



GENERAL ASSEMBLY OF THE AFRICAN NETWORK OF BIOSPHERE RESERVES (AFRIMAB)

3RD SESSION

"The Role of Ecosystem Services in Boosting Green Economies in Biosphere Reserves"

MENSVIC HOTEL, ACCRA GHANA

24 - 27 SEPTEMBER 2013

FINAL REPORT

I. Participants

1. The 3rd Session of the General Assembly of the African Network of Biosphere Reserves (AFRIMAB) of the Man and the Biosphere (MAB) Programme was hosted by the Ghana MAB National Committee in Accra from 24th to 27th September 2013 under the theme: *'The Role of Ecosystem Services in Boosting Green Economies in Biosphere Reserves'*.

2. 115 participants from 21 member states attended the assembly including representatives of Benin, Burkina Faso, Cameroun, , D.R. Congo, Cote d'Ivoire, Ethiopia, Gabon, , Ghana, Guinea, Kenya, Madagascar, Malawi, Mali, Niger, Nigeria, Republic of Sao Tome and Principe, Senegal, South Africa, Tanzania, Togo and Uganda.

3. The following institutions were also represented: UNESCO, representatives of KOICA from Ghana and Nigeria, Sub – Global Assessment Network and German Federal Agency for Nature Conservation (BfN), Germany.

4. The full list of participants is presented as Annex 1 to this report.

II. Opening Ceremony

5. The opening ceremony was chaired by the Chair of the Intergovernmental Panel on Biodiversity and Ecosystem Services (IPBES) and former member of the International Advisory Committee on Biosphere Reserves, Prof. Alfred Oteng Yeboah. He recounted how the rapid depletion of the world's natural resources had led to the MAB Programme in early 70's and to the concept of Biosphere Reserves (BRs) which seeks to promote the sustainable management and utilization of natural resources. He further pointed out to delegates that natural resources serve as the basis for Green Economy and emphasized the need for all countries to embrace sustainable use of natural resources in order to offset the emerging impacts of climate change.

III. Welcome Address by the Chairman of the Ghana MAB Committee

6. The welcome address was delivered by Mr. Daniel Amlalo, Executive Director Environmental Protection Agency (EPA) and Chairman of National MAB Committee, Ghana. In his address, he commended the member countries on their desire to attain the goals of the MAB Programme, which has led to the increasing number of listings on the World Network of Biosphere Reserves (WNBR). He further commended UNESCO MAB Programme for promoting the coexistence of man and nature to ensure human well-being and environmental sustainability.

7. Mr. Amlalo expressed appreciation to UNESCO and AfriMAB for giving Ghana the opportunity to host the 3rd General Assembly of AfriMAB and the organizing committee for their efforts in bringing this to fruition.

IV Message from the Hon. Minister for Education, Ghana

8. In a statement read on her behalf, the Minister for Education expressed sincere appreciation for delegates' commitment to the common goal of ensuring the promotion of peace through the co-existence of man and nature. She hailed the theme of the Assembly "*The Role of Ecosystem Services in Boosting Green Economies in Biosphere Reserves*" adding that development models must be environmentally, socially and economically viable.

She commended the Ministry of Environment, Science, Technology and Innovation, and the Environmental Protection Agency for hosting the MAB Programme in Ghana.

V. Statement by Director of Ecological & Earth Sciences UNESCO

9. The Director, Dr, Han Qunli welcomed all participants to the General Assembly and acknowledged the support of the government of Ghana and Ghana National MAB Committee for accepting to host the Assembly. He gave a brief on the WNBR and stated that Africa was one of the top priorities of UNESCO. He indicated that with a membership of 621 BRs in 117 countries, including 12 transboundary reserves, the WNBR spanned diverse ecosystems ranging from drylands, forests, wetlands and mangroves to urban areas. He emphasised that biosphere reserves were ideal field laboratories to model and promote sustainable development. He expressed the expectation that the countries gathered for the General Assembly would draw lessons from successes chalked as well as challenges encountered. He anticipated that the Green Economies in Biosphere Reserves project would broaden the scope of knowledge in the network and commended the countries that had contributed to the funding of AfriMAB regional activities.

10. Dr. Han reaffirmed the support of UNESCO for the MAB Programme at both national and local level to promote sustainable development. He concluded that this would ultimately benefit the whole world.

VI. Statement by KOICA Representative

11. Mr. Cho Kwang Geol highlighted the importance of the involvement of the rural people in the management of natural resources. According to him, after the Korean War, the Korean Integrated Rural Development approach known as Sae Maeaul Undong (SMU) was the initiative used to revive the forests of the country. He emphasised that this was sustained by the rural people. He expressed his satisfaction that a similar approach would be replicated in the Green Economies in Biosphere Reserves Project that the Korean government is sponsoring in three countries namely Ghana, Nigeria and Tanzania.

VII Keynote Address by the Hon. Minister for Environment, Science, Technology and Innovation

12. In his keynote address Dr. Joe Oteng Agyei indicated that it was a pleasure for Ghana to be part of such a vibrant network that sought to enable man live in harmony with nature. He emphasized the vital services rendered to mankind by the various ecosystems on earth and stressed the need for mankind to also care for Mother Nature. He indicated that the African continent was blessed with a rich base of natural resources and it was imperative for members of AfriMAB to strive to attain the millennium development goals. He challenges participants at the assembly not to use the gathering only for sharing knowledge but also to find ways of converting knowledge shared into concrete actions.

VII Statement from AfriMAB Chair

13. Dr. Paul Makenzi spoke extensively about the important services rendered to human populations by the natural resources around us. He quoted the late Dr. Wangari Mathai as always professing that “Nature never forgives. If you hurt nature, it will always find time to hit back”. He emphasized the need for the growing human populations to be mindful of the negative impacts of their activities on the ecosystem since there were enough natural resources on the earth to support the entire population.

VIII. Launching of Green Economies in Biosphere Reserves Project

14. Ms. Noeline Raondry Rakotoarisoa, Chief of Section Biosphere Network and Capacity Building and in charge of African MAB network within the MAB Secretariat gave an introduction to the project. The chair of AfriMAB informed delegates about the impending project to be implemented in *Nigeria, Tanzania and Ghana* being the beneficiary countries. A representative of the beneficiary countries made a statement in appreciation of the project objectives which seeks to enhance human well-being through conservation linked economic activities while reducing environmental risks.

IX. Report from the Outgoing Chair of AfriMAB

15. Dr. Paul Makenzi briefed members about the history, functions and the successes as well as challenges of AfriMAB since its establishment in 1996. Among the successes highlighted was the growth of AfriMAB as a regional network of 64 BRs in 28 countries in Africa.

16. He stressed that despite challenges such as inadequate resources, limited capacity, and emerging threats such as climate change, AfriMAB has made significant achievements in promoting regional co-operation in the fields of biodiversity conservation, sustainable development, research and trans-boundary projects. He emphasised the linkages between these achievements and other regional economic initiatives. He outlined the activities undertaken by the outgoing bureau which included the initiation of a project on development of a management manual for biosphere reserves in Africa supported by German Federal Agency for Nature Conservation (BfN) and the German National Commission for UNESCO in collaboration with the MAB Secretariat.

17. Dr. Makenzi stated that Article 9 of the AfriMAB statutes provides for establishment and functions of the AfriMAB Bureau. He recalled that the current AfriMAB Bureau was constituted during the last AfriMAB General Assembly in 2010 and comprises of the following: AfriMAB Chairman (Dr. Paul Makenzi), Southern Africa Bureau member and sub-region coordinator (Prof. Chris Magadza), Eastern Africa Bureau member and sub-region coordinator (Prof. Ravelonandro), Central Africa Bureau member and sub-region coordinator (Dr. Laurent Nsenga) and Western Africa Bureau member and sub-region coordinator (Dr. Nouhou Diaby). Hence, as per the AfriMAB Charter D.1.c. 2.4, the term of office of the bureau was due and new executives should be selected.

18. Some of the achievements of the outgoing AfriMAB Bureau highlighted included the following:

- The development of an AfriMAB work plan.
- Participation in the REDD+ Workshop organised by UNESCO and Environment Coffee and Forest Forum in Ethiopia in April, 2011. The workshop was aimed at facilitating fund raising and training on carbon stock assessment for Yayu Biosphere Reserve.

- Participation in two Conservation Finance Alliance training workshops in Mombasa in March 2011 and in Brazil in Nov 2011, which was organized by REDLAC and was aimed at facilitating fund raising i. e. E-fund (environmental funding).
- Participation in the International Conference "For life, for the future: Biosphere Reserves and Climate Change" and the 23rd session of the International Coordinating Council of the MAB Programme in Dresden in commemoration of the 40th anniversary of MAB program in Dresden German in June, 2011.
- Organization of the Experts Workshop on Managing Challenges of Biosphere Reserves in Africa in Rhone in German. (Dresden-Rhon workshop report is available at the MAB website). The main output of this workshop was the "AfriMAB Rhön Declaration (BFN website, UNESCO- MAB website).

19. Dr. Paul Makenzi recounted that the success story of the AfriMAB had however been faced by some challenges which has led to the slow response to the achievement of Madrid Action Plan Targets. Some of which include inadequate resources and capacity related issues, poor governance, and inherent vulnerability to the impacts of climate change. He also emphasized that whilst AfriMAB is meant to foster networking among biosphere reserves in Africa through the National MAB committees, some countries have not as yet formalized their National MAB committees and this has been a big drawback to effective coordination of the MAB activities in Africa. However with AfriMAB Charter and the statutes in place, it was expected that most of these challenges would be surmounted.

20. Dr. Paul Makenzi concluded by emphasizing that networks represent a new tool for exchange of knowledge, information, research findings as well as a way of increasing the impact of biosphere reserve as concept and conservation tools. Additionally, ecosystems know no boundaries, hence networking between MAB National Committees could be a useful tool in ensuring conservation, trans-national cooperation and collaborative management of natural resources especially through trans-boundary BRs. On economic development in Africa, he said that networking would strengthen regional economic initiatives including EAC, SADEC and ECOWAS.

X. Election of the Bureau

21. In accordance with the statutes and Charter, Mr. Daniel Amlalo, the Chairman of National MAB Committee of Ghana was elected as AfriMAB chair. The Assembly endorsed the election of Mr. Amlalo by applause.

Other members elected to the new bureau were:

- Coordinator, West Africa : Cote d'Ivoire represented by Dr. Martine Tahoux)
- Coordinator, Southern Africa South Africa represented by Ms Skumsa Mancotywa
- Coordinator, Eastern Africa Kenya represented by Dr. Paul Makenzi
- Coordinator, Central Africa Cameroon represented by M. Hessana Djibrilla

XI MAB Programme: Past, Present and Future - A brief update on MAB Programme and the World Network of Biosphere Reserves (WNBR)

22. Dr. Han Qunli, Director of UNESCO Division of Ecological and Earth Science and Secretary of the MAB Programme in his presentation highlighted UNESCO's mandate in the field of Natural Science, which he outlined as targeting issues of global concern that require multinational collaboration, support green and inclusive economies, and towards peace and security.

23. He stressed that the long-standing intergovernmental/international scientific programmes on environment and natural resources namely Intergovernmental Oceanographic Commission; Man and the Biosphere programme; International Hydrological Programme; International Geoscience programme; and World Water Assessment Programme remain the main pillars of UNESCO's science for sustainable development. Dr Han reported that UNESCO MAB was preparing a new strategy in line with the Sustainable Development Goals (SDGs) and Post 2015 Agenda. He therefore challenged members of the General Assembly to bring up new ideas and new proposals for the future of MAB and Biosphere Reserves. He concluded by giving examples of good practices from other regional networks especially in Asia.

XII. News from the Secretariat

24. Dr. Noeline R. Rakotoarisoa made a presentation on activities undertaken by the Secretariat as a follow up of the recommendations of the last AfriMAB Assembly in Nairobi. She made an extensive report on achievement against the Madrid Action Plan Targets and Actions for Africa regional. She also presented the main achievements within AfriMAB network. She also stated the key achievements of AfriMAB including among others network sustainable statutory framework and increasing financial contributions by member states for implementation of regional activities. She also appreciated the growth of the network in terms of participation as compared to the last two sessions. She underlined that 83% of the delegates funded their own participation in the General Assembly and she commended Ghana MAB national committee's financial contribution to the organisation of the General Assembly. She also emphasized that, in accordance with the Statutes, four countries: Ghana, Cameroun, Benin and Cote d'Ivoire have contributed to fund regional activities through additional appropriation to UNESCO Regular Programme funds. Communication remains a major challenge facing AfriMAB.

XIII Presentation of National and Sub-regional Reports

25. National reports were presented to the General Assembly by the following countries: Cameroon, Democratic Republic of Congo, Ethiopia, Kenya, Tanzania, Madagascar, Benin, Burkina Faso, Guinea, Ghana, Cote D'Ivoire, Mali, Niger, Sao Tome Principe, Togo, Senegal, South Africa, Malawi, Nigeria, and Uganda. UEMOA representative presented the WAPO transboundary project. The presentations touched on the status of implementation of

the Madrid Action Plan as well specific activities undertaken in member countries and projects implemented by the various biosphere reserves.

26. Prof. Mama Plea, Chief of Science Unit at UNESCO Office in Yaoundé reported that in Central Africa, there are twelve (12) biosphere reserves, but there was the need to increase the number with regards to the importance of biodiversity in the region and the very dynamic interaction between man and nature in this part of the world. He underlined some constraints which include poaching, pressure from human beings for agricultural purposes, mining and agro-forestry. He added that eventhough the challenges related to the exploitation of natural resources were not different from those faced by other African countries, it would be necessary to bring to attention the consequences of agricultural activities and other human activities on management strategies. It was further indicated that for Angola, Burundi, Equatorial Guinea and Sao Tome principle, the main challenge was inadequate funds to implement programmes in biosphere reserves.

27. He concluded by highlighting some current projects implemented by UNESCO/MAB in central Africa:

- Feasibility studies to establish the transboundary biosphere reserve in TRIDOM area (Dja-Cameroun, Odzala-Congo and Minkebe-Gabon).
- The establishment of Lake Chad as a biosphere reserve which includes a document which would be used for advocacy to reach out to decision makers and relevant national authorities.
- Another project he reported on is the conservation of the Dja Reserve being supported by the Russian federation in since 2012.

28. Mr. Goué Mengamenya of Cameroun reported on the Dja Biosphere Reserve located in the Guinean - Congo Forest in South East of Cameroun. This reserve which was created in 1950 was designated as a BR in 1991 and later inscribed on the list of World Heritage Sites in 1993. Major challenges outlined included human pressure and development from agricultural activities, exploitation due to mining of nickel and cobalt, construction of a hydro power dam. All these activities had resulted in serious fragmentation of the forest.

29. The report from the Democratic Republic of Congo examined the network of BRs in RDC. Dr. Laurent Nsenga mentioned the three biosphere reserves located in DRC namely

Yangambi BR, Luki BR, and Lufira BR. He then presented on the Luki BR case. Some of the key problems faced in the management of the BR were lack of funding and pressure on the forest due to human intrusion. It was however indicated that efforts were being made to transform threats into opportunities, and examine partnerships with other organisations which would help transform threats into viable sources of funding. Some intended interventions include intensified monitoring and implementation of the management plans, an effective anti-poaching campaign and increased collaboration among all stakeholders including the local people, government agencies and departments to promote sustainable development.

30. The presentation on the Sheka Forest Biosphere Reserve outlined actions implemented after the approval of Sheka Forest as a Biosphere Reserve in 2012. These included:

- Ratification of Regulation of Sheka BR.
- Establishment of Sheka Forest BR Management Structure (Management Board and Committee at zonal and district level).
- Capacity building and training for all stakeholders, public informants and rangers.
- Establishment of information, communication and exchange line.
- Draft Sheka Forest BR Management Plan prepared for discussions.
- Joint Fund raising (MELCA, ECFE and Ecopia) and individual organization Fund raising (NPA, CEPF and EU).
- Establishment of network (with ECFE, Ecopia, Mizan Teppi University and Teppi Agriculture Research institute as members).
- Strengthening cooperatives that work on non-timber forest products (NTFP) such as (Coffee, honey, spice and Bamboo).

31. The Yuyu Coffee Forest Biosphere Reserve reported on the planned activities of the BR, which included:

- Establishment of a Management Structure for Biosphere reserves.
- Establishing/Strengthening existing coffee producer's cooperatives.
- Development of business plan and forest coffee management plan preparation.
- Establishment of Incubation Centre.

The main achievements were:

- Five potential cooperatives (5) identified.
- Training of Trainers offered to key stakeholders and cascaded to the community level.
- 815 farmers registered to certify their coffee by RA after training.

- Marketing of Yaya Coffee Forest Biosphere reserve products.

32. Mr. James Mwang'ombe reported that the Kenya National Commission for UNESCO (KNATCOM) coordinated MAB programme activities in Kenya. The NATCOM was working closely with the Kenya Permanent Delegate to UNESCO for effective and efficient participation in all UNESCO programs and activities. The Secretariat was supported by five (5) programs and expert committees: Education, Natural Sciences, Social and Human Sciences, Culture, and Communication and Information. The current members of the Kenya National MAB committee consisted of: Dr. Paul Makenzi, Egerton University (Chairman), Mr. Albert Ingati- KNATCOM (Programme Officer), Dr. James Njogu, Kenya Wildlife Service- (Vice-Chairman), Mr. Boniface Wanyama, National Commission for Science Technology and Innovation (Member), Mr. Wilson Busienei- National Environment Management Authority (Member) and Mr. James Mwang'ombe Kenya Forest Service- (Member).

33. The key achievements of Kenya MAB National Committee since its establishment were:

- Nomination of Six Biosphere Reserves.
- Periodic review of three of the 6 BRs.
- Twinning with North Devon BR in UK.
- Secretariat to AfriMAB network 2010 -2012.
- Engagement with local and international agencies involved in MAB related activities.

The challenges faced by the Kenya MAB National Committee included:

- In five (5) of the six (6) BRs, the Kenya Wildlife Service was the focal point given its critical role in managing the core zones. However, limitations to management pertained due to the fact that the BRs extend beyond the protected areas.
- Low collaboration among key institutions in managing BRs due to differences in management objectives for the natural resources.

34. Tanzania reported on the achievements and national priorities of the MAB Committee since the 2010 AfriMAB General Assembly. Mr. Arnold Mapinduzi outlined the achievements as:

- Improved financial mechanisms for biosphere reserves and regional networks

- Inception of the initiatives towards trans-boundary Biosphere Reserves, hence the National MAB Committee identified and agreed on potential areas for trans-boundary BRs.
- Trained biosphere reserve managers and other relevant stakeholders in various subjects including carbon stock assessment , GIS mapping and climate change,
- Development of an integrated information & communication strategy through a review of membership of the National MAB Committee.
- Implementations of initiatives towards mitigation in relation to climate change by maintenance of carbon sinks within the forested blocks and encourage farmers to practice green economy.
- Organization of exchanges between biosphere reserves through awareness raising workshops as well as assisting delegates/members of MAB National Committee hold meetings in Tanga in 2011 and to visit the East Usambara BR.
- Assisting Biosphere Reserves to have research programmes on analyses of ecosystem services and their management through stakeholder participation.

35. The national priorities of Tanzania for 2014-2021 were to:

- Organise more training on the nomination process for other Committee members and key institutions that could not participate in the previous training sessions;
- Submit to UNESCO at least two new proposals (including Saadani and Jozania Chwaka Bay National Parks) to be considered for nomination into the WNBR
- Participate/attend various international sessions related to MAB, Biodiversity and Climate change;
- Continue building capacity by organising and attending to trainings (nationally and internationally) related to Biodiversity Conservation and Climate Change;
- Develop and implement awareness raising programmes on the importance of biosphere reserves;
- Organise exchange visits to biosphere reserves within and outside the country;
- Prepare a special research and monitoring programme in both existing and potential biosphere reserves;
- Develop projects and/or programmes on green economy or alternative income generating activities in the BRs; and
- Conduct periodic reviews for the existing MAB sites.

36. The main constraints faced by the MAB Committee in Tanzania were:

- Low level of awareness and/or understanding of the concept of biosphere reserves and its values.
- Unavailability of data and inadequate funding.

37. Challenges encountered included:

- Shortage of water for both human and wild animal consumption.
- Existence of public infrastructure: roads (Pangani- Mkalamo, Pangani –Bagamoyo, Mandera- Saadani, Bagamoyo – Matipwili –Mandera and railway line (Dar- Tanga).
- Human settlement inside the Park (salt mining) and engulfment of villages (Saadani & Buyuni).
- Boundary disputes in some areas e.g Gama, Saadani and Matipwili.
- Blockage of wildlife corridor (Saadani- Wami Mbiki) and dispersal areas (Gendagenda, Mkalamo, Buyuni, Gama and Kitami).
- Poaching, lumbering and charcoal burning.
- Catchment destruction outside the park.

38. Mr. Mapinduzi concluded with a call for managers of the existing biosphere reserves to consider inclusion of MAB activities in their operational work plans; allocation of funds for the nomination process by managers of potential sites, organization of meetings by the MAB National Committees and support by UNESCO for the mobilisation of resources for MAB activities.

39. For Sahamalaza Biosphere Reserve Madagascar, Mr. Isaia Raymond outlined three key achievements:

- Conduct of studies on the natural resources of the biosphere reserves.
- Education on bush fires through radio programs.
- Involvement of all local communities in conservation activities in the biosphere reserve.

40. The management of the Pendjari Reserve in Benin was presented by Mr. Djafarou Tiomoko. The key strategies used in managing the reserve included:

- Engagement of the local people including professional hunters to serve as eco -guards in the Pendjari BR. In addition local person were involved in the development of activities in the reserve.
- Assessment of visitor impressions in respect of the promotion of a strategy for eco-tourism in the park.
- Sustainable agriculture and fishing is carried out in the reserve and a percentage of the revenue generated is given to the community members.

41. The MAB Committee for Burkina Faso reported on the implementation of the SUMAMAD Project with funding from Belgium, UNESCO, UNU-INWEH Canada, UNCAD. The aim of the project was to develop strategies for conserving biodiversity in marginal dry lands. Key achievements of the project included Education, i.e. Funding of Masters Projects in the area of Research, Training of students on impacts of pesticides on agricultural activities, training of students on the management of forest reserves, tree planting exercise in the reserves and training on early warning on bush fires. Emphasis was placed on the need for collaboration among the universities, the biosphere reserve, and Governments of Burkina and Benin to foster transboundary collaboration.

42. The MAB Committee of Cote d'Ivoire reported on two BRs: Tai (forest region) & Comoé (Savannah region) Biosphere Reserves. Major achievements outlined included the production of two documentaries, publications of newspaper articles, improvement of infrastructure of the research laboratory in the Tai Biosphere Reserve and the establishment of a committee in 2012 for the management of the Tai Biosphere Reserve. Others included the organization of capacity-building workshops for managers of the two biosphere reserves and collaboration with the German government for funding in the establishment of a community based committee whose responsibility is geared towards the management of the BRs.

43. Ms Sheila Ashong reported on status of implementation of the MAP by the Ghana MAB National Committee. She indicated that Ghana had been a member of the World Network of Biosphere Reserves since 1982 and the country currently had two (2) reserves: Bia in the Western Region and Songor in the Greater Accra Region (2011). Studies were being undertaken for the nomination of Lake Bosomtwe catchment area as Ghana's third biosphere reserve. The long-term objective for MAB in Ghana was to establish at least one biosphere

reserve in each of Ghana's agro-ecological zones and at least one trans-boundary reserve. The biodiversity businesses being initiated under the Green Economies in Biosphere Reserves project to be implemented in the Bia biosphere reserve were also to be emulated in other biosphere reserves. The national priorities for 2014-2021 were outlined as:

- Enhancement of visibility of MAB and awareness on biosphere reserves and ongoing projects.
- Livelihood diversification through Green Economies.
- Capacity building of site managers.
- Stakeholder sensitization.
- Development of a Strategic Plan for MAB Ghana.
- Improved stakeholder collaboration especially at the community level.

44. The coordinator of the UNESCO Sustainable Management of Lake Bosomtwe project, funded by Spain, Mr. William Amonoo, enlightened members on key activities implemented under the project which included:

- Mainstreaming of applicable cultural practices into the lake's management structure.
- Drafting of fisheries bye-laws which mainstream traditional concepts with the existing legislation proposed for the lake.
- Development of best practices in agriculture (with emphasis on agro-forestry) and fisheries.
- Development of a long term community led water quality monitoring programme.
- Promotion of sustainable alternative livelihoods.
- Awareness raising, legal and technical consultations towards BR nomination.

45. Guinea reported on four BRs namely Monts Nimba, Ziama, Haut Niger and Badiar. There were on-going initiatives to also create 3 trans-boundary BRs namely Badiar, Mount Nimba and Bafing Falémé. Due to problems of human encroachment, the Government of Guinea had set up a para-military unit and Parks and Gardens unit to manage the protected areas within the BRs. The presentation however outlined several challenges that mitigate the smooth management of these BRs. Some of the challenges included pressure on resources due to mining, lack of funding and technical know-how, lack of research, unsustainable harvesting of fuel wood and impacts of political interference in the management of natural resources. The need for provision of financial support to support the implementation of management plans was underscored.

46. Mali presented a report on Boucle de Baoulé Biosphere Reserve. It was indicated that 22 communities had consulted on measures to promote alternative livelihoods. These communities had constituted the MAB Committee. Future plans outlined included the organization of a cultural event to showcase their cultural heritage, exhibitions to promote trade and promotion of research in the BRs.

47. Niger presented a status report on the biosphere reserves and new protected areas. It was indicated that the country had two BRs namely; Air and Ténéré BR in the North and W BR part of the W- Region transboundary BR shared with Benin, Burkina Faso and Niger. The key challenges to management were: lack of the understanding of local communities to adopt the MAB concept, poaching, mining, agriculture activities and management of the transboundary BRs by identifying the boundaries of the reserves shared by the 3 countries. Efforts were underway to nominate two more BRs in the country.

48. Sao Tome and Principe reported on the new Príncipe Island Biosphere Reserve. Mr. Antonio Abreu presented a promotional documentary on the biosphere reserve which had an area of 142km² and a population of less than 8000. The national report touched on the Principe Declaration which included:

- Creation of a collaborative platform involving the use of new technologies i.e. face book to promote the biosphere concept.
- Conservation and sustainable use of natural resources.
- Tourism promotion.

- Quality economy through biosphere reserve branding.
- Water, energy and waste management.
- Transition to green economy.

49. Expected actions towards implementation of Madrid Action Plan included:

- Cooperation with other reserves, dissemination of information on the reserve outside through participation in a number of networks.
- Elaboration of the Management Plan.
- Articulation between the BR Zoning and the Landscape Management and Protected Areas System.
- Consolidation of the Scientific Committee of the Biosphere reserve.
- Training and capacitating BR and MAB National Committee Staff.
- Collaboration with national and international institutions on biodiversity and education programs.
- Partnership with private companies, public institutions (Natural Park, schools, etc.).

50. Senegal reported on the participatory approach being used in the creation of the Ferlo Biosphere Reserve. The activities outlined included:

- Organization of a workshop to discuss the need for a new biosphere.
- Promotion a sensitisation drive on the needs on the creation of the biosphere reserve.
- Involvement of the local communities in the demarcation of the boundaries of the reserves and its various zones.
- Conduct of research and publication of the results.
- Training of local people in alternative sources of livelihoods.
- Establishment of a Local Charter which gives provision for concerted management of the biosphere reserve.

51. Togo reported on OTI-Kéran Biosphere Reserve. Activities implemented included consultations with stakeholders which had resulted in the documentation, training of animal breeders, monitoring and evaluation campaign in order to bring it to world standard, training for the managers of the park, impact assessment studies, conduct of ecological monitoring to mitigate poaching activities and capacity building in communities likely to be affected by the impacts of Climate change.

52. South Africa reported on the Kruger to Canyons (K2C) and Waterberg Biosphere Reserves. The main achievements were the establishment of a national website, funding allocated for nature conservation, provision of support for ten annual reviews by the national government, funding and printing of AfriMAB book on “Biosphere Reserves: Showcasing sustainable development”.

53 The challenges outlined were:

- Funding.
- Inadequate capacity.
- Inadequate collaboration.
- Land restitution process very slow.
- Overlapping between biodiversity hotspots areas of rich mineral deposits – relevant ministers have agreed on a balanced approach, biodiversity and mining guidelines launched in May 2013.

54. The activities reported by the MAB Committee of Nigeria with respect to implementation of Madrid Action Plan were:

- Empowering BRs through participatory learning and action.
- Establishing a community development foundation.
- Strengthening community institutions.
- Organization of environmental awareness campaigns in schools and conservation clubs within the Biosphere reserve.
- Quarterly environmental sanitation and waste disposal campaigns in all the participating communities.
- Maintenance of the Biosphere Reserve zonation of core, buffer and transition zones.
- Utilization of the Omo Biosphere Reserve as the major centre of research and training for students in Tertiary institutions especially promotion of PhD courses.

55. Achievements towards AfriMAB regional priorities between 2010 and 2013 were:

- Improved financial mechanisms for biosphere reserves and regional networks.
- Transboundary biosphere reserve.
- Training of biosphere reserve managers and other relevant stakeholders.
- Integrated information and communication strategy.
- Mitigation in relation to climate change.

- Exchanges between biosphere reserves.
- Analyses of ecosystem services and their management through stakeholder participation.
- Analysis of the zonation of all biosphere reserves.

56. The main national priorities for 2014-2021 were the improvement of financial mechanisms for biosphere reserves and regional networks, development of resource materials for formal and informal biodiversity conservation education, development of modules for training of Trainers (ToT) on monitoring of biodiversity for renewable resource managers and end users and strengthening capacity of existing biodiversity institutions in Nigeria.

57. Malawi reported on Lake Chilwa & Mt Mulanje Biosphere Reserves. Lake Chilwa is a Ramsar site, enlisted on the WNBR in 2009, and has a high interest from academia and local community involvement. Current activities include a 5 year climate change adaptation project supported by the Norwegian government. At present, there was no authority responsible for management of the water body. Mt Mulanje Biosphere Reserve on the other hand was established in 2000 as a forest reserve under the Forestry Department. The Mulanje Mountain Conservation Trust was funding conservation, livelihoods & research for the attainment of green economies.

58. Planned activities for the next decade included reconstitution of the MAB National Committee, nomination of Nyika National Park as a BR, establishment of a management authority and development of a sustainable financing mechanism for Lake Chilwa, re-zoning of Mt Mulanje BR for periodic review, preparation of a bid for Mt Mulanje as a World Heritage site, consolidation of networking of Mt Mulanje with Lake Chilwa and development of a transboundary BR opportunity with Mozambique.

59. Dr. Dominic V. L. Mundrugo-Ogo reported on Uganda's biosphere reserves: Queen Elizabeth National Park Biosphere Reserve (QENPBR), Mount Elgon National Park Biosphere Reserve (MENPBR) and Lake George Ramsar site. The BRs were managed by Uganda Wildlife Authority (UWA) under Wildlife Act 200 of 2000. The BRs were well staffed and equipped. Management plans were formulated by the Wildlife Authority in consultation with the local communities.

60. The main threats to effective management included increasing human population, long-standing contentions of access to ancestral lands for cultural rituals, bush fires, poisoning of game, poaching, poor relations due to human-wildlife conflicts, habitat modifications and disease outbreaks. The strength of the management system was the fact that strong historical and cultural connections existed between the local populations and the natural resources even before the areas were gazetted as protected areas. Management of the resources were aided by cultural practices such as totems and taboos, as well as traditional community-based institutions.

61. The main challenges encountered in management of the reserves were inadequacy of funding, resource degradation, political instability, low visibility and awareness of the biosphere reserve concept and inadequate stakeholder collaboration.

62. Dr. Cheikh Tidiane Kane of UEMOA presented a case study on the role of ecosystem services in the West African sub-region using the WAPO complex. Membership was voluntary among the West African states. He reported that the project area was a UNESCO world heritage site, a transboundary biosphere reserve and a Ramsar site. The main aim of the project was to ensure sustainable resource use and optimization of benefits for the riverine populations from a regional perspective. The key activities implemented included the promotion of non-timber forest products, ecotourism, agroforestry, and domestication of highly exploited species such as the grasscutter. Areas identified for emulation of the project were the transboundary regions between Ghana, Cote d'Ivoire and Burkina Faso; and the transboundary area between Guinea, Guinea Bissau Senegal and Mali.

63. He concluded by indicating that UEMOA provided a perfect platform for collaboration among different nations to foster dialogue on conservation and development. The WAPO complex was a unique site for sustainable tourism in West Africa and enhancing harmonization of legislation and the implementation of collective regional activities.

64. The national report session highlighted key challenges encountered in African biosphere reserves varied from poaching, increasing population, influx of refugees into the BRs, degradation caused by extractive industries, encroachment through agricultural activity and sustainable financing mechanisms

65. The main interventions at the national level included:

- Development of management plans and collaborative management systems.
- Incorporation of indigenous resource management systems.
- Collaboration for trans-boundary reserves.
- Programmes to raise awareness on the BR concept and enhance the visibility of the MAB programme.
- Stakeholder engagement.
- Strengthening community level institutions.
- Promotion of research including engagement of the academia.
- Livelihood support programmes including tourism and ecotourism.

66. Common problems encountered by the MAB National Committees included weak collaboration among partner institutions, lack of funding, low level of awareness on the biosphere reserve concept, lack or inadequacy of data and inadequate capacity of site managers to implement the biosphere reserve concept.

67. During the discussions questions were raised about water pollution, benefit sharing, research needs and accessibility of local communities to market facilities. Mining activities and extractive industries within BRs were extensively discussed. The General Assembly requested UNESCO to organise a regional meeting on this topic during the next Biennium.

XIII. Status of Biosphere Reserves in Africa: Nominations and Periodic Reviews

68. Dr. Noeline Rakotoarisoa of the MAB secretariat made a presentation which indicated that there were 64 BRs in 28 countries in sub-Saharan Africa, including two transboundary biosphere reserves and representing 10.9% of the World Network of Biosphere Reserves. Forty-one of these reserves were pre-Seville sites. She reported an increasing trend in the nominations since 2000. She indicated that 33 of the BRs in Africa had undertaken periodic reviews while 17 have never undertaken the review since their inclusion in the WNBR.

69. She presented the Exit strategy which has been adopted by 25th session of MAB ICC. It is a tool to keep excellence within the WNBR. The exit strategy made provision for the MAB ICC to exclude from the WNBR the sites which did not conform to the requirements of the Seville strategy and Statutory Framework for Biosphere Reserve Management. In this

context, periodic reviews and follow up of recommendations from previous periodic review for the improvement of BR management and the attainment of the three objectives of BRs was critical.

XIV Management Manual for Biosphere Reserves in Africa

70. Dr. Rakotoarisoa introduced this session which was aimed at promoting a sense of collective ownership for the project within the network. The project was supported by the BfN with funds from the German Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU) and was coordinated by the German Commission for UNESCO (DUK) in close cooperation with the AfriMAB Bureau and the UNESCO MAB Secretariat. It followed recommendations of the Rhön Communiqué which identified the main challenges faced by biosphere reserves in Africa.

71. Mr. Florian Carius, International Conservation Officer for Africa at the German Federal Agency for Nature Conservation (BfN), on behalf of the German government, expressed appreciation for the fruitful partnership with AfriMAB. He indicated that in fulfillment of their global responsibility for biodiversity, Germany was allocating 500 million Euros annually for the conservation of ecosystems worldwide as of 2013. He further assured the General Assembly of Germany's commitment to support biosphere reserves in Africa and indicated ongoing support beyond the manual project. These included projects in the Sheka, Yayu and Kafa BRs and establishment of the Lake Tana BR, all in Ethiopia. He invited AfriMAB to enhance collaboration and networking to achieve sustainable development. He quoted the German Strategy for Africa which called for an equal partnership with shared interests and which emphasized the potential of the World Network of Biosphere Reserves in this regard.

72. Ms. Ashong and Mr. Tiomoko made presentations on the process for the development of the management manual and the proposed contents of the manual. It was indicated that the process would be participatory and ensure the comments of all members of the network had been integrated. The Manual would also contain ideas for appropriate, feasible, cheap and effective measures to enhance participation in the management of BRs. It was expected to balance scientific and local knowledge, and also address financing and transparency issues. The first draft was expected to be completed by December 2013 and would be followed by

online validation through comments from the network. Further information on the project is available at http://www.unesco.de/management_manual_br_afrika.html?&L=1.

XV. The Role of Ecosystem Services in Boosting Green Economies in Biosphere

Reserves

73. The Chairman introduced Mr. Alex Forbes as the facilitator of the technical workshop from the Sub-Global Assessment Network. He acknowledged the excellent collaboration between UNESCO and SGA for the benefit of AfriMAB.

74. Ms Noeline Rakotoarisoa introduced the objectives of the technical session as: learning the concepts of ecosystem services and green economy; sharing from experiences of BRs working with ecosystem services; exchanging ideas on the kind of results and activities that could promote payment for ecosystem services (PES) and green economies in BRs; and also ideas for a regional project on ecosystem services in the AfriMAB network.

75. Mr. Alex Forbes introduced the technical workshop “The Role of Ecosystem Services in Boosting Green Economies in Biosphere Reserves” which comprised of the following sessions:

- Session 1: Concepts of ecosystem services and green economy
- Session 2: Learning from experiences of BRs working with ecosystem services to boost green economies
- Session 3: Exchange of ideas on the kind of results and activities that could promote payment for ecosystem services (PES) and green economies in BRs (group and plenary discussions)
- Session 4: Exchange of ideas for a regional project on ecosystem services in the AfriMAB network

XVI. Technical Workshop on Ecosystem Services

76. In his introductory presentation, Mr Alex Forbes gave a global perspective on ecosystem services and green economy, implications and opportunities for biosphere reserves. He touched on subjects such as National and sub-National Development, Policy and Planning, Assessments, Monitoring, Financial Mechanisms and Collaborative Networks.

77. The global perspective of green economies was also discussed with particular reference to the Millennium Development Goals being merged with Sustainable Development Goals (SDG), the Rio+20 outcomes significantly informing SDG global debate, including integration of the three pillars of SD – economic, environmental sustainability (natural capital, ecosystem services), and inclusive rights-based social development.

78. For AfriMAB, there would be the need to recognize ecosystem services as a conceptual framework to define protection and production functions of different land/seascapes of BRs, establish scientific research programmes to follow on from the Millennium Assessment to define approaches that secure ecosystem services and define a number of related targets, main activities and success indicators that relate to ecosystem services and green economy.

79. Case studies on green economy experiences in BRs were presented. Ms. Melody Ocloo from MAB Secretariat made a presentation on the UNESCO “Green Economies in Biosphere Reserves (GEBR)” project funded by KOICA and to be implemented in Bia (Ghana); Omo (Nigeria) and East Usambara (Tanzania) Biosphere Reserves. She defined a green economy as an economy which is based on commercial enterprises that generate profit through production processes that conserve biodiversity, use biological resources sustainably and share the benefits arising out of it equitably. It was indicated that the goal of GEBR project is to conserve biodiversity, reduce poverty and contribute to sustainable development in sub-Saharan Africa. The project is expected to provide support for

- Diversification of the economy through improved and alternative biodiversity related livelihoods.
- Reduce the pressure on forest as a result of fuel wood extraction for heating and cooking purposes.
- Build the capacity of communities in a holistic manner to ensure the sustainability of the biodiversity businesses and to conserve the resource-base of their business.

80. It is envisaged that the GEBR project would lead to reduced pressure on forest resources by engaging local communities to conserve biodiversity. A 50% reduction in people dependency on fuel wood and the excessive harvesting of NTFPs is targeted and incentives for conservation of biodiversity are expected to be provided by end of project.

81. Project activities would include assessment and inventory of biological resources in the three biosphere reserves, stakeholder mapping, socio economic studies and needs assessment, market studies and capacity building.

82. Case studies on ecosystem services and links to green economies from Burkina Faso, Nigeria, Madagascar, RDC, Niger and Kenya were also presented. These presentations showed that BRs provide a wide range of both direct and indirect ecosystem services including water supply, production of fuel wood and raw materials for charcoal, timber for construction, food, medicinal plants, socio-cultural and spiritual services. Threats identified included habitat modification, overexploitation of resources, pressure from the increasing human populations and water pollution. It was reported that these were exacerbated by other phenomena like climate change, drought and famine.

83. The representative of Sao Tome and Principe emphasized the importance of green economy for biosphere reserves and announced that Principe Island is offering to host a workshop on the Green Economy concept in 2014 as a follow up of this technical workshop. This proposition was welcomed by the General Assembly.

XVII Group Discussions

84. The groups were asked to undertake a SWOT analysis of BRs to sustain ecosystem services, with specific examples. Participants identified the underlying causes, the opportunities and threats (internal & external) affecting BRs ecosystems services, PESs schemes and their contribution to green economies.

85. An extensive debate followed the working group presentations. The following issues and concerns were raised:

- Need for BRs to be supported by national legal frameworks. There are mostly insufficient legal frameworks to support BRs.
- Common threat of resource extraction within the BRs. This could result in uncontrolled use and encroachment. Challenges of enforcement including lack of skilled personnel.
- Interest to build upon the contribution of ecosystems based services, industries and initiatives e.g. ecotourism.

- PES was largely identified as a priority funding source to support and achieve sustainable funding.
- Need to strengthen the knowledge base of ecosystem services found in BRs.
- Insufficient knowledge and information exchange within the regional BRs.
- The need to encourage use of BRs for research and investigation of PES.

XVIII Status of AfriBioFund

86. Ms Noeline R. Rakotoarisoa presented the outcomes of the feasibility study on African Biosphere Reserves Fund (AfriBioFund) which is a follow up of recommendations of 2010 General Assembly. It is worth noting that this has been funded through the contribution of Benin, Côte d'Ivoire, Ghana and Madagascar. The presentation outlined that the AfriBiofund will be an innovative financing instrument which will finance regional activities that seek to address the three functions of the BR (conservation, development and logistic support) in the view of achieving sustainable development. Therefore, it will not have the same focus of traditional conservation trusts, which are already in place in some Africa Protected Areas. AfriBioFund would rather match conservation financial schemes. AfriBioFund will have three components: Endowment, Sinking Fund and Revolving Funds. The proposed criteria for the governance structure for the Fund were also presented.

87. Participants welcomed the feasibility study. Their main concern was regarding the criteria to access the funds which should be accessible to the countries. The participants were of the view that good opportunities of funding exist and therefore tasked UNESCO to pursue the effort to establish AfriBioFund.

XIX Presentation of the prototype of the African Biosphere Reserves interactive web mapping kit.

88. Ms Noeline Rakotoarisoa presented the prototype of the African Biosphere Reserves interactive web mapping browser kit. This interactive friendly digital map, accessible offline, has been developed based on 30 BRs available digital data. On this map, each biosphere reserve is linked to a dataset by hyperlinks. Users will access by a simple click on the detailed zonation, geographical coordinates, and many more details including query on Google Image and Google Map. This map has been developed by UNESCO with the technical support of the Regional Centre for Mapping of Resources for Development (RCMRD), Nairobi, Kenya.

The CD was distributed to all the participants.

XVIII Recommendations

89. We, the members of the African Network of Biosphere Reserves (AfriMAB) having participated in the 3rd Session of the General Assembly held in Mensvic Hotel Accra, Ghana from 24 to 27 September 2013 under the theme " The role of Ecosystem Services in Boosting Green Economies in Biosphere Reserves" and having recognised the importance of the services rendered by diverse ecosystems in boosting green economies hereby recommend member states to:

- i. Develop strong collaboration between all the national MAB committees.
- ii. Identify of key constraints that prevented the MAB Secretariat and the Regional Network from achieving some of the targets of the Madrid Action Plan.
- iii. Promote the participation of local communities and civil society organizations in BR initiatives.
- iv. Develop a strategy to strengthen the capacities of AfriMAB and BRs managers to manage BRs.
- v. Facilitate the inclusion of MAB programme and BR concept topics in relevant curricula.
- vi. Evaluate the economic value of ecosystem services in BRs.
- vii. Promote internal policy dialogue on the value of ecosystem and its integration into national development agenda.
- viii. Establish more transboundary BRs.
- ix. Implement a green economy in biosphere reserve project in every country.
- x. Undertake extensive research and communication of research findings to facilitate the use of science to inform decision-making.
- xi. Develop AfriMAB policy briefs, manuals and guidelines of BR management.
- xii. Establish a database of volunteer experts.
- xiii. Adopt new technologies to promote BRs.
- xiv. Facilitate a strong inter-sectorial or ministerial synergy in our various countries to ensure sustainable development.
- xv. Establish a platform for continuous dialogue with the Executive and Parliamentary arms of Governments and all other relevant stakeholders.

- xvi. Adopt a regional approach to resource conservation. This would require that regional bodies such as AU, ECOWAS, WAEMU (West African Economic and Monetary Union), East African Regional Community, Central African States Economic Community and other economic groups are engaged to appreciate the importance of BRs.
- xvii. Strengthen synergies with Multilateral Environmental Agreements and other relevant conventions.
- xviii. Acknowledge the good collaboration between UNESCO/MAB and sub – Global Assessment Network for the benefit of this AfriMAB General assembly and encourage further collaboration between the WNBR and SGA Network.
- xix. Take into account that all BRs face challenges of natural resource exploitation, the Assembly calls on AfriMAB to organize a thematic workshop to sensitize the various stakeholders in the use and management of biosphere reserves to attain sustainable development.
- xx. Promote alternative livelihood schemes for communities.
- xxi. Advocate for the integration of BR, ecosystem services and PES concepts in national development Agenda.
- xxii. Strengthen AfriMAB capacities in the evaluation of ecosystem services for achieving green economics.
- xxiii. The General Assembly: Welcomes the proposition of Sao Tome and Principe to organise a workshop to discuss the implementation of green economy in biosphere reserves in Principe Island in 2014.
- xxiv. Request UNESCO to support the organization of a regional workshop to discuss further the threat of extractive activities such as mining to BRs and to present appropriate responses including cost benefit analysis of BRs.

XX Handing Over

90. Dr. Paul Makenzi handed over the charter and statutes to the newly elected chairman and offered himself to be of service to the entire network. He expressed his full support for the current chair and urged all members to support the course of promotion of the biosphere reserve concept in Africa. Mr. Amlalo expressed his appreciation to Dr Makenzi for keeping the vision and called on all members of the bureau to strive to keep the network vibrant. Participants of the General Assembly were also urged to put their hands to the plough since the bureau could not achieve the objectives of the network without their assistance.

91. The sub-regional coordinators also commended members in appreciation of the trust vested in them through their election to the Bureau. They pledged to do their best to move the network further.

92. Prof. Alfred Oteng Yeboah renewed his support for the new AfriMAB Bureau, urging all countries to pursue synergies between the biosphere reserve concept and other conventions. He was emphatic on the possibility of addressing lack of access to funding by linking up with the national focal points for the various conventions. He indicated that in line with the convention on biological diversity, nations were required to prepare national biodiversity strategies and action plans (NBSAPs). AfriMAB member stated could integrate their activities with the NBSAP focal points as an opportunity to source for funds.

XX Closing Session

93. Dr. Han Qunli expressed his appreciation of the success and level of interaction among participants at the 3rd session of the General Assembly and was hopeful that the next session would involve an even higher level of participation by members of the network. He also anticipated that in the next few years the number of biosphere reserves in the AfriMAB could be increased to one hundred. He commended the Government and MAB Committee of Ghana for accepting to host the General Assembly and reiterated UNESCO's dedication to support AfriMAB activities for the achievement of the goals of the network.

94. Mr. Djafarou Tiomoko, on behalf of all participants, presented a note of appreciation to the government of Ghana and the MAB committee for accepting the challenge to host the general assembly and for the warm reception provided.

95. The Chair stressed the importance of the recommendations and the need to ensure action on them. Mr. Daniel Amlalo then commended the planning committee, the interpretation team, the caterers and the Ghana MAB National Committee for the time and labour invested in the organisation of the General Assembly. Members were urged to provide feedback on the Assembly via the evaluation form in order to inform the organisation of subsequent meetings.

96. The Chair declared the 3rd session of the AfriMAB General Assembly closed.