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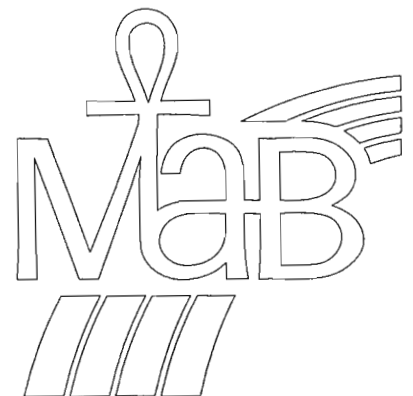
International
Co-ordinating
Council
of the **Programme** on
Man and the Biosphere

SIXTEENTH SESSION

UNESCO HEADQUARTERS

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Previous reports in this series

1. International Co-ordinating Council of the Programme on Man and the Biosphere (MAB). First session. Paris, 9-19 November, 1971.
2. Expert panel on the role of systems analysis and modelling approaches in the Programme on Man and the Biosphere (MAB). Paris, 18-20 April, 1972.
3. Expert panel on Project 1: Ecological effects of increasing human activities on tropical and subtropical forest ecosystems. Paris, 16-18 May, 1972.
4. Expert panel on Project 12: Interactions between environmental transformations and genetic and demographic changes. Paris, 23-25 May, 1972.
5. Expert panel on Project 5: Ecological effects of human activities on the value and resources of lakes, marshes, rivers, deltas, estuaries and coastal zones. London, 19-22 September, 1972.
6. Expert panel on Project 3: Impact of human activities and land use practices on grazing lands: savannah, grassland (from temperate to arid areas), tundra. Montpellier, 2-7 October, 1972.
7. Expert panel on educational activities under the Man and the Biosphere Programme (MAB). Paris, 5-8 December, 1972.
8. Expert panel on Project 6: Impact of human activities on mountain ecosystems. Salzburg, 29 January-4 February, 1973.
9. Expert panel on Project 13: Perception of environmental quality. Paris, 26-29 March, 1973.
10. International Co-ordinating Council of the Programme on Man and the Biosphere (MAB). Second session. Paris, 10-19 April, 1973.
11. Expert panel on Project 7: Ecology and rational use of island ecosystems. Paris, 26-28 June, 1973.
12. Expert panel on Project 8: Conservation of natural areas and of the genetic material they contain. Morges, 25-27 September, 1973.
13. Expert panel on Project 11: Ecological aspects of energy utilization in urban and industrial systems. Bad Nauheim, 16-19 October, 1973.
14. Working group on Project 6: Impact of human activities on mountain and tundra ecosystems. Lillehammer, 20-23 November, 1973.
15. Consultative group on Project 9: Ecological assessment of pest management and fertilizer use on terrestrial and aquatic ecosystems (Part on fertilizers). Rome, 7-9 January, 1974.
16. International working group on Project 1: Ecological effects of increasing human activities on tropical and subtropical forest ecosystems. Rio de Janeiro, 11-15 February, 1974.
17. Task force on the contribution of the social sciences to the MAB Programme. Paris, 28 February-2 March, 1974.
18. Regional meeting on integrated ecological research and training needs in the Sahelian region. Niamey, 9-15 March, 1974.
19. Expert panel on Project 2: Ecological effects of different land use and management practices on temperate and mediterranean forest landscapes. Paris, 16-19 April, 1974.
20. Task force on pollution monitoring and research in the framework of the MAB Programme. Moscow, 23-26 April, 1974.
21. International working group on Project 5: Ecological effects of human activities on the value and resources of lakes, marshes, rivers, deltas, estuaries and coastal zones. Paris, 13-17 May, 1974.
22. Task force on criteria and guidelines for the choice and establishment of biosphere reserves. Paris, 20-24 May, 1974.
23. Regional meeting on integrated ecological research and training needs in the Andean region. La Paz, 10-15 June, 1974.
24. Expert consultations on Project 9: Ecological assessment of pest management and fertilizer use on terrestrial and aquatic ecosystems (Part on pesticides).
25. International working group on Project 3: Impact of human activities and land use practices on grazing lands: savanna and grassland (from temperate to arid areas). Hurley, 2-5 July, 1974.
26. Regional meeting on integrated ecological research and training needs in the South East Asian Region. Kuala Lumpur, 19-22 August, 1974.
27. International Co-ordinating Council of the Programme on Man and the Biosphere (MAB). Third session. Washington, D.C., 17-29 September, 1974.
28. Regional meeting on integrated ecological research and training needs in Latin America, with emphasis on tropical and subtropical forest ecosystems. Mexico City, 30 September-5 October, 1974.
29. Expert panel on Project 4: Impact of human activities on the dynamics of arid and semi-arid zones' ecosystems, with particular attention to the effects of irrigation. Paris, 18-20 March, 1975.
30. Regional meeting on the establishment of co-operative programmes of interdisciplinary ecological research, training and rangeland management for arid and semi-arid zones of Northern Africa. Sfax, 3-12 April, 1975.
31. Task force on integrated ecological studies on human settlements, within the framework of Project 11. Paris, 2-6 June, 1975.
32. Task force on Project 14: Research on environmental pollution and its effects on the biosphere. Ottawa, 5-8 August, 1975.
33. Regional meeting on integrated ecological research and training needs in the humid tropics of West and Central Africa. Kinshasa, 29 August-5 September, 1975.
34. Regional meeting on integrated ecological research and training needs in the southern Asian mountain systems, particularly the Hind u Kush-Himalayas. Kathmandu, 26 September-2 October, 1975.
35. Regional meeting on integrated ecological research and training needs in tropical deciduous and semi-deciduous forest ecosystems of South Asia. Varanasi, 5-11 October, 1975.
36. Regional meeting on integrated ecological research and conservation activities in the northern Mediterranean countries. Potenza, 27-31 October, 1975.
37. Expert consultations on Project 10: Effects on man and his environment of major engineering works.
38. International Co-ordinating Council of the Programme on Man and the Biosphere (MAB). Fourth session. Paris, 18-26 November, 1975.
39. Regional planning meeting of the MAB National Committees of Andean countries, with particular attention to Project 6. Lima 2-5 December, 1975.
40. Regional meeting on integrated ecological research and training needs in North East Africa and in the Near and Middle East, with emphasis on the ecological effects of irrigation derived from large river basins. Alexandria, 24-27 February, 1976.
41. Regional meeting on integrated ecological research in temperate zones of the northern hemisphere, in the framework of Project 2. Brno, 24-29 April, 1976.
42. Planning meeting for Project 11, with emphasis on industrialized settlements. Amsterdam, 8-12 June, 1976.
43. MAB Mediterranean Scientific Conference. Regional meeting for MAB National Committees of countries bordering the Mediterranean Sea. Montpellier, 26 September-2 October, 1976.
44. International workshop on tropical rainforest ecosystems. Hamburg-Reinbek, 12-17 May, 1977.
45. Workshop on biosphere reserves in the Mediterranean region: development of a conceptual basis and a plan for the establishment of a regional network. Side, 6-11 July, 1977.
46. International Co-ordinating Council of the Programme on Man and the Biosphere (MAB). Fifth session. Vienna, 24 October-1 November, 1977.
47. Expert consultations on Project 7: Ecology and rational use of island ecosystems. Khabarovsk, 24 August, 1979.
48. International Co-ordinating Council of the Programme on Man and the Biosphere (MAB). Sixth session. Paris, 19-28 November, 1979.
49. Seminar on integrated and ecological approaches to rural development in arid and semi-arid zones. Djerba, 4-12 December, 1979.
50. Séminaire interrégional sur les problèmes de recherche et de formation concernant les terres a paturages dans les pays du Sahel et du Maghreb. Dakar, 23-31 octobre, 1980.
51. Meeting on the creation of a Mediterranean Network of ecological information systems. Montpellier, 2-5 December, 1980.
52. Reconvened expert panel on the role of systems analysis and modelling approaches in the Programme on Man and the Biosphere (MAB). Paris, 24-27 March, 1981.
53. International Co-ordinating Council of the Programme on Man and the Biosphere (MAB). Seventh session. Paris, 30 September-2 October, 1981.
54. International workshop on ecological problems of human settlements in arid lands. Khartoum, 7-12 March, 1981.
55. Task force on methods and concepts for studying man-environment interactions. Paris, 13-16 June, 1983.
56. Réunion de concertation des Comités nationaux du MAB des pays francophones d'Afrique. Yamoussoukro, 27-30 août, 1984.
57. International experts' meeting on ecological approaches to urban planning. Suzdal, 24-30 September, 1984.
58. International Co-ordinating Council of the Programme on Man and the Biosphere (MAB). Eighth session. Paris, 3-8 December, 1984.
59. General Scientific Advisory Panel. Established in co-operation with ICSU. Banff/Calgary, 21-25 August, 1985. Paris, 21-24 April, 1986.
60. International Co-ordinating Council of the Programme on Man and the Biosphere (MAB). Ninth session. Paris, 20-25 October, 1986.
61. International Co-ordinating Council of the Programme on Man and the Biosphere (MAB). Tenth session. Paris, 14-18 November, 1988.
62. International Co-ordinating Council of the Programme on Man and the Biosphere (MAB). Eleventh session. Paris, 12-16 November, 1990.
63. International Co-ordinating Council of the Programme on Man and the Biosphere (MAB). Twelfth session. Paris, 25-29 January, 1993.
64. International Co-ordinating Council of the Programme on Man and the Biosphere (MAB). Thirteenth session. Paris 12-16 June, 1995.
65. Man and the Biosphere (MAB) Programme, International Conference on Biosphere Reserves Seville (Spain) 20-25 March 1995
66. International Co-ordinating Council of the Programme on Man and the Biosphere (MAB). Fourteenth session. Paris 19-22 November 1996.
67. International Co-ordinating Council of the Programme on Man and the Biosphere (MAB). Fifteenth session. Paris, 7-11 December 1998.

TABLE OF CONTENTS

1. INTRODUCTION	5	8. NEW BIOSPHERE RESERVES: RESULTS OF THE MAB BUREAU	20
1.1 Convening of the session		9. YEAR 2001 MAB YOUNG SCIENTISTS AWARDS SELECTED BY THE MAB BUREAU	24
1.2 Opening of the session		10. THIRTIETH ANNIVERSARY OF THE MAB PROGRAMME	25
1.3 Report of the Chairperson of the outgoing Bureau		11. DATE AND VENUE OF THE 17TH SESSION OF THE ICC	25
1.4 Election of the Bureau		12. CLOSURE OF THE SESSION	25
1.5 Organization of the Council Session.		Annex I LIST OF PARTICIPANTS	26
1.6 Report of the Secretary on programmes and activities since ICC-15		Annex II REGIONAL NETWORKS	31
2. REPORTS ON NATIONAL ACTIVITIES	10	Annex III SEVILLE + 5 : RECOMMENDATIONS ON THE MEETING ON THE IMPLEMENTATION OF THE SEVILLE STRATEGY	33
2.1 World Network of Biosphere Reserves		Annex IV FUTURE DEVELOPMENT OF THE MAB PROGRAMME	45
2.2 Regional and international co-operation		Annex V LETTERS RECEIVED FROM THE NICARAGUAN AUTHORITIES .	52
2.3 Capacity Building			
2.4 MAB National Committees			
3. REGIONAL NETWORKS	11		
4. CO-OPERATION WITH INTERNATIONAL PARTNERS	12		
5. PERIODIC REVIEW OF BIOSPHERE RESERVES DESIGNATED OVER 10 YEARS AGO	14		
6. SEVILLE + 5 : RECOMMENDATIONS OF THE MEETING ON THE IMPLEMENTATION OF THE SEVILLE STRATEGY	15		
A. High priority tasks			
B. Medium priority tasks			
C. Next priority task			
D. Recommendations for implementation by others.			
7. FUTURE DEVELOPMENT OF THE MAB PROGRAMME	17		
7.1 Directions and approaches			
7.2 Overall Evaluation of the MAB Programme			
7.3 The role of MAB with regard to urban and peri-urban issues			
7.4 Biosphere Reserve Integrated Monitoring Programme			
7.5 Biosphere Reserves and Geosites/Geoparks			

INTRODUCTION

1.1 Convening of the session

1. The sixteenth session of the MAB International Co-ordinating Council (ICC) for the Programme on Man and the Biosphere (MAB) was held at UNESCO Headquarters in Paris from 6 - 10 November 2000.

2. Participants included representatives of the following members of the ICC elected by the UNESCO General Conference: Angola, Argentina, Australia, Azerbaijan, Cameroon, China, Costa Rica, Cuba, Czech Republic, Denmark, Ecuador, Egypt, France, Gabon, Germany, India, Jamaica, Japan, Kuwait, Madagascar, Malaysia, Mexico, Namibia, Netherlands, Nigeria, Portugal, Qatar, Romania, Slovakia, Spain, Syrian Arab Republic, Thailand, United Republic of Tanzania.

3. In addition, observers from the following Member States were present: Armenia, Belarus, Brazil, Cambodia, Central African Republic, Chile, Congo, Democratic Republic of the Congo, Dominican Republic, Finland, Honduras, Hungary, Indonesia, Iraq, Israel, Italy, Kenya, Morocco, Nicaragua, Panama, Papua New Guinea, Philippines, Russian Federation, Senegal, South Africa, Sweden, Turkey, Ukraine, United Kingdom, Venezuela, Yemen. Representatives of Palestine, United States of America and Holy See were also present.

4. The United Nations Food and Agricultural Organization (FAO), the International Council for Science (ICSU), The World Conservation Union (IUCN), the Convention on the Conservation of Migratory Species and Wild Animals (CMS), the Scientific Committee on Problems of the Environment (SCOPE), the Convention on Wetlands (Ramsar) and the E7 Group were also present. The full list of participants is presented as Annex 1 to this report.

1.2 Opening of the session

5. Mr Javier Castroviejo Bolibar of Spain, the Chairperson of the MAB ICC, opened the session by inviting Mr Koïchiro Matsuura, Director-General of UNESCO to deliver his opening speech.

6. Mr Matsuura welcomed the delegates to the

session. He stressed the importance of the session, given its central task to review the implementation of the progress of the Seville Strategy for Biosphere Reserves and make recommendations for the future direction of the MAB Programme. In particular, he thanked the Spanish authorities and the Chairperson for their support and effort in hosting the recent Seville +5 Conference in Pamplona, Spain.

7. The MAB Programme is a meeting place for the natural and social sciences, and the World Network of Biosphere Reserves, covering a large variety of ecosystems and activities, offered indeed the key elements for managing the biosphere. Success in sustainable management of these ecosystems together with their biological diversity was vital to secure people's future needs for food and water. Mr Matsuura informed the Council about the decision of the 160th session of the Executive Board whereby UNESCO will concentrate its programmes in the natural sciences domain, on water resources and ecosystems. Such concentration demands a key role for MAB to contribute through, particularly, a) reinforcing the use of biosphere reserves and their networks as key sites for sustainable development, and b) using biosphere reserves for conservation, research and education as well as for testing new approaches to conflict resolution. With these two overall emphases, Mr Matsuura encouraged the Council to look into the new possibilities for co-operation, such as the conservation of geosites with the International Geological Correlation Programme and the promotion of traditional ecological knowledge as inter-sectoral follow-up to the World Conference on Science. He also encouraged the Council to discuss ways to reinforce partnerships with multilateral environmental agreements. Mr Matsuura concluded his speech by reiterating the vital role of the Council in drawing up recommendations for the UNESCO General Conference and for himself on the future development of MAB, as well as for input to the work of the UN system in seeking solutions to the world's environmental problems.

1.3 Report of the Chairperson of the outgoing Bureau

8. Mr Javier Castroviejo Bolibar welcomed the Council members as well as observers and representatives from international organizations to this session. He reported to the Council on the decisions of the last two Bureau meetings. He first recalled the decisions on the new biosphere reserve nominations, by which the World Network consisted of 368 Biosphere Reserves in 91 countries. He informed the Council on the Bureau's decision to award the Charles Darwin Foundation for the Galapagos Islands (Ecuador) with the 1999 Sultan Qaboos Prize and the Bureau's decision to select 10 persons for the 2000 MAB Young Scientists' Awards. Mr Castroviejo recalled the process for convening the Seville+5 International Expert meeting in Pamplona from 23 to 27 October 2000. He thanked the Spanish authorities for their generous support and thanked all the participants at Seville +5 meeting for having produced important recommendations which were to be further examined by the Council. He took the opportunity to brief the Council about a recent meeting of the five Chairpersons of UNESCO's environmental programmes of IGCP, IHP, IOC, MAB and MOST. The Chairpersons had drawn up a set of recommendations for UNESCO's Medium-Term Strategy and the next biennial Programme and Budget. He mentioned the common framework for the five programmes as well as the new and interdisciplinary initiatives for co-operation, including science education, joint effort for the implementation of post-Rio conventions, ethics of science and technology and promotion of indigenous knowledge in natural resource use. Water and ecosystems were central focuses. Mr Castroviejo stressed the need to mobilize more resources to enable MAB to fulfil its new missions and a greater effort was needed to convince people for providing such support.

1.4 Election of the Bureau

9. The Council elected the following officers to constitute the Bureau:

Chairperson: Mr Mohamed Abdel Gawad Ayyad (Egypt)

Vice-Chairperson: Mr Wilson Torres Espinosa (Ecuador)

Mr Kindudi André Nanizeyi (Angola)

Mr Jürgen Nauber (Germany)

Mr Julius Oszlányi (Slovakia) (Rapporteur)

Mr M. R. Bhadharajaya Rajani (Thailand)

1.5 Organization of the Council Session.

10. The Council adopted its agenda as follows:

- 1) Opening of the session
- 2) Report of the Chairperson of the outgoing Bureau

- 3) Election of the Bureau
- 4) Adoption of the agenda and timetable
- 5) Report of the Secretary on programmes and activities since ICC-15
- 6) National reports
- 7) Regional networks
- 8) Co-operation with international partners
- 9) Periodic review of biosphere reserves designated over 10 years ago
- 10) Seville+5: Recommendations of the meeting on the implementation of the Seville Strategy
- 11) Future development of the MAB Programme
 - 11.1) MAB: some new or redefined directions
 - 11.2) Overall evaluation of the MAB Programme
 - 11.3) The role of MAB with regard to urban and peri-urban issues
 - 11.4) Biosphere Reserve Integrated Monitoring Programme
 - 11.5) Biosphere Reserves and geosites/geoparks
- 12) New Biosphere Reserves: Results of the MAB Bureau
- 13) MAB Young Scientists Awards: Results of the MAB Bureau and general discussion
- 14) Thirtieth Anniversary of the MAB Programme
- 15) Date and venue of ICC-17
- 16) Other matters
- 17) Adoption of the report
- 18) Closure of the session

1.6 Report of the Secretary on programmes and activities since ICC-15

11. Mr Peter Bridgewater, Secretary of the MAB Council, presented his report to the Council about the activities implemented during the intersessional period (December 1998 - October 2000).

12. He referred to the programme budget for the period 2000-2001, which had been adopted by the thirtieth session of the UNESCO General Conference in November 1999. Due to the present budgetary situation, new human resources were not likely to be available except through extrabudgetary contributions. He thanked the Government of the Netherlands for providing an associate expert to the MAB Secretariat and acknowledged the dedication of intern staff, but stressed that, without additional resources, the Secretariat human resources would not increase in the years to come.

13. The Secretary provided an overview of

progress made in the implementation of regional activities. In the African region, two meetings of AfriMAB had been organized, one in Dakar, in September 1999, and the other in Nairobi, in September 2000. These meetings decided to create task forces on: zoning and improved functioning of biosphere reserves; biosphere reserves and local communities; transboundary co-operation; and logistic support. These two meetings demonstrated how effective the programme could be in using the limited resources at its disposal as well as in showing how, despite regionalization due to language difficulties, networks could be free to operate in as a functional as possible manner.

14. With regard to the Arab region, ArabMAB held the second meeting of its Co-ordinating Council in Agadir, Morocco, in September 1999, which noted the participation of three new members.

15. The East Asian Biosphere Reserve Network (EABRN) held its sixth meeting in the Juizhaigou Biosphere Reserve, China, in September 2000. The meeting had focused on setting measures for conservation, eco-tourism and transboundary co-operation, and on the use of modern technology for biosphere reserves. Evaluation of biosphere reserves had also been carried out. Mr Bridgewater invited the other networks to consider carrying out similar evaluation activities.

16. A meeting of EuroMAB was held in Cambridge, UK, in April 2000, which allowed Biosphere Reserve Co-ordinators and MAB National Committees in Europe to discuss common issues that united the two groups. Recommendations that emerged from the meeting included: to improve MAB through the implementation of activities relevant to the programme of work of the Convention on Biological Diversity, but also of those being carried out regionally, including Natura 2000, the Pan-European Biodiversity and Landscape Strategy, and the European Union's Fifth Framework. The Chairs of ArabMAB and IberoMAB also attended the meeting, as did the Chair of MAB Russia (the latter will most probably host the next meeting of EABRN), which gave once more a concrete example of how regional barriers were being broken, thus making the regional networks most effective tools. The Cambridge meeting also dealt with the issue of evaluation, which fed into the Seville + 5 process.

17. IberoMAB held its fourth meeting in the Galapagos Islands Biosphere Reserve in September 1999, with an emphasis on local community participation and small island systems. The meeting reached the conclusion that, if local support to biosphere reserves was well secured, the biosphere reserve could function effectively.

18. The Secretary then introduced the outcome of the work carried out by the MAB thematic networks. He made reference to the Integrated Biodiversity Strate-

gies for Islands and Coastal Areas (IBSICA) network and the third meeting of REDBIO held in its context in Dakar in February 2000. He noted that Cap Verde, Spain, Senegal and Morocco were located at an intersection of three biogeographically similar regions with ecological systems and issues common to small islands and coastal areas. Again, the meeting was a practical application of breaking down barriers, and other networks were encouraged to do the same.

19. Asia-Pacific co-operation was promoted *inter alia* through a mangrove ecosystems workshop held in Okinawa, Japan, March 2000, in co-operation with the United Nations University (UNU).

20. In the context of the South-South Co-operation Programme, the fourth meeting of this thematic network was organized in Xalapa (Mexico) in May 1999, which focused on socio-economic development in humid tropics and also provided an occasion to revisit the programme as a whole. Recommendations included continuing co-operating with UNU, both practically but also intellectually, in testing new working hypotheses and promoting common approaches.

21. CYTED (Programme on Co-operation on Science and Technology for Development) continued to be active with considerable activities during the inter-sessional period.

22. With regard to the Biosphere Reserve Integrated Monitoring (BRIM) programme, Mr Bridgewater mentioned that this programme had been transferred from US-MAB to the MAB Secretariat. The latter had been working closely with US-MAB and in particular with the Information Center for the Environment of the University of California at Davis on the application of *MABFlora* and *MABFauna*. While the transfer in its initial stage may not have been as smooth as foreseen due to reasons of a bureaucratic nature, the relationship between the Secretariat and ICE/UCDA was now both fully operational and productive, mainly linked with *MABFlora* and *MABFauna*. As BRIM should encompass a range of monitoring activities, the Secretariat had pursued active co-operation with the Global Terrestrial Observing System (GTOS) Office located in FAO Headquarters in Rome, other relevant monitoring endeavours, and the agencies active in monitoring activities such as the US National Aeronautics and Space Administration.

23. The Secretary referred to the Northern Science Network, whose Advisory Group had met twice, in Abisko, Sweden, in October 1999 and in Whitehorse, Canada, in September 2000. A conference on crossing borders between science and community had been held in conjunction with the Canada meeting. This network presently faced lack of proper funding support, and its future activities would depend on securing satisfactory funding support.

24. Mr Bridgewater informed the Council about the recent development of the MAB Urban Group. Although this issue had been discussed for many years, the Group had become fully operational only recently, and a roster of urban experts was being developed. The Group would hold its first meeting as a side event, during this session of Council. It was worthwhile recalling the relevance of urban systems to other programmes of UNESCO, namely the Management of Social Transformations (MOST) Programme and selected activities within the International Hydrological Programme. This would certainly reinforce the synergy and crosslinking of UNESCO's programmes.

25. Mr Bridgewater referred to co-operation with relevant international bodies as one of the most interesting and positive developments in the last two years. The Secretariat had continued strengthening co-operation with the Convention on Biological Diversity (CBD), in particular in the concrete implementation of a joint Global Initiative on Biodiversity Education and Public Awareness. In response to the formal launching of the Initiative by the Conference of the Parties of CBD at its fifth meeting in Nairobi in May 2000, UNESCO organized and hosted in July this year the first meeting of the CBD-UNESCO Consultative Working Group of Experts on Biodiversity Education and Public Awareness, the second meeting of which would generously be hosted by Norway in late November. This initiative had been extremely well supported by the Secretariat of CBD, and the MAB Secretariat was also very interested in involving key partners within UNESCO. Activities such as this showed how the World Network of Biosphere Reserves could be used as a science network for action aimed at improving education and raising awareness. Also in the context of UNESCO's input to CBD, co-operation had been established with IUCN-The World Conservation Union (IUCN) Commission on Ecosystem Management in the organization of three regional workshops on the ecosystem approach in southern Africa, Latin America and South-East Asia, between July and November 2000. These were three very effective meetings in testing how this new planning and management strategy would in practice meet the objectives of CBD, based on practical experiences.

26. Synergy with the Ramsar Convention on Wetlands had been strengthened, in particular through discussion on developing concrete site-based co-operation, but also looking more broadly into common approaches to ecosystem science. The attendance of the Secretary-General of the Ramsar Convention at this Council's session would allow Council Members to hear his views on present and future collaboration. Similarly, co-operation with the Bonn Convention on Migratory Species (CMS) was being operationalized.

27. *Diversitas* - an international programme on biodiversity science, is an endeavour through which

UNESCO-MAB was involved with a number of members of the ICSU (International Council for Science) family. While *Diversitas* had experienced problems during the last few years, Mr Bridgewater was pleased to inform the Council that IGFA — a group of donor countries that supports science programmes on global change — had provided the funding necessary to appoint a new Executive Director of the programme, to be based in UNESCO, which would allow for close day-to-day linkages, in developing a truly distinctive research programme on biodiversity.

28. The Secretary informed the Council about progress in co-operation with other UNESCO intergovernmental programmes. This would be the subject of a subsequent intervention by the Co-ordinator of UNESCO's intergovernmental programmes.

29. Other issues worthy of attention were also mentioned by the Secretary:

- **Training and capacity building activities, particularly in developing countries.** In respect to the MAB Young Scientists' Research Awards, Mr Bridgewater stated that, as these awards were immensely important for their recipients, attempts should be made to try to ensure additional funding with the goal to expand their present number from the ten awards allocated each year. The awards scheme provided an opportunity to work with the private sector, on the basis of the guidelines that had been developed within the UN system on how to establish partnerships with the private sector.
- **Ecotechnie chairs.** This year, the Environmental Resource Center in Bahrain had been supported by a US \$ 500,000 grant from the United Nations Development Programme.
- **The United Nations Foundation-sponsored project in the Sao Paulo City Green Belt Biosphere Reserve** was an excellent example at providing eco-job training for young people from poor families and creating eco-jobs. This project was also an example of how MAB could operate in the context of its urban programme.
- **The 1999 Sultan Qaboos Prize for Environmental Preservation** was awarded to the Charles Darwin Foundation for the Galapagos Islands (Ecuador).
- 1999 saw the effective start of the **Regional School on Integrated Management of Tropical Forests (ERAIFT) Project**, financed by UNDP, in Kinshasa, Democratic Republic of the Congo. Presently efforts were being made to make the school more regional according to the needs of concerned countries. France, the Netherlands and USAID

were providing equipment for the School. Cameroon stated that ERAIFT should be maintained as one of the priorities of the MAB Programme in Africa, particularly in relation to education and scientific research within biosphere reserves in tropical humid regions.

- **The E7 regional project in the «W» trans-boundary Park and Biosphere Reserve**, a partnership of seven major hydroelectric companies, providing solar energy for electricity in “W” Biosphere Reserve was an exciting new development which should be replicated elsewhere.

30. The Secretary noted that, as envisaged in the Agenda for this Council session, the Council would address most of the above-mentioned items in detail during the next few days. He also made reference to the seventh meeting of the Advisory Committee on Biosphere Reserves that had met during the Seville + 5 meeting and had considered 25 new nominations for biosphere reserves.

31. He then briefly informed the Council about the focus of Commission III (Social and Natural Sciences) of the General Conference of UNESCO at its 30th session in 1999 on the follow-up to the Budapest World Conference on Science. In particular, the General Conference adopted a resolution recommending the re-orientation of UNESCO programmes, *inter alia* in the environmental sciences, to give more attention to science education and training, and to local and indigenous knowledge systems (LINKS) (also referred to as ‘traditional knowledge’ systems). With regard to the recently held 160th session of the UNESCO Executive Board, its main recommendation relevant to MAB concerned proposals for the conservation of geosites, which would be addressed in detail under agenda item 11.5.

32. Mr Bridgewater reviewed briefly several types of MAB publications. He noted that the Secretariat would like, with the assistance of MAB participating countries, to produce the *Biosphere Reserves Bulletin* more frequently.

33. Finally, the Secretary had the honour to inform the Council that Mr Michel Batisse had recently been awarded the UNEP 2000 Sasakawa Prize for his long working engagement with the MAB Programme and tireless campaigning for the establishment of biosphere reserves. The Chair asked Mr Bridgewater to convey to Mr Batisse the Council’s heartiest congratulations, for this most deserving and meritorious recognition.

REPORTS ON NATIONAL ACTIVITIES

34. In response to the request of the Secretariat, a large number of Council members had prepared written reports on their major activities undertaken since the fifteenth session of the MAB Council in December 1998. The representatives of the following Council members and observers made succinct presentations of key achievements and priorities for the future: Argentina, Azerbaijan, China, Costa Rica, Cuba, Egypt, France, Germany, Japan, Mexico, Slovakia, Spain, Thailand, United States of America.

2.1 World Network of Biosphere Reserves

35. All speakers mentioned the importance of biosphere reserves within their national MAB activities. Today, biosphere reserves are clearly appreciated for their multiple functions and their emphasis on local communities. Many delegates stressed that their biosphere reserves, sometimes in the framework of other international activities such as BRIM, provided valuable sites for scientific research and monitoring. Others stressed that biosphere reserves increasingly were seen as model sites for sustainable development, although in most cases it is recognized that the challenges are substantial, in particular in developing countries in terms of financial resources, population increase and poverty. The role of interdisciplinary scientific undertakings was stressed as was the possibility of successfully including project proposals involving biosphere reserves for external funding, such from the GEF and the EC. Several countries mentioned ongoing or planned future efforts to nominate new biosphere reserves, some adjacent to urban areas, some involving transborder reserves, while others recognized the effective functioning of existing sites as a priority. A number of delegates also mentioned the importance, and value of fully using biosphere reserves in the context of the implementation of their commitments under international conventions, such as the Convention on Biological Diversity.

36. Many delegations referred to the Seville Strategy as the guiding document for their national biosphere reserve-related activities, workshops, training

seminars, etc., and welcomed the opportunities for discussing the implementation of the Seville Strategy that had been provided by the Seville +5 meeting in Pamplona, Spain. The delegate of Mexico indicated that his country would be prepared to host a meeting in 2002 related to biosphere reserves, population and sustainable development issues. The Council welcomed the proposal, in suggesting that such a meeting might serve *inter alia* to further elaborate some of the issues to be discussed at the joint UNESCO - Columbia University Conference on Biodiversity and Society scheduled to take place at Columbia University in New York in April 2001.

2.2 Regional and international co-operation

37. In reflecting on the importance of regional and international co-operation, several speakers drew attention to recent activities within various regional and thematic networks, such as ArabMAB, EABRN, EuroMAB, Ibero-MAB and the South-South Co-operation Programme. Several delegates referred to the need to further develop collaborative links between the various regional and thematic networks contributing to the World Network of Biosphere Reserves. An increasing number of sites had their own web sites on the Internet, a tool that would clearly facilitate and re-enforce MAB's networking potential.

2.3 Capacity Building

38. Several delegates reported on activities in the field of public education, awareness and training as important features of their national activities. Examples were given of a number of workshops and training activities involving a range of participants from the scientific and civil society. An impressive list of newsletters, reports, publications, brochures and web materials were highlighted. For many countries, improved capacity building for the environment and sustainable development, such as in relation to biosphere reserves, was a clear priority.

2.4 MAB National Committees

39. In many cases, countries referred to the structure and composition of their MAB National Committees. As the backbone of MAB, the MAB National Committees were referred to as being critically important for the functioning of the Programme. Examples were presented on ways and means by which National Committees had been, or were being strengthened, in terms for example of change in mother institution or broadened membership involving *inter alia* research communities, government representatives, the private sector, indigenous groups, biosphere reserve coordina-

tors and the public at large. The delegates of several countries informed the Council that they now had, or soon would have, web pages dedicated to their MAB National Committees and to national networks of biosphere reserves. One speaker mentioned that her Committee included some 30 people from a range of institutions and scientific and professional backgrounds and that it actually was a fully functioning Committee that could effectively carry out its functions. The Council agreed that the role of MAB National Committees was indeed a critical issue for the Programme, that merited further reflection.

3 REGIONAL NETWORKS

40. The Chairperson of the Council noted the progress reports on MAB networks made by their representatives:

- **ArabMAB** by the Secretary of ArabMAB.
- **EABRN (East Asian Biosphere Reserve Network)** by Secretary-General of MAB China.
- **AfriMAB Network** by the representative of Angola.
- **IberoMAB network** by the Chairperson of MAB Cuba.
- **Programme of Iberoamerican Co-operation of Science and Technology for Development (CYTED)** by the Chair of MAB Mexico.
- **MAB Northern Science Network (NSN)** by the representative of MAB Finland.
- **SeaBRnet and Southeast Asia Ecotones** by the representative of MAB Thailand.
- **EuroMAB** by the representative of MAB UK.

41. More detailed information about the progress, achievements and plans of actions for these thematic or regional and subregional MAB networks are included in the Annex II of this Report.

42. Mr Javier Castroviejo, Chairman of MAB Spain, referred to a meeting which had taken place in Pamplona prior to the International Meeting of Experts Seville + 5 in October 2000. This informal meeting had gathered members of various regional networks to discuss ways and means of articulating and reinforcing links among the networks. Need for improved co-operation was stressed and, in this respect, the recent initiative to reinforce linkage between AfriMAB and ArabMAB was mentioned.

43. The Council thanked these representatives for their reports and expressed its satisfaction at the variety of activities and the dynamism which characterized these thematic and regional networks. In particular it stressed the importance of the existence of a national MAB mechanism for participating in such networks and developing national MAB programme activities.

4 CO-OPERATION WITH INTERNATIONAL PARTNERS

44. The Secretary introduced agenda item 8 on co-operation with international partners.

45. With regard to the Convention on Biological Diversity, he conveyed to the Council a message from the Executive Secretary on the importance, impact and implications of the CBD-UNESCO Global Initiative on Biodiversity Education and Public Awareness; the appropriateness of developing common approaches for the application of the ecosystem approach; the significant contribution from MAB to preparations related to the debate of the Conference of the Parties to CBD on Article 8(h) of the Convention (on protected areas) at its seventh meeting in 2004; and the links between biodiversity and traditional knowledge.

46. As far as the United Nations Framework Convention on Climate Change (UNFCCC), he indicated that so far virtually no contact had been established, due to the fact that UNFCCC's work up to present had mainly focused on physiochemical processes. However the Secretariat had the intention to explore with the UNFCCC Secretariat links between MAB and the Climate Convention with regard to biological/biodiversity processes.

47. The Council noted that a Memorandum of Understanding had been concluded between UNESCO and the UN Convention to Combat Desertification (UNCCD) and welcomed the recommendations of the UNESCO "International Seminar on Combating Desertification: Freshwater Resources and Rehabilitation of Degraded Areas in Drylands" (N'Djamena, Chad, 30 October - 4 November 2000). It was suggested that dryland ecosystems in Africa, Asia, Latin America and Europe become a specific MAB focus for work on dryland degradation and rehabilitation, and there was a proposal for MAB to launch a year of arid lands, which received wide support.

48. Co-operation with the Convention on Wetlands (Ramsar, 1971) and the Convention on the Conservation of Migratory Species and Wild Animals (CMS) was continuing, mainly focused on scientific matters. Co-operation also continued with the World Heritage Convention, which shares a significant number of sites with MAB.

49. Within UNESCO, collaborative arrangements had been strengthened with the Intergovernmental Oceanographic Commission, the International Geological Correlation Programme, and the International Hydrological Programme. In this regard, the Co-ordinator of UNESCO's Intergovernmental Environmental Programmes reported to the Council that, at a recently held meeting of the Steering Group of the five Chairpersons of IOC, IGCP, IHP, MAB and MOST, inter-disciplinarity had been reiterated as being the essence of the five programmes. It was proposed that the Steering Group would become a high level advisory body to the Director-General, with appropriate status. The Steering Group had agreed that new extrabudgetary financing or partnership was a key to achieving inter-programme co-operation.

50. Co-operation had continued with the United Nations Environment Programme (mainly through UNESCO-MAB's contribution to the work of the ECG (Ecosystem Conservation Group)), the United Nations Development Programme, the Secretariat of the Global Environment Facility, IUCN-The World Conservation Union (particularly its Commissions on Ecosystem Management, on Education and Communication and the IUCN World Commission on Protected Areas), with the ICSU family, and with the private sector (through the 'E7' project).

51. The Secretary-General of the Convention on Wetlands, Mr Delmar Blasco, indicated that the time was right for the Ramsar and MAB processes to start a new era of common existence rather than parallel existence. At least 33 Ramsar sites were situated within or coincided with biosphere reserves. Areas for concrete co-operation could be: questions of site management, the application of the concept of wise (or rational or sustainable development) use of wetlands. He concluded by suggesting that co-operation be operationalized through linkages between Ramsar/wetland committees and MAB National Committees.

52. The Executive Secretary of the Convention on the Conservation of Migratory Species and Wild Animals (CMS), Mr Arnulf Müller-Helmbrecht, stated that it was now appropriate to seek future co-operation

and synergy between MAB and CMS. He invited Council members to work towards such synergy from the international to the national level. CMS had now a sophisticated system of collaboration with other global organizations, both non- and inter-governmental, and with their scientific bodies. While MAB originated from science and its World Network of Biosphere Reserves, CMS stemmed from considerations on transboundary species, that is migratory species in dry, semi-arid, wetland, marine and coastal systems. It was possible to develop jointly the protection of these areas. Another aspect of co-operation between CMS and MAB was research, monitoring and data collection. In this respect, the CMS global register of migratory species could be extended, with the assistance of biosphere reserves and the BRIM programme, to a biodiversity register.

53. Mr David Sheppard, on behalf of IUCN, stated that his organization valued co-operation with MAB, which went back to the Programme's inception. The theme of the next World Parks Congress in South Africa in 2003 would be 'benefits beyond boundaries', and IUCN would be delighted to work with MAB to ensure that the links between biodiversity protection and peoples' needs could be further elaborated in the context of the forthcoming congress. He informed the Council that the new Chair of the IUCN World Commission on Protected Areas, Mr Kenton Miller, was very keen to strengthen co-operation with MAB in a number of areas, particularly: bioregional planning; effectiveness of protected areas; and marine protected areas, with an emphasis on developing regional networks of marine protected areas and their role in fishery management. He concluded by saying that there was a much greater potential to strengthen collaboration between IUCN and MAB, including through other IUCN Commissions.

54. The representative of the E7 Group — a partnership of energy companies from 8 G7 countries operating on a voluntary and non-profit basis and offering technical support to developing countries and countries with economies in transition — presented the E7 project in the 'W' transboundary biosphere reserve in Benin, Burkina Faso, and Niger. He said E7 was now in a position to finance the first phase of this project in the 'W' park zone. A fact-finding mission had been carried out in 1999, which strictly followed the biosphere reserve approach in order to identify ways to use renewable energy in a manner consistent with the protection of the biosphere reserve's core area. Basic needs of local populations were addressed, including provision of drinking water, electricity, and reserve water for forestry. This had been followed by a feasibility study, and it was intended that the pilot project phase (corresponding to 250,000 US \$) would be followed by a 2.5 million US \$ second phase. E7 and MAB were closely co-operating in

the project execution, on the basis of mutual trust and the provision by MAB of sound science. This was a demonstration of a «win-win» situation for both partners (the private sector and the rest of society).

55. The Council acknowledged the importance of present co-operation between MAB and relevant international partners. It commended the Secretariat for the quality of joint activities being carried out, and decided to strengthen the Secretariat's mandate to intensify work with those organizations. The E7 Project was strongly supported by the Council, as a good example of a new type of partnership between UNESCO and the international private sector, and similar projects should be developed and expanded for other areas.

56. It was noted that the work of the Secretariat in fostering co-operation with relevant organizations and initiatives should be complemented by action at the national level, while the Secretariat would continue to assist countries to promote interactions between MAB and other programmes. At the same time, it was also noted that some countries had already established a synergy at the national level between MAB and complementary approaches and activities, such as those carried out in Ramsar sites. One example was the two projects funded by GEF in joint MAB and Ramsar sites in Egypt.

57. The Council decided that it would be a very valuable exercise to produce a matrix of international partners, in order to best inform MAB National Committees about ongoing synergies and complementarity of international efforts, raise awareness, and strengthen such synergies. One option could be to produce a guide for policy makers at country level, including the role of the private sector, and the Secretariat would invite UNEP and UNDP, who have already organized meetings and produced outreach publications on synergy among environmental conventions and processes, to collaborate in this endeavour.

58. The Council considered that it would be desirable to establish co-operation with the Global Biodiversity Information Facility and also welcomed the idea to give attention in the future to dryland approaches in biosphere reserves, to be carried out regionally. In the context of UNESCO's co-operation with FAO and IUCN, the Council noted that many biosphere reserves were located in mountain areas that could be a welcome MAB contribution for the observance of the International Year of Mountains in 2002 raising awareness on mountain environments and sustainable development.

5

PERIODIC REVIEW OF BIOSPHERE RESERVES DESIGNATED OVER 10 YEARS AGO

59. The Secretariat introduced document SC-00/CONF208/2, which offered a general assessment of the periodic review process since its launch in 1997. The document also included two annexes containing a detailed analysis of data collected through the periodic review over three years and graphs showing the main trends. The Advisory Committee's recommendations on those biosphere reserves which had been the subject of periodic review in 1998, 1999 and 2000 were also available to the members of the Council. The Council endorsed these recommendations. The results of the working group on 'The impact of the periodic review' at the Seville+5 meeting of experts, held in Pamplona, were also mentioned as an aspect to be borne in mind during the debate on the item.

60. The Council noted that the assessment of the exercise could be seen as relatively positive since more than half of the sites (and over 60% of the countries) concerned had participated in the periodic review process within a relatively short interval. Many countries, however, had failed to respond despite the Secretariat's reminders. The exercise had yielded an overall view of more than one hundred sites and the main issue had been that of deciding on measures needed for sites not meeting current biosphere criteria, or doing so only imperfectly.

61. The importance of the periodic review process was stressed by all speakers. It made it possible, in particular, to mobilize the various partners, for example by organizing workshops at the national level and, as it involved self-evaluation, to remind countries of their responsibility to fulfil their commitments in respect of meeting the criteria. MAB National Committees, in conjunction with ministries or agencies with responsibility for the environment, should set about conducting the periodic review and act on its outcome. The recommendations made at the international level pinpointed aspects needing improvement in the functioning of biosphere reserves and so permitted support for countries' efforts to promote their biosphere reserves. It was therefore unanimously recognized that the exercise should be continued and strengthened.

Ways of making it more effective were nevertheless discussed, and the role of regional networks as technical support for the periodic review emphasized.

62. The opinions of the members of the International Co-ordinating Council diverged, however, on the implications of the results of the periodic review, which showed up a significant number of sites that only imperfectly met the criteria, particularly with regard to the three conservation, development and logistical functions. In the opinion of some members of the Council, the idea of categorizing biosphere reserves according to their main features within the network was worth exploring, while others feared that the end result might be a category of second-class biosphere reserves. Furthermore such specialization would, as some members of the Council saw it, run counter to the globality of the concept, its chief merit lying in fulfilment of the three functions together.

63. The conclusion was that reflection should be continued in order to strengthen the process and its impact on the functioning of biosphere reserves. In that regard, the Secretariat should explore options such as publicizing the benefits of the experiment, identifying sites in need of special support, particularly by seeking partners, in order to heed the results of the periodic review, and so on. It was therefore decided that the Bureau should consider the matter further and report to the International Co-ordinating Council and its next session.

SEVILLE + 5 : RECOMMENDATIONS OF THE MEETING ON THE IMPLEMENTATION OF THE SEVILLE STRATEGY

64. The Council expressed its sincere thanks to the Government of Spain, the Government of Navarra and the Municipality of Pamplona for their generous support which had made it possible for the Secretariat to organize the international meeting of experts 'Seville + 5' in Pamplona, Spain from 23 to 27 October 2000.

65. The Council took note of the recommendations of this meeting as presented in document SC-00/CONF.208/4. The representative of Mexico drew attention to the key role of biosphere reserves in protecting biodiversity, both within the sites themselves, and also by experimenting and demonstrating how biodiversity could be conserved in the wider landscape. The representative of IUCN welcomed the Seville + 5 recommendations and suggested that many could be implemented in co-operation with other organizations, including IUCN itself, for example on the subject of sustainable financing of protected areas.

66. The Council noted in particular that many recommendations of the working groups were addressed to the Secretariat and that, given the meagre resources available, there was a need for assigning a priority for their implementation. The Council set up a drafting group consisting of representatives from Argentina, Australia, Germany, Sudan, and the United Republic of Tanzania, to study these recommendations. The drafting group proceeded to:

- regroup overlapping/similar recommendations
- identify whenever possible recommendations which could be undertaken in conjunction with and/or delegated to other organizations and/or Member States
- assigned a priority as to the recommendations to be done in terms of the urgency of the task in hand and of the capacity of the Secretariat, using the following categories:
A = High priority
B = Medium priority
C = Next priority
D = Recommendations for implementation by others.

67. The full text of the recommendations of the Seville + 5 meeting is presented in Annex III

A. HIGH PRIORITY TASKS

68. **A.1** The MAB Secretariat should co-ordinate with the Secretariats of the relevant multi-lateral environmental agreements (e.g. the Convention on Biological Diversity) to promote biosphere reserves as instruments for their implementation at the national level, as possible through MAB National Committees. Guidelines should be prepared to harmonize research initiatives concerning the different conventions, for implementation at the national level.

69. **A.2** The implementation of the BRIM programme should be accelerated, including explicit recognition of the need to integrate the social sciences in its activities. In this connection the BRIM meeting foreseen in Kiev (2001) should be used *inter alia* to generate inputs for the Conference of the European ministers of environment to be held in 2002.

70. **A.3** The Secretariat should advise and act as a broker for Member States and groups of Member States/regional networks to help them to identify and submit proposals to potential donors/financing agencies and investors for strengthening biosphere reserves and, as appropriate, national biosphere reserve networks and regional networks. Special attention should be given to developing projects which serve to implement the recommendations of the periodic review.

71. **A.4** The MAB Secretariat should facilitate the establishment of a task force, including biosphere reserve managers and local specialists, on developing quality economies at site level. Issues which such a task force should consider include:

- defining 'quality'
- development of criteria (social, environmental and economic)
- branding and the criteria behind the image or the meaning of the brand
- critical analysis of branding, labelling, marketing, and associated mechanisms/ structures (including successes and failures)

- formulating communication and marketing strategies for biosphere reserves addressing all sectors, with specific follow-up actions.
- use of the media.

72. A.5 The regional networks, with the assistance of the Secretariat, should undertake a survey and critical analysis of existing biosphere reserve co-ordination structures in the coming months, with the objective of developing a set of guidelines on the creation, roles and functioning of such structures. The Secretariat should ensure that the Advisory Committee should pay particular attention to criterion 7 (c) of Article 4 on co-ordination mechanisms when evaluating new biosphere reserve proposals.

73. A.6 To improve follow-up of recommendations on the periodic review, the ICC and the Secretariat should ensure that information on measures taken should be provided in time for the following meeting of the Advisory Committee.

B. MEDIUM PRIORITY TASKS

74. B.1 The MAB Secretariat should develop a concise, user-friendly, practical guide to the Seville Strategy and the Statutory Framework to be translated into as many languages as possible with the assistance of the National Committees. The guide should highlight the importance of sustainable development and cross-link the different goals and objectives both within and between the Seville Strategy and the Statutory Framework. It should also clarify the added values of biosphere reserves and their products to social development and provide a clearer definition of MAB services, products and tools for sustainable development for national decision makers.

75. This practical guide should take a similar form as the brochure *Solving the Puzzle: The Ecosystem Approach and Biosphere Reserves* and should present the results of the survey of the Seville implementation indicators and be illustrated by good working examples.

76. In addition, the Secretariat should use the results of the survey on the implementation of the Seville Strategy indicators to create a web-accessible database of information about each biosphere reserve and encourage non-respondents to provide their information/reply.

77. B.2 The Secretariat should help Member States and/or regional networks to devise their own guidelines for identifying the stakeholders concerned for the three zones and the three functions of biosphere reserves. Such guidelines should be aimed at facilitating stakeholder participation in the practical management of biosphere reserves.

78. B.3 The MAB Secretariat should, in co-operation with biosphere reserve co-ordinators and MAB national committees, develop on-line and hard-

copy tutorials on the concept of biosphere reserves and the Seville Strategy and disseminate through appropriate processes such as workshops, favouring a participatory approach and integrating indigenous knowledge and appropriate communication technologies. The MAB Secretariat should also help MAB National Committees to develop and implement integrated courses in biodiversity conservation and resource management particularly in biosphere reserves with emphasis on the ecosystem approach.

79. B.4 The MAB Secretariat should provide support for the compilation, dissemination and critical analysis of national experiences of the review process, possibly through workshops. The MAB Secretariat, including UNESCO's regional offices, should also provide support, when requested, for the preparation of reviews and implementation of recommendations

C. NEXT PRIORITY TASK

80. C.1 The MAB Secretariat should use existing overviews of the different conventions of relevance to the MAB programme to prepare guidelines on their implementation in the framework of MAB. These should be translated in as many different languages as possible, with assistance from the MAB National Committees.

D. RECOMMENDATIONS FOR IMPLEMENTATION BY OTHERS

81. The Council noted that the following recommendations (see Annex III) addressed to the Secretariat were in fact more for implementation by MAB National Committees or focal points and/or at the level of individual biosphere reserves:

Working Group 1 #10

Working Group 6 #7

Working Group 10 #2

Working Group 10 #5 last four bullet points.

82. The Council urged the Secretariat to start as soon as possible with the implementation of the above tasks, as indicated. It also requested that the recommendations of the working groups for implementation at the regional network level, at the level of MAB National Committees, and at the level of individual biosphere reserves in co-operation with their MAB National Committees and/or focal points be separated out of document SC-00/CONE208/4 and presented as separate lists in order that those concerned had a clear indication of the work that they should undertake as a follow-up to Seville+5. The Council also requested that the progress in the implementation of these Seville + 5 recommendations be reported to the Council at its next session.

7

FUTURE DEVELOPMENT OF THE MAB PROGRAMME

83. The Secretary recalled the recommendation of the MAB Council at its fifteenth session that a document be prepared on the perspectives for the MAB Programme. In the light of this recommendation, a draft document had been posted on the MABNet. Comments and reflections from MAB National Committees and others collaborating in the Programme had been incorporated in a working document, which was introduced by the Secretary and which is reproduced in edited format as Annex IV of the present report. Among the points highlighted in the Secretary's oral presentation were the enduring characteristics and features of the MAB Programme, and implications to MAB of the World Conference of Science held in Budapest in June 1999 and of the burgeoning of other international programmes and initiatives concerned with people and the biosphere since MAB was created thirty years previously.

7.1 Directions and approaches

84. Council members reaffirmed the continued concern of MAB for bringing together the natural and social sciences, for building bridges between government agencies, the academic community and other stakeholder groups, NGOs and country-based organizations and for promoting co-operation and solidarity in seeking to explore, demonstrate, promote and encourage harmonious relationships between people and their environments. The ecosystem or bioregional approach was one characteristic of the biosphere reserve concept that holds promise for synergistic linkages with such partners as the Convention on Biological Diversity.

85. The importance of seeking links between MAB activities and such priority societal concerns as poverty eradication, economic diversification and improved local livelihoods was emphasized by several speakers. The involvement of local populations in biosphere reserve management is a challenge for many reserves, with the issue of product branding and quality control likely to become increasingly important with

the closer involvement of the private sector in the work of biosphere reserves.

86. Ecological monitoring and evaluation will continue to be an important function of the MAB Programme, and several delegates expressed support for such initiatives as Biosphere Reserve Integrated Monitoring (BRIM) and the Global Terrestrial Observing System (GTOS). Of crucial importance was the two-way flow of benefits for those taking part in global monitoring initiatives, such as the demonstration projects on net primary productivity and terrestrial carbon observations within the framework of GTOS. Building-up capacity to respond to complex environment and development issues should continue to be an integral part of MAB activities, through various kinds of educational activities measures for the technical training of specialists (for example in developing modern methods for environmental assessments) and public outreach and information.

87. In terms of exploring novel ecological theory and practice, there are emerging opportunities for developing strategic partnerships between MAB and the global environmental change community, in such fields as water, carbon and food systems.

88. Other research areas where MAB could make a distinctive contribution include the ecological effects of natural disasters and the rehabilitation of degraded ecosystems, particularly in arid and semi-arid regions.

89. In respect to the name of the programme, the Council recognized that the use of the term "Man" in the English-language title of the programme had provoked adverse criticism, at least in some countries, in that the term was considered by some to be not sufficiently gender-neutral. This said, the Council felt that the name of the programme should be maintained. Change in name would result in confusion and injurious loss of "trademark" and image.

90. The Council took note of the range of information materials and technical publications generated within the framework of MAB. Problems had been encountered by the Secretariat in ensuring the timely

availability of several information materials, such as the *Biosphere Reserves Bulletin*. Given these difficulties, the Council members agreed that further use be made of modern communications technologies in the diffusion of MAB-related information, including the preparation and diffusion of information targeted at different user groups.

91. In terms of substantive review of the biosphere reserve concept and its implementation, the Council took note of the preparation by the UNESCO-MAB Secretariat of a report provisionally entitled "*Biosphere reserves: special places for people and nature*". The report became available in draft form in September, and has been posted on the MABNet. Readers have been asked to provide corrections and suggestions for additional information, with the report being finalized for publication in the first half of 2001.

92. As regards the governance of the programme, the Council recalled the principal functions of the International Co-ordinating Council and its Bureau as well as the Advisory Committee on Biosphere Reserves. With the continuing evolution of the MAB Programme, the Council agreed on the importance of 'letting form follow function', particularly in respect to the mechanisms that are used to provide technical advice to the Council and its Bureau. One implication concerned the need to keep under review the functions and ways of working of the Advisory Committee on Biosphere Reserves, including ways and means of strengthening links between the Committee and the various regional networks within MAB.

93. At the national level, the role of MAB National Committees and equivalent focal points were critical for the satisfactory functioning of the programme. Here, there was particular need to provide support and encouragement to countries in regions such as the English-speaking parts of Africa, the Caribbean and MesoAmerica, which had not been centrally involved to date in the MAB regional networks.

7.2 Overall Evaluation of the MAB Programme

94. The members of the Council were informed that the General Conference had decided, under the Programme and Budget for 2000-2001, that an external evaluation would be carried out on the MAB programme during the biennium. Mr Reshov, Director of the Central Programme Evaluation Unit, gave the Council an outline of the evaluation objectives as reflected in Appendix IX to document 30 C/5, and described the procedure planned for the evaluation, which would be submitted to the Director-General in October 2001 and then to the Executive Board at its session preceding the General Conference, for discussion. He said that the team of evaluators, which would be

selected on the basis of proposals by Member States and partner organizations, should also take account of the Executive Board's decision at its 160th session concerning the Draft Medium-Term Strategy and, in particular, UNESCO's functions as described in that decision.

95. The Council noted that responsibility for organizing the evaluators' work and specifying their terms of reference lay with the Division of Ecological Sciences, and that the terms of reference would take due account of the discussions held at the Council's current session, in particular regarding the future of MAB and its new bearings. It also noted that MAB's partners would be involved in the process, as would the regional networks.

7.3 The role of MAB with regard to urban and peri-urban issues

96. The Secretariat introduced the agenda item by drawing attention to document SC-00/CONF.208/5 on the role of MAB with regard to urban and peri-urban issues, which outlines a new phase in the MAB Programme's contribution to the international agenda of research and policy making in the area of sustainable urban management and development through the establishment of the *ad hoc* 'Working Group to Explore the Application of the Biosphere Reserve Concept to Urban Areas and their Hinterlands' (The MAB Urban Group). The Council was informed of the MAB Urban Roster of Experts established following a MAB Circular Letter calling for nominations of national experts, from which the MAB Urban Group had been constituted, and that documents posted on the MABNet web site dedicated to urban issues outlining the present composition of the MAB Urban Roster of Experts and the MAB Urban Group were made available to the Council, together with the draft agenda for the first meeting of the MAB Urban Group scheduled as a side event of the MAB Council on 9 November 2000.

97. The Observer from the United Kingdom was then invited to make a short presentation on the background, objectives and programme of work of the UK MAB Urban Forum. Established in 1987, the UK MAB Urban Forum was recognized by a number of delegates as a most successful venture and a good example for other MAB National Committees to learn from and as a source of inspiration for the MAB Urban Group.

98. The observer from the US stressed the importance of city issues, and China highlighted that urban areas indeed constituted a challenge in terms of the environment and development and that the biosphere reserve concept was an interesting instrument in this context. France emphasized the importance of urban ecology and welcomed MAB's involvement in this area. Slovakia also expressed satisfaction with the mobilization within MAB on urban questions and recalled

that several bodies such as the European Commission were active in this field, and that it would be beneficial for MAB to establish partnerships with relevant bodies, processes and programmes on these issues. The Urban Group Member from Senegal stressed that the success of MAB's urban work to a large extent would be assessed according to the extent it would influence and positively shape decisions by urban planners and policy makers. Finally, Sweden emphasized that the creation of the MAB Urban Group was an excellent opportunity to effectively bring together the social and the natural sciences within MAB.

7.4 Biosphere Reserve Integrated Monitoring Programme

99. The Secretariat introduced document SC-00/CONF208/INF8 which provided background information on a special meeting on BRIM to be held in Kiev, Ukraine, in April 2001. The Council was invited in particular to comment on the preliminary objectives of the meeting, which were formulated by the Secretariat on the basis of informal consultations with MAB Ukraine and several other MAB National Committees.

100. The Council agreed that BRIM should expand into a truly integrated monitoring programme, which would be the main goal of the Ukraine meeting, by incorporating social and economic indicators, including sustainable development ones. It was agreed that BRIM and also the 2001 meeting should build on existing relevant monitoring initiatives, a good example of which was provided by the Global Terrestrial Observing System (GTOS) and its Terrestrial Ecosystems Monitoring Sites (TEMS) meta-database. The Council urged the Secretariat to examine these programmes, with the support of an advisory committee that would work over Internet. It was agreed that the 2001 meeting should be of a technical nature and that it should be limited in size.

101. The Secretariat assured the Council that it would undertake all necessary work in preparation of the Ukraine meeting in order for the latter to be used as a mechanism to operationalize BRIM around the world, starting with the World Network of Biosphere Reserves, but ultimately linking with the network of monitoring activities being pursued globally.

7.5 Biosphere Reserves and Geosites/Geoparks

102. Mr Eder, Director of the Division of Earth Sciences, presented the geoparks/geosites initiative and the results of the feasibility study carried out as requested by the Executive Board at its 156th session. The Council noted that the feasibility study had recommended that geological sites of special interest be integrated into the World Network of Biosphere Reserves.

The Executive Board, at its 160th session, had not wished to take any decision on the matter but asked the MAB Council to examine the recommendations of the feasibility study and their financial implications and to submit its recommendations to the Board at its 161st session.

103. During the debate, some delegations agreed on the importance of safeguarding geological sites but doubts were raised about the advisability of making such activity an integral part of the function of the World Network of Biosphere Reserves.

104. In this respect, a number of different concerns were expressed: some Council members feared that this additional administrative and financial task imposed on the Secretariat would burden the management of MAB; in individual countries the programmes came under different administrations and MAB National Committees lacked expertise in geology.

105. The question of possible confusion as a result of the overlapping of labels and the inherent difficulties of explaining the matter was also raised, as was the need to avoid downgrading the biosphere reserve label, which had gained wide recognition.

106. Some delegations, however, took the view that it would be most timely to include geosites (or geological sites of special interest) in existing or future biosphere reserves, and that they might even increase the value of such reserves; but the same did not go for geoparks. The idea should therefore be studied in greater depth, especially the question of how their integration into biosphere reserves could be envisaged.

107. One observer noted that the proposal to integrate the geosites/geoparks initiative into the World Network of Biosphere Reserves matched the General Conference's call for closer co-operation between the scientific programmes and a regrouping of their activities, a trend already reflected in the common declaration of the chairpersons of those programmes.

108. In conclusion, the Council acknowledged it to be a sensitive matter requiring more thorough examination of all the points raised during the debate and invited the Secretariat to prepare such a review, in consultation with the members of the Council, and to submit it to the Bureau before the next session of the Executive Board so that recommendations might be made at that session.

NEW BIOSPHERE RESERVES: RESULTS OF THE MAB BUREAU

109. The Council took note that its Bureau had met on several occasions during its 16th session to examine new proposals for biosphere reserves and a question on "cluster biosphere reserves".

110. The Council took note with satisfaction of the results of these meetings, which are recorded in the following paragraphs.

111. The Bureau examined 24 proposals for new biosphere reserves from 16 countries, and one extension to an existing biosphere reserve, in the light of the technical recommendations of the Advisory Committee for Biosphere Reserves.

8.1 New biosphere reserves

112. The Bureau approved the following sites as biosphere reserves. When further information was sought, the Bureau requested that such information be provided, if possible, in time for its meeting in 2001.

Delta del Paraná Biosphere Reserve (Argentina)

113. The Bureau approved this coastal wetland site as a biosphere reserve. It invited the Argentine authorities to extend the site to include the cluster of offshore islands reserves (including Martin Garcia and Delta en Crecimiento) as well as the surrounding estuarine waters. It also wished to encourage the Argentine authorities to strengthen the logistic function and to prevent pollution from agricultural activities.

Riacho Teuquito Biosphere Reserve (Argentina)

114. The Bureau approved this site, recognizing that it was the first biosphere reserve to represent the Chaco bio-geographical region and was to be considered as phase I of a larger biosphere reserve. It requested the Secretariat to consult with the Argentine authorities on the possible revision of the geometrical boundaries and on the mechanism to manage the area at the watershed level. It suggested that the area be extended as soon as possible to cover a broader part of the Chaco,

eventually leading to a transborder biosphere reserve and that the name be changed accordingly.

Grosses Walsertal Biosphere Reserve (Austria)

115. The Bureau approved this new Alpine biosphere reserve. It suggested that the Austrian authorities provide a zonation map using the Biosphere Reserve nomenclature, indicating the 'regeneration zone' as part of the transition area.

Pantanal Biosphere Reserve (Brazil)

116. The Bureau welcomed and approved this new biosphere reserve, which represented one of the world's largest wetlands, containing remarkable biodiversity. The Bureau commended the Brazilian authorities on their efforts to involve the key stakeholders in the management of this complex site and encouraged the establishment of an effective co-ordination mechanism following the consortium model of the Mâta Atlântica

Lac Saint-Pierre Biosphere Reserve (Canada)

117. The Bureau approved this site as a biosphere reserve, recognizing that it was an unusual site clearly representing the challenges of sustainability related to a major waterway in an industrialized area. It noted that the Federal and Provincial governments had made considerable investment in monitoring and rehabilitating of the Saint Lawrence River over the last decade and that the site had considerable support at the local level.

Mount Arrowsmith Biosphere Reserve (Canada)

118. The Bureau approved this site as a biosphere reserve. It noted that this proposal had been developed in a collaborative process involving the majority of the key local stakeholders at all levels. It felt that as strong as possible control of land activities would be necessary

for protection of the aquatic and coastal ecosystems, and encouraged the Canadian authorities to seek mechanisms to widen the buffer areas along the water courses and the coastline, and also to ensure appropriate co-operation with the Clayoquot Sound Biosphere Reserve concerning sustainable forest management.

Gaoligong Mountain Biosphere Reserve (China)

119. The Bureau approved this site as a biosphere reserve, recognizing that this area was of major importance for biodiversity conservation. The Bureau wished to encourage the Chinese authorities to manage this site in full co-operation with the local communities.

Baishuijiang Biosphere Reserve (China)

120. The Bureau approved this site as a biosphere reserve, recognizing that this site was noted for its biodiversity, including flagship species such as the Giant Panda. The Bureau furthermore requested the Chinese authorities to consider the possibility of expanding the area to include the two adjoining reserves of Wujiao and Tanjiahe in the Sichuan province at a future date.

Huanglong Biosphere Reserve (China)

121. The Bureau approved this site as a biosphere reserve. It requested the Chinese authorities to provide a revised map for this site, notably showing Chuanzhusi as part of the transition area. It also wished to encourage the Chinese authorities to improve the effectiveness of the site as a biosphere reserve by expanding it to encompass all or parts of the three surrounding Nature Reserves.

Seaflower Biosphere Reserve (Colombia)

122. The Bureau approved this site as a biosphere reserve. It noted that this very large marine biosphere reserve, focusing on the San Andrés archipelago and the surrounding ocean, presented special management challenges. The Bureau also noted that it could be a good experimental area for demonstrating the conservation of marine resources, including coral reefs, through sustainable development of island populations and control of fishing.

Ciénaga Grande de Santa Marta Biosphere Reserve (Colombia)

123. The Bureau approved this site as a biosphere reserve, which was one of the largest coastal wetlands of Latin America. It noted that infrastructural changes and

future proposed development would continue to bring pressures to the area. The Bureau requested that further information be provided on the management of the area, and in particular of the adjoining marine area. It also suggested that a corridor might be established between the two core areas and requested information about possible links with the nearby Sierra Nevada de Santa Marta Biosphere Reserve.

Sumaco Biosphere Reserve (Ecuador)

124. The Bureau approved this site as a biosphere reserve. It encouraged strengthening of the management of the site through the establishment of a biosphere reserve committee which would include all key stakeholders. It furthermore recommended that the Ecuadorian authorities consider adding some of the *patrimonios forestal* located outside the site as an additional buffer zone.

Nilgiri Biosphere Reserve (India)

125. The Bureau approved this site as a biosphere reserve, which was the first proposal from India and which represented an unique, threatened ecosystem in the tropics. It recommended that the Indian authorities consider extending the transition zone around the core and buffer zones in order to contribute to their long-term protection, and also to explore the possibility of including the populated area in the centre, which is currently outside the biosphere reserve, as part of the transition area.

Mount Mulanje Biosphere Reserve (Malawi)

126. The Bureau approved this site as a biosphere reserve, which was the first in Malawi, recognizing its exceptional level of endemism. The Bureau requested the Secretariat to work with the Malawi authorities to strengthen certain aspects of this site, notably to consolidate the consultation mechanism amongst the government agencies and stakeholders, particularly those concerned with local community development, and also to develop a transition area.

Oasis du sud marocain Biosphere Reserve (Morocco)

127. The Bureau approved this site as a biosphere reserve, recognizing its valuable cultural and biological diversity, and its critical role in buffering the advance of the Sahara desert. In view of the large number of people living in this area, the Bureau furthermore recommended that the Moroccan authorities make a special effort at increasing public awareness on the implication of biosphere reserve designation.

1. See letters received from the Nicaraguan authorities in Annex V.

**Bosque Mbaracayú Biosphere Reserve
(Paraguay)**

128. The Bureau approved this site as the first biosphere reserve in Paraguay, which corresponds to a hotspot in the continental part of the Mata Atlantica. It noted in particular that this site was managed by a private foundation. The Bureau stressed the need for long-term adequate protection in relation to agricultural development and suggested that the Paraguayan authorities consider extending the area to the south in the future.

**Cape West Coast Biosphere Reserve
(South Africa)**

129. The Bureau approved this site as a biosphere reserve. It noted that the site was located close to an urban area (Cape Town), which presented a challenge to demonstrate how a biosphere reserve could be useful as a tool for regional planning. It furthermore suggested that the South African authorities consider including Dassen Island and the surrounding marine area in the future.

**Somiedo Biosphere Reserve
(Spain)**

130. The Bureau approved this site as a biosphere reserve. It encouraged the Spanish authorities to build upon this site and the Muniellos Biosphere Reserve as the first two steps in forming a future large biosphere reserve for the Cordillera Cantabrica, thus serving to improve the coverage of the biogeographical regions of Spain.

**Muniellos Biosphere Reserve
(Spain)**

131. The Bureau approved this site as a biosphere reserve. It encouraged the Spanish authorities to build upon this site and the Somiedo Biosphere Reserve as the first two steps in forming a future large biosphere reserve for the Cordillera Cantabrica, thus serving to improve the coverage of the biogeographical regions of Spain.

**Bardenas Reales Biosphere Reserve
(Spain)**

132. The Bureau approved this site as a biosphere reserve recognizing that this site had special geomorphology, rich biodiversity and ancient traditional human use by local communities. The Bureau suggested that the Spanish authorities consider enlarging the biosphere reserve in the future, notably to include the human settlements to the west and south. The Bureau also suggested that local participation be strengthened, and that a plan be developed for use of the military zone in the biosphere reserve when military activities would cease in 2001.

**East Usambara Biosphere Reserve
(Tanzania)**

133. The Bureau approved this site as a biosphere reserve, recognizing that this site was situated in the East African mountain range which was noted for its very rich biodiversity. The Bureau requested the Secretariat to work with the Tanzanian authorities to strengthen certain aspects of this site notably on the zonation, and to clarify the question of land acquisition. It furthermore requested information on the possible extension of this site in the future.

**8.2 Extension
to an existing biosphere reserve**

134. The Bureau furthermore approved the extension of the following biosphere reserve:

**Cerrado Biosphere Reserve
(extension to include Phase II)
(Brazil)**

135. The Bureau noted that this proposal concerned a high biodiversity area in the Cerrado of the Goiás State, which was an extension of Cerrado Biosphere Reserve Phase I. The Bureau wished to encourage the Brazilian authorities to establish an effective management structure for such a large and complex area. Furthermore, it requested that the Brazilian authorities explore including the human use areas and settlements, which were currently not included. It also requested that a description of the full extent of the overall Cerrado Biosphere Reserve covering other States such as Minas Gerais be provided.

**8.3 Biosphere reserve proposals
to be revised/resubmitted**

136. The Bureau decided that the following proposals be revised/resubmitted at an appropriate date:

**Nyika-Vwaza
(Malawi)**

137. The Bureau welcomed this proposal — one of the first two from Malawi — but noted that it did not yet have the zoning corresponding to a biosphere reserve and that there was a need for further consultations with the local communities. The Bureau requested the Secretariat to work with the Malawi authorities to revise this proposal in line with the Seville Strategy and the Statutory Framework.

**Sierra Gorda
(Mexico)**

138. The Bureau noted that this proposal did not follow the biosphere reserve zonation pattern, with core areas surrounded by buffer zones. It also noted that the management structure, protective measures and

research facilities needed to be strengthened. The Bureau deferred a decision on this proposal and asked the MAB Secretariat to liaise with the Mexican authorities to revise the proposal to more closely adopt the structure of a biosphere reserve and provide evidence of support from all authorities concerned.

Waterberg (South Africa)

139. The Bureau noted that this site represented the bushveld savanna and was in a dynamic state of land-use change. The Bureau wished to encourage this worth-while initiative but noted that the form and the zonation map had been prepared several years previously and would benefit from a revision to reflect the present day situation. The Bureau deferred a decision on this proposal and asked the MAB Secretariat to liaise with the South African authorities to update the proposal and in particular to revise the zonation to correspond better with the biosphere reserve structure.

8.4 New biosphere reserve proposal from the Russian Federation

140. The Bureau noted that the Russian Federation had requested that the Bureau examine the proposal for the "Nerusso-Desnianskoe Polesie" site as a biosphere reserve, which was a revision of an earlier proposal. The Bureau recalled that Article 5 of the Statutory Framework presented the procedure for designation on all new biosphere reserves, which includes examination by the Advisory Committee for Biosphere Reserves. The Bureau requested the MAB Secretariat to assure MAB Russia that this proposal would be processed in the next cycle of examination of biosphere reserve proposals.

8.5 Request from MAB Russia to split two biosphere reserve clusters

141. The Bureau agreed with the request from MAB Russia to "split" the Oka River Valley and Baikal Lake Biosphere Reserve "clusters" respectively into the Okskiy Biosphere Reserve and the Prioksko-Terrasnyi Biosphere Reserve, and the Baikalsky Biosphere Reserve and the Barguzinsky Biosphere Reserve. The Bureau encouraged the Russian authorities to continue their efforts to implement the Seville Strategy, including the holding of a training seminar on biosphere reserves in 2001.

8.6 The World Network of Biosphere Reserves

142. The Council noted that, with the addition and changes indicated above, the World Network now consisted of 391 sites in 94 countries.

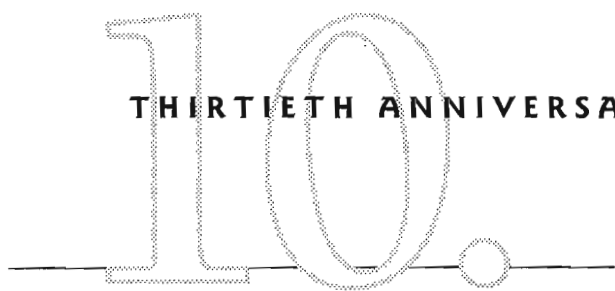
YEAR 2001 MAB YOUNG SCIENTISTS AWARDS SELECTED BY THE MAB BUREAU

143. The Council noted with satisfaction the 10 MAB Young Scientists Awards for the Year 2001 selected by the MAB Bureau (See table below). The Council discussed the application and selection process and the need to ensure stable, and hopefully increased, funding in order to increase the number of awards. The private

sector was identified as a potential funding source. The benefits of selecting certain research themes for the Award were mentioned and suggestions on how the MAB Awards can be given additional visibility, such as summary publications of MAB Award research reports, were made.

Award Winner	Award research title
Ms Valeria Alejandra Hamity & Ms Yanina Arzamendia Argentina	Participative design of a plan for monitoring and control of non-desirable use of flora and fauna in the Pozuelos Biosphere Reserve and surrounding areas.
Ms Adeline Tchoumou Cameroon	Contribution to the ethnobotanical study of some medicinal plants used in the traditional medicine treatment of respiratory infections in the Dja Biosphere Reserve.
Mr Zhijun Ma China	Is it suitable to carry out development activities in the core area of a biosphere reserve? A case study in Yancheng Biosphere Reserve.
Mr Innocent Masalia Dem. Rep. Congo	Inventory of medicinal plants, traditional therapeutic knowledge and conservation methods of active ingredients: Luki Biosphere Reserve.
Mr Vivien Joseph Okouyi Gabon	Evaluation of human impacts and threats to biodiversity: Towards a plan for sustainable resource management in Ipassa-Makokou Biosphere Reserve.
Mr Loncény Camara Guinea	Study for the restoration of a degraded zone in the Déré forest, Mont Nimba Biosphere Reserve.
Mr Kelvin Khisa Kenya	Testing of techniques for resolving conflicts in natural resources management: the case of Nairobi National Park in Kenya.
Mr Bello Farouk Umar Nigeria	Informal channels for common resource management and resolution of pastoral agricultural conflicts in Zamfara State, Nigeria.
Mr Tagir Tagelsir Hassan Sudan	Sustainable utilization of wildlife resources in Radom Biosphere Reserve.
Ms Gülay Çetinkaya Turkey	Research for the establishment of Köprülü Canyon as a biosphere reserve.

THIRTIETH ANNIVERSARY OF THE MAB PROGRAMME



144. The Council noted that, on 9 November 2001, the MAB Programme would be 30 years old. It was felt that this 30th anniversary should be celebrated and that this would provide a good opportunity to raise the visibility of the MAB Programme and its World Network of Biosphere Reserves, considering that it would occur at the time of the next session of the General Conference.

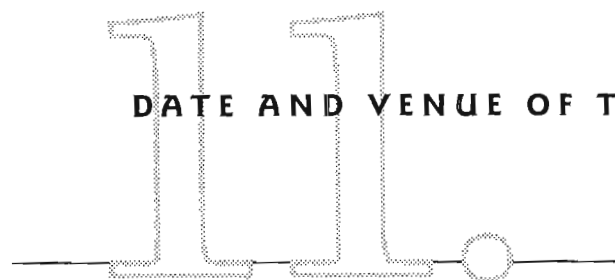
145. Several suggestions were made by members of the Council concerning this celebration, such as: open-door-days in biosphere reserves, information campaigns with focus on educational institutions, 'MAB-festivals' for a large public, etc. These activities could take

place in the framework of a first annual «MAB-Day» (9 November) or on World Environment Day (5 June). The importance of collaborating closely with the media was stressed, in order to enhance the visibility of MAB and biosphere reserves.

146. Other actions, for example expanding on the rich cultural diversity in biosphere reserves, could be envisaged during the next session of UNESCO's General Conference with the objective to provide more information about the MAB Programme to the Organization's governing bodies.

147. In conclusion, the Council decided that each MAB National Committee/focal point should be responsible for launching activities in the framework of the 30th anniversary, with special attention to links with the media, and that the Secretariat would provide general guidelines to initiate and orient such activities.

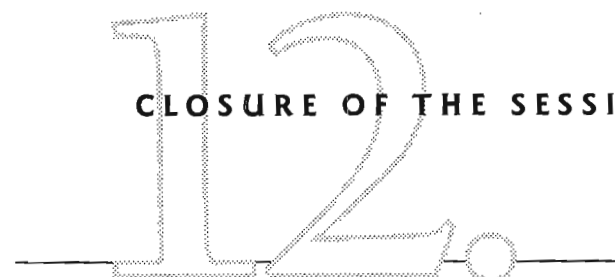
DATE AND VENUE OF THE 17TH SESSION OF THE ICC



148. The Council decided that the 17th session of the ICC would take place at UNESCO HQ in March 2002. This was only some fifteen months ahead of the present session and would come shortly before the events for the Rio + 10 anniversary in June that year. The Secretariat indicated that it would be proposing possible dates for this 17th session to MAB National Committees as soon as possible.

149. The Council also decided that its Bureau would meet in March 2001, possibly in week three. This Bureau meeting would be just after the meeting of the Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA) of the Convention on Biological Diversity and would give the opportunity of discussing any SBSTTA matters that were of relevance to MAB. The Council decided that the Bureau would also meet in September 2001, just prior to the 31st session of the UNESCO General Conference.

CLOSURE OF THE SESSION



150. The Chair of the Council, Mr Mohamed Ayyad, rendered homage to the work of his predecessor, Mr Javier Castroviejo, over the past two years, and not the least in stimulating the development of the World Network of Biosphere Reserves. He thanked all persons concerned for their help in organizing the ICC meeting and then closed the session.

Annex I

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Annex II

REGIONAL NETWORKS

■ Mrs Boshra Bakr Salem, Secretary of ArabMAB presented an over view on the progress of **ArabMAB Network**. She informed the Council on initiatives to create new biosphere reserves in the region, for example the two nominations in Morocco and Jordan, which increased the possibilities for co-operation in the region through biosphere reserves. She mentioned that, to promote biosphere reserves, an Arabic version of Seville Strategy and the Statutory Framework of the World Network as well as the Biosphere Reserve Nomination Form had been made available for the countries through ArabMAB. An ArabMAB network co-ordinating council meeting had been held in Morocco in September 1999 to nominate four model Arab biosphere reserves, and a number of training courses had been organized for capacity building, including training of biosphere reserve managers on networking and GIS technologies. She also described the functions and organization of the ArabMAB web site (www.arab.net) that allowed on-line interaction and updating by the countries. Training on web site database administration would be offered and an illustrative manual had been produced for this purpose.

■ Mr Han Nianying, Secretary-General of MAB-China, reported on **EABRN (East Asian Biosphere Reserve Network)**. EABRN had continued its work during the last two years on the three common subjects: ecotourism, conservation policy and transboundary conservation. The Network also served as a mechanism to carry out collective biosphere reserve field reviews. Mr Han summarized EABRN-6 meeting held in September 1999 in the Jiuzhaigou Biosphere Reserve in China and described three studies that had been launched as follow-up to EABRN-6: ecotourism indicators in China, wetland biodiversity survey in DPR Korea and conservation policy in Mongolia. He mentioned that the Russian Federation officially joined the subregional network in 1999 in order to facilitate co-operation among Russia's Biosphere Reserves in the Far East region and the sites in EABRN countries. EABRN-7 would be held in the Sikhote Alin Biosphere Reserve of the Russian Federation in September 2001. Mr Han concluded his report by providing a brief outline for EABRN in the coming years. In-depth and systematic analyses of biosphere reserve practices would be carried out and training programmes would be enforced. A strong interaction between the research priorities of MAB and the EABRN agenda would be developed.

■ Mr Kindudi André Nanizeyi of Angola reported on the progress of the **AfriMAB Network** – created on the occasion of the “Regional conference on the reinforcement of co-operation in relation to the management of biosphere reserves in Africa for the conservation of biodiversity and sustainable development” held in Dakar in 1996. In September 1999, a first AfriMAB technical workshop for Francophone African countries had been organised at the UNESCO Regional Office in Dakar (Senegal). In September 2000, the first AfriMAB technical workshop for Anglophone and Lusophone countries took place at the UNESCO Nairobi Office (Kenya) with support from UNESCO/Dakar and UNESCO/Nairobi. The objectives of these two workshops were to create a regional initiative leading to the development of an exchange and joint activities programme for the years 2000-2001. The two technical meetings created four Task Forces on the following theme:

1. Zoning and improving the ways biosphere reserves function
2. Biosphere reserves and social actors
3. Transboundary biosphere reserves
4. Logistic support function of biosphere reserves (capacity building, research, education, public awareness, exchange of information).

These different task forces had started their work, communicating essentially through E-mail. Representatives from AfriMAB and ArabMAB attended the “Seville + 5” meeting in Pamplona and elaborated a recommendation to establish a consultative platform between the two networks. To this end, the Secretariat was requested to support and facilitate the venue of a technical meeting. The AfriMAB web site was presently under construction and would be hosted by the Dakar Regional office (<http://www.unesco.dakar.org>) and the information would be available in French, English and Portuguese. Finally, it was noted that eleven countries had participated in the periodic review for 16 biosphere reserves. More new biosphere reserves had been submitted, notably from new countries (Malawi, South Africa).

■ Ms Maria Herrera, Chairperson of MAB Cuba, presented the recent activities of **IberoMAB network**. Members of this network met in 1998 in Cuba and in 1999 in the Galapagos Islands in Ecuador. The latter

meeting was attended by some 60 participants from all over the region. The meetings focused on topics such as environmental education, rural-tourism or eco-tourism and island ecosystems. In the last two years this network had helped to strengthen or to establish MAB National Committees, provided advice for the nomination of new biosphere reserves in Latin America and the Caribbean, and helped to identify strategies for local participation in the management of biosphere reserves. The meetings had not only international importance but also contributed considerably to fostering national biosphere reserve networks and protected areas of the host countries. Furthermore, the network had elaborated a substantive document on the future of the MAB Programme that had been submitted to the MAB Bureau in 1999. IberoMAB was jointly sponsored by the Government of Spain and UNESCO through its Headquarters and Montevideo Office. The next meetings of the network were foreseen for the Chaco region of Argentina in March/April 2001, and for Costa Rica in June 2001.

■ Mr Gonzalo Halffter, Chairman of MAB Mexico, presented the recent development within the **Programme of Iberoamerican Co-operation of Science and Technology for Development (CYTED)**, sponsored by Spain. Within CYTED, the sub-programme on biodiversity had created a network in order to link different groups working in biosphere reserves, particularly to those working on sustainable development. In April 1999 this network elaborated a project which served to co-ordinate 38 groups in 17 countries of the region under the leadership of Dr Eduard Müller of Costa Rica. UNESCO was represented in this project through its Montevideo Office. The project was mainly dealing with management and human development in biosphere reserves as well as income generation through alternative productive systems. Mr Halffter mentioned that last co-ordinating meeting had taken place in July 1999 in San José, Costa Rica and the next meeting, also entitled "Seville + 5", would be held in Antigua, Guatemala, in November 2000. Activities in Antigua were organized by CYTED, with the support of the Spanish Agency for International Co-operation, the UNESCO Montevideo Office and the University for International Co-operation of Costa Rica. Mr Halffter presented new publications on evaluation and monitoring of biodiversity by using groups of indicators. These publications were available free of charge from the Institute of Ecology of Xalapa in Mexico.

■ Mr Kari Laine from MAB Finland provided a brief on the MAB **Northern Science Network (NSN)**. The network had been established in 1984 and ten countries had participated in its research and information exchange activities. He briefly mentioned the mechanism of NSN, including the functioning of the secretariat, its meetings, network newsletters and NSN web site. Regarding research topics of NSN, Mr Laine underlined NSN's recent work on indigenous people, their knowledge in natural resource management and global climate change and the related impacts of environment and people in arctic and sub-arctic regions. He also mentioned university networking facilitated by NSN.

■ Mr Sonjai Havanond from Thailand reported the Council on MAB activities in Southeast Asia. He referred to the **South East Asian Biosphere Reserve Network (SeaBRnet)** established in 1998 involving Cambodia, China, Indonesia, Japan, Laos PDR, the Philippines, Thailand and Vietnam. SeaBRnet focused on coastal ecosystems. The new coastal biosphere reserves in the region provided a good basis for comparative studies, such as on coastal wetland management, ecotourism, sustainable aqua-culture as well as ecosystem rehabilitation. Mr Sonjai mentioned that over last ten years, the Government of Japan had supported MAB Ecotone seminars in Southeast Asia, which, apart from thematic research exchanges, provided the opportunity for biosphere reserve networking. In this context, he mentioned the Ecotone meetings hosted by Thailand (May 1999) and by the Philippines (May 2000). He announced that Ecotone X would be held in Vietnam on the subject of ecosystem valuation. He expected that the Ecotone meetings would be tailored as an instrument for supporting SeaBRnet. He mentioned a number of new regional MAB training courses, e.g. on multilateral co-operation on conservation (UNESCO-UNITAR, 2000) and ecological management of freshwater lakes and reservoirs (BIOTROP-UNESCO, 2000). New initiatives were taking place including the use of biosphere reserves for school education and a MAB Certificate as a national extension of the MAB Young Scientists Awards Scheme.

■ Mr John Ingram (UK) briefly reported that **EuroMAB** held a conference in April 2000 in the University of Cambridge. The Conference was the first joint meeting between EuroMAB National Committees and Biosphere Reserve Co-ordination. This proved a useful format as it gave the chance for challenges and opportunities, and impediments and successes to be debated in session and informally. A report from the Conference was now available. Recommendations from the Meeting were already being implemented.

Annex III

SEVILLE + 5

RECOMMENDATIONS ON THE MEETING

ON THE IMPLEMENTATION

OF THE SEVILLE STRATEGY

Pamplona, Spain, 23 - 27 October 2000

WORKING GROUP 1

- Biosphere reserves as sites to contribute to international research and monitoring programmes 34

WORKING GROUP 2

- Raising visibility, mobilizing support for the World Network of Biosphere Reserves 34

WORKING GROUP 3

- Biosphere reserves for *in situ* conservation of genetic resources and rehabilitation/reintroduction of species 35

WORKING GROUP 4

- Biosphere reserves as models for land management and approaches to sustainable development 36

WORKING GROUP 5

- Biosphere reserve manager or coordinator? 37

WORKING GROUP 6

- Biosphere reserves for developing quality economies 38

WORKING GROUP 7

- Coordination of national networks 38

WORKING GROUP 8

- Impact of the periodic review 39

WORKING GROUP 9

- Linking biosphere reserves to decision making at national level 40

WORKING GROUP 10

- Education, awareness building and training in support of biosphere reserves 41

AD HOC TASK FORCE ON TRANSBOUNDARY BIOSPHERE RESERVES

42

INTRODUCTION

The "Seville + 5" International meeting of experts on the implementation of the Seville Strategy for Biosphere Reserves was held in Pamplona, Spain, from 23 to 27 October 2000. It was generously hosted by the General Secretariat for Environment (National Parks Organisation) of the Government of Spain, the Government of Navarra (Department of the Environment), and the City Council of Pamplona. It drew 110 participants from 46 countries, invited on the basis of their experience in establishing and managing biosphere reserves.

The main objective of the meeting was to take stock of the implementation of the Seville Strategy for the first five years with a view to make recommendations to the MAB International Co-ordinating Council at its 16th session (6-10 November 2000, UNESCO HQ, Paris).

Specific objectives were:

- Identifying priorities for attention in the overall Seville Strategy;
- Identifying obstacles to implementation at the international, site and national levels, and means to get around these;
- Identifying emerging issues of importance for the future of the World Network of Biosphere Reserves;

The programme was based on the three levels of implementation of the Seville Strategy (international level, site level and national level). A review of the actions undertaken to implement each of the three levels were presented in plenary session. This was followed by introductory papers on a number of specific topics related to these actions, which were then debated in simultaneous working group sessions until mid-afternoon. The working groups were illustrated by examples highlighting the questions on hand.

The Seville + 5 meeting also provided the occasion for a meeting of the *ad hoc* task force on transboundary biosphere reserves.

In addition, on the occasion of the progress reports of the regional networks, the representatives of AfriMAB and ArabMAB met and elaborated the following recommendation :

The representatives of AfriMAB and ArabMAB recognize:

- The need to maintain collaboration between the two networks;
- The need for reciprocal capacity building between the two networks;
- The need for fruitful scientific exchanges.

and proposed to establish a platform or consultation between the two networks. The MAB Secretariat is requested to support this initiative by providing assistance for organising a technical workshop.

The Seville + 5 meeting proposed the following texts for submission to the MAB ICC at its 16th session. The MAB Council is invited to examine the texts below and, in particular, consider identifying priorities in the recommendations for the working groups, notably those addressed to the MAB Secretariat.

WORKING GROUP 1

Biosphere reserves as sites to contribute to international research and monitoring programmes

Moderator: Mr. Mohamed Ayyad (Egypt)

General discussions were preceded by a round table during which a number of participants presented site-level experiences. Presentations were made by Ms Dalia Maimon (Brasil), Mr Effendy Sumaradja (Indonesia), Mr Jim Birtch (Canada), Ms Boshra Salem (Egypt), Mr Roger Soles (USA) and Mr Olof Olsson (Sweden).

The working group recognised biosphere reserves as ideal sites for long-term monitoring and research projects.

Recommendations

1. The MAB Secretariat should elaborate a concise, user-friendly overview of the different conventions, relevant to the MAB programme and prepare guidelines for their implementation in the framework of MAB. These should be translated in as many different languages as possible, with assistance from the MAB National Committees.
2. The MAB Secretariat should coordinate with the secretariats of the relevant multi-lateral environmental agreements (e.g. the Convention on Biological Diversity) and develops guidelines to harmonise research initiatives concerning the different conventions.
3. The regional networks, in consultation with the MAB Secretariat, should define and adopt a limited number of research and monitoring projects that are related to conservation and sustainable development. Such projects should be promoted in all biosphere reserves.

4. The regional networks should encourage research especially at landscape level in order to study the interaction between different ecosystems.
5. The regional networks should increase inter-regional co-operation and exchange research results using appropriate communication technologies, including the Internet.
6. Biosphere reserve managers, researchers and local communities should increase their cooperation to jointly define research needs, monitoring needs, and the utilisation of monitoring and research data and results.
7. Simple, but standardised, monitoring system should be applied to ensure comparable quality data.
8. MAB National Committees or the equivalent focal points should develop a national inventory of all research and monitoring activities in their biosphere reserves, and document the existence of permanent monitoring plots.
9. The implementation of the BRIM programme should be accelerated, including explicit recognition of the need to integrate the social sciences in its activities. In this connection the BRIM meeting foreseen for Kiev (2001) should be used *inter alia* to generate inputs for the Conference of the European ministers of environment to be held in 2002.
10. The MAB Secretariat should be asked to develop guidelines for volunteer biosphere reserve committees on monitoring and research, recognising and mobilising the potential of the local communities in and around the biosphere reserves to contribute to the development of research and monitoring activities.
11. Biosphere reserve co-ordinators should use volunteer monitoring activities both to generate data and for environmental education purposes.

WORKING GROUP 2

Raising visibility, mobilizing support for the World Network of Biosphere Reserves

Moderator: Mr Juan Antonio Menendez Pidal (Spain)

After a short introduction in which the Moderator recalled the main recommendations of objective IV.2: Strengthen the World Network of Biosphere Reserves of the Seville Strategy, the meeting started with short presentations of projects in biosphere reserves: Mr Baptiste Noël Randrianandianina on the Mananara Nord Biosphere Reserve in Madagascar, Mr Driss Fassi on the Arganeraie Biosphere in Morocco, Mr Heorhi Kazulka on the Belovezhskaya Pushcha Biosphere Reserve in Belarus, Mr Claudio Daniele on the Argentine Biosphere Reserves, Mr Joao Albuquerque on the Mata Atlántica Biosphere Reserve in Brazil. Support for biosphere

reserves in the Redbios sub-network was explained by Mr Juan Antonio Menendez Pidal.

Discussions concerned the communication of "good projects", reinforcing well-working sites and discarding non-functional sites. One participant suggested to shorten the periodicity of the periodic review.

The role of regional networks was stressed as well as the need to better communicate with local stakeholders. Other interventions considered principally international and national funding, visibility, the publishing of success stories, including via MAB Digests. The creation of a MAB award for success stories was encouraged. The need to publish in local languages was stressed as well as the opportunity to raise visibility for biosphere reserves by presenting the network through international congresses and events, such as the up-coming IUCN World Parks Congress in 2003. As biosphere reserves should also be economically viable, the aspects of generating income for local population of the a biosphere reserve in developing countries was emphasised.

Recommendations

1. National authorities and the regional networks should create regional or sub-regional information mechanisms via electronic bulletins, printed material, as appropriate with the support of the UNESCO Regional Offices.
2. At the site and the national level, projects for donors involving biosphere reserves, using models such as GEF/Belarus, GTZ/Morocco, the Netherlands/Madagascar, should be prepared with, as appropriate, the logistic support of the Secretariat. The Secretariat should be invited to prepare guidelines on how donors should be approached.
3. Evaluation mechanisms should be reinforced by using the regional and thematic networks as appropriate.
4. Site and national authorities should develop mechanisms to increase awareness of biosphere reserves.
5. Site and national authorities should utilise new technologies to publish success stories.
6. Site and national activities should increase NGO participation to assist in fund raising and in establishing links among biosphere reserves.

WORKING GROUP 3

Biosphere reserves for *in situ* conservation of genetic resources and rehabilitation/reintroduction of species

Moderator: Mr Sergio Guevara (Mexico)

The working group heard presentations by Mr Nguyen Hoang Tri (Viet Nam), Ms Eva Jelinkova

(Czech Republic) and Prof. Mohamed Ayyad (Egypt).

The working group recalled that biosphere reserves originated from MAB Project 8 on the "conservation of natural areas and the genetic resources they contained". The Seville Strategy reiterated this concern in Objective 1.2 on the "use of biosphere reserves for the *in situ* conservation of genetic resources, including the wild relatives of cultivated and domesticated species" and "as rehabilitation/reintroduction sites, and link them as appropriate to *ex situ* gene banks". Biosphere reserves are excellent sites for the conservation and study of genetic resources, since they incorporate core areas which serve as pools of genetic diversity, cultural landscapes where domestic species and wild crop relatives are found, and sometimes offer degraded ecosystems for experiments in rehabilitation*. Biosphere reserves provide the framework for coordinating the work of local communities, scientific institutions and NGOs to ensure a long term commitment to these tasks. Today, these concerns are of international importance, as recognized by the Convention on Biological Diversity. Hence biosphere reserves have a new role to meet these challenges.

Recommendations

1. Biosphere reserve coordinators should contact their scientific committees/associated local scientific institutions to inventory the potential of their biosphere reserves as *in situ* gene pools of wild and/or domestic species, especially as complements to *ex situ* gene banks, in consultation with IPGRI and FAO. Biosphere reserve coordinators should ensure that the size and zonation of the biosphere reserve should be revised as appropriate to meet these special conservation needs.
2. The scientific committees of biosphere reserves should set up projects on conservation and/or rehabilitation of genetic resources. Local NGOs and community interest groups can often provide the initial support and workforce, however such projects should engage the support of government authorities and national science foundations to ensure the projects' long-term sustainability and economically viable livelihoods of the populations concerned.
3. Whenever appropriate permanent plots should be established for monitoring the progress in these projects and to provide viable primary data for the local, national and global scientific community.
4. Biosphere reserve coordinators should use the WNBR to facilitate exchanges of experience in such projects, for example through the regional networks, web sites, and the MABnet.
5. The MAB ICC, to the extent it adopts international

* Here the term "rehabilitation" is used in a wide sense. "Degraded" ecosystems include those with invasive species.

research projects, should consider a project on the rehabilitation of degraded ecosystems in different ecological regions, as a contribution by biosphere reserves to the scientific underpinning of the multi-lateral environmental agreements, *inter alia* the Convention on Biological Diversity, the United Nations Convention on Combating Desertification and the United Nations Framework Convention on Climate Change.

6. Internationally important regions for such an international research project, could include:
 - Arid lands, focused on the use of multi-purpose species;
 - Tropical rain forests, based on reconstitution of forests from forest fragments;
 - Temperate zones, using traditional cultural landscapes and remnants of ancient forests;
 - Mangrove systems.

WORKING GROUP 4 Biosphere reserves as models for land management and approaches to sustainable development

Moderator: Mr J. Mburugu (Kenya)

The working group heard presentations by Mr Joseph Mburugu (Kenya) on Amboseli Biosphere Reserve, Mr Neou Bonheur (Cambodia) on Tonle Sap Biosphere Reserve, Ms June Marie Mow (Colombia) future San Andrés/Seaflower Biosphere Reserve, Ms Alicia Toribio (Argentina) on the role of social sciences in Biosphere Reserves in Latin America and Mr Olof Olsson (Sweden) on the added value of biosphere reserves in approaches sustainable development.

The Working Group examined the question of approaches to sustainable development in reference to three objectives of the Goal II of the Seville Strategy and focused on the experience at the site level. The Amboseli case demonstrated how an old protected area in Africa has been transformed into a site for sustainable ecosystem management taking the interest of local communities into account. The Tonle Sap case presented a very challenging commitment to the Seville Strategy since a large portion of country's economy will be associated with the development of this site. San Andrés/Seaflower of Colombia provided an example of Biosphere Reserve in coastal and marine resource management in a large archipelago. The Working Group agreed that the on social, economic and cultural dimensions described in Argentina and Sweden are indeed crucial to enable biosphere reserves to explore approaches to sustainable development.

The Working Group noted that much remains to be done before any biosphere reserves can be considered as fully ideal and functioning models for sustainable land,

coastal and marine resource management. To move forward, action should be taken according to the following recommendations:

Recommendations

Objective II.1: Secure the support and involvement of local people

1. Site and national authorities should strengthen the involvement and participation of local people in sustainable resource management and development through training, participatory rural appraisals and community workshops. Only when the local communities and NGOs become active partners in planning, management and decision making within biosphere reserves, can it be said that support from local people has been truly secured.
2. The knowledge of social sciences is crucial for gaining support from the local communities. National authorities should make a greater effort to improve interdisciplinary studies, particularly those bringing together natural sciences and social sciences, within their biosphere reserves.

Objective II.2: Ensure better harmonization and interaction among the different biosphere reserve zones

3. Site and national authorities should develop and use national and local information systems, where applicable, as a basis for promoting integrated land management and approaches to sustainable development in biosphere reserves. These systems should enhance information exchange among resource users, and take advantage of all forms of knowledge, especially indigenous knowledge.
4. The Secretariat should develop basic guidelines for identifying the stakeholders concerned for the three zones, as well as for the three functions of biosphere reserves, such guidelines should be aimed at facilitating stakeholder on participation on the practical management of biosphere reserves.
5. National authorities, aided where appropriate by the Secretariat, should develop technical guidelines for land use and land tenure in biosphere reserves, as well as guidelines for the use of marine resources, based on experience from different countries. These technical guidelines should address the issue of conflict resolution in land use and land management practices.

Objective II.3: Integrate biosphere reserves into regional planning

6. Biosphere reserves should have clearly-stated management objectives (in accordance with the bios-

phere reserve zonation) which serve to integrate the biosphere reserve in regional planning, including in coastal marine areas. These management objectives should also include socio-economic dimensions. For this, site and national authorities should assist the implementation of the BRIM process. National authorities assisted where appropriate by the Secretariat should develop indicators for evaluating and monitoring the progress of biosphere reserves in pursuing sustainable development at the regional scale.

7. Regional planning must involve all stakeholder groups. In order to ensure equal participation of these stakeholder groups, national authorities should help to build technical capacity to design, raise funds, and implement biosphere reserve activities.
8. Site and national authorities should compile and publish successful experience of integrating biosphere reserves into regional planning.

■ WORKING GROUP 5

Biosphere reserve manager or coordinator?

Moderator: Mr Frederic Bioret (France)

The working group heard presentations by Mr A. Grigoryan (Russian Federation), Mr T. Kokovkin (Estonia), Mr J.-J. Sahou (Benin) and Mr R. Turner (USA).

The presentations and discussions indicated that there was a great diversity of structures and status of coordinating bodies of biosphere reserves. Accordingly, they had to fulfil roles varying from carrying out concrete actions to coordination work, for example of community participatory processes, consensus building, and political lobbying, to administration. It appeared therefore clear that the question "biosphere reserve manager or coordinator?" was not the key one, but that the "biosphere reserve coordinator" needed most of all to be clearly recognised and given more visibility, in particular as the focal person to be designated for each biosphere reserve.

Recommendations

1. Specific institutional structures in charge of biosphere reserve coordination should be clearly identified or created. The Advisory Committee should pay more attention to this aspect when evaluating applications for new biosphere reserves. This structure should in particular be guaranteed continuity in time of its operations.
2. Among the multiple roles to be assumed by this structure, the following should be considered as essential:

- Capacity to correctly promote and develop participatory processes and consensus building;
 - Ability to integrate all kind of knowledge into the elaboration and implementation of a "common territory project" (a project that balances consideration of environment, economy and equity in a specific area of common interest to stakeholders);
 - Improvement of information flow at all levels, by using a variety of tools including GIS and Internet.
3. A survey and critical analysis of existing biosphere reserve coordination structures be undertaken in the coming months by the regional networks, with the support of the Secretariat, with the objective of developing a set of guidelines on the creation, roles and functioning of such structures.

■ WORKING GROUP 6

Biosphere reserves for developing quality economies

Moderator: Mr Giles West (Australia)

Presentations were made by Mr Jim Birtch (Canada), Ms Doris Pokorny (Germany) Mr Ahmed Oumarou (Niger), Mr Han Nianrong (China), Mr Hannington Oryem-Oriega (Uganda), Mr Jorge Adamoli (Argentina).

The discussions revolved around three themes. The first was the need to promote and increase the understanding of the Seville Strategy and the Statutory Framework. Participants felt that the emphasis that is put on the development component of biosphere reserves in the Statutory Framework, is not well reflected in the Seville Strategy. The second theme related directly to the development of quality economies including new economic opportunities. This then led to the third theme calling for caution about drastic changes and the need to build upon resources, knowledge and structures that are already in place in the biosphere reserves.

Recommendations

1. The MAB Secretariat should develop a concise, user-friendly, practical guide to the Seville Strategy and the Statutory Framework to be translated into as many languages as possible with the assistance from the National Committees. The guide should highlight the importance of sustainable economic and social development and cross-link the different goals and objectives both within and between the Seville Strategy and the Statutory Framework.
2. The MAB ICC should find ways of reminding that biosphere reserves "should provide an opportunity to explore and demonstrate approaches to sustainable development on a regional scale", -- this is not

- well-reflected in the Seville Strategy, nor as widespread in action as it might be.
3. The MAB Secretariat should use the results of the survey on the implementation of the Seville Strategy to create a web-accessible database of information about each biosphere reserve and encourage non-respondents to provide their information/reply.
 4. Sustainable development should be based on a diversity of economic activities whose key characteristics would be: profitability, sustainability and responsibility (socially and environmentally).
 5. The MAB Secretariat should facilitate the establishment of a task force, including biosphere reserve managers and local specialists, on developing quality economies at site level. Issues which such a task force should consider include:
 - Defining 'quality';
 - Development of criteria (social, environmental and economic);
 - Branding and the criteria behind the image or the meaning of the brand;
 - Critical analysis of branding, labelling, marketing, and associated mechanisms/structures (including successes and failures).
 6. The development of new economic activities should build upon and complement existing activities, and develop the special characteristics of the region and its regional identity. Consideration should be given of the consequences of these new economic activities on the cultural and natural landscape.
 7. The MAB Secretariat should investigate and develop propositions for ways to utilise biosphere reserves for the conservation and sustainable development of agricultural activities, so as to increase agro-biodiversity.

WORKING GROUP 7

Coordination of national networks

Moderator: Ms Catherine Cibien (France)

The working group heard presentations by Mr Nianyong Han (China), Mr Charles Roberge (Canada), Ms Catherine Cibien (France), Mr R.K. Rai (India), Mr Vladimir Voloshyn (Ukraine), Ms María Herrera (Cuba) and Mr Heorhi Kazulka (Belarus).

The presentations showed that the coordinating structures at the national levels need support - in terms of funds as well as human resources - which is identified as their own and is constant, in order to assume their essential duties serving the national biosphere reserve networks. These duties include:

- Exchange of information (among the biosphere reserve themselves, but also as an interface at the national and international levels);

- Development of joint/coordinated activities/projects (including research, monitoring, training, information systems and materials, etc.);
- Fund raising and "political lobbying" at the national and international levels.

Even if in many cases the funding of the national coordinating structure is supported by governmental bodies, there are also cases where the funding is coming from the biosphere reserves themselves, or from private/non-profit associations. In both situations, this support is rarely at the required level, and limits possible action.

The core of the Seville Strategy implementation is the existence of successful biosphere reserves, i.e. where the biosphere reserve concept is not just declared but put into practice. This means that individual biosphere reserves need adequate support from both the national and international supporting/coordinating structures, which in turn need to mobilize the necessary support to enable them to fulfil their mandates. Continuous and positive interaction among a) biosphere reserves, b) national coordinating structures and/or mechanisms and c) the MAB Secretariat and regional networks can only be achieved if there are strong and active national structures.

It was finally underlined that the simple fact of being part of a network should also generate benefits for individual biosphere reserves.

Recommendations

1. Biosphere reserve coordinators should be closely associated with the national coordinating structure.
2. For sites nominated as biosphere reserves, the Advisory Committee for Biosphere Reserves should verify that plans or strategies for financial and human support are clearly indicated in order to ensure that new biosphere reserves will be able to function efficiently, and, in particular, to be able to link with the national coordinating structures and/or mechanisms. (Such plans or strategies should also apply at the national level). It is expected that, through this verification process, countries will be stimulated to (re)commit themselves, in particular by examining the situation of their national networks in the light of the implementation indicators of the Seville Strategy.
3. The Secretariat should assist Member States to help them identify and submit proposals to potential donors/financing agencies for support to establish and coordinate a national biosphere reserve network and also for specific projects in their biosphere reserves.
4. National coordinating structures should be encour-

aged to exchange and/or share material and human resources (on a bi- or multilateral basis).

WORKING GROUP 8

Impact of the periodic review

Moderator: Mr Martin Price (U.K.)

Working Group 8 discussed how the periodic review process foreseen in Article 9 of the Statutory Framework contributed to strengthening the World Network of Biosphere Reserves. To guide its discussions, an overall presentation had been made in plenary by the moderator, who had also described the experience of his country, the United Kingdom, which had led to a general re-thinking of all the UK biosphere reserves, and therefore an enhancement of the UK participation to the Network.

The work of the group was introduced by five presentations of national experiences from Mr Effendy Sumardja (Indonesia), Mr Engelbert Ruoss (Switzerland), Ms Alicia Toribio (Argentina), Mr Mohammed Ayyad (Egypte) and Ms Alicia Breymeyer (Poland). The importance of the periodic review process as a mean to enhance awareness and support for biosphere reserves, and to improve their functioning as sites to demonstrate approaches to sustainable development at a regional scale, was underlined. The importance of looking at biosphere reserves as dynamic entities, which should be subject to continuous evaluations with regard to conservation and land use policies was also very much supported.

Recommendations

1. The process of developing a periodic review should be used as an opportunity to strengthen support for biosphere reserves and raise awareness among national agencies, NGOs and other stakeholders. At the level of each biosphere reserve, local stakeholders should be actively involved in the review process.
2. The main purpose of the review is to ensure that each biosphere reserve effectively fulfils all three functions of a biosphere reserve, or has the potential to do so, *inter alia* through an effective and robust institutional arrangement. The review should therefore pay particular attention to the institutional aspect.
3. The process of developing a periodic review should be interactive, involving at least the coordinators(s) of the biosphere reserve(s) concerned and the National Committee or focal point. Where appropriate, a workshop involving multidisciplinary experts/scientists (including coordinators of other biosphere reserve in the country) should also be

held as part of the process. Where possible, field visits should be organised to contribute to the process and reinforce local commitment.

4. The process should also facilitate new policy guidelines emerging in the country concerned for the improvement/expansion of existing biosphere reserves and the selection of new ones.
5. Biosphere reserves are dynamic entities with respect to policies, management, land uses and conservation. For each biosphere reserve, sets of qualitative and/or quantitative indicators should be developed and applied, in collaboration with local stakeholders, as tools to continuously evaluate the success of the biosphere reserve in achieving its functions. These progress indicators should be easy to use, cheap, and quick.
6. The MAB Secretariat should provide support for the compilation, dissemination and critical analysis of national experiences of the review process, possibly through workshops. The MAB Secretariat, including UNESCO's regional offices, should also provide support, when requested, for the preparation of reviews and implementation of recommendations.
7. To improve follow-up of recommendations on the periodic review, the Secretariat should request that information on measures taken should be provided in time for the following meeting of the Advisory Committee.

WORKING GROUP 9

Linking biosphere reserves to decision making at national level

Moderator: Mr Jürgen Nauber (Germany)

To facilitate discussion, the working group first heard five national cases presented by Ms María Herrera (Cuba), Mr Jung Kyun Na (Republic of Korea), Mr Wilson Torres Espinosa (Ecuador), Mr Timo Hokkanen (Finland) and Mr Jürgen Nauber (Germany). This was further enriched by national experience of other participants. The Working Group noted that, for various reasons, the biosphere reserve concept is not yet sufficiently appreciated by decision-makers on the national level. To improve this situation, the working group made the following recommendations:

Recommendations

1. MAB National Committees, with the help of the Secretariat, should clarify the added values of biosphere reserves and their products to social development, and provide a clearer definition of MAB services, products and tools for sustainable development for national decision makers. These services, products and tools include scientific advice, technical exper-

- tise, assistance in conflict resolution and capacity building. Emphasis also needs to be made on the role biosphere reserves can have for poverty alleviation in developing countries. On a societal level biosphere reserves, through involvement of local people, provide opportunities for the participation of young people and women in matters.
2. The Secretariat should assist governments to develop clear national policy on biosphere reserves, taking fully into account national contexts and conditions and, if requested, advise on appropriate legal status for biosphere reserves.
 3. The Secretariat and MAB National Committees should formulate communication and marketing strategies for biosphere reserves addressing all sectors, with specific follow up actions. In this undertaking, a special attention should be given to the media.
 4. MAB National Committees have a central role in promoting the linkages between biosphere reserves and national decision-making. Hence, MAB National Committees should further improve their status, and include representatives of decision-making groups at all levels, including biosphere reserve coordinators/facilitators. In this context, countries without National Committees should move to establish them.
 5. MAB National Committees, with the assistance of the Secretariat, should develop activities to raise awareness and a sense of belonging and pride by decision-makers in their biosphere reserves, especially through international exchange activities among biosphere reserves. For this, the Secretariat should establish a scheme for the international exchange of young professionals and volunteers to work in biosphere reserves.
 6. MAB National Committees should take a more active role in the development of national strategies for sustainable development. In particular, MAB National Committees should promote biosphere reserves as an instrument needed by governments to fulfil their obligations under international environmental agreements.
 7. The Secretariat should actively co-operate with the Secretariats of the international environmental agreements to promote biosphere reserves as instruments for their implementation.

WORKING GROUP 10 **Education, awareness building** **and training in support of biosphere reserves**

Moderator: Mr B.A. Ola-Adams (Nigeria)
 Presentations were made by Mr Vladimir Pichelev (Russian Federation); Mr Kallie Naude (South Africa),

Mr Juan Miño (Spain), Ms Boshra Salem (Egypt), Mr Jean Ngog Nje (ERAIFT) and Mr Peter Bridgewater (MAB Secretary).

The discussions following the presentations centred on five themes:

- The importance of promoting awareness of the economic and social benefits generated by biosphere reserves;
- The need for biosphere reserves to exchange information about their activities on education and public awareness;
- The need to analyse target groups as a first step in designing educational and communication programmes;
- The need to apply a diversity of methods that cater for different target groups;
- The importance of establishing a two-way communication process with these target groups in order to benefit from the knowledge they possess.

In relation to these themes the working group made the following recommendations.

Recommendations

1. Biosphere reserves should be connected by information webs and should exchange information about education and public awareness through the regional networks and the world network.

2. Educational and public awareness programs and campaigns should always be implemented through two-way communication. Such programs should be implemented at site and national level and should include inter alia efforts to popularise scientific information by producing television programmes, films and suitable illustrated books and brochures. An environmental education manual for use at all levels of education should be developed to assist biosphere reserve co-ordinators.

3. A diversity of education and public awareness methods should be applied and methods and contents should be adapted to different target groups and their different needs.

4. Biosphere reserve status offers opportunities to develop environmental awareness and promote equitable sharing of current and potential economical or social benefits. This awareness and these benefits should be promoted.

5. It was suggested that biosphere reserve co-ordinators, national committees and the MAB-secretariat should:

- Develop on-line and hardcopy tutorials on the concept of biosphere reserves and the Seville Strategy and disseminate through appropriate processes such as workshops, favouring a participatory approach and integrating indigenous

knowledge and appropriate communication technologies;

- Create concise and user-friendly, practical guides on the Seville Strategy with diagrams, pictures and cartoons;
- Encourage local communities to form community organizations appropriate to their cultural background to participate in decision-making on sustainable resource use and promotion of the biosphere concept;
- Link traditional festivals, where they exist in the context of the biosphere reserves, to foster awareness aimed at improving the conservation and sustainable utilisation of resources within biosphere reserves;
- Use appropriate information technology systems and public awareness, including translation into local languages.

6. Develop and implement integrated courses in biodiversity conservation and resource management particularly in biosphere reserves with emphasis on the ecosystem approach. In the context of biosphere reserves, seminars should be organised to bring together citizens, professional groups, policy makers, governmental agencies and NGOs, to share ideas, common concerns, methods, and technical needs to promote environmental awareness, socio-economic development and equity. Such seminars should also identify specific roles, individuals could take to strengthen coordination and cooperation that would help to improve public environmental awareness and promote the biosphere reserve concept.

■ AD HOC TASK FORCE ON TRANSBOUNDARY BIOSPHERE RESERVES

The recommendations presented below were drafted by an *ad hoc* task force on transboundary biosphere reserves, chaired by Mr Julius Oszlányi, Slovakia, which met during the International Expert Meeting on the Implementation of the Seville Strategy of the World Network of Biosphere Reserves (Seville + 5), in Pamplona, Spain, October 2000. They are expected to guide countries in the establishment and running of transboundary biosphere reserves and will serve as a basis for further work on this issue.

These recommendations are based on the experience in transboundary cooperation of the various regions which were presented during this taskforce meeting. These presentations included:

Europe: Ms. Alicia Breymeyer (Poland)

Asia: Mr Kim Kwi-gon (Republic of Korea)

Arab countries: Mr. Driss Fassi (Morocco)

Africa: Mr Hannington Oryem-Oriega (Uganda)

Latin America: Mr Carlos Ponce (Peru)
and Mr Juan José Castro (Costa Rica)

Other participants also provided information on individual cases in: Romania/Ukraine; Poland/ Slovakia; Czech Republic/Poland; as well as sites for potential transboundary biosphere reserves in Russian Federation, the Republic of Korea and the Democratic People's Republic of Korea, and North and Central America.

The second part of the meeting was devoted to the drafting of the recommendations, and was attended by a smaller group of people, listed below.

Mr Julius Oszlányi, Slovakia (Chairperson)

Ms Alicia Breymeyer, Poland

Mr Juan José Castro Chamberlain, Costa Rica

Mr Jean-Claude Genot, France

Mr Till Harres, Germany

Ms Eva Jelinkova, Czech Republic

Mr Kim Kwi-gon, Republic of Korea

Mr Kallie Naude, South Africa

Mr Valery Neronov, Russian Federation

Mr Zbigniew Niewiadomski, Poland

Mr Silvio Olivieri (Conservation International)

Mr Hannington Oryem-Origa, Uganda

Mr Carlos Ponce, Peru

Mr Angheluta Vadineanu, Romania

Secretariat

Ms Mireille Jardin

Ms Juliet Fall

Mr Philippe Pypaert

Recommendations for the establishment and functioning of transboundary biosphere reserves

As borders between states are political and not ecological, ecosystems often occur across national boundaries, and may be subject to different, or even conflicting, management and land use practices. Transboundary Biosphere Reserves (TBR) provide a tool for common management. A TBR is an official recognition at an international level and by a UN institution of a political will to co-operate in the conservation and sustainable use through common management of a shared ecosystem. It also represents a commitment of two or more countries to apply together the Seville Strategy for biosphere reserves and its objectives. It corresponds to the increasing recognition of the appropriateness of the ecosystem approach, for conservation and sustainable use of biological diversity.

The recommendations presented below deal with the establishment of TBR, the measures which can be taken to respond to the MAB principles and in particular the goals of the Seville Strategy and the way of

ensuring that a TBR truly operational. However, it should be kept in mind that, although the biosphere reserve provides a general framework for action in a transboundary location, the real-world situations will vary very much from a place to another, and flexibility is needed even more than in a national context.

The process leading towards the official designation of a TBR can include many forms of co-operation and co-ordination among the existing areas on either side of a border. These serve as a basis for formalising the TBR proposal and should be encouraged.

Procedure for the establishment of a TBR

Up until now, all existing TBR were established as separate biosphere reserves in individual countries before being designated as TBR. However, it could be envisaged in the future that a TBR be established jointly by the countries concerned in one step. In both cases, the ultimate aim should be to have one *functional biosphere reserve*.

In these two different scenarios, the following respective procedures are recommended:

- Establishment of a biosphere reserve on each side of the border;
- or, when the TBR is established in one step, definition of the zoning of the area according to the general criteria for designation of biosphere reserves;
- Identification of local and national partners and establishment of a working group to define the basis and identify key issues for co-operation;
- Signing of an official agreement between governmental authorities regarding the TBR;
- Nomination of the various parts by the respective State authorities;
- or, when the TBR is established in one step, joint nomination for the whole area by the concerned State authorities;
- In both scenarios, indication of the main components of a plan for co-operation in the future;
- Official designation by the UNESCO MAB ICC.

Functioning of the TBR

Among the measures recommended to make the TBR function effectively, priority should be given to:

- Preparation and adoption of a zonation plan for the whole area and implementation of the zonation by strict protection of core areas, delimitation of the buffer zones and co-ordinated objectives for the transition areas. This implies that the countries concerned have a common understanding of the characteristics of each of the zones, and that similar management measures are in place for each zone;
- When the zonation plan is defined, publication on a

joint map of the zonation;

- Definition of common objectives and measures, work plan, time table, and required budget. This should be a demand-driven process, based on perceived needs or management requirements. This work plan should take into account the elements listed under the goals of the Seville Strategy as suggested below;
- Identification of potential funding sources for the work plan and joint or simultaneous application for these funds;
- Establishment of a means of communication between the coordinators/managers of the different parts of the TBR, including electronic mail when feasible;
- Efforts towards harmonised management structures on each side.

Institutional mechanisms

The TBR will not function without a joint structure devoted to its co-ordination. Although this structure can vary greatly from one TBR to another, the following points can be recommended:

- The co-ordinating structure is representative of the various administrations and the scientific boards, as well as the authorities in charge of the protected areas, the representatives of local communities, interested and affected groups, including youth, and of the private sector;
- The NGO sector in the area is also represented in the structure;
- This structure has a permanent secretariat, and a budget is devoted to its functioning;
- A person is designated on each side to act as a focal point for co-operation;
- General and regular meetings of the co-ordinating structure are complemented by thematic groups, on an *ad hoc* basis, in order to create a platform for discussion among stakeholders from the countries concerned, with a view to promote all opportunities for exchanging views and knowledge;
- Joint staff teams are operational for specific tasks;
- An association is set up with the specific aim of promoting the TBR.

Responding to the Goals of the Seville Strategy

Goal I: Use Biosphere Reserves to Conserve Natural and Cultural Diversity

In order to develop a concerted strategy for conservation, the following measures can be recommended:

- Co-ordination of regulatory measures on protection

- and, in case of incompatibility, their harmonisation;
- Common or co-ordinated policies for threatened and protected species and ecosystems, migratory species, as well as control of invasive alien species;
 - Common or co-ordinated policies for rehabilitation and restoration of degraded areas;
 - Co-ordinated action against illegal activities such as wildlife poaching and unauthorised logging.

Goal II: Utilize Biosphere Reserves as Models of Land Management and of Approaches to Sustainable Development

The human component of biosphere reserves and their role in promoting approaches to sustainable development can lead to a variety of forms of co-operation, ranging from the use of natural resources to the protection of cultural heritage. Among the measures that can be recommended in TBR are the following:

- Coordination of management practices, for example in forestry, logging, forest regeneration, or in the field of pollution control;
- Identification of possible perverse incentives and promotion of viable sustainable alternatives;
- Elaboration and supporting the implementation of a joint tourism policy;
- Promotion of partnership among various groups of stakeholders having the same interests, in order to make the TBR a common project;
- Promotion of participation of local communities in the TBR, including local NGOs;
- Promotion of joint cultural events and fostering of co-operation on cultural and historical heritage preservation;
- Developing of common strategies for planning based on research and monitoring.

Goal III: Use Biosphere Reserves for Research, Monitoring, Education and Training

Joint activities on research and monitoring should be led by scientific boards and planned in joint sessions; these activities could be carried out along the following lines:

- Define and implement joint research programmes;
- Develop common data collection formats, indicators, monitoring and evaluation methods;
- Exchange existing data, including maps and geographical information, and facilitate access to results of research;
- Share scientific information, including through the organisation of workshops, conferences, etc.;
- Share equipment when feasible;
- Jointly publish results of common research;
- Develop joint mapping and GIS.

Many joint activities in the field of education and

training can be recommended, such as:

- Organisation of joint training courses and technical meetings for managers and field staff
- Promotion of staff exchanges
- Promotion of understanding of neighbouring country's culture
- Organisation of linguistic training when needed
- Exchanges of scientists between universities and academic and research institutions of each country
- School exchanges
- Launching of participatory training programmes for various groups of stakeholders.

Information and public awareness are crucially important to develop a common understanding and build support for and appropriation of the objectives of the TBR by the different stakeholders. Therefore, the rationale and objectives of the TBR should be explained by varied means to different targets groups (decision makers, local populations, visitors, schools, scientists, managers, etc). Among other activities, the following can be recommended:

- Develop a common public relations' strategy with the aim of raising awareness and promoting the TBR
- Produce information material, brochures, books, etc.
- Organize exhibits and events around the TBR
- Develop a common logo for the TBR, as well as a common design for published material
- Implement joint demonstration projects
- Set up a common Internet site.

Annex IV

FUTURE DEVELOPMENT OF THE MAB PROGRAMME

MAB some new, or redefined, directions

BACKGROUND

At its 15th session in Paris, December 1998, the MAB ICC made a number of recommendations, including, *inter alia*:

"11.5 Future development of the MAB Programme

The Council also recommended that an ad hoc working group be entrusted with preparing a document on the perspectives for the MAB Programme in the medium term, to be presented to the next meeting of the MAB Bureau. This document, as amended by the MAB Bureau, should be sent to MAB National Committees for further comment and revised for consideration of the MAB Council.

"11.6 Collaborative programmes

The Council recommended that MAB be closely associated with the development of the DIVERSITAS Programme, and in particular that biosphere reserves should constitute privileged observation sites for the International Biodiversity Observation Year (IBOY). The Council also suggested that the MAB Secretary, as UNESCO focal point for biodiversity and member of the DIVERSITAS Scientific Steering Committee, encourage the representation of the different UNESCO programmes concerned (in particular MAB, IOC, IHP and MOST) in this Committee in order to strengthen their participation in this scientific endeavour.

"11.7 The UNCED Conventions

The Council recommended that the Secretariat continue its co-operation with the Conventions on Biological Diversity and on Combating Desertification. As concerns the Convention on Biological Diversity (CBD), the Council recommended that this co-operation should focus in particular on the «ecosystem approach» advocated by the Conference on Parties, the general issues of Article 8 of the Convention, and on the launching by UNESCO and the CBD Secretariat of a global initiative on education, training and public awareness on biodiversity. As concerns the Convention on Combating Desertification, the Council recommended that biosphere reserves in arid and semi-arid zones be mobilized as case studies to help define a methodology of approach.

"11.8 Staff situation

The Council expressed its concern on the abolition of the posts of the Programme Specialists of the

Arab region and the Latin American and Caribbean region, and requested UNESCO's governing bodies to find a satisfactory solution to meet this concern.

"11.9 Programme and budget for 2000-2001

The Council recommended that the Secretariat take full account of its recommendations in the preparation of the draft Programme and Budget for 2000-2001 (draft 30 C/5)."

This document deals primarily with item 11.5, the future development of the MAB programme, although other recommendations are touched on as relevant to this general point.

CONTEXT

Since Council passed these recommendations, the World Science conference has been held in Budapest, July 1999. That Conference produced a Declaration and a framework for Action.

The second sentence to the preamble of the Declaration reads, "we are in a situation of increasing interdependence, and that our future is intrinsically linked to the preservation of the global life-support systems and to the survival of all forms of life." and is an excellent introduction to the MAB programme of work, including the role as focal point for biodiversity within UNESCO.

A number of paragraphs are relevant to MAB, but one area we will look to develop and strengthen the programme is the link between ecosystem health and human health. Global climate changes are already creating new health risks, and the fragmentation of landscapes are allowing diseases, formerly confined to wildlands, to become part of disease framework with which humans and other life-forms must now contend. This includes developed as well as developing countries.

Other linkages identified by the Declaration include developing better mechanisms for incorporating traditional/indigenous knowledge into our modern science paradigm – an area we have been active in, and propose to expand our operations.

In the Framework for Action, under the heading of "New Context" the following is stated:

Scientific research is increasing our knowledge and ability to understand complex systems and processes in an ever-wider range of scales in space and time. The emergence of new disciplines and of interactions among (natural sciences), increasingly powerful computational tools, the rapid accumula-

tion of scientific knowledge, and the need to bring together the natural and the social sciences in joint agendas, are having strong implications on scientific research and education.

These emphases are areas in which MAB has a clear interest, and will be able to use the Framework of action in re-defining its agenda. The marriage of biology and informatics, from molecular to landscape level, is one of the success stories of the last decade, and one which we will need to foster as we redefine the MAB programme. Better use of Internet, interactive CDs, involvement in projects such as the Global Biodiversity Informatics Facility (GBIF), and a re-defined relationship with the World Conservation Monitoring Centre (soon to be part of UNEP) are all ways we can redefine MAB in this new context.

Our key relationship with DIVERSITAS, and, through it, the other ICSU programmes for Global Change (IGBP, IHDP, WCRP and the START networks) means we must be able to exploit and build on our existing commitments with the ICSU family, without duplication. This linkage with ICSU and its elements will form a key part of our programme agenda that deals with increasing the scientific underpinning to biodiversity management.

INTRODUCTION

MAB has its origins in the late 1960s, arising as a result of the Conference on the «scientific basis for the rational use and conservation of the resources of the biosphere» held by UNESCO in 1968. This was the first time that governments came together to discuss this topic. MAB was set up in 1970 as an interdisciplinary scientific research and training programme, aiming at improving the relationships of people with their environment. It is the main environmental programme of UNESCO that addresses natural resources in the context of promoting sustainable development. While the MAB focus has been largely terrestrial, there has been increasing involvement in coastal and marine systems, and there is promise for this to increase significantly, particularly in the context of the developing Jakarta mandate of the CBD, and in co-operation with programmes of the IOC.

MAB has always aimed at bringing together the natural and the social sciences and at making a bridge between government agencies and the academic community. As such, it is a forum for ideas. MAB began with 13, later 14, Project Areas that had mainly a geographical focus, such as mountains or tropical humid forests. These were concentrated down to 6 projects themes in the 1980s.

Following the 1992 UN Conference on Environment and Development, the MAB programme has been oriented to address the issues of biodiversity, sustainable management of natural resources, capacity building, and information and communication on environ-

mental matters. It has developed, or is actively developing, relationships with the Convention on Biological Diversity (CBD) and the Convention to Combat Desertification (CCD), the Convention on Wetlands (Ramsar), or the Convention on Migratory Species (CMS). It has not, as yet, promoted co-operative work with the Framework Convention on Climate Change (FCCC), where a relationship could develop in terms of mitigation of and adaptation to climate change effects.

It should be stressed that MAB was seen as a programme for international co-operation and solidarity. It functions in the same manner as other UNESCO inter-governmental scientific programmes. Countries participating in the Programme ideally create a MAB National Committee (of which there are approximately 125) composed of both government representatives and individual specialists. The UNESCO General Conference elects on a rotational basis an International Co-ordinating Council consisting of 34 countries. This MAB Council and its Bureau is responsible for guiding the development of the Programme and its thematic content.

The main operational tool of the MAB programme is the World Network of Biosphere Reserves. Biosphere reserves are sites nominated by countries where the interdisciplinary MAB approach can be applied in actual situations. They also serve as sites for exploring and demonstrating approaches to sustainable development. The global network that they constitute covers a representative sample of the major ecosystems of the earth. They are linked by scientific exchanges and sharing of experience. After the very successful global Biosphere Reserve meeting in Seville in 1995, the World Network is guided by what is known as the *Seville Strategy*. A Statutory Framework, a «soft» legal mechanism adopted by the UNESCO General Conference, governs the Network. As at 1 August 1999, there are 357 biosphere reserves located in 90 countries.

The MAB programme was always conceived as being a decentralized programme, with work being undertaken by scientists at the country level, co-ordinated by MAB national committees. UNESCO provides the seed money to initiate actions at the national, and particularly the international levels. UNESCO/MAB provides through extra-budgetary funding substantial support to a few pilot projects on conservation and sustainable development of biosphere reserves, such as the Mananara-Nord BR in Madagascar. In recent years, countries have also found it useful to co-operate at the regional level, i.e. in regional networks geographically and culturally linked groups. Examples are the EuroMAB network, the ArabMAB, and the IberoMAB network — IberoMAB covers Spain and Portugal and the linguistically linked countries of Latin America, and the newly established REDBIO Network between existing or future biosphere reserves in Cape Verde, Morocco, Senegal and the Spanish Canary Islands.

ISSUES

Previous reviews of the MAB programme have always concluded positively, but many of the recommendations made have not been taken up! As we enter a new decade, century and millennium, and as we confront the reality of restricted staffing and tighter budgets, we must be critical in our review, and set achievable goals and strategies to reach agreed and measurable outcomes – This will be important as UNESCO moves to performance based budgets.

A very extensive review of the programme by ICSU/SCOPE in 1992, pre the UNCED meeting, plainly argued that the programme had too many elements, there were not enough staff, there were too few resources, and the decisions of the MAB Council and Bureau “tended not to be put into application, or to be followed up”. The report also identified a failure to concentrate activities and to include programme evaluation as an on-going iterative process, dispersing activities over too many subjects, some problems with scientific quality in some projects, continued mismatch between the resources allocated and the goals. It also highlighted a failure to compile and synthesize site- or topic-specific material that would act as a reference, and provided indications of how far projects were developing. A major result of the latter has been that national research efforts and results are too widely dispersed, and often remain unnoticed – We are “reinventing the wheel” many times in many places.

Notwithstanding those negative evaluations, the report felt there was much to gain from MAB, especially through its use of the World Network of Biosphere Reserves. Of course, since that time there was the very successful meeting in Seville, which produced both the Seville Strategy and the Statuary framework. But in 1999 much of the report of 1992 is still relevant – some even more urgently so. The report laments the number of staffing at 15 professional and 10 general staff. As in July 2000 we have 9 professional staff in Paris, and one out-posted to the University of Columbia, a total of 10; and 7 general staff a decrease of 8 on 1991. Staff reductions have meant especially, a significant reduction in our ability to deal with the MAB regional networks although we do have staff in regional offices, such as Jakarta, Beijing, Montevideo, Dakar, and Nairobi.

CURRENT POSITION

The MAB programme has a number of co-operative relationships, among the key ones being:

- the DIVERSITAS Programme, delivering an international research agenda for biodiversity science, with ICSU, SCOPE, IUBS, IUMS and IGBP;
- the Tropical Soil Biology and Fertility Programme (TSBF) with IUBS;
- the People and Plants Programme on ethnobotany with WWF and Kew Botanic Gardens;
- the International Institute of Biosphere and Society (IIBS) with University of Columbia.

Similar co-operative initiatives have been launched for training specialists in resource management, such as:

- the South-South Co-operation Programme with TWAS, UNU with funds-in-trust from donor countries;
- the Regional School on Integrated Tropical Forest Management in Africa (ERAIFT) with support from UNDP;
- the Ecotechnie Chairs for interdisciplinary training of tomorrow's decision-makers, with the Cousteau Society;
- the MAB MAB Young Scientists Awards: which are important to involving a new generation of scientists in the Programme. Ways and means to increase the annual number of Awards should be sought, including, through, *inter alia*, the private sector.

Biosphere reserves have provided the logistic node for other key collaborative actions. Examples include:

- regional co-operative sub-networks working on specific topics with support from richer partner or donor countries, such as the East Asian Biosphere Reserve Network exploring sustainable development;
- the Biosphere Reserve Integrated Monitoring Programme (BRIM), which, with valuable support from the US Government, aims to improve scientific exchanges amongst sites;
- the Northern Sciences Network which was established within the MAB Programme at the 7th session of the MAB ICC (1981), as an initiative of the Canadian delegation, which proposed the “establishment of a network for co-operation among peoples engaged in ecological problems unique to the Circumpolar North.”

In the field of information and communications, MAB has made some significant contributions to disseminating scientific results to different audiences around the world. Examples include the «Ecology in Action» multiple poster series in three languages, the Man and Biosphere Book Series, the MAB Digests, CD-ROMs and educational wallcharts on biodiversity, and the South-South Co-operation Working Document Series.

Many other UN and non-UN organizations and programmes address the topic of people and the biosphere or people and the planet. The MAB comparative advantage is not as obvious nor, frankly, as well known as it should be. Many of the principles of biosphere reserves have been taken up under different guises such as integrated conservation and development projects (ICDPs) or natural regional parks. The *bioregional approach* to nature conservation and management, now widely advocated, echoes this convergence of thinking.

The MAB programme is ideally positioned for

global leadership on these issues, through application of the biosphere reserve concept. Our limited incursion into coastal and marine areas has considerable potential to change as the Jakarta mandate of the CBD develops. The topics of coastal areas, cities and environmental awareness, which were among the 14 original MAB themes, are now in part addressed by other UNESCO programmes: i.e. Intergovernmental Oceanographic Commission, Management of Social Transformations (MOST) and Interdisciplinary Agency Co-operative Project on Education (EPD). As the report of the Chairpersons of the Intergovernmental Programmes on the Environment have noted these programmes will especially focus on co-operative development in the next biennium.

The content of the 'joint statement' made by the Chairpersons of these programmes should be used to exemplify the linkages and complementarity that exists among the UNESCO programmes dedicated to providing a more scientific understanding of the environment. MAB is particularly well placed to take the lead on, and add value to, a number of joint issues related to environmental management. The Bureau also noted the importance of maintaining the effective links established by the MAB Secretariat with the World Heritage Convention. Emphasis should, however, be given to clarifying the differences and complementarities of World Heritage sites (including Cultural Landscapes) and biosphere reserves, to assist Members States in their implementation of the Convention and the Programme.

The World Network of Biosphere Reserves is a unique asset, owned by the member states but made real through intergovernmental co-operation. The World Network should be seen therefore as a resource for all the intergovernmental programmes, not simply MAB. In this connection, one could envisage it being used for the declaration of Geoparks, to highlight geo-diversity and its conservation, as key sites for hydrological work, and as a source of unique foci to draw together the work of IOC and MAB.

The MAB Programme's indisputably important role for a number of external partners should be further stressed: for example, the Convention on Biological Diversity and *Diversitas*. This being said, the Bureau also noted that these partnerships first and foremost should benefit MAB. It was recommended in this context that the Secretariat should explore the possibility of establishing a memorandum of understanding between MAB and the Ramsar Convention in view of the fact that a number of biosphere reserves are situated in wetland areas designated under that Convention.

UNESCO MAB has been a partner of *Diversitas* since 1991 originally with IUBS, SCOPE and more recently together with ICSU and IUMS. In addition, UNESCO hosts the *Diversitas* Secretariat. While UNESCO has invested in *Diversitas* from the beginning, *Diversitas* is now at a critical crossroads for its own future. The science agenda of *Diversitas* has been wel-

comed by the SBSTTA of the Convention on Biological Diversity – there is thus an imperative for MAB to continue to work with the partners to ensure the development of *Diversitas*. Recent welcome support from the IGFA partners for core funding will enable MAB to help in a synergistic way with the key issue of developing an integrated science of biodiversity. It will be important, however, for MAB to focus on this core issue, and not divert scarce resources to initiatives not strongly focussed on this aim (e.g. the IBOY, designed to focus on awareness raising for the year 2001)

LOOKING FORWARD

The 1992 review had three major issues for the programme, namely:

- The maintenance of biodiversity,
- Environmentally sound sustainable development, and,
- Rate and extent of global change.

The scientific community has been, in fact, focusing on global change issues for much of the last decade, resulting in the development of programmes such as the IGBP, WCRP, IHDP, etc. – so the issue of MAB as essentially a global change programme is no longer sensible. It can, and must, of course, develop close synergies with the suite of active global change programmes, and continue to see the relevance of its activities in helping *understand, mitigate and manage* the effects of global change – especially through more effective use of the World Network of Biosphere Reserves.

As identified by the Council, MAB should take an ecosystem approach to biodiversity conservation and management, as adopted by the Convention on Biological Diversity. The report of the Liaison Group on this issue, hosted by UNESCO last September, is attached for information. As such, it is clear that MAB is even more relevant in the nascent 21st century than ever before.

Because MAB lies within UNESCO, which is also the Culture, the Education and the Social Sciences focus of the United Nations system, it is in a unique position among UN environmental programmes and related Conventions. We need to build upon the synergies we can construct with initiatives in-house. More than ever, MAB needs to be that «ideas forum», breaking new ground in seeking means to reconcile conservation and development, to empower separate institutions to work together towards common goals, and, above all, to bring scientific research results to bear on policy decisions.

Partnerships with ICSU and its many environmental programmes, including those dealing with global change, the World Conservation Union (IUCN) and key NGOs such as Conservation International and WWF, are key to our continuing success. UNESCO membership of the Ecosystem Conservation Group, and the key role played by the Division of Ecological Sciences in that arena is important to our future.

A renewed MAB should focus on, say, four key foci, each one drawing on the support and resources of the World Network of Biosphere Reserves, and developing joint programmes with the other UNESCO inter-governmental environmental programmes wherever feasible and sensible:

- **The ecosystem or bioregional approach**, reconciling biodiversity conservation and rural/peri-urban and urban development at a range of scales while also supporting and enhancing cultural values. Included in this focus should be provision for developing, nurturing and using biodiversity and ecological knowledge in partnership with traditional and indigenous people, especially where they are the stewards of the biodiversity. (key partners – CBD, ECG, Culture Sector, WHC)
- **Ecological Monitoring and evaluation**, providing scientifically viable primary data sets for the various global biodiversity assessments and monitoring/observation initiatives (co-ordinated monitoring of environmental parameters in the long term through the expanded work under BRIM). The BRIM (Biosphere Reserve Integrated Monitoring Programme) is a particular asset of MAB. BRIM should be expanded beyond *MAB Flora/Fauna* to become a more truly integrated monitoring programme. It is also recommended that the feasibility of increasing the participation of MAB Committees outside the EuroMAB network in its activities and its further development be explored. Links between BRIM and GTOS should also be made. (key partners – national and regional MAB networks, WCMC-UNEP, WHC)
- **Building up capacity**, to respond to complex environment and development issues through a global programme of education, technical training of specialists, and public outreach and information, including a focus on the relationship between environment and human health. (key partners – Convention on Biological Diversity, Education sector, donor agencies, national governments)
- **Exploring novel ecological theory and practice**, for example emerging ecosystems and their management, ecological genetics, relationship between culture and ecology, ecological economics, ecosystem health, urban ecology. (Key partners – DIVERSITAS, ICSU, SCOPE, Ecological Science Institutions). This is an opportunity for MAB to establish some key issues in ecological science, where global leadership will be helpful. In this category there is also the need to re-establish MAB leadership in the field of biogeographical classifications, in their own right, but especially as aids to developing effective and representative conservation biology frameworks.

Operational aspects of these four strands should be developed early on, with a clear programme of work, and measurable outcomes. The WNBR might be used in different ways – in other words we might want to start differentiating within the network between sites which cover all aspects, those which are chiefly for monitoring and research, those chiefly for conservation and so on. This is a change from the process envisaged after Seville, and needs careful evaluation. However, some diversity across our network already exists, it may be useful to institutionalize this. We also seek to use the WNBR in strategic ways – for example the cores are a useful representative set that can relevance for CBD activity, buffer and transition zones useful for programmes which measure human impacts.

It would also be useful to stratify the network by priority ecological systems – freshwaters, inland salt systems, grasslands, mountains, etc. Such stratification can reflect the needs and values of Conventions, from the CBD, through CCD, Ramsar, and CMS, etc. It would also be useful to focus on ecotones and transitional areas, and to have a structured pro-active approach to transborder Biosphere reserves. In all this process we need to re-visit the Seville Strategy and the Periodic Review process foreseen in the Statutory Framework – to what extent must this become a tool for managing the Network?

We should also seek to implement the development of science-based networks, analogous to the northern science network, where this will be composition of the MAB networks, but they may also follow different boundaries, as appropriate to the scientific imperatives. Focusing science and management on “emerging ecosystems”, ecosystem integrity, ecosystem rehabilitation and creative conservation will help achieve all four foci.

PROGRAMME

The MAB programme has been run from the Division of Ecological Sciences. This arrangement is sensible and should continue. The Division should take the opportunity to develop linkages between MAB and other UNESCO Programmes and Sectors.

An issue that has been raised is the title of the programme – which is not, for some Member States sufficiently gender neutral. While this is not an especially serious issue, should it prevent the programme from being universally accepted, a minor change may be helpful. Any change must reflect also the valuable identity of the logo and existing name.

A suggestion could be to proceed via the IUCN model, when the original letters remain – but the new name *World Conservation Union* is given as a short title.

For MAB one might envisage, for example:

MAB - Managing the Biosphere

It would be important to research the short title to ensure linguistic appropriateness across the UN and

other major languages. It may well be each language needs its own short title, rather than attempt translation.

A similar problem exists with respect to Biosphere Reserves – where the “Reserve” part is taken sometimes as denoting “a stop to progress”. For this a suggestion might be:

Biosphere Reserves: *Living landscapes, special places for people and nature*

PUBLICATIONS

MAB produces a book series and the journal *Nature and Resources*, in conjunction with other key programmes (IHP, IOC, etc). The book series is seen as valuable, but does not have a very large sale. *Nature and Resources* apparently has lack of support from the publishers and, while exceptionally well produced, simply does not represent a good return on scarce resources. For these reasons, the Sector decided in late 1999 to suspend publication of this periodical. The overall issues related to publications will be examined separately in the light of contractual requirements and obligations, but an ideal future model may be to focus publications on those designed to influence decision makers about the range of issues MAB is concerned with. In that sense publications for meetings of the various conferences of the parties should be seen as high priorities.

GOVERNANCE

At national level there are a variety of different organizational structures – some functioning well, some hardly existing. Well-functioning MAB National Committees could be used as models, when appropriate, for those Committees, which are in need of advice and support. In this way their capacity to implement the MAB Programme can be enhanced, as well as providing working models for those countries which have not yet established a MAB Committee.

At international level, presently there is the ICC, its Bureau and an Advisory Committee on Biosphere Reserves. The ICC, meeting as it does every two years, has not been able to exercise the executive direction it perhaps should, and the Bureau has not been able to provide the appropriate direction either. Part of the problem is the duplication provided by the Advisory Committee on Biosphere Reserves. One model may be for the Bureau to assume the majority of the functions of the Advisory Committee for the selection and review of Biosphere reserves – perhaps meeting 2-3 times between council meetings as against once at present.

There is a clear and vital role, however, for an Advisory Body to provide comments to the Director-General, mainly on some of the scientific and technical aspects of the programme. Such a body could include nominations from ICSU, perhaps the Chair of its Advisory Committee on the Environment, as well as other

key scientists and natural resource managers. This body could meet as appropriate and do much of its work by correspondence. The Bureau would help set the agenda for, and receive regular reports of activity this Body would undertake.

Strengthening the regional networks by *inter alia* provision of full support through the respective UNESCO Regional Offices is another way the World Network can be more effectively managed. These networks are key instruments for the worldwide implementation of the programme as a whole, and should be seen as an asset for, as well as a beneficiary of, UNESCO's overall decentralization policy. Strenuous efforts to achieve global coverage, including reviewing the coverage of existing networks should be a priority for the next biennium. Time-limited, special purpose networks (e.g. REDBIOS) will no doubt play an increasing role in developing the network.

An important aspect of governance is review of the effectiveness of programme elements. There is thus an imperative to set time-limitations (sunset clauses) for the various MAB activities and projects when they are being designed/launched. This would help focus the programme and make it more efficient, as well as enhancing reporting within a “sleeker” UNESCO generally.

EPILOGUE

For all of these points, the MAB operational tool will continue to be the World Network of Biosphere Reserves. In this connection, it is perhaps fitting to conclude with a statement from the «Vision from Seville for the 21st century» which was formulated in the 1995 International Conference on Biosphere Reserves:

«...Biosphere reserves are thus poised to take on a new role. Not only will they be a means for the people who live and work within and around them to attain a balanced relationship with the natural world; they will also contribute to the needs of society as a whole by showing the way to a more sustainable future. This is the heart of the vision for biosphere reserves for the 21st century».

We are now at the stage of translating this vision to action.

Annex V

LETTERS RECEIVED FROM THE NICARAGUAN AUTHORITIES



El Ministro de Relaciones Exteriores

15 de noviembre de 2000

MRE/DM-11/0143/11/00

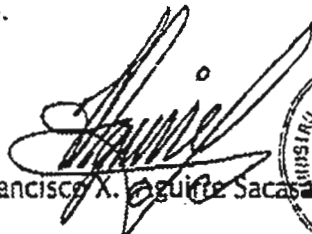
Excelentísimo Señor:

Tengo el agrado de dirigirme a Vuestra Excelencia, en ocasión de hacer referencia a los sitios recientemente designados por el Consejo Internacional de Coordinación de la UNESCO, en el Programa del Hombre y la Biósfera, para ser incluidos en la Red Mundial de Reserva de la Biósfera.

Al respecto, me permito señalar su atención a la designación recaída sobre el Archipiélago de San Andrés. El Gobierno de la República de Nicaragua agradece tal designación ya que, sin lugar a dudas, las actividades que bajo el Programa de la Red Mundial de la Reserva de la Biósfera se ejecuten, contribuirán a la conservación de los ecosistemas que se encuentran en dicho archipiélago.

Sorprende a mi Gobierno que el Archipiélago de San Andrés haya sido erróneamente calificado como territorio de la República de Colombia. Me permito aclararle que el mismo, es parte integrante del territorio de Nicaragua y sujeto a la soberanía nicaragüense. En tal sentido, le solicito, de la manera más atenta, en nombre del Gobierno de la República de Nicaragua, transmitir esta información a los miembros del Consejo Internacional de Coordinación y rectificar cualquier documento emitido por la Organización a su digno cargo, que haga referencia a la soberanía de Colombia sobre el citado Archipiélago.

Aprovecho la ocasión para reiterar a Vuestra Excelencia las muestras de mi más alta y distinguida consideración.


Francisco X. Aguilar Sacasa



Excelentísimo Señor
Koichiro Matsura
Director General de la Organización de las Naciones
Unidas, para la Educación, la Ciencia y la Cultura (UNESCO)
París, Francia



Ministerio de Relaciones Exteriores
Ministerio de Relaciones Exteriores

15 de enero de 2001
MRE/DVM-J1/628/01/01

Estimado Señor Director..

Tengo el agrado de dirigirme a Vuestra Excelencia, en ocasión de hacer referencia a Nota E/DM-JI/0143/11/00, en la que llamara su atención sobre la designación recaída sobre el Archipiélago de San Andrés para integrar el Programa de la Red Mundial de la Reserva de la Biosfera, en el Programa del Hombre y la Biósfera.

En dicha ocasión, le expresaba que sorprendía a mi Gobierno que dicho Archipiélago haya sido erróneamente calificado como territorio de la República de Colombia y le aclaraba que el mismo es parte integrante del territorio de Nicaragua y sujeto a la soberanía Nicaraguense. Así también le solicitaba de la manera más atenta transmitir esta información a los miembros del Consejo Internacional de Coordinación y rectificar cualquier cualquier documento emitido por la Organización a su digno cargo, que haga referencia a la soberanía de Colombia sobre el citado Archipiélago. Me permito informarle que a la fecha mi Gobierno no ha tenido respuesta alguna sobre la solicitud en mención.

Señor Director, sorprende a mi Gobierno la información aparecida en el diario colombiano, El Espectador, en su edición del día de hoy, en la cual afirma que el día 16 de los corrientes, Usted en compañía del Excelentísimo Señor Presidente Andrés Pastrana, viajará a la Nicaraguense de San Andrés.

Al Excelentísimo Señor
Koichiro Matsuura
Director General
Organización de las Naciones Unidas para la Educación, la Ciencia y la
Cultura (UNESCO)



Ministerio de Relaciones Exteriores

Página No. 2
15 de enero del 2001

De ser cierta esta información, mi Gobierno presenta ante la Organización de las Naciones Unidas para la Educación, la Ciencia y la Cultura, su más enérgica protesta y reitera que el Archipiélago de San Andrés es parte integrante del Territorio de Nicaragua y sujeto a la soberanía Nicaraguense. Igualmente solicita, de la manera más atenta, transmitir esta información a los Miembros del Consejo Internacional de Coordinación y rectificar cualquier documento emitido por la Organización que haga referencia a la soberanía de Colombia sobre el citado Archipiélago.

Bertha M. Argüello
Bertha Marina Argüello Román
Ministra por la Ley

