

**UNITED NATIONS EDUCATIONAL, SCIENTIFIC AND CULTURAL ORGANIZATION**

**International Coordinating Council of the Man and the Biosphere (MAB) Programme**  
Twenty-seventh session

**UNESCO Headquarters, Paris, Room XII (Fontenoy Building)**  
8 – 12 June 2015

**ITEM 11 OF THE PROVISIONAL AGENDA: Periodic review of biosphere reserves and follow-up of recommendations**

1. The Secretariat received 41 reports, including 20 sites which never submitted periodic review reports (implementation of the Exit strategy) from 23 countries for examination this year as well as 30 follow-up of recommendation from 9 countries.
2. During its meeting held from 2 to 5 February 2015 in Paris, the Members of the Advisory Committee reviewed these 41 periodic review reports, including one joint transboundary periodic review report. The recommendations of the Advisory Committee on each of these sites are included in the Annex I of this document. These recommendations have been transmitted to the concerned countries for follow-up and any additional information provided will be examined by the MAB ICC Bureau.
3. The recommendations of the Advisory Committee as regards the follow-up recommendations are included in Annex II of this document. The Secretariat has also sent to the concerned countries the comments and additional information requested as regards the follow-up on recommendations. These recommendations have been transmitted to the concerned countries for follow-up and any additional information provided will be examined by the MAB ICC Bureau.
4. The MAB Council is invited to comment on the recommendations made by the Advisory Committee.

**ANNEX I****Periodic Review Reports considered by the International Advisory Committee for Biosphere Reserves during its 21<sup>th</sup> meeting held at UNESCO Headquarters, 2-5 February 2015**

Country	Name of the Site
AUSTRALIA	Mornington Peninsula and Western Port
BENIN	Pendjari
BURKINA FASO	Mare aux Hippopotames W Transboundary Biosphere Reserve (TBR)
CANADA	Charlevoix
CHINA	Yancheng
COSTA RICA	La Amistad
DOMINICAN REPUBLIC	Jaragua-Bahoruco-Enriquillo
FRANCE	Cévennes
GERMANY	Waddensea of Lower Saxony Wadden Sea and Hallig Islands of Schleswig-Holstein Waddensea of Hamburg
GUINEA	Badiar Haut Niger
GUINEA BISSAU	Bolama-Bijagos
HONDURAS	Rio Platano
IRELAND	Dublin Bay (former North Bull Island)
MONGOLIA	Hustain Nuruu
SENEGAL	Delta du Saloum Samba Dia
SLOVENIA	The Karst
SPAIN	Sierras de Cazorla, Segura y las Villas Grazalema Babia
SRI LANKA	Bundala
THAILAND	Mae Sa-Kog Ma Sakaerat
UKRAINE/ROMANIA	Danube Delta TBR (joint report)
UNITED STATES OF AMERICA	Cascade Head Everglades and Dry Tortugas H.J. Andrews Hubbard Brook Isle Royale Luquillo Experimental Forest Organ Pipe Cactus National Monument San Dimas Experimental Forest Three Sisters Virginia Coast Reserve
UZBEKISTAN	Chatkal
VIETNAM	Cat Ba Red River Delta

## ANNEX II

Follow-up considered by the International Advisory Committee for Biosphere Reserves during its 21<sup>th</sup> meeting held at UNESCO Headquarters, 2-5 February 2015

Country	Name of the Site
BELARUS	Berezinsky Belovezhskaya Pushcha
COLOMBIA	Ciénaga Grande de Santa Marta Cinturón Andino El Tuparro Sierra Nevada de Santa Marta
COTE D'IVOIRE	Taï
INDONESIA	Gunung Leuser Komodo Lore Lindu Siberut Tanjung Puting
IRAN	Arasbaran Arjan Parishan Geno Golestan Harra Kavir Miankaleh Touran Urmia
MADAGASCAR	Sahamalaza-Iles Radama Mananara Nord
MALI	Boucle du Baoulé
NIGER	Aïr Ténéré
RUSSIAN FEDERATION	Katunsky Visimskiy Commander Islands Nijegorodskoe Zavoļje Smolensk-Lakeland

### **Mornington Peninsula and Western Port Biosphere Reserve (Australia)**

The Advisory Committee welcomed the first periodic review report for the Mornington Peninsula and Western Port Biosphere Reserve which was designated in 2002. The Advisory Committee noted the minor changes in the zones of the biosphere reserve especially the delineation of a marine core area which is 4,450 ha. The area includes numerous biological communities over an extensive geographical area that is centered on a marine bay. The terrestrial component of the reserve consists of a peninsula separating Western Port and Port Phillip Bay, and the southern part of the catchment of Western Port; together with several islands within Western Port.

It is reported that since the designation of the reserve in 2002 there has been significant expansion of the urban growth boundary and those areas that were formerly farmland are now being developed into housing developments at a rapid rate. This rapid expansion is having an impact on the biodiversity of the region. This development has the potential to change the economic balance of the biosphere reserve thereby creating pressures on traditional agriculture activities with loss of arable land now being used for housing.

Human activities such as commercial fishing, livestock raising, land clearance and its impact on water quality, and the enormous demands on the marine environment make it vital to deal with the issue of sustainable use within the region. The Advisory Committee observed that the national authorities have not developed a comprehensive management plan of the biosphere reserve.

The Advisory Committee concluded that this biosphere reserve **meets** the criteria of the Statutory Framework of the World Network of Biosphere Reserve. It recommended that the national authorities develop a comprehensive management plan for the biosphere reserve in the near future.

### **Pendjari Biosphere Reserve (Benin)**

The Advisory Committee welcomed this second periodic review report of this biosphere reserve, designated in 1986. It commended the country for their effort to address recommendations formulated by MAB ICC in 1999. The involvement of the population and participative management of the site had been tremendously improved and a “*Comité de Développement*” has been established for co-management of the biosphere reserve. An efficient Access and Benefit Sharing scheme for hunting activities is a successful incentive to increase conservation awareness. The Advisory Committee welcomed the partnership with private sector which provides green job opportunities for local communities. In concordance with other sectoral local, national and regional development plans the current management plan (2004-2013) is under revision for 2015-2020. Since 2000, a clear regulation of agriculture, fishing and harvesting activities has been in place in the biosphere reserve territory. The encroachment on the protected areas has decreased which is a clear indication of the efficient integrated management of the site.

A new zonation has been designed based on broad stakeholder consultation and an updated map and management plan was elaborated in 2002. The zonation map was adopted by a presidential decree in 2005. The total area has slightly decreased to 476,596 ha with a decreased core area of 102,840.6 ha and increased buffer zone 373,756.1 ha. The limit of the transition area is not well defined; however the current location of development areas is defined by the villages adjacent to the buffer zone and the number of inhabitant is declared in the periodic review. The Advisory Committee concluded that though limit of the transition area is not clearly delineated, this does not affect the integration of the three functions.

The Advisory Committee considered that the site **meets** the criteria of the Statutory Framework of the World Network of Biosphere Reserves. The Advisory Committee requested the country to

provide a three colored zonation map clearly showing the core area, buffer zone and a delimited transition area by 30th September 2015. The authorities are also encouraged to submit a management plan when completed.

### **Mare aux Hippopotames Biosphere Reserve (Burkina Faso)**

The Advisory Committee welcomed this second periodic review report of the Mares aux Hippopotames Biosphere Reserve designated in 1987. It commended the authorities for the effort to address recommendations formulated by MAB ICC in 1997. In this regard, the Advisory Committee acknowledged the reinforcement of dedicated agents to the coordination and the management of the biosphere reserve; the involvement of local communities in the management plan design and the implementation of development activities targeting local population. It also noted the research activities and partnerships with universities.

The Advisory Committee noted that the map provided with the periodic review report does not show a transition area, which is in contradiction with the declared transition area of 28,000 ha in the nomination form.

The Advisory Committee also noted that the authorities used the periodic review form dedicated to transboundary biosphere reserves which focus on transboundary issues, despite the letter sent from the MAB Secretariat to alert the national authorities of this oversight. Therefore, most of the required information is missing preventing the Advisory Committee from being able to assess if the site meets the criteria of the Statutory Framework of the World Network of Biosphere Reserves.

The Advisory Committee therefore requested the country to submit their periodic review on the official form and all required annexes and supporting documents before 30 September 2015 for its review during the 2016 session. The Advisory Committee requested the country to provide extensive information on the zonation, logistic and development function and governance of the biosphere reserve.

### **W Biosphere Reserve (Burkina Faso, part of the W transboundary Biosphere Reserve with Benin and Niger)**

The Advisory Committee welcomed this first periodic review of Burkina Faso national part of W Transboundary Biosphere Reserve established in 2002 between Burkina, Benin and Niger. The Advisory Committee noted that the authorities used the periodic review form dedicated to transboundary biosphere reserves which focus on transboundary issues, despite the letter sent from the MAB Secretariat to alert the national authorities of this oversight. Therefore, most of the required and critical information at national level is missing preventing the Advisory Committee from being able to assess if the site meets the criteria of the Statutory Framework of the World Network of Biosphere Reserves. Furthermore, it is difficult to separate information on the transboundary and the national site.

The Advisory Committee requested the country to submit the periodic review of the national part of the transboundary biosphere reserve with the required annexes and supporting documents on the appropriate form by 30 September 2015 for its review during the 2016 session. The Advisory Committee requested the country to provide extensive information on conservation measures, improved development and logistic function and governance structure.

### Charlevoix Biosphere Reserve (Canada)

The Advisory Committee welcomed this second periodic review report for this biosphere reserve, designated in 1989. The biosphere reserve is located about 80 km east of Quebec City and borders Saint Lawrence River to the north. The Charlevoix Biosphere Reserve carries rich ecosystems such as agriculture areas, rivers, estuarine tidal marshes and flats, mountain tundra and coniferous and mixed forests, the latter covering 80% of the biosphere reserve. (The current area is made of 3 core areas with a total of 536 km<sup>2</sup>, a buffer zone of 3,575 km<sup>2</sup> and a transition area of 500 km<sup>2</sup>.) Main activities are services, industrial and commercial, agriculture. 30,000 inhabitants are living in this area with some 900,000 annual visitors.

The Advisory Committee noted that several conservation initiatives were initiated or supported by the Charlevoix Biosphere Reserve. It also noted that more activities are planned in the buffer zones and transition areas. Furthermore, efforts were made as regards streamlining sustainable development in various activities, especially recreational tourism, agriculture and forestry, but also in environmental education. It also noted with appreciation the efforts made over the last ten years to improve the governance by the *Corporation de la Réserve de biosphère de Charlevoix*.

The Advisory Committee noted that the periodic review report was done by two experts that issued more than 40 recommendations for the site to meet the criteria with specific timeline. It noted that one of the recommendations from the expert is to extend the site from 4,600 km<sup>2</sup> to 6,870 km<sup>2</sup>. It however noted with great concern the lack of funds and adequate staff to coordinate the biosphere reserve. It also noted that the zonation is not clear.

Based on the information in the report the Advisory Committee considered that the site **does not meet** the criteria of the Statutory Framework of the World Network of Biosphere Reserve. It however noted the high potential of the site to meet the criteria pending adequate funding and staff resources. The Advisory Committee requested the authorities to provide the Secretariat with a clear zonation map, and encouraged the Canadian MAB national committee to provide adequate support for the biosphere reserve to meet the recommendations and to document options for funding for the biosphere reserve from federal, provincial and private sources by 30 September 2015.

### Yancheng Biosphere Reserve (China)

The Advisory Committee welcomed the second periodic review report for this biosphere reserve which was designated in 1992. There are various types of ecosystems in the protection zone, such as the primary coast wetland ecosystem, estuarine ecosystem, marine ecosystems of off-shore waters as well as various artificial ecosystems. This area contains one-tenth of the total of China's coastal biodiversity.

The Advisory Committee noted the detailed findings of the on-site ten year review for the Yancheng Biosphere Reserve carried out by a team of experts organized by the Chinese National MAB Committee. This review process revealed the achievements in the last ten years in the biosphere reserve, and also the challenges. Based on this review report, the Advisory Committee concluded that this biosphere reserve **meets** the criteria of the Statutory Framework of the World Network of Biosphere Reserves and made the following recommendations to the national authorities:

- Cooperate with landowners inside and around the reserve.
- A scientific approach should be used for the economic development methods around the biosphere reserve.
- Establish a systematic local survey plan and monitoring method.
- Human activity inside the reserve needs to be strictly and scientifically monitored.
- Consider setting up an ecological compensation system.

- Establish an ecological products brand to promote the harmonious development of the reserve and communities.

The Advisory Committee also noted that the diversity of phytoplankton, zooplankton, benthic animals and fish in the marine waters is very high, and recommended that the national authorities consider adding marine coastal areas to the biosphere reserve.

### **La Amistad (Costa Rica)**

The Advisory Committee welcomed the second periodic review report on this biosphere reserve, designated in 1982. The biosphere reserve is located in the southern part of Costa Rica, which features high mountain ranges (the highest peak at 3,820 m) and 12 indigenous territories. It borders with two biosphere reserves: Cordillera Volcanica Central in the north and La Amistad (Panama) in the south. It also contains the La Amistad Transboundary World Heritage site and the La Amistad International Park.

During the periodic review process, the biosphere reserve readjusted the zonation system following the recommendations of the Advisory Committee with a strong participation from local communities and stakeholders. The biosphere reserve is developing bi-national activities with the La Amistad Biosphere Reserve in Panama. The biosphere reserve is part of the 12 conservation areas that divides the country. The two conservation area managers are in charge of the implementation of the biosphere reserve and they are working closely with the local communities for the approval of the new zonation system. Although the biosphere reserve does not have its own management plan, it implements the three functions of a biosphere reserve.

The Advisory Committee concluded that this site meets the criteria of the Statutory Framework of the World Network of Biosphere Reserves. However, the Advisory Committee recommended that the authorities of Costa Rica:

- Better define the management committee for the biosphere reserve, in line with their new zonation system.
- Define a management plan with clear objectives for the biosphere reserve by integrating the different management plans of each conservation area included in the biosphere reserve.
- Promote the creation of a transboundary biosphere reserve with Panama.

### **Jaragua-Bahoruco-Enriquillo Biosphere Reserve (Dominican Republic)**

The Advisory Committee welcomed the first periodic review of this biosphere reserve, designated in 2002. The biosphere reserve comprises three National Parks characterized by a high level of endemism among its flora and fauna.

A number of important activities have been carried out recently, including the development of a strategic management plan, which defines the functions and zonation of the biosphere reserve; the creation of a new Dominican Republic National MAB Committee; the establishment of the Caribbean Biological Corridor between Cuba, Haiti and Dominican Republic, which includes the biosphere reserve; the construction of a wind power plant in 2007 to promote sustainable energy production; the establishment of new wine industry in Neyba creating new jobs; and the creation of the Quisqueya Verde Plan, which promotes reforestation brigades. These activities and the support of the international cooperation agencies (Spanish Agency for International Development Cooperation (AECID), Spanish Autonomous Authority for National Parks (OAPN) and KfW Bankengruppe have helped to implement a range of activities promoting conservation and sustainable development.

The biosphere reserve played a key role in the aftermath of the earthquake that affected Haiti in 2010, as the main terrestrial humanitarian corridor traversed this biosphere reserve. Since 2008,

the endorheic lake Enriquillo has increased in its boundary and this is affecting surrounding communities. As a result, the Boca de Cachon community was evacuated due to flood risk. A similar situation occurred in the Haitian Azueire Lake and this issue is also impacting the neighbouring biosphere reserve, La Selle. The biosphere reserve has initiated discussions and activities to establish a transboundary biosphere reserve with the La Selle Biosphere Reserve in Haiti, which was nominated in 2012.

The Advisory Committee concluded that this biosphere reserve **meets** the criteria of the Statutory Framework of the World Network of Biosphere Reserves. The Advisory Committee strongly encouraged the national authorities to:

- Improve the zonation, by better defining the buffer zone as an area protecting the core area.
- Consider creating a transboundary biosphere reserve with Haiti.

### **Cévennes Biosphere Reserve (France)**

The Advisory Committee welcomed the second periodic review report for this biosphere reserve, designated in 1985. The biosphere reserve is located in the south of the Massif Central and carries a diversity of landscapes shaped by human activities, such as the limestone “causses”, the granite massifs of Aigoual and Mont Lozère and the schist Mountains of the Cévennes. These ecosystems constitute a variety of habitats including pine and fir forests, Mediterranean scrublands, cliffs, rivers and peat lands among others, hosting 70 species of mammals, 195 species of bird and amphibians inter alia. Main economic activities are agriculture and tourism.

The Advisory Committee noted that the total surface has increased (from 305,000 ha to 372,000 ha, with an increase of the core area (15,000 ha to 93,761 ha) and a decrease of the buffer zone (90,000 ha to 60,403 ha) and transition areas (200,000 ha to 114,271 ha) in order to implement a more effective management of the territory. The Advisory Committee also noted with appreciation the involvement of local population in the consultation and decision making processes. It welcomed that the participatory process provided a Charter for the biosphere reserve based on 8 themes, emphasizing the maintenance of natural and patrimonial resources, support to agro pastoral systems, sustainable valorization of the forests among others.

The Advisory Committee noted that substantive efforts were made to make the biosphere reserve more visible vis-à-vis the national park designation as well as the World Heritage status granted in 2009 notably by the use of the three logos in all communication support. It noted with appreciation the comprehensive consultation efforts, the adhesion of some local communes to support the biosphere reserve which translated into some territorial discontinuity in the zonation. It also noted the success of the Galeizon as an experimental commune that diffused good practices and support for the biosphere reserve. It also welcomed the twinning and cooperation with the Montseny Biosphere Reserve in Spain, in research, training and education activities.

The Advisory Committee however considered that the zonation **does not meet** the criteria of the Statutory Framework of the World Network of Biosphere Reserves because of the lack of support of some communes. The Advisory Committee encouraged the authorities to continue their dialogue with these communes as well as to implement the charter and management plan to secure their support and to ensure territorial consistency and continuity with the zonation. The Advisory Committee requested that report on progress made on consultations and consequent updating of the zonation be sent to the Secretariat by 30 September 2018 (as planned in the Charter and management plan).



### **General recommendation to the German MAB National Committee**

The Advisory Committee acknowledged that the three sites Waddensea of Lower Saxony, Wadden Sea and Hallig Islands of Schleswig-Holstein and Waddensea of Hamburg benefit from multiple designation status: biosphere reserves, UNESCO's Wadden Sea World Heritage Site, Wetland of International Importance under the Ramsar Convention, NATURA 2000 and others. It also noted that the three biosphere reserves management goals are also integrated into management plans on local, regional and international levels (Trilateral Wadden Sea Plan, Integrated Landscape and Cultural Heritage Management and Development Plan for the Wadden Sea Region).

The Advisory Committee acknowledged the development of the institutional cooperation among the three Wadden Sea Biosphere Reserves, the improvement of trilateral Wadden Sea cooperation and the revision of the Wadden Sea transnational plan.

The Advisory Committee noted that the German authorities do not recommend creating a unique Waddensea Biosphere Reserve and therefore requested further clarification on the rationale for this position.

### **Waddensea of Lower Saxony Biosphere Reserve (Germany)**

The Advisory Committee welcomed the second periodic review report for this biosphere reserve, designated in 1993. The Waddensea of Lower Saxony is one of the 3 German biosphere reserves located in the Wadden Sea, the largest unbroken intertidal sand and mud flats system in the world.

Along the Lower Saxonian coast and most parts of the East Friesian Islands, the biosphere reserve covers precious ecosystems such as salt meadows, salt marshes, dunes and beaches among others, shelters for more than 1,000 animal species and flora. This area plays an important role for the survival of bird species since twice a year, over one million migratory birds pass by, breeding and wintering. Ecological and socio-cultural monitoring is carried out, as well as projects promoting sustainable development, among them sustainable education, natural tourism and agriculture. Agriculture and renewable energy are the characteristic activities of the area, and form part of the traditional landscape.

The Advisory Committee commended the inclusion of regional stakeholders in the National Park Advisory Board as a legally defined stakeholder board for the biosphere reserve and the creation of the biosphere reserve department within the National Park services. The Advisory Committee encouraged the authorities to continue their efforts to develop sustainable tourism and joint education initiatives.

However, the Advisory Committee noted that without clear zonation map it was not possible to assess whether the biosphere reserve meets the criteria of the Statutory Framework of the World Network of Biosphere Reserves. Therefore, the Advisory Committee requested the authorities to provide a comprehensive zonation map with clear definition of the different zones and areas by 30 September 2015.

### **Wadden Sea and Hallig Islands of Schleswig-Holstein Biosphere Reserve (Germany)**

The Advisory Committee welcomed the second periodic review report for this biosphere reserve, designated in 1990 and extended in 2004. The Wadden Sea and Hallig Islands of Schleswig-Holstein is one of the three German biosphere reserves located in the Wadden Sea, the largest unbroken intertidal sand and mud flats system in the world. More specifically the biosphere reserve extends from the Danish border to the Elbe River estuary. Human activities are fishing,

tourism, research, education and agriculture.

The Advisory Committee noted with satisfaction that the authorities addressed through appropriate actions previous MAB ICC recommendations. It welcomed the extension of cooperation between various stakeholder groups e.g. the Hallig Biosphere Association, Island and Halligen Conference executive working group, Biosphere Council, national park boards of trustees and the Biosphere Reserve Administration. It also acknowledged that this intensive cooperation led to many successful projects such as the “Programme to Safeguard and Improve Income Sources for the Hallig Island Communities through Landscape Management and Agriculture, Coast Protection and Tourism”, “The Hallig Islands Program” and others. Moreover, inhabitants have been engaged since their adhesion to the principles for the strategy of sustainable development in 2010. The Hallig Island communities voted in 2011 to develop the Halligen as a carbon-neutral region.

The Advisory Committee recommended further improvement of zonation with close cooperation with the stakeholders by enlargement of transition areas as mentioned in the report. It also encouraged efforts to increase visibility of the biosphere reserve through a biosphere reserve branding and communication strategy, using EuroMAB and the WNBR experiences. However, the Advisory Committee concluded that without clear zonation map it was not possible to assess whether the biosphere reserve meets the criteria of the Statutory Framework of the World Network of Biosphere Reserves. Therefore, the Advisory Committee requested the authorities to provide a comprehensive zonation map with clear definition of the different zones by 30 September 2015.

### **Waddensea of Hamburg Biosphere Reserve (Germany)**

The Advisory Committee welcomed the second periodic review report for this biosphere reserve, designated in 1992. The Waddensea of Hamburg is one of the three German biosphere reserves located in the Wadden Sea, in the largest unbroken intertidal sand and mud flats system in the world. More specifically the reserve is located on the North Sea coast of Germany and is situated close to the mouth of the Elbe River. The area of the Waddensea of Hamburg Biosphere Reserve is classified as a National Park, a Ramsar site and an EU Special Protection Area for wild birds.

It contains estuarine systems such as sand and mudflats with channels, islands and salt marshes, habitat for diverse species of birds and fish but also for the well-known seal *Phoca vitulina*. However human activities, especially the pollution stemming from the Elbe River created negative impacts on the ecosystem. Tourism is the main economic activity. The Advisory Committee noted that it has been well-developed through the implementation of exhibitions, environmental and historical education. It also noted with satisfaction that issues related to expansion of tourism are addressed in a sustainable way by protecting cultural and natural landscape following the sustainable development/ renewable energy strategy for the island.

The Advisory Committee noted that the participatory process in the management of the site is being promoted through island talks and dike inspections, performed by the authorities, experts and local people. It recommended that the biosphere reserve is used as a model for addressing sustainable energy use and climate change in partnership with decision making authorities and stakeholders in the site. The Advisory Committee noted with concern that there is still no transition area in the site since its designation in 1992 but that a solution could be envisaged with the creation of a transition area in the adjacent Lower Saxony's Biosphere Reserve which would serve as a transition area for both sites.

However, the Advisory Committee concluded that with the information provided it was not possible to assess whether the biosphere reserve meets the criteria of the Statutory Framework of the World Network of Biosphere Reserves and requested that the authorities to provide information on the creation of a transition area with a clear zonation map as well as a copy of the

Strategy detailing further actions and projects for the comprehensive fulfilment of the development function by 30 September 2015.

### **General recommendation for Guinea**

The Advisory Committee welcomed this first periodic review report of the Haut Niger and the Badiar Biosphere Reserves both designated in 2002.

The Advisory Committee acknowledged the crisis both biosphere reserves went through after the termination in 2003 of the “*Appui à la gestion intégrée des ressources naturelle*” (AGIR) project which provided most resources to the biosphere reserve which impacted on the management of the biosphere reserves. It welcomed the information that the situation has improved since 2010 and that funds have been made available by the national authorities.

However, the Advisory Committee considered that the periodic review report lacks essential requested information; updated maps in particular the zonation maps, annexes and supporting documents are missing. Therefore, the Advisory Committee considered that the two sites **do not meet** the criteria of the Statutory Framework of the World Network of Biosphere Reserves.

The Advisory Committee encouraged the country to pursue the initiative of establishing a transboundary biosphere reserve Badiar-Niokolo-Koba with Senegal which would benefit mutually from a reinforced management of the sites.

### **Boloma Bijagos Biosphere Reserve (Guinea Bissau)**

The Advisory Committee welcomed the first periodic review of this site designated in 1996 and constituted by an archipelago of 84 islands, 21 of them inhabited. These islands are known for their strong cultural values.

The Advisory Committee commended the authorities for the extended information provided and for the outstanding overall improvement in the management of the biosphere reserve with regards to the three functions and the related integrated management of the site. It also congratulated the country for a good governance structure which is articulated from local to national level and involves all categories of stakeholders in particular traditional authorities. It welcomed the establishment of the Institute for Protected Area (IBAP in 2004) which oversees the management of the biosphere reserve at national level and of the endowment fund which will, inter alia, provide part of the sustainable financing of the biosphere reserve activities.

The Advisory Committee noted with satisfaction the legal protection of the core areas and that the third core area, established in 2005 was initiated by the local communities. The Environment House in Bubaque Island serves as a support for the logistic function by providing the space for trainings, exhibitions and meetings of various management committees, in particular the yearly general assembly of the biosphere reserve. The decisions of the general assembly have to be endorsed by a committee of Elders. Partnerships with international NGO's and research institutions are supporting conservation, development, scientific research and monitoring activities.

The Advisory Committee considered that the site **meets** the criteria of the Statutory Framework of the World Network of Biosphere Reserves. With regards to the increasing threats to the archipelago from global trades (fishing, offshore oil exploration, tourism and narcotics trafficking), the Advisory Committee strongly encouraged the country to strengthen the management of the entire archipelago. It also requested the authorities to provide a copy of the updated management plan which was recorded in the report but not attached to it.

### **Rio Platano Biosphere Reserve (Honduras)**

The Advisory Committee welcomed the first periodic review of this biosphere reserve, designated in 1979. The Rio Plantano Biosphere Reserve is located in the northern part of the country, and contains twenty-eight terrestrial and five marine-coastal ecosystems, grouped into three broad eco-regions. It includes tropical moist forest and tropical wet forest, as well as important coastal marine areas. The area was inscribed as a UNESCO Natural World Heritage site in 1982.

The biosphere reserve is also one of the most important protected areas of the Mesoamerican Biological Corridor. The cultural values of the biosphere reserve hold great importance for over 2,000 indigenous people preserving their traditional way of life. The number of inhabitants living in the core area is uncertain due to the presence of an illegal slum, which should be evicted in the coming months.

This biosphere reserve forms part of the pre-Seville strategy. Although activities are under development in the biosphere reserve, the management plans and zonation system do not reflect clearly the value of the three functions of a biosphere reserve. The Advisory Committee therefore concluded that this biosphere reserve **does not meet** the criteria of the Statutory Framework of the World Network of Biosphere Reserves. The Advisory Committee recommended that the national authorities:

- Provide a new zonation system in line with the objectives of the MAB Programme.
- Define clearly the management committee.
- Present a management plan for the biosphere reserve.

### **Dublin Bay Biosphere Reserve (former North Bull Island) (Ireland), extension and renaming**

The Advisory Committee welcomed this first periodic review report for this biosphere reserve, designated in 1981. The biosphere reserve is located in the Dublin Bay, the capital city of Ireland. It carries a richness of ecosystems such as well-developed salt-marshes, lagoons and dune systems and, designated as a Ramsar site, the biosphere reserve is also an important nesting and wintering area for bird species.

The Advisory Committee noted that the report proposed a change of name to Dublin Bay and that the total surface area will increase from 1,008 ha to 30,536 ha to encompass the ecosystem of the Bay. More specifically, it noted that the changes concern the core areas: 5,029 ha (formerly 80 ha), the buffer zones: 8,241.05 ha (formerly 186 ha) and the transition areas: 17,266.36 ha (formerly 742 ha). The Advisory Committee acknowledged the ambitious proposed enlargement of the site.

The Advisory Committee noted that the North Bull Island promotes educational and recreational values, receives multiple visitors and schools through a national programme called “green schools”. The Advisory Committee welcomed the establishment of the Dublin Bay Biosphere Partnership, made of five institutions: the Dublin Port, the Dublin City Council, the Department of Arts, Heritage and the Gaeltacht (which includes the National Park Wildlife Services), the Dun Laoghaire Rathdown Country Council and the Fingal Country Council. The Dublin Bay Biosphere Partnership will formulate a Biosphere Strategy and facilitate, promote and support the biosphere programmes and activities in a democratic, inclusive and accessible way in order to integrate local communities.

The Advisory Committee commended the authorities for preparing this periodic review through partnership development with inclusion of regional stakeholders. The Advisory Committee encouraged the authorities to pursue efforts to develop a sustainable green city and environmental awareness raising of the Dublin citizens. The Advisory Committee commended the new zonation which includes both terrestrial and marine core areas.

The Advisory Committee welcomed positively the change of name and considered that the proposed enlargement of the site **meets** the criteria of the Statutory Framework of the World Network of Biosphere Reserves. The Advisory Committee thus recommended that this extension and the new name be approved. The Advisory Committee further suggested that the authorities promote socio-ecological research activities within the biosphere reserve, especially regarding the tourism industry, urbanization and Dublin Port Activities.

### **Hustain Nuruu Biosphere Reserve (Mongolia)**

The Advisory Committee welcomed the first periodic review report for this biosphere reserve which was designated in 2002. The Advisory Committee noted that the report covered activities that have been implemented from 2004-2013. It noted the high conservation value of this biosphere reserve and commended the authorities for the numerous activities and actions that have been undertaken to ensure the conservation function of this site.

The Advisory Committee also commended the national authorities for the extensive consultations and collaborations with various stakeholders. The Advisory Committee noted from the information provided that this biosphere reserve fulfils very well its sustainable development functions. The Advisory Committee also noted from the submitted report that this site is implementing the three major functions of a biosphere reserve (Conservation, Sustainable Development and Logistic functions). However, the Advisory Committee observed that there was no zonation maps included in the periodic review report and even though a management plan was reported to be in existence it was also not included in the report.

The Advisory Committee concluded that without clear zonation maps it was not possible to assess whether the site meets the criteria of the Statutory Framework of the World Network of Biosphere Reserves. The national authorities are therefore requested to submit a zonation map clearly showing the core area, buffer zone and transition area and also to submit a new report using the official periodic review forms available at the MAB website in order to ensure standardization. The national authorities are requested to submit the above documents to the MAB Secretariat by 30 September 2015 in order to assess whether this biosphere reserve meets the criteria.

### **Delta du Saloum Biosphere Reserve (Senegal)**

The Advisory committee welcomed this well prepared second periodic review report of this biosphere reserve designated in 1981. The area has outstanding natural, cultural and socio economic features and has been inscribed on the World heritage list and designated as a Ramsar site.

The Advisory Committee commended the improvement of the management of the biosphere reserve with regards to the zonation, management plan and involvement of local communities since the last report in 1999. The establishment of new Marine Protected Areas and Community Natural Reserves in addition to the existing Delta du Saloum National Park increased the conservation function of the biosphere reserve. A new zonation has been subsequently set up and a management plan has been developed. A strong momentum has been gained through the involvement of stakeholders for the management of the biosphere reserve. Local charters and agreements are regulating access and use of natural resources.

Development function with green jobs and sustainable activities has been developed along the years such as agriculture, market gardening, fishing and crafts making. Tourism has become an increasing source of income for the population. Environmental education programmes are implemented. Research and monitoring have been undertaken with the support of universities

and research institutions in various areas of natural and social sciences. All these activities listed above are implemented in an integrated manner which supports the sustainable development of the area. The Advisory Committee considered that the site **meets** the criteria of the Statutory Framework of the World Network of the Biosphere Reserves.

The Advisory Committee requested the country to provide, by 30 September 2015, the management plan which is mentioned in the report and a map with a topographic layer so terrestrial, coastal and marine parts of the biosphere reserves can be distinguished. The Advisory Committee strongly encouraged the country to pursue the Niimi-Saloum transboundary biosphere reserve initiative with Gambia.

### **Samba Dia Biosphere Reserve (Senegal)**

The Advisory Committee welcomed the submission of this well prepared second periodic review of this biosphere reserve designated in 1979 and commended the country for the efforts to address recommendations formulated by the MAB ICC in 1999 and also for the participative process of this report.

The Advisory Committee noted with satisfaction that a number of research activities have been carried out which have contributed to improve the management of the biosphere reserve. Agriculture, livestock production, agroforestry and craft are the main human activities. It is reported that the Palm tree (*Borassus akeassii*) population has increased, which is an evidence of the efficient management of the area. However, the use of its leaves for furniture may impact this good result. The rehabilitation project of the Samba Dia Biosphere Reserve provided necessary resources to improve the three functions of the biosphere reserve. Participation of communities is the common approach for the management of the area. A number of community based organizations are now active in the area.

Despite these good results, the Advisory Committee noted that the zonation of the biosphere reserve is not complete as the buffer zone and transition area are missing. Therefore, the Advisory Committee concluded that this site **does not meet** the criteria of the Statutory Framework of the World Network of Biosphere Reserves.

The Advisory Committee requested the authorities to delineate a buffer zone and transition area for this biosphere reserve and to submit an updated zonation map together with a management plan to the MAB Secretariat by 30 September 2015.

### **The Karst Biosphere Reserve (Slovenia)**

The Advisory Committee welcomed this first periodic review report for this biosphere reserve, designated in 2004. The biosphere reserve is located in the south-eastern Slovenia and encompasses the Škocjan Caves Regional Park, the proper cave system of the Škocjan Caves, the Reka River and a classical karst region, subject of geomorphological processes. The diversity of landscapes offers shelter to rare and endangered species of birds and bats, to grey wolves, lynx, and brown bears, as well as manifold flora species.

The Advisory Committee took note that the site is managed by a Regional Park administration in close cooperation with stakeholders, directly involved in permanent committees. It welcomed this management approach as an insurance of stakeholder participation which could serve as model for other biosphere reserves. It also welcomed the various projects targeted towards biodiversity conservation, sustainable development and emerging promotion of local products as well as training of biosphere reserve ambassadors as MAB Programme promoters. The Advisory Committee also acknowledged the intensive networking in educational projects at various levels.

The Advisory Committee noted the success of the international Comenius project “To Do It” focused on sustainable development promotion and education, as well as the establishment of Promotion and Congress Centre with a library with unique focus on UNESCO programmes and activities, as well as projects of International network of schools, which may be shared with other biosphere reserves. The Advisory Committee acknowledged the multiple designation status of the biosphere reserve (Natura 2000, World Heritage Site, and Ramsar) and its active participation in the respective networks.

The Advisory Committee considered that the site meets the criteria of the Statutory Framework of the World Network of Biosphere Reserves. The Advisory Committee encouraged the authorities to consider the possibilities to extend the biosphere reserve to surrounding municipalities in the North, East and South in order to further strengthen sustainable development activities in the future. The Advisory Committee commended the authorities for the very well-prepared periodic report. The Advisory Committee recommended that The Karst Biosphere Reserve be used as a model for cooperation and networking in the field of sustainable development education.

### **Sierras de Cazorla, Segura y Las Villas (Spain)**

The Advisory Committee welcomed this third periodic review report on this biosphere reserve, designated in 1983. The national authorities took into consideration the previous recommendations made by the MAB ICC.

A new zonation has been proposed including the totality of the Natural Park Sierras de Cazorla, Segura and Las Villas. An updated map including the new zonation proposal has been developed. Lastly, the biosphere reserve has developed a management plan and is currently awaiting its approval. The biosphere reserve has experienced positive socio-economic development, especially in activities that leverage the resources of the biosphere reserve: agriculture, livestock, forestry and tourism.

Tourism, a key sector in the economy of the biosphere reserve, has been strengthened through the implementation of sustainable quality criteria issued by the European Charter for Sustainable Tourism, Natural Park Brand, Integrated Quality System Tourist Destination, Q of quality, ISO 14001 and ISO 9001. The biosphere reserve has strengthened and rehabilitated certain areas, especially priority habitats and those with species of community interest, such as *Gypaetus barbatus* previously thought to have disappeared.

The population of the biosphere reserve has been involved in its sustainable management through forums, the creation of an environmental volunteers’ network and environmental education programmes. The Advisory Committee concluded that this site meets the criteria of the Statutory Framework of the World Network of Biosphere Reserves.

### **Grazalema Biosphere Reserve (Spain)**

The Advisory Committee welcomed the second periodic review report for this biosphere reserve which was designated in 1977. To promote better links with the Parque Natural Sierra de Grazalema Natural Park, which borders the biosphere reserve, and to help facilitate identification of the biosphere reserve area, a request has been made to rename this biosphere reserve as the Biosphere Reserve Sierra de Grazalema.

In 2004, the biosphere reserve joined the European Charter of Sustainable Tourism. Since this time the biosphere reserve has begun to develop a participative action plan with other local actors, with the objective of encouraging and enabling environmentally friendly tourism practices, including: ecological farming and the sustainable use of natural resources, the creation of a high-

quality cheese label, and the sustainable use of cork. Today, tourism is one of the main economic drivers of the biosphere reserve. In 2006, the Natural Resources Management Plan and the Master Plan for Use and Management were approved. These define the objectives, guidelines and regulations for proper management of the biosphere reserve. The Sustainable Development Plan, which focuses on the development of a series of sustainability programmes, was also approved.

In 2012, the Royal Decree-Law 17/2012 of 4 May established a series of urgent environmental measures. It indicated that, in the event that different protection categories overlap, their regulatory measurements and planning mechanisms must be coordinated and unified to ensure consistency. The Grazalema Biosphere Reserve is currently working on this issue as the following different protection categories currently overlap in its area: Sierra de Grazalema Natural Park, Special Bird Protection Area and Special Conservation Area. The biosphere reserve forms part of the Intercontinental Transboundary Biosphere Reserve of the Mediterranean (Spain and Morocco), which promotes knowledge exchange and cooperation. It also collaborates with the Andalusia Network of Biosphere Reserves and the Spanish Network of Biosphere Reserves.

The authorities have taken into consideration the previous recommendation made by the ICC in 2004. The zonation system is well defined and fulfils the three functions of a biosphere reserve. The Advisory Committee therefore concluded that this site **meets** the criteria of the Statutory Framework of the World Network of Biosphere Reserves and recommended that the new name be approved.

### **Babia Biosphere Reserve (Spain)**

The Advisory Committee welcomed the first periodic review report of the Babia Biosphere Reserve, designated in 2004. The biosphere reserve is located in the northwest of the province of Leon and has large valleys and meadows rich in flora and fauna. The Babia Biosphere Reserve is surrounded by several other biosphere reserves (Somiedo, Las Ubiñas-La Mesa, Valles de Omaña y Luna and Valle de Laciana), which form part of the Cantabrian mountain chain.

In 2009, the Management and Administration Consortium of the Babia Biosphere Reserve was created to meet the guidelines and objectives of the Seville Strategy and the Madrid Action Plan. The consortium is composed of different stakeholders, including municipal authorities, universities, associations and entrepreneurs, and develops projects that advance the sustainable management and economy of this mountain area. Since then, the biosphere reserve has worked actively to promote its functions and cultural values. In particular, the work of the biosphere reserve to promote cultural practices related to livestock rearing, which prevent wildfires and diminish the rural exodus, should be noted in this regard. The Babia Management Plan 2012–2020, which entered into force in 2013, consists of an Action Plan and a Participation Plan. Some strategic objectives have been shelved temporarily because of funding restrictions as a result of the economic crisis in the territory.

Recent discussions have centered around a new zonation proposal based on flora, fauna, geology and landscape studies undertaken by different organizations, including the University of León. This new proposal would allocate specific land uses to the core area, buffer zones and transition areas, from among the following categories: reserve use, limited use, compatible use and general use. The Advisory Committee encouraged analysis of this approach with a view to redefining the zonation of the biosphere reserve. The Advisory Committee concluded that this site **does not meet** the criteria of the Statutory Framework of the World Network of Biosphere Reserves due to its current zonation.



### **Bundala Biosphere Reserve (Sri Lanka)**

The Advisory Committee welcomed the first periodic review report of this biosphere reserve which was designated in 2005. The Advisory Committee acknowledged the submission of a management plan and an operational plan of the Bundala National Park, which covers all the core area, and parts of buffer zone and transition area.

The Advisory Committee noted the proposed changes in the zonation of the biosphere reserve, which will exclude one lagoon (a saltern) from the core area. A highly developed area has been excluded from the buffer zone and some parts of the transition area. The total area has thus reduced from 24,838 ha to 18,242.3 ha. The Advisory Committee also noted that this biosphere reserve has a management committee composed of diverse stakeholders. The biosphere reserve has been very active with respect to the three biosphere reserve functions.

The Advisory Committee concluded that this site **meets** the criteria of the Statutory Framework of the World Network of Biosphere Reserves. The Advisory Committee noted that the marine transition area is very narrow, and encouraged the national authorities to consider expanding this area.

### **Mae Sa-Kog Ma Biosphere Reserve (Thailand)**

The Advisory Committee welcomed this second periodic review report for the Mae Sa-Kog Ma Biosphere Reserve which was designated in 1977. The Advisory Committee noted that the total size of the biosphere reserve has increased from 42,064 ha to 51,051 ha. The core area has increased from 11,446 ha to 29,411 ha whereas the buffer zone has decreased from 30,618 ha to 10,213 ha. An area of 11,436 ha has been added to the transition area.

The biosphere reserve consists of various forest types and has high biodiversity, for example, Hill Evergreen Forest contains 112 plant species; Mixed Deciduous Forest contains 76 plant species; Dry Dipterocarp Forest contains 69 plant species; and Riparian area contains 87 plant species. There is a Watershed Research Station under the Faculty of Forestry, Kasetsart University located in the biosphere reserve which conducts various researches in the field of watershed science, forest structure and ecology of the area.

The Advisory Committee concluded that the zonation of this biosphere reserve does not conform to the zonation criteria for biosphere reserves and thus the biosphere reserve **does not meet** the criteria of the Statutory Framework of the World Network of Biosphere Reserves. The authorities are therefore requested to revise the zonation of this site according to the Statutory Framework criteria and to provide maps showing the new zonation to the MAB Secretariat by 30 September 2015. The national authorities are also requested to provide the maps of the three national parks and indicate their position in the zonation map.

### **Sakaerat Biosphere Reserve (Thailand)**

The Advisory Committee welcomed the second periodic review report for the Sakaerat Biosphere Reserve which was designated in 1977. This biosphere reserve is situated on the edge of Thailand Khorat Plateau about 300 km north-east of Bangkok. It was created around the Sakaerat Environmental Research Station (SERS), which was established in 1967 primarily as a site for research on dry evergreen and dry dipterocarp tropical forest. Other vegetation types in the biosphere reserve include bamboo forests, forest plantations and grasslands.

About 5,300 people live within the biosphere reserves who are almost all Thai Buddhists. They make their living from crop plantations and growing paddy rice but also illegally use the forest for plant and mushroom gathering, hunting, and tree cutting. This had a detrimental effect on the

forest but has been greatly reduced by community education and outreach programmes introduced since 2003.

The Advisory Committee noted that the local economy has changed significantly from small family farms, to larger more cooperative rice paddy fields, cassava plantations, and sugar cane fields. The cooperatively owned fields are typically managed cooperatively by local landowners. The fields are positioned within the transition zone and are the primary source of income for most inhabitants of the biosphere reserve. Sakaerat Environmental Research Station (SERS) is responsible for the management and protection of the core area and buffer zone under the auspices of the Thailand Institute of Scientific and Technological Research (TISTR).

The Advisory Committee acknowledged the reception of the zonation map which clearly shows the core area, buffer zone and transition area. The Advisory Committee concluded that this site **meets** the criteria of the Statutory Framework of the World Network of Biosphere Reserves and recommended that the national authorities develop a more comprehensive management plan for the biosphere reserve.

### **Danube Delta Transboundary Biosphere Reserve (Romania/Ukraine)**

The Advisory Committee welcomed this first joint periodic review report for this biosphere reserve, designated in 1998 (a national periodic review report was submitted in 2003 by Romania and in 2010 by Ukraine). The transboundary biosphere reserve contains multiples lakes, channels, islands within the Danube Delta, the largest European wetland, declared as both Natural World Heritage and Ramsar site in 1991 and well-known for its diversity of bird and fish species (312 species of birds and 90 species of fish), as well as threatened monk seal. Main economic activities are agriculture, hunting, fishing and tourism, but both countries are in economic transition.

The Advisory Committee noted that there have been numerous international projects in place which resulted in exchange of knowledge, scientific data, education, sustainable tourism activities promotion, green energy use in each biosphere reserve. It also noted with satisfaction the good practice exchange with the renaturalization of the Yermakov Island in Ukraine as well as the international cooperation through project on managing biodiversity and sustainable development in the protected areas between Romania, Ukraine and Moldova. It also noted with appreciation that these three countries elaborated joint statement on adaptation to climate change in the region which was signed in 2013 by representatives of the government, academic and public organizations.

The Advisory Committee noted that there is no information on the existence of a joint management structure that would coordinate joint activities and projects for the benefits of local communities and managers.

The Advisory Committee concluded that the site is **not addressing the Pamplona recommendations** for transboundary biosphere reserves and requested the submission of the following information:

- A joint zonation map of the transboundary biosphere reserve and joint description of the different zones using the same methodology and statutory framework terminology for both sites;
- To provide clarification of new established zones in Romania Ceplace Island and Prundu cu Păsări Islands and changes in zonation in the Ukraine part of the Transboundary site;
- To establish a joint management body for the transboundary site taking into account the local conditions;

- To provide a joint working plan with specified objectives, milestones and vision for the transboundary biosphere reserve, especially as regards scientific projects and sustainable development activities and implementation of the results in practice;
- To document processes of involvement of individual sites and stakeholders in the periodic review preparation;
- To increase the visibility of the transboundary site in the various projects being implemented and planned;
- To initiate cooperation with other transboundary biosphere reserves from the WNBR.

### **Cascade Head Biosphere Reserve (United States of America)**

The Advisory Committee welcomed this first periodic review report for this biosphere reserve, designated in 1976. The biosphere reserve is located on the central Oregon Coast of Cascade Head Experimental Forest, established in 1934 to represent typical Sitka spruce-western hemlock forests. Moreover, this area carries more than 350 species of wildlife and four federally listed endangered species such as spotted owl and Oregon silver spot butterfly among others. Furthermore, agriculture and forest activities are the main economic activities. Environmental education and training programmes are conducted by the Sitka Center for Art and Humanity, and various institutions conduct research or monitoring in the biosphere reserve such as the US Forest Service or the Oregon State University, involving this way multiple stakeholders. The area has served for more than 25 years as the end point for the Oregon Transect, a study area that runs from the Pacific Coast east to the desert, crossing numerous environmental gradients and ecosystems. Long-term data are used extensively for modeling.

The Advisory Committee noted that the focus is mainly scientific research and monitoring with strong conservation and logistic aspects, but that the development function of the biosphere reserve is limited.

Based on the above information, the Advisory Committee considered that this site **does not meet** the criteria of the Statutory Framework of the World Network of Biosphere Reserves. The Advisory Committee recommended that the authorities provide the MAB Secretariat with the following information by 30 September 2015:

- A new periodic review report using the official periodic review form;
- Land use maps and a zonation map with a clearly defined core area, buffer zone and transition area.

### **Everglades and Dry Tortugas Biosphere Reserve (United States of America)**

The Advisory Committee welcomed this first periodic review report for this biosphere reserve, designated in 1976. The biosphere reserve includes 2 different National Parks located in Florida Everglades National Park and the Dry Tortugas National Park. The Everglades National Park is the largest subtropical wilderness and most threatened U.S. national park located east of the Rocky Mountains, inscribed as a World Heritage Site and designated as a Wetland of International Importance. The Dry Tortugas National Park, located in the west of Key West, is composed of seven islands surrounded by many coral reef and sea grass formations, accessible only by boat or seaplane and known for its myriad bird and marine life as well as its shipwrecks, its legends of pirates, its military past and the Fort Jefferson.

The biosphere reserve combines unique ecosystems and high culture value. The sites contribute in particular to excellent conservation and research activities with cooperation of several state and federal agencies, universities and organizations. Both national parks provide outstanding work with public especially on the issues of nature conservation, education and outreach.

The Advisory Committee noted that the focus is dominated by the national park objectives, with strong and excellent conservation and logistic aspects, but that the development function of the biosphere reserve is not very clear. Based on the above information, the Advisory Committee considered that this site **does not meet** the criteria of the Statutory Framework of the World Network of Biosphere Reserves. The Advisory Committee required that the authorities provide the MAB Secretariat with the following information by 30 September 2015:

- Updated periodic review report using the official form;
- A zonation map showing a clearly defined core area, buffer zone and transition area;
- Consider the possibilities of extending the site in the upstream region to better secure the conservation values through sustainable development opportunities.

#### **H.J. Andrews Biosphere Reserve (United States of America)**

The Advisory Committee welcomed this first periodic review report for this biosphere reserve, designated in 1976. The biosphere reserve is located in the western Oregon's Cascade Range, in the drainage basin of Lookout Creek, a tributary of the Blue River and the McKenzie River. In the mountainous landscape of the Pacific Northwest, its conifer forests are among the tallest, oldest (450 years old) and most productive in the world. This ecosystem provides a wide range of habitats for more than 4,000 species of invertebrates.

The biosphere reserve contributes to research activities of many institutions through USDA Forest Service's Pacific Northwest Research Station, Oregon State University and the Willamette National Forest. The site is part of the Long-term Ecological Research Network, providing data and information for basic and applied research involving ecosystem functions, vegetation succession, nutrient dynamics and forest-stream interactions, studies of large wood and carbon cycling. It serves as a science benchmark for multiple themes and provides a foundation for regional studies.

The Advisory Committee noted that the main focus was on scientific research and monitoring, with strong conservation and logistic aspects, but that the development function of the biosphere reserve is not very clear.

Based on the above information, the Advisory Committee considered that this site **does not meet** the criteria of the Statutory Framework of the World Network of Biosphere Reserves.

The Advisory Committee required that the authorities provide the MAB Secretariat with the following information by 30 September 2015:

- Updated periodic review report using the official form;
- A zonation map showing a clearly defined core area, buffer zone and transition area.

#### **Hubbard Brook Biosphere Reserve (United States of America)**

The Advisory Committee welcomed this first periodic review report for this biosphere reserve, designated in 1976. The biosphere reserve is located in the White Mountain National Forest near Woodstock, in New Hampshire. The entire area is forested, chiefly with deciduous northern hardwoods, and the reserve is dedicated to long-term study of forest and its associated aquatic ecosystems. This ecosystem provides a wide range of habitats, from canopy to soil to stream for various species. Ecological studies and research programmes, emphasizing small watershed hydrology and biogeochemistry as well as the influences of natural and anthropogenic disturbances, are very active, conducted by the USDA Forest Service and a world-wide network of partners and cooperators.

The Advisory Committee noted that fundamental forest ecology research is in place, and that it represents an important source for best management practice for north-eastern North America. It also noted that the site is managed by the Northern Research Station of US Department of Agriculture Forest Service and Station scientists.

Based on the above information, the Advisory Committee considered that this site **does not meet** the criteria of the Statutory Framework of the World Network of Biosphere Reserves. The Advisory Committee required that the authorities provide the MAB Secretariat with the following information by 30 September 2015:

- Updated periodic review report using the official form;
- A zonation map showing a clearly defined core area, buffer zone and transition area.

### **Isle Royale Biosphere Reserve (United States of America)**

The Advisory Committee welcomed this first periodic review report for this biosphere reserve, designated in 1980. The biosphere reserve is an island, located in the north-west corner of Lake Superior in the State of Michigan. Thus, the Park is accessible only by boat or seaplane, and well-known for its immigrant wolves and moose. It is a refuge for western and arctic plant species and it's almost entirely designated as wilderness. The area is well protected as National Park and wilderness reserve. The Advisory Committee noted that The National Park cooperates with universities in research studies of large mammals, ungulate browsing, watershed monitoring, island biogeography and island genetic.

The Advisory Committee noted that there are no people living in the site. The site is one of most visited wild areas in the USA. The Advisory Committee also noted that education programmes were implemented by several institutions such as the Interpretation division of Isle Royal National Park, Isle Royal and Keweenaw Parks Association and Isle Royale Institute.

Based on the above information, the Advisory Committee considered that this site **does not meet** the criteria of the Statutory Framework of the World Network of Biosphere Reserves. The Advisory Committee required that the authorities provide the MAB Secretariat with the following information by 30 September 2015:

- Updated periodic review report using the official form;
- A zonation map showing a clearly defined core area, buffer zone and transition area.

### **Luquillo Experimental Forest Biosphere Reserve (United States of America)**

The Advisory Committee welcomed the periodic review report for the Luquillo Experimental Forest Biosphere Reserve. Designated in 1976, the Luquillo Experimental Forest Biosphere Reserve is situated in North-East Puerto Rico in the Luquillo Mountains as part of the Luquillo Experimental Forest (LEF). The area is also known under the designation El Yunque National Forest (EYNF). The LEF participates in the Long-Term Ecological Research (LTER) programme and the EYNF constitute the only tropical rain forest in the U.S. National Forest System.

From the above follows that the biosphere reserve fulfils critically important biodiversity conservation, monitoring and research functions of high value, evidenced by a rich list of scientific publications, university partnerships, and the active participation in numerous international environmental programmes, including the UNESCO-IHP coordinated 'Hydrology for the Environment, Life and Policy Programme' (HELP). The biosphere reserve is also actively engaged in education, training and public awareness initiatives. The biosphere reserve is also contributing to development benefits

However, due to the biosphere reserve's zonation, its focus on development aspects is limited. The Advisory Committee considered therefore that the Luquillo Experimental Forest Biosphere Reserve **does not meet** the criteria of the Statutory Framework of the World Network of Biosphere Reserves. Consequently, the Advisory Committee recommended that the authorities be invited 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.
- The authorities are also requested to submit a revised zonation map and an updated periodic review report using the official periodic review form by 30 September 2015.

### **Organ Pipe Cactus National Monument Biosphere Reserve (United States of America)**

The Advisory Committee welcomed the periodic review report for the Organ Pipe Cactus National Monument Biosphere Reserve. Designated in 1976, the Organ Pipe Cactus National Monument Biosphere Reserve is situated in the extreme southern Arizona at the border with Mexico. As its name suggests, the reserve is renowned for its organ pipe cactus, rarely found in other parts of the US. The site is home to a very rich flora, including many other cacti species, and fauna of the Sonoran Desert. Several of which are rare and/or endangered, like the Sonoran Pronghorn. Biodiversity is monitored by the park's Ecological Monitoring Program and the Sonoran Desert Network. The National Park Service is the key institution for conducting monitoring and research activities (biodiversity, climate, hydrology, social science on border and interdiction activities) that also involve several academic intuitions, including Arizona State University.

However, due to the biosphere reserve's zonation, its focus on development aspects is limited. The Advisory Committee considered that the Organ Pipe Cactus National Monument Biosphere Reserve **does not meet** the criteria of the Statutory Framework of the World Network of Biosphere Reserves. Consequently, the Advisory Committee recommended that the authorities be invited 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.
- The authorities are also requested to submit a revised zonation map and an updated periodic review report using the official periodic review form by 30 September 2015.

### **San Dimas Experimental Forest Biosphere Reserve (United States of America)**

The Advisory Committee welcomed the first periodic review report for this biosphere reserve which was designated in 1976. The Advisory Committee noted that the biosphere reserve is managed by the US Department of Agriculture Forest Service and under the current management regime opportunities to demonstrate sustainable development with the involvement of local communities is excluded.

The periodic report indicated that this site was established for research purposes hence, the site is used for education field tours for students from local universities and also some university students carry out their field studies in this area. The Advisory Committee commended the national authorities for the strong research and conservation functions of this biosphere reserve. However, as has been indicated in the periodic review report its focus on development aspects is limited. The Advisory Committee considered that the San Dimas Experimental Forest Biosphere Reserve **does not meet** the criteria of the Statutory Framework of the World Network of Biosphere Reserves. Consequently, the Committee recommended that the authorities be invited 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.
- The authorities are also requested to submit a revised zonation map and an updated periodic review report using the official periodic review form by 30 September 2015.

### **Three Sisters Biosphere Reserve (United States of America)**

The Advisory Committee welcomed the first periodic review report of this site designated in 1976. It is located in an undisturbed landscape of the central Cascade Range (Oregon), with a size of 97,356 ha and managed by the US Forest service. The site is named after three renowned volcanoes with glaciers that have been observed to be changing over time.

The Committee acknowledged the importance of the site as a national wilderness area and forest ecosystem protected by law passed by US congress which supports the conservation of rich coniferous forest lying between 1,500 and 2,000 meters above sea level and ornamental plants including some which are considered as sensitive species. The site is a haven for several threatened, rare and endangered wildlife species of birds (owls, cranes, etc.) and is still the home of some Native American tribes.

The Advisory Committee commended the current collaboration with H.J Andrews Biosphere Reserve, the US Environmental Protection Agency and with the local communities, who participate in management and monitoring. The Advisory Committee appreciated the extensive use of the site for research and publications, particularly in the monitoring of invasive weeds, climate change and water of the superficial water bodies, as well as the organization of youth camps for colleges and education of the general public. It acknowledged the use of the reserve for rural tourism by the neighbouring communities (McKenzie Bridge, Blue River and McKenzie River Valley).

The Advisory Committee however noted the absence of information on the activities in the transition area, on the characteristic zonation or other maps to support the periodic review report and the limited tourism activity. The Advisory Committee considered that the site **does not meet** the criteria of the Statutory Framework of the World Network of Biosphere Reserves. The Advisory Committee recommended that the authorities be requested to submit to the MAB Secretariat by 30 September 2015:

- a zonation map clearly showing the core area, buffer zone and transition area;
- land use maps;
- a management plan for the area.

### **Virginia Coast Reserve Biosphere Reserve (United States of America)**

The Advisory Committee welcomed the first periodic review report for this biosphere reserve which was designated in 1979. The Advisory Committee noted with appreciation the immense contribution of this site to biodiversity conservation and the targeted effort of the management authority of the site to restore the population of the bay scallops. It also acknowledged the capacity development activities for the local watermen and the economic activities that are thriving in the biosphere reserve.

The logistics and educational functions of this biosphere reserve are well outlined and researches carried out by various universities and other research institutions have been cited in the report. The Advisory Committee observed that this site performs the various functions of a biosphere reserve as has been indicated in the report. However it noted with concern that the report was not done using the official periodic review forms and zonation maps were not submitted.

To ensure standardization and to enable the Advisory Committee assess whether this site meets the criteria of the Statutory Framework of the World Network of Biosphere Reserves, the national authorities are requested to submit to the MAB Secretariat by 30 September 2015:

- a zonation map clearly showing the core area, buffer zone and transition area;
- a new periodic review report using the official periodic review forms.

### **Chaktal Biosphere Reserve (Uzbekistan)**

The Advisory Committee welcomed the second periodic review report for this biosphere reserve which was designated in 1978. The Advisory Committee noted that this biosphere reserve has very high conservation values and its conservation functions are well performed. There are about 300 plant species mainly woody plants. Some of these plants are of medicinal and commercial value.

The Advisory Committee noted that this biosphere reserve has a core area and a buffer zone but no transition area. It acknowledged that the site is extensively used for research purposes. A total of 800 publications on the flora and fauna of the biosphere reserve is reported. Human intervention is almost non-existence and prohibited by law. It also noted that human activity in the buffer zone is highly restricted and that even with regard to tourism only few local tourists are admitted into the area.

The national authorities have indicated in the report that the biosphere reserve cannot serve adequately the three functions. According to the legislation of Uzbekistan, the biosphere reserve corresponds completely with the first function (conservation of biological diversity and ecosystem in the biosphere reserve). However, functions 2 and 3 (mostly to do with sustainable development) cannot be implemented. The authorities also documented the need to improve on consultation efforts and local participation.

The national authorities are commended for submitting this periodic review report. The Advisory Committee however concluded that this biosphere reserve **does not meet** the criteria of the Statutory Framework of Biosphere Reserves. The authorities are requested to provide a location and proper zonation maps and to revise the zonation to include a transition area. The authorities are also advised to enhance the development function in order for this site to function as a proper biosphere reserve. The Advisory Committee requested the national authorities to send all the necessary information to the MAB Secretariat by 30 September 2015.

### **Cat Ba Biosphere Reserve (Vietnam)**

The Advisory Committee welcomed the first periodic review report for this biosphere reserve which was designated in 2004. This biosphere reserve is a National and International Important Marine Protected Area, and it has been proposed for the Global Geopark designation and as a World Natural Heritage Site. There is a geological transitional frontier that dates back to 360 million years ago. Cat Ba island is the largest limestone island in Southeast Asia.

The Advisory Committee noted that during the past 10 years, 21 state funded programs and projects have been conducted for conservation and protection of forest, biodiversity monitoring and numerous international support projects. It also noted that wildlife poaching and landscape modification have been controlled. It also observed that beekeeping saw a rapid development on the island of Cat Ba. Raising honeybees is considered to be one of the professions for poverty alleviation for Cat Hai farmers because of low initial investment but high profits. There are seven permanent research stations near the biosphere reserve and over 100 research articles by 158 scientists have been reportedly published in 46 domestic and international journals.



The Advisory Committee concluded that this biosphere reserve **meets** the criteria of the Statutory Framework of the World Network of Biosphere Reserves and requested for more information on the legal status of the eastern side of the core area indicated as C2 on the zonation map. The information should be sent to the MAB Secretariat by 30 September 2015.

### **Red River Delta Biosphere Reserve (Vietnam)**

The Advisory Committee welcomed the first periodic review report for this biosphere reserve which was designated in 2004. The core areas are characterized by mangrove vegetation and casuarina plantation habitats, sand dunes, siltation sites and water bodies. The number of bird species is reported to be over 200 and some 100 species of mangrove plants.

The Advisory Committee noted with appreciation the many activities that have been implemented by the national authorities such as the establishment of a biosphere reserve management board in 2008 which comprises of the representatives of the 3 provinces under which the biosphere reserve falls. It noted that this biosphere reserve is managed by these three provinces with the participation of local communities. It is reported that the principles of management based on the participation of local communities, complies with the provisions of the current law of Vietnam.

The Advisory Committee also observed that the biosphere reserve has been supporting livelihoods of the local communities. Mushroom produced by the local communities in the buffer zone has been registered as a labeled commodity. Scientific research projects, development projects, and many masters and PhD thesis based on research work carried out in the biosphere reserve have been produced. The Advisory Committee finally noted that a management plan for the biosphere has not been developed.

The Advisory Committee concluded that this biosphere reserve **meets** the criteria of the Statutory Framework of the World Network of Biosphere Reserves and recommended that the national authorities develop a management plan for this biosphere reserve for submission to the MAB Secretariat in the near future.

## **Follow-up recommendations**

### **Berezinsky Biosphere Reserve (Belarus)**

The Advisory Committee thanked the Belarus authorities and welcomed the updated map on a topographic layer of the precise location and delimitation of the three zones of the biosphere reserve, following MAB ICC recommendation of 2014 and considered that the zonation map **meets** the criteria of the Statutory Framework of the World Network of Biosphere Reserves.

### **Belovezhskaya Pushcha Biosphere Reserve (Belarus)**

The Advisory Committee thanked the Belarus authorities and welcomed the updated map on a topographic layer of the precise location and delimitation of the three zones of the biosphere reserve, following the 2013 MAB ICC recommendation and considered that the zonation map **meets** the criteria of the Statutory Framework of the World Network of Biosphere Reserves.

### **Ciénaga Grande de Santa Marta Biosphere Reserve (Colombia)**

The Advisory Committee welcomed the follow-up information provided by the Colombian

authorities with regard to the recommendations of the MAB ICC in 2011 and 2014. The Advisory Committee noted that the new map contains a clear zonation. The Advisory Committee also pointed out that the Colombian authorities sent the requested list of sustainable development projects to be implemented in the area, as well as the management plan for the entire biosphere reserve and guidelines for a research agenda. The Advisory Committee considered that the site **meets** the criteria of the Statutory Framework of the World Network of Biosphere Reserves.

#### **Cinturón Andino Biosphere Reserve (Colombia)**

The Advisory Committee welcomed the follow-up information provided by the Colombian authorities with regard to the recommendations of the MAB ICC in 2011 and 2014. The Advisory Committee noted that the new map contains a clear zonation. It also pointed out that the Colombian authorities sent the requested list of sustainable development projects to be implemented in the area, as well as the management plan for the entire biosphere reserve and guidelines for a research agenda. The Advisory Committee considered that the site **meets** the criteria of the Statutory Framework of the World Network of Biosphere Reserves. It recommended to delineate appropriate buffer zones for the core areas which are in direct contact with transition areas and to report on this in its next Periodic Review to be submitted in 2021.

#### **El Tuparro Biosphere Reserve (Colombia)**

The Advisory Committee welcomed the follow-up information provided by the Colombian authorities with regard to the recommendations of the MAB ICC in 2011 and 2014. It noted that the new map contains a clear zonation. The Advisory Committee also pointed out that the Colombian authorities sent the requested list of sustainable development projects to be implemented in the area, as well as the management plan for the entire biosphere reserve and guidelines for a research agenda. The Advisory Committee considered that the site **meets** the criteria of the Statutory Framework of the World Network of Biosphere Reserves. It recommended better defining the buffer zone surrounding the core area and to report on this in its next Periodic Review to be submitted in 2021.

#### **Sierra Nevada de Santa Marta Biosphere Reserve (Colombia)**

The Advisory Committee welcomed the follow-up information provided by the Colombian authorities with regard to the recommendations it had made in 2011 and 2014. The Advisory Committee noted that the new map contains a clear zonation. It also pointed out that the Colombian authorities sent the requested list of sustainable development projects to be implemented in the area, as well as the management plan for the entire biosphere reserve and guidelines for a research agenda. The Advisory Committee considered that the site **meets** the criteria of the Statutory Framework of the World Network of Biosphere Reserves. It recommended to delineate a buffer zone and transition area in the coastal and marine area and to report on this in its next Periodic Review to be submitted in 2021.

#### **Taï Biosphere Reserve (Côte d'Ivoire)**

The Advisory Committee welcomed the updated information of Côte d'Ivoire on the status of the implementation of the 2014 recommendation by the MAB-ICC. It welcomed with appreciation the extensive information provided on the issue of refugees who temporarily settled in the transition area of the biosphere reserve during the Liberian civil war. Authorities reported that refugee camps had not been established and that the refugees were hosted by relatives on the Ivorian side during the war. Their activities did not impact the transition area and they have relocated to Liberia.

The Advisory Committee noted with concern the new proposal for the zonation, in which the buffer zone which surrounds the core area will be replaced by a “*zone d’aménagement et d’expérimentation*”, which do not protect the core area. The explanation for this change is not satisfactory. It also noted that due to a misunderstanding of the communities who encroached on the former buffer zone, the buffer zone now consists of four clusters which are included in the core area rendering the zonation not functional. It also noted the difference between the zonation terminology used nationally and the general terminology used for biosphere reserves within the WNBR.

It welcomed with satisfaction the “*Plan d’Aménagement et de Gestion*” (PAG) which has been elaborated with the involvement of local communities through public consultations. Out of the seven programs of the PAG, one focuses on participative management and provides support to local development. This strongly facilitates community participation and sharing of benefit from natural resources within the biosphere reserve. The PAG is supporting the logistic functions of the biosphere reserve. The current PAG (2006-2015) has been updated for 2014-2018.

The Advisory Committee commended the authorities for the improvement of the biosphere reserve enforcement of the regulation of its conservation function while intensifying collaborative mechanism with local communities for the prevention of illicit acts. Partnership with politicians, administration and justice is fostered. The Advisory Committee also congratulated the authorities for the good progress made in the implementation of the recommendations of the MAB ICC and in the management of the biosphere reserve.

The Advisory Committee however concluded that based on the information received, the site **does not meet** the criteria of the Statutory Framework of the World network of Biosphere Reserves. The Advisory Committee therefore requested the authorities to provide a new map with proper zonation which conforms to the biosphere reserve criteria. In addition, the management plan should be revised with the full integration of the three functions of a biosphere reserve. The Advisory Committee noted that the periodic review report of Taï Biosphere Reserve, expected by 30 September 2015 could be a good opportunity to address these pending issues.

### **Gunung Leuser Biosphere Reserve (Indonesia)**

The Indonesia national authorities submitted a periodic review report for this biosphere reserve in 2013 for the consideration of the Advisory Committee. The Advisory Committee based on that report concluded that this biosphere reserve was partially fulfilling the Statutory Framework criteria. It recommended that the national authorities consider the possibility of establishing an overarching biosphere reserve coordination mechanism and to develop an integrated management plan in order to seek to reduce human pressures and to promote additional sustainable development initiatives in the reserve.

With regard to the responses provided by the national authorities, the Advisory Committee noted that the national authorities have established a coordination and communication forum whose task is to implement coordination and communication among various stakeholders through allocation and sharing of roles and responsibilities in implementing the Gunung Leuser Biosphere Reserve management plan. It also noted that an integrated management and action plan of Gunung Leuser Biosphere Reserve 2014 -2023 was finalized at the end of 2013. Activities on ecosystem restoration, environmental education and livelihood development have been implemented.

Considering these submissions, the Advisory Committee concluded that this site **meets** the criteria of the Statutory Framework of the World Network of Biosphere Reserves.

### **Komodo Biosphere Reserve (Indonesia)**

The Indonesia national authorities submitted a periodic review report for this biosphere reserve in 2013 for the consideration of the Advisory Committee. The Advisory Committee based on that report concluded that this biosphere reserve was partially fulfilling the Statutory Framework criteria. It recommended that the national authorities consider the possibility of establishing an overarching biosphere reserve coordination mechanism and to provide information thereon to the MAB Secretariat by the end of December 2013 together with a clarification of the rationale for the rectangular zonation patterns of the buffer and transition zones of the biosphere reserve.

With regard to the responses provided by the national authorities, the Advisory Committee noted that a management institution of Komodo Biosphere Reserve, “Nusa Tenggara Timur Indonesia” has been established, and this forum will be legalized under decree of Regent of Manggarai Barat Regency. It also noted that an integrated management plan, 2014-2023 was developed in 2013 for the biosphere reserve. This Integrated management plan can be adjusted to the needs and conditions of developing the Komodo Biosphere Reserve. The Advisory Committee also acknowledged the information clarifying the rationale of the biosphere reserve’s zonation and concluded that this site meets the criteria of the Statutory Framework of the World Network of Biosphere Reserves.

### **Lore Lindu Biosphere Reserve (Indonesia)**

The Indonesia national authorities submitted a periodic review report for this biosphere reserve in 2013 for the consideration of the Advisory Committee. The Advisory Committee based on that report concluded that this biosphere reserve was partially fulfilling the Statutory Framework criteria. The Advisory Committee invited the authorities to consider the possibility of establishing an overarching biosphere reserve coordination mechanism and to develop an integrated management plan in order to reduce illegal logging and poaching in the reserve. It recommended activities such as public awareness, education and the generation of alternative income and job opportunities considering the high rate of migration into the area.

With regard to the responses provided by the national authorities, the Advisory Committee acknowledged that a management plan and information on the management body of the biosphere reserve was included in the report submitted last year. It also noted that the management plan included activities geared towards alternative livelihood development and also the involvement of local government and the private sector in order to develop more opportunities for local communities. The Advisory Committee concluded that this site meets the criteria of the Statutory Framework of the World Network of Biosphere Reserves.

### **Siberut Biosphere Reserve (Indonesia)**

The Indonesia national authorities submitted a periodic review report for this biosphere reserve in 2013 for the consideration of the Advisory Committee. The Advisory Committee based on that report concluded that this biosphere reserve was partially fulfilling the Statutory Framework criteria. The Advisory Committee recommended that the national authorities consider the possibility of establishing an overarching biosphere reserve coordination mechanism and the development of an integrated management plan in order to seek to reduce human pressures and to promote additional sustainable development initiatives in the reserve.

With regard to the responses provided by the national authorities, the Advisory Committee noted that a management institution has been established for this biosphere reserve. It also noted that a management plan which is based on scientific assessment to enhance the quality of life of the people living around core area (Siberut National Park) has been elaborated; therefore there will be a balance between human needs and the conservation of natural resources. The Advisory

Committee concluded that this site **meets** the criteria of the Statutory Framework of the World Network of Biosphere Reserves.

### **Tanjung Puting Biosphere Reserve (Indonesia)**

The Indonesia national authorities submitted a periodic review report for this biosphere reserve in 2013 for the consideration of the Advisory Committee. The Advisory Committee based on that report concluded that this biosphere reserve was partially fulfilling the Statutory Framework criteria. The Advisory Committee based on that report invited the relevant authorities to consider the possibility of establishing an overarching biosphere reserve coordination mechanism and to inform the MAB Secretariat thereon by the end of December 2013.

With regard to the responses provided by the national authorities, the Advisory Committee noted that a management plan for the whole biosphere reserve has been established and an action plan for the biosphere reserve has been under implementation since 2013. The Advisory Committee concluded that this site **meets** the criteria of the Statutory Framework of the World Network of Biosphere Reserves.

### **General background information on the nine biosphere reserves submitted by the Islamic Republic of Iran in 2013**

The Advisory Committee noted that the Iran national authorities submitted periodic review reports for nine of the biosphere reserves in their country in 2013. Based on these reports, the Advisory Committee recommended that the authorities in Iran seek to establish for each biosphere reserve a management plan and a designated management body for the entire biosphere reserve and that more efforts are made on research, education, public awareness and consultations with local people. The Advisory Committee also asked for better and more detailed maps for each biosphere reserve and its zones. In conclusion, the Advisory Committee noted that these biosphere reserves were partially fulfilling the Statutory Framework criteria. The Advisory Committee requested that the authorities provide the requested information by end of December 2013.

In response to these recommendations the Iran national authorities have submitted additional information for the nine biosphere reserves for the consideration of the Advisory Committee.

### **Arasbaran Biosphere Reserve (Islamic Republic of Iran)**

With regard to the responses provided, the Advisory Committee noted the reported sizes for the three zones of this biosphere reserve. It however noted that a zonation map for this biosphere reserve has not been provided. The text for the additional information provided for this site was in the Persian Language. The Advisory Committee therefore requested that the national authorities translate this information into the English Language and to submit this together with clear zonation maps to the MAB Secretariat by 30 September 2015. This will enable the Advisory Committee assess whether this site meets the criteria of the Statutory Framework of the World Network of Biosphere Reserves during its session in 2016.

### **Arjan Parishan Biosphere Reserve (Islamic Republic of Iran)**

With regard to the responses provided, the Advisory Committee noted the reported sizes for the three zones of this biosphere reserve. It also noted the submission of a zonation map for this biosphere reserve and an organizational chart of the management body of this site. Consultation and awareness creation activities were also mentioned in the report. However a management plan for the biosphere reserve was not submitted and information with regard to sustainable

development initiatives was not outlined in the report. The Advisory Committee therefore recommended that the authorities provide additional information on the sustainable development functions of this biosphere reserve. It is requested that the information be provided by 30 September 2015 to enable the Advisory Committee assess whether this site meets the criteria of the Statutory Framework of the World Network of Biosphere Reserves during its session in 2016. The authorities are also encouraged to submit a management plan to the MAB Secretariat in the near future.

### **Geno Biosphere Reserve (Islamic Republic of Iran)**

With regard to the responses provided, the Advisory Committee noted the reported sizes of the three zones of this biosphere reserve. It also noted the submission of a zonation map for this biosphere reserve. The Advisory Committee also acknowledged the reported research work and scientific studies that have been undertaken in the biosphere reserve. However the Advisory Committee observed that there is no information about an existing management body and management plan for this biosphere reserve.

They are however requested to inform on sustainable development activities being undertaken in the biosphere reserve, and to provide these to the MAB Secretariat by 30 September 2015. This will enable the Advisory Committee assess whether this site meets the criteria of the Statutory Framework of the World Network of Biosphere Reserves during its 2016 session. The Advisory Committee also encouraged the national authorities to provide extensive information on the management body and plans for this site in the near future.

### **Golestan Biosphere Reserve (Islamic Republic of Iran)**

Based on the responses and additional information provided, the Advisory Committee acknowledged the submission of the zonation maps including its shape files for this biosphere reserve and noted that the buffer zone does not give enough protection to the core area. A management body is reported but no information has been provided with regard to an existing management plan. The Advisory Committee therefore requested that the national authorities revise the zonation of this biosphere reserve in order to better protect the core area and to ensure its conservation function. The authorities are encouraged to submit the information on the revised zonation to the MAB Secretariat by 30 September 2015, to enable the Advisory Committee assess whether this site meets the criteria of the Statutory Framework of the World Network of Biosphere Reserves during its 2016 session. The authorities are also encouraged to formulate a management plan for the biosphere reserve.

### **Harra Biosphere Reserve (Islamic Republic of Iran)**

With regard to the responses and additional information provided, the Advisory Committee acknowledged the extensive information on the scientific studies and research work that has been undertaken in this biosphere reserve. The Advisory Committee also noted the information on the zonation sizes and the submission of a zonation map which clearly outlines the three zones. However, information with regard to a management body and a management plan for this biosphere reserve was not provided.

Also, there was no information to enable the Advisory Committee assess the sustainable development function of this site. The Advisory Committee therefore encouraged the national authorities to provide the above mentioned information to the MAB Secretariat by 30 September 2015 to enable the Advisory Committee assess whether this site meets the criteria of the Statutory Framework of the World Network of Biosphere Reserves during its 2016 session. The authorities are also encouraged to elaborate a management plan for the biosphere reserve in the

near future.

### **Kavir Biosphere Reserve (Islamic Republic of Iran)**

Based on the responses and additional information provided, the Advisory Committee acknowledged the various education, public awareness and consultation activities which the national authorities have undertaken in this biosphere reserve. Sustainable livelihoods based on ecosystem approach are also being promoted. The Advisory Committee also noted the provision of a zonation map and the information on the sizes of the three zones. It also noted the organization chart for the management body of the biosphere reserve. The Advisory Committee however noted that there is no information on an existing management plan and the zonation does not conform to the Statutory Framework criteria.

National authorities are requested to revise the zonation for this biosphere reserve and to submit the updated zonation map to the MAB Secretariat by 30 September 2015. The Advisory Committee concluded that this site **does not meet** the criteria of the Statutory Framework of the World Network of Biosphere Reserves. The Advisory Committee encouraged the national authorities to formulate a management plan and to present this to the Secretariat in the near future.

### **Miankaleh Biosphere Reserve (Islamic Republic of Iran)**

The Advisory Committee acknowledged the well outlined report submitted by the national authorities for this biosphere reserve. Activities on public awareness, education and sustainable development have been provided. Detailed information on the research activities and various studies carried out were also reported. The Advisory Committee noted that a zonation map was provided for this site. Even though information on a management body was submitted, a management plan for the site has not been provided.

The Advisory Committee concluded that this site **meets** the criteria of the Statutory Framework of the World Network of Biosphere Reserves. The Advisory Committee recommended that the national authorities elaborate a management plan and present it to the MAB Secretariat in the near future.

### **Touran Biosphere Reserve (Islamic Republic of Iran)**

The Advisory Committee acknowledged the information submitted for this biosphere reserve. It noted that activities on public awareness, education and sustainable development have been provided. Detailed information on the research activities and various studies carried out were also reported. Community workshops were organized to introduce the environmental management plans for this area. The Advisory Committee also observed that a zonation map clearly showing the three zones has been submitted.

A management body for this biosphere reserve was reported to be in existence; however no management plan was included in the report. The Advisory Committee concluded that based on the information provided; this biosphere reserve **meets** the criteria of the Statutory Framework of the World Network of Biosphere Reserves and encouraged the national authorities to submit a management plan to the MAB Secretariat in the near future.

### **Urmia Biosphere Reserve (Islamic Republic of Iran)**

The Advisory Committee acknowledged the information submitted for this biosphere reserve. It noted that reports on activities of public awareness creation, education and sustainable development have been provided. The Advisory Committee also acknowledged the enormous environmental challenges in this area.

A zonation map has been submitted and information on the sizes of the various zones has also been provided. The Advisory Committee however noted that information on a management body and plan for this site was not reported. The Advisory Committee concluded that based on the information provided this biosphere reserve **meets** the criteria of the Statutory Framework of the World Network of Biosphere Reserves and encouraged the national authorities to submit information on the management body and a management plan to the MAB Secretariat in the near future.

### **Sahamalaza Iles Radama Biosphere Reserve (Madagascar)**

The Advisory Committee welcomed the updated information from the Madagascar authorities on the status of the implementation of the 2014 recommendation by the MAB ICC. It welcomed the revision of the zonation map. The Advisory committee considered that the site **meets** the criteria of the Statutory Framework of the World Network of Biosphere Reserves.

### **Mananara Nord Biosphere Reserve (Madagascar)**

The Advisory Committee welcomed the updated information from the Madagascar authorities on the status of the implementation of the 2014 recommendation by the MAB ICC.

It welcomed the revision of the map where the areas/zones are well delimited (in particular the marine part and the island of the biosphere reserve) and named according to the MAB terminology. It noted with satisfaction the explanation of the former “enclave” which is now included in the buffer zone in conformity with its management status and the new national legislation adopted in 2003. The Advisory Committee considered that the site **meets** the criteria of the Statutory Framework of the World Network of Biosphere reserve.

### **Boucle du Baoulé Biosphere Reserve (Mali)**

The Advisory Committee welcomed the updated information from the Mali authorities on the status of the implementation of the 2013 recommendation by the MAB ICC. It noted the information provided on the status of the zones using a terminology which does not conform to the zonation criteria for biosphere reserves. The additional information and the quality of the map provided were not sufficient for the Advisory Committee to assess the implementation of the recommendation.

The Advisory Committee commended the authorities for the establishment of a MoU between the cities within the biosphere reserve and the Direction of the biosphere reserve, but noticed that the full involvement of local communities in the governance structure and in the management of the biosphere reserve still needs improvement. It noted that the management plan for the biosphere reserve is in preparation. The Advisory Committee encouraged the country to pursue its effort to ensure involvement of local communities in order to promote conservation, development and logistic integrated activities for the proper functioning of the biosphere reserve.

Based on the above information, the Advisory Committee concluded that the site **does not meet** the criteria of the Statutory Framework of the World network of Biosphere Reserves. The



Advisory Committee requested the authorities to provide clear maps with proper zonation based on the biosphere reserve concept. The Advisory Committee also recommended that the standard zonation terminology should be used in the management plan as well.

### **Aïr Ténéré Biosphere Reserve (Niger)**

The Advisory Committee welcomed the updated information from the authorities of Niger on the status of the implementation of the 2009 recommendation by the MAB ICC. The Advisory Committee acknowledged the effort made by Niger to promote the establishment of a transboundary biosphere reserve with Algeria. Consultations between the two delegations began during the last MAB ICC and the respective authorities are in touch.

The Advisory Committee acknowledged with concern the security issue in the area which may delay the process. It noted that the establishment of a transboundary biosphere reserve might be a means to promote peace and reduce conflicts in the area. The foreseen transboundary site would also be the most credible site to study and perform various experiments on mitigation of desertification effects. The Advisory Committee congratulated Niger for leading the process and encouraged Algeria to get more involved in the process as well.

### **Katunsky Biosphere Reserve (Russian Federation)**

The Advisory Committee welcomed the updated information of the Russian Federation on the status of the implementation of the 2014 recommendation by the MAB ICC. It noted with thanks the further explanations and additional documents and concluded that the biosphere reserve has an appropriate zonation in place. The core area is surrounded from the West and North by a buffer zone and from the east by the Nature Park Belukha, designated as a buffer zone. The southern border of the core area is formed by the state border and the Karagaiskiy National Park of Kazakhstan, which can be considered as a proper buffer zone.

The Advisory Committee concluded that the site meets the criteria of the Statutory Framework of the World Network of Biosphere Reserves. The Advisory Committee recommended that Katunsky Biosphere Reserve be used as a model for human environmental impact mitigation by providing support to alternative sources of income for local communities.

### **Visimskiy Biosphere Reserve (Russian Federation)**

The Advisory Committee welcomed this updated information from the Russian Federation on the status of the implementation of the 2014 recommendation by the MAB ICC.

The Advisory Committee welcomed the additional information related to the creation of the biosphere reserve Department of Ecological Education, the formal partnership with Urals State Pedagogical University and participation in the “Education Development in the Sverdlovsk Region” programme. It also welcomed the participation in the “Development of Tourism in the Sverdlovsk Region” programme. The Advisory Committee welcomed the statement of growing dedication of the stakeholders to the biosphere reserve on voluntary basis. Nevertheless the Advisory Committee questioned the argument on the little need for a “Biosphere reserve Supervisory board”, in which stakeholders and inhabitants would be represented. The Advisory Committee considered that such governing bodies are useful to ensure participative approach to biosphere reserve management on regular basis and not only in cases when urgent situation occurs. Multiple examples and experiences from the WNBR demonstrate that inclusive biosphere reserve governing body is an efficient tool to avoid conflicts. The Advisory Committee requested that the authorities provide an updated zonation map (both in electronic and paper format following requirement of the nomination form) to the Secretariat.

The Advisory Committee encouraged the authorities to:

- further focus on the development function of the biosphere reserve;
- support actions, projects and management tools that will enable joint work of managers of the biosphere reserve and local people and other stakeholders on regular basis.

### **Commander Islands Biosphere Reserve (Russian Federation)**

The Advisory Committee welcomed the additional information of the Russian Federation on the status of the implementation of the 2014 recommendation by the MAB ICC.

The Advisory Committee welcomed the information provided on the creation of “Integrated medium-term management plan” for the site with all respective stakeholders participating in all aspects of the process. The Advisory Committee welcomed the examples of successful projects completed on the biosphere reserve such as the UNDP/GEF project on “Strengthening of Marine and Coastal Protected Areas of Russia“, participation of “Environmental summer camp for children in Kenozersky National Park“ and “Environmental education program for school children of Nikolskoye rural settlement”.

The Advisory Committee welcomed the assurance that the multi-stakeholder Biosphere Reserve Scientific and Technical Council will continue to participate in the biosphere reserve activities as well as to activities of the stakeholders, including indigenous people.

The Advisory Committee encouraged the authorities to:

- further focus on the development function of the biosphere reserve and continue work on projects that include broad variety of stakeholders;
- support actions, projects and management tools that will enable joint work of the biosphere reserve authority and local people and other stakeholders on biosphere reserve management on regular basis.

### **Nijegorodskoe Zavolje Biosphere Reserve (Russian Federation)**

The Advisory Committee welcomed the updated information from the Russian Federation on the status of the implementation of the 2014 recommendation by the MAB ICC.

The Advisory Committee welcomed the good cooperation with several partners as well as the establishment of working groups along with inclusion of local authorities that are ready to coordinate the biosphere reserve activities. The Advisory Committee encouraged the efforts to integrate the results of the biosphere reserve projects and research into the development projects of municipalities and to cooperate with other biosphere reserves.

The Advisory Committee welcomed the efforts for establishing decision making bodies involving the local self-government for inclusion in the boundaries of the biosphere reserve (Vladimir rural administration of Voskresenskiy district of Nizhny Novgorod region).

The Advisory Committee is looking forward to receive the information about the logistic and development functions of the biosphere reserve as well as the management plan by 30 September 2015.

**Smolensk Lakeland Biosphere Reserve (Russian Federation)**

The Advisory Committee welcomed the information provided by the Russian Federation on the status of the implementation of the 2014 recommendation by the MAB ICC.

The Advisory Committee considered that the information provided was not detailed enough and requested a more comprehensive report (with as much detail as the information provided in a nomination form) on the activities in each zone of the biosphere reserve. The Advisory Committee requested that the information be sent to the MAB Secretariat by 30 September 2015.