

## UNITED NATIONS EDUCATIONAL, SCIENTIFIC AND CULTURAL ORGANIZATION

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

Thirty-second session

**Online session**  
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#### **ITEM 9 OF THE PROVISIONAL AGENDA: Proposals for New Biosphere Reserves and Extensions/ Modifications/ Renaming to Biosphere Reserves that are part of the World Network of Biosphere Reserves (WNBR)**

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1. Proposals for new biosphere reserves and extensions to biosphere reserves that are already part of the World Network of Biosphere Reserves (WNBR) were considered at the 26<sup>th</sup> meeting of the International Advisory Committee for Biosphere Reserves (IACBR), which met at UNESCO Headquarters from 17 to 20 February 2020.

2. The members of the Advisory Committee examined 30 proposals: 25 for new biosphere reserves including one transboundary site, two resubmissions and three requests for extensions/modification and/or renaming of already existing biosphere reserves. Five new countries submitted proposals: Andora, Cap verde, Comoros, Luxemburg an Trinidad and Tobago. The members of the Adisory committee formulated their recommendations regarding specific sites in line with the recommendation categories as follows:

- 1) ***Proposals for new biosphere reserves or extensions/modifications/renaming to already existing biosphere reserves recommended for approval:*** the proposed site is recommended for approval as a biosphere reserve; no additional information is needed. For already existing sites, the proposed changes are recommended for approval.
- 2) ***Proposals for new biosphere reserves or extensions/modifications/renaming to already existing biosphere reserves recommended for approval pending the submission of specific information:*** the proposed site is recommended for approval as a biosphere reserve or the proposed changes for already existing sites are recommended for approval **subject to** receiving the specific information as requested by the Advisory

Committee. Initially planned, if the MAB Secretariat receives the information by 22 May 2020, it would be considered by the MAB ICC at its 32<sup>nd</sup> session and the Council may approve the inclusion of the site in the WNBR. If submitted by 30 September 2020, the information would be assessed by the MAB ICC at its 33<sup>rd</sup> session in 2021. ***However, due to COVID-19 outbreak, the MAB Bureau decided to extend until 30 September 2020 the deadline for MAB Secretariat to receive additional information to be considered at the 32<sup>nd</sup> of MAB ICC. Therefore, the Council will consider additional information received by 30th September 2020 at this 32<sup>nd</sup> session.***

**3) *No proposals for new biosphere reserves or extensions /modifications/ renaming to existing biosphere reserves were recommended for deferral.***

3. The MAB Secretariat received letters informing of voluntary withdrawn for 11 sites by Member states concerned. These are : five sites in Australia Uluru (Ayers Rock-Mount Olga), Croajingalong, Riverland (formerly Bookmark), Kosciuszko, and Unnamed (Mamungari) , four sites in Bulgaria (Ali Botouch, Douпки-Djindjiritza, Mantaritza and Parangalitsa), one site in the Democratic Republic of Congo (Lufira) and one site in Mexico ( Golfo de California).

4. The Bureau of the MAB ICC will consider the attached recommendations of the IACBR as well as the additional information received by the MAB Secretariat particularly with regard to nominations recommended for approval subject to receiving additional information by 30<sup>th</sup> September 2020. The Bureau will recommend for the consideration of the MAB ICC final decisions on all sites included in this document.

5. The MAB ICC is invited to decide on the new sites for inclusion in the WNBR and extensions/modifications and/or renaming of biosphere reserves already included in the WNBR that could be approved.

6. The MAB-ICC is invited to take note of national authorities' decision of voluntary withdrawal for : five sites from Australia: Uluru (Ayers Rock-Mount Olga), Croajingalong, Riverland (formerly Bookmark), Kosciuszko and Unnamed (Mamungari) Biosphere Reserves; four sites from Bulgaria (Ali Botouch, Douпки-Djindjiritza, Mantaritza and Parangalitsa) Biosphere Reserves , one site from Democratic Republic of Congo (Lufira Biosphere Reserve) and one site from Mexico (Golfo de California)

**EXAMINATION OF NEW BIOSPHERE RESERVE NOMINATIONS AND PROPOSALS FOR EXTENSION/ MODIFICATION/RENAMING TO DESIGNATED BIOSPHERE RESERVES THAT ARE PART OF WORLD NETWORK OF BIOSPHERE RESERVES**

**New nominations recommended for approval**

7. **Complex W-Arly-Pendjari WAP (Benin, Burkina-Faso, Niger).** The Advisory Committee welcomed this proposal. The site is located in north Benin, east Burkina-Faso and south Niger and encompasses several natural West African bioclimatic zones (Sahelian, Sudanian and Guinean). The site is composed by the addition of the current 'W' transboundary biosphere reserve, shared between Benin, Burkina-Faso and Niger, and two national biosphere reserves: Arly in Burkina Faso and Pendjari in Benin.

8. The total area exceeds 9 400,000 ha and hosts a population of more than 4 million inhabitants. The core area, buffer zone and transition area account for 15%, 23% and 62%, respectively, of the total area.
9. The Advisory Committee observed that a good management plan would reinforce the strength and balance of the natural zonation. From this perspective, the reserve would seek to enhance the space, which contains sustainable natural resources rich in biodiversity, with a high variety in wildlife ranging from hippopotamus in the south to giraffe in the north, as well as lions, elephants and leopards. In addition, the reserve would promote regional integration and socio-economic development. The site is also rich in cultural diversity and would benefit from a development process to help it overcome contexts of instability.
10. The Advisory Committee recommended that the proposal be **approved** and encourages the responsible authorities of the three countries to develop a management plan for the overall WAP complex that synchronizes actions in the proposed transboundary site, giving greater emphasis to the process of social-economic development through a participatory approach that involves local communities to the greatest extent possible.
11. **Oueme Lower Valley (Benin).** The Advisory Committee welcomed this new proposal. The proposed Oueme Lower Valley Biosphere Reserve is located in the south-eastern Atlantic shore of Benin. The site covers 850,500 ha of which the core area represents 5%, the buffer zone 12% and the transition zone 83% %. The total population amounts to more than 2,300,000 inhabitants.
12. The Advisory Committee noted that the site is also a natural hotspot known as the Dahomey Gap. The area is a transitional bioclimatic landscape with Guinean equatorial biodiversity to the west and Congolese equatorial biodiversity to the east. It incorporates local natural flora including hydromorphic ecosystems, meadows, marshes, gallery forests and mangroves, all of which add value to the natural biodiversity of the site. These different landscapes complete the range of ecosystems of the Dahomey Gap and complement those of the Mono Biosphere reserve located to the south-western Atlantic shore of Benin.
13. The Advisory Committee also noted that the site is highly diverse in cultural and religious terms and features no less than ten languages. Land use is also varied and sustainable but is in need of development.
14. Additionally, the Committee noted a reference to a management policy referred to as 'simplified management plans' for different sacred spots inside the biosphere reserve, based on a traditional model of local management. The Advisory Committee acknowledged with satisfaction that the national authorities used the regional development agenda, African Union Agenda 2063 as a model of sustainable development and a means to foster the economy. Providing a harmonized and unified management plan for the global biosphere reserve is

important, and could also act as a model for a socio-economic management plan for the south of Benin.

15. The Advisory Committee recommended that the proposal be **approved** and encourages the management authorities to continue with the elaboration of the management plan, which is expected result from a participatory approach based on a solid development process.
16. **Fogo (Cabo Verde).** The Advisory Committee welcomed the nomination of the first biosphere reserve in Cabo Verde. The proposed site is the youngest and only volcanically active island in the south of the Cape Verde archipelago. The volcano is the highest point of Fogo Island reaching an altitude of 2,829 m.
17. The total area covers 102,000 ha and comprises a core area of 6,900 ha, a buffer zone of 15,000 ha and a transition area of 80,000 ha, of which 55,000 ha is marine. The core zone incorporates the Integral Protection Zones and Moderate Use Zones of the Fogo Natural Park, which are home to 45% of the site's endemic flora including *Echium vulcanorum*, *Diploaxis hirta*, *Verbascum cystolithicum* *Tornabenea tenuissima* and *Erysimum caboverdeanum*. The area is also an important site for birds with 19 indigenous species, as well as reptiles with six terrestrial endemic species including lizard and gecko, such as the rare endemic *Hemidactylus lopezjurado* (López-Jurado's Half-toed Gecko), *Chioninia vaillantii xanthotis* (Vaillant's Mabuya ) and marine turtles (Green turtle and Olive Ridley).
18. The 61 communities living in the three administrative regions have a total population of about 37,000 inhabitants. The main economic activities are fruit, coffee and legume production, livestock breeding, forestry, fishing and tourism. Local vineyards also play an important role as Fogo Island wineries produce high-quality wines for the country.
19. The Advisory Committee appreciated the projects undertaken with community associations and other partners to manage the threats to biodiversity through monitoring, environmental education campaigns, the introduction of tourist points and reforestation. The Advisory Committee also commended the national authorities on the National Constitution, which grants equal rights of access and use to land for both men and women and for the implementation of plans for tourism, marketing and agriculture.
20. The Advisory Committee recommended that the site be **approved**.
21. The Advisory Committee encouraged the authorities to develop a management plan for the entire biosphere reserve that outlines the management structure and coordinating mechanism for co-management with local communities and enhances land management in the area.
22. **Maio (Cabo Verde).** The Advisory Committee commended the authorities on the submission of this dossier for the fourth lowest island in the Cabo Verde

archipelago, which has a maximum altitude of 437 m at the summit of Monte Penoso.

23. The proposed reserve includes the entire island and surrounding marine zone and covers a total area of 73,972.43 ha of which 26,900 ha is terrestrial and 47,072.43 ha is marine. The core area has six components: Maio Island Natural Park, Cimi-dor Lagoon Natural Reserve, Praia do Morro Natural Reserve, Casas Velhas Natural Reserve, the Barreiro and Figueira Protected Landscape and the Salt Pan of Porto Inglês. Their collective area covers 10,513.35 ha, 36.53% of which is terrestrial and 63.47% is marine. The buffer zone covers 1,864.98 ha (45.75% terrestrial and 54.25% marine) and the transition area covers 59,323.70 ha (36.37% terrestrial and 63.63% marine).
24. The marine ecosystem is home to eight local endemic species of Gastropods including *Conus sp.*, three species of turtles (*Chelonia mydas*, *Eretmo-chelys imbricata* and *Caretta caretta*) and cetaceans such as the Lemon shark (*Negaprion brevirostris*) and Tiger shark (*Galeocerdo cuvier*). Terrestrial biodiversity includes more than 256 species of fauna distributed across three phyla (Molluscs 3%, Arthropods 87%, Chordates 10%), eight classes, 28 orders, 107 families and 224 genera. The most abundant species are invertebrates (lobsters, octopuses, and various shellfish), fish (large pelagic and small pelagic), seabirds and marine reptiles.
25. The site has a population of nearly 7,000 inhabitants, and the main economic activities are local tourism, maize, beans, melon and salt production, and handicrafts. The Advisory Committee appreciated the celebration of festivals and the organization of craft markets to sustain cultural practices and the maintenance of historic architecture and heritage.
26. The Advisory Committee congratulated the authorities for their regular joint environmental education initiatives involving schools, non-governmental organizations (NGOs) and government institutions, as well as the integration of environmental topics into the curricula of basic and secondary schools.
27. The Advisory Committee recommended that the site be **approved** and encouraged the authorities to develop an overall management plan for the entire area.
28. **Mwali Biosphere Reserve (Comoros).** The Advisory Committee welcomed this proposal from Comoros. The reserve is home to an exceptional biodiversity of regional and global significance with high rates of endemism among different groups of flora and fauna. Its uplands are home to globally threatened bird species and small area species. The reserve includes a Ramsar site, Lake Boundouni.
29. The total area of the site covers 66,286.5 ha and includes 24 small villages with a total of 51,230 inhabitants. The main activities are agriculture, animal husbandry and fishing.
30. The Advisory Committee commended the authorities for their co-management of the area with local communities, the range of ongoing actions, and the restoration

of ecosystems and related research and monitoring (scientific inventories of reefs, mangroves and turtles).

31. The Advisory Committee noted the detailed description of the zoning with core areas, a buffer zone and a transition area.
32. The Advisory Committee therefore recommended that the proposal be **approved**.
33. **Asterousia Mountain Range (Greece)**. The Advisory Committee welcomed this proposal for a biosphere reserve on the southern central part of the island of Crete. The area covers 125,741 ha and features semi-mountainous to mountainous landscapes with altitudes ranging from sea level in the coastal areas to 1,231 m at the highest peak of the mountain range.
34. The centuries-old, uninterrupted human presence in Asterousia has left archaeological traces dating back to the Neolithic Age. The mountain landscape of the proposed biosphere reserve is characterized by a mosaic of natural and semi-natural habitats with scattered human settlements concentrated mostly in the central part of the mountain range. The lack of forest coverage is distinctive, but combines unique geological formations such as gorges with natural areas of high ecological value, which account for more than 50% of the animal and plant species recorded in the island of Crete – one of the most important areas of the Mediterranean region in terms of biodiversity.
35. The population living permanently within the proposed reserve is estimated at 2,700 people, increasing to 6,000 people if the immediate vicinity (densely populated urban centres at the northern edge of the mountainous area outside the proposed area) is included. Although in decline, agriculture and livestock farming remain the dominant activities of residents, with a small percentage employed in the secondary sector, and employment in the tertiary sector steadily increasing, mainly in activities related to hospitality, catering and tourist services.
36. The objective of the proposed biosphere reserve is to stabilize local community populations within the boundaries of the nominated area, and to consolidate them by supporting a local development model through conservation and local sustainable development actions. This model is designed to promote ecotourism while maintaining socio-cultural traditions, and aims to develop a circular economy based on renewable energies (mainly solar).
37. The proposed site includes three Natura 2000 sites. Its core area comprises ten homogeneous ecological units with a total area slightly exceeding 5,000 ha. These units are biodiversity hotspots with iconic species of birds of prey. The buffer zone surrounds the core areas with a terrestrial extent of approximately 10,000 ha. Sea turtles, Mediterranean Monk Seals and protected cetacean species are present along the southern shore of the proposed area. The proposed boundaries include 6-nautical-mile buffer and transition marine zones to raise awareness of the presence of these species in the region.

38. In April 2019, the Heraklion Development Agency formally set up a Local Management Committee for Asterousia (LMCA) and established a statute of operation. No applicable management plan has yet been produced for the site.
39. After examining the proposal, the Advisory Committee recommended that the proposed Asterousia Biosphere Reserve be **approved** and requested that the management plan be finalized as soon as possible and sent to the MAB Secretariat.
40. **Bunaken Tangkoko Minahasa (Indonesia).** The Advisory Committee welcomed this proposal from Indonesia and congratulated the national authorities on their well-prepared nomination dossier. The proposed site is located in North Sulawesi, a major bio-geographical region with an undulating landscape, steep terrain and mountains, and is situated at the heart of the Coral Triangle in the Indo-Pacific region. The proposed reserve covers a total area of 746,405.92 ha, and includes both terrestrial (352,188.832 ha) and marine habitats (394,217.088 ha).
41. The proposed site consists of five core areas covering 89,682.92 ha. The buffer zone covers 182,540.33 ha and the terrestrial area covers 43,634.92 ha. The area encompasses a mosaic of ecological systems including a coastal area with coral reefs and seagrass, mangrove and coastal forests, islands and terrestrial ecosystems.
42. The main function of the five core areas is to conserve the landscape, ecosystems, species and genetic variation. The conservation areas include national parks, a nature reserve, forest and wildlife reserves. They boast a high level of endemic species of flora and fauna, with 55 species of plants and 133 species of mammals (10 of which are endemic to Sulawesi), 210 species of birds (59 endemic to Sulawesi and 5 to North Sulawesi), 15 species of reptiles and amphibians, and 44 species of butterflies.
43. The residents in the buffer zone and the transition area engage in forest production, horticulture (vegetables and fruits), agriculture, other forms of plantation (annual and industrial crops (coffee, cacao), ornamental plants, forestry and animal husbandry, as well as fisheries in the coastal areas. Agriculture plays an important role in the overall economy in the region. The transition areas function as development and production areas, and as a centre of economic development.
44. Ecotourism and cultural tourism take place in areas of natural beauty, and several areas are used as locations for traditional and religious activities, such as the Flower Festival.
45. The Advisory Committee commended the implementation of a 'community development' programme, which aims to improve socio-economic conditions of local communities through the development of economic alternatives and micro-finance.
46. The proposed site has established an integrated management plan (2020-2025). However, the Advisory Committee noted that the site is facing significant challenges

from human impacts. Ecological, economic or social pressures or changes in the proposed biosphere reserve may threaten species or varieties leading to loss of biodiversity and diversity of native species in the region. The Advisory Committee encouraged the Indonesian authorities to maintain current measures to reduce these negative impacts, pressures and problems, including through capacity building and public awareness activities, environmental education, conflict resolution and the enforcement of laws against illegal activities.

47. The Advisory Committee encouraged the authorities to strengthen the institution responsible for management, as well as coordination and cooperation between parties, especially local government, conservation area management, communities and the private sector, in regard to planning and implementing sustainable biodiversity ecosystem management programmes.
48. The Advisory Committee also encouraged the Indonesian authorities to utilize ecotourism to improve the livelihoods of local people.
49. The Advisory Committee recommended that this site be **approved**.
50. **Karimunjawa-Jepara-Muria (Indonesia)**. The Advisory Committee congratulated Indonesia on the proposal for the Karimunjawa Jepara Muria Biosphere Reserve. The site is located in the Jepara, Kudus and Pati regencies of the Central Java Province, and encompasses the mountainous area of Mount Muria, the Karimunjawa Islands and a marine area. The site plays an important role in the biodiversity conservation of the Central Region of Java Island.
51. The core areas of the proposed biosphere reserve consist of small islands, a marine ecosystem, and lowland and mountain tropical rainforest with altitudes of 0 m to 1,500 m above sea level encompassing three protected areas: Karimunjawa National Park (consisting of a marine area of 109,445.02 ha and a terrestrial area of 2,179.98 ha), Mount Muria Protected Forest (7,340.51 ha) and Mount Celering Nature Reserve (1,605 ha).
52. Buffer zones (terrestrial and marine) consist of production forests, a coastal area, and a marine area and settlements. The main activities of local communities in the buffer zone are agriculture and fishing using traditional techniques. Rice farming, animal husbandry and cash crop commodities are also important for local communities.
53. The transition area (terrestrial and marine) is used for aquaculture and marine open access, agriculture (rice fields, gardens, horticulture), settlements, coffee and cacao plantations, animal husbandry, production activities and other commercial non-forestry land uses. It also features residential areas (rural and urban), industrial areas and offices, among others. The buffer zones and transition areas, which are inhabited by 3,398,015 people, are also a centre for rice and palawija (crops) production.
54. As many as 69 genera of hard coral and 15 species of sea cucumbers have been recorded in the marina area. The Karimunjawa National Park is a habitat for green turtles (*Chelonia mydas*) and hawksbill turtles (*Eretmochelys imbricata*), and a total of 134 bird species have been registered. *Kima* (giant clams) are among the marine biotas protected by law, while Bottled dolphins (*Tursiops aduncus*) and Javanese deer (*Cervus timorensis*) are protected mammal species.



55. The Advisory Committee commended the Indonesian authorities on their efforts to engage with diverse stakeholders, including local communities, as well as for their exchanges and cooperation with existing Indonesian biosphere reserves and the regional biosphere reserve network (SeaBRnet) during the preparation of the nomination. The Advisory Committee also acknowledged both the well-prepared management system, which is structured systematically with a governing body and an implementing/coordination unit, and the comprehensive management plan.
56. The Advisory Committee noted that the site faces threats and is vulnerable to unsustainable practices, including illegal activities (logging, fishing, poaching, encroachment, hunting) conducted in the core areas by local people living in the buffer zones, and the challenges of mass tourism and tour development plans. It therefore encouraged the authorities to devise and implement appropriate measures to adequately mitigate these threats and unsustainable practices in the core areas and to decrease the negative impacts from tourism in cooperation with the administrations responsible for tourism development.
57. The Advisory Committee recommended that the site be **approved**.
58. **Merapi Merbabu Menoreh (Indonesia)**. The Advisory Committee welcomed the nomination of the proposed Merapi Merbabu Menoreh Biosphere Reserve, which is located in the central part of Java Island in the Indo-Malayan region. The site is representative of the Java-Bali montane forest type (which plays an important role in biodiversity conservation of the Indo-Malayan/Sundaland region) and limestone (karst) formation in the Menoreh area.
59. The total coverage of the proposed reserve is 254,876.75 ha, with the core area, buffer zone and transition area accounting for 12,447.47 ha, 108,788.88 ha and 133,640.40 ha, respectively.
60. The core areas of the proposed biosphere reserve are Gunung Merapi National Park, Gunung Merbabu National Park and Sermo Wildlife Reserve, each of which functions as a habitat for various species of biota as well as an important refuge for species of high conservation value.
61. The buffer zone consists of (i) villages directly adjacent to the conservation area (which is the proposed core area of biosphere reserve); and (ii) villages that function as corridors between the main landscape of Merapi and the Menoreh mountain range, located in the Borobudur temple area and its surroundings, extending south to Menoreh. The buffer zone includes production forest, protected areas, plantations and agriculture areas, tourism areas and villages/settlements. The buffer zone is sufficient to protect the core area from illegal activities and support the livelihoods in the core area.
62. The transition area consists of 377 villages (in 37 districts), which form part of seven regencies and two cities. Green economic activities and sustainable development programmes will be promoted and encouraged to support the existence of the biosphere reserve.
63. The transition area is dominated by the production area and settlements such as paddy fields, plantation, dry-field crops, orchards, villages and urban areas/towns. The transition area is sufficiently broad to become a zone for sustainable economic development activities for communities in the region, and is suitable for work with local communities to test and demonstrate sustainable uses of natural resources.

64. Both areas of the National Park are habitats for protected and endemic Javanese flora-fauna.
65. The Advisory Committee noted that an integrated management plan document has been proposed for the period 2020-2024.
66. The Advisory Committee commended the Indonesian authorities for a well-prepared nomination dossier and recommended that the site be **approved**.
67. **Minett (Luxembourg)**. The Advisory Committee welcomed this first proposal from Luxembourg. The proposed biosphere reserve encompasses several former opencast mines and covers an area of 200 km<sup>2</sup> (one-tenth of the country's total area). It also incorporates 11 municipalities (accounting for one-third of the Luxembourg population) in the south of the Grand Duchy. The project for the creation of the reserve is being carried out by the PRO-SUD inter-municipal union. The aim is to renew the post-industrial image of this territory, ensuring the conservation of local historical and cultural heritage, while promoting development oriented towards the creation of a knowledge-based economy.
68. The Advisory Committee noted the absence of a buffer zone adjacent to the six core areas, all of which are the sites of former opencast mines now classified as a protected areas of national interest. Instead, the buffer zone appears to be a second category of conservation area (Natura 2000 zones and other protected zones of national interest such as orchards, meadows, wetlands or forests), functioning as an intermediate space between the core area islets and the transition area.
69. The Advisory Committee welcomed the elements provided in response to the Secretariat's technical questions in a letter of 6 January 2020: as regards the absence of a buffer zone adjacent to the six core areas because of the existence of (i) national border with France for three of the six core areas; (ii) urbanization adjacent to the core areas, which can be explained by the fact that former workers built their homes in the immediate vicinity of the mines; (iii) natural border via the presence of steep cliffs that partially delimit the core area patches; (iv) differentiated protection status subdividing the core zone patches, effectively including an internal buffer zone in each core area patch.
70. A call for citizen projects on local products or to raise awareness about natural resources was launched during public meetings organized in 11 municipalities of the south of the Grand Duchy. The proposed biosphere reserve will select some of these projects and support their funding. In addition, a project is underway to build 11 inns (one in each municipality) associated with the 'Red Rock Trail', an 80 km-long hiking and mountain biking trail.
71. The Advisory Committee noted that a draft management plan for the proposed site was produced during a governance workshop carried out in June 2019, and is in the process of being refined. Actions related to each of the three functions of the MAB programme (conservation, development and logistics) have been proposed,

specifying in each case associated objectives, the areas concerned and potential partners.

72. The Advisory Committee commended the specificity of this proposal, which includes high urbanization very close to conservation areas as well as the presence of successful post-industrial restoration aspects that could serve as a model, and recommended that the proposed site be **approved**. It further recommended that the authorities explore the possibility of establishing a transboundary biosphere reserve.
73. **Fuvahmulah (Maldives)**. The Advisory Committee welcomed this proposal from Maldives to nominate Fuvahmulah as a biosphere reserve. The proposed site is a large oceanic island in the southern part of the Maldives and the country's only single island administrative atoll. The proposed biosphere reserve (about 491.7 ha terrestrial, 461.7 ha marine) encompasses a whole atoll ecosystem.
74. Four core areas have been identified for the proposed biosphere reserve. Their total area covers about 474.32 ha, of which 15.34 ha are terrestrial areas and 458.98 ha are marine. They include representative examples of reefs with a high level of biodiversity, mangroves, wetlands and specific species, and were selected following detailed surveys and consultations with local communities.
75. The total area of the buffer zones covers about 302.4 ha of which 100.29 ha are terrestrial and 202.11 ha are marine. All activities meet sustainability principles and are based on ecosystem reliance and conservation. Activities in the core areas and buffer zones are governed by the Regulation on Management of Protected Areas of Fuvahmulah City (2018/R-106).
76. The transition area includes all areas and resources outside the buffer zones and core areas, and was developed through a consultative process with stakeholders. It was designed to provide supporting functions to the core areas and buffer zones, while facilitating activities for sustainable livelihoods. The transition area covers about 539.15 ha of which 376.07 ha are terrestrial and 163.08 ha are marine. The 2014 census recorded 7,984 local residents (3,612 male and 4,372 female) in the transition area.
77. The Advisory Committee acknowledged the existence of a Wetland Advisory Board and noted that its composition includes stakeholders with regard to the management of core areas. It also noted the decision to rebrand the board as the Fuvahmulah Biosphere Reserve Advisory Board with the formal representation of public, private sectors and local communities.
78. The Advisory Committee commended the authorities of Maldives for their proposal and recommended that the site be **approved**.
79. **Hadejia Nguru Bade (Nigeria)**. The Advisory Committee congratulated the national authorities for the well-prepared nomination. Located in the Sudan-

Sahelian zone, the proposed site includes the Bade Ngruru Wetland, the first Ramsar site in Nigeria, and the Baturiya Game Reserve, a former community forest.

80. The area is a floodplain consisting of seasonally flooded lands and dry uplands fed from the confluence of the Hadejia and Jama're rivers at Tamburawa in Kano. The Hadejia river rises in the uplands of Bauchi and Kano states while the Jama'are river rises in the Jos Plateau.
81. The total area of the proposed biosphere reserve covers 535,659.51 ha and comprises a core area of 24,681.92 ha, a buffer zone of 59,784.39 ha and a transition area of 335,105.06 ha.
82. Characteristic tree species include *Acacia spp.* (especially *Faidherbia albida*), *Ziziphus spp.*, *Balanites aegyptiaca*, *Khaya senegalensis*, *Tamarindus indica* and *Adansonia digitata*, while common grasses are *Cenchrus biflorus*, *Andropogon spp.* and *Vetiveria nigriflora*. The seasonally flooded marshes feature aquatic grasses such as *Echinochloa* and *Oryza spp.* Invasive plants such as *Typha australis* are common on the edges of the lake.
83. The area also supports about 68 species of birds including Resident, Palearctic and Afro-Tropical migrants, as well as the Grey heron, Little egret, Yellow billed stock, Knob-billed goose, African grey horn-billed, long tailed cormorant. There are also over 40 species of fish including *Heterotis niloticus*, *Tilapia zillii*, *Bagrus filamentosus* and *Auchenoglanis biscutatus*.
84. The proposed reserve is socially and culturally diverse, with a population of 931,671 inhabitants and four major ethnic groups: the Kanuri, Bade, Hausa and Fulani. The main activities by local communities are fishing, firewood, collection of doum palm (fruits and leaves), tamarind, baobab leaves and fruits, hunting and sand excavation for building.
85. The Advisory Committee commended the authorities for sustaining the historic cultural practices of local communities, such as Bade and Hadejia emirate fishing and Durbar festivals, as well as the proposed involvement of Emirs in the management structure. The Advisory Committee also appreciated the collaborative research and awareness-raising programmes conducted by stakeholders, such as the Nigeria Conservation Foundation (NCF), Birdlife International, the Forestry Research Institute and the North-East Arid Zone Development Programme (NEAZDP). The Advisory Committee also acknowledged the relevance of this area as a model for integrating three UNESCO programmes: MAB, IHP and WHC.
86. The Advisory Committee recommended that the site be **approved**. The Advisory Committee also encouraged the authorities to continue to support the indigenous communities in the implementation of the management plan and the establishment of the management body.
87. **Bosques de Neblina – Selva Central (Peru)**. The Advisory Committee welcomes the new proposal submitted by the Peruvian authorities. The proposed biosphere reserve area is located in the Amazon basin, in a transition zone between the Andes

and the Amazon forest in the Junin region. The northern edge borders with the Oxapampa-Ashaninka-Yanesha Biosphere Reserve.

88. The total area of the proposed site is 857,400 ha. The core area covers 71,543.74 ha, the buffer zone covers 80,353.2 ha and the transition area covers 705,503.06 ha. The size of the overall population is 185,562. Three hundred inhabitants live in the buffer zone and the remainder live in the transition area.
89. Less than 10% of the species in the region have been catalogued and identified; however, about half of the proposed biosphere reserve hosts species of very high and high bio-ecological value, with strong levels of endemism. The Pampa Hermosa Natural Sanctuary, one of the last remaining places with tropical montane forests in the region, and the Pui Pui woods, are of paramount importance for the protection of river headwaters, which provide a safe source of freshwater for the population. Emblematic species include the vulnerable spectacled bear (*Tremarctos ornatus*) and the Andean cock-of-the-rock (*Rupicola peruvianus*), among others.
90. The area is home to various indigenous populations, including Quechuans and Ashaninkas, about 25% of whom make a living from agriculture, forestry, cattle raising and fishing. The central location of the proposed biosphere reserve favours the development and trade of agricultural products, such as coffee and banana, but also makes it a prime tourist destination in the Peruvian Amazon.
91. The nomination process was followed closely by the local population who participated in numerous consultation meetings, workshops, fairs and training sessions. Local associations were further involved in the creation of a Coordination Committee for the proposed reserve.
92. The Advisory Committee welcomed this nomination proposal and recommended that the site be **approved**.
93. The Advisory Committee also recommends that the managers of the Oxapampa-Ashaninka-Yanesha Biosphere Reserve and Bosques de Neblina define a strategy to promote synergies between the two sites, and encourage joint actions and the participation of biosphere reserve managers in management committee meetings and other appropriate mechanisms.
94. **Island of Porto Santo (Portugal).** The Advisory Committee welcomes this new proposal submitted by the Portuguese authorities and congratulates them on the well-prepared file. The proposed biosphere reserve area is located in the Autonomous Region of Madeira in the archipelago of Madeira and corresponds to the sub-archipelago of Porto Santo.
95. The total area of the proposed site is 27,310.54 ha, and comprises a marine area of 22,250 ha and a terrestrial area of 5,059.59 ha. The seven core areas cover 2,559.71 ha, 397.04 ha of which is terrestrial (mainly islets) and 2,162.67 ha is marine. The buffer zone covers 11,534.21 ha (639.45 ha terrestrial and 10,894.76 ha marine) and the transition area covers 13,216.62 ha (4,023.10 ha

terrestrial and 9,193.52 ha marine). There are 5,173 inhabitants, although the seasonal population can reach 22,000. All inhabitants live in the transition area.

96. The terrestrial biodiversity of the site includes more than 1,600 taxa with a high level of endemism. About 396 (24%) belong to various taxonomic groups such as fungi, lichens, plants (nonvascular and vascular) and animals (invertebrates and vertebrates), and some species have international, national or regional conservation status. The flora includes a large number of endemic vascular plants. Among the approximately 536 identified taxa, 15 are exclusive to Porto Santo, of which the most recently described (*Echium portosanctense*, *Pericallis menezesii* and *Sonchus parathalassius*) are noteworthy, 28 are endemic to Madeira and 26 are endemic to Macaronesia.
97. Compared to the available information on terrestrial biodiversity, the existing information on the marine environment is scarce and dispersed. Approximately 453 taxa have been identified, eight of which are endemic to Macaronesia (six fish and two birds).
98. The sea around Porto Santo is Macaronesia home to several species of marine reptiles and mammals, notably the rarest seal in the world, the Mediterranean monk seal (*Monachus monachus*), and the loggerhead sea turtle (*Caretta caretta*). Both priority species are inscribed on the IUCN Red List and are considered to be 'endangered' and 'vulnerable', respectively.
99. The population distribution of the territory is not homogeneous, and is concentrated in the south of the island. The majority of the active population is employed by the tertiary sector, notably tourism. During the high season, the island population quadruples. Other areas include trade and services, such as public administration, education, health, banking, insurance sales, transport, hotels and restaurants. While the cement industry used to be representative of the secondary sector, it has been supplanted by wind and solar energy production.
100. The island is implementing the Smart Fossil Free Island concept to ensure a transformation over the medium to long term to an energy matrix free of fossil fuels, with a focus on electric energy and renewable energy sources.
101. The primary sector, in turn, comprises activities carried out by a smaller number of individuals related to agriculture, livestock and, in reduced numbers, fishing.
102. The process of nomination of Porto Santo has been followed closely and enthusiastically endorsed by numerous stakeholders on the island, such as government, institutions, universities, local businesses and associations, among others.
103. The Advisory Committee welcomed this nomination proposal and recommended that the site be **approved**.

- 104. Kologrivsky Forest (Russian Federation).** The Advisory Committee welcomed this proposal from the Russian Federation, which is located in the central part of European Russia on the north-eastern part of the Russian Plain, and covers approximately 250,000 ha. The territory is characterized by a mixture of areas influenced by human activities and undisturbed, well-preserved southern taiga ecosystems, including pine forests, spruce forests, small-leaved forests, marshes, meadows and water reservoirs. It has unique value as a reference area for both the region and the international community, with over 1,000 species of flora and fauna registered of which 4 floral and 13 fauna species are included on the Red List of Threatened Species of the Russian Federation. In addition, some birds nesting in the reserve are inscribed on the Red List of the Russian Federation, including the willow ptarmigan (*Lagopus lagopus rossicus*), the osprey (*Pandion haliaetus*), the eagle owl and the azure tit (*Parus cyanus*).
- 105.** The permanent population amounts to nearly 37,600 people, with a seasonal population increase of 50%. In the past, the majority of the workforce engaged in agriculture and timber production. Nowadays, less than 1% of the population engages in farming and about 15% works in the logging and timber processing industry. Unemployment is a serious concern in small settlements in the area. The main objective of the proposed biosphere reserve is to promote eco-safety, protect biological and topographical diversity, and conserve natural and cultural heritage.
- 106.** The site will be managed by the Coordination Council, which will include the management body, representatives of the regional administration, heads of municipal districts, and representatives of district NGOs. The Coordination Council will function on a participatory basis, involving local residents. The Advisory Committee further recommended that a gender balance approach be applied in the composition and responsibilities of the Council.
- 107.** After examining the proposal, the Advisory Committee recommended that the site be **approved**.
- 108. North-East Tobago (Trinidad and Tobago).** The Advisory Committee welcomes this first proposal submitted by the authorities of Trinidad and Tobago and congratulates them on the well-prepared file.
- 109.** The total area of the proposed site is 83,488 ha. It comprises a marine area of 68,384 ha and a terrestrial area of 15,104 ha. The core area covers 3,938 ha (entirely terrestrial), the buffer zone consists of 73,000 ha (5,751 ha terrestrial and 67,249 ha marine) and the transition area covers 6,550 ha (5,415 ha terrestrial and 1,135 ha marine). The overall population size is 10,130 inhabitants, 10,080 of which live in the transition area and 50 in the buffer area. One of the proposed core areas is the Tobago Main Ridge Forest Reserve, the oldest legally protected tropical forest in the world, created in 1776.
- 110.** The proposed biosphere reserve encompasses 19 distinct habitat types, including one of the last remnants of a dry tropical forest in the Caribbean. It is home

to globally unique and endangered plants and animals including 83 IUCN red list species, 41 endemic species, 13 EDGE criteria species, 48 international migratory (CMS) criteria species and 120 CITES criteria species. Overall, 1,774 species have been recorded and the number is rising.

111. Of all the faunal taxonomic groups found within the terrestrial ecosystem, the avifauna is the most distinct. There are two species of endemic birds: the charismatic Trinidad Motmot (*Momotus bahamensis*) – which is shared with Trinidad – and the less conspicuous Tobago greenlet (*Hylophilus insularis*). The highest faunal endemism is found among the herpetofauna (three snakes, one lizard and four frogs).
112. About 10,130 people live in the area and there is a culturally, deeply rooted socio-economic and spiritual relationship between the communities and the natural resources signified by artisanal fishing, former (now largely abandoned) cocoa estates, a range of important ecosystem services and traditional ceremonies. There is an equally important spiritual relationship between the people and the natural resources, as demonstrated by the many folk stories and traditional medicines and ceremonies.
113. Communities in the 15 villages in the area are economically dependent on artisanal fishing, tourism, forestry and governmental employment (around 60%) in the administrative, public service or unemployment relief sectors. Since 2014, the Food and Agricultural Organization of the United Nations (FAO) has been implementing a Global Environmental Facility (GEF)-funded 'Improved Forest and Protected Area Management' (IFPAM) project (FAO/GEF, 2013-2020) in areas of the proposed biosphere reserve. This project has made significant strides regarding stakeholder participation, capacity building, biodiversity assessments, livelihood assessments and draft Protected Area Management Plans (PAMPs). Global hydrocarbon mining/energy companies operating in Trinidad and Tobago have maintained an interest in the exploitation of NE Tobago offshore hydrocarbon (mainly gas) resources.
114. As yet, there is no specific management or coordination structure, management plan, budget or financing plan for the proposed biosphere reserve. Once the biosphere reserve is designated, a management plan will be developed within 24 months in a participatory manner.
115. The Advisory Committee welcomed this nomination proposal and recommended that the site be **approved**.
116. The Committee further recommends that the authorities: (i) promote connections between the two core zones; (ii) monitor tourism on the island and track visitor numbers in order to assess potential impacts on the proposed reserve; (iii) contact the Mata Atlântica Biosphere Reserve (Brazil) to learn about the good practices of the TAMAR project on the management of the marine turtles population; and (iv) contact the secretariats of the World Network of Island and Coastal Biosphere Reserves to exchange good practices on sustainable development and adaptation to climate change in small island ecosystems.

**New nominations recommended for approval pending the submission of specific information**



- 117. Ordino (Andorra).** The Advisory Committee welcomed this proposal from Andorra, and congratulated the Andorran authorities on the detailed proposal for its first biosphere reserve proposal.
- 118.** The proposed site is located in the north-western part of Andorra, and has a total coverage of 8,473 ha, with a core area of 1,080 ha and a large buffer zone of 6,135 ha. The area is notable for the protection of a number of rare and endangered species on the IUCN Red List, including the great tetra – an emblematic species of the Pyrenees mountains – the bearded vulture and the Pyrenees lizard.
- 119.** The Advisory Committee noted that the proposed site contains a ski station, and commended the care taken to manage its impact on the environment, as well as other possible negative impacts of tourism, a sector of considerable economic importance for the country. The further development of affordable public transport, as presented in the proposal, also contributes to this end. The Advisory Committee equally appreciated the objectives related to the promotion of traditional economic activities such as livestock husbandry, agriculture and forestry, with a view to sustaining the landscape, which has changed considerably since the 1980s/90s due to the growing importance of tourism and the declining profitability of agriculture. The establishment of the Mountain ‘living lab’ could certainly contribute to sharing experiences and research findings through the network of biosphere reserves.
- 120.** The Advisory Committee welcomed the involvement of local residents in the management of the area, and appreciated the careful and participatory approach taken to develop the proposal. As such, the proposed biosphere reserve could serve as an important platform to address minor conflicts about access to natural resources in the area. The Advisory Committee also encouraged efforts to find ways to include more women in the management of the area.
- 121.** The Advisory Committee welcomed the detailed discussion of the SDGs in the proposal, but noted that no ecosystem services assessment has been conducted, and thus recommends that such an assessment be undertaken.
- 122.** The Advisory Committee noted the explanations for the designation of the core area, the buffer zone and the transition area. The main core area borders on the territory of France, and is buffered by Natura 2000 areas on the other side of the border. The Advisory Committee noted, however, that a small part of the main core area borders directly on a transition area, without buffering. The Advisory Committee therefore requested additional information on whether and how the buffering of the core area will be secured.
- 123.** The Advisory Committee requested that this additional information be provided by 22 May 2020. The Advisory Committee therefore considered that the site be **approved pending** receipt and approval of the additional information.
- 124. Dja Biosphere Reserve (Cameroon). Resubmission.** The Advisory Committee welcomed the new submission of the existing biosphere, which was designated in 1981. The site is located in the southern part of the country and forms

part of the Congo Basin Forest, which is endowed with a vast ecosystem and varied flora and fauna. The reserve also includes a Natural World Heritage site. The rich biodiversity includes a variety of wildlife including panther, gorilla, elephants and hornbills. It is also home to one of the most important colonies of *Picathartes oreas* in the world.

125. With regard to the 2019 request of the MAB ICC, the Advisory Committee noted that the relevant national authorities have clarified the description of the zoning, which now has a core area (526,004 ha), a small buffer zone (62 093 ha) and a transition area (740 000 ha).
126. The Advisory Committee also noted that following the extension of local users' rights, the exploitation of certain natural resources, such as non-timber forest products (except for protected species) or fishing activities, is permitted in the buffer zone, if they are compliant with the management plan. These activities are regulated through local agreements.
127. The Advisory Committee further noted that the management plan is currently undergoing revision. The Committee requested that the zoning be revised as part of the ongoing process and recommended that the national authorities explore the possibility of increasing the buffer zone by including parts of rural complexes and logging units ('concessions forestières'). These revisions should involve all relevant stakeholders through a participatory process.
128. The Advisory Committee concluded that the resubmission be **approved pending** the submission to the MAB Secretariat of a management policy with the approved new zoning by 22 May 2020, and the submission of a revised management plan as early as possible.
129. **Panna (India).** The Advisory Committee welcomed this proposal from India. The proposed Panna Biosphere Reserve is located in the Panna District (Ajaigarh, Panna and Gunnor) and Chhatarpur District (Bijwar, Rajnagar and Laundi) of Madhya Pradesh. The site is characterized by forests, seasonal as well as aquatic, and marshy vegetation. It is also rich in medicinal plants, with as many as 108 species, and contains a variety of secondary products, such as Kattha, Gum and resins obtained from the forest area.
130. The total area covers 2,998.98 km<sup>2</sup> with a core area of 792.53 km<sup>2</sup> (26.43%), a buffer zone of 987.20 km<sup>2</sup> (32.91%) and a transition area of 1,219.25 km<sup>2</sup> (40.66%).
131. The core area consists of the entirety of Panna National Park, three sections of the Gangau Sanctuary (I, III and IV) and the Reserved and Protected Forests of the North Panna Forest Division, which is dominated by forest cover (90.35%). Panna National Park has been also declared as a Panna Tiger Reserve, while the entire area of Panna National Park and three sections of the Gangau Sanctuary are a Critical Tiger Habitat Area.
132. The buffer zone surrounds the entire core area and incorporates the Ken-Gharial Sanctuary and section II of the Gangau Sanctuary. Restoration activities,

demonstration sites for enhancing the value of resources, limited recreation, tourism and fisheries are all found within the buffer zone.

- 133.** The transition area is mainly dependent on agriculture to support local livelihoods. Management activities in this area involve Joint Forest Management Committees (JFMCs). Efforts have been taken to raise awareness among local stakeholders of biodiversity conservation. Other projects for the well-being of local communities include the provision of drinking water facilities at schools and villages, aquaculture practices, animal health camps and nature camps. The area also incorporates Khajuraho, a UNESCO World Heritage site.
- 134.** The main economic activities include traditional forms of cultivation such as rainfed crops, cattle rearing and non-timber forest production. Among the non-forest component base of natural resources, the mining of building stone (Vindhyan sandstone) is the most popular occupation. Tourism is quite active and increasing.
- 135.** The Advisory Committee noted that the Indian government has declared the areas adjacent to protected areas (national parks, sanctuaries) as Eco-Sensitive Zones (ESZ), in order to minimize the impact of urbanization and other developmental activities. Mining activities are prohibited in ESZ. Ken-Gharial Sanctuary has been declared an ESZ.
- 136.** The Advisory Committee recommended that the site be **approved pending** the submission of the following information by 22 May 2020:
- (i) completion of sub-chapters (e.g. 9.2, 9.3, 14.3, 15.4, 15.6) missing in the nomination dossier; (ii) the exact numbers of the core area and the resulting total area, in order to resolve discrepancies in the nomination dossier; (iii) a clear explanation regarding the process of consultation(s) or stakeholder involvement for a proposed biosphere reserve (not a national biosphere reserve); (iv) a proposal to modify the management/coordination structure to involve non-government stakeholders and managers of the World Heritage site located in the transition area, particularly in relation to tourism management; (v) a management plan or measures to reduce the negative impact caused by mass tourism in the proposed biosphere reserve and to increase ecotourism; and (vi) current and/or planned measures to conserve key animal species (sloth bear, tiger, leopard, wildcat, crocodiles, etc.), particularly in the Tiger Reserve.
- 137.** The Advisory Committee also encouraged the declaration of an ESZ in Panna National Park, currently under consideration by the Ministry of Environment, Forest and Climate Change.
- 138. **Almaty (Kazakhstan).**** The Advisory Committee welcomed the nomination from Kazakhstan. The proposed Almaty Biosphere Reserve is located on the northern and southern slopes of the Ile (Zailiysky) Alatau ridge, a mountain system of the Northern Tien Shan that lies on the watershed of the Talgar, Issyk and Shelek river basins, which enter the Ili River.
- 139.** The site has a total area of 1,769.60 km<sup>2</sup>. The core area, which encompasses the whole territory of the Almaty State Nature Reserve (designated in 1931 and belonging to IUCN category 1a), covers 718.0 km<sup>2</sup> (40%), while the buffer zone covers 270.80 km<sup>2</sup>

(15%) and the transition area 780.80 km<sup>2</sup> (45%).

- 140.** The flora of the Almaty State Nature Reserve includes about 1,000 species of higher vascular plants belonging to 415 genera from 85 families, as well as 480 species of lower plants. The 28 species of higher vascular plants and one species of mushroom are listed in the Red Book of the Republic of Kazakhstan. One of the main forms of deciduous forest is wild fruit forest and the main forest-forming species is wild apple. Regarding fauna, the reserve is home to 39 species of mammals, 177 species of birds, 5 species of reptiles and more than 900 species of insects.
- 141.** The predominant economic activities of the local population in the transition area are agriculture and mining. However, tourism services in the area of the proposed biosphere reserve are undergoing development. The potential of the region is primarily associated with the development of animal husbandry and crop production, as well as ecological and recreational tourism, notably from the two closest cities, Almaty and Taldykorgan.
- 142.** In the immediate vicinity of the proposed biosphere reserve are various sites of ancient cattle breeders, as well as Bronze and Early Iron Age monuments. A number of ancient necropolises and settlements are inscribed as UNESCO World Heritage Sites.
- 143.** In 2019, a Coordination Council for the proposed biosphere reserve was created, consisting of state agencies (territorial administration for forestry and hunting), the State Nature Reserve, akimats (local authorities), local NGOs and land users.
- 144.** The Advisory Committee recommended that proposed site be **approved pending** submission of the following information by 22 May 2020:
- (i) justification for the absence of transition area in the eastern, western and southern parts of the proposed biosphere reserve; (ii) a topographic map with names in English including the boundary of the administrative unit; (iii) a land use map or vegetation map of the whole proposed biosphere reserve and information on the international protection status of key animal and plant species; (iv) detailed information on the development function in the transition area including the main economic activities; (v) an exact population count and date of the census; and (vi) detailed information on mining and tourism and measures to cope with the potential negative impacts of such activities.
- 145.** The Advisory Committee encouraged the national authorities to develop an integrated and comprehensive management plan covering all the three functional zones after the designation.
- 146. West Altai (Kazakhstan).** The Advisory Committee welcomed the proposal to establish the West Altai Biosphere Reserve. The proposed site is located in the territories of the Ridder City Administration and the Zyryanovsky District, in the north-eastern part of the East Kazakhstan Region, bordering the Russian Federation.
- 147.** The proposed site includes the least anthropogenically disturbed natural complexes and ecosystems characteristic of the mountain-taiga part of the Western Altai. The total area covers 2,998.98 km<sup>2</sup> with a core area of 792.53 ha (26.43%), a buffer zone of 987.20 ha (32.91%) and a transition area of 1,219.25 ha (40.66%).

- 148.** The core area encompasses the entire area of the West Altai State Nature Reserve, designated in 1992 (IUCN category 1b). It is surrounded by a 2 km-wide strip, in accordance with the Kazakhstan law 'On Protected Areas', which functions as buffer zone.
- 149.** Of particular interest is the formation of the black taiga in the Western Altai. The local flora includes 883 vascular plant species, 96 of which are in need of special protection and account for 11.0% of the entire flora of the Nature Reserve, while 27 species are included in the Red Data Book of Kazakhstan (1981). The fauna includes more than 162 species of birds (129 nesting), 57 species of mammals and presumably about 10,000 species of invertebrates. Mammals are represented by the taiga fauna. The migration routes of wild ungulates (elk, deer, roe deer and wild boar) stretch across the territory of the State Nature Reserve.
- 150.** The main economic activities in the transition area are mining and certain types of agriculture (crops and livestock). The principal crops grown are wheat, potatoes, sunflowers and beets, while the main livestock animals are sheep, horses and cattle.
- 151.** The Advisory Committee encouraged the national authorities to continue and utilize research and monitoring to plan activities for sustainable development in the transition area, taking into account ecosystem services in the core area.
- 152.** The Advisory Committee would appreciate information on the protected area status and ecosystems of the Russian side of the eastern boundary of the proposed biosphere reserve.
- 153.** The Advisory Committee recommended that the proposed site be **approved pending** submission of the following information by 22 May 2020:
- (i) justification for the absence of transition area in the northern and southern parts of the proposed biosphere reserve;
  - (ii) a topographic map with names in English including the boundary of the administrative unit;
  - (iii) a land use map or vegetation map of the whole proposed biosphere reserve and information on the international protection status of key animal and plant species based on the most recent data;
  - (iv) detailed information on the development function in the transition area including the main economic activities;
  - (v) an exact population count and date of the census;
  - and (vi) detailed information on mining and tourism and measures to cope with the potential negative impacts of such activities.
- 154.** The Advisory Committee encouraged the national authorities to develop an integrative and comprehensive management plan covering all three functional zones after the designation.
- 155. Addu Atoll (Maldives).** The Advisory Committee welcomed this proposal and congratulated the Maldives in the nomination of Addu Atoll as a biosphere reserve. The proposed site is the southernmost atoll of the Maldives and lies north of the Chagos Archipelago at a distance of about 450 km. The atoll consists of a total of 30 islands. Wetland ecosystems occur on many different islands and include mangroves, freshwater ponds and brackish lakes (kilhis). Permanent shallow marine waters and sub-tidal aquatic beds with sea-grass are found in sheltered areas, while a large and well-preserved coral reef extends around the west, north and east of this area.

156. The atoll has a total area of 130 km<sup>2</sup> with a terrestrial area of 15 km<sup>2</sup>. Administratively, Addu Atoll is considered a city with a population exceeding 10,000. The marine diversity of the proposed site has an outstanding richness and diversity including internationally threatened species. There are over 1,200 fish species of which gobies are the most diverse group.
157. Seven core areas have been identified for the proposed reserve. Their total area covers about 873.44 ha of which 87.79 ha are terrestrial areas and 785.65 ha are marine. The buffer zones are also legally gazetted but have a lower degree of legal protection than the core areas. Their total area comprises about 1,385.02 ha of which 101.13 ha are terrestrial areas and 1,283.89 ha are marine. The transition area of Addu Atoll has been developed through a consultative process with stakeholders. The transition area covers about 13,566.19 ha of which 1,283.11 ha are terrestrial areas and 12,283.08 ha are marine.
158. The Advisory Committee acknowledged the existence of a Wetland Advisory Board, developed under the Regulation for Management of Protected Areas of Addu City Board, and noted that its composition includes stakeholders with regard to the management of core areas. It also the decision to rename the board the Addu Atoll Biosphere Reserve Advisory Board, with the formal representation of public, private and local communities.
159. The proposed biosphere reserve (about 157.2 km<sup>2</sup>) encompasses a whole atoll ecosystem. The zonation meets UNESCO MAB criteria; however, only three of the seven identified core areas have been gazetted as protected areas under the Environment Protection and Preservation Act (4/93) of the Maldives, with the remaining four areas due to be gazetted before 30 December 2019. Therefore, the Advisory Committee recommended that the site be **approved pending** the submission of additional information on the current status of the remaining core zone areas by 22 May 2020.
160. **Toson-Khulstai (Mongolia).** The Advisory Committee welcomed this proposal and commended the Mongolian authorities on their efforts to establish the Toson-Khulstai Biosphere Reserve. The proposed site is located in North-Eastern Mongolia in a transition area between forest steppe and grassland ecosystems. The area was designated a Nature Reserve in 1998 to protect the low mountains, rolling hills and dry steppe ecosystems that are the habitat of Mongolian gazelle and another wildlife. The current 'Nature Reserve' (Category 3) status permits traditional nomadic livestock husbandry in the area.
161. The total area of the proposed site is 1010,356.31 ha with a core area of 469,928 ha, a buffer zone of 205,655.04 ha and a transition area of 334,773.27 ha.
162. The purpose of the core area is to protect raptor nest habitats, wetland bird habitats, terrestrial mammals and, most importantly, to serve as a calving ground for Mongolian gazelles away from humans and livestock. The core area was

established under a regulation of the local administration and endorsed by the Co-Management Committee.

- 163.** The buffer zone includes the main calving habitat of Mongolian gazelle and the breeding habitats of wetland bird species.
- 164.** The transition area is located on the lands of five different counties within two separate provinces, in an area where sustainable resource management practices are foreseen. Representatives of seven communities of the proposed biosphere reserve were consulted prior to the commencement of the management project in the area, with the support of The Nature Conservation (TNC).
- 165.** All herders, who live seasonally in the area, entered into a trilateral agreement with the Co-Management Committee and the local governors to ensure sustainable grazing in the area.
- 166.** A Memorandum of Understanding for collaboration was established between the Provincial Environmental Protection Agency, the Regional Protected Areas Administration, the Eastern Mongolian Community Conservation Association (a local NGO) and the Nature Conservancy.
- 167.** The Advisory Committee noted that the proposed biosphere reserve has a management plan, developed in collaboration with representatives of all major stakeholders, including local governments, herders, local NGOs and scientists.
- 168.** The Advisory Committee commended the Mongolian authorities on their proposal and recommended that the site be **approved pending** fulfilment of the following criteria for the establishment of a biosphere reserve. According to the zonation map, parts of the core area in the south-eastern part of the site are not protected by a buffer zone. Therefore, the Advisory Committee would like an explanation of the current zonation and the resubmission of the map in a readable format. The Committee also recommends that the colours used to distinguish the boundaries of three zones be changed for clarity. An additional map showing the administrative divisions of the Toson-Khulstai Biosphere Reserve is also requested. These maps and information should be submitted by 22 May 2020.
- 169. Oban (Nigeria).** The Advisory Committee welcomed the new proposal submitted by the Nigerian authorities. The proposed reserve is located in the Cross River State in the south-eastern corner of Nigeria, and consists primarily of moist tropical rainforest in the northern and central parts and montane mosaic vegetation on the Obudu Plateau.
- 170.** The proposed reserve has a total area of 557,682 ha, with a core area of 195,771 ha, a buffer zone of 83,070 ha and a transition area of 278,841 ha. The core area consists of the Oban Forest Reserve in the southern section of the Cross River National Park, which is contiguous with the Korup National Park in Cameroon.
- 171.** Faunal species in the area include the Cross River Gorilla, the Nigeria-Cameroon Chimpanzee (*Pan Troglodytes vellerosus*), the Drill (*Mandrillus leucophaeus*), Preuss's Guenon (*Cercopithecus preussi*), the Forest Elephant (*Loxodonta cyclotis*) and Forest

Buffalo (*Syncerus caffer nanus*). Floral species include the African Corkwood Tree or Umbrella Tree, *Irvingia gabonensis*, African mahogany and red ironwood.

- 172.** The local population amounts to approximately 28,000 inhabitants with three main tribal groups of which the Ejagham is dominant occupying 33 out of 39 villages in the area.
- 173.** The Advisory Committee commended the authorities for providing support to and preserving the culture and identity of the Ekuri community, who belong to the indigenous Nkokoli people, through the establishment of the Ekuri Initiative, which involved conservation, sustainable forest management, and livelihood and rural development to address loss of biodiversity, the movement of species and community development.
- 174.** The Advisory Committee also congratulated the authorities on efforts to nominate the reserve as a World Heritage site and a transboundary biosphere reserve. Additionally, the Advisory Committee appreciated the existence of research and monitoring programmes such as the law enforcement system, which was established to address poaching, and the monitoring system for the red colobus.
- 175.** However, the Advisory Committee noted that the participatory biosphere reserve management plan developed in 2019 makes no provision for the area as a biosphere reserve.
- 176.** The Advisory Committee requested clarification on the reason for creating two biosphere reserves out of the same national park. The Advisory Committee also requested that the national authorities prepare a specific management plan for Oban based on the community engagement to be developed from the overall plan for the Cross River National Park. This plan should reflect the biosphere reserve concept and its relevant management structure.
- 177.** The Advisory Committee recommended that the site be **approved pending** the submission of the above requested additional information and the management plan/policy by 22 May 2020.
- 178. Okangwo (Nigeria).** The Advisory Committee welcomed the new proposal for this site, which is situated in the Coastal Evergreen Rainforest along the Gulf of Biafra. The Okwangwo forest reserve is located in the north of the Cross River National Park on the edge of the Cameroon Highlands between the Cross and Sanga Rivers. This combination of river systems provides the basis for a unique wealth of biodiversity.
- 179.** The total area covers 138,061 ha and comprises a core area of 83,060 ha, a buffer zone of 32,793 ha and a transition area of 22,208 ha. The core area consists of the Okongwo forest reserve, the Afi Wildlife Mountain Sanctuary and the Mbe mountain. The area is utilized by researchers, tourists, students and trainees from universities, colleges, local and international tourists, as well as other government agencies carrying out non-destructive research.
- 180.** Faunal species in the area include the African elephant (*Loxodonta Africana*), African buffalo (*Syncerus caffer nanus*) and bushpig (*Potamochoerus porcus pictus*). Several plant and animal species with narrow distribution are found in areas stretching from the Cross River in Nigeria to the Sanga River in Cameroon (together with the island of



Bioko). Others include the giant otter shrew (*Potamogale velox*), drill (*Mandrillus leucophaeus*), the critically endangered Cross River Gorilla (*Gorilla gorilla diehli*) and Preuss's guenon (*Cercopithecus preuss*).

181. With a population of 30,000, the area has attractions such as the Kanyang tourist village located close to Calabar, the Kwa Falls on the Kwa River, and the Agbpim on the Cross River. The reserve is also a source of timber and non-timber forest products such as bush mango (*Irvingia wimbolu*), *afang Gnetum africanum*, Carpolobia cattle sticks (*Carpolobia lutea*), *Randia Randia aculeate* and *Garcinia* chewing sticks, kola nuts, rattan canes (*Calamus thwaitesii*), medicinal plants and bushmeat.
182. The Advisory Committee appreciated the well-outlined zonation map and the use of traditional regulations in controlling the exploitation of bush mango.
183. The Advisory Committee noted that although the population is given as 30,000, the figures in the table add up to 27,000. The Advisory Committee also noted that 66 communities in the buffer zone are linked to increases in illegal logging, fishing with chemicals and the extension of farmlands, which threaten the Boshi extension to Takamanda National Park in Cameroon.
184. The Advisory Committee recommended that authorities specify the human population of the reserve to re-delineate the buffer zone to reduce the communities in it, and prepare specific management plans for the Okwango component of the national park, which makes provision for the biosphere reserve zonation.
185. The Advisory Committee noted that the participatory biosphere reserve management plan developed in 2019 makes no provision for the area as a biosphere reserve.
186. The Advisory Committee requested that the national authorities prepare and submit to the MAB Secretariat a specific management plan for Okwango based on community engagement, developed on the basis of the overall plan for the Cross River National Park. This plan should reflect the biosphere reserve concept and its relevant management structure.
187. The Advisory Committee also requested clarification regarding the reason for creating two biosphere reserves out of the same national park.
188. The Advisory Committee recommended that the site be **approved pending** the submission of the above requested additional information and the management plan/policy by 22 May 2020.
189. **Gishwati Mukura Landscape (Rwanda).** The Advisory Committee welcomed the submission of a nomination for a relatively young national park located in the Albertine Rift, a global biodiversity hotspot. The total area covers 79,926 and comprises a core area of 3,558 ha, a buffer zone of 1,979 ha and a transition area of 74389 ha.

- 190.** The Gishwati Mukura Forest is recognized for two primate species, which are endangered and endemic to the Albertine Rift: the Eastern Chimpanzee (*Pan troglodytes schweinfurthi*) and the Golden monkey (*Cercopithecus (mitis) kandti*). Other species in the area include carnivores (e.g. the Side-striped Jackal, *Canis adustus*), bats and small mammals. Floral species include three species of bryophytes (*Porella abyssinica*, *Leptoscyphus expansus* and *Cololejeunea parva*) occurring exclusively in Gishwati Forest.
- 191.** With a population of 337,782, local communities benefit from the park in terms of increased agricultural productivity through sustainable land management activities, silvo-pastoralism, agroforestry and tourism. Under a benefit-sharing agreement signed with the communities, 10% of revenue generated is used in community development projects.
- 192.** The Advisory Committee commended the authorities for the Landscape Approach to Forest Restoration and Conservation (LAFREC) project, which has conducted various research and monitoring programmes in the area.
- 193.** The Advisory Committee also appreciated the development and implementation of a ten-year master plan and a two-year implementation plan for the landscape. A Gishwati Mukura National Park Management Advisory Committee is currently being established. However, the Committee noted that the Management Advisory Committee should be created for the entire biosphere reserve, not just the national park.
- 194.** The Advisory Committee requested that the authorities submit a revised zonation clearly indicating the transition area referred to in the text of the nomination form.
- 195.** The Advisory Committee recommended that the site be **approved pending** the submission to the MAB Secretariat of a zonation map clearly indicating the transition area of the proposed site by 22 May 2020.
- 196.** The Advisory Committee encouraged the authorities to ensure the establishment of the Management Advisory Committee and the implementation of a participatory management plan.

**Extension, re-zoning or renaming of existing biosphere reserves recommended for approval**

- 197. Mount Kenya - Lewa (Kenya). Resubmission and renaming.** The Advisory Committee commended the national authorities on the submission of the application for an extension of the biosphere reserve, as an indication of their commitment to the 'Process of Excellence of the World Network of Biosphere Reserves'. The proposed reserve includes Mt. Kenya, an extinct volcano with one of the largest standing closed canopy indigenous forests in the country, the Lewa Wildlife Conservancy and the Ngare Ndare Forest landscape.
- 198.** The total area covers 568,553 ha comprising the core, Mount Kenya National Park (71,500 ha); a buffer zone, Mount Kenya Forest Reserve (21,400 ha), the Lewa Wildlife Conservancy (509 ha) and Ngare Ndare Forest (25,402 ha); and an inhabited transition zone (258,742 ha).
- 199.** The integration of the mountainous landscape which straddles the equator with the forest at the foot of the mountain provides a unique ecosystem for species such as the Bongo (*Tragelaphus eurycerus*), the Black Rhino (*Diceros bicornis*), the

White Rhinoceros (*Ceratotherium simum*), the African elephant (*Laxodonta Africana*) and the uncommon Kenyan black fronted duiker (*Cephalopus nigrifrons hooki*). Other faunal groups include rodents such as the Mt. Kenya Mole Shrew (*Sardisorex polulus*) and reptiles such as the Mt. Kenya Bush Viper (*Atheris desaixi*).

- 200.** The local population amounts to about 1 million and is involved in livelihood activities such as beekeeping and the production of crops such as coffee, tea, vegetables, maize beans and tea.
- 201.** The Advisory Committee appreciated the management of the Ngare Ndare Forest by a Community Forest Association under a forest management agreement and the collaborative research and monitoring projects for tree planting with GREENBELT, for ecotourism with Nature Kenya and for the rehabilitation of degraded forest areas with the Kenya Forestry Research Institute.
- 202.** The Advisory Committee recommended that the application for extension be **approved**.
- 203.** Since the management plan expires in 2020, the Advisory Committee advised the authorities to create a comprehensive management plan for the entire biosphere reserve, covering the next decade, using a participatory approach.
- 204. Black River Gorges-Bel Ombre Biosphere Reserve (Republic of Mauritius). Extension and renaming.** The Advisory Committee welcomed the resubmission of this dossier for an existing biosphere reserve from Mauritius. The proposed site is characterized by a high level of endemism. It has also been identified by Birdlife International as an important bird area as well as a key biodiversity area owing to the high density of endemic species per square kilometre.
- 205.** The proposed area covers 8,582.21 ha and has 655,000 inhabitants. The main activities are agriculture, animal husbandry and fishing.
- 206.** The Advisory Committee commended the involvement of the local communities in coral reef plantation, beach and lagoon clean up, environmental education activities, and long-term research projects to conserve the threatened flora and fauna.
- 207.** The Advisory Committee commended the description of the zoning, which has a well-identified core area, buffer zone and transition area.
- 208.** The Advisory Committee therefore recommended that the site be **approved**.
- 209. Vindelälven-Juhttáhka Biosphere Reserve (Sweden). Renaming.** The Advisory Committee welcomed the letter sent by the authorities on 30 September 2019, with a formal request to change the spelling of the Vindelälven-Juhtatdahka Biosphere Reserve.
- 210.** The Advisory Committee noted the new spelling of the Vindelälven-Juhttáhka Biosphere Reserve.

**Extension, re-zoning or renaming of existing biosphere reserves recommended for approval pending the submission of specific information**

- 211. Falasorma-Dui Sevi (France). Extension and renaming (former Vallée du Fango).** The Advisory Committee welcomed this extension and renaming of Vallée du Fango Biosphere Reserve, and commended the authorities for its efforts to expand the territory and functions of the biosphere reserve to meet the criteria, as the site fell under the exit strategy.
- 212.** The new proposal encompasses a total of 60,095 terrestrial hectares, and 26,334 marine hectares, and includes 12 communes. The area contains a veritable mosaic of landscapes, and is carefully managed to fulfil all three biosphere reserve functions. The area is of importance to the conservation of biodiversity, and includes a number of important endemic, endangered species. It also offers a refuge to the Corsican Mouflon, the bearded vulture, the great dolphin and different species of rays.
- 213.** The Advisory Committee congratulated the authorities on concluding a new Charter with the commune residents in the area. The Advisory Committee commended the plan, which has been developed to promote sustainable agriculture, fisheries and forestry development, and to connect various entrepreneurs in the tourism and other economic sectors more closely to the management of the biosphere reserve through specific charters, promoted by eco-promoters. The Advisory Committee equally commended the authorities for enlisting the support of voluntary guards to monitor tourism in order to reduce negative impacts to the site. The Advisory Committee noted that the negotiations with all stakeholders had taken a substantial period of time, but were conducted in a thorough and truly participatory manner, and the results appear to be positive in terms of community support.
- 214.** The Advisory Committee commended the authorities for adjusting the zonation of the biosphere reserve, which conforms to the criteria in most areas. The Advisory Committee noted that a small part of the core area, close to Manso, borders directly on the transition area and requested a further explanation of this matter.
- 215.** The Advisory Committee requested that this additional information be submitted by 22 May 2020. The Advisory Committee considered that the site be **approved pending** the receipt and approval of the additional information.