

5. Since the last MAB Council held online in October 2020, the Secretariat has received 28 reports and 22 follow-up information and one extension from 28 countries, including 14 reports and follow-up from 9 countries in the framework of the implementation of the Exit strategy.

6. During its meeting held online from 8 to 12 March 2021, the members of the Advisory Committee examined these periodic review reports and the follow-up to previous recommendations of the MAB Council. The recommendations of the Advisory Committee on each of these sites are included in Annexes 3 and 4 under PART II of this document. These recommendations have been transmitted to the Member States concerned for follow-up. Any additional information provided by 31 August 2021 will be considered by the MAB Council and its Bureau.

7. The Advisory Committee has clearly indicated in its recommendations the deadline for submission of additional information to align with the timeline of this strategy for the relevant sites and inform countries accordingly.

8. On 5 August 2021, the MAB Secretariat received, an official letter from the Government of Gabon informing that they want to voluntary withdraw Ipassa-Makokou biosphere reserve which was under Exit strategy.

9. The Secretariat will prepare a color chart summarizing the results of these recommendations for the MAB Council decision (green for sites meeting the criteria; red for sites not meeting the criteria; pink for sites recommended for withdrawal; blue for sites for which additional information was requested).

10. The MAB Council is invited to consider and approve the recommendations made by the 26th and 27th Advisory Committee, including suggested modifications to be proposed by the MAB Bureau at its Council session and to take note of the voluntary withdrawal of existing biosphere reserves.

PART I:

ANNEX 1: PERIODIC REVIEW REPORTS EXAMINED BY THE 26th IACBR 2020

Country	Name of the site	26th IACBR recommendations (2020)	Comments
AUSTRALIA	Great Sandy	meets the criteria	
CHILE	La Campana-Peñuelas	meets the criteria	
CHINA	Chebaling	meets the criteria	
CHINA	Maolan	meets the criteria	
DR CONGO	Luki	meets the criteria	Exit Strategy / Process of Excellence
DR CONGO	Yangambi	meets the criteria	Exit Strategy / Process of Excellence
ECUADOR	Yasuni	meets the criteria	Exit Strategy / Process of Excellence
FRANCE	Fontainebleau Et Gatinais	PR to be submitted by 30 Sept 2021 latest	
GABON	Ipassa Makokou	does not meet the criteria; recommended for withdrawal	Exit Strategy / Process of Excellence

GERMANY	Bliesgau	meets the criteria	
GERMANY	Swabian Alb	meets the criteria	
GUATEMALA	Maya	meets the criteria	Exit Strategy / Process of Excellence
KINGDOM OF MOROCCO	Arganeraie	meets the criteria	
KYRGYZSTAN	Ysyk-Köl	meets the criteria; additional info requested	Exit Strategy / Process of Excellence
MEXICO	Barranca de Metztitlan	meets the criteria	
PORTUGAL	Flores Island	meets the criteria	
PORTUGAL / SPAIN	TBR Geres-Xures	meets the criteria	
ROMANIA	Rodna Mountain (formerly Pietrosul Mare)	additional info requested	Exit Strategy / Process of Excellence
ROMANIA	Retezat	additional info requested	Exit Strategy / Process of Excellence
RUSSIAN FEDERATION	Kavkazskiy	additional info requested	Exit Strategy / Process of Excellence
SPAIN	Fuerteventura	meets the criteria	

UNITED KINGDOM	Dyfi	meets the criteria	
USA	Sonoran Desert (formerly Organ Pipe Cactus)	additional info requested	Exit Strategy / Process of Excellence
USA	Obtawaing (formerly University of Michigan Biological Station)	additional info requested	Exit Strategy / Process of Excellence
UZBEKISTAN	Chatkal	meets the criteria on the condition to submit addit.info	Exit Strategy / Process of Excellence
VIETNAM	Mui Ca Mau	meets the criteria	
VIETNAM	Cu Lao Cham-Hoi Na	meets the criteria; additional info requested	

- 1. Great Sandy (Australia).** The Advisory Committee welcomed the submission of the first periodic review of the Great Sandy Biosphere Reserve, which was designated in 2009. The biosphere reserve is located on eastern seaboard of Australia, in the south-eastern part of the State of Queensland (encompassing the regions of Bundaberg, Fraser Coast and Gympie), stretching westwards from the Noosa Biosphere Reserve to the Mary River and then north to the Burnett River.
- 2.** The site is home to the most biologically significant nesting site for the loggerhead turtle (*Caretta caretta*) population in the South Pacific region and boasts two nationally recognized and four regionally recognized conservation areas with more than 7,500 recorded species of fauna and flora, including over 100 nationally protected species. It is also a place of significance for the Convention on the Conservation of Migratory Species of Wild Animals (CMS) for both marine turtles and migratory birds, and is a listed site under the East Asian – Australasian Flyway Partnership (EAAFP).
- 3.** The core area consists of the Fraser Island Natural World Heritage site (1992), the Great Sandy Strait Wetlands of International Importance (1999), the Great Sandy Marine Park (2006), and the southern boundary of the Great Barrier Reef Marine Park and Natural World Heritage Area (1981). The permanent human population within the transition area amounts to approximately 31,200 people, having increased by 14% following the official designation.
- 4.** Ecotourism is a key sector of the wider tourism experience in the reserve. Ecotourism ventures include whale-watching tours, turtle laying and hatching experiences, coastal and hinterland exploring, Great Barrier Reef excursions, heritage tourism and trips to Fraser Island.
- 5.** During the periodic review the use of updated and more accurate geospatial technology identified discrepancies in the area of the biosphere reserve as represented on the nomination document. On the basis of current data, the total area amounts to 1,239,854 ha with no change in the biosphere reserve boundaries.
- 6.** One of the primary challenges for the biosphere reserve management is associated with residential development on sand dunes. Increasing coastal erosion and sea-level rise have led the Queensland Department of Environment and Science to develop and implement a coastal building line tool in order to regulate building work in the coastal management zones. Coastal erosion and climate change are also having a negative impact on marine turtle species.
- 7.** Another significant change is that traditional owners are now allowed to take responsibility for the maintenance of places of importance to native title-holders under traditional laws, and to protect those places from physical harm according to the historic execution of non-exclusive native title rights in 2014.

8. The Advisory Committee noted that diverse stakeholders participated in the review process with the aim of obtaining a holistic overview of progress towards sustainability. The Committee also expressed its appreciation for the submitted case studies, including the LowGlow partnership to reduce light pollution along the Woongarra Coast – a home to endangered Loggerhead turtles.
9. Acknowledging that the biosphere reserve management plan for the upcoming decade was under final development at the time of the periodic report submission, the Advisory Committee requested that the authorities provide the plan by 30 September 2020. The Advisory Committee also recommended that the next periodic report include all sub-chapters of the periodic report form.
10. The Advisory Committee concluded that the site **meets** the criteria of the Statutory Framework of the World Network of Biosphere Reserve (WNBR).
11. **Campana – Peñuelas (Chile).** The Advisory Committee welcomed the third periodic review of the Campana – Peñuelas Biosphere Reserve, which was designated in 1984. The biosphere reserve includes the Campana National Park and the Lago Peñuelas National Reserve.
12. The major vegetation type of the reserve is scrubland with Looser (*Cryptocarya alba*), a species of the family Lauraceae, boldea fragran (*Peumus boldus*) and winter's bark (*Drimys winteri*). The reserve also includes various ecosystems, each of which is home to endemic species. A body of water acts as an important wetland for migratory birds and occasional resident ones, with 125 recorded species of aquatic, riparian and terrestrial birds.
13. The total area of the biosphere reserve covers 238.216 ha. Approximately 155,322 people currently live in the biosphere reserve, representing an increase of 30,000 since the last periodic review. Most economic activities are related to small and medium-sized enterprises in the industrial, agriculture, cattle and forestry sectors.
14. The majority of the changes in the biosphere reserve since the previous review relate to land use, especially in the housing, industrial, energy and commercial sectors, and have been driven in part by substantial investments in the construction of new highways to the site.
15. Furthermore, in the past nine years, the biosphere reserve has experienced prolonged and severe droughts, which have prompted the declaration of emergencies due to water scarcity. Forest fires have also affected the site and the reserve is currently implementing prevention programmes to reduce the associated threats.
16. Conflicts with local communities have been generated by the energy projects Cardones-Polpaico and Los Rulos which are located in the transition zone.

17. Over the past decade, the biosphere reserve has boosted international cooperation with other reserves such as Fontainebleau et Gatinais (France) and the La Selle (Haiti), as well as with Honduras, in order to exchange experiences. The reserve has also initiated a programme to implement gender-related good practices, a conservation plan for the endemic species *Jubaea chilensis* and an education programme focused on sustainable development.
18. In 2008, the biosphere reserve became the first in Chile to establish a Management Committee. However, the Committee has faced challenges with implementing the management plan, due to a lack of commitment among some of the stakeholders.
19. The Advisory Committee considers that the site **meets** the criteria of the Statutory Framework of the World Network of Biosphere Reserves (WNBR).
20. **Chebaling Biosphere Reserve (China).** The Advisory Committee welcomed the first periodic review of the Chebaling Biosphere Reserve, which was designated in 2007. The site is located in the southeast of Shixing County in Guangdong Province. The site focuses on protecting subtropical evergreen broad-leaved forests and endangered species. The site is also a forest nature reserve that integrates functions such as species and ecological protection, water conservation, scientific research, popular science education and sustainable development of natural resources.
21. During the past decade, the reserve has promoted community development and guided local residents to adopt alternative livelihood measures. It has issued non-commercial forest subsidies, promoted new agricultural technologies to better save energy and reduce pollution, and organized training courses for community members.
22. The Advisory Committee noted that the living environment of local people has improved significantly and residents have become less dependent on natural resources, thanks to projects promoting sustainable development. As a result, forest resources have been effectively recovered.
23. The site contains 195 new species of wild plants, 110 new species of animals and 456 new species of large fungi. Forest coverage has increased from the initial level of 65% to 95%.
24. The Advisory Committee noted that the site has made particular efforts to address wildfires by strengthening prevention services, improving relevant infrastructure and engaging in extensive awareness-raising programmes. As a result, the site has had no wildfires for the last 34 years.
25. The site has developed a master plan for ecotourism, strengthening supervision over tour resources, focusing on education-oriented ecotourism and following the requirements for environmental carrying capacity control. It has carried out pilot studies on carbon sinks in forestry, taken measures against climate change, and continued to enrich and develop

its ecological compensation mechanism. It has promoted community development through project development and advocated green production and living.

26. The Advisory Committee noted with satisfaction that the Party Committee and People's Government of Shixing County established the Chebaling World Biosphere Reserve Joint Protection Committee in 2009. The Committee called meetings to discuss new ideas and methods for joint community management and to coordinate various stakeholders to resolve emerging issues related to development of the reserve. It also noted that measures to prevent illicit wildlife hunting and trafficking are in place.
27. The Advisory Committee therefore concluded that the site **meets** the criteria of the Statutory Framework of the World Network of Biosphere Reserve (WNBR).
28. **Maolan Biosphere Reserve (China).** The Advisory Committee commended the Chinese authorities for the submission of the second periodic review.
29. Established in 1996, the Maolan Biosphere Reserve is located in the south of Libo County, Qiannan Bouyei and Miao Autonomous Prefecture in Guizhou Province, bordering Guangxi Zhuang Autonomous Region in the south and adjacent to the Guangxi Mulun National Nature Reserve.
30. Over the past decade, the site has proactively explored new models for community-based development to promote resources management with the aim of protecting karst forest ecosystems and biodiversity.
31. The Advisory Committee noted with a satisfaction that the site has strengthened and promoted the development of communities. It has developed projects including planting and breeding of underwood, planting of *Indigo indica* and planting of Chinese herbal medicine. It has also organized community residents to participate in training courses such as 'bamboo weaving and silver decoration processing' and to carry out other training projects. The site has implemented campus education activities on the themes of 'Love My Hometown – I'll be a little forest guard' and 'Green Dream, My Dream' in the reserve and surrounding communities. It has also conducted environmental education in communities by holding forest protection and fire prevention meetings and posting slogans in villages. Ten tourism development projects have been implemented in the Maolan Eco-tourism zone.
32. Management plans for the biosphere reserve have covered topics such as the regionalization and demarcation of non-commercial Forests in Maolan, compensation for ecological benefits of forests and others. Since 2006, policies and systems such as the national non-commercial forest management system and an Implementation Plan for the Delineation of the Forestry Ecological Red Line in Guizhou Province have been conducted in the core area, buffer zone and transition zone. Overall, there have been three main plans for the reserve in the last decade: the Implementation Plan for the Maolan

Demonstrative Reserve, the Ten-year Master Plan for the Maolan Reserve and Planning for the Ecotourism of Maolan Reserve.

33. The Advisory Committee noticed that the southern border of the core area is not protected by a buffer zone. In order to strengthen the conservation function of the site, the Committee encouraged the national authorities to create a partnership with the neighbouring province and its existing nature reserve.
34. The Committee also noticed that some supporting documents, such as Management Plans, were not attached to the Periodic review report and requested the authorities to submit the missing documents by 30 September 2020.
35. The Advisory Committee concluded that the site **meets** the criteria of the Statutory Framework of the World Network of Biosphere Reserve (WNBR).
36. **Luki Biosphere Reserve (Democratic Republic of Congo)**. This site is participating in the 'Process of Excellence and Enhancement of the WNBR'. The Advisory Committee welcomed the third periodic review for the biosphere reserve, which was established in 1979. The site is located in the province of central Congo and presents a diversity of ecosystems including forests with *Corynanthe paniculata* and *Prioria balsamifer*. Its total surface covers 33,635 ha and is home to 9,736 inhabitants.
37. The biosphere reserve was affected by a significant conflict over land, with families of former claimants claiming land for agricultural activities. Indeed, population growth has led to land scarcity while arable lands exist in the reserve. The Advisory Committee also noted the initiative for a transboundary biosphere reserve between Angola, Congo Brazzaville and the DRC.
38. The Advisory Committee acknowledged the updated information on the zonation of the Luki Biosphere Reserve, and noted that the national authorities have added a second core area consisting of an area around Nkula river totalling 176 ha. With this proposed addition, the reserve would extend over a total area of 33,811 ha. However, the Advisory Committee also noted the absence of a legal status to protect this extension.
39. The Advisory Committee concluded that the Luki biosphere reserve **meets** the criteria of the Statutory Framework of the World Network of Biosphere Reserves (WNBR).
40. The Advisory Committee encouraged the management authority to submit a new proposal for the extension of the current site with all supporting documents, including a new management plan covering the area,
41. **Yangambi Biosphere Reserve (Democratic Republic Congo)**. This site is participating in the 'Process of Excellence and Enhancement of the WNBR'. The Advisory Committee welcomed the third periodic review for this biosphere reserve, which was established in

1977. The site is located in the north of the country and covers a total area of 243,555.2 ha. The core area represents 26%, the buffer zone 37% and the transition zone 37% of the overall area.

42. The site hosts significant biodiversity including about 32,000 tree species, as well as threatened species such as the elephant (*Loxodonta africana cyclotis*), river hog (*Potamochoerus porcus*) and monkey (*Cercopithecus spp.*).
43. The Yangambi Biosphere Reserve is dominated by secondary forests including *Pycnanthus angolensis* and *Fagara macrophylla*, semi-deciduous secondary forest, rain forests with *Gilbertiodendron dewevrei*, climax forests with *Brachystegia laurentii* and marshland forests.
44. The Advisory Committee acknowledged the involvement of national, regional and local stakeholders in the periodic review process, and the improved zonation in line with the previous recommendation of the MAB ICC.
45. The Advisory Committee noted the efforts required to ensure that the concept and principles of the biosphere reserve are well integrated by local authorities, communities and other relevant stakeholders at national, regional and local levels and, therefore, concluded that the biosphere reserve **meets** the criteria of the Statutory Framework of the World Network of Biosphere Reserves (WNBR).
46. The Advisory Committee also noted that there is no recent census of the population living in the buffer and transition zones of the biosphere reserve, and encouraged the national authorities to provide updated data with the next periodic review.
47. **Yasuní Biosphere Reserve (Ecuador). Extension and re-zoning.** The site is participating in the 'Process of Excellence and Enhancement of the WNBR'. The Advisory Committee welcomes this request for the extension and re-zoning of the existing Yasuní Biosphere Reserve submitted by the Ecuadorian authorities. The reserve includes a wetland featured on the Ramsar List.
48. The biosphere reserve is located in the north-western part of Ecuador's portion of the Amazon, and currently covers 1,676,105.1 ha. The proposed extension would result in a total surface area of 2,756,427.53 ha.
49. The biosphere reserve has welcomed the suggestions from the MAB Advisory Committee concerning its zonation. Under these suggestions, the core area would cover the Intangible Tagaeri-Taromenani zone where indigenous population live in voluntary isolation and where all extractive economic activities are completely prohibited by the Ecuadorian State.

50. However, the Ecuadorian authorities prefers that the existing area should continue to be considered as the core zone, with the exception of the parts of Yasuní National Park where oil activities are taking place. They allege that the state of conservation and activities carried out in this area are not consistent with a buffer zone. Ecuador also commits to continue to promote favourable conditions for connectivity among habitats, particularly for species that need large areas, such as the jaguar and giant otter.
51. The biosphere reserve has a current population of 88,293 inhabitants, including members of the Waorani, Kichwa and Shuar indigenous peoples.
52. Most of the threats faced by the biosphere reserve are related to certain economic activities, such as commercial hunting, subsistence hunting and oil and gas enterprises. Pressure on ecosystems from the latter may increase as two new blocs are due to begin operation and may entail new access infrastructure. Extensive coffee production and cattle are also considered threats.
53. The local authorities have established a Management Committee consisting of several institutional and social stakeholders. The manager of the Yasuní National Park is in charge of coordinating the Committee at present.
54. The Advisory Committee welcomed the significant efforts made by the country to fulfil the three functions of the biosphere reserve. The biosphere reserve was able to revise its zonation and vision, and has become a model for addressing sustainable development challenges that can be replicated elsewhere in the WNBR.
55. The Advisory Committee recommends that the requested extension and re-zoning of the biosphere reserve be approved. With this new zonation, the Yasuní Biosphere Reserve **meets** the criteria of the Statutory Framework of the World Network of Biosphere Reserves (WNBR).
56. **Fontainebleau et Gâtinais Biosphere Reserve (France).** The Advisory Committee confirmed receipt of a letter dated 6 September 2019, asking for an extension to be granted for the submission of the periodic review report. The Advisory Committee welcomed the progress made led by the new director and coordination team and the ongoing consultation with numerous stakeholders.
57. The Advisory Committee recommended that an extension of the deadline be granted, and urged the authorities to submit the periodic review, if possible, by 30 September 2020, but no later than 30 September 2021.
58. **'Ipassa Makokou Integral Reserve' Biosphere Reserve (Gabon).** The site is participating in the 'Process of Excellence and Enhancement of the WNBR'. The Advisory Committee welcomed the second periodic review for this biosphere reserve, but noted that the report did not include any of the required annexes. The 'Réserve Nationale

Intégrale-Ipassa Makokou (RNI-IM) was established in 1983 for research purposes related to the Ipassa research station. Located in the interior plateau (the eastern centre) of the country, towards the border with the Republic of Congo, the RNI-IM Biosphere Reserve is situated in the dense rainforest of the Congo-Guinean plant geographic region. The site represents a crossroad of influences with coastal zone and Congolese forests, characterized by several semi-deciduous species and the absence of Okoumé *Aukoumea klaineana*. More than 1,200 species of plants, flowering plants and ferns have been inventoried in the region. In terms of wildlife, RNI-IM is rich in large mammals, including the elephant *Loxodonta africana*, western gorilla *Gorilla gorilla*, chimpanzee *Pan troglodytes*, buffalo *Syncerus caffer* and many other species of national and international importance such as *Cercopithecus* (*Cercopithecus neglectus*).

59. The forest has remained intact overall in terms of preservation with some disturbance linked to poaching in the far south and exploitation in the eastern end.
60. Following the submission of the first periodic review in 1997, the MAB Council recommended that the national authorities conduct a review of the buffer zone and transition area with a view to its expansion; expand the scope of the management plan with the greater involvement of local populations; and increase the number of personnel, especially to combat poaching.
61. Regarding expansion, the site at present exists within the limits of Ivindo National Park, which was created in 2007. The Advisory Committee acknowledged the proposed change in zonation, which includes a buffer zone and a transition zone outside the limits of the national park. However, it noted a confusion in the zoning on p. 23, which states that: 'these three zones (integral reserve, Park, the two proposed buffer zones) are found in the national park'.
62. In response to the other recommendations of the first periodic review, the Advisory Committee acknowledged the efforts made to involve local populations in activities and increase staff specifically to combat poaching.
63. The Advisory Committee noted that the described objectives and activities of the Ivindo National Park are not fully compliant with those of a biosphere reserve. While the conservation function is well addressed, the development function and the involvement of local communities in the management of the site are still not satisfactory. The Advisory Committee concluded that the biosphere reserve **does not meet** the criteria of the Statutory Framework of the World Network of Biosphere Reserves (WNBR).
64. The Advisory Committee therefore recommends the withdrawal of the 'Ipassa Makokou Integral Reserve' Biosphere Reserve and the submission of a new nomination dossier taking into consideration Ivindo National Park in conformity with the Seville Strategy and the criteria of the Statutory Framework of the World Network of Biosphere Reserves.

- 65. Bliesgau Biosphere Reserve (Germany).** The Advisory Committee welcomed the first periodic review of the Bliesgau Biosphere Reserve, which was designated in 2009. The surface covers 36,152 ha and has 101,223 inhabitants.
- 66.** The Advisory Committee welcomed the work of the biosphere reserve as a model for sustainable development, demonstrating how to reconcile the conservation of biodiversity with a cultural landscape, while producing positive economic and social development. The Advisory Committee noted that the site is working in partnership with seven municipalities, one rural district and the state of Saarland, and that it has established the Bliesgau Special Purpose Association as an innovative governance structure.
- 67.** The Advisory Committee also welcomed the Education for Sustainable Development (ESD) programme, which involves a range of education providers in the region and serves as a model of good practices for the whole country. The Committee further welcomed the achievement of the conservation function not only in the core area and buffer zone, but also in the urban space within the transition area through biodiversity projects.
- 68.** The Committee noted with satisfaction the testing of sustainable development strategies through research and projects in the tourism, nature conservation, regional marketing, climate protection and ESD sectors. Climate action has become a key activity in the site with adequate financial support provided.
- 69.** The Committee also noted that the core area and buffer zone have increased in size. The signalization of signs for the biosphere reserve has helped to raise awareness. The Committee welcomed the growth of the Partners Network, and noted that the Bliesgau Biosphere Reserve has become well established in the region with the involvement of existing institutions and stakeholders.
- 70.** The Committee recognized that the objectives of the Bliesgau Biosphere Reserve are very clearly linked with the implementation of the SDGs.
- 71.** The Advisory Committee therefore considered that the site **meets** the criteria the criteria of the Statutory Framework of the World Network of Biosphere Reserve (WNBR) and commended the authorities for the quality of the work achieved by the Bliesgau Special Purpose Association as well as the quality of the report, and recommended that it be used as a model for the WNBR.
- 72. Swabian Alb Biosphere Reserve (Germany).** The Advisory Committee welcomed the first periodic review of the Swabian Alb Biosphere Reserve, which was designated in 2009. The total area covers 85,269 ha and has a human population of 146,063 (2016).
- 73.** The Advisory Committee noted that the work of the site is based on the Lima Action Plan and the Statutory Framework of the World Network of Biosphere Reserves. In addition, the Advisory Committee welcomed the close cooperation between the Biosphere Reserve

Administration and the UNESCO Global Geopark 'Swabian Alb', the UNESCO World Heritage site 'Caves and Ice Age Art in the Swabian Jura' and the UNESCO World Heritage site 'Upper Germanic-Rhetian Limes'.

74. As a model region for sustainable development, the Swabian Alb Biosphere Reserve pursues the overriding goal of uniting environmental, economic and social interests under the guiding principle of nature conservation-oriented and sustainable regional development. The Advisory Committee welcomed the reports on the diversity of projects and measures focusing on nature conservation, sustainable tourism, agriculture and marketing of regional products. It also welcomed the many innovative regional products and the nature conservation-friendly regional brand, as well as the extensive and effective public relations work. The Committee further welcomed the successful ESD activities, including those undertaken by the main information centre and 18 local information centres. In addition, intensive work has been achieved in the areas of mobility, forestry and hunting, climate, research and monitoring.
75. The Advisory Committee welcomed the very high support from stakeholder groups and the local community and their active involvement in the decision-making.
76. The Advisory Committee therefore considered that the site **meets** the criteria the criteria of the Statutory Framework of the World Network of Biosphere Reserve (WNBR) and commended the authorities for the quality of the work achieved as well as the quality of the report, and recommended that it be used as a model for the WNBR.
77. **Maya Biosphere Reserve (Guatemala).** The site is participating in the 'Process of Excellence and Enhancement of the WNBR'. The Advisory Committee welcomed the third Periodic Review of the Maya Biosphere Reserve, which was designated in 1990.
78. The biosphere reserve is located in the north of Guatemala and encompasses about 20% (2,090,000 ha) of the territory of the country and more than 60% of all declared protected areas. Along with areas in Belize and Mexico, the so-called Sierra Maya is the biggest tropical forest north of the Amazon. According to estimates, there are 792 bird, amphibian, mammal and reptile species in the region, as well as 2,800 vascular plants.
79. The reserve includes a mixed World Heritage site and two wetlands included on the Ramsar List. The site has a management plan with a participatory management committee where the work is interwoven with that of other concerned UNESCO conventions.
80. Approximately 175,084 people currently live in the biosphere reserve.
81. The major threats are mainly located in the north-west of the biosphere reserve. These comprise extensive cattle ranching, overfishing, the presence of invasive species and forest fires. The most important threat is mining and oil concessions, which affect areas of

potential conservation, and in some cases the core areas. One such example is oil-drilling activities that may start in the Laguna del Tigre National Park (one of the core areas).

82. The country recognizes that the reserve faces important threats, but the biosphere reserve designation has helped make this no worse.
83. The Advisory Committee recognizes the importance of the area and the efforts made by the country to restore the affected areas.
84. Following the request of the MAB ICC in 2019, the national authorities sent a revised zonation map with the proper MAB terminology.
85. The northern part of the biosphere reserve, which does not have a transition zone, is protected by national parks on the Mexican side.
86. The country created a community concession programme in the transition zone of the biosphere reserve 25 years ago. The area concerned now seems to be in a better state of conservation than the buffer zone.
87. The Advisory Committee therefore considers that the site **meets** the criteria of the Statutory Framework of the World Network of Biosphere Reserves (WNBR).
88. **Arganeraie Biosphere Reserve (Kingdom of Morocco)**. The Advisory Committee welcomed the second periodic review for this biosphere reserve, which was established in 1998 and is located in the south-west of the country.
89. The Advisory Committee noted that during the past decade the economic dynamics of the biosphere reserve have changed significantly. Development is closely impacted by a territorial dynamic characterized by the movement of the active population from rural areas to cities offering more income opportunities and remunerative jobs. In addition, development is also influenced by often-difficult living conditions outside the biosphere reserve, particularly in the adjacent desert areas, which have contributed to intensified flows of mobile herdsmen (ex-nomads) towards more attractive territories within the biosphere reserve. This poses a problem of resource allocation.
90. However, the Committee noted that the functions of biodiversity conservation, development and logistical support are consistently performed in this biosphere reserve. The report noted that important advances have been made in Morocco in the last decades towards the successful propagation of Argan seedlings, making it feasible to replant Argan trees in degraded areas and to envision expansion of the Argan forest. This is an important development as the Argan tree provides vital and unique ecosystem services, locally, regionally and globally, by protecting the region from desertification and providing income opportunities and enhancing the supply of Argan oil, which provides health, gastronomy and cosmetic values and benefits.

91. The Advisory Committee finally noted that no changes have been made to the zoning, which already correctly defines the core areas, buffer zone and transition area. In short, the Advisory Committee therefore concluded that the site **meets** the criteria of the Statutory Framework of the World Network of Biosphere Reserves (WNBR).
92. **Issyk-Kul Biosphere Reserve (Kyrgyzstan).** The site is participating in the 'Process of Excellence and Enhancement of the WNBR'. The Issyk-Kul Biosphere Reserve is located in northeast Kyrgyzstan, and was designated in 2001. The total surface area of the site is 4,311,588 ha.
93. The first periodic review was examined at the 25th MAB ICC held in 2013. The recommendations of the 25th MAB ICC stated that the site partially fulfils the criteria of the Statutory Framework of the World Network of Biosphere Reserves and the authorities were asked to develop and submit to the MAB Secretariat a management structure and plan that includes local communities in decision making and resource management as part of the management system of the biosphere reserve. The recommendations made at the 29th MAB ICC in 2017 re-stated that the site is participating in the 'Process of Excellence and Enhancement of the WNBR'.
94. The Advisory Committee acknowledged that the national authorities made an effort to provide the detailed work plan and timeline with the second periodic review report by 30 September 2019 in compliance with the decision of the 29th MAB ICC.
95. Since 2013, the Directorate of the Yssyk-Kul Biosphere Reserve has been working on gradually transforming its governance structure to enable meaningful and effective participation of local communities in decision-making and resource co-management. During 2014-2015, the Directorate developed a management plan for 2016-2020. In addition, a pilot programme to develop aquaculture in the biosphere reserve and reduce illegal fisheries in the Yssyk-Kul Lake has been carried out with the involvement of the community in decision-making and resource management.
96. Local communities and other stakeholders actively participated in the process to revise the zonation. The main changes to the zonation are the expansion of the territory of the Sarychat-Eertash State Reserve (a core area of the biosphere reserve), and the establishment in 2016 of a new protected area, namely the Khan Tengiri State Nature Park, which covers an area of 275,800.3 ha.
97. Tourism and agriculture remain the main drivers of the local economy. The biosphere reserve hosts festivals aimed promoting bio-cultural diversity and also promotes the export of organic fruits and vegetables to the Eurasian Economic Union. The Yssyk-Kul Biosphere Reserve is referred to as a pilot site in the country-wide strategy for transitioning to the Green Economy (adopted by the Parliament on 1 February 2018).

98. The Advisory Committee acknowledged that the biosphere reserve has built a strong partnership with local women's circles known locally as *Shaiyr apalar* (cheerful mothers). Many local NGOs are founded and run by women and almost all local community councils have equal male-female representation.
99. The Advisory Committee recognized the existence of the Management Plan 2016-2020 and the use of a participatory approach to develop the Management Plan 2021-2025. The Committee therefore concluded that the site **meets** the criteria of the Statutory Framework of the World Network of Biosphere Reserves (WNBR). As the current Management Plan was not attached to the periodic review, the Committee requested that it be submitted to the MAB Secretariat by 22 May 2020 along with detailed information on the activities of the management body.
100. **Barranca de Metztitlan (Mexico).** The Advisory Committee welcomed the first periodic review of the Barranca de Metztitlan Biosphere Reserve, which was designated in 2006. The long and irregular-shaped biosphere reserve is located in the Sierra Madre Oriental physiographic province and includes a wetland featured on the Ramsar List.
101. The biosphere reserve transitions from tropical deciduous forest to desert. The region is considered to have one of the highest levels of biodiversity with a variety of endemic species. In terms of cacti, for example, the reserve features 10% of Mexican and 5% of known species globally. The area is also home to 521 species of fauna.
102. There are no changes in the zonation and extension of the biosphere reserve. Approximately 201,598 people currently live on the site including 604 inhabitants in the core areas.
103. The economic activities mostly revolve around small-scale agriculture, aquaculture and small-scale cattle herding. Tourism is also on the rise.
104. Since its nomination, several activities have taken place in the biosphere reserve, including a management programme, biological and environmental monitoring (particularly of key, emblematic and endemic species), an environmental education programme, recycling activities, more than 20 capacity-building workshops, and the posting of signage in different areas of the biosphere reserve, among others.
105. The biosphere reserve has also fostered social participation mostly through the creation in 2015 of an Advisory Committee with members from the public, social, academic, private and third sectors.
106. The Advisory Committee considers that the site **meets** the criteria of the Statutory Framework of the World Network of Biosphere Reserves (WNBR).

107. **Flores Island Biosphere Reserve (Portugal).** The Advisory Committee welcomes the first periodic review of the Flores Island Biosphere Reserve, which was designated in 2009. The biosphere reserve covers one entire island of the Azores Archipelago, as well as an oceanic area stretching 3 miles from the coast.
108. The island is one of the richest in the archipelago in terms of endemic taxa, reflected in its great diversity of biotopes. The coastal zone is the nesting location for several marine bird species, notably the Roseate Tern (*Sterna dougallii*), with approximately 40% of its European population inhabiting the island's coastal zone. The oceanic marine area is very rich in terms of habitats and species, both regionally and internationally.
109. Approximately 3,662 people currently live in Flores Island, but this number is rapidly decreasing. Over the past nine years, the island has lost 4.49% of its inhabitants, due to the ageing population and the exodus of young people seeking better opportunities abroad.
110. Traditional agriculture and, to a lesser extent, fishing are the main economic activities; however, tourism has given the island's economy a significant boost over the past decade.
111. More than 50% of the energy sources on Flores Island are renewable.
112. Over the past ten years, its status as a biosphere reserve has helped Flores Island attract a number of researchers seeking to safeguard and quantify protected species, one of whom is monitoring the population of seabirds.
113. Since its nomination, the Flores Island Biosphere Reserve Management Board has held biannual meetings, with the participation of a variety of stakeholders. The board is in charge of overseeing the preparation and execution of the management plan, as well as promoting the biosphere reserve's products and services. Regarding the latter, a brand was created for the biosphere reserve and is currently used by 21 companies.
114. The Advisory Committee therefore considers that the site **meets** the criteria of the Statutory Framework of the World Network of Biosphere Reserves (WNBR).
115. **Geres/Xures Transboundary Biosphere Reserve (Portugal/Spain).** The Advisory Committee welcomed the first periodic review of the Geres/Xures Transboundary Biosphere Reserve, which was designated in 2009. Portugal and Spain presented a national periodic review, as well as a joint document.
116. The biosphere reserve encompasses the western-most end of the Iberian Peninsula in Portugal and the Spanish region of Galicia.
117. The site is home to a rich diversity in flora with 807 native and non-native taxa including a large number of Lusitanian and Iberian endemics. Endemic Lusitanian-Galician species include *Armeria sampaioi* and *Ceratocarpus claviculata*, while records of Iberian endemics

- include 117 taxa, approximately 50% of which are limited to the north-west of the Iberian Peninsula.
118. Over the last 30 years, however, the region has been subject to heavy bushfires, particularly in 2016. Other major threats include the change of land use to pasture and pine forest, as well as the presence of invasive species.
 119. Following a regional trend, the population of the Geres/Xures has aged and decreased by up to 10% over the last ten years on both sides of the frontier. In 2018, the reserve was home to almost 70,000 inhabitants. The economic structure has shifted from agriculture to services and, over the past few years, the service and trade sector has been responsible for most of the region's dynamism, notably in relation to tourism. This development has enabled the retention of young people in the region and, in some cases, enabled the return of emigrants. One of the main priorities is to design a monitoring plan for tourism to increase its sustainability.
 120. The Peneda-Gerês National Park (Portugal) and the Baixa Limia – Serra do Xurés Natural Park (Spain) – which form part of the core area – have been collaborating on the basis of a cooperation agreement established in 1997.
 121. Both countries have implemented several capacity-building and job generation projects in synergy with local stakeholders. In addition, transboundary events and tourism programmes have strengthened ties between Portuguese and Galician inhabitants and created economic opportunities.
 122. There are three management structures: the Transboundary Steering Committee, the Transboundary Cooperation Committee and the Cooperation Advisory Committee. The Steering Committee is an executive structure that ensures the management plan is implemented, while the other committees provide technical support.
 123. Since its nomination, the biosphere reserve has successfully implemented two action plans, including initiatives such as projects to restore natural habitats, conserve species, reduce pressure on habitats and species, ensure sustainable development, and promote local community research and participation. The new action plan includes the creation of branding for the transboundary biosphere reserve and concentrates on economic development, although conservation projects remain a focus.
 124. The Advisory Committee therefore considers that the site **meets** the criteria of the Statutory Framework of the World Network of Biosphere Reserves (WNBR).
 125. **Rodna Mountain Biosphere Reserve. Renaming (formerly Pietrosul Mare) (Romania).** This site falls under the exit strategy process as no periodic review was submitted during the 40-year period following designation in 1979. The Advisory Committee welcomed this first periodic review and the review process which involved the participation in over 20

meetings of members of the Rodna Mountains National Park administration and Scientific Council, as well as mayors, owners and land administrators.

126. The zonation now formally includes both a buffer zone and a transition area. The Advisory Committee noted that the Environment Ministry of Romania recommended to retain the boundaries of the national park as the limits of the biosphere reserve and proposed to accept the human activity areas as a transition area within the existing limits. The Advisory Committee also noted that the transition area appears to be very small (less than 200 ha) compared to the core area (4,646 ha) and the buffer zone (42,375 ha). Additionally, the legend of the zonation map does not explain the significance of the blue dots.
127. The Advisory Committee noted that the activities of the 3,000 people working temporarily within the biosphere reserve are considered to fulfil the development function of the biosphere reserve. These workers include transhumant shepherds, forest workers, harvesters of mushrooms and wild fruits, and employees of the weather station from the lezer glacial cirque.
128. The Advisory Committee requested the authorities to send a zonation map with a complete legend, as well as a rationale for the small size of the transition area, in order to ensure that the sustainable development function is effective. It also requested more information on the logistics function, greater detail on the involvement of local communities in the management of the biosphere reserve, and a further explanation regarding the difficulties in extending the biosphere reserve beyond the national park. It also urged the authorities to consolidate and further improve the relations with adjacent communities, and requested the submission of a management plan for the entire biosphere reserve. All missing information is to be sent to the Advisory Committee by 22 May 2020.
129. **Retezat Biosphere Reserve (Romania).** The site falls under the exit strategy as only a summary report has been submitted (in 2010) since the site was designated in 1979. The Advisory Committee noted that the internal zonation of Retezat National Park was established back in 2003, and that the sustainable conservation zone (SCZ) and the sustainable development zone (SDZ) of the national park were merged to create the transition area of the biosphere reserve.
130. The Advisory Committee took note that the former recommendation to explore the possibility of extending the site beyond national park borders, by expanding the outer transition area, was unsuccessfully documented. A revised version of the Retezat National Park management plan is expected shortly. The Committee also noted that a specific body for administrating the biosphere reserve has not been created and no associated budget has been allocated.
131. The Advisory Committee noted that about 1,000 persons use the transition area each year for temporary seasonal activities, such as sheep breeding in pastures and gathering of

forest fruits and mushrooms, and are considered a valuable component of sustainable development.

132. The Advisory Committee requested the authorities to send an explanation detailing how the sustainable development and logistics functions were fulfilled, as this information was not provided in the document. The Advisory Committee also requested more detailed information about the involvement of local communities in the management of the biosphere reserve and further details about the difficulties involved in extending the biosphere reserve beyond the borders of the national park. The Committee further urged the authorities to consolidate and further improve relations with adjacent communities, and to submit a management plan for the entire biosphere reserve clarifying roles and responsibilities. The Advisory Committee requested that the authorities submit all this information by 22 May 2020.
133. **Kavkazskiy Biosphere Reserve (Russian Federation).** This site falls under the exit strategy process. The Advisory Committee welcomed the detailed periodic review, as well as the management plan submitted by the authorities. The Advisory Committee also welcomed the efforts by the authorities to extend the biosphere and incorporate transition areas, to include a development function and to integrate local communities in the management structure.
134. The Advisory Committee noted that the negotiations concerning the inclusion of transition areas began in 2017 but have not yet been finalized. The negotiations involve the authorities of three constituent entities and seven municipalities of the Russian Federation, as well as numerous stakeholders with different economic and institutional interests. The Advisory Committee recognized that such negotiations require considerable time and that the preparation and signing of agreements has not yet been finalized.
135. The Advisory Committee also noted that the development function of the biosphere reserve has not yet been established due to the fact that negotiations are still ongoing. Accordingly, the development function is missing from the management plan.
136. The Advisory Committee requested that the authorities provide detailed information on how local communities will be included in the management structure of the biosphere reserve, as well as endorsements from the local communities. The Advisory Committee also requested detailed information on how the development function of the biosphere reserve will be fulfilled. The Advisory Committee requested that this information be provided by 22 May 2020.
137. **Fuerteventura Biosphere Reserve (Spain).** The Advisory Committee welcomed the first periodic review of the Fuerteventura Biosphere Reserve, which was designated in 2009. The biosphere reserve encompasses the second largest island of the Canary Islands, Spain. The biosphere reserve covers about 354,268 ha, of which 187,835.7 ha is marine

- and 166,432 ha is terrestrial. The various ecosystems are home to 2,541 species of which 512 are endemic to the Canary Islands and 127 are endemic to the island itself.
138. The reserve features the only wetland in the Canary Islands to be included on the Ramsar List.
 139. Approximately 113,275 people currently live in the biosphere reserve, most of whom earn a living in the service sector, in particular tourism. Unlike the rest of the Canary Islands, industry and especially agriculture account for a proportionally smaller share of the economy of Fuerteventura, with the exception of goat and sheep herding. The biosphere reserve has introduced a brand to award sustainable enterprises and promotes low-impact tourism.
 140. The main economic activities follow a green and circular economy model, with the revival of traditional agricultural systems such as 'gavia' (irrigation plots that conserve soil and water).
 141. The biosphere reserve is in the first phase of implementing the EU initiative Sustainable Transport for Areas with Tourism through Energy Reduction (STARTER).
 142. In terms of biodiversity conservation, Fuerteventura has a cetacean sanctuary with 28 species and 771 different marine species included in Red Natura 2000. The site also has 2309 terrestrial native species, 128 of which are endemic to the island.
 143. Fuerteventura is also a Starlight reserve, a certification related to stopping light pollution and protecting the night skies, and hosts the Sustainability and Global Observatory, whose main purpose is to stimulate social change towards sustainability, increased quality of life and the conservation of the natural and cultural heritage of the island.
 144. The governance of the biosphere reserve is structured around three councils: the Steering Council promotes the main objectives of the biosphere reserve, the Scientific Council fosters research on the island with national and international partner institutions, and the participation council consists of members of civil society who advise on governance.
 145. The Advisory Committee congratulates the biosphere reserve for the excellent work it has done in recent years to achieve sustainable development in the marine and terrestrial areas of the island, as well as the protection of its skies.
 146. The Advisory Committee therefore considers that the site **meets** the criteria of the Statutory Framework of the World Network of Biosphere Reserves (WNBR).
 147. **Dyfi Biosphere Reserve (United Kingdom)**. The Advisory Committee welcomed this periodic review from the United Kingdom, which was designated in 2009.
 148. The Committee noted that the review of the five-year coordination plan, the three-year tourism plan and the new communication plan represented an important update in the

planning process. In 2014, the stakeholders were consulted to gather their assessments of the site and to request their input into future strategies based on perceived opportunities and challenges facing the site. The Committee also noted that a stakeholder analysis was undertaken in 2017 as part of the periodic review process, to identify and engage relevant groups and individuals outside the core group of biosphere partnership members. Two stakeholder engagement workshops employed the Most Significant Change methodology.

149. In terms of socio-economic changes, tourism increased while agricultural activities decreased. At present, the consequences of Brexit on traditional livelihoods are difficult to predict. On the environmental side, a major concern is the vulnerability of Dyfi Biosphere Reserve coastlines to sea-level rise resulting from climate change.
150. During the first period of the site's existence, the majority of activities were carried out by individual partners to fulfil specific institutional objectives. Over the last ten years, the Biosphere Partnership, the governance body of the reserve, has undergone significant changes in its composition. The initial agreement stated that the public bodies in the Biosphere Partnership (i.e. the Welsh Government, NRW, local authorities and the Snowdonia National Park Authority) would rotate the role of Secretariat. Then, in 2013, the three main environmental bodies in Wales were merged into a single one, Natural Resources Wales, which created some turbulence. There was also a perception that the public sector partners did not prioritize the reserve. In 2015, the NGO Ecodyfi assumed the role of Secretariat. The Officer Support Group was disbanded and thematic groups were established, demonstrating the resilience and flexibility of the governance structure provided by the Biosphere Partnership. In 2017, the 2014-2019 coordination plan was revised.
151. Initially, the extent of the biosphere reserve matched the Dyfi catchment boundaries. On the occasion of the periodic review, the authorities proposed an extension to incorporate five municipalities into the transition area, with a view to strengthening the biosphere reserve both socio-economically and culturally.
152. The Advisory Committee greatly appreciated the excellent periodic review and acknowledged the substantial efforts made by the Biosphere Partnership to overcome the difficulties encountered during the first decade. The Advisory Committee therefore considered that the site **meets** the criteria of the Statutory Framework of the World Network of Biosphere Reserves (WNBR). It also recommended that the process used by the site after five years of existence be shared with the excellence working group.
153. **Sonoran Desert Biosphere Reserve. Extension and renaming (formerly Organ Pipe Cactus) (United States of America).** This site falls under the exit strategy process. The Advisory Committee welcomed the revised periodic review of the Organ Pipe Cactus (OPC) site sent in September 2019.

154. The purpose of this site is to promote increased understanding, conservation and celebration of the natural and cultural resources of the Sonoran Desert, and to foster communication and productive collaboration dedicated to this purpose. Designated as a first-generation biosphere reserve in 1976, this is the third periodic review submitted following the first one in 2013 and the second one in 2016. The previous recommendations made by the Advisory Committee were twofold: to revisit the zonation of the site, in order to include buffer zone(s) and transition area(s) that can cater for the sustainable development function; and to submit a revised zonation map and an updated periodic review using the official periodic review form.
155. The Advisory Committee noted the proposed renaming of the site to 'Sonoran Desert Biosphere Reserve' (SDBR). Initially governed by the National Park Service's Organ Pipe Cactus National Monument, the governance body of the site has shifted to the International Sonoran Desert Alliance (ISDA), the vision and mission of which align closely with those promoted by the MAB Programme. ISDA is a non-profit corporation founded in 1993 and governed by a board of directors representing the indigenous and non-indigenous populations of the United States and Mexico. The Advisory Committee welcomed the ongoing cooperation with Mexico including the El Pincate y Gran Desierto de Altar national biosphere reserve, which is also a World Heritage site, and acknowledged the role of ISDA in facilitating this cooperation.
156. Regarding the proposed zonation, the Advisory Committee noted that only a draft concept map was provided. However, the Advisory Committee understands that the process of working with the National Park Service Staff of the OPC National Monument, to engage land management partners and area stakeholders in discussions regarding the expansion of the perimeter and function of the OPC Biosphere Reserve, was initiated in June 2018 and is still ongoing.
157. The Advisory Committee noted that the only detailed maps provided are restricted to the core area, which is delimited by the OPC National Monument. The proposed buffer zone, which consists mainly of the Cabeza Preta National Wildlife Refuge, is not depicted, and neither is the transition area surrounding the town of Ajo, a former copper mining hub.
158. The Advisory Committee requested the authorities to provide more information, including land use maps on both the buffer zone and the transition area. It also requested more detailed information on the management plan for the entire biosphere reserve.
159. The Advisory Committee requested that the information be submitted by 22 May 2020.
160. **Obtawaing Biosphere Reserve Extension and renaming (formerly University of Michigan Biological Station). (United States of America).** This site falls under the exit strategy process. The Advisory Committee welcomed the detailed periodic review and the proposed name change to Obtawaing Biosphere Reserve.

- 161.** The Advisory Committee appreciated the efforts made by the authorities to redesign and restructure the site in order to fulfil the criteria of the Statutory Framework of the World Network of Biosphere Reserves. The Advisory Committee is aware that such efforts take time, and that negotiations with new and varied stakeholders need to be conducted carefully. The envisaged partnerships appear to be relevant and interesting. The Advisory Committee welcomed the partnership with the eight Michigan tribes as well as with the local conservancies. However, the Advisory Committee noted that the periodic review does not always clearly state which agreements have already been concluded and effectuated, and which are still in the planning or negotiating phase.
- 162.** The Advisory Committee appreciated the many research, education and outreach activities conducted in the biosphere reserve, as well as the effort in terms of diversifying conservation staff. The many research field stations and activities reflect the core institutional mission of the University of Michigan Biological Station. Partnership with the Michigan tribes and other local partners will allow for the inclusion of local and indigenous knowledge, as stated in the report, and multiple evidence-based management practices. The Sleeping Bear Dunes' Citizen Science project can add to this endeavour as well.
- 163.** The Advisory Committee welcomed plans to further strengthen the development function of the biosphere reserve, by looking at possibilities beyond tourism. However, the Committee noted that the development function needs to be further strengthened.
- 164.** The Advisory Committee welcomed the establishment of a Management Council representing local communities and partners, although it is not entirely clear whether this Council is already in operation. The Committee also welcomed the intention to design a new, more inclusive and participatory management structure, but also noted that this design is still in the planning and exploratory phase. At the same time, the Advisory Committee noted that fundraising for the biosphere reserve has been very successful and offers possibilities for redesigning the biosphere reserve, including its management structure.
- 165.** The rationale provided for the new zonation was welcomed by the Advisory Committee. However, the Advisory Committee urged the authorities to provide more information on whether the zonation presented is the final envisaged one, or whether more areas will be added. It also urged the authorities to explain why some parts of the – relatively small – transition zones border directly onto some of the core areas.
- 166.** The Advisory Committee therefore requested more information on the status (signed/ongoing/planned) of the agreements concluded with the various stakeholders, such as the Eight Michigan Tribes, the Sleeping Bear Dunes Constituencies and others key partners mentioned in the report (using the same structure as the Organ Pipe Cactus Biosphere Reserve). The Advisory Committee also requested information on whether the Management Council representing local communities and partners is already operational or not, as well as more precise information on the planned new management structure. The

Advisory Committee urges the authorities to indeed make this structure as inclusive and participatory as possible. The Advisory Committee further requested that the authorities provide a new zonation map that includes the present as well as the envisaged areas and an explanation of the zonation, specifically the rationale underlying the fact that certain parts of the core areas directly border the transition area. It also requested more detailed information about how the reserve is going to fulfil the development function other than through the promotion of existing tourism, as well as more information on agreements regarding new partnerships with local industries.

167. The Advisory Committee requested that this information be provided by 22 May 2020.
168. **Chatkal Biosphere Reserve (Uzbekistan).** The site is participating in the 'Process of Excellence and Enhancement of the WNBR'. The Chatkal Biosphere Reserve, which was designated in 1978, covers the south-western end of the Chatkal'skiy Range in the western Tien-Shan Mountains. The habitats include mountain steppes and forests, rocks, alpine meadows, river valleys and floodplain forests, as well a high level of species diversity. The site is also renowned archaeologically for its ancient drawings, which date back to 1000-2000 BC.
169. The second periodic review was examined in 2015. However, the site did not meet the criteria of the Statutory Framework of the World Network of Biosphere Reserves. The MAB ICC noted that the reserve has a core area and a buffer zone, but no transition area. The MAB ICC therefore requested the authorities to revise the zonation to include a transition area and to provide a proper zonation map. The authorities were also advised to enhance the development function to enable the site to fully function as a biosphere reserve.
170. In 2017, the MAB ICC commended the Uzbekistan authorities for submitting a detailed work plan including a timeline and a working commitment to submit the periodic review by 30 September 2019 to comply with the decision of the 29th MAB ICC in 2017.
171. In 2016-18, the national authorities established a new protected area incorporating Bashkizylsay as part of the core area. In 2018, a resolution of the Cabinet of Ministers of the Republic of Uzbekistan established the Ugam-Chatkal State Biosphere Reserve with three zones. At the present time, the Chatkal Biosphere Reserve has two core areas (Bashkizylsay and Maydantal) with a buffer zone and a transition area within the Ugam-Chatkal State Biosphere Reserve. These buffer and transition areas enabled the biosphere reserve to carry out various economic activities. Currently, the process to create a buffer zone around the second core area (Maydantal) to connect the two core areas is ongoing.
172. The Advisory Committee noted that a number of consultative meetings were held among representatives of stakeholders including residents of settlements, representatives of local authorities, law enforcement agencies and others.

173. The Committee also noted that a new management plan for the period 2020-2024 was being developed with the support of a joint project of the GEF/UNDP/State Committee for Ecology, entitled 'Sustainable natural resource use and forest management in key mountainous areas important for globally significant biodiversity.'
174. Additionally, the Committee also noted that the two core areas of the Chatkal Biosphere Reserve are components of the transnational 'Western Tien-Shan' World Natural Heritage site, which was listed in 2016.
175. The Advisory Committee acknowledged the efforts undertaken to comply with the criteria of the Statutory Framework of the World Network of Biosphere Reserves (WNBR). The Committee therefore concluded that the site **meets** the criteria **on the condition** that the official confirmation of the establishment of a buffer zone surrounding a core area of Maydantal is submitted by 22 May 2020, along with a more detailed plan explaining how local residents and communities will be involved in the management of the biosphere reserve.
176. **Mui Ca Mau (Viet Nam).** The Advisory Committee welcomed the submission of the first periodic review for the Mui Ca Mau Biosphere Reserve, which was designated in 2009 with no recommendations by the MAB ICC. The site is located on the southernmost tip of Viet Nam and covers a coastline of 254 km. It borders the East Sea to the east and the Gulf of Thailand to the south and the west.
177. The Mui Ca Mau Biosphere Reserve has three major ecosystem types: Melaleuca forest which is seasonally inundated with acidic aluminous water in the U Minh Ha forest area, coastal mudflats and mangrove forest.
178. The zonation and total area (371,506 ha) have not changed since the biosphere reserve was designated. The population of the site has increased in the buffer zone and transition area, totalling 540,317 in 2017, as a result of economic development and synchronized transportation infrastructure. No inhabitants exist in the core areas.
179. The core areas consist of the three parts: the strictly protected sub-zone of Mui Ca Mau National Park, the strictly protected sub-zone of U Minh Ha National Park and the West Coast protection forest belt. Mui Ca Mau National Park was recognized as a Ramsar site in 2012.
180. Major statistical data on biodiversity in the core areas, based on newly implemented surveys, show changes compared to the information in the nomination dossier.
181. Recognition as a biosphere reserve has resulted in substantial economic value and many new tourist sites, particularly related to eco-tourism development. The number of tourists reached 327,734 in 2015 and almost doubled to 649,732 in 2018.

182. The Advisory Committee noted that the wildfire in 2003 presented a significant conservation challenge to the site. It resulted in serious damage to most of the Melaleuca forest and seasonally inundated grassland, as well as ecosystem change resulting from the saline water used against the wildfire. In recent years, the Melaleuca forest has been undergoing a process of gradual recovery with naturally recreated surface soil and tree planting.
183. The Advisory Committee recommended that the Management Board of the biosphere reserve also include non-governmental stakeholders, and appreciates the leadership and commitment shown by the Ca Mau provincial government. The Advisory Committee also recommended that the authorities continue and expand efforts to establish basic and long-term solutions to address serious coastal erosion occurring along the East Sea and West Sea.
184. The Advisory Committee concluded that the site **meets** the criteria of the Statutory Framework of the World Network of Biosphere Reserve (WNBR).
185. **Cu Lao Cham – Hoi An (Viet Nam).** The Advisory Committee welcomed the submission of the first periodic review for the Cu Lao Cham – Hoi An Biosphere Reserve, which was designated in 2009 with no recommendations by the MAB ICC. The biosphere reserve is located in the southern Hai Van region of central Viet Nam, which has a humid tropical monsoon climate.
186. The biosphere reserve comprises the core area, which includes the Cu Lao Cham Marine Protected Area (MPA), established in 2006; the buffer zone consisting of the sea surrounding the core area; and the entire area of rivers, canals, natural lakes and ponds, natural wetlands, beaches belonging to Hoi An City, and the transition area of the remaining natural area of Hoi An City, including the Hoi An Ancient Town World Cultural Heritage site (1999).
187. Typical and important ecosystems are found in estuaries, floating dunes, mudflats, mangrove forests, beaches, seagrass and seaweed beds, coral reefs, rocky tidal areas and the primary forest of the Cu Lao Cham islands.
188. Following the designation of the Cu Lao Cham – Hoi An Biosphere Reserve, a Management Board was established under the Hoi An City People's Committee, with an associated advisory group and expert group.
189. The Advisory Committee noted that the zonation system and the area of the biosphere reserve have changed twice (2015 and 2019) since the designation in 2009. The extension of the core area and the buffer zone resulted in a slight increase (329 ha) in the total area, which now covers 33,475 ha. The core area, which at the time of designation included only the Cu Lao Cham special-use forest and the strictly protected area of Cu Lao Cham MPA, was re-zoned to encompass the entire MPA and the entire Tan Hiep island commune. The buffer zone was extended to incorporate the Thu Bon river mouth and the system of rivers,

canals and wetlands surrounding the city.

190. As a result of the zonation change, the core area has a population of 2,244 inhabitants out of a total population of 95,227 (2018). No inhabitants were reported in the core area in the nomination document.
191. The Advisory Committee acknowledged with satisfaction that the periodic review process involved engagement with diverse stakeholders, including civil organizations and local people, through different methods, and that good practices from the site were presented in the periodic report.
192. The Advisory Committee concluded that the site **meets** the criteria of the Statutory Framework of the World Network of Biosphere Reserve (WNBR), and requested the authorities to submit by 30 September 2020 a map showing the boundary changes of each zone of the Cu Lao Cham – Hoi An Biosphere Reserve since the nomination dossier, information on development and rational exploitation within the Cu Lao Cham MPA, and potential negative impacts to ecosystems from inhabitants living in the core area and measures to cope with them.

**ANNEX 2: EXAMINATION OF THE STATUS OF IMPLEMENTATION OF THE
RECOMMENDATIONS OF PERIODIC REVIEWS ENDORSED BY THE MAB-
ICC – 26th IACBR**

Country	Name of the site	26th IACBR recommendations (2020)	Comments
ARGENTINA	Costero del Sur	meets the criteria	Exit Strategy / Process of Excellence
ARGENTINA	Pereyra Iraioa	does not meet the criteria; additional info requested	
BOLIVIA	Beni	meets the criteria	
BULGARIA	Bistrichko Branichte	PR not submitted	Exit Strategy / Process of Excellence Will submit the new nomination form
BULGARIA	Tchouprene Biosphere Reserve	PR not submitted	Exit Strategy / Process of Excellence Will submit the new nomination form
CAMEROON	Bénoué	meets the criteria	Exit Strategy / Process of Excellence

CHILE	Lauca	does not meet the criteria	Exit Strategy / Process of Excellence
CHINA	Dinghushan	additional info satisfactory	As per 31 st MAB-ICC decisions meets the criteria
CHINA	Qomolangma	additional info satisfactory	As per 31 st MAB-ICC decisions meets the criteria
CONGO	Odzala Kokoua	meets the criteria	Exit Strategy / Process of Excellence
CUBA	Peninsula de Guanahacabibes	additional info requested	As per 30 th MAB-ICC decision: meets the criteria
CZECH REPUBLIC	Krivoklatsko	additional info requested	Exit Strategy / Process of Excellence
GERMANY	Elbe River Landscape	meets the criteria	
GUINEA (Rep.)	Badiar	additional info satisfactory	As per 31 st MAB-ICC decision: meets the criteria
GUINEA (Rep.)	Haut Niger	meets the criteria	Exit Strategy / Process of Excellence

GUINEA (Rep.)	Mont Nimba	additional info satisfactory	As per 31 st MAB-ICC decision: meets the criteria
GUINEA (Rep.)	Ziama	meets the criteria	Exit Strategy /Process of Excellence
ISRAEL	Mont Carmel	additional info requested	
NICARAGUA	Rio San Juan	additional info requested	As per 31 st MAB-ICC decision: meets the criteria
POLAND	Eastern Carpathians	additional info satisfactory	As per 30 th MAB-ICC decision: meets the criteria
POLAND	Tatra	additional info requested	Exit Strategy / Process of Excellence
RUSSIAN FEDERATION	Lake Elton	additional info requested	Site approved in 2019
RUSSIAN FEDERATION	Okskiy	additional info requested	Exit Strategy / Process of Excellence
RUSSIAN FEDERATION	Chernye Zemli	additional info requested	Exit Strategy / Process of Excellence

RUSSIAN FEDERATION	Sayano-Shushenskiy	meets the criteria	Exit Strategy / Process of Excellence
SENEGAL	Samba Dia	meets the criteria on the condition to submit addit.info	Exit Strategy / Process of Excellence
SOUTH AFRICA	Vhembe	to submit PR by 30 Sep.2020	
	Kogelberg	to submit PR by 30 Sep.2020	
TURKEY	Camili	additional info requested	

- 193. Costero del Sur Biosphere Reserve (Argentina).** The site is participating in the 'Process of Excellence and Enhancement of the WNBR. The Council welcomes the clear zonation map provided by the Argentinean authorities, which includes three zones and the official MAB terminology.
- 194.** The Advisory Committee considers that the site **meets** the criteria of the Statutory Framework of the World Network of Biosphere Reserves (WNBR).
- 195. Pereyra Iraola Biosphere Reserve (Argentina).** The Advisory Committee welcomes the additional information provided by the Argentinean authorities.
- 196.** However, the proposed zonation still does not protect the core area of the biosphere reserve. The Advisory Committee therefore recommends that the authorities review the boundaries and zonation of the site, and/or analyse the possibility of extending the reserve, in order to meet the functions and criteria of a biosphere reserve. The Advisory Committee also recommends that the authorities discuss the possible extension of the biosphere reserve with the municipalities in the vicinity of the site. The authorities have not yet submitted the requested Management Plan for the entire site, the participation of stakeholders is not clear, and the additional information about the Management Committee does not explain clearly how this committee functions.

197. The Advisory Committee concluded that the site **does not meet** the criteria of the Statutory Framework of the World Network of Biosphere Reserve.
198. The Advisory Committee therefore requests once again that the authorities submit by 30 September 2020:
- a new zonation that better protects the core area including a proper buffer zone;
 - an overall Management Plan for the entire biosphere reserve;
 - information on how the authorities will secure the participation of stakeholders in the biosphere reserve; and
 - clear information about the functioning of the Management Committee.
199. **Beni Biosphere Reserve (Bolivia).** The Advisory Committee welcomed the information provided by the Bolivian authorities, which explains the developmental functions of the transitional zone.
200. The zone includes communal lands (Territorio Comunitario de Origen – TCO) and peasant communities, as well as Tsimane and Movima indigenous communities that preserve traditional and sustainable activities.
201. These activities include the Chelonian project on turtle egg management, citrus production, cocoa production, livestock breeding, ecotourism and urbanization. Current projects target in particular women and young people.
202. The Advisory Committee concluded that the site **meets** the criteria of the Statutory Framework of the World Network of Biosphere Reserve (WNBR).
203. **Bistrichko Branichte Biosphere Reserve (Bulgaria).** The site falls under the exit strategy process. The Secretariat received a letter from the MAB National Committee indicating that the municipalities concerned are willing to remain part of the WNBR, but that the authorities requested more time to complete a new nomination form.
204. The Advisory Committee took note of this request.
205. **Tchouprene Biosphere Reserve (Bulgaria).** The site falls under the exit strategy process. The Secretariat received a letter from the MAB National Committee indicating that the municipalities are willing to remain part of the WNBR, but that the authorities requested more time to complete a new nomination form.
206. The Advisory Committee took note of this request.
207. **General information on Cameroon.** The Advisory Committee acknowledged the communication from the national authorities requesting the MAB Secretariat's indulgence

regarding the expected details of transmission of elements and highlighting the government's continued efforts to safeguard the status awarded to the Dja, Benoué and Waza biosphere reserves, subject to the exit strategy process as of 30 September 2019.

208. **Benoué Biosphere Reserve (Cameroon).** The site is participating in the 'Process of Excellence and Enhancement of the WNBR'. The Advisory Committee welcomed the letter from the national authorities and the revised zoning map, submitted in response to the recommendations of the 31st session of the MAB ICC.
209. The Advisory Committee noted that the zoning map clearly indicates the three zones (the core area, the buffer zone and the transition area) and concluded that the biosphere reserve **meets** the criteria of the Statutory Framework of the World Network of Biosphere Reserves.
210. The Advisory Committee encouraged the national authorities to consider an extension of the buffer zone in order to guarantee the long-term protection of the core area, the majority of which remains in contact with the transition area.
211. **Lauca Biosphere Reserve (Chile).** The site is participating in the 'Process of Excellence and Enhancement of the WNBR'. The Advisory Committee welcomed the additional information provided by the Chilean authorities. The country is working on an extension of the biosphere reserve increasing the overall size from 358,000 ha to 814,241 ha, in order to add a buffer and a transition zone.
212. The extension proposal includes an Indigenous Development Area (ADI) in the transition zone to meet the zonation criteria.
213. However, the document sent does not include the required information about the functioning of the Management Committee or the management plan.
214. The Advisory Committee also noted that the authorities provided a work plan to complete the recommendations no later than March 2020.
215. The Advisory Committee consider that this site **does not meet** the criteria of the Statutory Framework of the World Network of Biosphere Reserves (WNBR).
216. The Advisory Committee requests that the national authorities provide by 22 May 2020 the final zonation of the biosphere reserve, the management plan and clear information about the Management Committee.
217. **Dinghushan Biosphere Reserve (China).** As per the decision of the 31st session of the MAB ICC in 2019, the site meets the criteria of the Statutory Framework of the World Network of Biosphere Reserves. The ICC requested an updated management plan by 30 September 2019.

218. The Advisory Committee commended the Chinese authorities for submitting the Management Plan for 2020-2029. The plan is divided into eight chapters: Chapter 1 introduces the basic situation of the reserve, Chapter 2 analyses the management conditions, Chapter 3 introduces selected management actions, Chapter 4 presents the action plan, Chapter 5 and Chapter 6 include a schedule and estimate of the investment needed, Chapter 7 introduces safeguards, and Chapter 8 presents the performance assessment and approach to supervisory improvement.
219. The Committee congratulated the Chinese authorities on the high quality of the document.
220. **Qomolangma Biosphere Reserve (China).** As per the decision of the 31st session of the MAB ICC in 2019, the site meets the criteria of the Statutory Framework of the World Network of Biosphere Reserve. The ICC encouraged the Chinese authorities to use cultural diversity and traditional knowledge for the conservation of biodiversity. It further encouraged them to make greater effort to monitor biodiversity and research the impacts of climate change. It also encouraged the Chinese authorities to utilize ecotourism to improve the livelihoods of local people.
221. The Chinese authorities submitted a progress report on their efforts to implement these recommendations. The Advisory Committee took note of this progress, acknowledged the efforts of the Chinese authorities and encouraged them to continue in this regard.
222. **Odzala-Kokoua Biosphere Reserve (Congo).** The site is participating in the 'Process of Excellence and Enhancement of the WNBR'. The Advisory Committee welcomed the additional information sent by the national authorities in response to the previous request by the MAB ICC for a zonation map with a clear legend, as well as a Management Plan or Policy. The Advisory Committee commended the authorities on the submission of the detailed zonation information, which complies with the biosphere reserve criteria.
223. The development plan for Odzala-Kokoua National Park has been submitted together with the decree of approval. This plan is due to be revised to cover the entire biosphere reserve and is expected to address the ICC recommendations.
224. The Advisory Committee concluded that the site **meets** the criteria of the Statutory Framework of the WNBR.
225. **Península de Guanahacabibes Biosphere Reserve (Cuba).** This site has already met the criteria, but the MAB Council requested additional information on the revised zonation, including a continuous marine buffer zone.
226. The authorities have presented a zonation map with a continuous marine core area, but without a marine buffer zone that protects the whole marine core area.

- 227.** The Advisory Committee request the national authorities to send before 30 September 2020 a zonation map with a marine buffer zone that will ensure the conservation functions of the marine core area.
- 228. Krivoklatsko Biosphere Reserve (Czech Republic).** The site falls under the exit strategy process.
- 229.** The authorities of the Krivoklatsko Biosphere Reserve submitted their first periodic review in 2016. This report was assessed and discussed by the Advisory Committee in early 2017. The Advisory Committee concluded that more information was needed to assess whether the biosphere reserve met the criteria of the Statutory Framework of the World Network of Biosphere Reserves. In particular, the Advisory Committee requested the authorities to provide a zonation map specifying the three zones as per the statutory framework, as well as to provide detailed information on the implementation of the development function, and the involvement of the local communities in both the development function and the management of the biosphere.
- 230.** The Advisory Committee welcomed the letter sent by the authorities in response to the request. The Committee noted that all core areas automatically have a 50-metre buffer zone, while areas that appear to be missing buffer zones are buffered by features in the landscape such as river-banks or forests. However, the requested zonation map was not provided.
- 231.** The Advisory Committee noted that the transition area is divided into two types, as stipulated under Czech legislation, but that no further details are provided about the associated implications for the development function of the reserve. The response received from the authorities states that local municipalities have been consulted about the development of the management plan. The Advisory Committee welcomed this first step in establishing relations with the community, but noted that information on how community members will participate in the management structure or the development of the management plan is still missing. The authorities state that an interpretation plan in relation to tourism is foreseen for 2023. The Advisory Committee therefore concluded that the development function of the biosphere reserve is still not clear.
- 232.** Based on the information provided, the Advisory Committee requested the authorities to provide the updated zonation map and detailed information about how local communities will participate in the management and management structures of the biosphere reserve, as well as more detailed, concrete information about how the development function of the biosphere reserve will be realized. The Advisory Committee requested that the information be provided by 22 May 2020, in order to decide whether the site meets the criteria of the Statutory Framework of the World Network of Biosphere Reserves.

- 233. Elbe River Landscape Biosphere Reserve (Germany).** The Advisory Committee welcomed the letter sent by the authorities on 13 September 2019, and the additional documentation provided by the five responsible state authorities on the zonation of Elbe River Landscape Biosphere Reserve.
- 234.** The Advisory Committee noted the finalization of the core area in line with the statutory Framework of the WNBR and the effective buffering. The Advisory Committee concluded that the site **meets** the criteria of Statutory Framework of the World Network of Biosphere Reserves.
- 235. General information on Guinea.** The Advisory Committee welcomed the official letter from the national authorities in response to the recommendations of the 31st session of the MAB Council on the periodic review reports of the four biosphere reserves.
- 236. Badiar Biosphere Reserve (Guinea).** This site meets the criteria of the Statutory Framework of the WNBR.
- 237.** As a follow up to the decision of the 31st MAB ICC, the Advisory Committee took note of consultations undertaken with neighbouring communities and other stakeholders concerning the establishment of the buffer zone around the two core areas in order to guarantee their long-term conservation. The national authorities indicated that a validation workshop was planned before the end of 2019 at the end of which a new zoning map would be produced.
- 238. Haut Niger Biosphere Reserve (Guinea).** The site is participating in the 'Process of Excellence and Enhancement of the WNBR'. The national authorities recalled that Haut Niger was previously a national park whose zonation did not conform to the Statutory Framework of the World Network of Biosphere Reserves or the Seville Strategy. The Advisory Committee requested a revision of the zoning map in response to the recommendations of the MAB ICC.
- 239.** The Advisory Committee noted that the zonation of the middle part of the biosphere reserve complies with the criteria, while the core area in the northeast of the reserve is inhabited, bisected by a road and lacks a buffer zone. The Advisory Committee therefore advised the national authorities to convert the northeast core area into a transition zone to be merged with the current transition zone.
- 240.** The Advisory Committee concluded that the middle part of the biosphere reserve **meets** the criteria of the Statutory Framework of the World Network of Biosphere Reserves.
- 241. Mont Nimba Biosphere Reserve (Guinea).** This site meets the criteria of the Statutory Framework of the WNBR. As a follow up to the decision of the 31st MAB ICC, the Advisory Committee noted that the new zoning map used the same colour for the three core areas in response to a recommendation of the MAB ICC.

242. **Ziama Biosphere Reserve (Guinea).** The site is participating in the 'Process of Excellence and Enhancement of the WNBR'. The Advisory Committee commended the national authorities for the consultations undertaken with local populations and stakeholders in respect of the extension of the buffer zone in the south-eastern part of the biosphere reserve.
243. The Advisory Committee acknowledged the new zonation and concluded that the site **meets** the criteria of the Statutory Framework of the World Network of Biosphere Reserves.
244. The Advisory Committee congratulated the authorities of Guinea and Liberia for their ongoing efforts to establish a transboundary biosphere reserve between the two countries.
245. **Mt. Carmel Biosphere Reserve (Israel).** The Advisory Committee welcomed the letter sent by the authorities on 26 September 2019 explaining the present situation regarding the management of the Mt. Carmel Biosphere Reserve.
246. The Advisory Committee appreciated the initiative of the Israel MAB Committee and representatives of the biosphere reserve's Druze communities to work together with all communities of the reserve to develop a new management mechanism incorporating all communities and relevant stakeholders. The Advisory Committee noted the positive improvements made in relation to this joint management mechanism.
247. The Advisory Committee noted that additional time will be required to establish and operationalize the management mechanism. The Israel National MAB Committee has stated that a period of two years will be necessary to report on the development of the management mechanism and its operation.
248. The Advisory Committee therefore requested that the Israel MAB Committee report on the development of the management mechanism and its operation by 30 September 2021.
249. **Río San Juan Biosphere Reserve (Nicaragua).** This site has already met the criteria, but the MAB Council requested additional information about the management plan and stakeholder involvement.
250. The Advisory Committee welcomed the additional information provided by the Nicaraguan authorities. However, the document provided describes only certain current activities of government institutions in the area and does not constitute a proper management plan. The additional information about stakeholders still does not explain clearly how all relevant actors are involved in the management of the site.
251. The Advisory Committee again requests the national authorities to send more information about the management plan and stakeholder involvement by 30 September 2020.

- 252. Eastern Carpathians Biosphere Reserve (Poland).** The Advisory Committee welcomed the information sent by national park representatives in response to the 2018 recommendations made by the MAB Council.
- 253.** The Advisory Committee acknowledged the cooperation between biosphere reserve managers from Poland and the other two countries constituting the East Carpathians Transboundary Biosphere Reserve, including the meeting of participants, which took place in Ukraine last year.
- 254.** The Advisory Committee noted with appreciation the creation of a national consultation team, and encouraged the authorities to submit to the MAB Secretariat information about its composition (name, organization), status and competence, noting the importance of an emphasis on participation and multisectorality.
- 255. Tatra Biosphere Reserve (Poland).** This site falls under the exit strategy process. The Advisory Committee welcomed the reply from the Polish authorities of 17 September 2019, and expressed its encouragement for the creation of a new multi-stakeholder-based coordination body for the biosphere reserve.
- 256.** It also welcomed the information related to the extension of the biosphere reserve beyond the boundaries of the national park and the planned changes in zonation, and considered these to be a very positive development. The new zonation plan has been developed and includes four municipalities with a total of 60,000 people, 1,000 of which will reside in the buffer zone. The new plan was received positively by the management authorities of the national park.
- 257.** The Advisory Committee appreciated the impressive number of activities organized with and for the local communities to encourage their input and acceptance of the proposed planning and management processes. The activities included a 'Best Practice Festival' organized with the communities, educational activities for local schoolchildren, various activities on social media, and the creation of a group of leaders to promote the biosphere reserve and the envisaged changes.
- 258.** The Advisory Committee also appreciated the efforts undertaken to meet the criteria of the Statutory Framework, as evidenced by the contact with the Secretariat to obtain additional information and assistance, and the sharing and exchanging of information and best practices among biosphere reserve managers during the EuroMAB meeting held in Dublin in 2019.
- 259.** The Advisory Committee recognized that community consultation and involvement are time consuming, and noted that the authorities indicated that the process will last a significant period time. However, the letter dated 13 December 2019 indicated that a meeting to discuss the boundaries of the biosphere reserve was scheduled for 9 January 2020, and that follow-up meetings were scheduled for February 2020.

- 260.** The Advisory Committee therefore requested the authorities to provide details concerning the outcomes of these meetings no later than 22 May 2020, in order to determine whether the site meets the criteria of the Statutory Framework of the World Network of Biosphere Reserves.
- 261. Lake Elton Biosphere Reserve (Russian Federation).** The Advisory Committee welcomed the additional information provided by the Russian authorities.
- 262.** The Lake Elton biosphere reserve was designated in 2019. At the time, the Advisory Committee urged the authorities to monitor the impacts of the exploitation of therapeutic mud, and further develop their research capacities. The authorities were also requested to submit a management plan.
- 263.** The Advisory Council therefore welcomed the reception of a detailed management plan, which was drafted in consultation with national and international experts, as well as local government authorities and communities.
- 264.** The management plan contains clear objectives related to the further development of the therapeutic mud sources for economic development, while at the same time monitoring and mitigating the negative impacts of both mud exploitation and increased tourism.
- 265.** The Advisory Committee also welcomed the detailed plans concerning the strengthening of research capacity within the biosphere reserve. The plan contains references to national and international research collaboration.
- 266.** The Advisory Committee appreciated the involvement of local government authorities and representatives of local residents in the management structure, as well as in monitoring the implementation of the management plan. The Advisory Committee urges the authorities to continue to manage the biosphere in an inclusive and participatory manner, and to strengthen the participation of women in the management and monitoring processes.
- 267. Okskiy Biosphere Reserve (Russian Federation).** The site falls under the exit strategy process. The Advisory Committee welcomed the responses sent by the authorities of the Okskiy Biosphere Reserve.
- 268.** The Advisory Committee appreciated the developmental activities undertaken to increase the size of the transition area to ensure wider cooperation with local communities.
- 269.** The Advisory Committee noted the Agreement of Cooperation and Collaboration to promote activities for sustainable development in the Okskiy Biosphere Reserve.
- 270.** The Advisory Committee thanked the authorities for the information on development at the local economy level:

- *Cultural development:* The number of tourists visiting the biosphere reserve has increased following the development of appropriate infrastructure.
 - *Social development:* Local communities capitalize on their location near the reserve for promotional purposes, with the reserve generating 120-130 jobs at the local level. Administration of the reserve provides employees, pensioners and citizens living within the boundaries a pass to visit hunting and fishing grounds without payment. The reserve also provides wood at discounted prices to local residents.
 - *Environmental development:* The biosphere reserve supports the study of ecological processes and the dynamics of biological diversity. It also provides opportunities for interdisciplinary research, comparative study and exchange of information.
- 271.** Based on the information received, the Advisory Committee requested an explanation as to why a substantial part of the core area (the national park) borders the transition area. It also requested more detailed information about the development function, as the submitted information refers to the co-development of management plans. The Advisory Committee therefore requested the authorities to submit the management plan outline by 22 May 2020.
- 272. Chernye Zemli Biosphere Reserve (Russian Federation).** The site falls under the exit strategy process. The MAB Council requested that the following additional information be provided by 30 September 2018: i) a draft of a comprehensive management plan/policy for the entire reserve; ii) actions taken to establish an overall biosphere reserve coordinating body that will involve the authorities, local communities and other stakeholders, with detailed information on the mechanisms implemented for their involvement; and iii) revision of the zonation scheme with a proper buffer for the core areas or a rationale for its absence, and a clear zonation map showing the borders of the reserve.
- 273.** The Advisory Committee welcomed the documents sent by the national authorities. It noted that a Mid-Term Management Plan for the period 2018-2022 was developed by a working group comprising the managing director and chief executive. This plan was examined at sessions of the Science and Technical Council and actively discussed at a special meeting, although information on the participants at this meeting were not provided. The Mid-Term Management Plan consists of four components: i) a landscape and biological diversity conservation programme; ii) a scientific research and environmental monitoring programme; iii) environmental education; and iv) the preservation of historical and cultural heritage. The Advisory Committee recommended that the national authorities consider actions likely to foster the development of areas other than tourism, such as livestock raising, which was presented as an option in the periodic review form but is not mentioned in the mid-term management plan.
- 274.** Currently, the administration of the core area and buffer zone is carried out by the Chernyje Zemli state reserve. The territory of the transition area is managed by municipal authorities,

management organizations and tenants, who coordinate their activities with the Ministry of Natural Resources and Ecology of the Russian Federation. The Advisory Committee acknowledged the reception of agreement letters signed by the heads of the regional municipalities. Nevertheless, it reiterated its request for mechanisms to better integrate the two levels of governance.

- 275.** The Advisory Committee noted that the submitted map is the same as that sent with the periodic review form, which does not include the requested information regarding zonation. Of the three above-mentioned issues raised by the ICC, the Advisory Committee considered that only the first received a satisfactory answer. As the site falls under the exit strategy process, the Advisory Committee requested that the missing information be provided by 22 May 2020.
- 276. Sayano-Shushenskiy Biosphere Reserves (Russian Federation).** The site falls under the exit strategy process. The Advisory Committee welcomed the responses sent by the authorities, as well as the updated zonation map and the updated periodic review.
- 277.** The Advisory Committee appreciated the developmental activities undertaken in relation to the extension of the biosphere reserve, notably those related to tourism and timber products. The Advisory Committee noted that one transition area has been added and two public councils have been established to ensure participation in the management of the biosphere reserve. The statutes of one of the public council has been added to the periodic review report.
- 278.** The Advisory Committee appreciated the updated zonation map, as well as the rationale for the zonation. According to the updated zonation map, a second transition area has been demarcated and will be added to the biosphere. The Advisory Committee therefore urged the authorities to provide an update on the status of the second transition area, as well as the total number of residents living in the biosphere reserve.
- 279.** The Advisory Committee concluded that the biosphere reserve now **meets** the criteria of the Statutory Framework of the World Network of Biosphere Reserves.
- 280. Samba Dia Biosphere Reserve (Senegal).** The site is participating in the 'Process of Excellence and Enhancement of the WNBR'. The Advisory Committee recalled that following the submission of a periodic review in 2015, the national authorities were requested to submit a revised zonation map with a buffer zone and transition area and management plan. The Advisory Committee acknowledged the recent official letter of the national authorities submitting the provisional zoning of the Samba Dia Biosphere Reserve, which addresses the 2015 recommendations and requests more time to compile and submit additional information.

- 281.** The Advisory Committee concluded that the site **meets** the criteria of the Statutory Framework on the condition that they provide official confirmation of the zonation map and the management plan by 22 May 2020.
- 282. Kogelberg Biosphere Reserve (South Africa).** The Advisory Committee welcomed the submission of information on the second periodic review of the site, which was to have been submitted by 30 September 2019. The Advisory Committee noted that the periodic process was yet to be completed because approval was pending from the Western Cape Provincial Government to proceed with certain sections of the procedure.
- 283.** The Advisory Committee therefore accepted the request for an extension of the deadline and encouraged the authorities to submit the periodic review by 30 September 2020.
- 284. Vhembe (South Africa).** The Advisory Committee welcomed the submission of information indicating the progress of the periodic review for the area, which was approved in 2009.
- 285.** The committee noted that the periodic review dossier was to have been submitted by 30 September 2019. However, the communication received from the MAB National Committee indicated that the stakeholder engagements were still in progress.
- 286.** The Advisory Committee therefore accepted the request for an extension of the deadline and encouraged the authorities to submit the periodic review by 30 September 2020.
- 287. Camili Biosphere Reserve (Turkey).** In July 2018, the Camili Biosphere Reserve was asked to provide a response to the decisions made during the 30th session of the ICC MAB. The MAB secretariat requested an update by 30 September 2019.
- 288.** A management/governance structure mechanism of the biosphere reserve has been officially established by the Ministry of Agriculture and Forestry. The Advisory Committee took note that negotiations for the effective establishment of a management structure, and the process of updating the draft management plan, as well as the examination of zoning decisions, are advancing steadily. One more year is required to achieve the stakeholders' full endorsement of a protocol for their active involvement in the management of the biosphere reserve.
- 289.** The Advisory Committee expects to receive updated and comprehensive information by 30 September 2020.

Sites under the Exit strategy in conflicts:

- 290. Waza Biosphere Reserve (Cameroon). In conflict.** The site is participating in the 'Process of Excellence and Enhancement of the WNBR'. The Advisory Committee noted that consultations were envisaged in October 2019 as part of the implementation of the 'Biosphere and Heritage of Lake Chad' project (BIOPALT) pending the re-zoning of Waza National Park and new information on population numbers living in the buffer zone and the

transition area, which together with the Kalamaloué National Park will form the core areas of a transboundary biosphere reserve. They also recalled that the Waza Biosphere Reserve obeys the provisions of paragraph 4 of annex 2 concerning biosphere reserves located in conflict zones due to the insecurity fuelled by the terrorist group 'Boko Haram'.

291. **Basse Lobaye (Central African Republic). In conflict.** The site is participating in the 'Process of Excellence and Enhancement of the WNBR'. No recent information has been received.
292. **Radom Biosphere Reserve (Sudan). In conflict.** The site is participating in the 'Process of Excellence and Enhancement of the WNBR'. No recent information has been received.

PART II

**ANNEX 3. EXAMINATION OF PERIODIC REVIEW REPORTS RECEIVED SINCE
THE LAST ADVISORY COMMITTEE MEETING – 27th IACBR**

Country	Name of the site	Comments
CHILE	Araucarias	
CHINA	Fenglin	
	Nanji Archipelago	
	Jiuzhaigou	
COLOMBIA	Cinturón Andino	Does not meet criteria
	El Tuparro	Does not meet criteria
	Sierra Nevada de Santa Marta	Does not meet criteria
	Ciénaga Grande de Santa Marta	Does not meet criteria
	Seaflower	
DEMOCRATIC PEOPLE'S REPUBLIC OF KOREA	Mount Paetku	
GERMANY	Schaalsee	
MALAWI	Lake Chilwa	
MALAYSIA	Tasik Chini	Does not meet criteria
PERU	Oxapampa - Asháninka – Yánesha	
REPUBLIC OF KOREA	Gwangneung Forest	
RUSSIAN FEDERATION	Altaiisky	
SPAIN	Bardenas Reales	Does not meet criteria
	Cabo de Gata	
	El Hierro	
	Somiedo	
	Urdaibai	
SOUTH AFRICA	Vhembe	
	Kogelberg	
SWEDEN	Lac Vänern Archipelago et Mont Kinnekulle	
	Chernomorskiy (Black Sea) Desnianskiy	

UKRAINE		
VIET NAM	Can Gio Mangrove	

- 293. Araucarias Biosphere Reserve (Chile).** The Advisory Committee welcomed the second periodic review from the Araucarias Biosphere Reserve, which was designated in 1983.
- 294.** The biosphere reserve is located in the region of La Araucania in southern Chile. The total area of the biosphere reserve has not changed, but there has been changes in the zonation: a 4.7% decrease in the core area and an 8.2% increase in the buffer zone (30,797 ha). Land from the core and transition areas was absorbed into the buffer zone.
- 295.** For the preparation of the Periodic Review report, a technical committee was formed, convened by the biosphere reserve manager and composed of representatives of public and private institutions. Since 13 April 2020, the committee has met through weekly tele-meetings. Surveys were sent out to different stakeholders and interviews were conducted.
- 296.** Positive changes over the last ten years include the revaluation of biocultural heritage, the strengthening of strategies for environmental protection and the increase in environmental certification of rural education establishments.
- 297.** Negative changes have been also recognized such as a significant increase in the temporary population in certain areas of the biosphere reserve, the unregulated use of public use zones in the core area, the subdivision of rural property for the construction of second homes which generates fragmentation, the introduction of invasive alien species and the absence of land use planning which allows unsustainable projects to be implemented.
- 298.** Since 2010, the biosphere reserve has operated the following management bodies: an assembly, an executive board, a technical secretariat and working groups. A wide range of institutional and civil society actors participate in governance of the reserve.
- 299.** The biosphere reserve has produced a Management Plan for the period 2013-2022, which is structured around the following themes: (i) social development, culture and knowledge, (ii) productive development, (iii) territorial development and environment, and (iv) politics and administration.
- 300.** The Advisory Committee concluded that the site **meets** the criteria of the Statutory Framework of the WNBR. The Advisory Committee congratulated the biosphere reserve on its excellent report, as well as on the progress made since its designation, mainly in regard to heightened visibility and community participation.

- 301. Fenglin Biosphere Reserve (China).** The Advisory Committee welcomed the second Periodic Review report of the Fenglin Biosphere Reserve, which benefited from an on-site investigation organized by the MAB National Committee of China in August 2017. The Fenglin Biosphere Reserve, designated in 1997, submitted its first periodic review report in 2007.
- 302.** The Fenglin Biosphere Reserve has been managed in accordance with the Master Plan of the Fenglin National Nature Reserve (Phase II) for 2014–2023, which was approved by the State Forestry Administration. The functions of the Chinese national nature reserve are consistent with those of the biosphere reserve, covering protection, scientific research monitoring, public education and logistical support.
- 303.** Its main biodiversity conservation values relate to the presence of a representative, complete and primeval temperate coniferous and broad-leaved mixed forest dominated by Korean pines (*Pinus koraiensis*). The original broad-leaved Korean pine forest is well preserved in a stable state. Forest coverage has increased by 0.7% to 96.5% compared with the first Periodic Review in 2007.
- 304.** Conversely, due to the underdeveloped local economy, some residents in the transition area have moved to cities and towns following the renovation of ‘rundown areas’. As a consequence, the population has decreased from 1,690 reported in the first Periodic Review report (2007) to 500 in 2015. The location of the site in an economically underdeveloped region has also become an obstacle to engaging capable people, especially youth, in the management and development activities of the biosphere reserve. The situation is expected to be improved by the planned move of the biosphere reserve administration to Yichun City.
- 305.** The Advisory Committee appreciated the successful follow-up actions in response to the recommendations of the first Periodic Review in 2007. One notable action was a scientific study assessing the impact of Korean pine nut collection on the regeneration of Korean pine forest and the animals that feed off them, followed by the implementation of rules and regulations on collecting nuts and other undergrowth resources in a specified time and area based on the research outcomes. In addition, the biosphere reserve has been completely funded by the local government since 2017, with improvements to funding for staff and infrastructure.
- 306.** The Advisory Committee concluded that the Fenglin Biosphere Reserve **meets** the criteria of the Statutory Framework of the WNBR, and recommended that efforts be made to increase communication and visibility of the biosphere reserve through better use of communication tools (website, social networking for publicity), and to reinforce sustainable development activities by engaging local residents in and around the biosphere reserve.
- 307. Nanji Archipelago Biosphere Reserve (China).** The Advisory Committee welcomed the second Periodic Review of the Nanji Archipelago Biosphere Reserve, which benefited from an on-site investigation carried out by the MAB National Committee of China in November 2018.
- 308.** The Nanji Archipelago Biosphere Reserve, located in the southeast marine area of Pingyang County, Wenzhou City, Zhejiang Province, consists of 52 islands with dozens of

uncovered and sunken rocks and surrounding sea areas as well as a 74.66 km-long coastline. The total area covers 201.06 km², consisting of islands (11.13 km²) and marine area (189.93 km²). The site was designated as a biosphere reserve in 1990 and the first Periodic Review report was submitted in 2008.

- 309.** The Advisory Committee appreciated the number of vigorous activities implemented over the last ten years in response to recommendations made by the ICC on the first Periodic Review.
- 310.** The site is known as the 'kingdom of algae and shellfish' due to the presence of 427 species of shellfish and 637 species of algae, which make up 15% and 25% of the total marine algae and shellfish species in China, respectively.
- 311.** The biosphere reserve has been managed in accordance with the Master Plan of the Nanji Archipelago National Marine Nature Reserve for 2019–2028. The functions of the Chinese national nature reserve are consistent with those of the biosphere reserve, covering protection, scientific research monitoring, public education and logistical support.
- 312.** Over the past decade, the ecosystems of the site have remained stable, the villages environments have improved significantly and the local community economy has successfully pursued green development. In particular, the site has boosted the sustainable development of communities through ecological compensation, moderate development of eco-tourism, the construction of livelihood facilities and assistance for community livelihoods.
- 313.** The Advisory Committee welcomed the distinctive management model which was established to coordinate the roles of the Nanji Archipelago National Nature Reserve Administration and the Nanji Town Government-. The management model has made possible unified planning and management and coordinated social and economic development.
- 314.** The Advisory Committee also noted that the site has established long-term cooperation with many domestic research institutes as a scientific research platform, accumulated a wealth of basic data on marine biodiversity and trained young researchers.
- 315.** The Advisory Committee therefore concluded that the site **meets** the criteria of the WNBR, and requested the following information by 30 May 2021:
- an updated zonation map with coordinates, an indication of scale and all legends in English as specified in the Periodic Review report form; and
 - responses to all items (questions) on the report form that were not provided.
- 316. Jiuzhaigou Biosphere Reserve (China).** The Advisory Committee welcomed the second Periodic Review report of the Jiuzhaigou Biosphere Reserve, which has benefited from an on-site investigation organized by the MAB National Committee of China in September 2020. The Jiuzhaigou Biosphere Reserve, designated in 1997, submitted its first Periodic Review in 2007. There have been no changes in zonation or size of the biosphere reserve.

- 317.** The biosphere reserve is situated on the southern slopes of the Minshan Mountains in the transition between the Sichuan Basin and the Qinghai-Tibet Plateau, characterized by rich levels of biodiversity. The altitude ranges from about 2,000 to 4,700 m above mean sea level. The natural landscape includes snow-capped peaks, numerous waterfalls, forests, mountain streams and lakes. The site is particularly interesting for its series of *narrow conic karst landforms*. Calc-sinter lakes, calc-sinter waterfalls, and calc-sinter beaches *are very rare in the world*.
- 318.** In order to achieve unified management of the biosphere reserve, the core area (49,782.3 ha), buffer zone (9,027.5 ha) and transition area (5,487.5 ha) correspond to those of the Chinese National Nature Reserve, respectively, that is, the functional zonation of the Jiuzhaigou National Nature Reserve. The core area is located in the middle and upper part of mountains at a higher altitude and has been kept uninhabited in a primitive state. The biosphere reserve is surrounded by other nature reserves: the Gonggangling Nature Reserve in the west, the Huanglong Nature Reserve in the south, the Wanglang Nature Reserve in the southeast, the Wujiao Nature Reserve in the east and the Baihe Nature Reserve in the northeast. These surrounding nature reserves substitute for the buffer zone of the biosphere reserve. The Jiuzhaigou Biosphere Reserve has maintained good relations and engaged in cooperation with the neighbouring nature reserves.
- 319.** The Advisory Committee commended the Chinese authorities on the success of follow-up actions in response to the recommendations of the 23rd session of the MAB-ICC in 2011. Some notable results are the amount of surface water in Jiuzhaigou has increased steadily water quality has reached the grade-I standard, and a new operation and management model for the biosphere reserve has been created enabling to manage a balanced distribution of tourists and to launch the tourism festivals with distinctive characteristics by time period.
- 320.** The Committee noted the ongoing cooperation with the World Wide Fund for Nature (WWF) for ecotourism training, workshops and environmental education events, and the production of popular science brochures on its resources, which are freely available in the visitor centre.
- 321.** The Committee further noted that after the earthquake in 2017, 1.21 million Yuan was allocated to build an interpretation system at the Jiuzhaigou World Heritage Site, 15.129 million Yuan was invested in promoting the Jiuzhaigou World Heritage Site, and 5 million Yuan was used for the creation of a Jiuzhaigou logo and signage.
- 322.** At present, some problems persist with management and coordination of the Jiuzhaigou Biosphere Reserve. The site is directly managed by the Jiuzhaigou Administration, which oversees not only protection of the biosphere reserve, but also tourism, community and public security management. These issues simultaneously overlap and differ in multiple ways. The limitations imposed by these responsibilities risk affecting the protection function of the Jiuzhaigou Administration. Therefore, in order to promote the sustainable development of the biosphere reserve, there is a need for further integration and optimization of coordination and management.

- 323.** The Advisory Committee concluded that the Jiuzhaigou Biosphere Reserve **meets** the criteria of the Statutory Framework of the WNBR, and recommended to make efforts to improve the management and coordination of the site.
- 324. General recommendations for Colombian authorities:**
- 325.** The Advisory Committee recognized the efforts made by the Colombian authorities to submit periodic reviews for its five biosphere reserves, especially during the pandemic.
- 326.** Although the Advisory Committee acknowledged that many projects are underway in different areas of their biosphere reserves, with the exception of the Seaflower Biosphere Reserve, the majority of actions focused on national parks or other protected areas, with little interaction evident between the different zones and functions of the biosphere reserves.
- 327.** While there are management plans for the different territories, no overall strategy exists to coordinate the actions being undertaken in each of the separate plans.
- 328.** With the exception of the Seaflower Biosphere Reserve, the management committees of the biosphere reserves are not active, participative or representative of the different biosphere reserve stakeholders.
- 329.** The Advisory Committee and the MAB Secretariat offer technical support to strengthen the governance of Colombia's biosphere reserves, mainly through the implementation of the MAB National Committee, biosphere reserve management committees and the development of management plans for the country's biosphere reserves to meet the criteria of the Statutory Framework of the WNBR.
- 330. Cinturón Andino Biosphere Reserve (Colombia).** The Advisory Committee welcomed the third Periodic Review from the Colombian authorities.
- 331.** The Cinturón Andino Biosphere Reserve is located in the south of Colombia in the departments of Cauca, Valle del Cauca, Tolima and Huila, and was designated in 1979. It has previously submitted periodic reviews in 2001 and 2011. In 2020, the biosphere reserve reported no changes to the total surface area (2,379,564 ha).
- 332.** A Periodic Review process was conducted during the year of 2020. In line with COVID-19 control measures, two virtual meetings were held with the participation of representatives of governmental institutions, but no information is available on the involvement of other actors.
- 333.** From 2010 to 2020, 82 nationally protected areas were added to the core area of the biosphere reserve, but the increase in the area is not reflected in the report.
- 334.** The reported actions and activities have not demonstrated the expected integration of the different zones, in line with the comprehensive management of the biosphere reserve.

335. No significant changes have been noted in the biosphere reserve, except for the intensification of agricultural and forestry activities.
336. The Advisory Committee congratulated the biosphere reserve on its participation in the 'Proud to Share' initiative and for the publication of the book *El Páramo*, which provides strong material about land uses and social realities associated with these strategic ecosystems. Both have proven to be of great value for improving the governance and management of the biosphere reserve. The Advisory Committee also welcomed the creation of an environmental education booklet, which functioned as an important communication tool throughout the territory.
337. However, the biosphere reserve has not produced a consolidated management plan nor constituted a management committee. Indeed, the Ministry of Environment and Sustainable Development has yet to pass a resolution formalizing the MAB National Committee and the biosphere reserve committees.
338. The Advisory Committee concluded that this site **does not meet** the criteria of the Statutory Framework of the WNBR.
339. Therefore, the Advisory Committee requested the Colombian authorities to provide by 30 May 2021 a work plan for the Cinturón Andino Biosphere Reserve, including the following elements:
- a management plan for the whole biosphere reserve, including the core, buffer and transition areas, with an emphasis on proposed coordination and synergies with existing national plans, policies and strategies, such as community projects, partnerships with NGOs or the private sector and, above all, involving the local communities inhabiting the reserve;
 - an official document reflecting the establishment and operation of the biosphere reserve committee, involving all relevant stakeholders (national, regional and local government, local communities, academia and NGOs, among others);
 - a report clearly presenting information on the size of the core area and explaining how the 82 new protected areas were integrated; and
 - a revised zonation covering particularly the buffer and transition zones, in line with the functions set out in the Statutory Framework.
340. **El Tuparro Biosphere Reserve (Colombia).** The Advisory Committee welcomed the third Periodic Review from the Tuparro Biosphere Reserve, which was designated in 1979.
341. The biosphere reserve is located in the department of Vichada, in the Eastern Plains of Colombia, near the border with Venezuela. The third Periodic Review in 2020 reported no changes to the total area but the discrepancy in total area was found such as 1,042,000 ha (p. 7) and 1,097,084 ha (p. 149).
342. In 2015, the MAB-ICC recommended the authorities to better define the buffer zone surrounding the core area and to provide relevant information in the next Periodic Review to be submitted in 2021. No changes in the zonation were reported and the zonation map remains identical to the one provided in 2015.

343. The Periodic Review process was conducted by government institutions, namely the Ministry of Environment and Sustainable Development, National Natural Parks of Colombia and the Orinoquia Territorial Directorate. They jointly developed the document drawing on projects and results delivered by various institutions and organizations that have carried out activities within the territory.
344. Over the last decade tourism increased following the introduction of the Tourism Development Plan for the Department of Vichada (2012) and implementation of a project on sport fishing tourism, as well as other initiatives including 'Conservation of biodiversity and strengthening of governance in the El Tuparro Biosphere Reserve'. Tourism development in the biosphere reserve is oriented mainly towards sport fishing, while cattle ranching also contributes to the site's economy.
345. However, the reported actions and activities have not demonstrated the expected interaction of different zones, in line with comprehensive management of the site.
346. On the positive side, the Tuparro Biosphere Reserve did introduce social agreements to encourage the sustainable and rational use of natural resources. Progress has been made with agreements on the use of natural resources with indigenous communities located in the buffer zone, mostly in relation to sustainable fishing. In order to promote participatory and active governance, the management team set up educational strategies for the social valuation of protected areas of the biosphere reserve, including radio programmes and awareness-raising campaigns on forest fires and solid waste.
347. The Committee noted, though, that the biosphere reserve has not yet produced a consolidated management plan nor constituted a management committee.
348. The Advisory Committee therefore concluded that this site **does not meet** the criteria of the Statutory Framework of the WNBR.
349. Therefore, the Advisory Committee requested that the Colombian authorities provide by 30 May 2021 a work plan for the Tuparro Biosphere Reserve, including the following elements:
- a management plan for the whole biosphere reserve, including the core, buffer and transition areas, with an emphasis on proposed coordination and synergies with existing national plans, policies and strategies and, above all, involving the local communities inhabiting the biosphere reserve; and
 - a revised zonation covering particularly the buffer and transition zones, in line with the functions set out in the Statutory Framework.
350. **Sierra Nevada de Santa Marta Biosphere Reserve (Colombia).** The Advisory Committee welcomed the third Periodic Review of the Sierra Nevada de Santa Marta Biosphere Reserve, designated in 1979.
351. The Periodic Review process was conducted during the year 2020. In line with COVID-19 control measures, five virtual meetings were held with the participation of representatives of official entities, but no information was available regarding the involvement of other actors.

352. The Periodic Review reported changes to the size of the core, buffer and transition areas, but provided no further information about the nature of these changes. Furthermore, there was the discrepancy in sizes of each zone (p. 6 and p. 189).
353. In 2015, the MAB-ICC recommended that the site add a 'buffer zone and transition area in the coastal and marine area and report on this in the next Periodic Review to be submitted in 2021'. It is not clear from the submitted map whether or not these areas have been added to the biosphere reserve.
354. Over the last ten years the biosphere reserve has experienced a significant rise in tourism, with associated land use changes related to agriculture, hotel infrastructure and forestry, and a concomitant increase in population of over 430,000 inhabitants. Four private reserves have also been designated within the biosphere reserve. These changes reportedly have harmed the spiritual and cultural integrity of the indigenous peoples of the Sierra Nevada.
355. The biosphere reserve is managed by a multitude of territorial, political-administrative, ethno-cultural and other entities or actors. Each one of them carries out its respective actions within the sole scope of its jurisdiction and competency. It would therefore be advisable to establish a management plan for the entire biosphere reserve that clearly articulates the functions, domains and competencies of each actor forming part of this 'mosaic', and defines how they can collaborate more closely.
356. The Advisory Committee recognized the significant number of projects and programmes carried out in the biosphere reserve over the last decade. However, a more coordinated approach to management for the entire biosphere reserve is needed to deliver the proposed objectives.
357. The biosphere reserve has not yet produced a consolidated management plan nor constituted a management committee.
358. The Advisory Committee concluded that this site **does not meet** the criteria of the Statutory Framework of the WNBR.
359. The Advisory Committee therefore requested the Colombian authorities to provide by 30 May 2021 a work plan for the Sierra Nevada de Santa Marta Biosphere Reserve, including the following elements:
- justifications for the extension of the coastal and marine area, detailing their function and zonation (buffer zone or transition area), supported by a clear map of the new zonation;
 - a management plan for the whole biosphere reserve to coordinate all existing plans for the different zones of the biosphere reserve;
 - an official document reflecting the establishment and operation of the biosphere reserve committee, involving all relevant stakeholders (national, regional and local government, local communities, academia and NGOs, among others); and
 - strategies to promote cultural and knowledge exchanges within the biosphere reserve and with other sites, particularly regarding the involvement of local indigenous peoples and inhabitants.

- 360. Ciénaga Grande de Santa Marta Biosphere Reserve (Colombia).** The Advisory Committee welcomed the second Periodic Review of the Ciénaga Grande de Santa Marta Biosphere Reserve, designated in 1979.
- 361.** The Periodic Review process was conducted during the year 2020. In line with COVID-19 control measures, some virtual meetings were held with the participation of representatives of government institutions, but no information is available regarding the involvement of other actors.
- 362.** In 2020, the biosphere reserve presented no changes to the total surface area.
- 363.** The main extractive activity in the area is the capture of crustaceans and molluscs, which is carried out in an artisanal manner by around 5,000 fishermen. Over the last few years, fishing activity has decreased due to the environmental deterioration of the marshes of the Ciénaga Lagoon complex and the overexploitation of species.
- 364.** In recent years, a hydrological imbalance has been generated by the construction of a road to link Ciénaga with Barranquilla, affecting the connectivity of the Caribbean Sea and the estuary. The hydrological imbalance, together with expansion of the agricultural frontier, has increased the hyper-salinization of soils, forest fires, fish mortality, mortality of aquatic mammals and reptiles, loss of vegetation cover, diversion of water flow and drying up of water bodies, decrease in fish productivity, increased sedimentation and coastal erosion.
- 365.** The Advisory Committee recognized the significant number of projects and programmes had carried out in the biosphere reserve over the last decade. However, a more coordinated approach to management for the entire biosphere reserve is needed to deliver the proposed objectives.
- 366.** The biosphere reserve has not yet produced a consolidated management plan and has not formed a management committee.
- 367.** The Advisory Committee concluded that this site **does not meet** the criteria of the Statutory Framework of the WNBR.
- 368.** Therefore, the Advisory Committee requested the Colombian authorities to provide by 30 May 2021 a work plan for the Ciénaga Grande de Santa Marta Biosphere Reserve, including the following elements:
- a management plan for the whole biosphere reserve to coordinate all existing plans for the different zones of the biosphere reserve; and
 - an official document reflecting the establishment and operation of the biosphere reserve committee, involving all relevant stakeholders (national, regional and local government, local communities, academia and NGOs, among others).
- 369. Seaflower Biosphere Reserve (Colombia).** The Advisory Committee welcomed the second Periodic Review of the Seaflower Biosphere Reserve, designated in 2000.
- 370.** The Periodic Review process was conducted during the year 2020. In line with COVID-19 control measures, the review was carried out virtually through a participatory process. The

different sectors convened four times, and a technical team was set up to review any significant changes and carry out in-depth surveys with local leaders (77 people).

371. Some meaningful findings were recognized. In recent years, the biosphere reserve has registered a huge increase in tourism with more than 500,000 tourists, and measures have been taken to mitigate the anthropogenic impact on ecosystems, notably coral restoration. The Raizal culture has played a central role in the conservation and sustainability of resources and management of biodiversity through ancestral practices of artisanal fishing and agriculture.
372. The biosphere reserve continues to be coordinated and managed by the Corporation for the Sustainable Development of the Archipelago of San Andrés, Providencia and Santa Catalina (CORALINA). CORALINA is an administratively and financially autonomous entity, with an annual budget to fulfil its functions within the National Environmental System. This approach contributes significantly to the appropriate management and continuity of the biosphere reserve.
373. Currently, the coordination of Seaflower Biosphere Reserve falls under CORALINA's 2007–2023 Single Long Term Environmental Plan (PULP). This plan has not modified during the decade-long review of the biosphere reserve and received funding from the main public entities and private companies present in the archipelago.
374. The biosphere reserve has also set up territorial planning tools, such as the Seaflower Biosphere Reserve Management Plan, Watershed Management Plans (POMC), Mangrove Zoning Plans, and Aquifer and Groundwater Management Plans, among others. CORALINA is currently working on the newly Integrated Management Plan for the Coastal Environmental Unit (POMIUAC), which should replace PULP after 2023.
375. The most significant challenges over the past ten years have been the intensification of activities related to mass tourism without long-term planning; the advance of urban sprawl, especially in the northern part of San Andrés Island; coastal erosion; and gradual loss of local traditional culture.
376. Although tourism appeared beneficial in the short term, the economic, social and psychological effects of landscape transformation and territorial change caused by mass tourism policies are likely to have a negative impact for inhabitants in the long term.
377. Coastal erosion is being monitored, and climate change mitigation and adaptation strategies have been established.
378. The Advisory Committee concluded that the site **meets** the criteria of the Statutory Framework of the WNBR, and strongly recommended that the Colombian authorities conduct the following:
 - undertake a review of existing land uses on San Andrés Island, with a view to proposing urban planning practices that prioritize the conservation and recovery of strategic ecosystems in line with the sustainable development model;
 - carry out a study of the population-carrying capacity on San Andrés Island;

- establish a sustainable tourism strategy that mitigates pressure on ecosystems and is consistent with the island's capacity; and
 - devise and implement bespoke mechanisms for the recovery of traditional cultural activities, such as artisanal fishing and organic agriculture, with a view to expanding local production, employment and development opportunities within the framework of the biosphere reserve.
- 379. Mount Paektu Biosphere Reserve (Democratic People's Republic of Korea).** The Advisory Committee welcomed the third Periodic Review of the Mount Paektu Biosphere Reserve, designated in 1989.
- 380.** The Mount Paektu Biosphere Reserve is situated at the border of the People's Republic of China and shares a volcano mountain and mountain forest ecosystem with Changbaishan Biosphere Reserve in China.
- 381.** The first Periodic Review was submitted in 2001 and the second in 2014. The current Periodic Review process occurred in parallel with the nomination process for the Mt Paektu area as a UNESCO Global Geopark, at the national level, in close contact, discussion and cooperation with the working group under the coordination of the DPRK National Commission for UNESCO and the National Geopark Committee.
- 382.** The Advisory Committee commended the efforts of the authorities to address past recommendations from the MAB-ICC, and noted that a number of educational activities have been implemented and scientific cooperation put in place.
- 383.** The State Academy of Science (SAOS) and a number of educational institutions have conducted scientific and educational activities in the biosphere reserve including field surveys and research, and observation and training in relation to animals and plants.
- 384.** The Mt Paektu Biosphere Reserve is characterized by a unique eco-environment and rich biodiversity, and encourages ecotourism and development of the local economy.
- 385.** The Advisory Committee commended the government of DPRK on giving priority to the prevention of destruction and degradation of the forest ecosystem, and the sustainable use and conservation of forest resources, through the selection of Mt Paektu Biosphere Reserve as a demonstration site for conservation and restoration.
- 386.** The Committee noted, however, that the report provided information on and referred to a management plan, although it was submitted with the Periodic Review.
- 387.** The Committee also noted that no zonation map was included in the report or submitted separately.
- 388.** The Advisory Committee therefore requested the authorities to confirm that a comprehensive management plan has been elaborated and to submit an extended summary and outline of the plan in English, along with a zonation map, to the MAB Secretariat not later than 30 May 2021, in order **to determine whether the site meets the criteria** of the Statutory Framework of the WNBR.

- 389. Schaalsee Biosphere Reserve (Germany).** The Advisory Committee welcomed the submission of the second Periodic Review report of the Schaalsee Biosphere Reserve, designated in 2000.
- 390.** The biosphere reserve covers 31,000 ha and is home to 12,206 inhabitants.
- 391.** Agriculture plays a major role in the Schaalsee Biosphere Reserve as the primary economic sector. There are 181 agricultural enterprises including livestock farms, cropping farms and farms that do both. One focus of the site has been the creation and implementation of measures to make agriculture in the transition area more sustainable.
- 392.** Since 2015, the Biosphere Reserve Office has also been responsible for the Elbe River Landscape Biosphere Reserve in Mecklenburg-Western Pomerania. Both sites are located in and adjacent to the 'German Green Belt,' which stretches along the former inter-German border, and in the greater Hamburg area. The Office focuses on linking the two biosphere reserves and creating unitary presentation and messaging touting both biosphere reserves as the 'Schaalsee-Elbe Biosphere Belt', an entry point to the Hamburg metropolitan area. Both biosphere reserves still retain their UNESCO designation, only the office name has changed to the Schaalsee-Elbe Biosphere Reserve Office.
- 393.** The Advisory Committee welcomed the participatory manner in which the review was developed.
- 394.** The Advisory Committee noted that while the total area of the biosphere reserve had not increased, the ownership of some conservation areas had been transferred to the Biosphere Reserve Office and enhanced its conservation function. The Committee noted with satisfaction the popularity and firm establishment of sustainability labels provided to local businesses, and the intentions expressed by the authorities and stakeholders to expand activities and address other sustainability challenges related to mobility, digitalization and energy transitions.
- 395.** The Advisory Committee welcomed the activities directed at further integration of the Schaalsee Biosphere Reserve and the Elbe River Landscape Biosphere Reserve, and the cooperation between the two sites in the field of environmental education.
- 396.** The Advisory Committee noted with approval the overall increase in the budget available for the biosphere reserve, due to third-party funding. The Committee understood that the merger of the two biosphere reserves has been accorded priority, and that this, as well as the additional conservation mandates, has prevented the expansion of monitoring, despite the development of a detailed monitoring plan. The Advisory Committee therefore recommended that efforts continue in order to secure the necessary additional funding to fulfil this function.
- 397.** The Advisory Committee concluded that the site **meets** the criteria of the Statutory Framework of the WNBR.
- 398. Lake Chilwa Biosphere Reserve (Malawi).** The Advisory Committee welcomed the first Periodic Review of the site, designated in 2006. The wetland, part of which extends into

Mozambique, is a Ramsar site with an area of 230,000 ha lying at an altitude of 627 m above mean sea level. The biosphere reserve has a population of 1,911,612, as of 2018, which engages mainly in fishing, agriculture and hunting. The area is managed under the Lake Chilwa and Mpototo lagoon fisheries management plan.

399. The Advisory Committee commended the participatory methodology used for the Periodic Review and welcomed national efforts to sustain the three functions of the biosphere reserve, such as the enactment of bylaws, the delineation of new fish sanctuaries, the prohibition of fishing in nurseries throughout the year, the establishment of the Lake Chilwa Wetland Trust, the incorporation of traditional concepts into management, the introduction of a closed season from November to March coinciding with the spawning season, the introduction of climate-smart agriculture for farmer groups, the creation of livelihood empowerment and village credit schemes project, and the collaborative research with the University of Malawi Chancellor College.
400. The Advisory Committee noted that the zonation of the biosphere reserve had not changed despite a population increase of nearly 20% since 2008. The Committee also reaffirmed the need for an integrated management plan for the site, as recommended when the site was approved for designation in 2006, in order to guide the initiation of transboundary cooperation with Mozambique.
401. The Advisory Committee concluded that the site **meets** the criteria of the Statutory Framework of the WNBR.
402. In order to address increasing incidence of deforestation and water use conflicts in the biosphere reserve, which are currently managed through fisheries management plans, the Advisory Committee urged the national authorities to develop an integrated framework incorporating fisheries, forestry and other sectors and to submit the framework along with the forestry sector plan once finalized.
403. **Tasik Chini Biosphere Reserve (Malaysia).** The Advisory Committee welcomed the submission of the first Periodic Review of the Tasik Chini Biosphere Reserve, designated in 2009. The Tasik Chini Biosphere Reserve is the first biosphere reserve of Malaysia, and includes the Tasik Chini natural freshwater lake and its watershed, which cover an area of 6,922.97 ha.
404. The Tasik Chini watershed is categorized as an environmentally sensitive area (Rank 1) under the National Physical Plan and is protected by the Malaysian Forestry Act. The Tasik Chini basin includes a lush tropical secondary rainforest and a Gazetted State Park, from which many rivers and streams feed the Sungai Lake. The basin also connects the lake to the main Sungai Pahang. In 1994, a weir was erected across Sungai Chini to provide easy passage of boating activities involved in tourism, making Tasik Chini a partial natural lake.
405. The Advisory Committee noted with concern that the biosphere reserve had experienced significant change in land use, seriously impeding the conservation of forests and lakes as well as efforts to achieve sustainable development.

406. The past decade has seen a drastic increase in newly cleared forest areas with intensive land conversion. A year after biosphere reserve designation, some former mining sites located at high gradient points (Ketaya Hill and Chini Hill) re-opened and expanded resulting in catastrophic environmental impacts such as sedimentation, water quality deterioration and river bank degradation. Another major cause of environmental damage is land use conversion from rubber plantation and forest area to oil palm plantation. Some of this expansion took place within the main core areas.
407. This rapid expansion has resulted in adverse impacts not only on regional biodiversity but also on the local economy. Traditional subsistence activities of local indigenous people (the Jakun Tribe), which depend on forest resources, have been obstructed, and the rising trend in tourists visiting and fishing in the natural lake has reversed due to deforestation.
408. In order to address the problems and conflicts arising from deforestation, the concerned government agencies have carried out multiple land manual procedures on mitigation, rehabilitation and enforcement, while studies and environmental impact assessments related to the mining activities are ongoing.
409. The State Government of Pahang decided to work on an updated gazette of the area, which will exclude areas to which access has been granted access for mining, in order to prevent further conflicts between the designated parties, including the mining and logging industry, and conservation in the core areas. The process of updating the gazette is still ongoing. A map of the planned new gazette of Tasik Chini as a State Park is provided with the Periodic Review report but is not in English.
410. The Periodic Review report states that the core areas are the only zones to be covered and protected by several national acts and by state law. The situation regarding the other zones is under discussion with the state and local authorities and development agencies.
411. The Advisory Committee noted that the current Periodic Review does not include a proposal for zonation change, although discussions and preparation for a change in the State Park area is underway. However, a table on the area (section i of Part I) includes figures on proposed changes to each zone with no related explanation, which has caused confusion. The human population numbers in the biosphere reserve are also unclear and inconsistent across the report (sections j of Part I and 2.2.3 of Part II).
412. The Advisory Committee noted the absence of a management plan for the biosphere reserve as well as a lack of information regarding the manager(s) or staff responsible for the coordination of the management of the biosphere reserve.
413. The Advisory Committee therefore concluded that the biosphere reserve **does not meet** the criteria of the Statutory Framework of the WNBR.
414. With a view to encouraging the authorities to continue and strengthen measures for mitigation and prevention of environmental and social impacts of mining and oil palm plantation, the Advisory Committee requested the authorities to submit by 30 September 2022 a detailed plan with a timeframe providing:

- an updated zonation of the biosphere reserve maintaining the three functions of a biosphere reserve;
 - details of the biosphere reserve management; and
 - confirmation of an office or manager(s) coordinating the activities of the biosphere reserve management plan.
- 415. Oxapampa – Asháninka – Yánesha Biosphere Reserve (Peru).** The Advisory Committee welcomed the first Periodic Review for the Oxapampa – Asháninka – Yánesha Biosphere Reserve (BIOAY), designated in 2010.
- 416.** BIOAY, located in central Peru, encompasses the entire province of Oxapampa. Since designation, the surface area of the biosphere reserve has reduced slightly from 1,801,663.58 ha (2010) to 1,774,090.31 ha (2020). The human population has increased over the ten-year period and is now estimated to 99,464 inhabitants.
- 417.** Over the last ten years, BIOAY has set up an inclusive and participative governance structure organized around a Coordination Committee, an Executive Commission and a Technical Secretariat, with support from numerous external actors. As the biosphere reserve coincides with the provincial limits of Oxapampa, its management has decided to link the development goals of the province with the general objectives of BIOAY. In addition, BIOAY has defined an action plan that aligns with the objectives of the Lima Action Plan.
- 418.** In 2020, the budget allocated for both the management of natural protected areas (located in the core and buffer zones) and the management of the biosphere reserve amounted to US\$ 131,564.22, compared with US\$ 39,000 in 2012.
- 419.** The main governance challenges for the biosphere reserve remain sufficient budget allocation and the inter-institutional coordination of eight municipalities. Despite the advantages of an inclusive and participative governance structure, aligning the interests, logistic and financial capacities of all actors remains a complex endeavour and sometimes impact the performance of BIOAY. However, efforts to further include indigenous communities in the governance structure have shown positive results.
- 420.** The biosphere reserve has experienced changes in land use trends, primarily driven by agricultural intensification, in some cases leading to urbanization and illegal occupations. Additionally, illegal crop cultivation and wood extraction are exerting pressure on lowland areas. However, the central government is aiming to curb these practices with specific programmes. These issues represent a major challenge, as agriculture and forestry remain the primary economic activities in the region. Furthermore, a study evaluating changes in the region from 1985 to 2018 has shown that some forest loss could be linked to the effects of climate change.
- 421.** On a positive note, the biosphere reserve model has gained popularity and traction in the region, serving to channel funds and build partnerships with multiple institutions, notably for research, and to strengthen the logistical function. BIOAY has also taken advantage of the biosphere reserve model to position itself as a destination of high natural and cultural value.

Admittedly, this has led to some increase in tourism in recent years, which poses specific challenges to ensuring sustainability.

422. Several indicators show that the biosphere reserve model has proven successful in promoting sustainable development and improving the quality of life of the population within its boundaries. However, challenges remain related to increasing the visibility of the biosphere reserve model and encouraging residents to actively participate in the management of the biosphere reserve.
423. The Advisory Committee recommended that the national authorities integrate the biosphere reserve model into provincial plans in order to further strengthen the role of BIOAY in the region.
424. The Advisory Committee concluded that the site **meets** the criteria of the Statutory Framework for the WNBR. The Advisory Committee congratulated the authorities on their excellent report as well as on the progress made since designation of the site.
425. **Gwangneung Forest Biosphere Reserve (Republic of Korea).** The Advisory Committee welcomed the first Periodic Review report of the Gwangneung Forest Biosphere Reserve (GFBR), designated in 2010.
426. The biosphere reserve contains well-preserved deciduous hardwood forest, farmlands and private forests, as well as one component of the World Heritage site 'Royal Tombs of Joseon Dynasty'. The Korea National Arboretum hosts a forest museum – the largest in Asia – with informative public displays on forestry. Administratively, the GFBR is located in the three cities (Pocheon, Namyangju, Eujeongbu), which all belong to Gyeonggi Province.
427. There was no recommendation made by the MAB-ICC when the GFBR was approved in 2010. The Advisory Committee acknowledged that various measures had been implemented over the last ten years to fulfil the conservation, development and logistical functions of the GFBR.
428. The Committee noted the creation and operation of the system for management and governance of the biosphere reserve mainly consisting of the Biosphere Reserve Management Committee, the Biosphere Reserve Center and the Local Resident Council for the last ten years. The Biosphere Reserve Management Committee is the governing body of the biosphere reserve, which is composed of administrative officials, local residents, experts, NGOs, politicians and etc. The Biosphere Reserve Centre is the central body to coordinate all the activities of the biosphere reserve, including education programmes, promotions and marketing of local produces, networking with other biosphere reserves in the country and abroad and administration of the Management Committee. The Local Resident Council deals with the issues such as conservation of local natural and cultural resources, local economy development, , publicity of the GFBR and voluntary conservation activities of local people.
429. The Committee also underlined several achievements following the designation of the biosphere reserve and noted the number and quality of activities that support its operation. These include a database for the sustainable monitoring of the ecological system of the

- GFBR, restoration, tracking and management of species, forest conservation and fire prevention, festivals and events utilizing local historical-cultural resources, regional income boosting, local infrastructure facilities, a number of promotional activities on the economic value of the GFBR, ecological education, research support, etc.
430. In addition, the Committee acknowledged the establishment of the public-private partnership for conservation of the core area of the GFBR, which belongs to the Korea National Arboretum. This partnership builds up the governance foundation to prevent forest fire disasters and strengthen forecasting activities against tree disease and pests.
 431. The Committee also highlighted a number of monitoring and research activities, and made specific mention of the Korea National Arboretum, which has signed Memoranda of Understanding with 89 organizations, including 42 domestic organizations and 47 international organizations from 24 countries.
 432. The Advisory Committee concluded that the site **meets** the criteria of the Statutory Framework of the WNBR.
 433. The Committee also recommended that the governing bodies, that is, Gyeonggi Provincial Government and Korea National Arboretum, make particular efforts to increase roles and collaboration of local authorities in the GFBR for the activities of the biosphere reserve.
 434. **Altaiisky Biosphere Reserve (Russian Federation).** The Advisory Committee welcomed the submission of the first Periodic Review of the Altaiisky Biosphere Reserve, designated in 2009.
 435. The Altaiisky Biosphere Reserve is situated in the area of the North-Western and Western Altai and occupies the western part of the Teletskoye Lake basin. The variety of natural and climatic zones gives rise to an exceptionally rich species composition of flora and fauna in the territory of Altaiisky.
 436. The Altaiisky Biosphere Reserve encompasses the territories of two municipalities, Turochaksky and Ulagansky, which have seen a positive increase in tourism development over the last ten years. A significant proportion of the local population, especially in settlements in direct proximity to the core zone, is engaged in the tourism sector.
 437. Representatives of local communities, Indigenous people, businesses and authorities are actively involved in the management process of the Altaiisky Biosphere Reserve. In addition, the site is implementing a project to support the rights and cultural and natural heritage of the local communities and Indigenous peoples of Altai, entitled the 'Preservation of the Heritage of Local and Indigenous Communities of Altai'.
 438. The Advisory Committee welcomed the well-prepared Periodic Review report, and noted the positive changes regarding enhanced communication with all stakeholders for development of the biosphere reserve, fundraising, programmes and projects aimed at developing a green economy, sustainable development, and the conservation of natural and cultural heritage.

439. The Advisory Committee therefore concluded that the site **meets** the criteria of the Statutory Framework of the WNBR.
440. **Bardenas Reales Biosphere Reserve (Spain).** The Advisory Committee welcomed the second Periodic Review of the Bardenas Reales Biosphere Reserve, designated in 2000.
441. Located in the *Chartered Community of Navarre*, in northern Spain, the biosphere reserve is home to vulnerable species of flora and fauna and endangered bird species such as the Great Bustard (*Otis tarda*) and the Montagu's Harrier (*Circus pygargus*).
442. The review process was led by a member of the Scientific Council of the Spanish MAB Committee, with the support of the biosphere reserve manager. The review was prepared in liaison with the General Board, which represents 22 entities in the biosphere reserve, including 19 town councils. Livestock breeders, farmers, hunters, fishermen and other actors were also contacted, and the review was prepared in collaboration with the *Chartered Community of Navarre* and the General Directorate for Rural Development.
443. The biosphere reserve sustains approximately 89,374 people, but they live outside the boundaries of the biosphere reserve. Most of them work in agriculture, livestock transhumance, hunting and tourism.
444. Under the authority of the General Board, the Community of Bardenas Reales de Navarra is responsible for the management of the biosphere reserve. It has also formed an advisory council; however, this body is not representative of the different stakeholders.
445. The biosphere reserve is currently managed under the Natural Resources Management Plan (PORN). At the end of 2020, the 'Strategic Plan of the Bardenas Reales de Navarra Biosphere Reserve 2020/2032' was presented to the General Board as the proposed future management framework.
446. The biosphere reserve has proposed the creation of the Bardenas Reales UNESCO Chair on Science and Heritage, which will combine all actions and knowledge production in relation to the Bardenas Reales area, and in the university academic environment.
447. The Advisory Committee concluded that this site **does not meet** the criteria of the Statutory Framework of the WNBR.
448. Given the importance of having a human population living inside the biosphere reserve, in accordance with the MAB model, the Advisory Committee requested that the national authorities expand the transition area to incorporate the surrounding populations. Accordingly, the Committee requested that a work plan be submitted by 30 May 2021 detailing a methodology and timeline for carrying out this process.
449. The Advisory Committee also recommended the implementation of a participatory process with all relevant stakeholders on landuse planning, as a means to build a sustainable development model.

- 450. Cabo de Gata Biosphere Reserve (Spain).** The Advisory Committee welcomed the second Periodic Review of the Cabo de Gata Biosphere Reserve, designated in 1997.
- 451.** The Cabo de Gata Biosphere Reserve is located in the autonomous community of Andalusia in southern Spain. The review did not present any changes to the zonation; however, slight adjustments to the cartography indicate that the total area now consists of a terrestrial core area of 6,748.72 ha, a marine core area of 2,395.2 ha, a terrestrial buffer zone of 26,747.32 ha, a marine buffer zone of 9,617.7 ha and a terrestrial transition area of 4,003.26 ha. The permanent population is estimated to consist of 7,341 residents.
- 452.** The Periodic Review report was drafted by a research team from the Regional Development Institute. During preparation, the team consulted primary management plans (PORN, PRUG, SDP I and the draft SDP II), the annual monitoring reports of the Natural Park, the minutes of the Governing Board meetings, the summaries of participatory workshops for the drafting of SDP II, the evaluation reports of the Geopark and Special Area of Conservation of the Mediterranean, and the Management Plan of the Special Area of Conservation of La Serrata de Cabo de Gata. Additionally, the team communicated regularly with the Biosphere Reserve Manager and the responsible representatives from the Directorate General for the Natural Environment, Biodiversity and Protected Spaces. Several interviews were held with different actors and site visits took place during the whole process.
- 453.** Over the last ten years, several improvements have been made to enhance the conservation of ecosystems and to reduce pressures exerted by agricultural activity and massive seasonal tourism, notably through implementation of the Natural Resources Management Plan, the Use and Management Governing Plan, and the designation of additional conservation status, which contributed to the management of the site. However, extensive agriculture, tourism and urbanization continue to be issues of concern for the sustainability of the biosphere reserve model.
- 454.** The biosphere reserve forms part of the Spanish Network of Biosphere Reserves, which has its own National Committee and entertains strong connections with other biosphere reserve members of the Andalusian Committee of Biosphere Reserves. The objectives and lines of action for the upcoming decade have been established in accordance with the Natural Resources Management Plan (PORN), the Use and Management Governing Plan (PRUG) and the 1st and 2nd Sustainable Development Plan of the Cabo de Gata – Níjar Natural Park.
- 455.** The Advisory Committee concluded that this site **meets** the criteria of the Statutory Framework of the WNBR.
- 456.** The Advisory Committee recommended that the biosphere reserve strengthen its co-management strategy by further involving the governing bodies of other existing designations with the joint goal of alleviating the pressures and impacts induced by agriculture, tourism and urbanization.
- 457. El Hierro Biosphere Reserve (Spain).** The Advisory Committee welcomed the second Periodic Review of the El Hierro Biosphere Reserve, designated in 2000.

458. Located on the island of El Hierro in the Canary Island Archipelago, the biosphere reserve has maintained the same total area with a terrestrial core area of 1,069 ha, a marine core area of 150 ha, a terrestrial buffer zone of 15,159 ha, a marine buffer zone of 750 ha, and a transition area of 10,643 ha, amounting to 27,771 ha. The population living within its boundaries is estimated at 10,968 inhabitants.
459. The Periodic Review was prepared by a member of the scientific council of the Spanish MAB Committee. It was carried out virtually and consisted of an initial workshop, surveys and a final workshop.
460. Over the ten-year period, several positive initiatives and events have taken place: (i) a Centre for Interpretation of the Biosphere Reserve was inaugurated in 2012; (ii) the site was designated as a UNESCO Global Geopark in 2014; (iii) a hydroelectric plant became operational in 2014; (iv) a Biosphere Reserve Observatory was created in 2015, signalling social interest in sustainability; (v) legislation on the spatial planning of tourism-related activities was introduced in 2016; (vi) three Natura 2000 sites and other protected areas have been designated; and (vii) several management plans for Special Conservation Areas have been introduced.
461. The management of El Hierro is led by the Island Council, and includes a Governing Council, as well as Advisory, Scientific and Participation Councils. The biosphere reserve is managed under the 2030 Action Plan (PAO2030), which is structured around five objectives and aligned with the MAB Strategy. This plan was approved by the Governing Council in May 2020.
462. In recognition of its island context, the biosphere reserve is working actively to implement a zero waste and fully renewable energy model. It hosts numerous active conservation and research programmes focusing on flora, fauna, marine and terrestrial environments, and promotes the transfer of knowledge, experiences and technology. In addition, local youth groups are actively engaged in youth-related island programmes and policies.
463. The Advisory Committee concluded that this site **meets** the criteria of the Statutory Framework of the WNBR. The Advisory Committee praised the quality of the report as well as the progress made since the first Periodic Review in 2010.
464. The Advisory Committee recommended the extension of the biosphere reserve to include a larger marine territory, in particular a marine transition area. It also invited the site to further showcase and share its experience and know-how in implementing its sustainability agenda, especially concerning waste management and renewable energy, with the rest of the WNBR.
465. **Somiedo Biosphere Reserve (Spain).** The Advisory Committee welcomed the second Periodic Review from the Somiedo Biosphere Reserve, designated in 2000.
466. Located in the north-west of Spain in the community of Asturias, Somiedo forms a link with the other biosphere reserves of the Cantabrian Mountain Range. Small modifications have been made to the zonation of the biosphere reserve as a result of corrections and

adjustments to the cartography, which were recommended in the first Periodic Review in 2010. The biosphere reserve currently has a total area of 29,007 ha with a core area of 10,473 ha, a buffer zone of 17,248 ha and a transition area of 1,286 ha. The population has decreased since the last Periodic Review and is now estimated at 1,153 residents.

467. The Periodic Review was prepared with the participation of the Directorate of the Natural Park and Biosphere Reserve, the Camín Real de la Mesa Rural Development Group and the Agri-food Development Service. Due to the ongoing COVID-19 pandemic, site visits were cancelled and some actors were not consulted. All communication with participating representatives or stakeholders took place via email or phone.
468. The biosphere reserve suffered negative impacts as a result of the 2008 economic crisis, especially a reduction in local tourism. However, positive changes have also occurred including the recovery of important natural resources, which led to the development of a new economic niche linked to wildlife watching, the consolidation of international tourism, the development of public facilities and services, and the return to a more local consumption model by residents. No major changes have been reported at the ecosystem and landscape levels. However, one of the main concerns for the site is the risk of wildfires, which the biosphere reserve has been trying to reduce the risk. Another main concern at the agroecosystem level is the presence of wolves (*Canis lupus signatus*) which interfere with cattle raising in the region.
469. In 2013, the Regional Ministry of Rural Affairs and Territorial Cohesion of Asturias was designated the body responsible for site management. Subsequently, the Social Participation Forum of the Biosphere Reserve and the Directorate of the Biosphere Reserve were created to manage the site at the local level. In 2015, the Council of Somiedo approved an Instrument for Integral Management of the diverse protected areas.
470. The Advisory Committee concluded that this site **meets** the criteria of the Statutory Framework of the WNBR.
471. The Advisory Committee recommended that the site develop a cooperation strategy with neighbouring biosphere reserves of the Cantabrian Mountains to establish a transboundary biosphere reserve.
472. **Urdaibai Biosphere Reserve (Spain).** The Advisory Committee welcomed the third Periodic Review of the Urdaibai Biosphere Reserve, designated in 1984.
473. The biosphere reserve has proposed changes to its zonation, which would increase the total surface area to 22,067.88 ha, consisting of a core area of 2,751.88 ha, a buffer zone of 7,128.78 ha and a transition area of 12,187.22 ha. No changes have been reported regarding the size of the human population in the biosphere reserve. The total annual budget has been raised from EUR 1.5 million in 2008 to EUR 1.8 million in 2020.
474. The Periodic Review draws on primary documents, inputs from the biosphere reserve director and technical office, and consultations with relevant local associations through virtual meetings, phone calls and emails. The main achievement of the last ten-year period was the approval of the Rector Plan for the Use and Management of the Urdaibai Biosphere

- Reserve, which introduced the Environmental Indicators System to monitor the sustainability of the site. No changes have been made to the management and governing structure. The biosphere reserve's management committee is composed of representatives from the different local administrations, organizations and associations representing economic, social and environmental interests.
475. The approval of the Geodiversity Strategy 2011–2018 and the designation of 43 Sites of Geological Interest within the biosphere reserve represented important milestones in terms of integrating geological heritage into the management of the biosphere reserve.
 476. The economy of the biosphere reserve remained stable during this period. Several initiatives to promote local production and consumption were successfully implemented, and the overall trend of GDP increased. Furthermore, the tertiary sector is actively working towards obtaining the European Charter for Sustainable Tourism certification, which could contribute significantly to the economy of the biosphere reserve.
 477. The forestry sector suffered an important crisis due to the proliferation of a disease that infected up to 35% of pine plantations. This has been a recurring issue throughout the history of the biosphere reserve.
 478. Concerning the conservation function, landscapes have been maintained and, in some cases, improved. Four Natura 2000 sites have been approved (three Special Conservation Areas and one Special Area for the Conservation of Birds) and will reinforce the governance structure of the biosphere reserve by expanding institutional recognition. The biosphere reserve has also been a Ramsar site since 1993 and hosts a UNESCO World Heritage site.
 479. Concerning the logistical function, the approval of the 2015–2025 Plan for Interpretation, Research, Training and Education for Sustainable Development represented a major achievement.
 480. According to the Partial Territorial Plan, it is expected that housing needs will increase in some parts of the biosphere reserve in the coming years. This is partially in response to increased demand for secondary residences in rural areas driven by the COVID-19 pandemic. This trend could potentially result in the need for additional infrastructure with consideration of the associated impacts on the sociology, economy, ecology and landscape of the biosphere reserve.
 481. The Advisory Committee concluded that the site **meets** the criteria of the Statutory Framework of the WNBR. The Advisory Committee congratulated the authorities on their excellent report as well as on the progress made since the submission of the first Periodic Review in 2010.
 482. **General Recommendations to South Africa:**
 483. The Advisory Committee congratulated the national authorities on their efforts to meet the requirements of the Statutory Framework through the submission of two periodic reviews. The Advisory Committee recognized the efforts to enhance national networking among the

various sites and commended the MAB National Committee on these relationships and the opportunities created for knowledge transfer and sharing, such as the Limpopo Biosphere Reserves Forum and the 'Smart Biosphere Reserves' Initiative.

- 484.** The Advisory Committee encouraged the authorities to continue national networking efforts to enhance learning and the sharing of experiences among the various sites, and to update the South Africa Strategy for the Biosphere Reserve Programme, which ended in 2020.
- 485. Vhembe Biosphere Reserve (South Africa).** The Advisory Committee welcomed the submission of the first Periodic Review of the Vhembe Biosphere Reserve, designated in 2009.
- 486.** The biosphere reserve covers an area of 30,701 km² and supports a population of about 1.5 million people, of which 97% are rural residents. The site includes the northern Kruger National Park north of the Shingwedzi River and the Mapungubwe National Park (a World Heritage site), and borders the three neighbouring countries of Botswana, Mozambique and Zimbabwe. The area forms part of the Greater Mapungubwe initiative between Botswana, South Africa and Zimbabwe and the Great Limpopo Transfrontier Conservation Areas Initiative involving Mozambique, South Africa and Zimbabwe.
- 487.** The Advisory Committee congratulated the biosphere reserve on the award by the Department of Science and Innovation and the National Research Foundation (NRF) of a South African Research Chair (SARChi) to the University of Venda (UNIVEN) relating to research and monitoring. The Advisory Committee appreciated the contribution of the biosphere reserve status to tertiary education through support for 20 Hons, 20 MSc and 10 PhD theses in conservation biology between 2014 and 2019, as well as efforts to integrate traditional leaders and indigenous knowledge into management processes. The Committee also recognized that these efforts enhanced awareness of the local and global importance and benefits of biosphere reserves among local communities and youth.
- 488.** The Advisory Committee concluded that the site **meets** the criteria of the Statutory framework of the WNBR, and commended the authorities on producing a well-organized example of a Periodic Review.
- 489.** The Advisory Committee encouraged the authorities to give greater consideration to the following in any future attempt to increase the coverage of protected areas (in line with the joint policy in Limpopo of achieving a target of an additional 85% protected areas in the province):
- the needs of the local population;
 - ensuring that all core areas are adequately protected by a buffer zone; and
 - long-term solutions to human-wildlife conflict and continued efforts to ensure that mining activities conducted outside protected areas in the transition area are managed sustainably to reduce the impacts on biodiversity.
- 490.** The Advisory Committee pointed out that the site is the second largest biosphere reserve in South Africa, not the largest as wrongly stated in the report to stakeholders (Section 1).

- 491. Kogelberg Biosphere Reserve (South Africa).** The Advisory Committee welcomed the second Periodic Review of the Kogelberg Biosphere Reserve, designated in 1998.
- 492.** The site covers a total area of 103,000 ha, of which 21,285.5 ha is marine.
- 493.** The site comprises: a terrestrial core area in the Kogelberg mountains, which incorporates the Kogelberg Nature Reserve Complex and the Groenlandberg Nature Reserve, with a marine component; a near natural terrestrial buffer zone under both private and municipal ownership, including the Harold Porter Botanical Garden and the Palmiet River Estuary, which also has a marine component; and a terrestrial transition area which consists of sophisticated agricultural enterprises and highly sought after residential and holiday facilities and settlements. The core area forms part of the Cape Floristic Region Protected Areas World Heritage Site, a global biodiversity hotspot including birds reptiles, amphibians, fish mammals and forest trees such as Acacia.
- 494.** The Advisory Committee lauded the participatory approach used during the Periodic Review process, which began in 2018, and the significant efforts at fundraising in support of management activities. The Advisory Committee also appreciated the combination of interdisciplinary information across all stakeholder groups including the application of plans for the various protected areas as well as collaboration with local communities on gardening and food products. The Advisory Committee commended the extensive research conducted over the period, the development of a communication strategy and the implementation of a vibrant schools education programme.
- 495.** The Advisory Committee noted the current management challenges, notably drought, frequent fires, invasive species and illegal resource utilization, which are linked to water and food insecurity and identified as threats to the core and buffer zones.
- 496.** The Advisory Committee concluded that the site **meets** the criteria of the Statutory framework of the WNBR.
- 497.** The Committee requested that the authorities submit by 30 May 2021 a zonation map showing all three zones of the biosphere reserve, including the marine section, on one consolidated map. The Advisory Committee also encouraged the authorities to increase research on climate change and to invest in mitigation and adaptation programmes for local communities.
- 498. Lake Vänern Archipelago and Mount Kinnekulle Biosphere Reserve (Sweden).** The Advisory Committee welcomed the submission of the first Periodic Review of the Lake Vänern and Mount Kinnekulle Biosphere Reserve, designated in 2010.
- 499.** The biosphere reserve encompasses the south-eastern part of Lake Vänern and its archipelagos, the flat-topped Mount Kinnekulle and Mount Lugnåsberget, part of the ravine systems of the Lidan and Mariedalsån rivers, and the eastern part of Lake Dättern. Lake Vänern is Sweden's largest lake and the third largest in Europe.

500. Nine new nature reserves have been established within the site over the past ten years, in addition to three new Natura 2000 areas and one new biotope protection area. The biosphere reserve has also signed five new nature conservation agreements.
501. Tourism in the Lake Vänern Archipelago and Mount Kinnekulle Biosphere Reserve has increased since the initial application, particularly natural tourism. A number of projects and initiatives have been carried out to identify opportunities and conduct activities to promote sustainable tourism.
502. The Advisory Committee acknowledged that the biosphere reserve management entity has updated its vision and goals as of 2018. The governing structure is an association based on three council organizations that integrate representatives of local associations and companies. The Advisory Committee noted with satisfaction the involvement of additional stakeholders over the years, such as a fishing association, agricultural organizations, academia and the general public. Yearly operative plans are now established by the board and discussed during annual general meetings. The Committee also noted that the plan for 2020, approved at the end of November 2019, included (i) research projects to disseminate knowledge of and promote ecosystem services; (ii) activities and projects to increase opportunities to facilitate more sustainable practices; (iii) and the creation of a sustainable business environment. The Advisory Committee also appreciated that the biosphere reserve has engaged in efforts to promote the Biosphere Challenge, a nationally funded event, in collaboration with other Swedish biosphere reserves.
503. The Advisory Committee recommended that the authorities submit by 30 May 2021 an update regarding the evaluation work and participatory assessment undertaken in 2019.
504. The Advisory Committee concluded that the site **meets** the criteria of the Statutory framework of the WNBR.
505. **Chernomorskiy (Black Sea) Biosphere Reserve (Ukraine).** The Advisory Committee welcomed the submission of this third Periodic Review report of the Chernomorskiy Biosphere Reserve, designated in 1983.
506. The biosphere reserve is situated in the south of Ukraine, and covers an area of 174,000 ha. The site includes five land plots and water areas of the Tendrsvsky and Yagorlitsky bays, including islands, and a 1-km shelf along the coast of Tendrivska Spit.
507. Natural conditions underlie the richness of the flora and fauna and the diversity of protected natural complexes. The site harbours more than 700 species of plants, 3,000 species of invertebrates, 80 species of fish, 5 species of amphibians, 9 species of reptiles, 306 species of birds, and 63 species of terrestrial and aquatic mammals.
508. Over the last ten years, a Coordinating Council of the Biosphere Reserve has been established to coordinate efforts for regional environmental protection and sustainable development. The composition of the Coordinating Council includes representatives of local executive and self-government bodies, public organizations, central and local media, and scientific and educational institutions. In 2019, the Regulations for the Coordination Council

of the Biosphere Reserve were adopted and its composition was determined, new cooperation agreements were concluded and the work plan for 2020 was approved.

509. The Advisory Committee welcomed the Periodic Review, which supplements the review submitted in 2018. The Committee noted with satisfaction that the transition area has been expanded in response to questions concerning the development function, and welcomed the integration of local community representatives and civil society representatives into the Coordinating Council. The Advisory Committee recommended that the Council be more closely involved in future periodic reviews, as well as in designing environmental education, with a view to benefiting from their local knowledge.
510. The Advisory Committee applauded activities related to the promotion of sustainable agriculture, renewable energy and green tourism. The Advisory Committee also recommended that the authorities further develop plans to manage the high number of visitors flocking to the area during the tourist season.
511. The Advisory Committee noted that the new zonation map shows that part of the north-eastern core area borders directly on the transition area and urged the authorities to provide an explanation. Furthermore, the Advisory Committee noted some discrepancies in population numbers: the table on page 7 mentions 4,500 people living in the transition area, while the table on page 19 mentions 10,000 people. The Advisory Committee requested the authorities to provide the most recent updated numbers.
512. The Advisory Committee was not able to determine **whether the site meets** the criteria and requested that the authorities submit the above-mentioned information by 30 May 2021. The Committee further recommended the initiation of cooperation with the Schaalsee Biosphere Reserve within the framework of EuroMAB, and the Lake Botsowme Biosphere Reserve within the framework of AfriMAB, in order to further enhance the development function and participatory approaches. The MAB Secretariat offers its assistance in this regard.
513. **Desnianskyi Biosphere Reserve (Ukraine).** The Advisory Committee welcomed the submission of the first Periodic Review of the Desnianskyi Biosphere Reserve, designated in 2009.
514. The site is located in the middle stream of the Desna River (one of the main branches of the Dnipro River) in the Eastern Polesie Region and presents typical landscape types of the east of the Polesie Lowland: rivers, lakes, floodplains, bogs, transition mires, fens, peaty and swampy grasslands, and pine, broadleaf and mixed forests, including floodplains.
515. The total surface area (70,748 ha) has not changed. However, internal changes have resulted from the redistribution of territory of the Desna-Starohutskyi National Nature Park by functional zones as ordered by the Ministry of Ecology and Natural Resources. The surface of the core areas has increased by 1,056 ha due to the creation of a 'Muravyivskyi' landscape reserve of national importance (1,096 ha).
516. The Advisory Committee noted the lack of promotion and visibility of the biosphere reserve and recommended that greater efforts be made in this regard, including through the website.

517. The Advisory Committee concluded that the site **meets** the criteria of the Statutory framework of the WNBR.
518. **Can Gio Mangrove Biosphere Reserve (Viet Nam).** The Advisory Committee welcomed the second Periodic Review of the Can Gio Mangrove Biosphere Reserve, designated in 2000
519. The first Periodic Review report was submitted in 2010. No change in zonation has occurred during the intervening time.
520. The Can Gio Mangrove Biosphere Reserve is located within the administrative boundaries of Can Gio District, and covers a total area of 75,740 ha. The core areas and buffer zones form part of the Can Gio Protection Forest, while the transition areas include Can Thanh Town and six communes of Can Gio District.
521. The biosphere reserve is characterized by a high level of biodiversity value, including many rare and precious species of plants and animals. There are two types of ecosystems: mixed humid tropical broadleaf forest and mangrove, with typical community types for each mosaic according to tidal level and mud structure. The total number of flora and fauna species has increased over the past ten years with the discovery of new species.
522. The Can Gio District has re-oriented and transformed its economy towards the service, agriculture and construction industries, with the service sector growing from 27% to 47.4% and the construction industry from 9.9% to 14.5%, while agriculture has decreased from 63.1% to 38.1%. Recent years have seen investments in infrastructure for tourism, notably the construction and operation of passenger roads and waterways.
523. The biosphere reserve has developed different types of tourism, including ecotourism (marine, forest and agriculture) and leisure and convention-based tourism. Over the 2010–19 period, the total number of tourists reached 12.34 million, 4.8 times higher than the number of visitors for the 2000–2009 period (2.54 million).
524. The Advisory Committee appreciated the remarkable achievements of the past ten years. In particular, planted forest area has improved significantly with some areas of bare land and alluvial land now covered with green trees, which was a direct result of afforestation and aquaculture zoning to promote natural regeneration in protected forest. The forest area has grown by 1,916.23 ha from 30,530.21 ha in 2010 to 32,446 44 ha in 2019, with the overall proportion of forest cover in the biosphere reserve increasing from 40.31% in 2010 to 42.84% in 2019.
525. The Advisory Committee therefore concluded that the site **meets** the criteria of the Statutory Framework of the WNBR.
526. The Advisory Committee noted that in August 2020 UNESCO received a petition concerning the proposed 'Can Gio Tourist City Project' in southern Viet Nam, which raised the possibility of adverse impacts on the surrounding environment and the adjacent Can Gio Mangrove Biosphere Reserve. The MAB Secretariat requested further information about

the proposed development from the Vietnamese government, but has not received a response as of March 2021.

- 527.** The Advisory Committee therefore requested that information relating to the potential environmental impact of the project be submitted by 30 May 2021, and recommended that an independent environmental impact assessment of the project be carried out, including the potential impact on the biosphere reserve's ecosystem.
- 528.** The Advisory Committee also recommended the concerned authorities to reinforce the management systems and measures that monitor and address potential environmental and social impacts of the increasing tour activities and infrastructure and to manage sustainably the tourism activities relying on the valuable ecosystems of the biosphere reserve.

ANNEX 4: EXAMINATION OF THE STATUS OF IMPLEMENTATION OF THE RECOMMENDATIONS OF PERIODIC REVIEWS ENDORSED BY THE MAB-ICC – 27th IACBR

Country	Name of the site	Comments
AUSTRALIA	Great Sandy	
BULGARIA	Bistrichko Branichte	Exit Strategy – Withdrawal
	Tchouprene	Exit Strategy – Withdrawal
CAMEROON	Benoué	
CHILE	Bosques Templados Lluviosos de los Andes Australes	
CZECH REPUBLIC	Krivoklatsko	Exit Strategy – Withdrawal
GUINEA	Badiar	Exit strategy
	Haut Niger	Exit strategy
	Ziama	Exit strategy
KYRGYSTAN	Issyk-Kul	
POLAND	Tatra	
ROMANIA	Rodnei	
	Retezat	Withdrawal
RUSSIAN FEDERATION	Cherny Zemli	Withdrawal
	Kavkazsky	
	Okskiy	
SENEGAL	Samba Dia	
VIET NAM	Cu Lao Cham	
	Hoi Na	

UZBEKISTAN	Chatkal	
UNITED KINGDOM	Dyfi	Exit strategy
USA	Sonoran Desert	Former name Organ Pipe Cactus
	Otbawaing	Former name University of Michigan Biological Station

- 529. Great Sandy Biosphere Reserve (Australia).** As per the recommendations of the 26th meeting of the IACBR in 2020, this site **meets** the criteria of the Statutory Framework of the WNBR. In its 2020 recommendations, the Committee acknowledged that the biosphere reserve management plan for the upcoming decade was under final development at the time of submission of the Periodic Review and requested that the authorities provide the plan by 30 September 2020.
- 530.** The Advisory Committee commended the Australian authorities on the submission of the management plan for the Great Sandy Biosphere Reserve (GSBR) from 2019 to 2024 and the accompanying maps of the Biosphere Reserve Overview, Biosphere Zonation, Ecology Groups and Vegetation Corridors.
- 531.** The development of this management plan undertook to identify the vision, mission, objectives, strategies and actions for the GSBR Management Group, and to meet Australian Federal regulatory obligation under the Environmental Protection and Biodiversity Conservation Regulations 2000. The management plan has also been developed in conformity with the objectives of the Lima Action Plan, the Sustainable Development Goals (SDGs), the Seville Strategy and the Statutory Framework of the WNBR.
- 532.** The purpose of the planning process has been to identify, acknowledge and support initiatives for sustainable development, land use and social development activities within the GSBR, and to take a holistic approach to further research, monitoring, education and capacity building.
- 533.** The Advisory Committee congratulated the Australian authorities on the high quality of the document.
- 534. Bistrichko Branichte Biosphere Reserve and Tchouprene Biosphere Reserve (Bulgaria).** These sites were both designated in 1977 and are the last two biosphere reserves subject to the Exit Strategy.

535. The Secretariat informed the Advisory Committee that it had received a letter from the Bulgarian authorities acknowledging the efforts made by the Mayors of Sofia Municipality and Belogradchik Municipality to update both biosphere reserves.
536. However, the letter indicated that both sites will not be ready to submit nomination forms to comply with the terms of the Statutory Framework.
537. The Advisory Committee acknowledged with appreciation that the Bulgarian authorities had made all the efforts since the implementation of the Exit Strategy, including the updating of five sites since 2013 and the withdrawal of eight sites.
538. To ensure compliance with the decisions made by the MAB-ICC on the Exit Strategy process and to respect the agreed timeline to terminate the Exit Strategy by 2020, the Advisory Committee therefore recommended that the authorities **withdraw both sites** and invited them to submit nomination forms at their earliest convenience if they so wish. The Advisory Committee also emphasized that the MAB Secretariat and UNESCO Offices remain available to assist the authorities in the nomination process.
539. **Benoué Biosphere Reserve (Cameroon).** As per the conclusion of the 26th meeting of the IACBR in 2020, the site **meets** the criteria of the Statutory Framework of the WNBR. The Advisory Committee encouraged the national authorities to consider an extension of the buffer zone in order to guarantee the long-term protection of the core area, most periphery of which was in contact with the transition area.
540. The Advisory Committee acknowledged the receipt of the new management plan for Benoué National Park and its periphery (2021–2025). It welcomed the additional information provided by the national authorities which clarifies the updated zonation. The site now consists of a core zone of 169,972 ha, a buffer zone of 90,220 ha and a transition zone of 468,154 ha, and conforms to the zonation criteria.
541. The Advisory Committee noted with satisfaction that the recommended expansion of the buffer zone will be addressed during implementation of the new five-year management plan. Regarding mining permits, the national authorities reported that issuance of mining permits has ceased on the site.
542. The Advisory Committee commended the national authorities for submitting this complementary information.
543. **Reserva de Biosfera Bosques Templados Lluviosos de los Andes Australes (Chile).** The Advisory Committee welcomed the information provided by the Chilean authorities.
544. The Advisory Committee took note of the work plan presented for the creation of a bi-regional biosphere reserve management committee and a management plan. The work plan for the period from March 2021 to December 2022 aims to formalize the management of the biosphere reserve.

545. The biosphere reserve will first formalize the management committee with a bi-regional composition consisting of public and private actors. The authorities will then propose to draw up a management plan for the biosphere reserve.
546. During the process of developing the management plan, the Advisory Committee invites them to consider activities or objectives in collaboration with the Andino Nor Patagónica Biosphere Reserve in Argentina, which borders the biosphere reserve to the east.
547. The Advisory Committee concluded that the site **does not meet** the criteria of the Statutory Framework of the WNBR and requested the national authorities to submit the above-mentioned information by 30 September 2022.
548. **Krivoklatsko Biosphere Reserve (Czech Republic)**. This site is subject to the Exit Strategy.
549. The Advisory Committee requested the authorities to provide an updated zonation map and detailed information about how local communities will participate in the management and management structures of the biosphere reserve, as well as more detailed, concrete information about how the development function of the biosphere reserve will be realized.
550. The MAB Secretariat had not received any additional information or explanation before the deadline or the 27th meeting of the Advisory Committee. To ensure compliance with the decisions made by the MAB-ICC on the Exit Strategy process and to respect the agreed timeline to terminate the Exit Strategy by 2020, the Advisory Committee therefore recommended that the authorities **withdraw the site** and invited them to submit a nomination form at their earliest convenience if they so wish. The Advisory Committee also emphasized that the MAB Secretariat and UNESCO Offices remain available to assist the authorities in the nomination process.
551. **General recommendations for Guinea:**
552. The Advisory Committee welcomed the information provided by the Guinean authorities on the **Badiar, Haut Niger** and **Ziama** biosphere reserves. The three sites fall under the 'Process of Excellence and Enhancement of the WNBR'.
553. **Badiar Biosphere Reserve (Guinea)**. As per the conclusion of the 25th meeting of the IACBR in 2019, the site **meets** the criteria of the Statutory Framework of the WNBR. However, the Advisory Committee requested the national authorities to provide a new zonation map and a rationale as to why there is no formal buffer zone around two of the core areas and indicate what buffering functions are in place.
554. The MAB Secretariat received the requested information. The Advisory Committee noted that all the core areas are well delineated by a buffer zone to effectively ensure their long-term conservation. The updated zonation consists of three core areas of 101,064 ha, a buffer zone of 89,059 ha and a transition area of 314,877 ha.
555. The Advisory Committee acknowledged the zonation map with satisfaction and commended the national authorities for submitting this critical information.

- 556. Haut Niger Biosphere Reserve (Guinea).** The site is subject to the Exit Strategy.
- 557.** The 25th meeting of the Advisory Committee in 2019 requested the national authorities to provide an improved zonation map of the biosphere reserve using the official terminology according to the criteria of the Statutory Framework of the WNBR. The Advisory Committee reviewed the new zonation map received by the MAB Secretariat and noted the map clearly indicates a core area of 55,400 ha, a buffer zone of 364,100 ha and transition area of 227,500 ha, including the highly degraded classified forest of Tamba.
- 558.** The Advisory Committee therefore concluded that the site **meets** the criteria of the Statutory Framework of the WNBR and is no longer subject to the Exit Strategy.
- 559. Ziama Biosphere Reserve (Guinea).** The site is subject to the Exit Strategy.
- 560.** The 25th meeting of the Advisory Committee in 2019 requested the national authorities to discuss with stakeholders the possibility of increasing the buffer zone around the south-eastern portion of the core area and to submit an application for an extension of the site as soon as possible.
- 561.** Having reviewed the additional information received, the Advisory Committee commended the national authorities for their efforts to seek arrangements to create an enlarged buffer zone. It encouraged the authorities to submit by the next Periodic Review, a new nomination proposal that includes the enlarged buffer zone.
- 562.** The Advisory Committee concluded that the site **meets** the criteria of the Statutory Framework of the WNBR and is no longer subject to the Exit Strategy.
- 563. Issyk-Kul Biosphere Reserve (Kyrgyzstan).** The site is subject to the Exit Strategy.
- 564.** As per the recommendation of the 26th meeting of the IACBR in 2020, the site **meets** the criteria of the Statutory Framework of the WNBR.
- 565.** At the meeting in 2020, the Advisory Committee recognized the existence of a management plan for 2016–2020 and the use of a participatory approach to develop a management plan for 2021–2025. However, as the current management plan was not attached to the Periodic Review, the Committee requested that it be submitted to the MAB Secretariat by 22 May 2020 along with detailed information on the activities of the management body.
- 566.** The Advisory Committee at its 27th meeting in 2021 commended the Kyrgyzstan authorities for submitting the current management plan for 2016–2020.
- 567.** This management plan outlines the overarching objectives of the Issyk-Kul Biosphere Reserve for a five-year period (2016-2020).
- 568.** The management plan aims to guide the efforts of the Biosphere Directorate, local governments, other conservation institutions, NGOs and local communities to generate lessons for sustainable development and bio-cultural conservation.

569. The management plan consists of six sections: (i) Executive summary, (ii) Background information, (iii) Management plan, (iv) Management structure, (v) Concluding remarks, and (vi) Appendices.
570. Section (iv) describes a management structure that will enable shared governance and co-management of the Issyk-Kul Biosphere Reserve. The Biosphere Reserve Directorate will ensure the necessary reforms to adjust the current management structure to match the one presented in the management plan for 2016–2020.
571. Section (v) details the process of developing the next management plan for 2021–2025.
572. The Committee congratulated the Kyrgyzstan authorities on the well-prepared document and concluded that the site **meets** the criteria of the Statutory Framework of the WNBR and is no longer subject to the Exit Strategy. The Advisory Committee recommended that the national authorities submit by 30 May 2021 updated information concerning finalization of the new management plan for 2021–2025 as well as an information on the adjusted management structure.
573. **Tatra Biosphere Reserve (Poland).** This site is subject to the Exit Strategy.
574. The Advisory Committee acknowledged the receipt of communications in response to the IACBR's recommendations made at its 26th meeting in 2020. The Committee acknowledged that the process of community consultation had continued at the beginning of 2021, but was unfortunately interrupted due to the COVID-19 crisis. The Advisory Committee recommended that the authorities reconvene with the communities as soon as the situation improves and keep the MAB Secretariat informed regarding the outcome of the consultations. The Committee also welcomed the new zonation map, which included the transition areas and buffer zones.
575. The Advisory Committee concluded that the site **meets** the criteria of the Statutory Framework of the WNBR and is no longer subject to the Exit Strategy.
576. **Rodnei Mountains Biosphere Reserve (former name: Pietrosu Mare) (Romania).** The Advisory Committee welcomed the additional information from the biosphere reserve.
577. The Committee noted that a Periodic Review report was submitted in 2019 by the Ministry of Environment Waters and Forest and then updated in 2020 by the Rodnei Mountains National Park Administration, which is the actual governing body of the biosphere reserve.
578. Regarding the question raised about the size of the transition area, the Advisory Committee noted that the revised report proposes to reallocate to the transition area just over 29,000 ha that were formerly part of the buffer zone. As a consequence, the activities of 3,000 seasonal workers (foresters, harvesters of medicinal plants, mushrooms, wild fruits, shepherds) will now be located within the transition area. The Advisory Committee also welcomed the suggestion to promote multiple activities such as beekeeping as a way to improve the livelihoods of the farmers.

579. The Advisory Committee noted that the proposal to expand the boundaries of the biosphere reserve beyond the boundaries of the National Park did not receive positive feedback from the concerned communities (especially landowners) during annual meetings of the Advisory Council of the Rodnei Mountains National Park. This failure is linked to the fact that these actors were not satisfactorily consulted during the establishment of the National Park and the biosphere reserve, and felt cheated by the lack of compensation for restrictions imposed on land usage. As a consequence, they do not feel invested in the initiatives put forward by the governing institution. The Advisory Committee encouraged the Rodnei Mountains National Park not to give up the proposal and to continue to seek a way out of this impasse in order to improve the conditions of pastoralism and natural resources harvesting in the region and, therefore, better fulfil the development function of the biosphere reserve.
580. The Advisory Committee also encouraged the authorities to contact the MAB Secretariat in order to organize a workshop with the local communities and other biosphere reserve representatives, share positive outcomes of biosphere reserve designation for local communities, build trust and involve them in the management plan.
581. The Advisory Committee concluded that the site **meets** the criteria and further encouraged the authorities to pursue a dialogue with the local communities.
582. **Retezat Biosphere Reserve (Romania).** The Advisory Committee welcomed the updated report provided by the authorities.
583. The Advisory Committee noted that no entity has yet been established to administrate the biosphere reserve.
584. The Advisory Committee also noted that the management plan for Retezat National Park and the associated natural protected areas is still under development.
585. The Advisory Committee regretted that it has not received the information requested (i.e. an explanatory note detailing how the sustainable development and logistics functions are being carried out). The Committee also requested more detailed information on the participation of local communities in the management of the biosphere reserve, and details regarding the difficulties encountered in extending the biosphere reserve beyond the boundaries of the national park. In addition, the Committee requested the authorities to submit a management plan for the entire biosphere reserve with clearly defined roles and responsibilities.
586. The Advisory Committee concluded that the site **does not meet** the criteria. To ensure compliance with the decisions made by the MAB-ICC on the Exit Strategy process and to respect the agreed timeline to terminate the Exit Strategy by 2020, the Advisory Committee therefore recommended that the authorities **withdraw the site** and invited them to submit a nomination form at their earliest convenience if they so wish. The Advisory Committee also emphasized that the MAB Secretariat and UNESCO Offices remain available to assist the authorities in the nomination process.
587. **Cherny Zemli Biosphere Reserve (Russian Federation).** The site is subject to the Exit Strategy.

588. The Advisory Committee welcomed the publication of a brochure on benefit sharing with local residents and the Adyk project. However, the additional information on mechanisms to integrate the management of the core area and buffer zone (currently carried out by the Chornyje Zemli State Reserve) with the management of the transition area (managed by municipal authorities, management organizations and tenants who coordinate their activities with the Ministry of Natural Resources and Ecology) have not been provided. The management plan for the biosphere reserve submitted by the authorities does not contain details on whether and how communities are involved in the management of the biosphere reserve. The communities are only mentioned under logistical functions as the subjects of awareness campaigns. Paragraph 1.3.1.3 mentions the plans to include residents in technical and scientific councils of the biosphere reserve, but provides no details on whether this has already happened.
589. The Advisory Committee noted that the authorities had resent the previous Periodic Review and not submitted a new zonation map nor the requested information regarding the zonation of the biosphere reserve.
590. To ensure compliance with the decisions made by the MAB-ICC on the Exit Strategy process and to respect the agreed timeline to terminate the Exit Strategy by 2020, the Advisory Committee therefore recommended that the authorities **withdraw the site** and invited them to submit a nomination form at their earliest convenience if they so wish. The Advisory Committee also emphasized that the MAB Secretariat and UNESCO Offices remain available to assist the authorities in the nomination process.
591. **Kavkazsky Biosphere Reserve (Russian Federation).** The Advisory Committee welcomed the detailed information concerning the new zonation of the biosphere reserve, and the map provided. The Advisory Committee noted with appreciation the description of how residents in the transition area are involved in the management of the biosphere reserve. The Advisory Committee noted the brief discussion on the development function of the biosphere reserve and encouraged the authorities to further develop the development function of the biosphere reserve.
592. The Advisory Committee concluded that the site **meets** the criteria of the Statutory Framework of the WNBR.
593. **Okskiy Biosphere Reserve (Russian Federation).** The Advisory Committee welcomed the additional information provided by the authorities on the development function. The Advisory Committee also appreciated the additional information on the buffer zone and noted that negotiations are underway to allocate land to extend the buffer zone to buffer the entire core area. The new zonation map provided in the management plan meets the criteria on zonation.
594. The Advisory Committee therefore concluded that the site **meets** the criteria of the Statutory Framework of the WNBR.
595. **Samba Dia Biosphere Reserve (Senegal).** The site is subject to the Exit Strategy.

596. At its 26th meeting in 2020, the Advisory Committee concluded that this site would meet the criteria of the Statutory Framework of the WNBR on the condition that the national authorities provided official confirmation of the zonation map and the management plan by 22 May 2020.
597. The Advisory Committee reviewed the validated zoning map, which includes a core area, a buffer zone and a transition area, as well as the management plan.
598. The Advisory Committee commended the national authorities for the submission of this critical information requested and concluded that the site **meets** the criteria of the Statutory Framework of the WNBR and is no longer subject to the Exit Strategy.
599. **Cu Lao Cham – Hoi Na Biosphere Reserve (Viet Nam).** As per the recommendations of the 26th meeting of the IACBR in 2020, this site meets the criteria of the Statutory Framework of the WNBR.
600. However, the Committee requested that the authorities submit by 30 September 2020 a map showing the boundary changes of each zone of the Cu Lao Cham – Hoi An Biosphere Reserve since the nomination approval, the information on development and rational exploitation within the Cu Lao Cham Marine Protected Area, and the potential negative impacts to ecosystems from inhabitants living in the core area and measures to cope with them.
601. The Advisory Committee noted with satisfaction that the national authorities provided detailed feedback on the requested information as follows: (i) changes in the functional zoning area compared to the nomination dossier; (ii) development and exploitation within the Cu Lao Cham Marine Protected Area; (iii) potential negative impacts on the ecosystem of people living in the core area; and (iv) measures to address these impacts.
602. The Committee commended the national authorities on submitting the information in a very satisfactory and detailed manner.
603. **Chatkal Biosphere Reserve (Uzbekistan).** This site is subject to the Exit Strategy.
604. As per the recommendation of the 26th meeting of the IACBR in 2020, the Committee concluded that the site would meet the criteria on the condition that an official confirmation of the establishment of a buffer zone surrounding a core area of Maydantal was submitted by 22 May 2020, along with a more detailed plan explaining how local residents and communities would be involved in the management of the biosphere reserve.
605. The Advisory Committee acknowledged the detailed information submitted by the Uzbekistan authorities.
606. Chatkal Biosphere Reserve was established in 1978 on the basis of the Chatkal State Reserve. The Chatkal Biosphere Reserve designated by UNESCO consisted (and still consists) of two cluster sites (Bashkyzylsai and Maydantal).

607. The Bashkizylsai and Maydantal areas form part of the transnational serial property 'Western Tien Shan', nominated by Kazakhstan, Kyrgyzstan and Uzbekistan, and declared a World Heritage site in 2016.
608. Each cluster site, according to the environmental legislation of the former USSR, included a core area surrounded by a buffer zone (1-2 km). Following the collapse of the USSR, legislation of the Republic of Uzbekistan also prescribed the existence of a buffer zone around core areas of strict state nature reserves (*Zapovedniks*). Buffer zones are still maintained around both sites and are marked in green (Bashkizylsai) and blue (Maydantal) on the accompanying chart (Map 1).
609. In 2018, the Bashkizylsai site was reorganized into a separate national protected area – the Ugam-Chatkal state biosphere reserve, which includes three zones: a core area, a buffer zone and a transition area in accordance with the requirements of the MAB Programme. However, the Maydantal site remained under the jurisdiction of the Chatkal state strict reserve (*zapovednik*), which has two zones: a core area and a buffer zone.
610. Currently, the Maydantal section of the UNESCO Chatkal Biosphere Reserve is located inside the Ugam-Chatkal National Park, which also plays the role of a buffer zone (Map 2). Work is underway to enlarge a 2-km buffer zone around the Maydantal part of the core area.
611. The Committee noted with satisfaction details of the involvement of local residents and communities in the management of the biosphere reserve. During 2019–2020, about two dozens of meetings were held with a self-government body of citizens, and information was received regarding problems related to the population living in settlements inside the transition area. Further activities are also described in the management plan.
612. The Committee also noted that the existing management plan corresponds to IUCN standards. A Coordinating Committee for the biosphere reserve has been established.
613. A new management plan for the period 2021–2024 is being developed with the support of the joint GEF/UNDP/State Committee for an ecology project 'Sustainable natural resource use and forest management in key mountainous areas important for globally significant biodiversity'.
614. The Committee commended the Uzbekistan authorities for their comprehensive response and concluded that the site **meets** the criteria of the Statutory Framework of the WNBR and is no longer subject to the Exit Strategy.
615. The Advisory Committee recommended that the national authorities submit by 30 May 2021 the updated information concerning the finalization of the new management plan for 2021–2024. The Committee also encouraged the Uzbekistan authorities to continue its work to involve local residents and communities in the management of the biosphere reserve.

- 616. Dyfi Biosphere Reserve (United Kingdom).** The Advisory Committee welcomed the additional information provided by the authorities on the extension of the transition area, which has increased by 11,626 ha.
- 617.** The Advisory Committee also welcomed the incorporation of five municipalities into the transition area, which increased the population by about 5.7% and will strengthen the biosphere reserve both socio-economically and culturally.
- 618.** The Advisory Committee concluded that the site **meets** the criteria of the Statutory Framework of the WNBR.
- 619. Sonoran Desert Biosphere Reserve (former name: Organ Pipe) (United States).** The Advisory Committee welcomed the additional information provided by the authorities. The Committee noted with satisfaction the progress made in terms of including local residents in the activities and management of the biosphere reserve. The Advisory Committee also appreciated the Plan of Cooperation, which includes proposed activities related to sustainable development and poverty alleviation. The work undertaken to mitigate the negative impacts of the wall constructed along the border is equally appreciated.
- 620.** The Advisory Committee additionally welcomed the detailed maps showing different zones of the biosphere reserve. The Advisory Committee encouraged the authorities to further develop the management plan. The Advisory Committee therefore concluded that the site **meets** the criteria of the Statutory Framework of the WNBR.
- 621. Obtawaing Biosphere Reserve (former name: University of Michigan Biological Station) (United States).** The Advisory Committee welcomed the additional information provided and acknowledged the receipt of the letters from eight organizations formalizing their partnership with the Obtawaing Biosphere Reserve, and also noted that the five organizations representing the Native American Tribes of the region are actively considering joining the biosphere reserve.
- 622.** The Advisory Committee noted that the management structure of the Obtawaing Biosphere Reserve will take the form of an Advisory Committee, whose structure, status and plans moving forward will be stated in the Terms of Reference document that remain in draft form for the time being.
- 623.** The Advisory Committee acknowledged the efforts made to explain why certain parts of the core areas directly border transition areas without a buffer zone. The Advisory Committee also noted that future additional core areas are indicated on the zonation map.
- 624.** The Advisory Committee welcomed the description of the development plan indicating how the Obtawaing Biosphere Reserve intends to fulfil its development function. The anticipated collaboration with the Michigan Economic Development Corporation (MEDC) appears to be a promising avenue.
- 625.** The Advisory Committee requested that the authorities submit the final version of the Biosphere Reserve Terms of Reference once finalized.



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626. The Advisory Committee concluded that the site **meets the criteria** of the Statutory Framework of the WNBR.